DATA REPORT

TIDEWATER SEDIMENT DATA REPORT
FORMER TIDEWATER FACILITY

Prepared for
National Grid

Prepared by
Anchor QEA, LLC

June 2009

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LIST OF ACRONYMS AND ABBREVIATIONS

DEM	Department of Environmental Management's
MGP	Manufactured Gas Plant
PACN	Physiologically Available Cyanide
PAHs	Polycyclic Aromatic Hydrocarbons
SdIWP	Sediment Investigation Work Plan
TOC	Total Organic Carbon
TPHs	Total Petroleum Hydrocarbons
VOCs	Volatile Organic Compounds

1 INTRODUCTION

On behalf of The Narragansett Electric Company d/b/a National Grid (National Grid), Anchor QEA, LLC (Anchor QEA) and ARCADIS conducted a sediment sampling investigation in the Seekonk River near the former Tidewater Facility on Tidewater Street in Pawtucket, Rhode Island. The Tidewater Facility is the location of the former Tidewater Manufactured Gas Plant (MGP) and the Pawtucket No. 1 Power Station (Figure 1) and is hereinafter referred to as "the site". This sediment sampling investigation was intended to evaluate potential impacts to Seekonk River environmental conditions that may be associated with the site.

The objectives of this investigation were to collect information in the portions of the Seekonk River near the former Tidewater Facility in compliance with Rhode Island Department of Environmental Management's (DEM) February 2004 Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (Remediation Regulations) and the Sediment Investigation Work Plan (SdIWP) dated July 3, 2008.

The data collected during this site investigation will be used to preliminarily evaluate Seekonk River sediment for the presence of compounds that were detected in upland subsurface investigations performed previously at the site. This Tidewater Sediment Data Report (report) summarizes field activities and analytical data collected during the sediment sampling investigation. Details of the field and analytical methods are described in the SdIWP (ARCADIS 2008).

2 FIELD ACTIVITIES – SEDIMENT SAMPLING

To evaluate the potential impacts associated with the site and other potential contaminant sources to the Seekonk River sediments in the site vicinity, TG&B Marine Services, Inc. of Falmouth, Massachusetts collected 49 sediment cores from July 8, 2008 to July 16, 2008. A total of 48 sediment samples were collected from the sediment cores (which ranged in length from one to 14 feet) and submitted for physical and chemical analyses as described in Section 3. ARCADIS personnel observed the sampling, processed the sediment cores for sampling, and logged the cores.

Core locations were established prior to entering the field by placing transects approximately 200 feet apart along the shoreline of the site with two to three coring locations for each transect. An additional five locations were situated on the far side of the navigational channel from the site. Two locations were situated upstream of the site and additional sampling locations were situated downstream of the site. Several locations were adjusted in the field to compensate for difficulty in recovering sediment cores. Two additional cores were added to investigate potential MGP impacts. Figure 2 shows the sediment sampling locations. A summary of information associated with core collection and sampling is presented in Table 2-1.

The majority of cores had a five-foot target depth. Selected cores were chosen to be advanced to 20 feet or to refusal to provide a preliminary indication of deeper sediment stratigraphy and subsurface conditions.

The cores were collected by both push core and vibracore methods. Core locations were located from GPS coordinates. The workboat was anchored over the sample location. For the push cores, the acetate liner was cut to length and rinsed with river water. The piston was inserted into the bottom of the liner, and the line attached to the piston was drawn up through the top of the liner. The liner was then filled with river water. The top of the liner was attached to a pushrod. The assembly was lowered until the bottom of the acetate liner was approximately one inch above the sediment-water interface, and the piston line was tied off to keep the piston at the sediment-water interface. Pressure was exerted onto the pushrod to push the liner into the sediment. If the liner could not be pushed the full five

feet into the sediment, a slide hammer was used to attempt full penetration. The liner was then pulled from the sediment. The bottom of the core was immediately capped and taped. The push rod was then detached. Standing water was drained from the top of the core, and the top was capped. The water depth, as-built coordinates, time and penetration depth were recorded. The cores were labeled and stored in an upright position.

Vibratory cores were collected by suspending a vibrating head from an A-frame from a work boat. The vibratory head has a 3-inch-diameter acetate-lined aluminum core barrel suspended below it. The head/core barrel apparatus was lowered on a cable until the core barrel bottom rim contacted the sediment. The core barrel penetrated the sediment by vibrating the core barrel and concurrently pushing the core barrel into the sediment. The process of sediment coring typically only minimally disturbs sediment structure, so sediment stratigraphy and other details were preserved and observed in the sediment cores.

After collection, the vibracores and push cores were brought to shore to be processed and stored in an upright position. Each core was cut lengthwise with power snips and split open on a table. The core was photographed and visually logged. Core logs are provided in Appendix A.

Sediment samples were collected from predetermined locations along the length of the core. Additional samples were collected from cores based on visual observations. Due to the number of analyses and the size of the core barrel, additional cores were required from each core location in order to collect enough material. The material from the same interval in each core was placed in a stainless steel bowl and homogenized. The homogenized sample was placed in laboratory-supplied glassware and labeled. The samples were then stored on ice until delivery to the laboratory under chain of custody.

For this preliminary sediment investigation, samples from the top six inches of the cores were collected for laboratory analyses. Samples from deeper intervals were collected and archived for later analysis, based on the results from the surface interval. Samples were collected from 6 to 12 inches and 12 to 18 inches for archival purposes. If a change in sediment stratigraphy was observed, a six-inch sample was collected at a deeper depth.

Excess sediment, decontamination water and additional waste material were stored in labeled drums and removed from the site by Clean Harbors, Inc. for off-site disposal at a permitted facility.

3 DATA

3.1 Physical Analysis

Forty-eight sediment samples were submitted to Geotesting Express of Boxborough, MA for analysis of grain size. Results are provided in Table 3-1. Grain-size distribution is depicted for each station on Figure 3. Grain size analyses were consistent with field observations in that the sediment varied from granular sand and gravel to lesser amounts of cohesive silt with sand. The percentage of sediment consisting of fine-grained particles is important because, in general, the fine-grained fraction combined with the total organic carbon (TOC) content of the sediment controls the extent that most sediment contaminants are adsorbed to the sediment matrix.

3.2 Chemical Analysis

Forty-eight sediment samples were submitted to Alpha Analytical of Mansfield, MA for analysis of polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPHs), 13 priority pollutant metals, volatile organic compounds (VOCs), physiologically available cyanide (PACN), and TOC. A subset of samples were also analyzed for an extended list of alkylated PAH compounds. Results are provided in Tables 3-2 through 3-6.

Distribution of Total PAHs and selected individual PAH compounds are depicted on Figures 4-A through 4-D. Total PAHs were detected in all samples and ranged from a minimum concentration of 6,100 µg/kg at Station SC40 to a maximum concentration of 16,000,000 µg/kg at Station SW2. The mean concentration was 438,744 µg/kg.

A subset of samples was also analyzed for alkylated PAHs. The distribution of alkylated PAHs can aid in the determination of the type and source of the petroleum compounds present in a sample.

Out of a total of 65 VOCs that were analyzed, only 15 were detected, with most detected only in one sample (sample SW-2).

All 13 metals were detected in at least one sample, although many results were "J" qualified, indicating the result is an estimate. There were no detected concentrations of PACN.

In general, the field investigation findings indicate relatively elevated PAH concentrations are concentrated in localized areas. When compared in our experience to other New England properties that were formerly occupied by MGPs, the concentration and extent of organic compounds (PAHs and VOCs) in sediment was generally lower in magnitude (i.e., for PAH and VOC concentration) and occupied a smaller area in the river.

3.3 Data Validation

Data were validated according to the United States Environmental Protection Agency's (USEPA's) National Functional Guidelines of October 1999 (USEPA, 1999). The quality indicators of this limited data review included holding times, associated blanks, matrix spike/ matrix spike duplicate analysis, field duplicates, laboratory control sample and surrogate recoveries. The data collected during this sediment investigation met overall system performance, and the overall data quality is within the guidelines specified in the method. Data validation reports are provided in Appendix B.

4 REFERENCES

ARCADIS. 2008. *Sediment Investigation Work Plan, Former Tidewater Facility*. Prepared for National Grid (July 3, 2008).

United States Environmental Protection Agency. 1999. *United States Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Organic Data Review.* EPA540/R-99/008. October 1999.

TABLES

Table 2-1
Tidewater As Builts

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Station	Date	Time	Latitude [1]		Longitude		DOW	Pen	Rec	Mudline Elev. (ft)	Sampled [3,4]					Additional Notes
			DD	MM.MMMM	DD	MM.MMMM										
SC1	7/15/2008	1000	41 52	0.2189	71 22	0.9352	11.0	7.0	4.6	-9.35	**S1**	S2	S3	S6		MS/MSD, Alk PAH
SC2	7/15/2008	1130	41 52	0.1603	71 22	0.8832	12.6	8.0	9[2]	-11.69	**S1**	S2	S3	S12		Field Dup3
SC3	7/9/2008	830	41 52	0.1505	71 22	0.8560	11.5	6.0	3.1	-10.30	**S1**	S2	S3	S6		
SC4	7/9/2008	1030	41 52	0.1195	71 22	0.8408	9.6	5.0	3.8	-7.27	**S1**	S2	S3			
SC5	7/9/2008	1350	41 52	0.0888	71 22	0.8233	12.0	5.0	2.9	-6.89	**S1**	S2	S3	S5		
SC6	7/9/2008	1430	41 52	0.0550	71 22	0.8228	7.4	6.0	6.1	-2.30	**S1**	S2	S3	S11		Alk PAH
SC7	7/14/2008	1130	41 51	0.8819	71 22	0.7842	1.0	4.0	3.7	0.04	**S1**	S2	S3	S5		
SC8	7/14/2008	1100	41 51	0.8815	71 22	0.7693	3.2	5.0	3.8	-2.08	**S1**	S2	S3	S4		Alk PAH
SC9	7/10/2008	950	41 52	0.0123	71 22	0.7997	5.5	5.0	4.8	-4.17	**S1**	S2	S3	S8		Field Dup1, Alk PAH
SC10	7/8/2008	1350	41 52	0.1861	71 22	0.9142	17.5	5.0	2.8	-12.53	**S1**	S2	S3			
SC11	7/15/2008	1310	41 52	0.1871	71 22	0.8996	9.4	10.0	5.4	-8.46	**S1**	S2	S3	S4		Alk PAH
SC12	7/8/2008	1430	41 52	0.1598	71 22	0.8774	14.2	4.5	2.4	-9.81	**S1**	S2	S3			
SC13	7/15/2008	1420	41 52	0.1201	71 22	0.8328	12.0	10.0	5.4	-10.40	**S1**	S2	S3	S10		
SC13	7/15/2008	NA	41 52	0.1201	71 22	0.8328	12.0	16.0	6.4	-12.00						not sampled
SC13A	7/16/2008	1120	41 52	0.1187	71 22	0.8320	12.5	16.5	11.5	-11.28						not sampled
SC14	7/15/2008	1500	41 52	0.0875	71 22	0.8321	5.5	20.0	13.3	-3.43	**S1**	S2	S3	S7	S32	
SC15	7/16/2008	840	41 52	0.0523	71 22	0.8113	8.2	19.0	14.0	-4.52	**S1**	S2	S3	S4		
SC16	7/16/2008	1140	41 52	0.0205	71 22	0.8079	3.7	17.5	12.9	-2.69	**S1**	S2	S3	S11	S20	
SC17	7/10/2008	1050	41 52	0.0048	71 22	0.7893	6.9	5.0	5.0	-5.02	**S1**	S2	S3	S9		
SC18	7/14/2008	1030	41 51	0.8798	71 22	0.7474	10.0	5.5	5.5	-8.70	**S1**	S2	S3	S6		
SC19	7/10/2008	850	41 51	0.9955	71 22	0.7437	11.8	5.0	4.1	-10.83	**S1**	S2	S3	S8		Alk PAH
SC20	7/9/2008	1515	41 52	0.0541	71 22	0.7674	17.9	4.0	2.3	-13.22	**S1**	S2	S3			
SC21	7/8/2008	1150	41 52	0.2067	71 22	0.8799	5.5	5.5	5.4	-1.11	**S1**	S2	S3	S5		
SC22	7/9/2008	1140	41 52	0.2843	71 22	0.9971	17.3	2.0	4.3*	-13.83	**S1**	S2				S2 collected for GS
SC23	7/8/2008	1015	41 52	0.2578	71 22	0.9509	8.4	5.3	4.7	-5.88	**S1**	S2	S3	S9		
SC24	7/8/2008	1100	41 52	0.2636	71 22	0.9546	10.7	5.0	2.7	-7.23	**S1**	S2	S3			MS/MSD
SC25	7/8/2008	1500	41 52	0.1618	71 22	0.8656	12.8	5.0	1.7	-8.90	**S1**	S2	S3			
SC26	7/10/2008	815	41 52	0.1109	71 22	0.7987	13.8	6.0	5.6	-12.86	**S1**	S2	S3	S9		
SC27	7/14/2008	820	41 51	0.9391	71 22	0.7185	6.6	3.0	1.35	-3.71	**S1**	S2				
SC28	7/10/2008	1320	41 51	0.9796	71 22	0.7904	7.8	5.0	5.0	-3.73	**S1**	S2	S3	S9		
SC29	7/10/2008	1120	41 51	0.9802	71 22	0.7999	3.1	5.5	5.3	-0.88	**S1**	S2	S3			
SC30	7/10/2008	1350	41 51	0.9800	71 22	0.8107	3.4	3.0	2.2	1.20	**S1**	S2	S3	S4		
SC31	7/14/2008	1340	41 51	0.9513	71 22	0.8134	1.0	2.5	2.75	1.09	**S1**	S2	S3	S4		Alk PAH
SC32	7/11/2008	1100	41 51	0.9469	71 22	0.7992	1.9	4.5	4.0	-0.21	**S1**	S2	S3			
SC33	7/11/2008	1130	41 51	0.9479	71 22	0.7784	6.1	6.0	5.1	-4.12	**S1**	S2	S3	S10		Alk PAH
SC34	7/11/2008	1420	41 51	0.9305	71 22	0.7661	10.8	5.0	4.8	-6.74	**S1**	S2	S3	S5		
SC35	7/11/2008	1440	41 51	0.9303	71 22	0.7890	4.5	2.0	1.1	-0.24	**S1**	S2				
SC36	7/14/2008	1300	41 51	0.9327	71 22	0.7994	1.0	1.5	1.2	0.66	**S1**	S2				
SC37	7/14/2008	1320	41 51	0.9209	71 22	0.7824	5.1	4.5	3.25	-3.19	**S1**	S2	S3	S5		MS/MSD
SC38	7/11/2008	1340	41 51	0.9134	71 22	0.7776	5.6	5.5	5.4	-1.99	**S1**	S2	S3			
SC39	7/11/2008	1310	41 51	0.9129	71 22	0.7669	8.4	5.5	5.2	-5.25	**S1**	S2	S3			
SC40	7/9/2008	1000	41 52	0.1430	71 22	0.8334	13.7	5.0	4.8	-11.82	**S1**	S2	S3			

Table 2-1
Tidewater As Builts

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Station	Date	Time	Latitude [1]		Longitude		DOW	Pen	Rec	Mudline Elev. (ft)	Sampled [3,4]					Additional Notes
			DD	MM.MMMM	DD	MM.MMMM										
SC41	7/9/2008	920	41 52	0.0865	71 22	0.8016	11.2	6.0	5.8	-9.85	**S1**	S2	S3	S7		
SC42	7/10/2008	1020	41 52	0.0218	71 22	0.7782	8.5	5.0	4.7	-6.95	**S1**	S2	S3			
SC43	7/10/2008	920	41 51	0.9817	71 22	0.7651	9.1	5.5	5.4	-7.94	**S1**	S2	S3			
SC44	7/14/2008	900	41 51	0.9151	71 22	0.7470	12.4	5.0	4.85	-10.10	**S1**	S2	S3	S8		Field Dup2
SC45	7/14/2008	930	41 51	0.8819	71 22	0.7262	12.2	4.5	3.5	-10.25	**S1**	S2	S3	S5		
SC46	7/14/2008	1000	41 51	0.8555	71 22	0.7232	12.0	5.5	5.3	-10.43	**S1**	S2	S3	S10		
SC47	7/11/2008	1030	41 52	0.1253	71 22	0.8449	10.5	5.0	3.7	-9.06	**S1**	S2	S3	S7		
SW-2	7/11/2008	848	41 52	0.1252	71 22	0.8511	NA	1.5	1.0	NA	**S1**	S2				

Notes:
NA = Not available
DOW = Depth of Water (ft)
Pen = Core Penetration (ft)
Rec = Core Recovery (ft)
[1] Datum WGS-84
[2] Additional material in core barrel due to suction from check valve
[3] Samples in bold = analyzed; additional samples collected for archive purposes
[4] Sampled Depths (ft):

S1	0.0-0.5	S8	3.5-4.0
S2	0.5-1.0	S9	4.0-4.5
S3	1.0-1.5	S10	4.5-5.0
S4	1.5-2.0	S11	5.0-5.5
S5	2.0-2.5	S12	5.5-6.0
S6	2.5-3.0	S20	9.5-10.0
S7	3.0-3.5	S32	15.5-16.0

Table 3-1
Summary of Sediment Sample Analytical Results – Grain Size

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

			Geotech		
Location ID:	Date Collected:	Sample Name:	% Gravel	% Sand	% Silt/Clay
SC1	07/15/08	SC1-S1	3.3	92.9	3.8
SC2	07/15/08	SC2-S1	17.1	81.6	1.3
SC3	07/09/08	SC3-S1	8.5	89.4	2.1
SC4	07/09/08	SC4-S1	22.9	74.8	2.3
SC5	07/09/08	SC5-S1	4.5	94.5	1
SC6	07/09/08	SC6-S1	0	28.4	71.6
SC7	07/14/08	SC7-S1	3.7	63.9	32.4
SC7	07/14/08	SC7-S7	5.2	58.4	36.4
SC8	07/14/08	SC8-S1	0.8	30.8	68.4
SC9	07/10/08	SC9-S1	0.3	46.8	52.9
SC10	07/08/08	SC10-S1	5.7	89.8	4.5
SC11	07/15/08	SC11-S1	9	78.5	12.5
SC12	07/08/08	SC12-S2	16	83.2	0.8
SC13	07/15/08	SC13-S1	8.2	89.3	2.5
SC14	07/15/08	SC14-S1	0.4	41.9	57.7
SC15	07/16/08	SC15-S1	0.5	57.8	41.7
SC16	07/16/08	SC16-S1	0.2	41.1	58.7
SC17	07/10/08	SC17-S1	0.2	80.5	19.3
SC18	07/14/08	SC18-S1	0.2	21.9	77.9
SC19	07/10/08	SC19-S1	0.6	36.3	63.1
SC20	07/09/08	SC20-S1	0.5	98.8	0.7
SC21	07/08/08	SC21-S1	0	47.4	52.6
SC22	07/09/08	SC22-S2	1.2	97.8	1
SC23	07/08/08	SC23-S1	0	76.5	23.5
SC24	07/08/08	SC24-S1	5.8	92.1	2.1
SC25	07/08/08	SC25-S1	2.4	91	6.6
SC26	07/10/08	SC26-S1	0.2	97.5	2.3
SC27	07/14/08	SC27-S1	1.9	37.6	60.5
SC28	07/10/08	SC28-S1	0.7	95.2	4.1
SC29	07/10/08	SC29-S1	0	26.1	73.9
SC30	07/10/08	SC30-S1	0	42.3	57.7
SC31	07/14/08	SC31-S1	4.2	77.8	18
SC32	07/11/08	SC32-S1	3.8	57.3	38.9
SC33	07/11/08	SC33-S1	0	40.6	59.4
SC34	07/11/08	SC34-S1	0.1	79	20.9
SC35	07/11/08	SC35-S1	0.3	46.3	53.4
SC36	07/14/08	SC36-S1	6.8	62.4	30.8
SC37	07/14/08	SC37-S1	0.9	46.9	52.2
SC38	07/11/08	SC38-S1	3.1	91.2	5.7
SC39	07/11/08	SC39-S1	0	15.8	84.2
SC40	07/09/08	SC40-S1	0.2	98.7	1.1
SC41	07/09/08	SC41-S1	0.1	97.5	2.4
SC42	07/10/08	SC42-S1	2.9	94.2	2.9
SC43	07/10/08	SC43-S1	1.7	86.4	11.9
SC44	07/14/08	SC44-S1	0.1	95.4	4.5
SC45	07/14/08	SC45-S1	0	97.5	2.5
SC46	07/14/08	SC46-S1	0.1	98.1	1.8
SC47	07/11/08	SC47-S1	25.6	72.4	2

Table 3-2
Summary of Sediment Sample Analytical Results – PAHs

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC1 07/15/08	SC2 07/15/08	SC3 07/09/08	SC4 07/09/08	SC5 07/09/08	SC6 07/09/08	SC7 07/14/08	SC8 07/14/08	SC9 07/10/08	SC10 07/08/08	SC11 07/15/08	SC12 07/08/08
PAHs													
Acenaphthene	µg/kg	150 J	300 J [50 J]	4,200	570	87	240	140	1,400	290 [310]	470	400	24
Acenaphthylene	µg/kg	350	320 [180]	6,100	920	250	960	610	2,000	1,000 [940]	220	480	170
Anthracene	µg/kg	1,000 J	3,200 J [280 J]	52,000	1,900	340	1,100	580	3,500	1,300 [1,400]	1,500	1,800	240
Benzo(a)anthracene	µg/kg	2,800	3,400 J [930 J]	55,000	3,800	730	4,000	1,700	8,300	4,200 [4,100]	3,900	3,900	700
Benzo(a)pyrene	µg/kg	2,000	2,600 J [800 J]	43,000	4,500	830	5,500	1,900	6,900	4,900 [4,800]	4,400	2,900	620
Benzo(b)fluoranthene	µg/kg	1,900	2,100 [790]	30,000	2,800	540	5,700	2,100	6,200	4,700 [4,500]	3,500	2,600	490
Benzo(g,h,i)perylene	µg/kg	1,200 J	1,300 [440]	18,000	1,900	610	4,200	1,400	4,500	3,500 [3,400]	2,300	1,700	310
Benzo(k)fluoranthene	µg/kg	2,200	2,100 J [690 J]	32,000	2,800	550	4,900	2,000	6,700	4,300 [4,300]	3,400	2,900	490
Chrysene	µg/kg	2,900	3,300 J [1,000 J]	45,000	3,600	720	5,400	2,000	8,800	4,900 [4,800]	3,800	4,000	630
Dibenzo(a,h)anthracene	µg/kg	360	410 J [130 J]	5,900	540	120	1,000	370	1,300	880 [860]	730	510	88
Fluoranthene	µg/kg	6,500	7,900 J [2,100 J]	140,000	9,200	1,300	11,000	3,300	18,000	9,500 [9,600]	7,100	8,700	1,400
Fluorene	µg/kg	260 J	520 J [69 J]	12,000	510	130	310	180	650	370 [380]	550	450	35
Indeno(1,2,3-cd)pyrene	µg/kg	1,400 J	1,400 J [480 J]	23,000	2,100	460	4,400	1,400	4,600	3,600 [3,600]	2,600	1,800	360
Naphthalene	µg/kg	300	480 J [94 J]	2,500	650	230	640	340	2,300	540 [620]	440	500	58
Phenanthrene	µg/kg	3,100	6,200 J [1,100 J]	120,000	5,400	710	3,200	1,300	6,300	3,500 [3,600]	4,400	4,800	480
Pyrene	µg/kg	5,700	6,600 [2,200]	110,000	8,300	1,400	9,000	3,600	18,000	8,500 [8,200]	6,100	7,400	1,200
Total PAHs	*µg/kg*	*32,000*	*42,000 J [11,000 J]*	*700,000*	*50,000*	*9,000*	*61,000*	*23,000*	*99,000*	*56,000 [55,000]*	*45,000*	*45,000*	*7,200*
Additional PAHs/Alkylated PAHs													
Perylene	µg/kg	540	NA	NA	NA	NA	1,400	NA	1,800	1,600 [1,500]	NA	740	NA
Benzo[e]pyrene	µg/kg	1,500	NA	NA	NA	NA	4,300	NA	5,100	3,700 [3,600]	NA	2,100	NA
C1-Chrysenes	µg/kg	1,200	NA	NA	NA	NA	2,600	NA	5,900	2,600 [2,400]	NA	1,900	NA
C1-Fluoranthenes/Pyrenes	µg/kg	2,700	NA	NA	NA	NA	4,300	NA	11,000	4,400 [4,200]	NA	3,600	NA
C1-Fluorenes	µg/kg	160	NA	NA	NA	NA	210	NA	980	240 [250]	NA	270	NA
C1-Naphthalenes	µg/kg	91	NA	NA	NA	NA	380	NA	1,100	370 [380]	NA	280	NA
C1-Phenanthrenes/Anthracenes	µg/kg	1,700	NA	NA	NA	NA	1,800	NA	7,000	2,100 [2,000]	NA	2,600	NA
C2-Chrysenes	µg/kg	520	NA	NA	NA	NA	1,600	NA	3,400	1,500 [1,200]	NA	1,000	NA
C2-Fluorenes	µg/kg	150	NA	NA	NA	NA	300	NA	1,500	360 [350]	NA	400	NA
C2-Naphthalenes	µg/kg	130	NA	NA	NA	NA	390	NA	1,500	450 [430]	NA	470	NA
C2-Phenanthrenes/Anthracenes	µg/kg	920	NA	NA	NA	NA	1,300	NA	5,900	1,400 [1,400]	NA	1,800	NA
C3-Chrysenes	µg/kg	380	NA	NA	NA	NA	1,300	NA	2,600	1,300 [1,100]	NA	810	NA
C3-Fluorenes	µg/kg	250	NA	NA	NA	NA	770	NA	1,800	780 [920]	NA	740	NA
C3-Naphthalenes	µg/kg	160	NA	NA	NA	NA	290	NA	2,300	360 [330]	NA	610	NA
C3-Phenanthrenes/Anthracenes	µg/kg	380	NA	NA	NA	NA	760	NA	3,400	890 [800]	NA	1,400	NA
C4-Chrysenes	µg/kg	150	NA	NA	NA	NA	790	NA	1,200	820 [720]	NA	410	NA
C4-Naphthalenes	µg/kg	95	NA	NA	NA	NA	220	NA	1,600	270 [260]	NA	560	NA
C4-Phenanthrenes/Anthracenes	µg/kg	110	NA	NA	NA	NA	390	NA	1,700	550 [470]	NA	1,100	NA

Table 3-2
Summary of Sediment Sample Analytical Results – PAHs

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC13 07/15/08	SC14 07/15/08	SC15 07/16/08	SC16 07/16/08	SC17 07/10/08	SC18 07/14/08	SC19 07/10/08	SC20 07/09/08	SC21 07/08/08	SC22 07/09/08	SC23 07/08/08	SC24 07/08/08
PAHs													
Acenaphthene	µg/kg	800	330	1,500	490	60	260	910	750	260	38	200	450
Acenaphthylene	µg/kg	370	1,300	1,100	1,100	250	780	1,200	190	620	200	270	280 J
Anthracene	µg/kg	2,100	1,300	3,900	1,700	310	910	2,800	2,200	1,000	330	640	2,100
Benzo(a)anthracene	µg/kg	5,800	4,700	7,900	4,700	1,100	2,900	4,300	3,100	3,600	790	2,000	2,700
Benzo(a)pyrene	µg/kg	5,900	5,500	7,600	4,800	1,200	3,300	4,500	2,800	4,100	740	2,100	2,700
Benzo(b)fluoranthene	µg/kg	5,100	5,700	6,500	4,900	1,400	3,500	3,300	2,100	4,000	580	2,000	1,800
Benzo(g,h,i)perylene	µg/kg	5,000	4,300	5,100	3,600	1,000	2,600	2,700	1,300	2,900	420	1,400	1,200
Benzo(k)fluoranthene	µg/kg	5,400	5,100	7,000	5,100	1,300	3,300	3,500	2,200	3,800	560	1,900	2,000
Chrysene	µg/kg	6,100	5,800	9,200	5,800	1,400	3,900	4,900	2,900	4,100	740	2,400	2,800
Dibenzo(a,h)anthracene	µg/kg	1,400	1,000	1,200	930	250	640	730	400	710	120	330	340
Fluoranthene	µg/kg	15,000	11,000	19,000	11,000	2,700	7,300	8,300	7,000	8,200	1,600	5,000	6,000
Fluorene	µg/kg	560	370	1,800	580	89	330	770	840	370	72	270	510
Indeno(1,2,3-cd)pyrene	µg/kg	4,900	4,000	4,900	3,500	1,100	2,500	2,700	1,500	3,000	460	1,400	1,300
Naphthalene	µg/kg	520	560	1,700	790	290	470	1,600	360	400	50	280	460
Phenanthrene	µg/kg	12,000	3,800	17,000	6,000	820	3,300	4,600	6,200	3,500	880	2,700	4,600
Pyrene	µg/kg	12,000	9,800	18,000	11,000	2,300	6,500	8,900	5,600	7,400	1,500	4,300	5,100
Total PAHs	*µg/kg*	*83,000*	*64,000*	*110,000*	*66,000*	*16,000*	*42,000*	*56,000*	*39,000*	*48,000*	*9,100*	*27,000*	*34,000*
Additional PAHs/Alkylated PAHs													
Perylene	µg/kg	NA	NA	NA	NA	NA	NA	990	NA	NA	NA	NA	NA
Benzo[e]pyrene	µg/kg	NA	NA	NA	NA	NA	NA	3,100	NA	NA	NA	NA	NA
C1-Chrysenes	µg/kg	NA	NA	NA	NA	NA	NA	3,300	NA	NA	NA	NA	NA
C1-Fluoranthenes/Pyrenes	µg/kg	NA	NA	NA	NA	NA	NA	5,900	NA	NA	NA	NA	NA
C1-Fluorenes	µg/kg	NA	NA	NA	NA	NA	NA	880	NA	NA	NA	NA	NA
C1-Naphthalenes	µg/kg	NA	NA	NA	NA	NA	NA	790	NA	NA	NA	NA	NA
C1-Phenanthrenes/Anthracenes	µg/kg	NA	NA	NA	NA	NA	NA	5,400	NA	NA	NA	NA	NA
C2-Chrysenes	µg/kg	NA	NA	NA	NA	NA	NA	2,200	NA	NA	NA	NA	NA
C2-Fluorenes	µg/kg	NA	NA	NA	NA	NA	NA	1,700	NA	NA	NA	NA	NA
C2-Naphthalenes	µg/kg	NA	NA	NA	NA	NA	NA	1,800	NA	NA	NA	NA	NA
C2-Phenanthrenes/Anthracenes	µg/kg	NA	NA	NA	NA	NA	NA	4,800	NA	NA	NA	NA	NA
C3-Chrysenes	µg/kg	NA	NA	NA	NA	NA	NA	2,000	NA	NA	NA	NA	NA
C3-Fluorenes	µg/kg	NA	NA	NA	NA	NA	NA	2,200	NA	NA	NA	NA	NA
C3-Naphthalenes	µg/kg	NA	NA	NA	NA	NA	NA	2,600	NA	NA	NA	NA	NA
C3-Phenanthrenes/Anthracenes	µg/kg	NA	NA	NA	NA	NA	NA	3,900	NA	NA	NA	NA	NA
C4-Chrysenes	µg/kg	NA	NA	NA	NA	NA	NA	1,200	NA	NA	NA	NA	NA
C4-Naphthalenes	µg/kg	NA	NA	NA	NA	NA	NA	2,600	NA	NA	NA	NA	NA
C4-Phenanthrenes/Anthracenes	µg/kg	NA	NA	NA	NA	NA	NA	3,800	NA	NA	NA	NA	NA

Table 3-2
Summary of Sediment Sample Analytical Results – PAHs

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC25 07/08/08	SC26 07/10/08	SC27 07/14/08	SC28 07/10/08	SC29 07/10/08	SC30 07/10/08	SC31 07/14/08	SC32 07/11/08	SC33 07/11/08	SC34 07/11/08	SC35 07/11/08	SC36 07/14/08
PAHs													
Acenaphthene	µg/kg	2,500	45	11,000	160	220	760	990	2,500	220	51	650	3,200
Acenaphthylene	µg/kg	1,100	130	3,200	830	1,300	5,700	3,800	8,600	690	250	4,900	31,000
Anthracene	µg/kg	8,100	380	6,800	940	1,300	4,600	2,900	13,000	890	300	6,800	34,000
Benzo(a)anthracene	µg/kg	12,000	1,200	13,000	3,400	4,000	12,000	6,000	19,000	3,000	950	12,000	51,000
Benzo(a)pyrene	µg/kg	12,000	1,100	10,000	3,900	4,500	11,000	4,900	17,000	3,600	1,100	11,000	38,000
Benzo(b)fluoranthene	µg/kg	8,800	950	7,600	4,000	4,600	9,000	4,900	12,000	3,900	1,300	7,800	24,000
Benzo(g,h,i)perylene	µg/kg	5,900	620	6,000	3,100	3,500	7,500	3,400	10,000	2,900	910	6,900	20,000
Benzo(k)fluoranthene	µg/kg	8,400	910	8,200	4,000	4,600	9,600	4,800	13,000	3,600	1,100	8,800	28,000
Chrysene	µg/kg	11,000	1,200	13,000	4,200	4,900	11,000	6,200	20,000	4,000	1,200	13,000	53,000
Dibenzo(a,h)anthracene	µg/kg	1,700	180	1,600	800	930	2,200 J	1,000	3,200	720	240	2,100	7,200
Fluoranthene	µg/kg	24,000 D	2,700	23,000	6,800	7,900	20,000	12,000	30,000	7,500	2,400	19,000	73,000 D
Fluorene	µg/kg	3,100	75	3,900	240	340	1,300	2,600	5,800	280	79	1,800	23,000
Indeno(1,2,3-cd)pyrene	µg/kg	6,800	700	6,000	3,200	3,700	7,700	3,700	10,000	3,000	950	7,000	21,000
Naphthalene	µg/kg	3,800	53	8,000	530	1,000	4,300	9,700	17,000	530	130	4,300	21,000
Phenanthrene	µg/kg	25,000	1,200	16,000	2,400	3,300	9,500	5,500	33,000	2,700	840	18,000	110,000 D
Pyrene	µg/kg	23,000	2,100	27,000	6,800	8,600	22,000	11,000	35,000	6,500	2,100	23,000	94,000 D
Total PAHs	*µg/kg*	*160,000*	*14,000*	*160,000*	*45,000*	*55,000*	*140,000*	*83,000*	*250,000*	*44,000*	*14,000*	*150,000*	*630,000*
Additional PAHs/Alkylated PAHs													
Perylene	µg/kg	NA	NA	NA	NA	NA	NA	1,300	NA	1,000	NA	NA	NA
Benzo[e]pyrene	µg/kg	NA	NA	NA	NA	NA	NA	3,700	NA	3,100	NA	NA	NA
C1-Chrysenes	µg/kg	NA	NA	NA	NA	NA	NA	4,500	NA	1,900	NA	NA	NA
C1-Fluoranthenes/Pyrenes	µg/kg	NA	NA	NA	NA	NA	NA	8,000	NA	3,100	NA	NA	NA
C1-Fluorenes	µg/kg	NA	NA	NA	NA	NA	NA	1,200	NA	170	NA	NA	NA
C1-Naphthalenes	µg/kg	NA	NA	NA	NA	NA	NA	2,500	NA	290	NA	NA	NA
C1-Phenanthrenes/Anthracenes	µg/kg	NA	NA	NA	NA	NA	NA	6,000	NA	1,400	NA	NA	NA
C2-Chrysenes	µg/kg	NA	NA	NA	NA	NA	NA	2,500	NA	1,100	NA	NA	NA
C2-Fluorenes	µg/kg	NA	NA	NA	NA	NA	NA	1,000	NA	310	NA	NA	NA
C2-Naphthalenes	µg/kg	NA	NA	NA	NA	NA	NA	2,700	NA	340	NA	NA	NA
C2-Phenanthrenes/Anthracenes	µg/kg	NA	NA	NA	NA	NA	NA	4,000	NA	980	NA	NA	NA
C3-Chrysenes	µg/kg	NA	NA	NA	NA	NA	NA	1,700	NA	1,100	NA	NA	NA
C3-Fluorenes	µg/kg	NA	NA	NA	NA	NA	NA	960	NA	630	NA	NA	NA
C3-Naphthalenes	µg/kg	NA	NA	NA	NA	NA	NA	1,800	NA	270	NA	NA	NA
C3-Phenanthrenes/Anthracenes	µg/kg	NA	NA	NA	NA	NA	NA	1,800	NA	620	NA	NA	NA
C4-Chrysenes	µg/kg	NA	NA	NA	NA	NA	NA	840	NA	680	NA	NA	NA
C4-Naphthalenes	µg/kg	NA	NA	NA	NA	NA	NA	1,000	NA	190	NA	NA	NA
C4-Phenanthrenes/Anthracenes	µg/kg	NA	NA	NA	NA	NA	NA	630	NA	320	NA	NA	NA

Table 3-2
Summary of Sediment Sample Analytical Results – PAHs

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC37 07/14/08	SC38 07/11/08	SC39 07/11/08	SC40 07/09/08	SC41 07/09/08	SC42 07/10/08	SC43 07/10/08	SC44 07/14/08	SC45 07/14/08	SC46 07/14/08	SC47 07/11/08	SW2 07/11/08
PAHs													
Acenaphthene	µg/kg	1,200	310	180	21	27	150	210	37 [56]	540	69	52	260,000
Acenaphthylene	µg/kg	3,200	2,000	840	89	110	340	370	210 [130]	590	100	430	430,000
Anthracene	µg/kg	2,500	1,800	840	190	200	600	730	210 [190]	1,400	220	980	1,200,000
Benzo(a)anthracene	µg/kg	5,800	4,800	2,700	520	560	1,700	1,900	840 [740]	4,200	760	3,400	1,000,000
Benzo(a)pyrene	µg/kg	4,800	5,000	3,000	530	540	2,000	2,100	690 [610]	3,000	570	2,700	870,000
Benzo(b)fluoranthene	µg/kg	4,900	5,200	3,700	450	440	1,300	1,800	700 [640]	3,300	670	2,500	700,000
Benzo(g,h,i)perylene	µg/kg	4,000	4,100	2,700	310	300	1,100	1,300	510 [460]	2,500	470	1,800	450,000
Benzo(k)fluoranthene	µg/kg	5,200	5,100	3,200	460	430	1,400	1,900	750 [700]	3,100	690	2,400	670,000
Chrysene	µg/kg	6,000	5,400	3,400	540	520	1,800	2,000	960 [820]	4,400	920	3,000	840,000
Dibenzo(a,h)anthracene	µg/kg	1,200	1,100	680	93	90	270	340	140 [120]	630	130	530	110,000
Fluoranthene	µg/kg	11,000	8,900	6,200	1,100	1,100	3,600	4,500	1,800 [1,700]	11,000	2,200	6,600	3,500,000
Fluorene	µg/kg	1,200	480	240	40	48	190	250	66 [67]	690	75	96	840,000
Indeno(1,2,3-cd)pyrene	µg/kg	4,000	4,300	2,700	360	340	1,100	1,400	490 [480]	2,500	470	2,100	550,000
Naphthalene	µg/kg	2,500	1,400	510	42	43	440	310	58 [96]	610	52	220	100,000
Phenanthrene	µg/kg	5,400	4,000	1,900	530	540	1,900	2,500	610 [720]	7,100	1,000	1,500	2,400,000
Pyrene	µg/kg	12,000	9,400	5,700	870	870	3,600	3,800	1,600 [1,400]	9,300	1,800	6,000	2,400,000
Total PAHs	*µg/kg*	*75,000*	*63,000*	*39,000*	*6,100*	*6,100*	*21,000*	*25,000*	*9,600 [8,900]*	*54,000*	*10,000*	*34,000*	*16,000,000*
Additional PAHs/Alkylated PAHs													
Perylene	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[e]pyrene	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C1-Chrysenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C1-Fluoranthenes/Pyrenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C1-Fluorenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C1-Naphthalenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C1-Phenanthrenes/Anthracenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C2-Chrysenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C2-Fluorenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C2-Naphthalenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C2-Phenanthrenes/Anthracenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C3-Chrysenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C3-Fluorenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C3-Naphthalenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C3-Phenanthrenes/Anthracenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C4-Chrysenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C4-Naphthalenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C4-Phenanthrenes/Anthracenes	µg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

D – Compound quantitated using a secondary dilution.
J – Estimated value.
NA – Not analyzed.
Total PAH includes sum of 16 parent PAH compounds.
Values in brackets are field duplicates.

Table 3-3
Summary of Sediment Sample Analytical Results – TPH

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID:	Date Collected:	Total Petroleum Hydrocarbons
		mg/kg
SC1	07/15/08	1,290
SC2	07/15/08	520 [573]
SC3	07/09/08	1,790
SC4	07/09/08	980
SC5	07/09/08	611
SC6	07/09/08	7,280
SC7	07/14/08	2,750
SC8	07/14/08	6,890
SC9	07/10/08	5,820 [5,410]
SC10	07/08/08	1,980
SC11	07/15/08	5,390
SC12	07/08/08	406
SC13	07/15/08	1,730
SC14	07/15/08	9,320
SC15	07/16/08	9,630
SC16	07/16/08	5,010
SC17	07/10/08	4,330
SC18	07/14/08	12,200
SC19	07/10/08	13,600
SC20	07/09/08	924
SC21	07/08/08	3,690
SC22	07/09/08	518
SC23	07/08/08	4,880
SC24	07/08/08	2,260
SC25	07/08/08	1,620
SC26	07/10/08	594
SC27	07/14/08	8,040
SC28	07/10/08	7,770
SC29	07/10/08	3,870
SC30	07/10/08	6,090
SC31	07/14/08	1,290
SC32	07/11/08	6,900
SC33	07/11/08	9,080
SC34	07/11/08	3,480
SC35	07/11/08	6,600
SC36	07/14/08	4,790
SC37	07/14/08	3,960
SC38	07/11/08	7,300
SC39	07/11/08	12,400
SC40	07/09/08	538
SC41	07/09/08	729
SC42	07/10/08	1,480
SC43	07/10/08	3,150
SC44	07/14/08	958 [1,260]
SC45	07/14/08	637
SC46	07/14/08	451
SC47	07/11/08	1,380
SW2	07/11/08	87,700

Table 3-4
Summary of Sediment Sample Analytical Results – VOCs

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC1 07/15/08	SC2 07/15/08	SC3 07/09/08	SC4 07/09/08	SC5 07/09/08	SC6 07/09/08	SC7 07/14/08	SC8 07/14/08	SC9 07/10/08	SC10 07/08/08	SC11 07/15/08
Volatile Organics												
1,1,1,2-Tetrachloroethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,1,1-Trichloroethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,1,2,2-Tetrachloroethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,1,2-Trichloroethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,1-Dichloroethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,1-Dichloroethene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,1-Dichloropropene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,2,3-Trichlorobenzene	µg/kg	1.7 UJ	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,2,3-Trichloropropane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,2,4-Trichlorobenzene	µg/kg	1.7 UJ	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,2,4-Trimethylbenzene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,2-Dibromo-3-chloropropane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,2-Dibromoethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,2-Dichlorobenzene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.1 J
1,2-Dichloroethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,2-Dichloropropane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,3,5-Trimethylbenzene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,3-Dichlorobenzene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,3-Dichloropropane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
1,4-Dichlorobenzene	µg/kg	1.4 J	1.6 U [1.7 U]	2.0 U	2.9	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	7.6	3.6
2,2-Dichloropropane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
2-Butanone	µg/kg	2.3	1.6 U [1.7 U]	3.4	5.8	1.3 U	140	9.2	12	33 [76]	3.3	27
2-Chloroethylvinylether	µg/kg	4.3 U	4.1 U [4.2 U]	2.0 U	1.4 U	1.3 U	4.9 U	5.1 U	6.0 U	3.7 U [9.0 U]	1.6 U	4.0 U
2-Chlorotoluene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
2-Hexanone	µg/kg	4.3 U	4.1 U [4.2 U]	2.0 U	1.4 U	1.3 U	4.9 U	5.1 U	6.0 U	3.7 U [9.0 U]	1.6 U	4.0 U
4-Chlorotoluene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
4-Methyl-2-pentanone	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Acetone	µg/kg	24 U	12 U [12 U]	21 U	26 U	13 UJ	490 J	46 U	63 U	130 J [300]	21 U	130 J
Benzene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.0 J
Bromobenzene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Bromodichloromethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Bromoform	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Bromomethane	µg/kg	1.7 UJ	1.6 UJ [1.7 UJ]	5.0 UJ	3.6 UJ	3.3 UJ	12 UJ	2.0 UJ	2.4 UJ	9.3 UJ [3.6 U]	3.9 UJ	1.6 UJ

Table 3-4
Summary of Sediment Sample Analytical Results – VOCs

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC1 07/15/08	SC2 07/15/08	SC3 07/09/08	SC4 07/09/08	SC5 07/09/08	SC6 07/09/08	SC7 07/14/08	SC8 07/14/08	SC9 07/10/08	SC10 07/08/08	SC11 07/15/08
Volatile Organics												
Carbon Disulfide	µg/kg	7.6	5.7 [4.6]	2.6	4.0	2.0	67	5.8	9.0	45 [67]	11	15
Carbon Tetrachloride	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Chlorobenzene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Chloroethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Chloroform	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Chloromethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
cis-1,2-Dichloroethene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
cis-1,3-Dichloropropene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Dibromochloromethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Dibromomethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Dichlorodifluoromethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Ethylbenzene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Hexachlorobutadiene	µg/kg	1.7 UJ	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Isopropylbenzene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	3.4	3.7 U [3.6 U]	1.6 U	4.8
Methyl tert-butyl ether	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Methylene Chloride	µg/kg	4.3 U	4.1 U [4.2 U]	5.0 U	3.6 U	3.3 U	12 U	5.1 U	6.0 U	9.3 U [9.0 U]	3.9 U	4.0 U
n-Butylbenzene	µg/kg	4.3 UJ	4.1 U [4.2 U]	2.0 U	1.4 U	1.3 U	4.9 U	5.1 U	6.0 U	3.7 U [9.0 U]	1.6 U	4.0 U
n-Propylbenzene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
o-Xylene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
p/m-Xylene	µg/kg	3.5 U	3.3 U [3.4 U]	4.0 U	2.9 U	2.6 U	9.9 U	4.1 U	4.8 U	7.5 U [7.2 U]	3.1 U	3.2 U
p-Isopropyltoluene	µg/kg	4.3 UJ	4.1 U [4.2 U]	2.0 U	1.4 U	1.3 U	4.9 U	5.1 U	6.0 U	3.7 U [9.0 U]	1.6 U	4.0 U
sec-Butylbenzene	µg/kg	1.7 UJ	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	2.5
Styrene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
tert-Butylbenzene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Tetrachloroethene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Toluene	µg/kg	0.87 J	1.6 U [1.2 J]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 J
trans-1,2-Dichloroethene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
trans-1,3-Dichloropropene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Trichloroethene	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Trichlorofluoromethane	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Vinyl Acetate	µg/kg	1.7 UJ	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U
Vinyl Chloride	µg/kg	1.7 U	1.6 U [1.7 U]	2.0 U	1.4 U	1.3 U	4.9 U	2.0 U	2.4 U	3.7 U [3.6 U]	1.6 U	1.6 U

Table 3-4
Summary of Sediment Sample Analytical Results – VOCs

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC12 07/08/08	SC13 07/15/08	SC14 07/15/08	SC15 07/16/08	SC16 07/16/08	SC17 07/10/08	SC18 07/14/08	SC19 07/10/08	SC20 07/09/08	SC21 07/08/08	SC22 07/09/08	SC23 07/08/08	SC24 07/08/08
Volatile Organics														
1,1,1,2-Tetrachloroethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,1,1-Trichloroethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,1,2,2-Tetrachloroethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,1,2-Trichloroethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,1-Dichloroethane	µg/kg	1.6 U	0.98 J	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,1-Dichloroethene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,1-Dichloropropene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,2,3-Trichlorobenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,2,3-Trichloropropane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,2,4-Trichlorobenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,2,4-Trimethylbenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,2-Dibromo-3-chloropropane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,2-Dibromoethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,2-Dichlorobenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,2-Dichloroethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,2-Dichloropropane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,3,5-Trimethylbenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,3-Dichlorobenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,3-Dichloropropane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
1,4-Dichlorobenzene	µg/kg	4.0	3.4	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.2 J
2,2-Dichloropropane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
2-Butanone	µg/kg	2.7	3.4	68	73	46	46 J	52	110	2.0	36	1.7	56	1.8 U
2-Chloroethylvinylether	µg/kg	1.6 U	3.8 U	10 U	12 U	10 U	6.5 U	14 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
2-Chlorotoluene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
2-Hexanone	µg/kg	1.6 U	3.8 U	10 U	12 U	10 U	6.5 U	14 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
4-Chlorotoluene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
4-Methyl-2-pentanone	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Acetone	µg/kg	20 U	17 U	240	270 J	190 J	210 J	250 J	380 J	17 UJ	130	9.6 UJ	200	14 U
Benzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Bromobenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Bromodichloromethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Bromoform	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Bromomethane	µg/kg	3.9 UJ	1.5 UJ	4.1 UJ	4.8 UJ	4.0 UJ	2.6 UJ	5.6 UJ	10 UJ	3.8 UJ	9.4 UJ	2.9 UJ	6.5 UJ	4.5 UJ

Table 3-4
Summary of Sediment Sample Analytical Results – VOCs

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC12 07/08/08	SC13 07/15/08	SC14 07/15/08	SC15 07/16/08	SC16 07/16/08	SC17 07/10/08	SC18 07/14/08	SC19 07/10/08	SC20 07/09/08	SC21 07/08/08	SC22 07/09/08	SC23 07/08/08	SC24 07/08/08
Volatile Organics														
Carbon Disulfide	µg/kg	7.4	4.1	27	40	26	21	32	45	11	21	0.64 J	18	3.8
Carbon Tetrachloride	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Chlorobenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Chloroethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Chloroform	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Chloromethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
cis-1,2-Dichloroethene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
cis-1,3-Dichloropropene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Dibromochloromethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Dibromomethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Dichlorodifluoromethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Ethylbenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Hexachlorobutadiene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Isopropylbenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	1.9 J	1.8 U
Methyl tert-butyl ether	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Methylene Chloride	µg/kg	3.9 U	3.8 U	10 U	12 U	10 U	6.5 U	14 U	10 U	3.8 U	9.4 U	2.9 U	6.5 U	4.5 U
n-Butylbenzene	µg/kg	1.6 U	3.8 U	10 U	12 U	10 U	6.5 U	14 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
n-Propylbenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
o-Xylene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
p/m-Xylene	µg/kg	3.1 U	3.0 U	8.2 U	9.5 U	8.0 U	5.2 U	11 U	8.3 U	3.0 U	7.5 U	2.3 U	5.2 U	3.6 U
p-Isopropyltoluene	µg/kg	1.6 U	3.8 U	10 U	12 U	10 U	6.5 U	14 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
sec-Butylbenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Styrene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
tert-Butylbenzene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Tetrachloroethene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Toluene	µg/kg	3.6	1.5 U	2.1 J	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.1 J	3.8 U	0.71 J	2.6 U	1.8 U
trans-1,2-Dichloroethene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
trans-1,3-Dichloropropene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Trichloroethene	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Trichlorofluoromethane	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Vinyl Acetate	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U
Vinyl Chloride	µg/kg	1.6 U	1.5 U	4.1 U	4.8 U	4.0 U	2.6 U	5.6 U	4.1 U	1.5 U	3.8 U	1.2 U	2.6 U	1.8 U

Table 3-4
Summary of Sediment Sample Analytical Results – VOCs

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC25 07/08/08	SC26 07/10/08	SC27 07/14/08	SC28 07/10/08	SC29 07/10/08	SC30 07/10/08	SC31 07/14/08	SC32 07/11/08	SC33 07/11/08	SC34 07/11/08	SC35 07/11/08	SC36 07/14/08
Volatile Organics													
1,1,1,2-Tetrachloroethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,1,1-Trichloroethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,1,2,2-Tetrachloroethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,1,2-Trichloroethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,1-Dichloroethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 U	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,1-Dichloroethene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,1-Dichloropropene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,2,3-Trichlorobenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,2,3-Trichloropropane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,2,4-Trichlorobenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	70 J	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,2,4-Trimethylbenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	230	180 U	4.9 U	3.1 U	2.3 U	2.0 J
1,2-Dibromo-3-chloropropane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,2-Dibromoethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,2-Dichlorobenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,2-Dichloroethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,2-Dichloropropane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 U	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,3,5-Trimethylbenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	74 J	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,3-Dichlorobenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,3-Dichloropropane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
1,4-Dichlorobenzene	µg/kg	1.2 J	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
2,2-Dichloropropane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
2-Butanone	µg/kg	9.5	2.8	7.3	61 J	47	66 J	120 U	180 UJ	85 J	62 J	6.3 J	13
2-Chloroethylvinylether	µg/kg	1.3 U	1.5 U	6.4 U	9.9 U	8.0 U	6.4 UJ	300 U	450 U	12 U	7.7 U	5.8 U	5.5 U
2-Chlorotoluene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
2-Hexanone	µg/kg	1.3 U	1.5 U	6.4 U	9.9 U	8.0 U	6.4 U	300 U	450 U	12 U	7.7 U	5.8 U	5.5 U
4-Chlorotoluene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
4-Methyl-2-pentanone	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Acetone	µg/kg	46 U	26 UJ	32 U	280 J	180	200 J	300 U	630 J	370 J	250 J	44 UJ	63 J
Benzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	140	130 J	4.9 U	3.1 U	2.3 U	1.3 J
Bromobenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Bromodichloromethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Bromoform	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Bromomethane	µg/kg	3.1 UJ	3.7 UJ	2.5 UJ	4.0 UJ	3.2 U	2.6 UJ	120 UJ	180 UJ	4.9 UJ	3.1 UJ	2.3 UJ	2.2 UJ

Table 3-4
Summary of Sediment Sample Analytical Results – VOCs

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC25 07/08/08	SC26 07/10/08	SC27 07/14/08	SC28 07/10/08	SC29 07/10/08	SC30 07/10/08	SC31 07/14/08	SC32 07/11/08	SC33 07/11/08	SC34 07/11/08	SC35 07/11/08	SC36 07/14/08
Volatile Organics													
Carbon Disulfide	µg/kg	6.9	1.7	3.0	29	58	30 J	120 U	180 U	43	46	3.3	3.4
Carbon Tetrachloride	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Chlorobenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Chloroethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Chloroform	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 U	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Chloromethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 U	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
cis-1,2-Dichloroethene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
cis-1,3-Dichloropropene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	R	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Dibromochloromethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Dibromomethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Dichlorodifluoromethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 U	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Ethylbenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Hexachlorobutadiene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Isopropylbenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Methyl tert-butyl ether	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 U	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Methylene Chloride	µg/kg	3.1 U	3.7 U	6.4 U	9.9 U	8.0 U	6.4 U	300 U	450 U	12 U	7.7 U	5.8 U	5.5 U
n-Butylbenzene	µg/kg	1.3 U	1.5 U	6.4 U	9.9 U	8.0 U	6.4 UJ	300 U	450 U	12 U	7.7 U	5.8 U	5.5 U
n-Propylbenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
o-Xylene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	97 J	180 U	4.9 U	3.1 U	2.3 U	2.2 U
p/m-Xylene	µg/kg	2.5 U	3.0 U	5.1 U	7.9 U	6.4 U	5.1 UJ	130 J	360 U	9.8 U	6.2 U	4.6 U	1.3 J
p-Isopropyltoluene	µg/kg	1.3 U	1.5 U	6.4 U	9.9 U	8.0 U	6.4 UJ	300 U	450 U	12 U	7.7 U	5.8 U	5.5 U
sec-Butylbenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Styrene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
tert-Butylbenzene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Tetrachloroethene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Toluene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	60 J	180 U	4.9 U	3.1 U	2.3 U	2.2 U
trans-1,2-Dichloroethene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
trans-1,3-Dichloropropene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	R	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Trichloroethene	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Trichlorofluoromethane	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Vinyl Acetate	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 UJ	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U
Vinyl Chloride	µg/kg	1.3 U	1.5 U	2.5 U	4.0 U	3.2 U	2.6 U	120 U	180 U	4.9 U	3.1 U	2.3 U	2.2 U

Table 3-4
Summary of Sediment Sample Analytical Results – VOCs

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC37 07/14/08	SC38 07/11/08	SC39 07/11/08	SC40 07/09/08	SC41 07/09/08	SC42 07/10/08	SC43 07/10/08	SC44 07/14/08	SC45 07/14/08	SC46 07/14/08	SC47 07/11/08	SW2 07/11/08
Volatile Organics													
1,1,1,2-Tetrachloroethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,1,1-Trichloroethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,1,2,2-Tetrachloroethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,1,2-Trichloroethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,1-Dichloroethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,1-Dichloroethene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,1-Dichloropropene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,2,3-Trichlorobenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,2,3-Trichloropropane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,2,4-Trichlorobenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,2,4-Trimethylbenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	7,800
1,2-Dibromo-3-chloropropane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,2-Dibromoethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,2-Dichlorobenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,2-Dichloroethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,2-Dichloropropane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,3,5-Trimethylbenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	3,800
1,3-Dichlorobenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,3-Dichloropropane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
1,4-Dichlorobenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	8.2	390 U
2,2-Dichloropropane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
2-Butanone	µg/kg	12 J	49 J	120 J	2.0	1.9	30	57 J	7.0 [15 J]	1.2 J	1.2 J	1.6 UJ	390 UJ
2-Chloroethylvinylether	µg/kg	6.0 UJ	9.6 U	13 U	1.2 U	1.3 U	1.4 U	2.1 UJ	3.9 U [4.6 UJ]	3.8 U	3.5 U	4.0 U	970 U
2-Chlorotoluene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
2-Hexanone	µg/kg	6.0 UJ	9.6 U	13 U	1.2 U	1.3 U	1.4 U	2.1 UJ	3.9 U [4.6 UJ]	3.8 U	3.5 U	4.0 U	970 U
4-Chlorotoluene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
4-Methyl-2-pentanone	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Acetone	µg/kg	53 UJ	210 J	470 J	14 U	17 U	110 J	190 J	44 UJ [97 J]	13 U	8.4 U	14 UJ	1,500 UJ
Benzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	230 J
Bromobenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Bromodichloromethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Bromoform	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Bromomethane	µg/kg	2.4 UJ	3.8 UJ	5.0 UJ	2.9 UJ	3.2 UJ	3.6 UJ	5.3 UJ	1.6 UJ [1.8 UJ]	1.5 UJ	1.4 UJ	1.6 UJ	390 UJ

Table 3-4
Summary of Sediment Sample Analytical Results – VOCs

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC37 07/14/08	SC38 07/11/08	SC39 07/11/08	SC40 07/09/08	SC41 07/09/08	SC42 07/10/08	SC43 07/10/08	SC44 07/14/08	SC45 07/14/08	SC46 07/14/08	SC47 07/11/08	SW2 07/11/08
Volatile Organics													
Carbon Disulfide	µg/kg	15 J	44	92	1.3	1.6	20	45 J	5.3 [8.9 J]	1.9	2.2	1.7	730
Carbon Tetrachloride	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Chlorobenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Chloroethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Chloroform	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Chloromethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
cis-1,2-Dichloroethene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
cis-1,3-Dichloropropene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Dibromochloromethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Dibromomethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Dichlorodifluoromethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Ethylbenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	330 J
Hexachlorobutadiene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Isopropylbenzene	µg/kg	3.2 J	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	280 J
Methyl tert-butyl ether	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Methylene Chloride	µg/kg	6.0 UJ	9.6 U	13 U	2.9 U	3.2 U	3.6 U	5.3 UJ	3.9 U [4.6 UJ]	3.8 U	3.5 U	4.0 U	970 U
n-Butylbenzene	µg/kg	6.0 UJ	9.6 U	13 U	1.2 U	1.3 U	1.4 U	2.1 UJ	3.9 U [4.6 UJ]	3.8 U	3.5 U	4.0 U	2,700
n-Propylbenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	410
o-Xylene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	620
p/m-Xylene	µg/kg	4.8 UJ	7.6 U	10 U	2.3 U	2.6 U	2.9 U	4.2 UJ	3.1 U [3.7 UJ]	3.1 U	2.8 U	3.2 U	1,000
p-Isopropyltoluene	µg/kg	6.0 UJ	9.6 U	13 U	1.2 U	1.3 U	1.4 U	2.1 UJ	3.9 U [4.6 UJ]	3.8 U	3.5 U	4.0 U	1,500
sec-Butylbenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	370 J
Styrene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
tert-Butylbenzene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Tetrachloroethene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Toluene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	6.8 B	270 J
trans-1,2-Dichloroethene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
trans-1,3-Dichloropropene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Trichloroethene	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Trichlorofluoromethane	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Vinyl Acetate	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U
Vinyl Chloride	µg/kg	2.4 UJ	3.8 U	5.0 U	1.2 U	1.3 U	1.4 U	2.1 UJ	1.6 U [1.8 UJ]	1.5 U	1.4 U	1.6 U	390 U

Notes:

B – Analyte was also detected in the associated method blank.
J – Estimated value.
R – Rejected.
U – The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

Table 3-5
Summary of Sediment Sample Analytical Results – Metals

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC1 07/15/08	SC2 07/15/08	SC3 07/09/08	SC4 07/09/08	SC5 07/09/08	SC6 07/09/08	SC7 07/14/08	SC8 07/14/08	SC9 07/10/08	SC10 07/08/08
Inorganics											
Antimony	mg/kg	0.283 J	0.169 J [0.273 J]	0.107 J	0.180 J	R	0.633 J	0.817 J	1.73 J	1.09 J [1.25 J]	0.345 J
Arsenic	mg/kg	4.71	5.18 [3.54]	4.03 J	5.32 J	2.58 J	16.8 J	7.50	16.3	15.7 J [15.9 J]	7.07 J
Beryllium	mg/kg	0.211 J	0.364 J [0.224 J]	0.200 J	0.333 J	0.385 J	1.11 J	0.529 J	0.711 J	0.982 J [1.04 J]	0.460 J
Cadmium	mg/kg	0.551	0.816 [0.716]	1.15 J	1.07 J	0.823 J	8.45 J	7.20	8.67	10.4 J [11.1 J]	1.37 J
Chromium	mg/kg	12.7 J	15.5 J [16.4 J]	16.2 J	15.7 J	10.4 J	140 J	103 J	326 J	154 J [158 J]	18.9 J
Copper	mg/kg	79.7	35.8 [29.0]	24.8	44.7	29.0	266	244	588	322 [314]	336
Lead	mg/kg	95.8 J	55.9 J [47.9 J]	71.0 J	79.2 J	56.0 J	242 J	177 J	376 J	308 J [302 J]	170 J
Mercury	mg/kg	0.0516	0.0311 [0.0300]	0.0591 J	0.0312 J	0.0650 J	0.718 J	0.404	1.76	0.903 J [0.942 J]	0.0529 J
Nickel	mg/kg	9.39 J	11.9 J [9.73 J]	10.1	13.1	10.1	35.9	34.9 J	37.0 J	41.0 [41.0]	15.7
Selenium	mg/kg	0.184 UJ	0.194 UJ [0.188 UJ]	0.230	0.448	0.199 U	2.39	0.667 J	1.48 J	1.99 [1.88]	0.241
Silver	mg/kg	0.142	0.105 [0.0997]	0.224	0.225	0.115	3.46	3.01	2.88	5.80 [6.10]	0.272
Thallium	mg/kg	0.0486	0.0645 [0.0377 U]	0.0531	0.0530	0.0398 U	0.224	0.104	0.222	0.180 [0.183]	0.0494
Zinc	mg/kg	83.2 J	75.6 J [76.1 J]	170	95.1	89.9	439	272 J	810 J	455 [446]	158

Table 3-5
Summary of Sediment Sample Analytical Results – Metals

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC11 07/15/08	SC12 07/08/08	SC13 07/15/08	SC14 07/15/08	SC15 07/16/08	SC16 07/16/08	SC17 07/10/08	SC18 07/14/08	SC19 07/10/08	SC20 07/09/08	SC21 07/08/08	SC22 07/09/08	SC23 07/08/08	SC24 07/08/08
Inorganics															
Antimony	mg/kg	0.557 J	0.154 J	0.271 J	1.25 J	1.34 J	1.15 J	1.19 J	1.77 J	0.981 J	0.395 J	0.654 J	1.16 J	0.484 J	0.206 J
Arsenic	mg/kg	7.48	3.41 J	3.71	24.7	18.0	15.0	6.94 J	26.6	17.6 J	3.96 J	12.7 J	3.07 J	8.39 J	2.91 J
Beryllium	mg/kg	0.321 J	0.212 J	0.248 J	1.58 J	1.16 J	0.974 J	0.512 J	1.43 J	0.706 J	0.212 J	0.827 J	0.184 J	0.445 J	1.11 J
Cadmium	mg/kg	3.73	0.555 J	1.44	13.1	13.8	9.24	4.68 J	23.5	19.7 J	1.58 J	11.0 J	0.541 J	5.87 J	0.619 J
Chromium	mg/kg	66.4 J	10.1 J	17.8 J	233 J	203 J	136 J	67.9 J	345 J	280 J	18.3 J	130 J	11.6 J	85.0 J	10.4 J
Copper	mg/kg	202	25.8	47.2	430	401	293	158	668	773	54.4	249	68.3	173	45.6
Lead	mg/kg	193 J	40.1 J	214 J	355 J	352 J	277 J	158 J	428 J	383 J	128 J	253 J	43.6 J	178 J	60.4 J
Mercury	mg/kg	0.453	0.0141 UJ	0.0616	1.52	1.22	0.792	0.426 J	1.83	1.39 J	0.182 J	0.635 J	0.0492 J	0.374 J	0.0252 J
Nickel	mg/kg	19.4 J	11.7	12.4 J	51.6 J	50.0 J	37.0 J	20.4	76.8 J	49.6	9.71	38.4	10.4	24.9	13.4
Selenium	mg/kg	0.473 J	0.176 U	0.200 J	3.14 J	2.37 J	1.79 J	0.996	2.97 J	1.77	0.271	1.77	0.193 U	0.918	0.318
Silver	mg/kg	1.39	0.0951	0.211	6.02	6.94	8.23	2.76	10.6	5.25	0.436	4.00	0.129	1.94	0.120
Thallium	mg/kg	0.0778	0.0352 U	0.0400	0.333	0.228	0.219	0.0986	0.310	0.200	0.0398 U	0.247	0.0385 U	0.132	0.0388 U
Zinc	mg/kg	280 J	64.9	225 J	654 J	578 J	467 J	206	750 J	792	93.6	408	69.8	320	105

Table 3-5
Summary of Sediment Sample Analytical Results – Metals

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC25 07/08/08	SC26 07/10/08	SC27 07/14/08	SC28 07/10/08	SC29 07/10/08	SC30 07/10/08	SC31 07/14/08	SC32 07/11/08	SC33 07/11/08	SC34 07/11/08	SC35 07/11/08	SC36 07/14/08	SC37 07/14/08	SC38 07/11/08	SC39 07/11/08	SC40 07/09/08
Inorganics																	
Antimony	mg/kg	5.13 J	0.372 J	3.56 J	0.928 J	0.848 J	1.40 J	0.350 J	1.66 J	1.38 J	0.482 J	1.19 J	1.14 J	0.815 J	1.06 J	1.52 J	0.208 J
Arsenic	mg/kg	5.39 J	1.79 J	25.2	14.7 J	13.2 J	13.5 J	7.19	11.7 J	17.1 J	7.07 J	20.1 J	19.1	12.6	17.5 J	16.8 J	2.39 J
Beryllium	mg/kg	0.283 J	0.143 J	0.671 J	1.09 J	1.04 J	1.35 J	0.376 J	1.53 J	1.18 J	0.526 J	0.610 J	0.483 J	1.50 J	1.58 J	1.34 J	0.165 J
Cadmium	mg/kg	2.57 J	0.551 J	2.40	11.0 J	10.8 J	6.46 J	0.620	6.93 J	10.0 J	4.50 J	10.4 J	4.77	11.1	18.2 J	16.1 J	0.673 J
Chromium	mg/kg	28.7 J	7.68 J	327 J	158 J	132 J	143 J	28.7 J	138 J	172 J	69.1 J	210 J	310 J	165 J	243 J	232 J	8.96 J
Copper	mg/kg	74.5	22.5	840	320	245	271	65.8	295	357	184	348	219	282	446	516	26.6
Lead	mg/kg	124 J	28.4 J	14,700 J	306 J	257 J	246 J	77.0 J	239 J	311 J	153 J	553 J	198 J	255 J	450 J	413 J	40.9 J
Mercury	mg/kg	0.0819 J	0.0300 J	4.91	0.875 J	0.678 J	0.882 J	0.240	1.23 J	0.922 J	0.617 J	0.914 J	0.673	0.723	1.58 J	1.35 J	0.0264 J
Nickel	mg/kg	20.6	4.91	20.2 J	39.8	38.6	61.7	21.6 J	33.7	39.1	21.8	50.3	23.8 J	152 J	71.7	55.0	7.41
Selenium	mg/kg	0.277	0.264	1.53 J	2.14	2.13	2.62	0.752 J	1.70	2.45	0.957	1.78	1.72 J	1.44 J	2.17	2.90	0.187 U
Silver	mg/kg	0.658	0.124	1.67	5.69	4.05	3.35	0.250	2.74	6.72	2.85	3.37	2.33	4.51	9.50	11.0	0.109
Thallium	mg/kg	0.0549	0.0374 U	0.358	0.214	0.192	0.179	0.0577	0.148	0.240	0.112	0.174	0.108	0.140	0.243	0.283	0.0375 U
Zinc	mg/kg	131	58.2	689 J	446	384	496	230 J	391	465	200	1,440	680 J	376 J	593	583	55.2

Table 3-5
Summary of Sediment Sample Analytical Results – Metals

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC41 07/09/08	SC42 07/10/08	SC43 07/10/08	SC44 07/14/08	SC45 07/14/08	SC46 07/14/08	SC47 07/11/08	SW2 07/11/08
Inorganics									
Antimony	mg/kg	0.102 J	0.139 J	0.334 J	0.172 J [0.155 J]	0.103 UJ	0.100 UJ	0.264 J	3.22 J
Arsenic	mg/kg	2.28 J	3.87 J	4.93 J	3.04 [2.79]	2.43	1.72	3.84 J	10.4 J
Beryllium	mg/kg	0.184 J	0.237 J	0.408 J	0.233 J [0.227 J]	0.181 J	0.155 J	0.254 J	0.144 J
Cadmium	mg/kg	0.752 J	2.76 J	2.95 J	1.26 [1.28]	1.05	0.814	0.847 J	1.88 J
Chromium	mg/kg	9.88 J	15.2 J	46.5 J	18.2 J [17.9 J]	12.6 J	9.05 J	12.4 J	108 J
Copper	mg/kg	80.1	44.4	117	39.5 [39.8]	26.6	21.7	30.3	283
Lead	mg/kg	28.3 J	83.1 J	112 J	48.9 J [48.3 J]	56.3 J	26.4 J	40.6 J	318 J
Mercury	mg/kg	0.0264 J	0.0542 J	0.292 J	0.104 [0.101]	0.0641	0.0577	0.0210 J	1.48 J
Nickel	mg/kg	7.99	10.8	16.3	8.87 J [8.57 J]	7.35 J	5.77 J	12.3	15.0
Selenium	mg/kg	0.192 U	0.346	0.707	0.340 J [0.333 J]	0.201 UJ	0.197 UJ	0.232	2.52
Silver	mg/kg	0.167	0.783	1.71	0.447 [0.444]	0.190	0.141	0.175	0.697
Thallium	mg/kg	0.0385	0.0441	0.115	0.0566 [0.0562]	0.0424	0.0394 U	0.0731	0.375
Zinc	mg/kg	64.4	992	176	89.3 J [84.4 J]	70.2 J	63.5 J	79.9	206

Notes:

J – Estimated value.
R – Rejected.
U – The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

Table 3-6
Summary of Sediment Sample Analytical Results – TOC, PAC, PSOL

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC1 07/15/08	SC2 07/15/08	SC3 07/09/08	SC4 07/09/08	SC5 07/09/08	SC6 07/09/08	SC7 07/14/08	SC8 07/14/08	SC9 07/10/08	SC10 07/08/08	SC11 07/15/08
Miscellaneous												
Percent Solids	%	82.7	83 [84]	80.2	89.3	81.5	30.9	62.5	52.7	36.6 [36.2]	82.4	74.7
Physiologically Available Cyanide	mg/kg	0.27 U	0.3 U [0.29 U]	0.091 U	0.092 U	0.099 U	0.25 U	0.15 U	0.39 U	0.18 U [0.22 U]	0.075 U	0.32 U
Solids, Total (TPH sample)	%	79	87 [89]	83	89	85	31	59	49	35 [35]	72	70
Total Organic Carbon (Run 1)	%	NA	2.2 J [0.4 J]	1	NA	0.55	4.8	2.7	4.7	NA	NA	1.5 J
Total Organic Carbon (Run 2)	%	0.75	NA	NA	1.9	NA	NA	NA	NA	4.2	0.6	NA

Table 3-6
Summary of Sediment Sample Analytical Results – TOC, PAC, PSOL

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC12 07/08/08	SC13 07/15/08	SC14 07/15/08	SC15 07/16/08	SC16 07/16/08	SC17 07/10/08	SC18 07/14/08	SC19 07/10/08	SC20 07/09/08	SC21 07/08/08	SC22 07/09/08	SC23 07/08/08	SC24 07/08/08
Miscellaneous														
Percent Solids	%	86	80.9	30.5	30.6	38.3	52.9	24.3	35.7	77.6	42.5	80.2	59.3	82.6
Physiologically Available Cyanide	mg/kg	0.076 U	0.26 U	0.78 U	0.8 U	0.63 U	0.13 U	0.73 U	0.17 U	0.08 U	0.15 U	0.089 U	0.14 U	0.093 U
Solids, Total (TPH sample)	%	90	80	29	30	38	54	23	35	78	41	78	55	82
Total Organic Carbon (Run 1)	%	NA	NA	4.6	NA	4	NA	5.8	5.2	1.1	2.9	0.33	2.7	0.77 J
Total Organic Carbon (Run 2)	%	0.14	3.4 J	NA	3.8	NA	2.4	NA	NA	NA	NA	NA	NA	NA

Table 3-6
Summary of Sediment Sample Analytical Results – TOC, PAC, PSOL

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC25 07/08/08	SC26 07/10/08	SC27 07/14/08	SC28 07/10/08	SC29 07/10/08	SC30 07/10/08	SC31 07/14/08	SC32 07/11/08	SC33 07/11/08	SC34 07/11/08	SC35 07/11/08	SC36 07/14/08	SC37 07/14/08
Miscellaneous														
Percent Solids	%	76.7	83.5	50.8	34.6	42.1	53.8	75.4	60.1	31.1	53.9	55.1	63.3	52
Physiologically Available Cyanide	mg/kg	0.089 U	0.092 U	0.47 U	0.23 U	0.17 U	0.15 U	1.5	0.13 U	0.25 U	0.13 U	0.12 U	3.8	0.36 U
Solids, Total (TPH sample)	%	72	81	53	36	43	54	73	57	29	49	52	61	49
Total Organic Carbon (Run 1)	%	NA	NA	7.3	4.8	3.8	NA	NA	NA	5.1	1.7	NA	NA	4.5
Total Organic Carbon (Run 2)	%	1.6	0.39	NA	NA	NA	10 J	5.3	10	NA	NA	5.4	6.4	NA

Table 3-6
Summary of Sediment Sample Analytical Results – TOC, PAC, PSOL

Tidewater Data Report
Former Tidewater MGP Site, Pawtucket, Rhode Island

Location ID: / Date Collected:	Units	SC38 07/11/08	SC39 07/11/08	SC40 07/09/08	SC41 07/09/08	SC42 07/10/08	SC43 07/10/08	SC44 07/14/08	SC45 07/14/08	SC46 07/14/08	SC47 07/11/08	SW2 07/11/08
Miscellaneous												
Percent Solids	%	34.5	23.7	84.4	81.3	77.3	62	76 [73.4]	77.8	78.4	83.2	39.6
Physiologically Available Cyanide	mg/kg	0.21 U	0.32 U	0.089 U	0.076 U	0.1 U	0.11 U	0.23 U [0.3 U]	0.19 U	0.27 U	0.091 U	0.19 U
Solids, Total (TPH sample)	%	36	23	82	78	78	62	73 [72]	74	78	83	53
Total Organic Carbon (Run 1)	%	NA	6.5	NA	NA	0.92	NA	1.2	0.76	0.34	NA	34
Total Organic Carbon (Run 2)	%	4.7	NA	1	1.3	NA	1.8	NA	NA	NA	1.4	NA

Notes:

J – Indicates an estimated value.
U – The compound was analyzed for but not detected.

FIGURES

LEGEND:

SITE BOUNDARY

NOTE:

1. USGS QUADRANGLE DOWNLOADED FROM THE UNIVERSITY OF RHODE ISLAND'S DIGITAL IMAGERY SERVER AT http://ortho.edc.uri.edu/

0 1,000 2,000 Feet

GRAPHIC SCALE

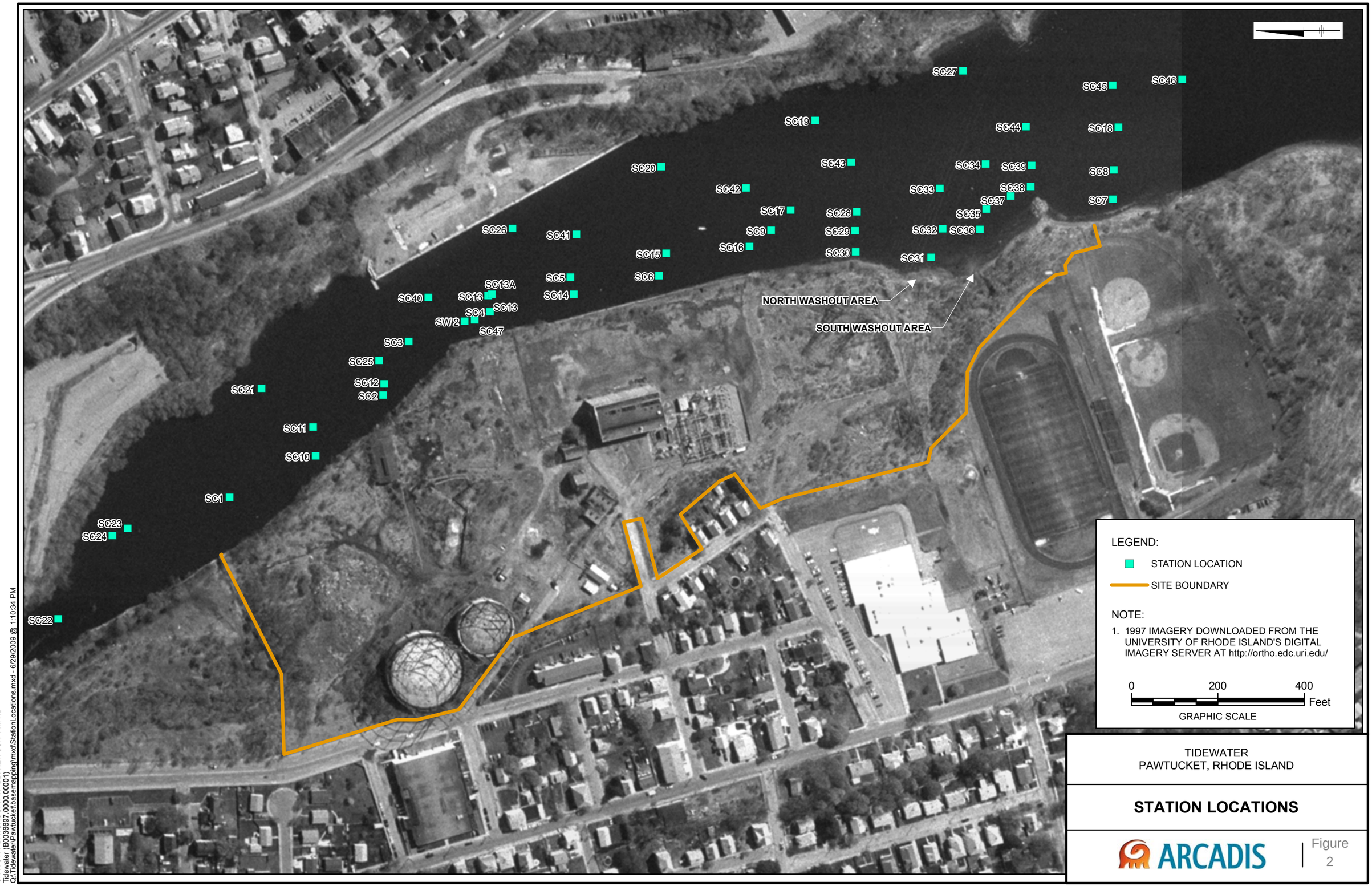
TIDEWATER
PAWTUCKET, RHODE ISLAND

SITE LOCATION

ARCADIS

Figure 1

CITY: SYR DIV/GROUP: AIT DB: KEW JCR
Tidewater (B0036697.0000.00001)
Q:\Tidewater\Pawtucket\basemapping\mxd\SiteMap.mxd - 6/29/2009 @ 12:58:35 PM



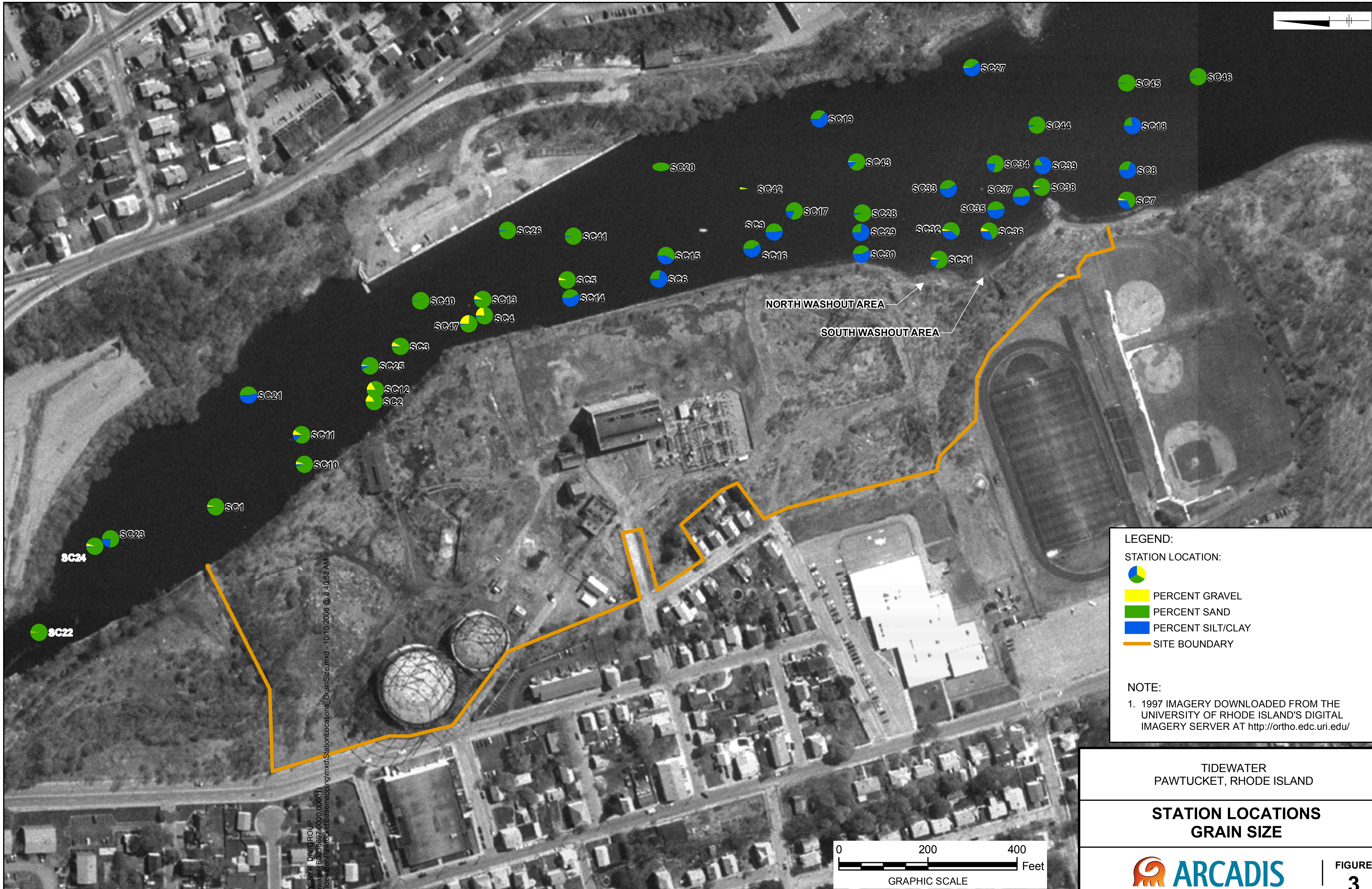
TIDEWATER
PAWTUCKET, RHODE ISLAND

STATION LOCATIONS

ARCADIS

Figure
2

CITY: SYR DIV/GROUP: AIT DB: KEW JCR PM: HD
Tidewater (B0036697.0000.00001)
Q:\Tidewater\Pawtucket\basemapping\mxd\StationLocations.mxd - 6/29/2009 @ 1:10:34 PM



LEGEND:

STATION LOCATION:

- PERCENT GRAVEL
- PERCENT SAND
- PERCENT SILT/CLAY
- SITE BOUNDARY

NOTE:

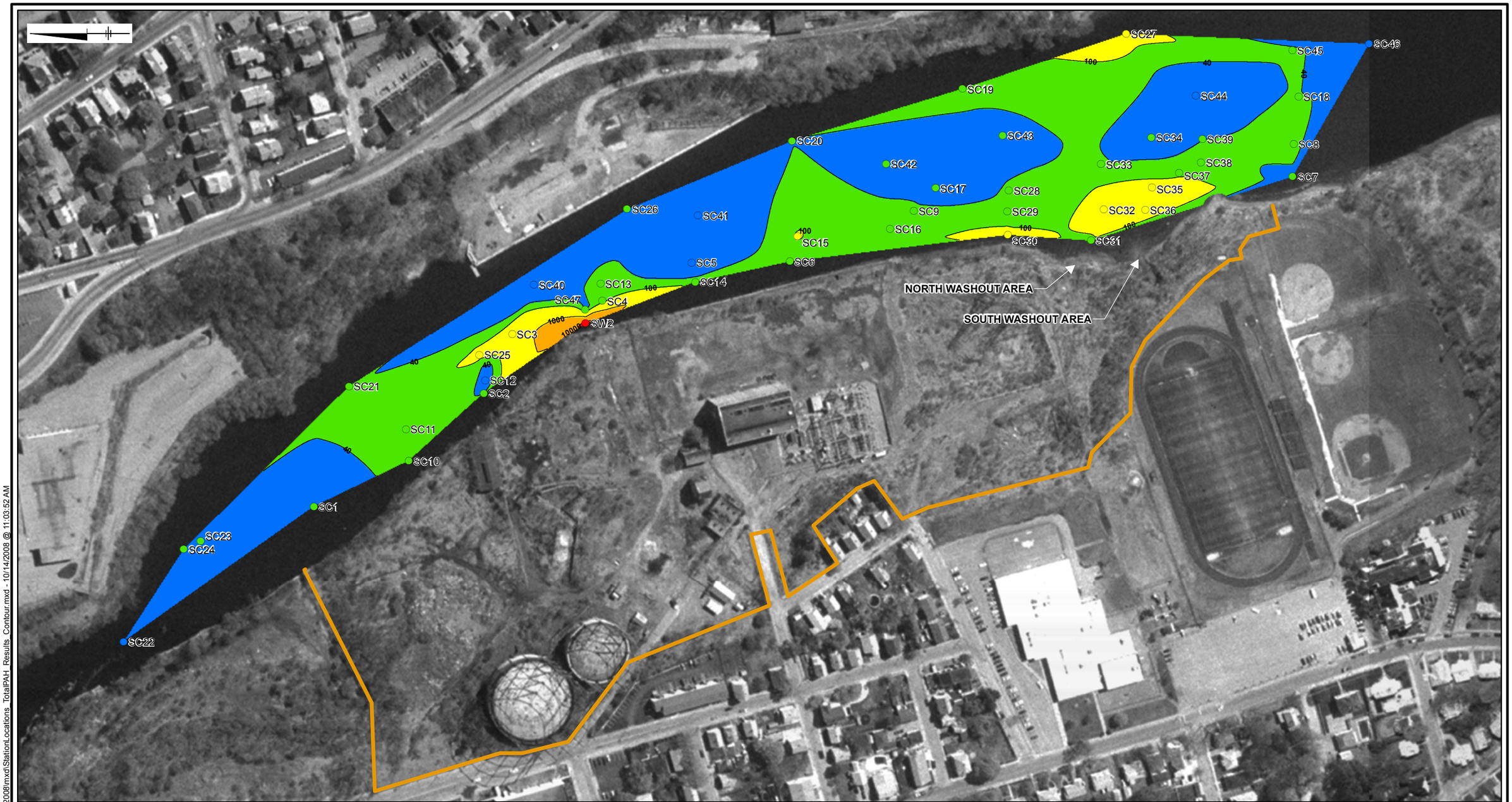
1. 1997 IMAGERY DOWNLOADED FROM THE UNIVERSITY OF RHODE ISLAND'S DIGITAL IMAGERY SERVER AT http://ortho.edc.uri.edu/

TIDEWATER
PAWTUCKET, RHODE ISLAND

STATION LOCATIONS GRAIN SIZE

ARCADIS

FIGURE 3



CITY: SYR DIV/GROUP: AIT DB: JCR
Tidewater (B0036697.0000.00001)
Q:\Tidewater\Pawtucket\Results_Contouring_Fall2008\mxd\StationLocations_TotalPAH_Results_Contour.mxd - 10/14/2008 @ 11:03:52 AM

LEGEND:

STATION LOCATION

TOTAL PAHs RESULTS (mg/Kg):

- < 40
- 40 - 100
- 100 - 1,000
- 1,000 - 10,000
- > 10,000

TOTAL PAHs RESULTS (mg/Kg):

- < 40
- 40 - 100
- 100 - 1,000
- 1,000 - 10,000
- > 10,000

TOTAL PAHs CONTOUR (mg/Kg)

SITE BOUNDARY

0 200 400 Feet

GRAPHIC SCALE

NOTE:

1. 1997 IMAGERY DOWNLOADED FROM THE UNIVERSITY OF RHODE ISLAND'S DIGITAL IMAGERY SERVER AT http://ortho.edc.uri.edu/

TIDEWATER
PAWTUCKET, RHODE ISLAND

STATION LOCATIONS TOTAL PAH DISTRIBUTION

ARCADIS

FIGURE
4-A

LEGEND:

STATION LOCATION

BENZO(A)PYRENE RESULTS (mg/Kg):

- < 10
- 10 - 20
- 20 - 40
- 40 - 80
- > 80

BENZO(A)PYRENE RESULTS (mg/Kg):

- < 10
- 10 - 20
- 20 - 40
- 40 - 80
- > 80

BENZO(A)PYRENE CONTOUR (mg/Kg)

SITE BOUNDARY

0 200 400 Feet

GRAPHIC SCALE

NOTE:

1. 1997 IMAGERY DOWNLOADED FROM THE UNIVERSITY OF RHODE ISLAND'S DIGITAL IMAGERY SERVER AT http://ortho.edc.uri.edu/

TIDEWATER
PAWTUCKET, RHODE ISLAND

STATION LOCATIONS BENZO(A)PYRENE DISTRIBUTION

ARCADIS

FIGURE 4-B

CITY: SYR DIV/GROUP: AIT DB: JCR
Tidewater (B0036697.0000.00001)
Q:\Tidewater\Pawtucket\Results_Contouring_Fall2008\mxd\StationLocations_BenzoAPyrene_Contours.mxd - 11/6/2008 @ 3:17:27 PM

LEGEND:

STATION LOCATION

NAPTHALENE RESULTS (mg/Kg):

- < 10
- 10 - 20
- 20 - 40
- 40 - 80
- > 80

NAPTHALENE RESULTS (mg/Kg):

- < 10
- 10 - 20
- 20 - 40
- 40 - 80
- > 80

NAPTHALENE CONTOUR (mg/Kg):

SITE BOUNDARY

0 200 400 Feet

GRAPHIC SCALE

NOTE:

1. 1997 IMAGERY DOWNLOADED FROM THE UNIVERSITY OF RHODE ISLAND'S DIGITAL IMAGERY SERVER AT http://ortho.edc.uri.edu/

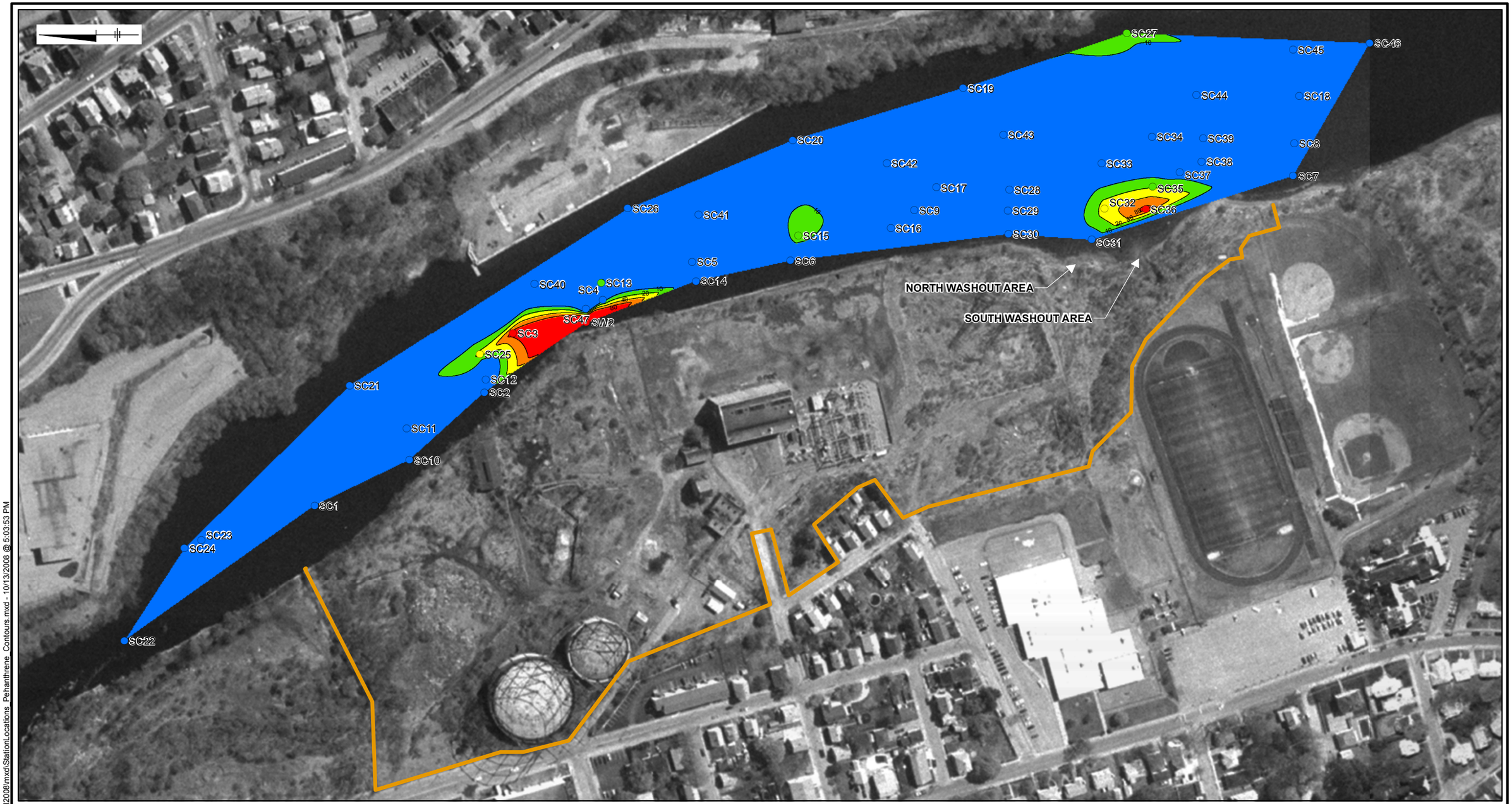
TIDEWATER
PAWTUCKET, RHODE ISLAND

STATION LOCATIONS NAPTHALENE DISTRIBUTION

ARCADIS

FIGURE 4-C

CITY: SYR DIV/GROUP: AIT DB: JCR
Tidewater (B0036697.0000.00001)
Q:\Tidewater\Pawtucket\Results_Contouring_Fall2008\mxd\StationLocations_Napthalene_Contours.mxd - 10/13/2008 @ 5:02:57 PM



LEGEND:

STATION LOCATION

PHENANTHRENE CONTOUR (mg/Kg):

- < 10
- 10 - 20
- 20 - 40
- 40 - 80
- > 80

PHENANTHRENE RESULTS (mg/Kg):

- < 10
- 10 - 20
- 20 - 40
- 40 - 80
- > 80

PHENANTHRENE CONTOUR (mg/Kg):

SITE BOUNDARY

0 200 400 Feet

GRAPHIC SCALE

NOTE:

1. 1997 IMAGERY DOWNLOADED FROM THE UNIVERSITY OF RHODE ISLAND'S DIGITAL IMAGERY SERVER AT http://ortho.edc.uri.edu/

TIDEWATER
PAWTUCKET, RHODE ISLAND

STATION LOCATIONS PHENANTHRENE DISTRIBUTION

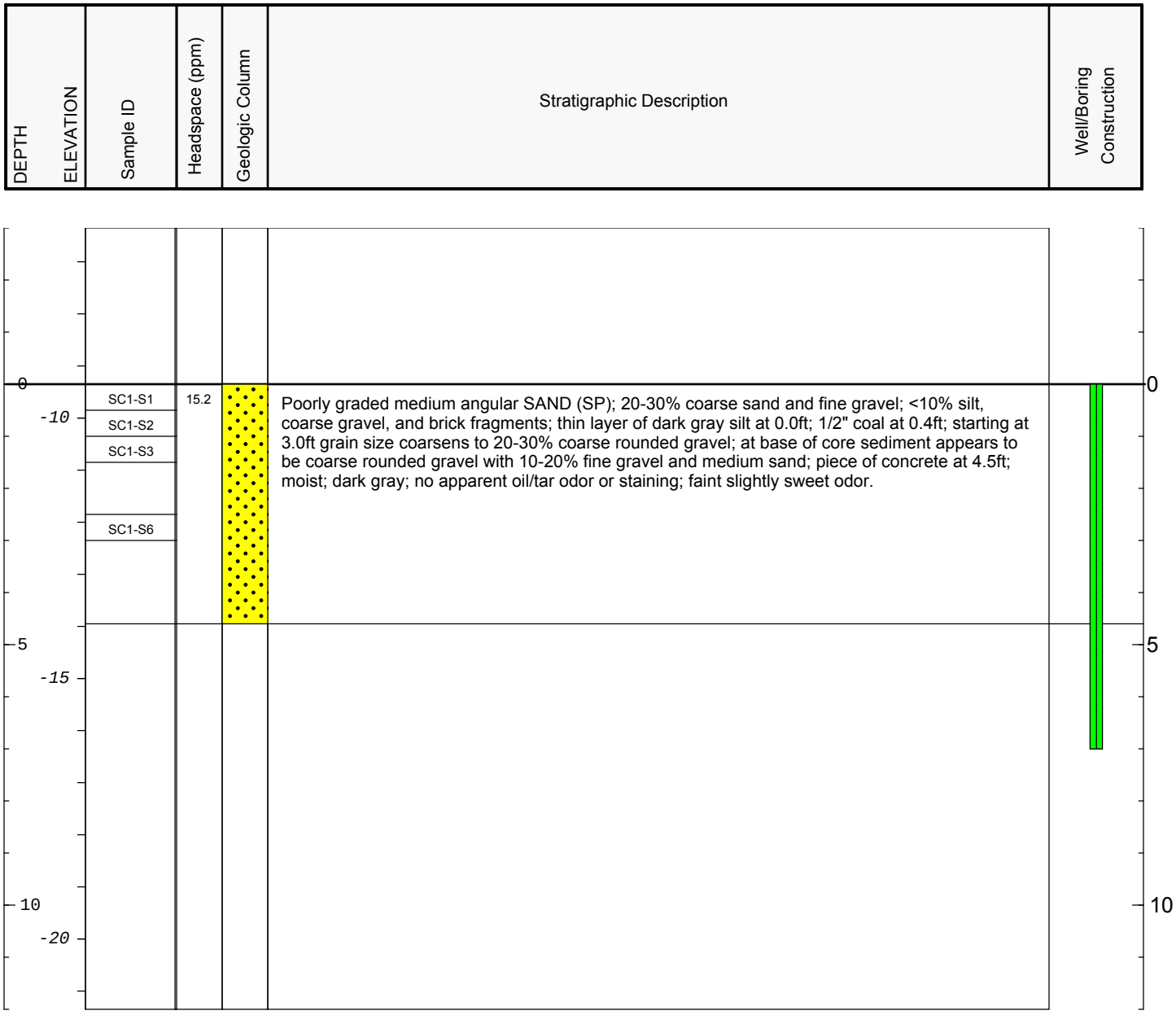
ARCADIS

FIGURE 4-D

CITY: SYR DIV/GROUP: AIT DB: JCR
Tidewater (B0036697.0000.00001)
Q:\Tidewater\Pawtucket\Results_Contouring_Fall2008\mxd\StationLocations_Pehanthrene_Contours.mxd - 10/13/2008 @ 5:03:53 PM

APPENDIX A
CORE LOGS

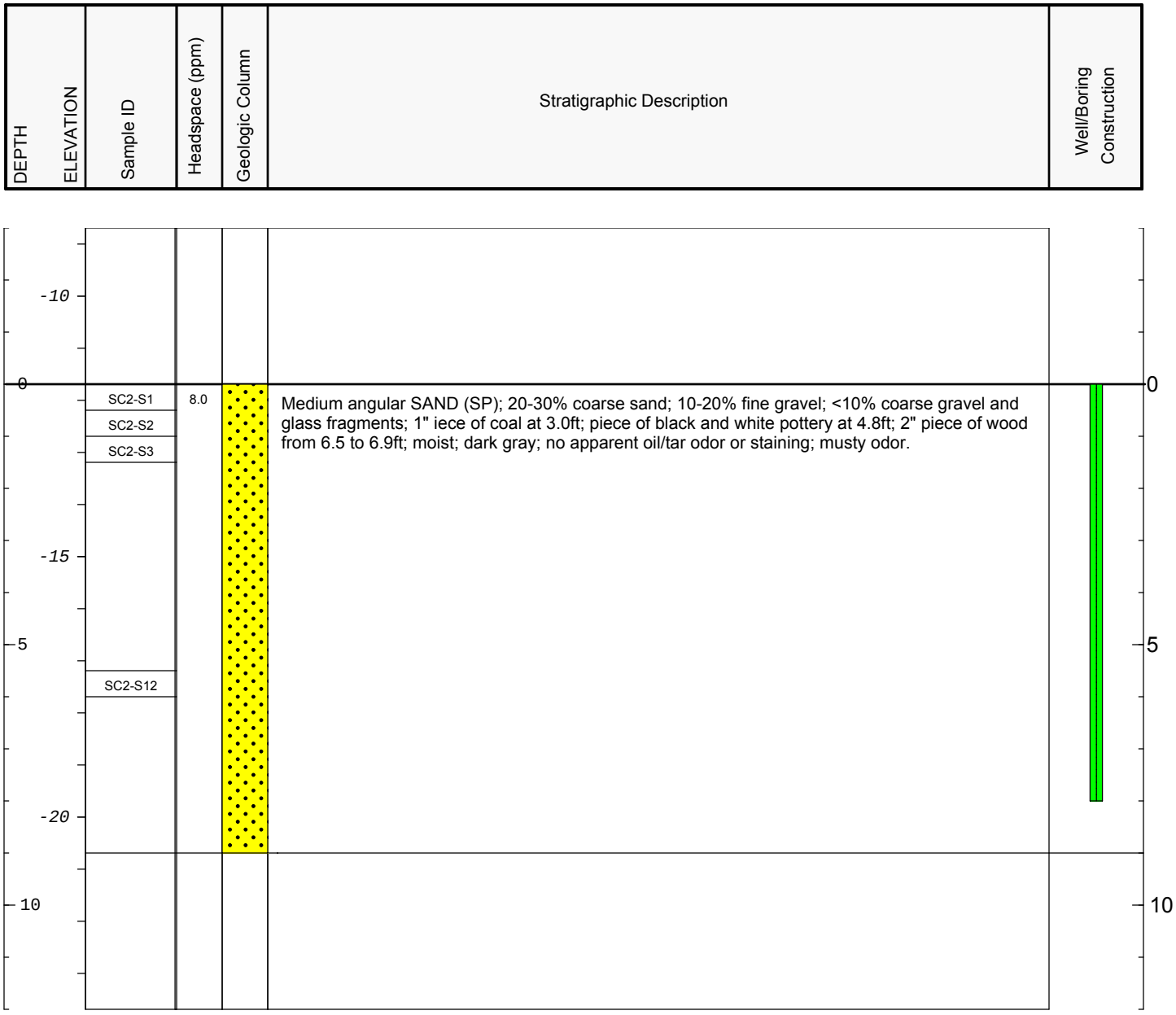
Date Start/Finish:	July 15, 2008	**Latitude:**	41 52.2189 N	**Well/Boring ID:**	SC1
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.9352 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	11.0 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-9.35 ft		
Penetration:	7.0 ft (refusal)	**Recovery:**	4.6 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC1-S1 - sample obtained for laboratory analysis
SC1-S2, SC1-S3, SC1-S6 - sample obtained for laboratory archiving

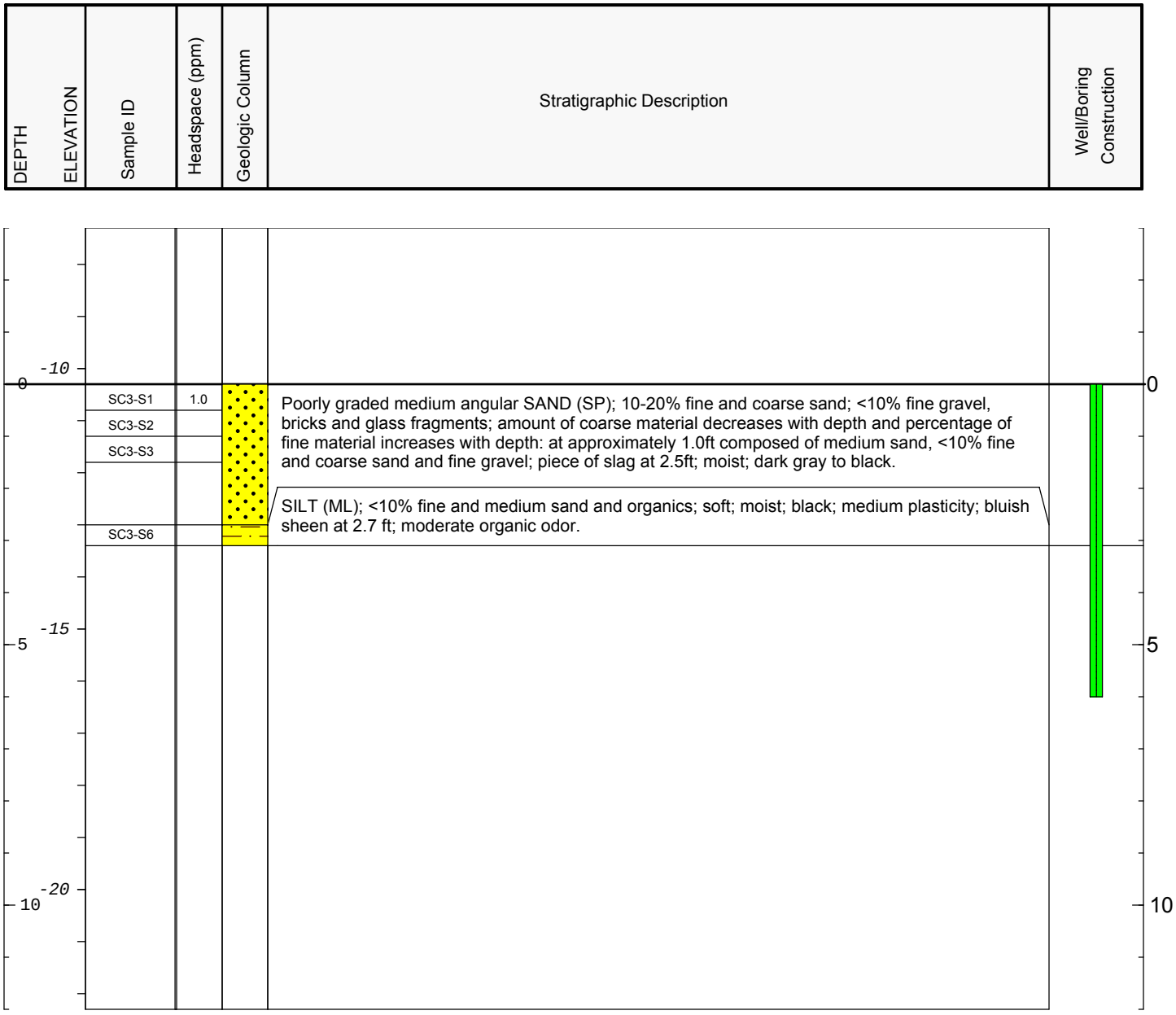
Date Start/Finish:	July 15, 2008	**Latitude:**	41 52.1603 N	**Well/Boring ID:**	SC2
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8832 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	12.6 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-11.69 ft		
Penetration:	8.0 ft	**Recovery:**	9.0 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
Recovery is greater than penetration because the bottom 1.0ft of the core was sucked into the core barrel from the surrounding area due to the check valve

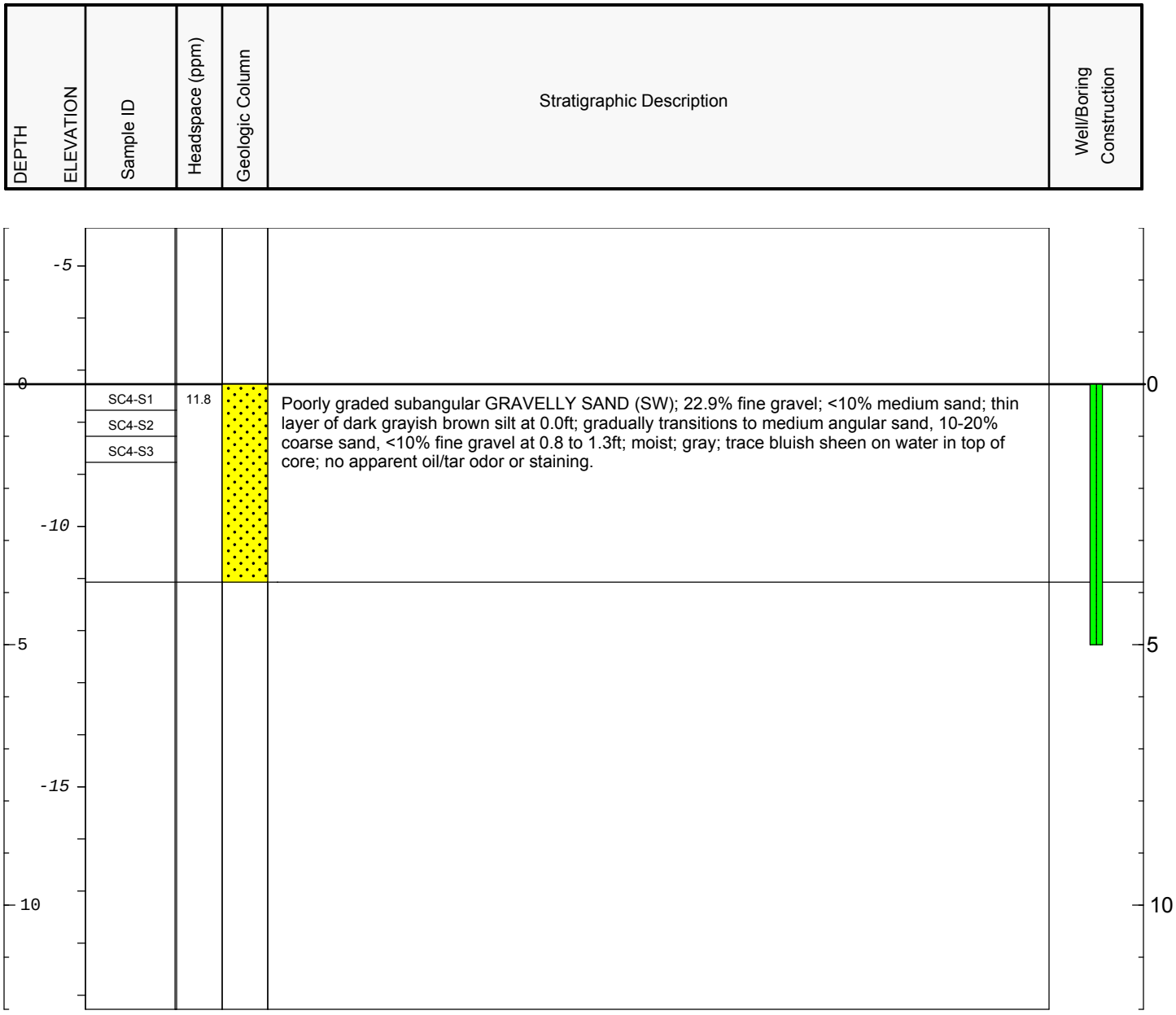
Date Start/Finish:	July 9, 2008	**Latitude:**	41 52.1505 N	**Well/Boring ID:**	SC3
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8560 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	11.5 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-10.30 ft		
Penetration:	6.0 ft	**Recovery:**	3.1 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
Sample SC3-S6 collected from 2.7 to 3.1 ft.
SC3-S1 - sample obtained for laboratory analysis
SC3-S2, SC3-S3, SC3-S6 - sample obtained for laboratory archiving

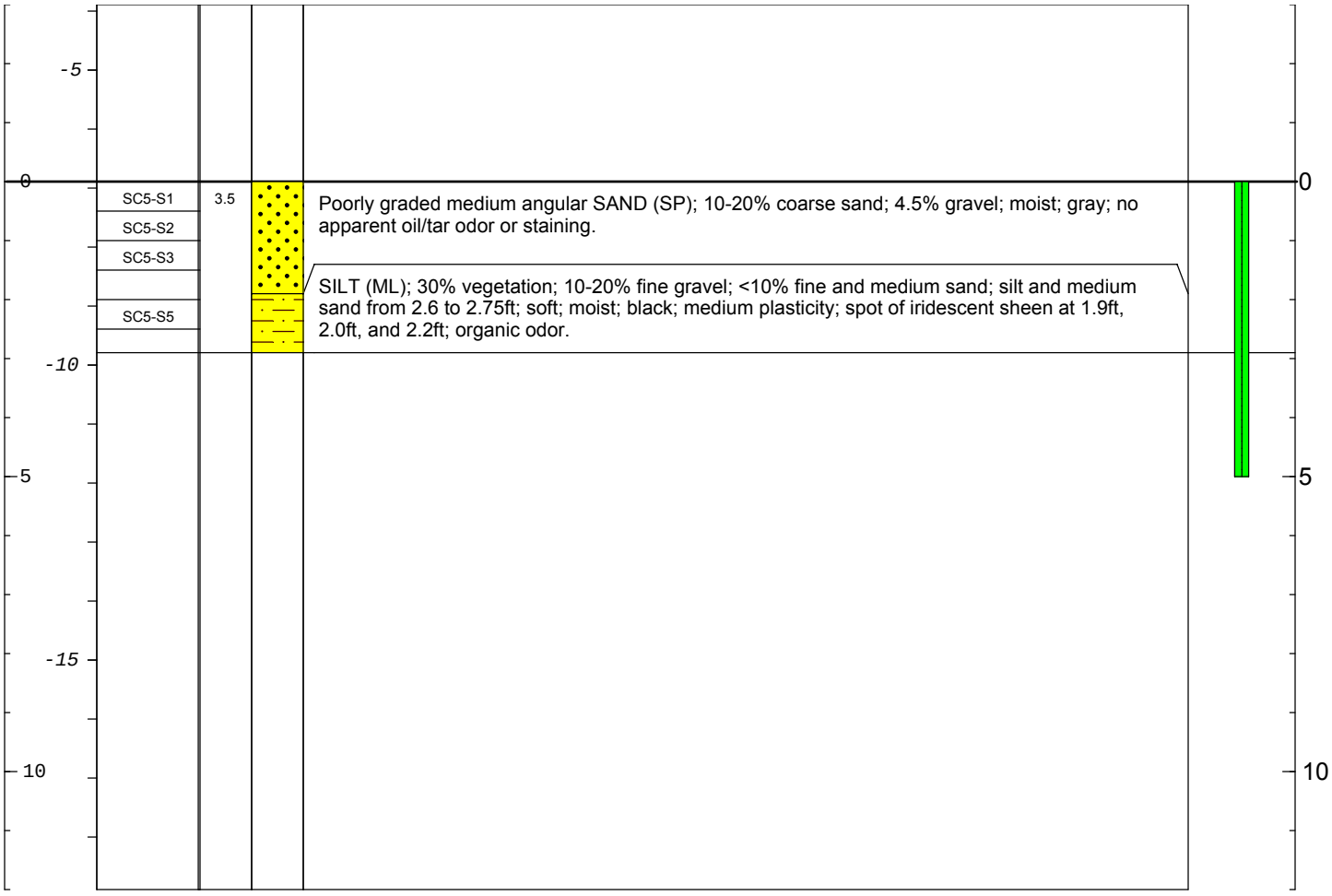
Date Start/Finish:	July 9, 2008	**Latitude:**	41 52.1195 N	**Well/Boring ID:**	SC4
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8408 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	9.6 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-7.27 ft		
Penetration:	5.0 ft	**Recovery:**	3.8 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC4-S1 - sample obtained for laboratory analysis
SC4-S2, SC4-S3 - sample obtained for laboratory archiving

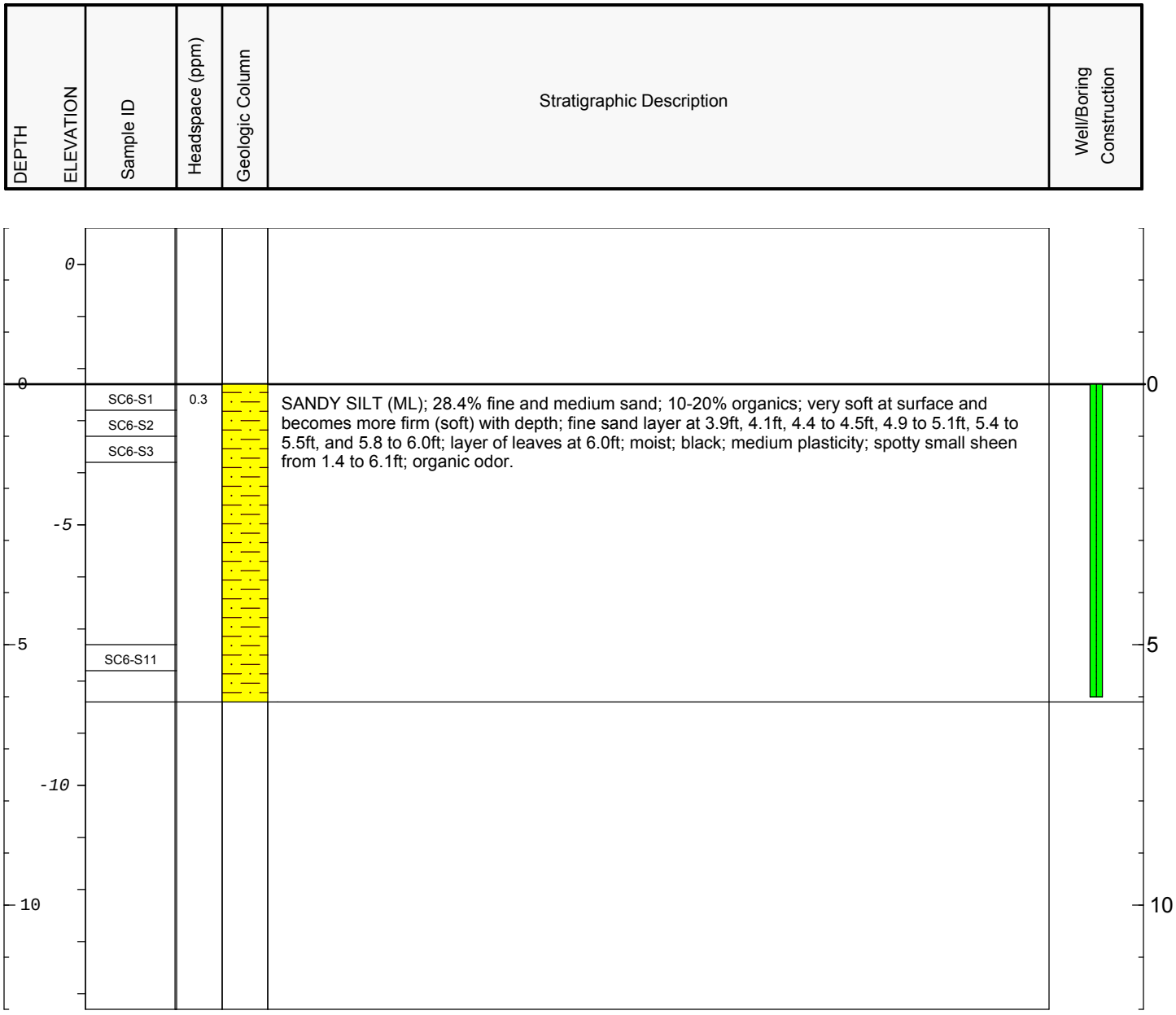
Date Start/Finish:	July 9, 2008	**Latitude:**	41 52.0888 N	**Well/Boring ID:**	SC5
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8233 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	12.0 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-6.89 ft		
Penetration:	5.0 ft	**Recovery:**	2.9 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
2nd core - 1/4" droplet of brown product inside of liner at 4.0ft - unable to determine depth of product because ~0.5ft of material slid out of core upon retrieval. Blue sheen on surface of water at 3.0ft.
SC5-S1 - sample obtained for laboratory analysis
SC5-S2, SC5-S3, SC5-S5 - sample obtained for laboratory archiving

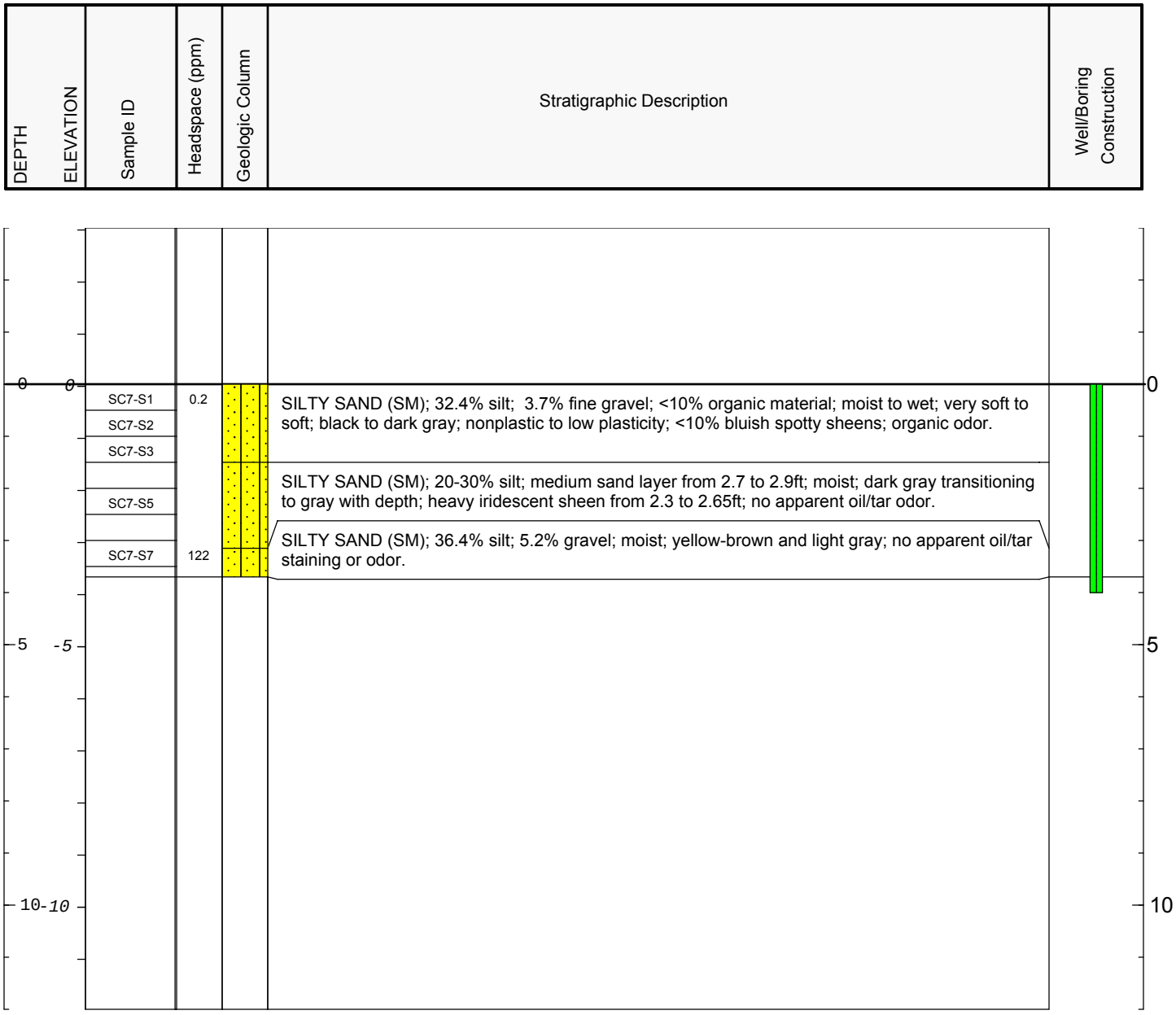
Date Start/Finish:	July 9, 2008	**Latitude:**	41 52.0550 N	**Well/Boring ID:**	SC6
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8228 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	7.4 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-2.30 ft		
Penetration:	6.0 ft	**Recovery:**	6.1 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC6-S1 - sample obtained for laboratory analysis
SC6-S2, SC6-S3, SC6-S11 - sample obtained for laboratory archiving

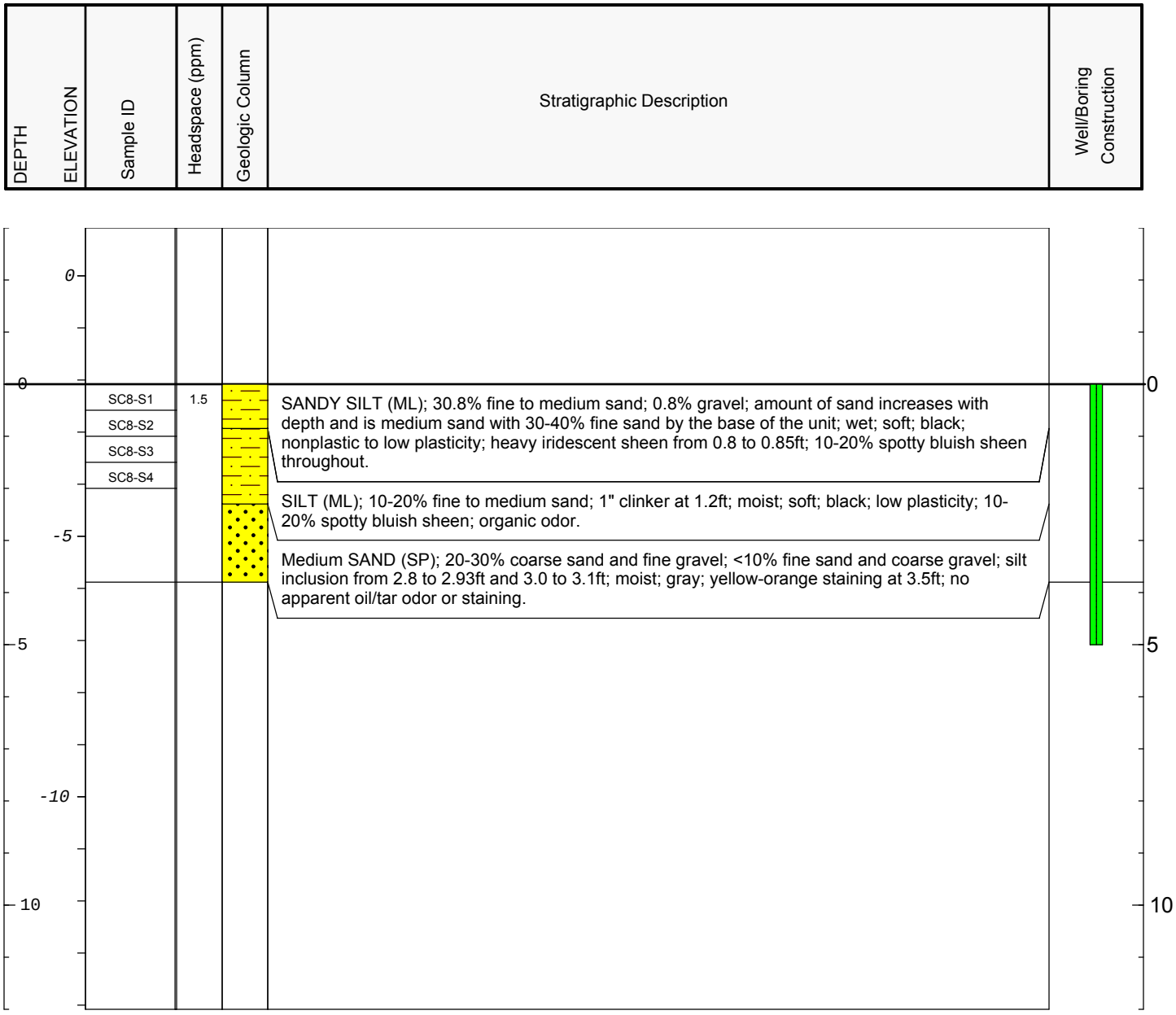
Date Start/Finish:	July 14, 2008	**Latitude:**	41 51.8819 N	**Well/Boring ID:**	SC7
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7842 W	**Client:**	National Grid
Driller's Name:	J. Scanlon and J. Balmer	**Water Depth:**	1.0 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	0.04 ft		
Penetration:	4.0 ft	**Recovery:**	3.7 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC7-S1 - sample obtained for laboratory analysis
SC7-S2, SC7-S3, SC7-S5 - sample obtained for laboratory archiving
SC7-S7 - sample collected for grain size analysis

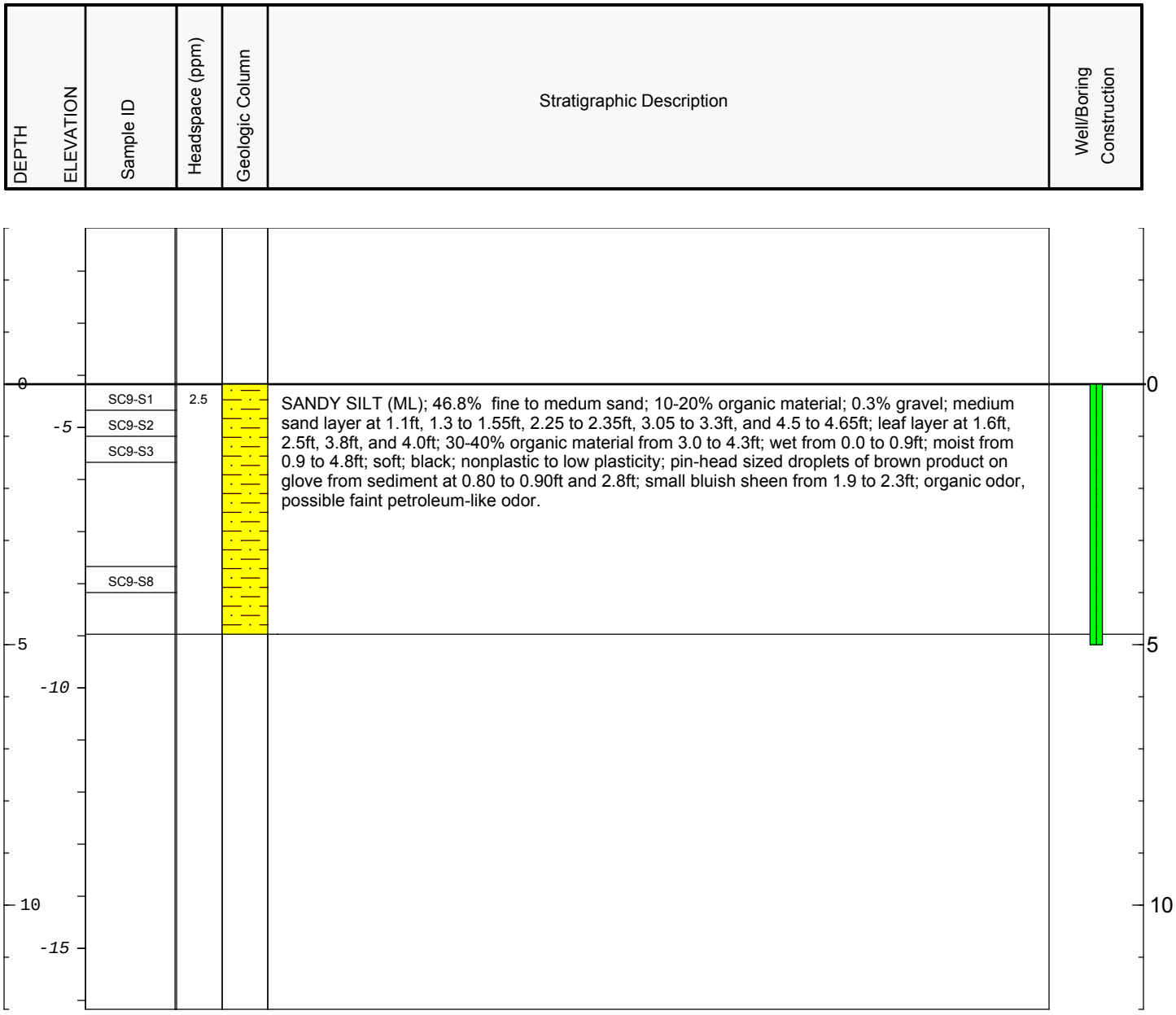
Date Start/Finish:	July 14, 2008	**Latitude:**	41 51.8815 N	**Well/Boring ID:**	SC8
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7693 W	**Client:**	National Grid
Driller's Name:	J. Scanlon and J. Balmer	**Water Depth:**	3.2 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-2.08 ft		
Penetration:	5.0 ft	**Recovery:**	3.8 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC8-S1 - sample obtained for laboratory analysis
SC8-S2, SC8-S3, SC8-S4 - sample obtained for laboratory archiving

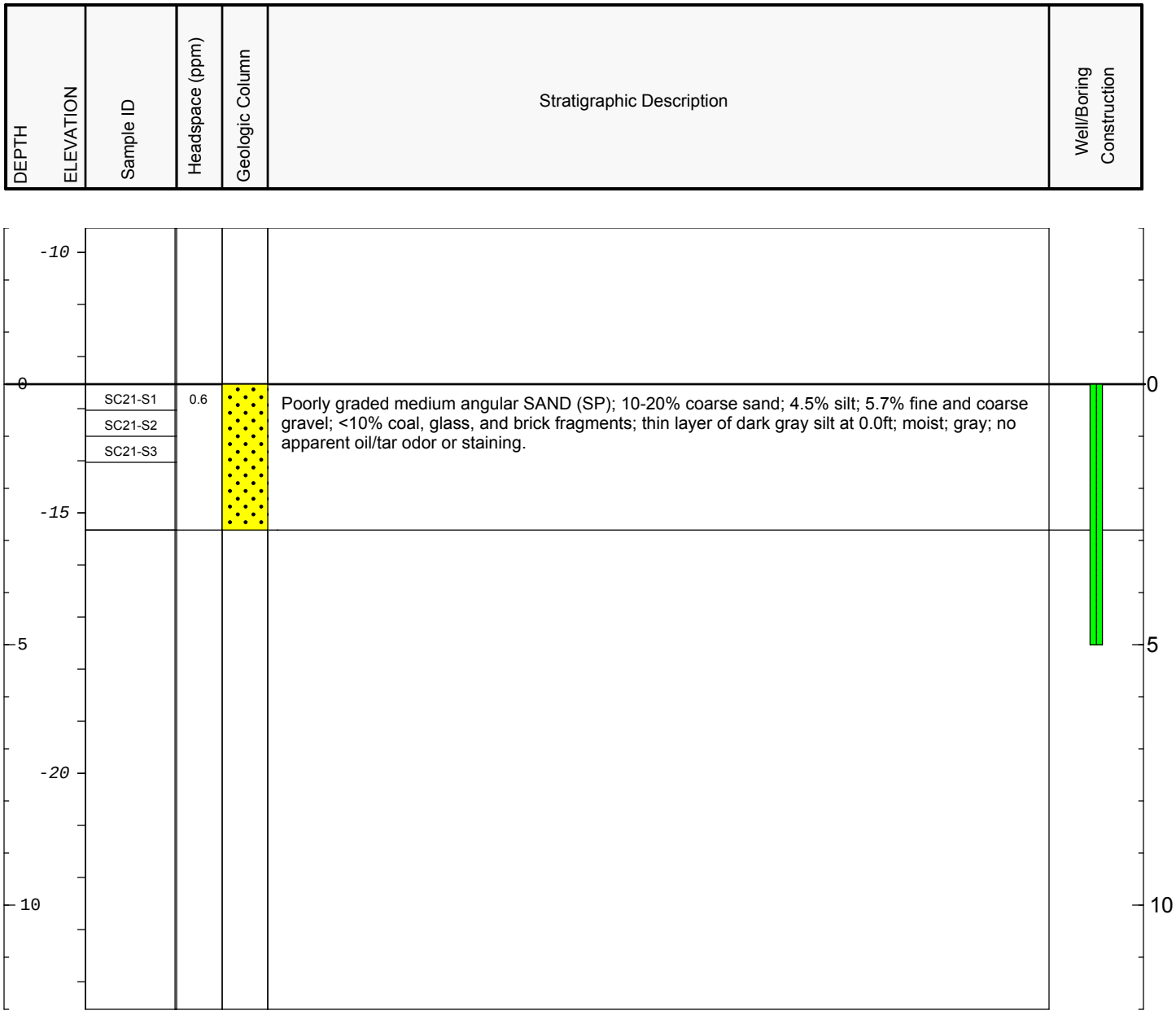
Date Start/Finish:	July 10, 2008	**Latitude:**	41 52.0123 N	**Well/Boring ID:**	SC9
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7997 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	5.5 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-4.17 ft		
Penetration:	5.0 ft	**Recovery:**	4.8 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC9-S1 - sample obtained for laboratory analysis
SC9-S2, SC9-S3, SC9-S8 - sample obtained for laboratory archiving

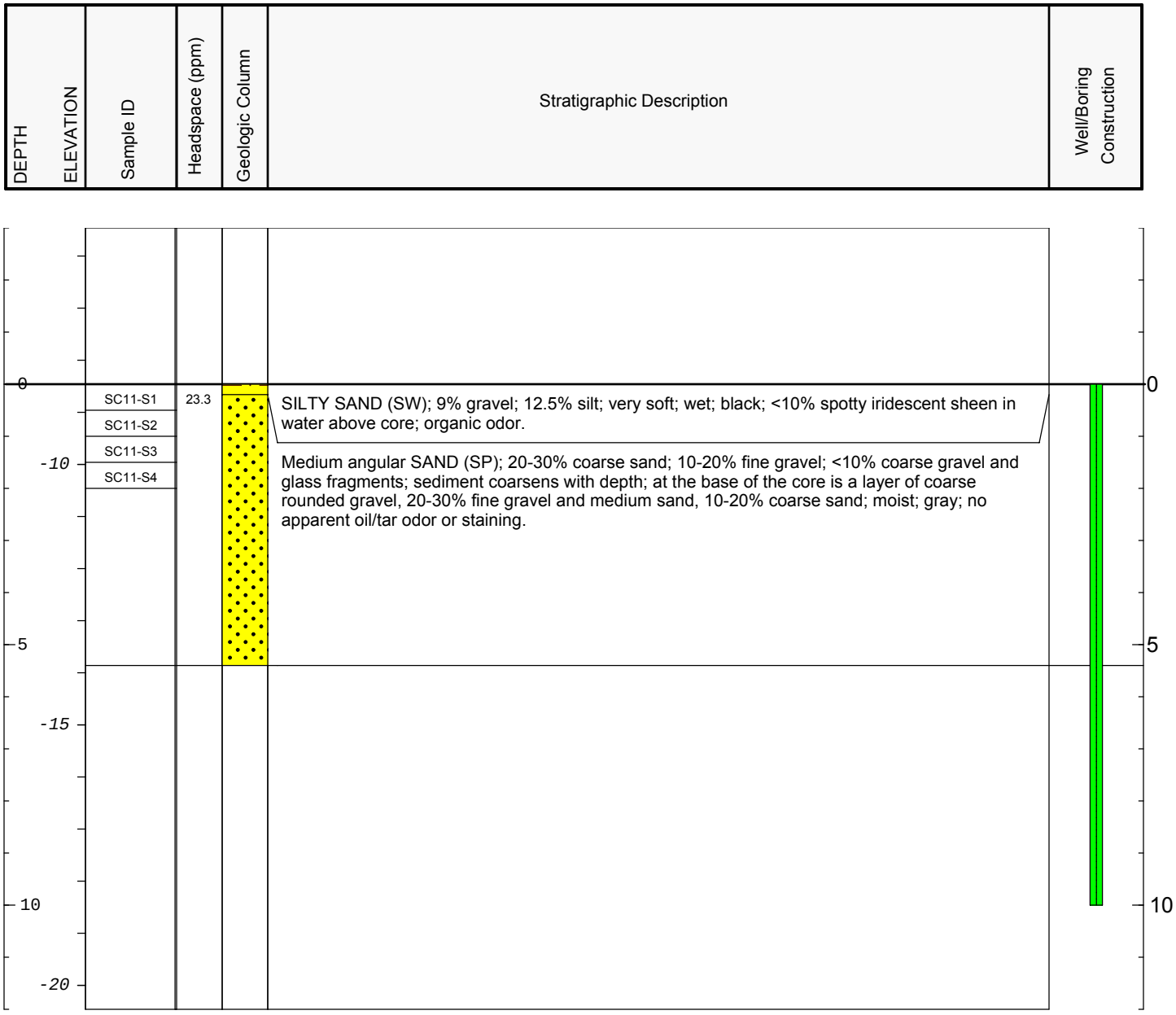
Date Start/Finish:	July 8, 2008	**Latitude:**	41 52.1861 N	**Well/Boring ID:**	SC10
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.9142 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	17.5 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	12.53 ft		
Penetration:	5.0 ft	**Recovery:**	2.8 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC10-S1 - sample obtained for laboratory analysis
SC10-S2, SC10-S3 - sample obtained for laboratory archiving

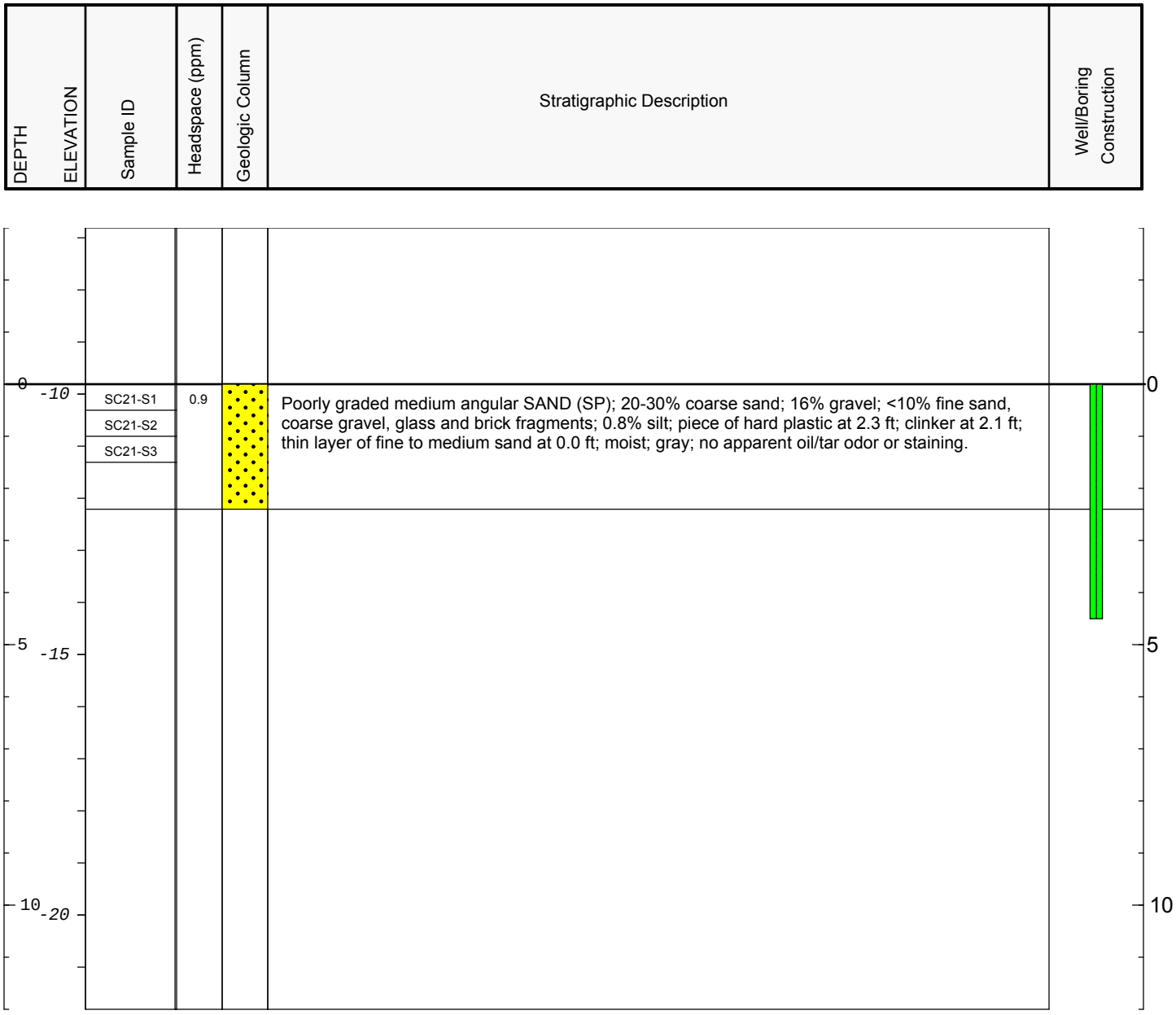
Date Start/Finish:	July 15, 2008	**Latitude:**	41 52.1871 N	**Well/Boring ID:**	SC11
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8996 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	9.4 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-8.46 ft		
Penetration:	10.0 ft (refusal)	**Recovery:**	5.4 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
In short core - No surficial silt layer. Core composed of medium sand with 10-20% coarse sand.
SC11-S1 - sample obtained for laboratory analysis
SC11-S2, SC11-S3, SC11-S4 - sample obtained for laboratory archiving

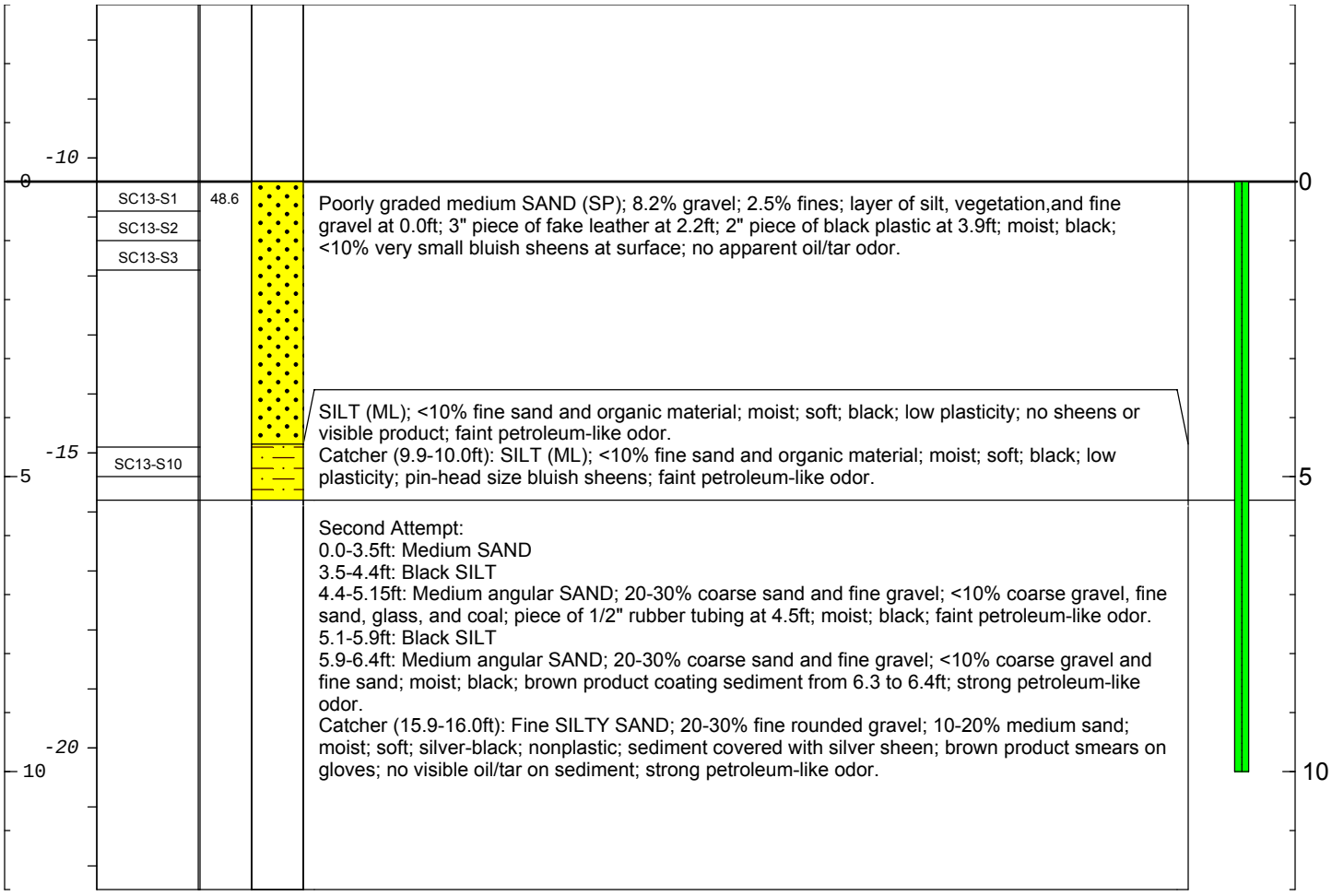
Date Start/Finish:	July 8, 2008	**Latitude:**	41 52.1598 N	**Well/Boring ID:**	SC12
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8774 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	14.2 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-9.81 ft		
Penetration:	4.5 ft	**Recovery:**	2.4 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC12-S1 - sample obtained for laboratory analysis
SC12-S2, SC12-S3 - sample obtained for laboratory archiving

Date Start/Finish:	July 15, 2008	**Latitude:**	41 52.1201 N	**Well/Boring ID:**	SC13
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8328 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	12.0 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-10.40 ft		
Penetration:	10.0 ft	**Recovery:**	5.4 ft		
		Geologist:	B. Thibault		

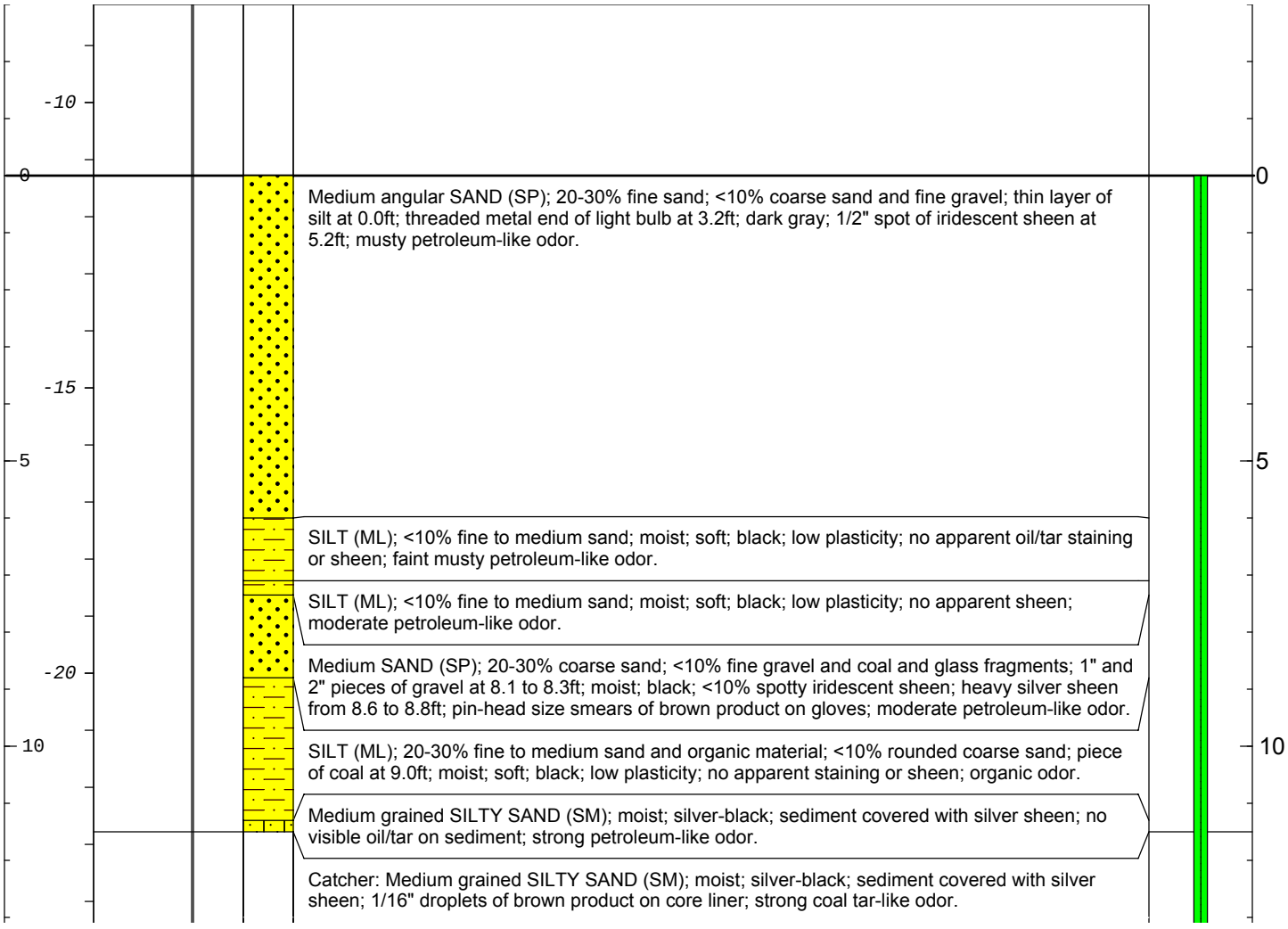


ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
Two attempts were made to collect a core at location SC13. First attempt: 10.0ft penetration with no refusal. The vibracore was rerigged with a longer barrel to make a second attempt. Second attempt: refusal at 16.0ft with poor recovery. Heavy sheens on the surface of the water in the moonpool.
SC13-S1 - sample obtained for laboratory analysis
SC13-S2, SC13-S3, SC13-S10 - sample obtained for laboratory archiving

Date Start/Finish:	July 16, 2008	**Latitude:**	41 52.1187 N	**Well/Boring ID:**	SC13A
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8320 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Balmer	**Water Depth:**	12.5 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-11.28 ft		
Penetration:	16.5 ft	**Recovery:**	11.5 ft		
		Geologist:	B. Thibault		

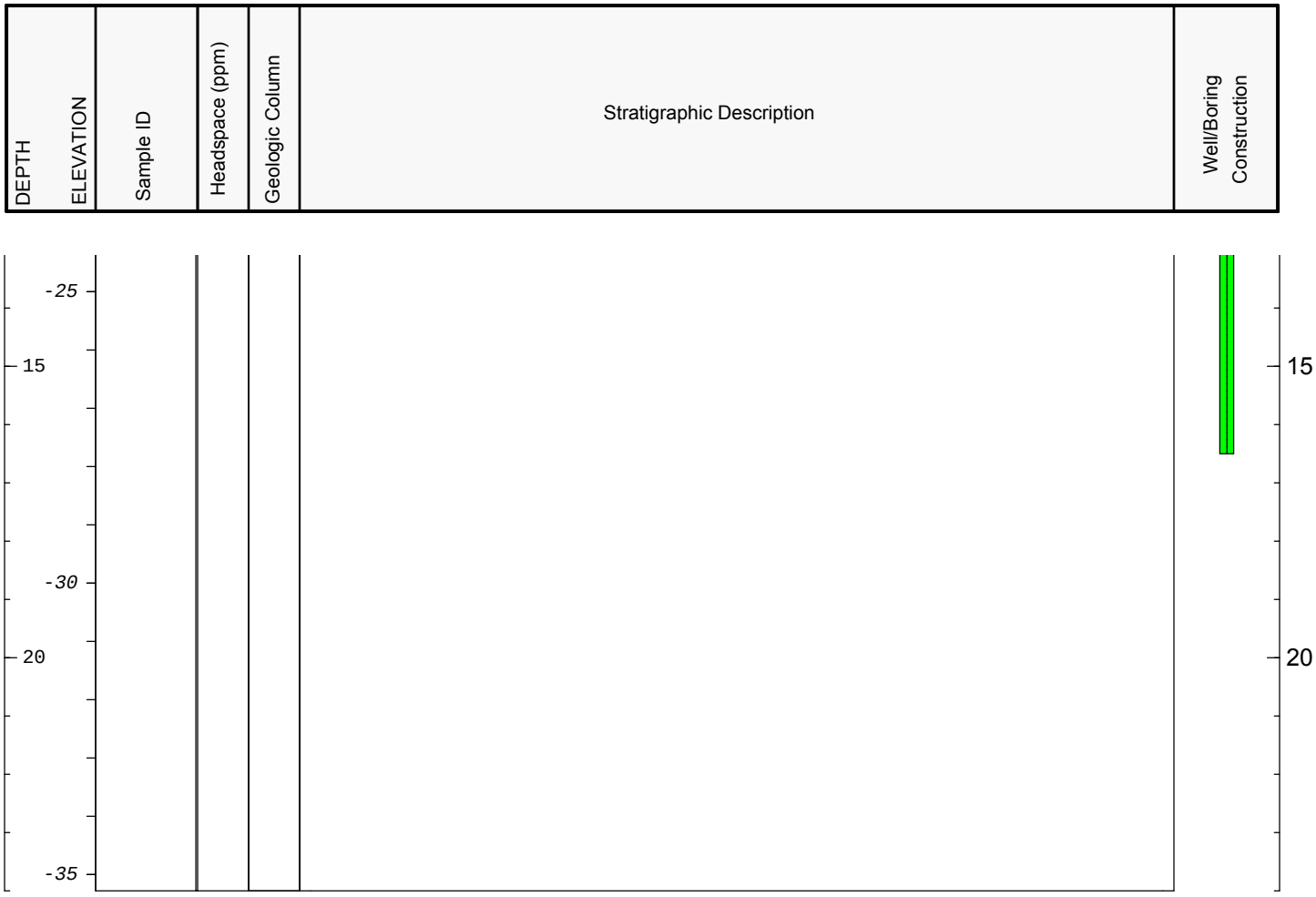
DEPTH ELEVATION	Sample ID	Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
Core collected with a 20ft core barrel. To make transport and processing easier, the core was split in half upon retrieval.
No samples collected from core.

Date Start/Finish:	July 16, 2008	**Latitude:**	41 52.1187 N	**Well/Boring ID:**	SC13A
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8320 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Balmer	**Water Depth:**	12.5 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-11.28 ft		
Penetration:	16.5 ft	**Recovery:**	11.5 ft		
		Geologist:	B. Thibault		



Remarks: ppm - parts per million
Core collected with a 20ft core barrel. To make transport and processing easier, the core was split in half upon retrieval.
No samples collected from core.

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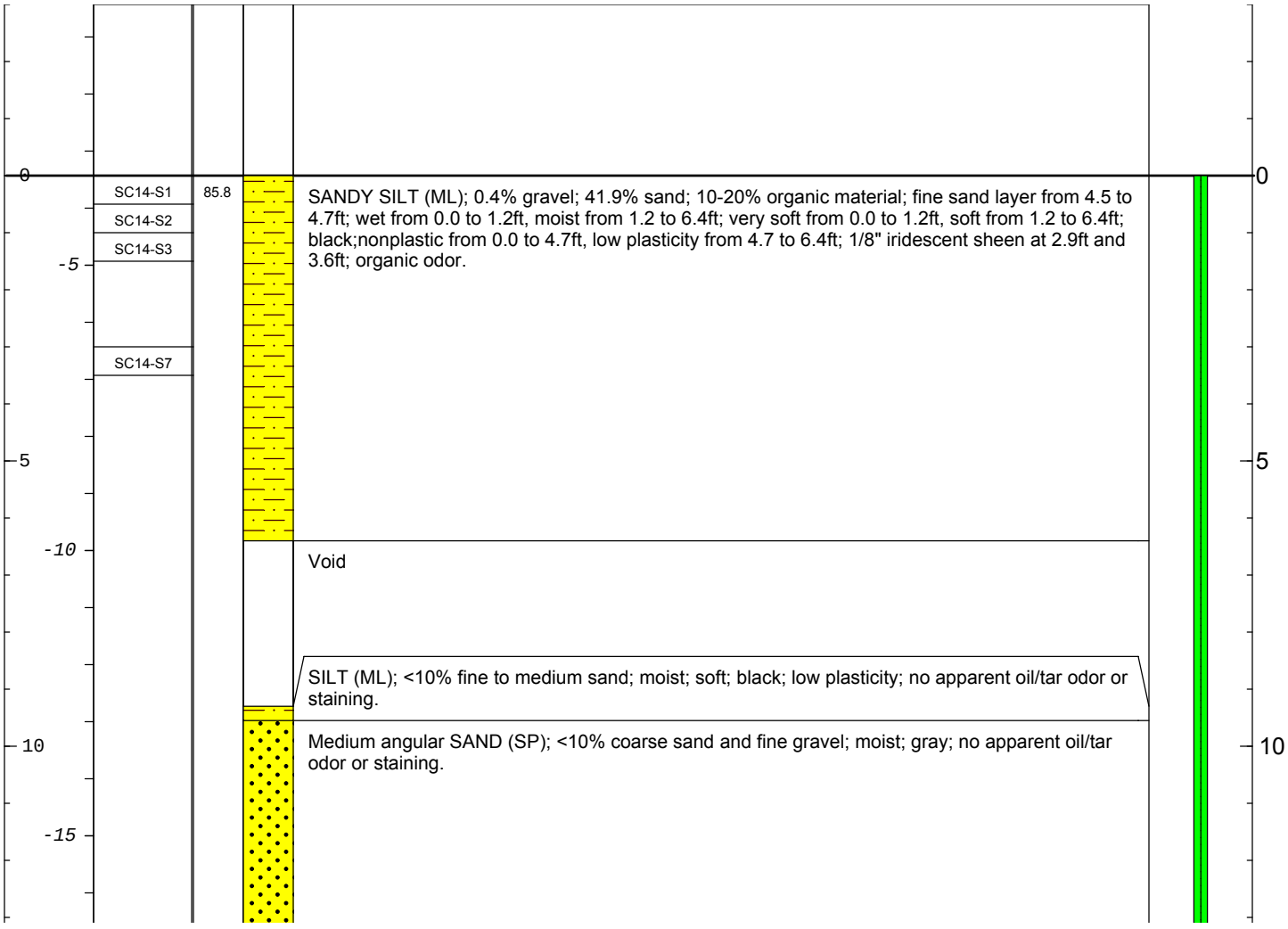
Infrastructure, environment, facilities

Date Start/Finish:	July 15, 2008	**Latitude:**	41 52.0875 N	**Well/Boring ID:**	SC14
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8321 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	5.5 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-3.43 ft		
Penetration:	20.0 ft	**Recovery:**	13.3 ft		
		Geologist:	B. Thibault		

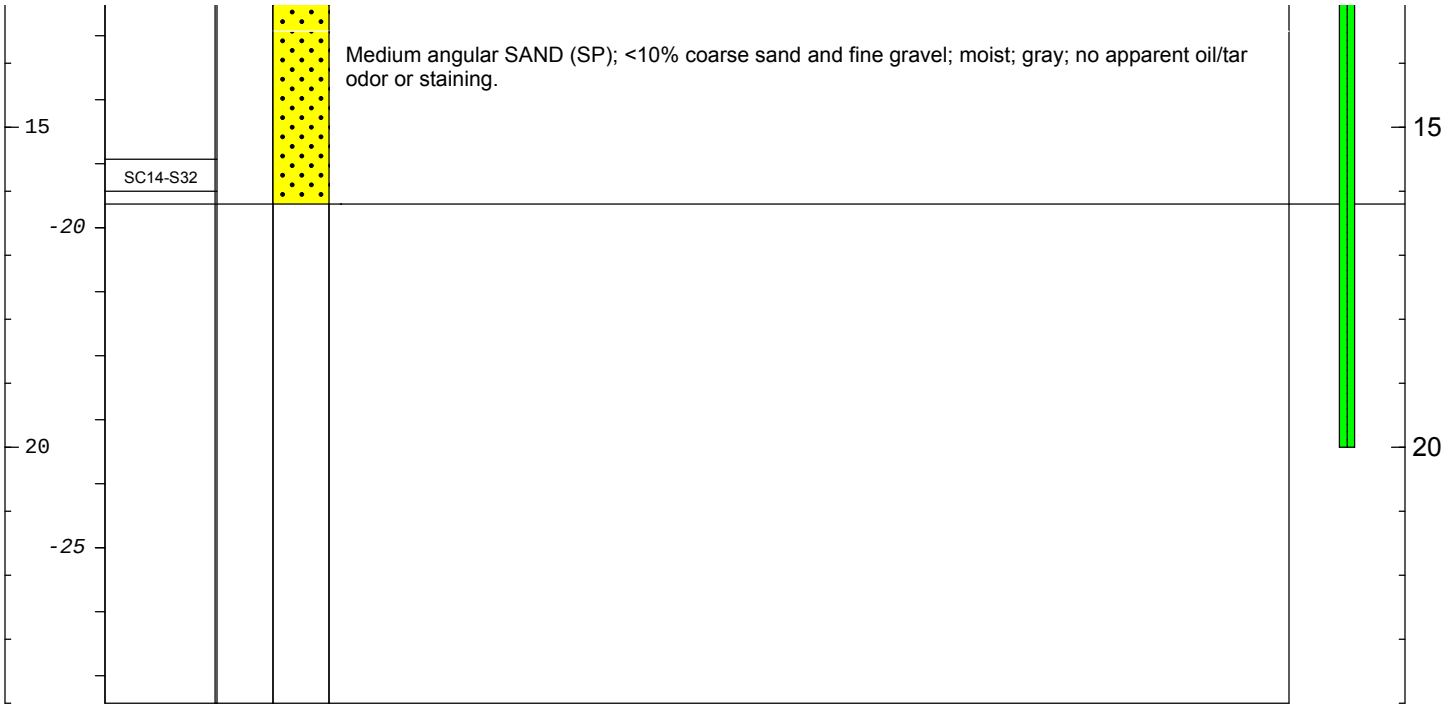


ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
Core collected with a 20ft core barrel. To make transport and processing easier, the core was split in half upon retrieval (0.0-9.3ft and 9.3-20.0ft). The void was located at the bottom of the top section of the core.
SC14-S1 - sample obtained for laboratory analysis
SC14-S2, SC14-S3, SC14-S7 - sample obtained for laboratory archiving

Date Start/Finish:	July 15, 2008	**Latitude:**	41 52.0875 N	**Well/Boring ID:**	SC14
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8321 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	5.5 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-3.43 ft		
Penetration:	20.0 ft	**Recovery:**	13.3 ft		
		Geologist:	B. Thibault		

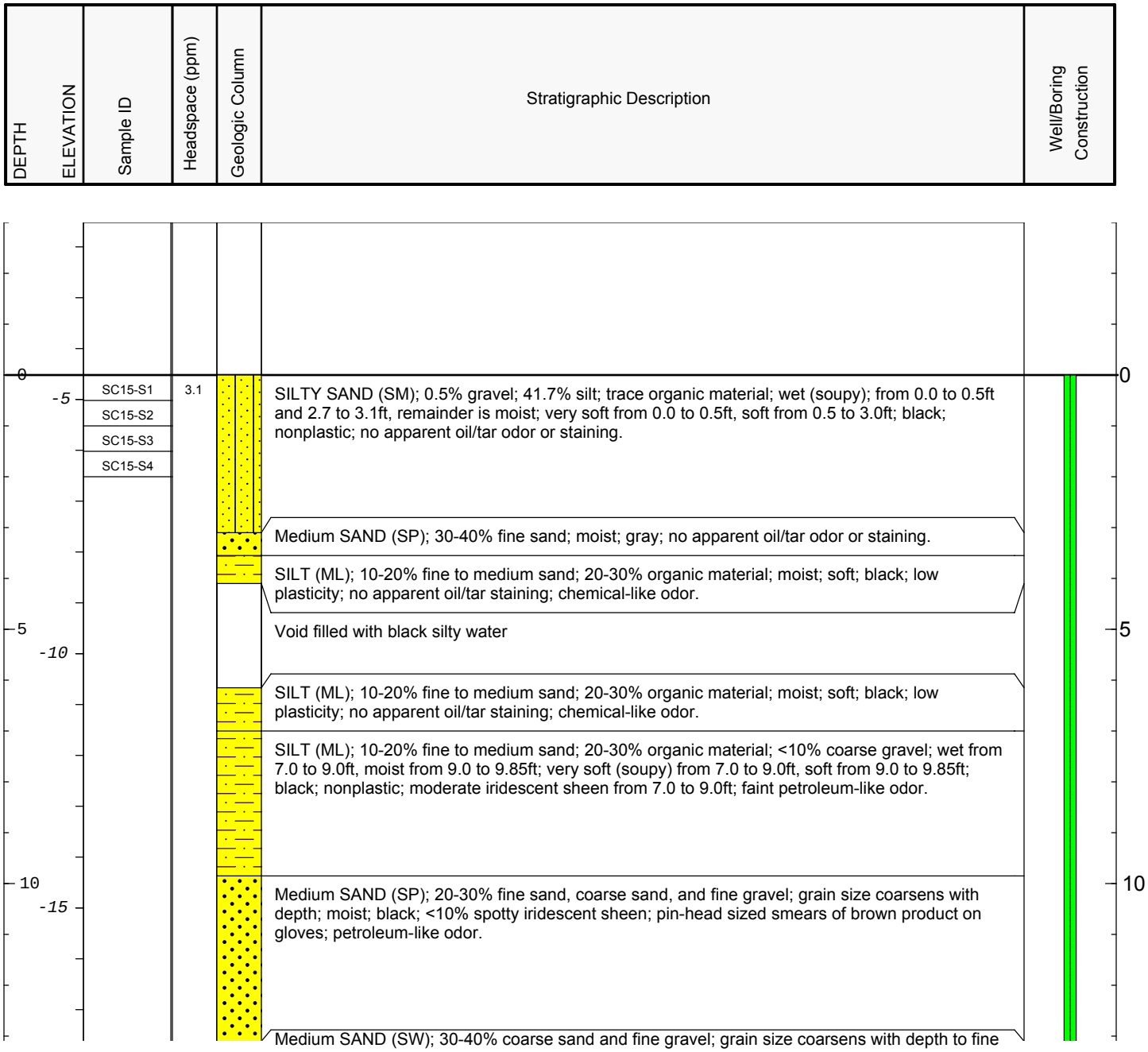
DEPTH ELEVATION	Sample ID	Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
15	SC14-S32			Medium angular SAND (SP); <10% coarse sand and fine gravel; moist; gray; no apparent oil/tar odor or staining.	
-20					
20					
-25					



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
Core collected with a 20ft core barrel. To make transport and processing easier, the core was split in half upon retrieval (0.0-9.3ft and 9.3-20.0ft). The void was located at the bottom of the top section of the core.
SC14-S1 - sample obtained for laboratory analysis
SC14-S2, SC14-S3, SC14-S7 - sample obtained for laboratory archiving

Date Start/Finish:	July 16, 2008	**Latitude:**	41 52.0523 N	**Well/Boring ID:**	SC15
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8113 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Balmer	**Water Depth:**	8.2 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-4.52 ft		
Penetration:	19.0 ft	**Recovery:**	14.0 ft		
		Geologist:	B. Thibault		

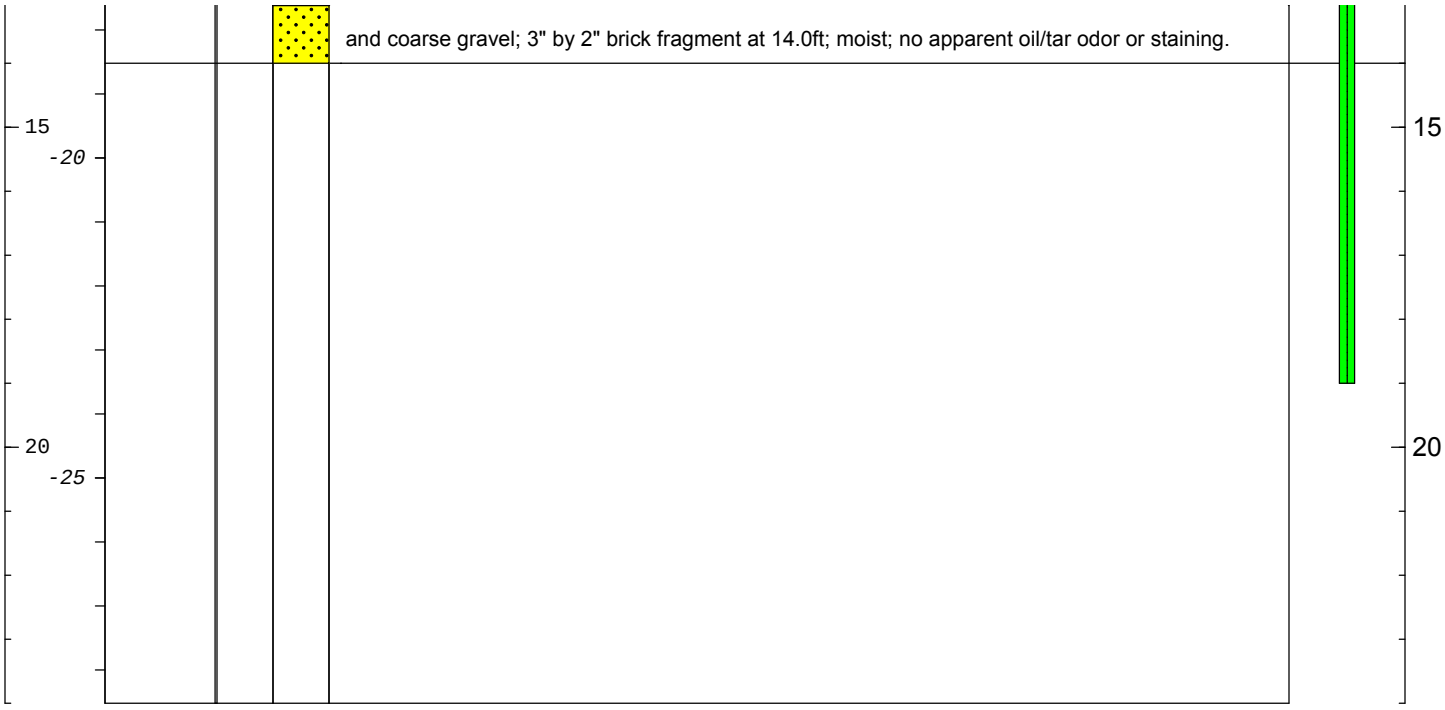


ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
Core collected with a 20ft core barrel. To make transport and processing easier, the core was split in half upon retrieval.
SC15-S1 - sample obtained for laboratory analysis
SC15-S2, SC15-S3, SC15-S4 - sample obtained for laboratory archiving

Date Start/Finish:	July 16, 2008	**Latitude:**	41 52.0523 N	**Well/Boring ID:**	SC15
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8113 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Balmer	**Water Depth:**	8.2 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-4.52 ft		
Penetration:	19.0 ft	**Recovery:**	14.0 ft		
		Geologist:	B. Thibault		

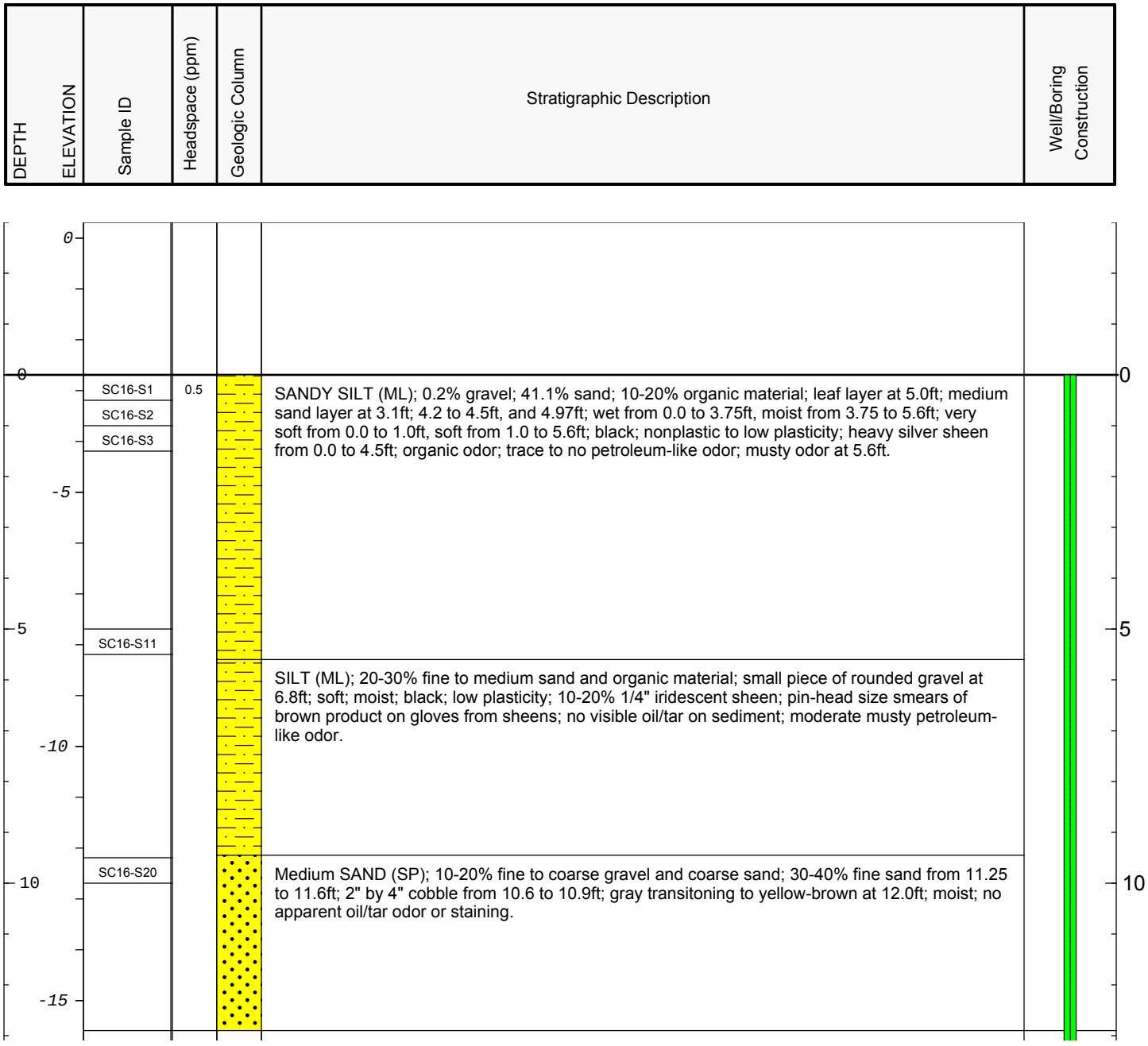
DEPTH / ELEVATION	Sample ID	Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
				and coarse gravel; 3" by 2" brick fragment at 14.0ft; moist; no apparent oil/tar odor or staining.	



Remarks: ppm - parts per million
Core collected with a 20ft core barrel. To make transport and processing easier, the core was split in half upon retrieval.
SC15-S1 - sample obtained for laboratory analysis
SC15-S2, SC15-S3, SC15-S4 - sample obtained for laboratory archiving

ARCADIS
Infrastructure, environment, facilities

Date Start/Finish:	July 16, 2008	**Latitude:**	41 52.0205 N	**Well/Boring ID:**	SC16
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8079 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Balmer	**Water Depth:**	3.7 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-2.69 ft		
Penetration:	17.5 ft (refusal)	**Recovery:**	12.9 ft		
		Geologist:	B. Thibault		

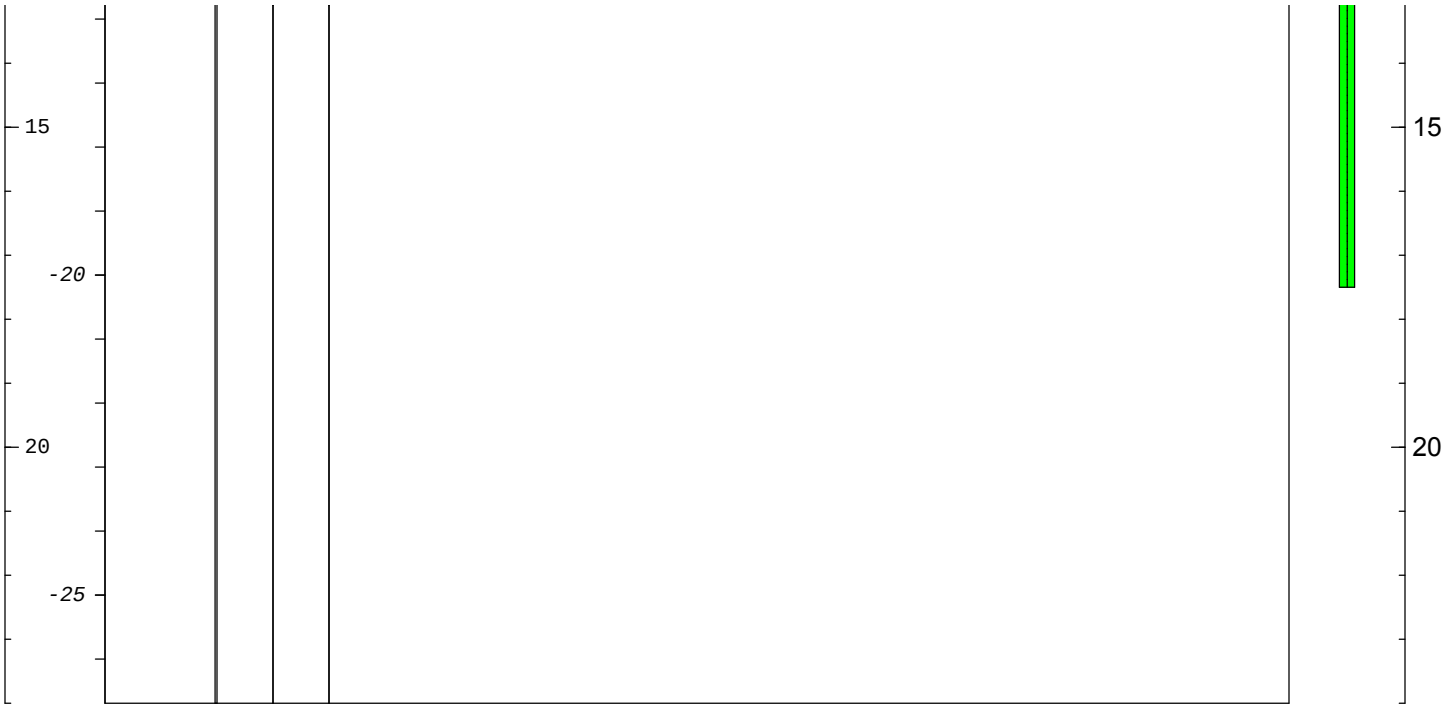


ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
Core collected with a 20ft core barrel. To make transport and processing easier, the core was split in half upon retrieval.
SC16-S1 - sample obtained for laboratory analysis
SC16-S2, SC16-S3, SC16-S11, SC16-S20 - sample obtained for laboratory archiving

Date Start/Finish:	July 16, 2008	**Latitude:**	41 52.0205 N	**Well/Boring ID:**	SC16
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8079 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Balmer	**Water Depth:**	3.7 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-2.69 ft		
Penetration:	17.5 ft (refusal)	**Recovery:**	12.9 ft		
		Geologist:	B. Thibault		

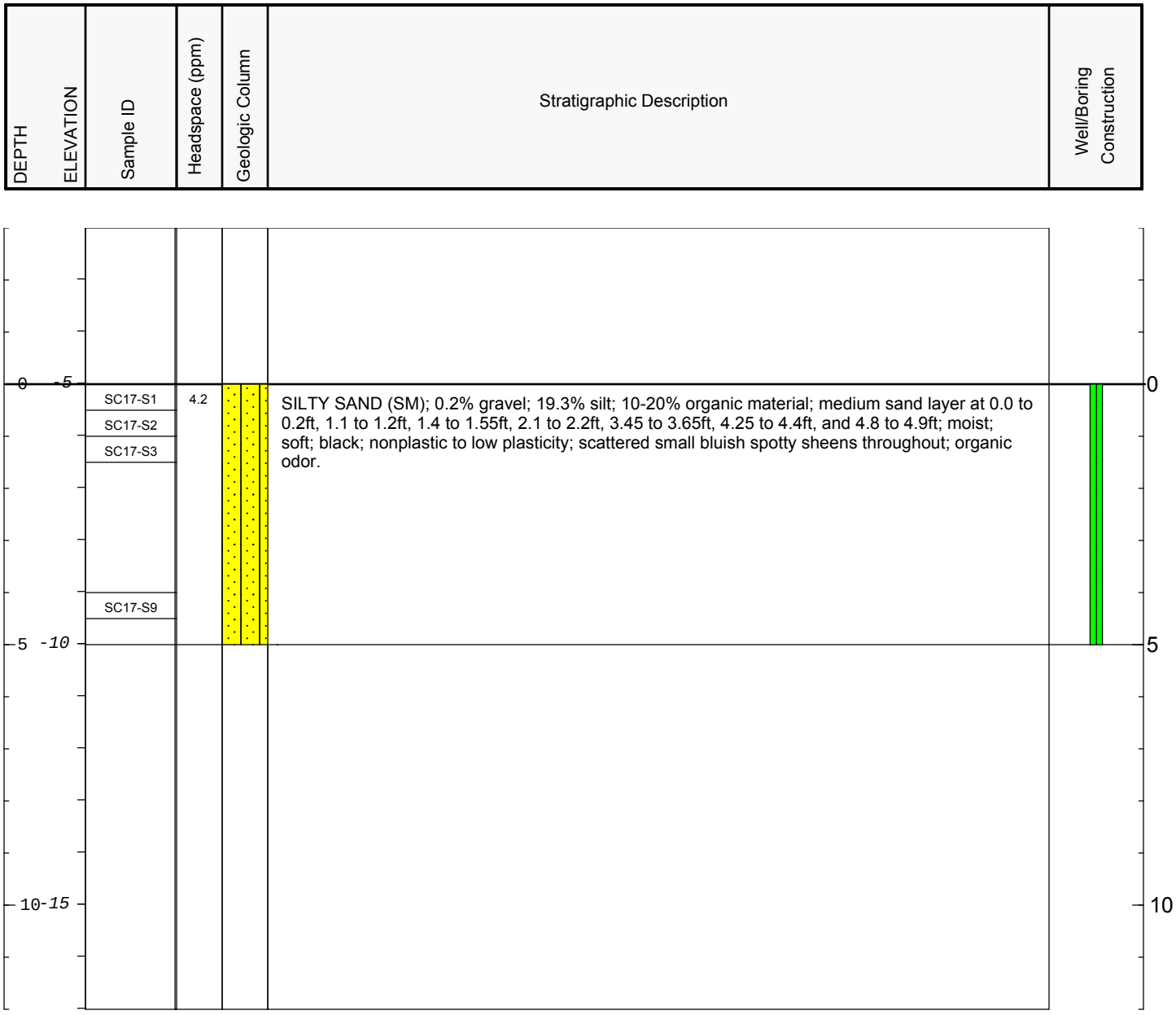
DEPTH ELEVATION	Sample ID	Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
Core collected with a 20ft core barrel. To make transport and processing easier, the core was split in half upon retrieval.
SC16-S1 - sample obtained for laboratory analysis
SC16-S2, SC16-S3, SC16-S11, SC16-S20 - sample obtained for laboratory archiving

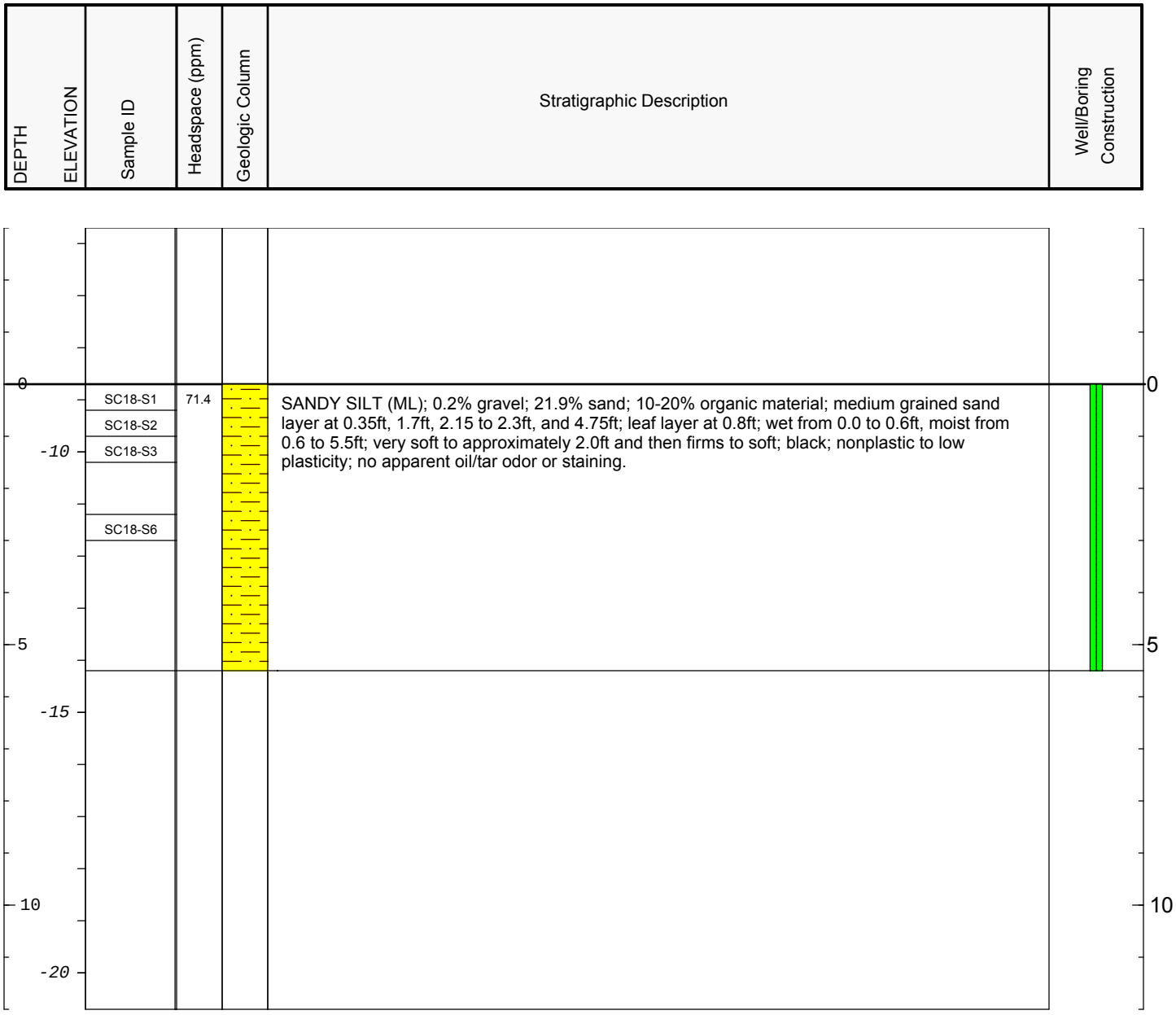
Date Start/Finish:	July 10, 2008	**Latitude:**	41 52.0048 N	**Well/Boring ID:**	SC17
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7893 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	6.9 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-5.02 ft		
Penetration:	5.0 ft	**Recovery:**	5.0 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC17-S1 - sample obtained for laboratory analysis
SC17-S2, SC17-S3, SC17-S9 - sample obtained for laboratory archiving

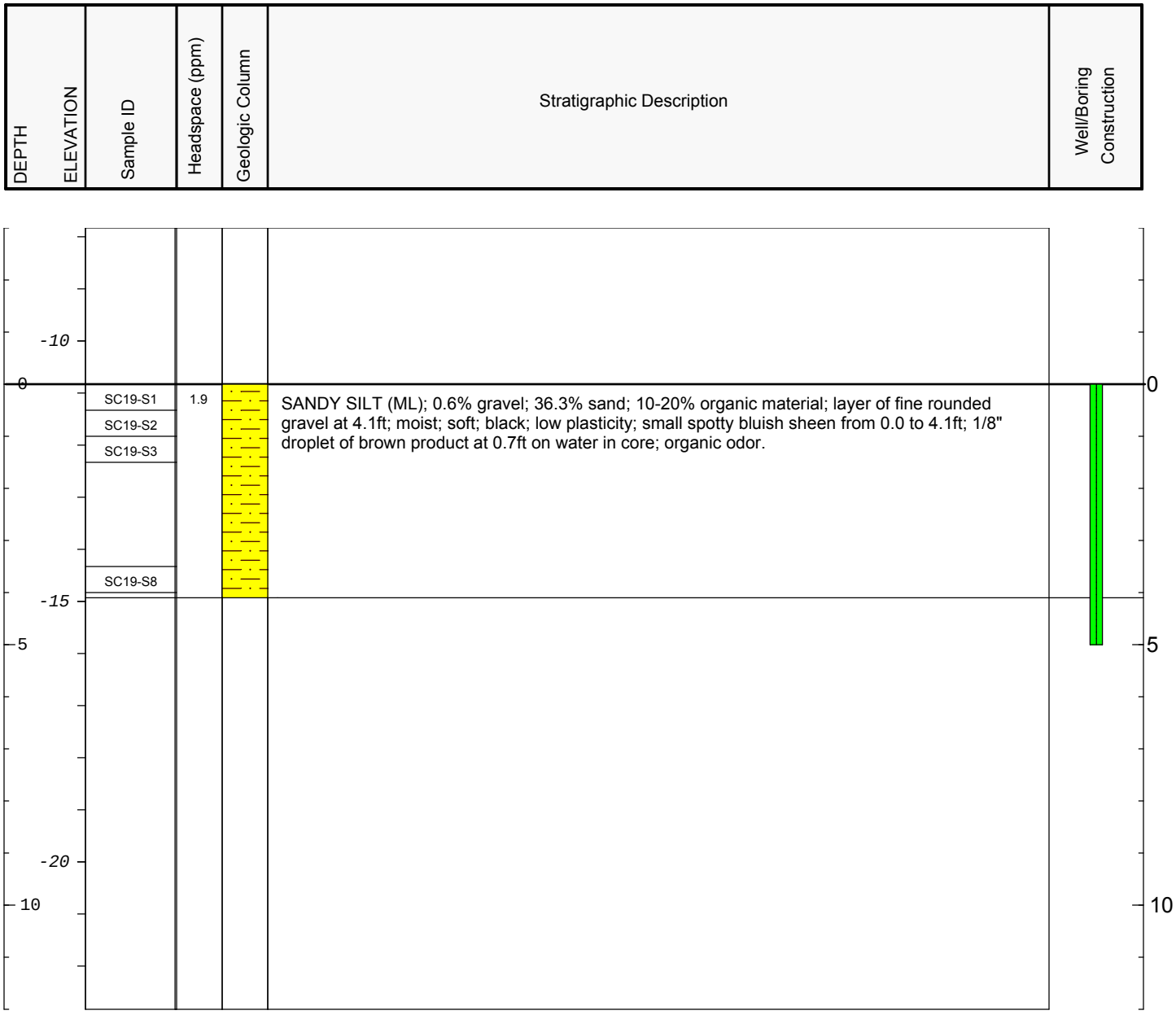
Date Start/Finish:	July 14, 2008	**Latitude:**	41 51.8798 N	**Well/Boring ID:**	SC18
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7474 W	**Client:**	National Grid
Driller's Name:	J. Scanlon and J. Balmer	**Water Depth:**	10.0 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-8.70 ft		
Penetration:	5.5 ft	**Recovery:**	5.5 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC18-S1 - sample obtained for laboratory analysis
SC18-S2, SC18-S3, SC18-S6 - sample obtained for laboratory archiving

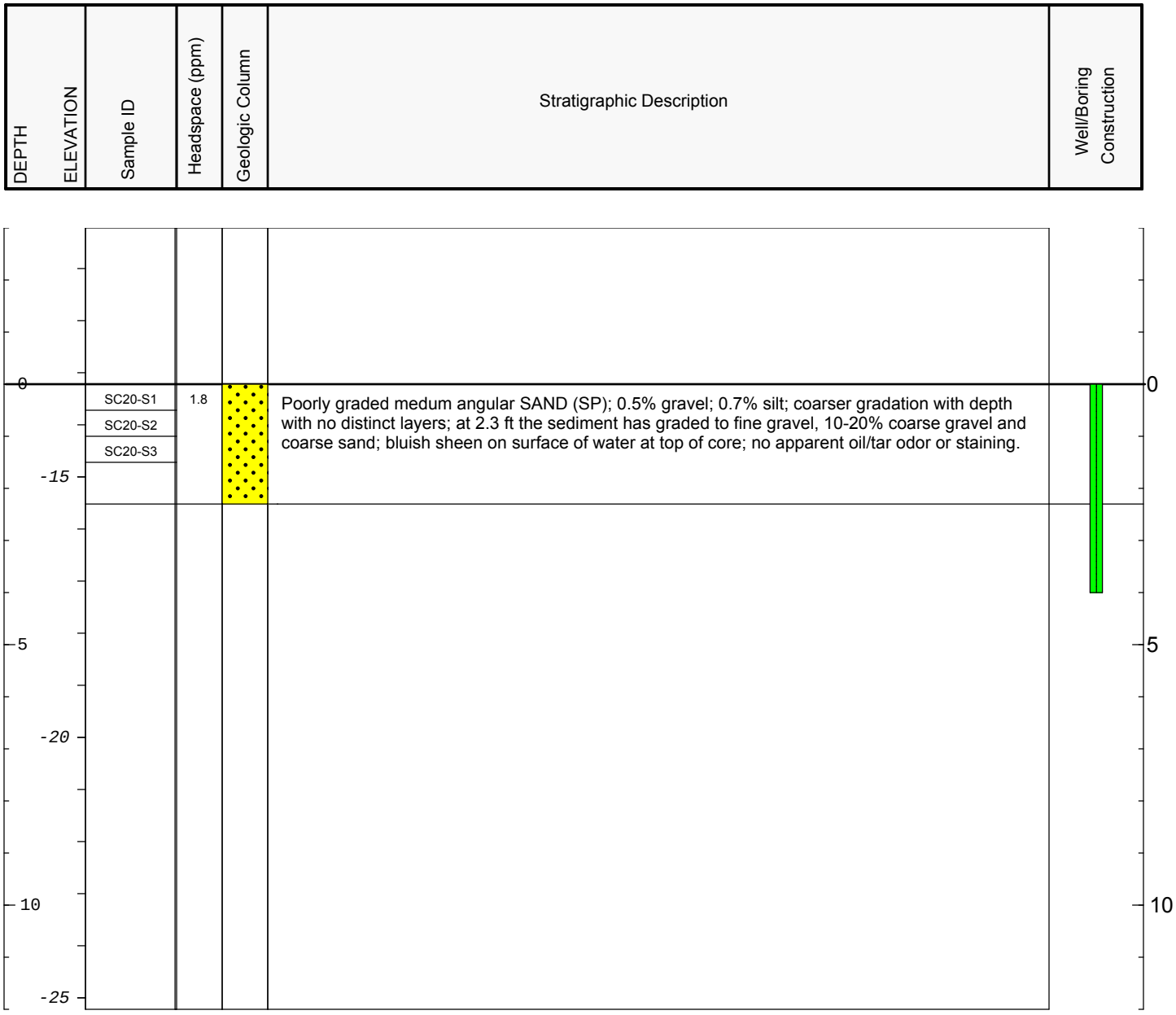
Date Start/Finish:	July 10, 2008	**Latitude:**	41 51.9955 N	**Well/Boring ID:**	SC19
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7437 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	11.8 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-10.83 ft		
Penetration:	5.0 ft	**Recovery:**	4.1 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC19-S1 - sample obtained for laboratory analysis
SC19-S2, SC19-S3, SC19-S8 - sample obtained for laboratory archiving

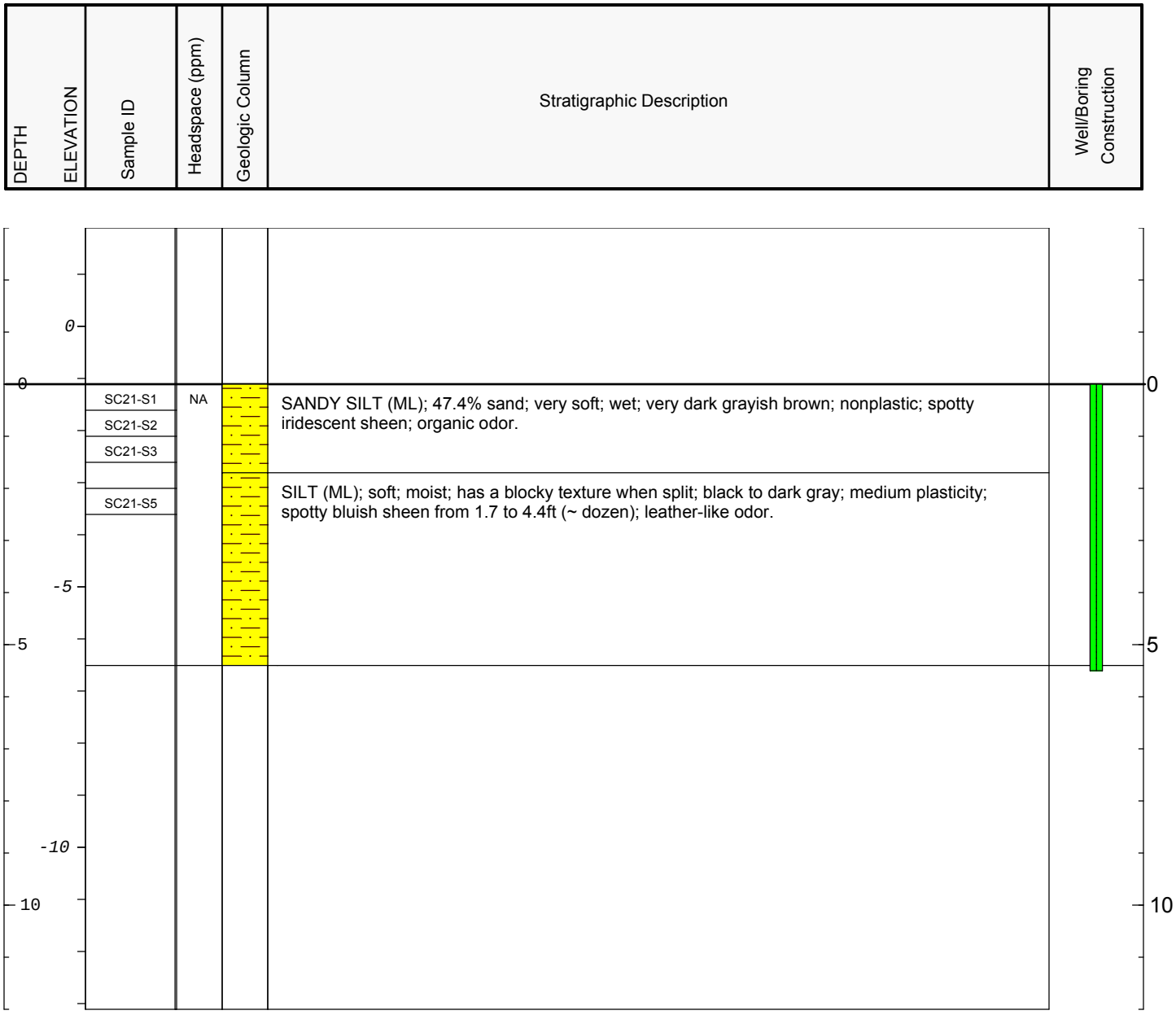
Date Start/Finish:	July 9, 2008	**Latitude:**	41 52.0541 N	**Well/Boring ID:**	SC20
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7674 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	17.9 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-13.22 ft		
Penetration:	4.0 ft (refusal)	**Recovery:**	2.3 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC20-S1 - sample obtained for laboratory analysis
SC20-S2, SC20-S3 - sample obtained for laboratory archiving

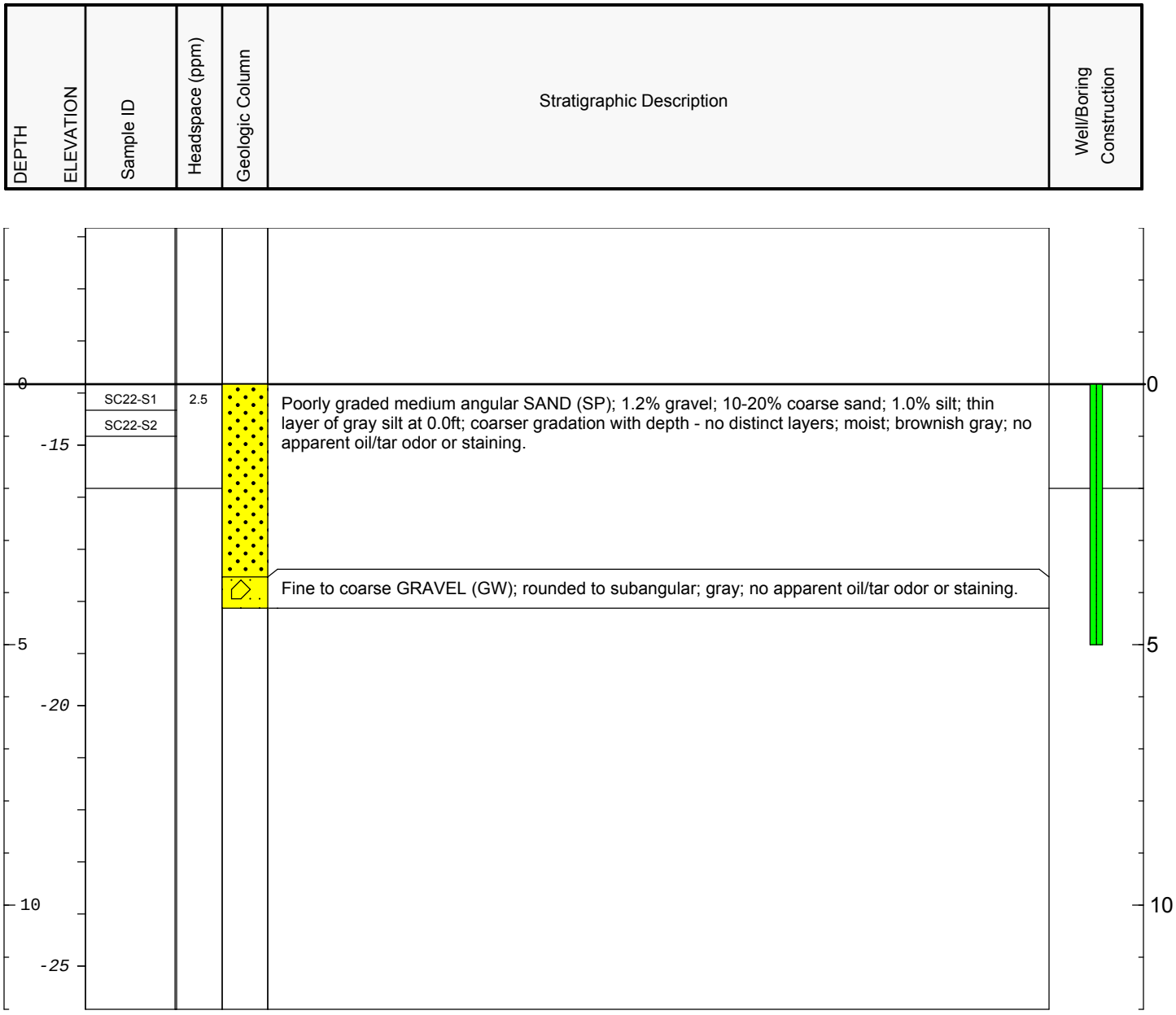
Date Start/Finish:	July 8, 2008	**Latitude:**	41 52.2067 N	**Well/Boring ID:**	SC21
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8799 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	5.5 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-1.11 ft		
Penetration:	5.5 ft	**Recovery:**	5.4 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC21-S1 - sample obtained for laboratory analysis
SC21-S2, SC21-S3, SC21-S5 - sample obtained for laboratory archiving

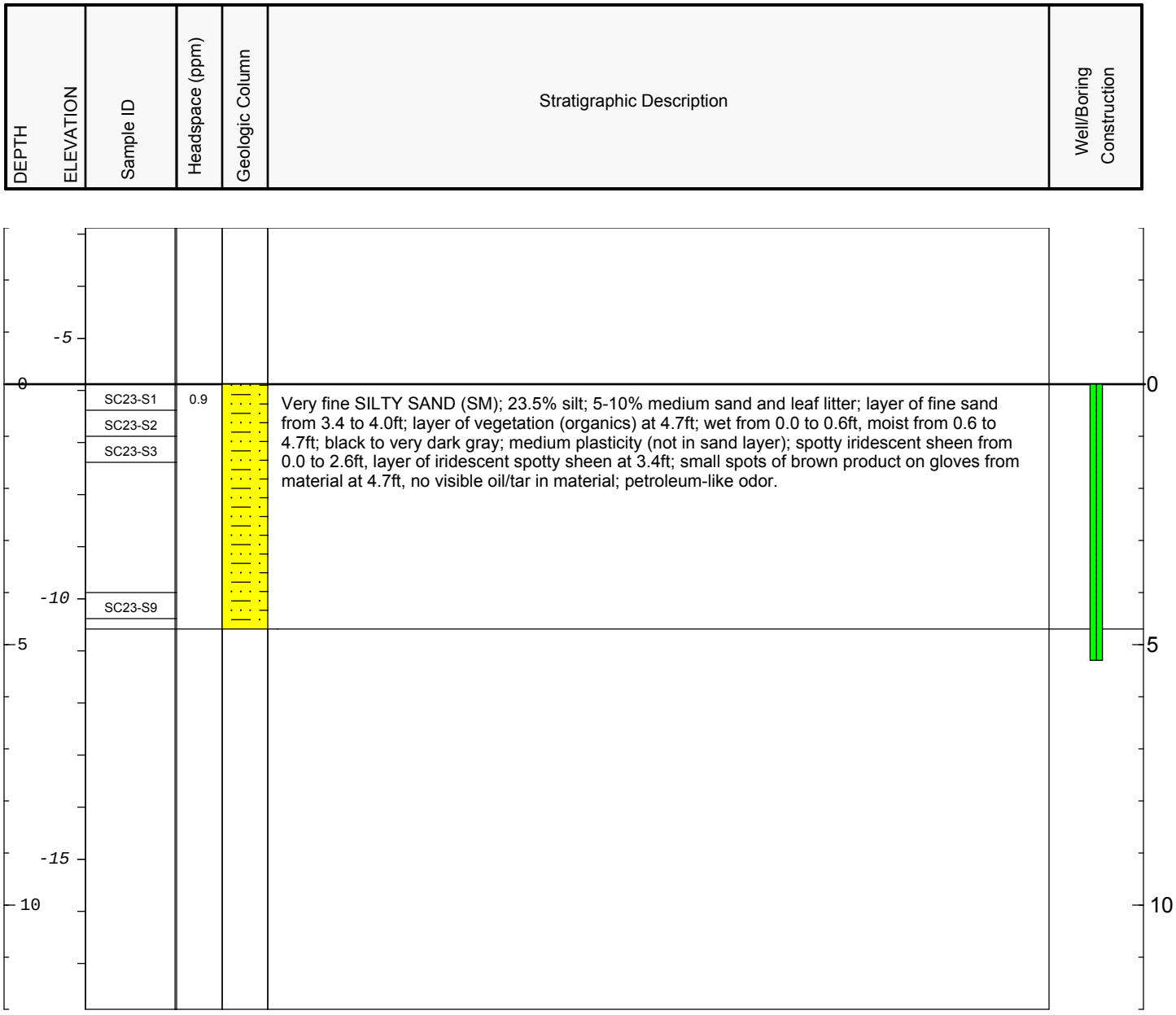
Date Start/Finish:	July 9, 2008	**Latitude:**	41 52.2843 N	**Well/Boring ID:**	SC22
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.9971 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	17.3 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-13.83 ft		
Penetration:	2.0 ft	**Recovery:**	4.3 ft*		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
* Only top 2.0 ft is representative of SC22 - remainder of material was sucked into the core barrel from the general area due to the check valve.
SC22-S1 - sample obtained for laboratory analysis
SC22-S2 - sample obtained for laboratory archiving

Date Start/Finish:	July 8, 2008	**Latitude:**	41 52.2578 N	**Well/Boring ID:**	SC23
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.9509 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	8.4 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-5.88 ft		
Penetration:	5.3 ft	**Recovery:**	4.7 ft		
		Geologist:	B. Thibault		

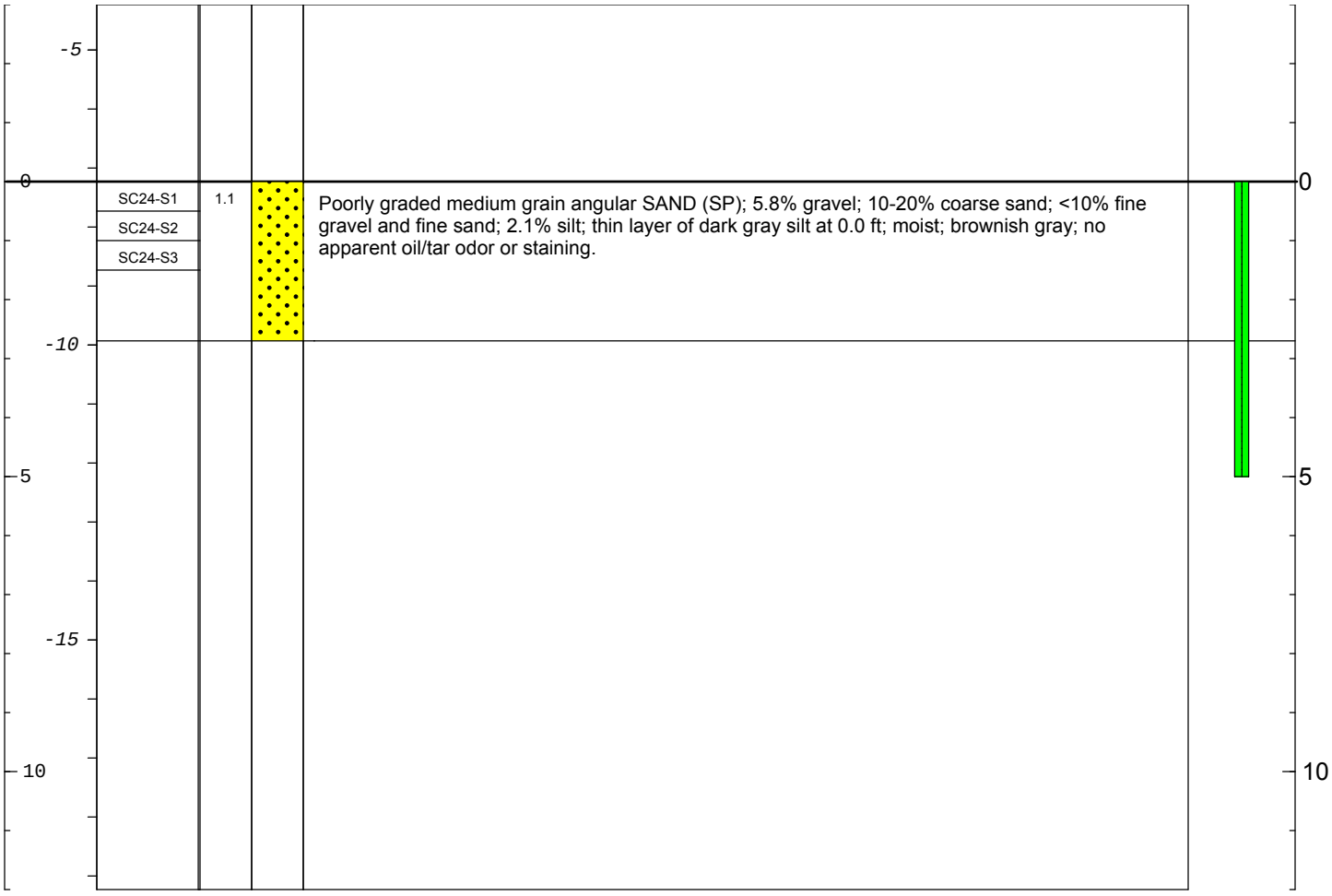


ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC23-S1 - sample obtained for laboratory analysis
SC23-S2, SC23-S3, SC23-S9 - sample obtained for laboratory archiving

Date Start/Finish:	July 8, 2008	**Latitude:**	41 52.2636 N	**Well/Boring ID:**	SC24
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.9546 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	10.7 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-7.23 ft		
Penetration:	5.0 ft	**Recovery:**	2.7 ft		
		Geologist:	B. Thibault		

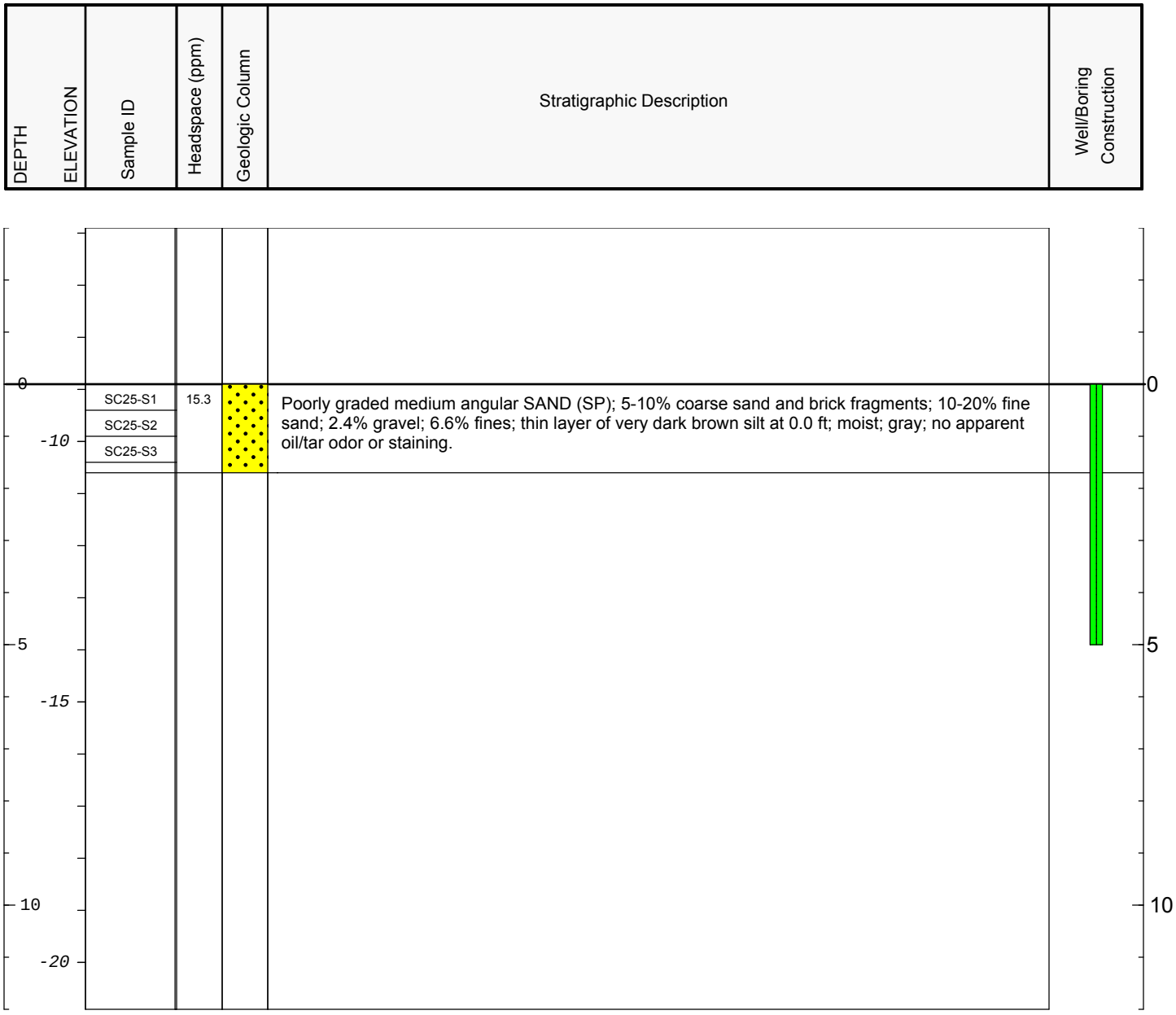
DEPTH ELEVATION	Sample ID	Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	SC24-S1 SC24-S2 SC24-S3	1.1		Poorly graded medium grain angular SAND (SP); 5.8% gravel; 10-20% coarse sand; <10% fine gravel and fine sand; 2.1% silt; thin layer of dark gray silt at 0.0 ft; moist; brownish gray; no apparent oil/tar odor or staining.	



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC24-S1 - sample obtained for laboratory analysis
SC24-S2, SC24-S3 - sample obtained for laboratory archiving

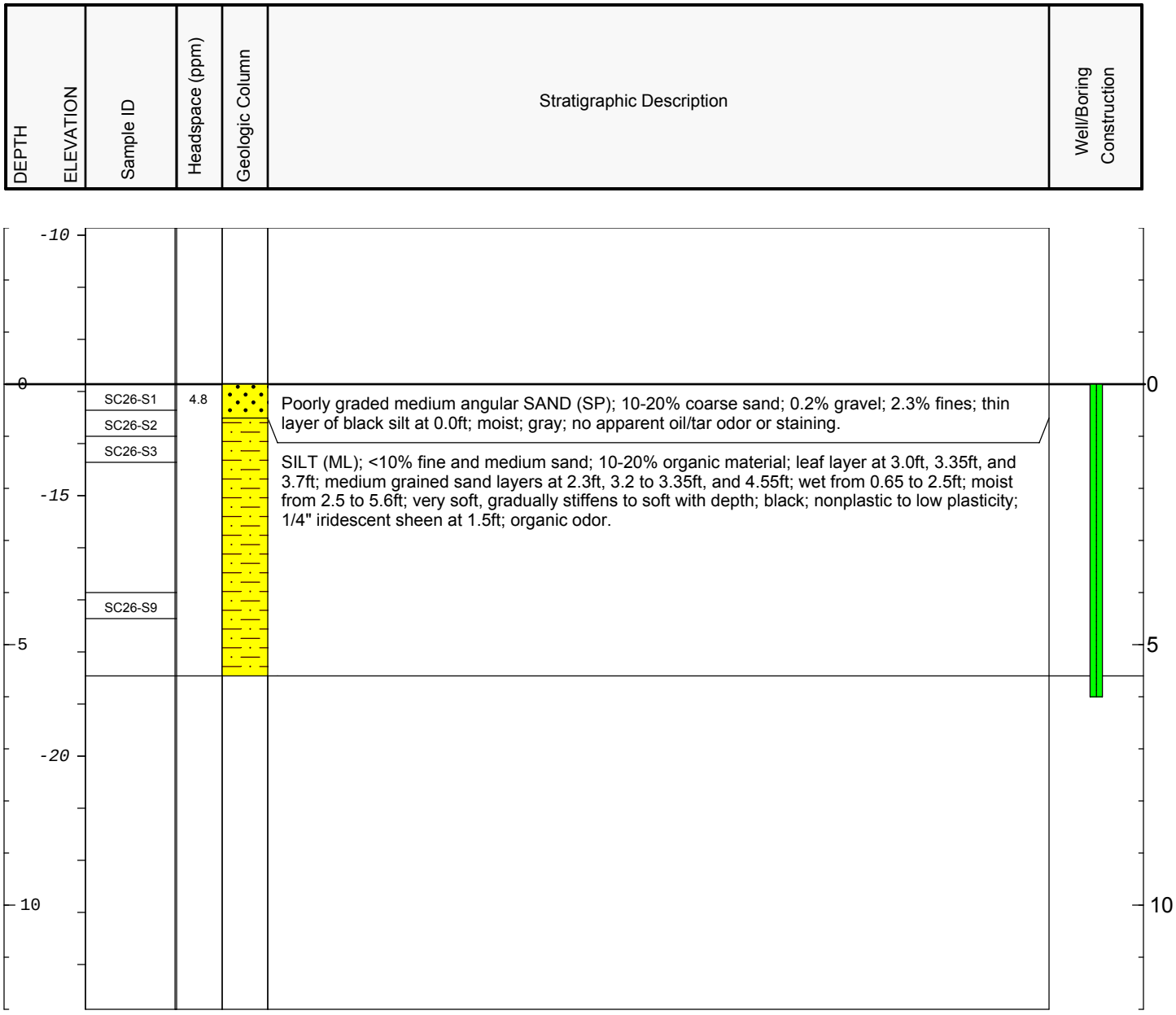
Date Start/Finish:	July 8, 2008	**Latitude:**	41 52.1618 N	**Well/Boring ID:**	SC25
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8656 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	12.8 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-8.90 ft		
Penetration:	5.0 ft	**Recovery:**	1.7 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC25-S1 - sample obtained for laboratory analysis
SC25-S2, SC25-S3 - sample obtained for laboratory archiving

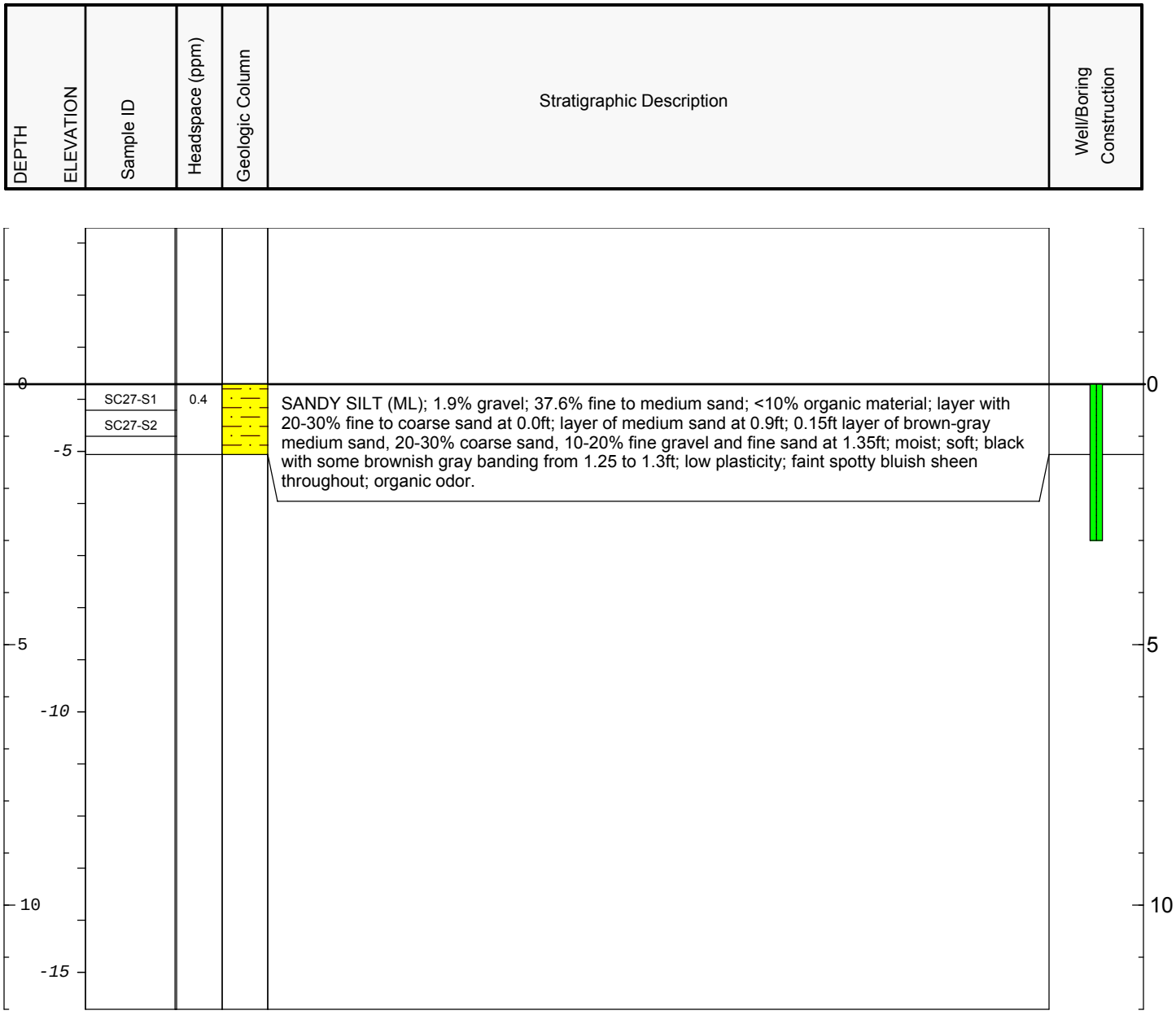
Date Start/Finish:	July 10, 2008	**Latitude:**	41 52.1109 N	**Well/Boring ID:**	SC26
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7987 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	13.8 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-12.86 ft		
Penetration:	6.0 ft	**Recovery:**	5.6 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC26-S1 - sample obtained for laboratory analysis
SC26-S2, SC26-S3, SC26-S9 - sample obtained for laboratory archiving

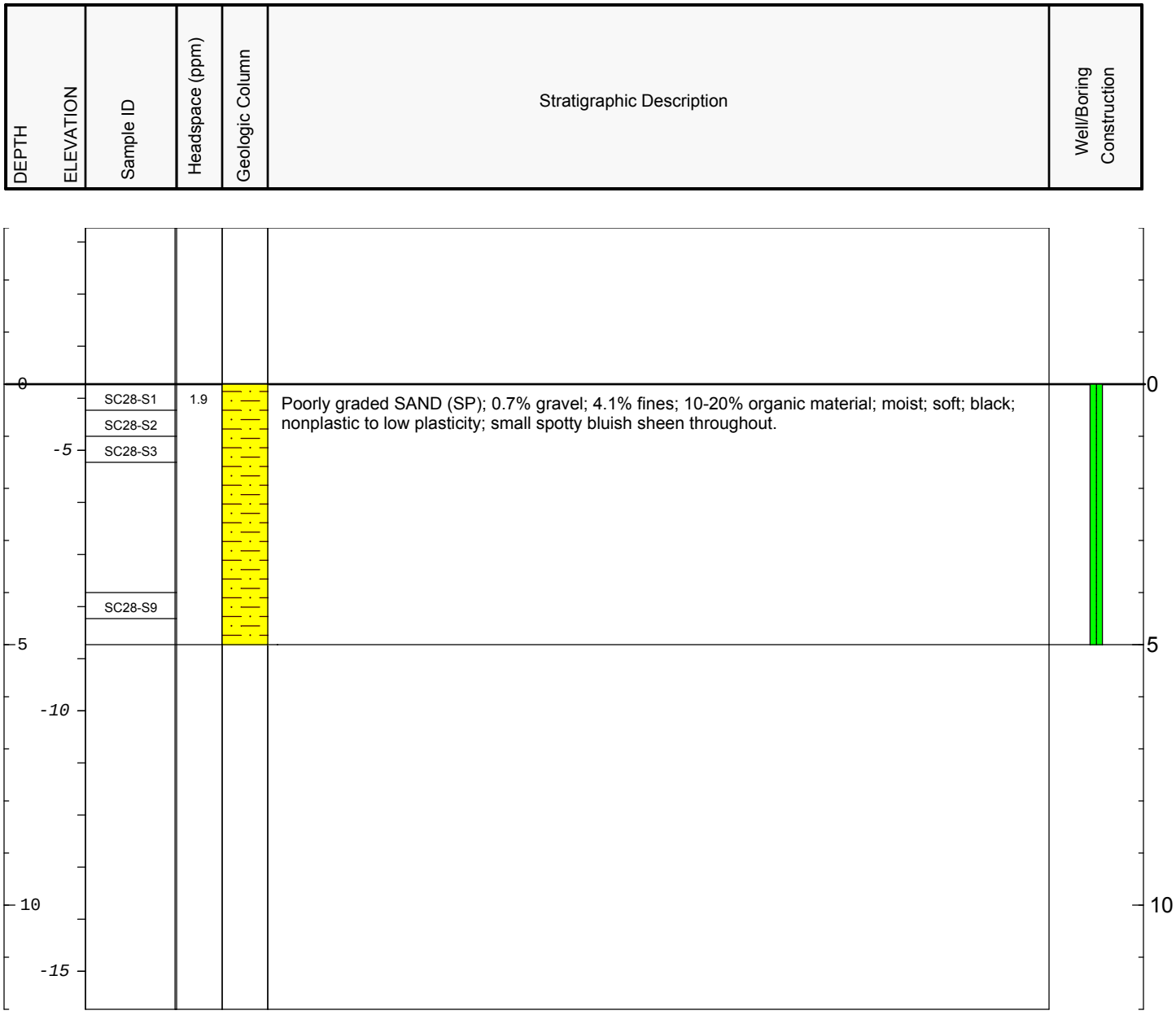
Date Start/Finish:	July 14, 2008	**Latitude:**	41 51.9391 N	**Well/Boring ID:**	SC27
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7185 W	**Client:**	National Grid
Driller's Name:	J. Scanlon and J. Balmer	**Water Depth:**	6.6 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-3.71 ft		
Penetration:	3.0 ft (refusal)	**Recovery:**	1.35 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC27-S1 - sample obtained for laboratory analysis
SC27-S2 - sample obtained for laboratory archiving

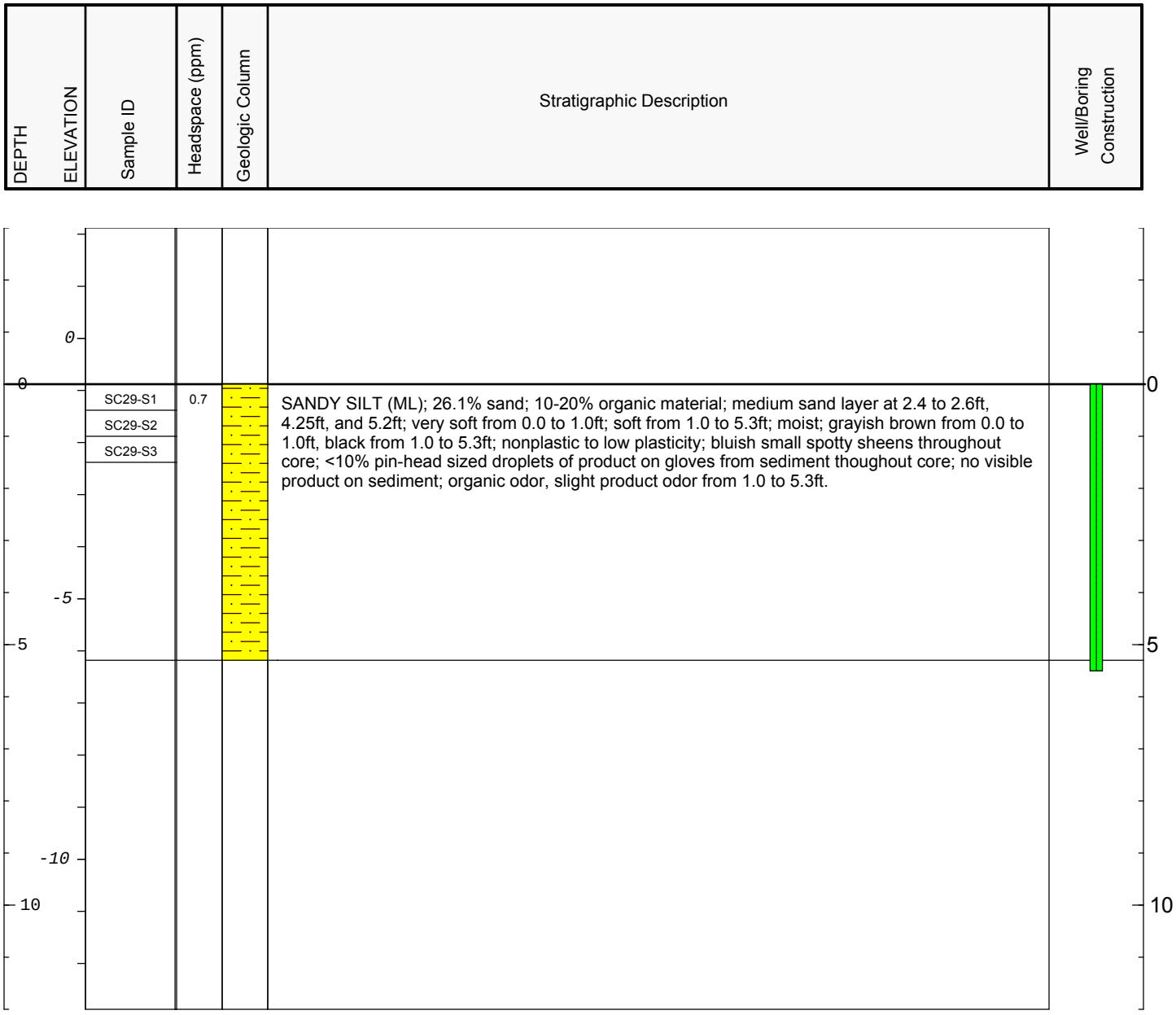
Date Start/Finish:	July 10, 2008	**Latitude:**	41 51.9796 N	**Well/Boring ID:**	SC28
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7904 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	7.8 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-3.73 ft		
Penetration:	5.0 ft	**Recovery:**	5.0 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC28-S1 - sample obtained for laboratory analysis
SC28-S2, SC28-S3, SC28-S9 - sample obtained for laboratory archiving

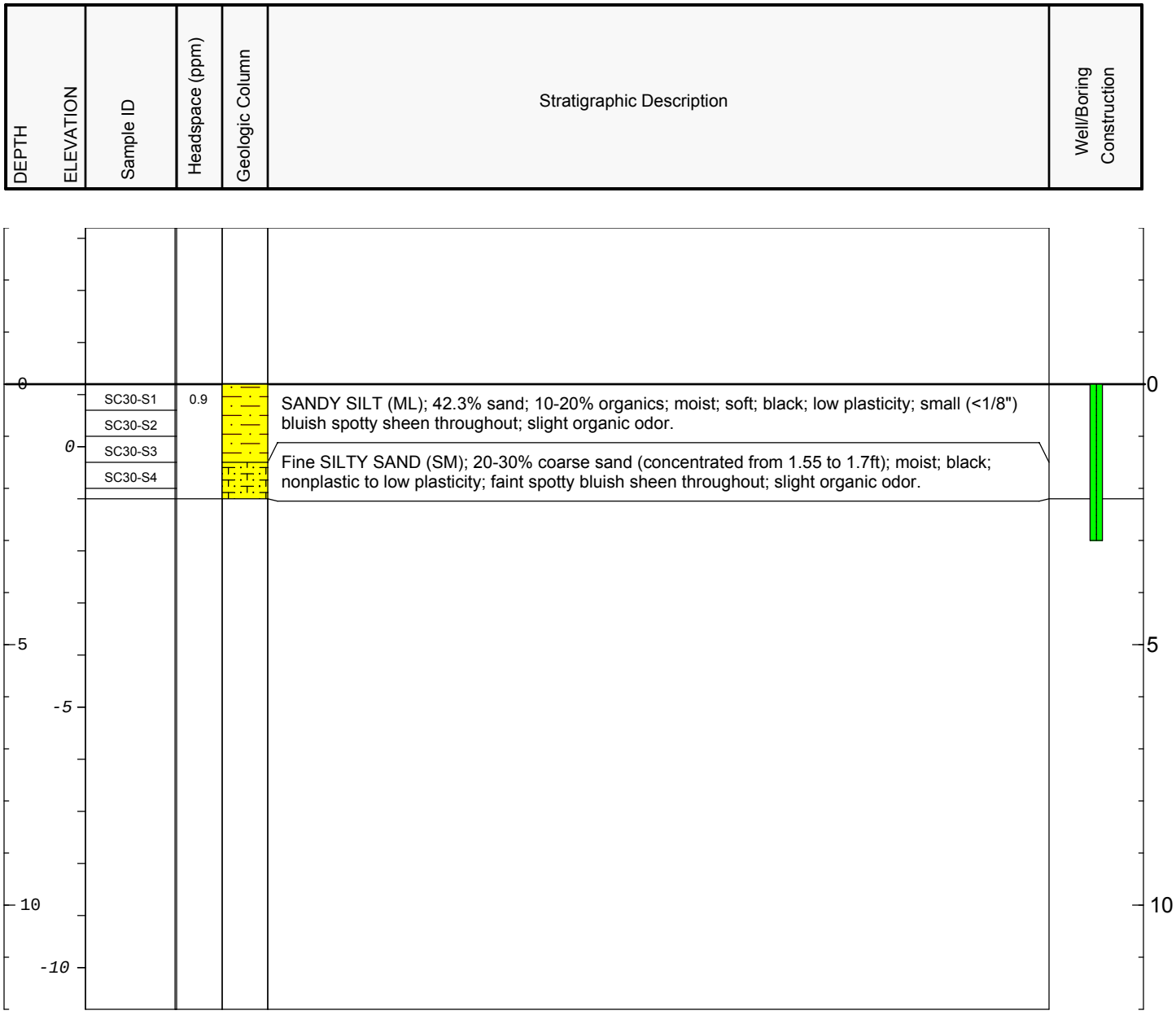
Date Start/Finish:	July 10, 2008	**Latitude:**	41 52.9802 N	**Well/Boring ID:**	SC29
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7999 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	3.1 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-0.88		
Penetration:	5.5 ft	**Recovery:**	5.3 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC29-S1 - sample obtained for laboratory analysis
SC29-S2, SC29-S3 - sample obtained for laboratory archiving

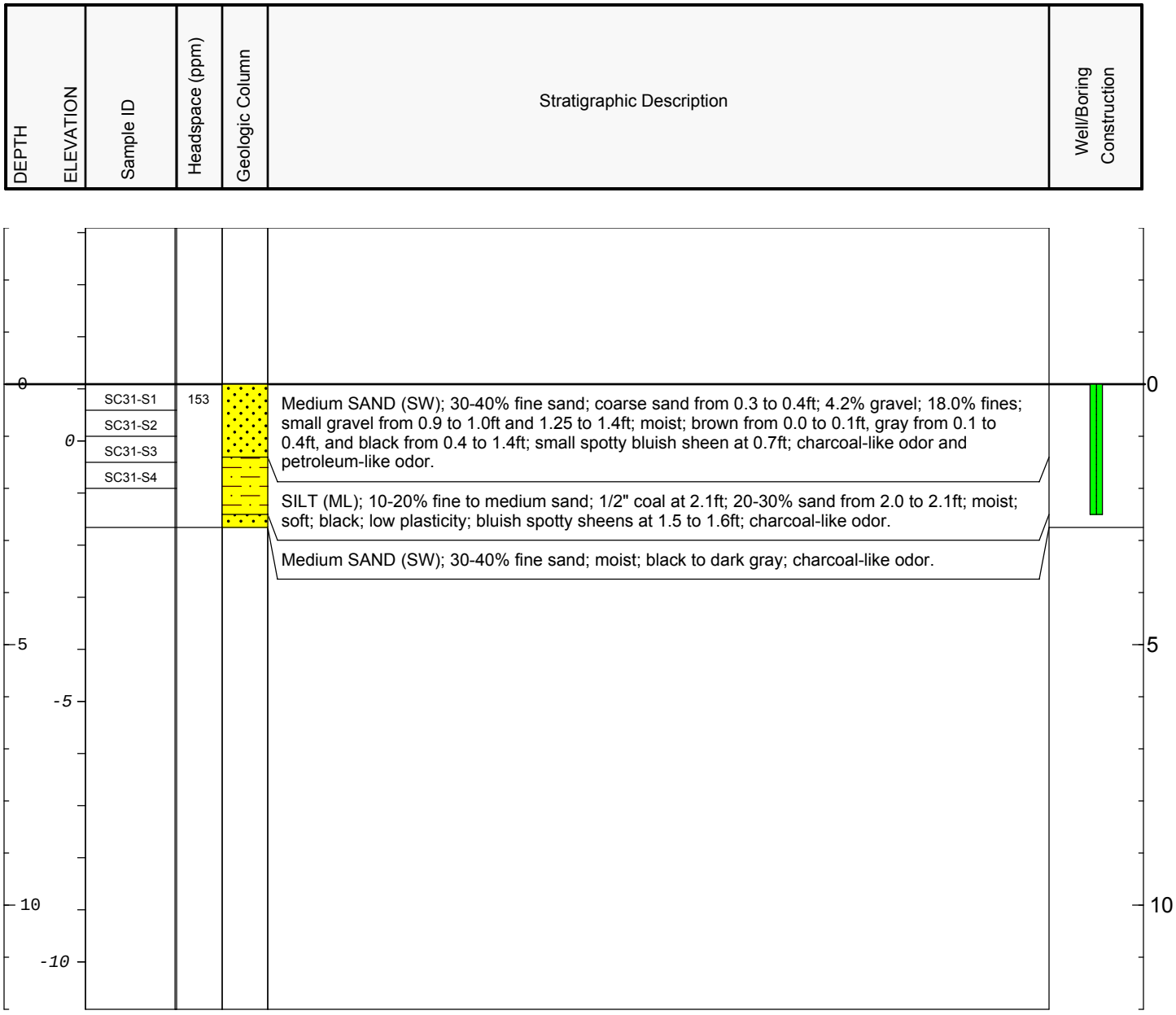
Date Start/Finish:	July 10, 2008	**Latitude:**	41 51.9800 N	**Well/Boring ID:**	SC30
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8107 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	3.4 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	1.20 ft		
Penetration:	3.0 ft (refusal)	**Recovery:**	2.2 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC30-S1 - sample obtained for laboratory analysis
SC30-S2, SC30-S3, SC30-S4 - sample obtained for laboratory archiving

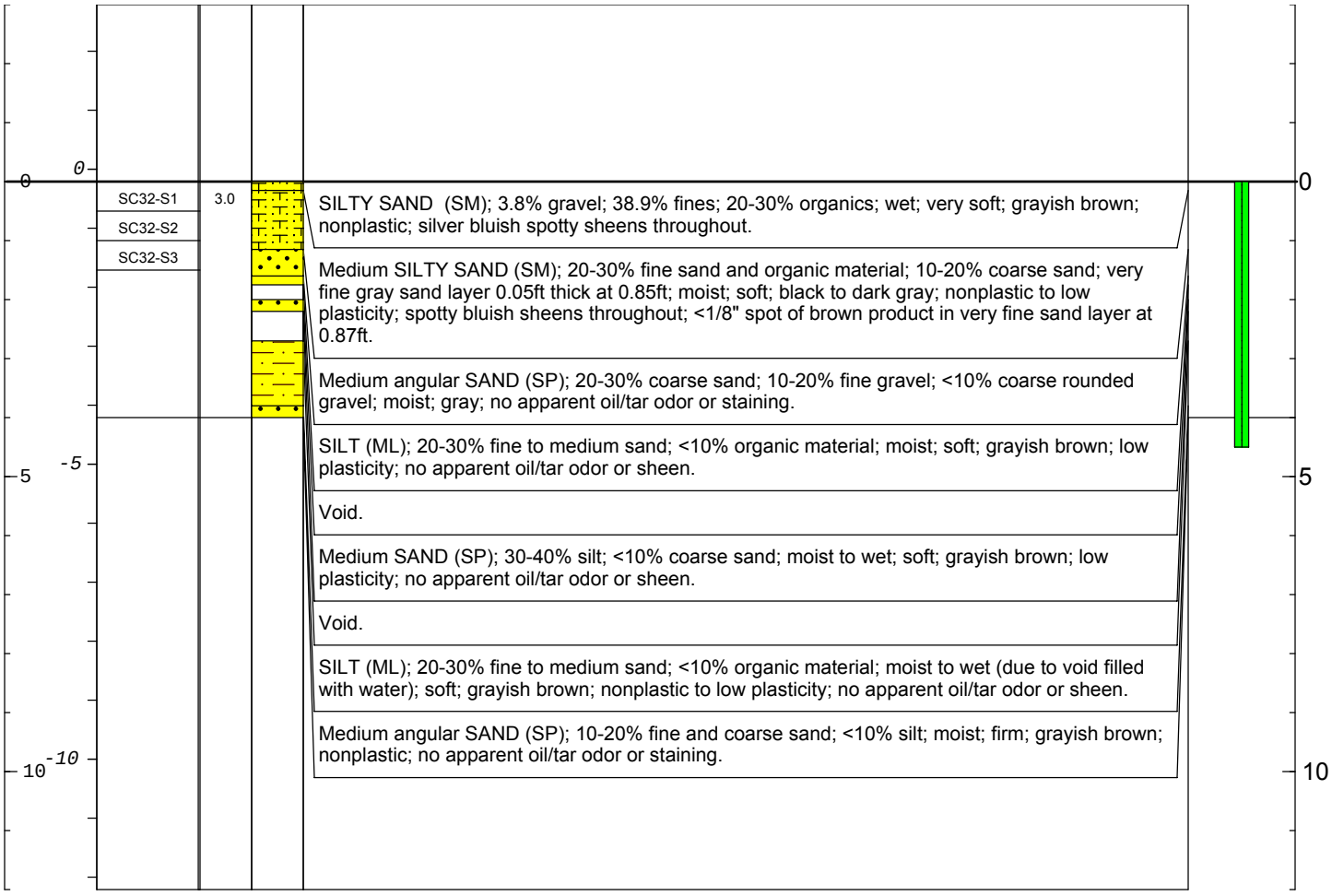
Date Start/Finish:	July 14, 2008	**Latitude:**	41 51.9513 N	**Well/Boring ID:**	SC31
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8134 W	**Client:**	National Grid
Driller's Name:	J. Scanlon and J. Balmer	**Water Depth:**	1.0 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	1.09 ft		
Penetration:	2.5 ft (refusal)	**Recovery:**	2.75 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC31-S1 - sample obtained for laboratory analysis
SC31-S2, SC31-S3, SC31-S4 - sample obtained for laboratory archiving

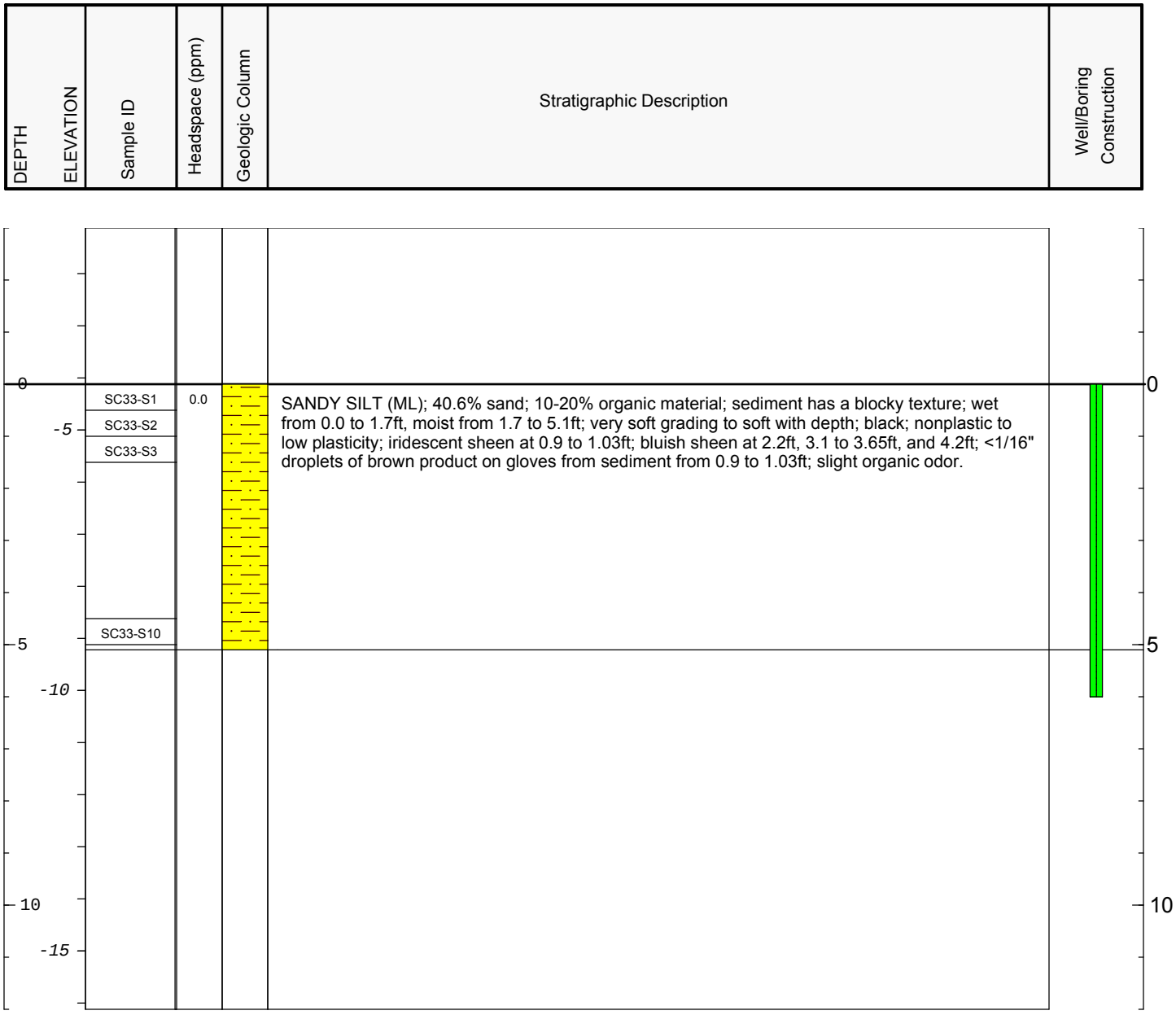
Date Start/Finish:	July 11, 2008	**Latitude:**	41 51.9469 N	**Well/Boring ID:**	SC32
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7992 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	1.9 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-0.21 ft		
Penetration:	4.5 ft (refusal)	**Recovery:**	4.0 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC32-S1 - sample obtained for laboratory analysis
SC32-S2, SC32-S3 - sample obtained for laboratory archiving
In short core: heavy iridescent sheen at 0.7ft; 2 <1/8" droplets of brown product on gloves; burning plastic-like odor.

Date Start/Finish:	July 11, 2008	**Latitude:**	41 51.9479 N	**Well/Boring ID:**	SC33
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7784 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	6.1 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-4.12 ft		
Penetration:	6.0 ft	**Recovery:**	5.1 ft		
		Geologist:	B. Thibault		

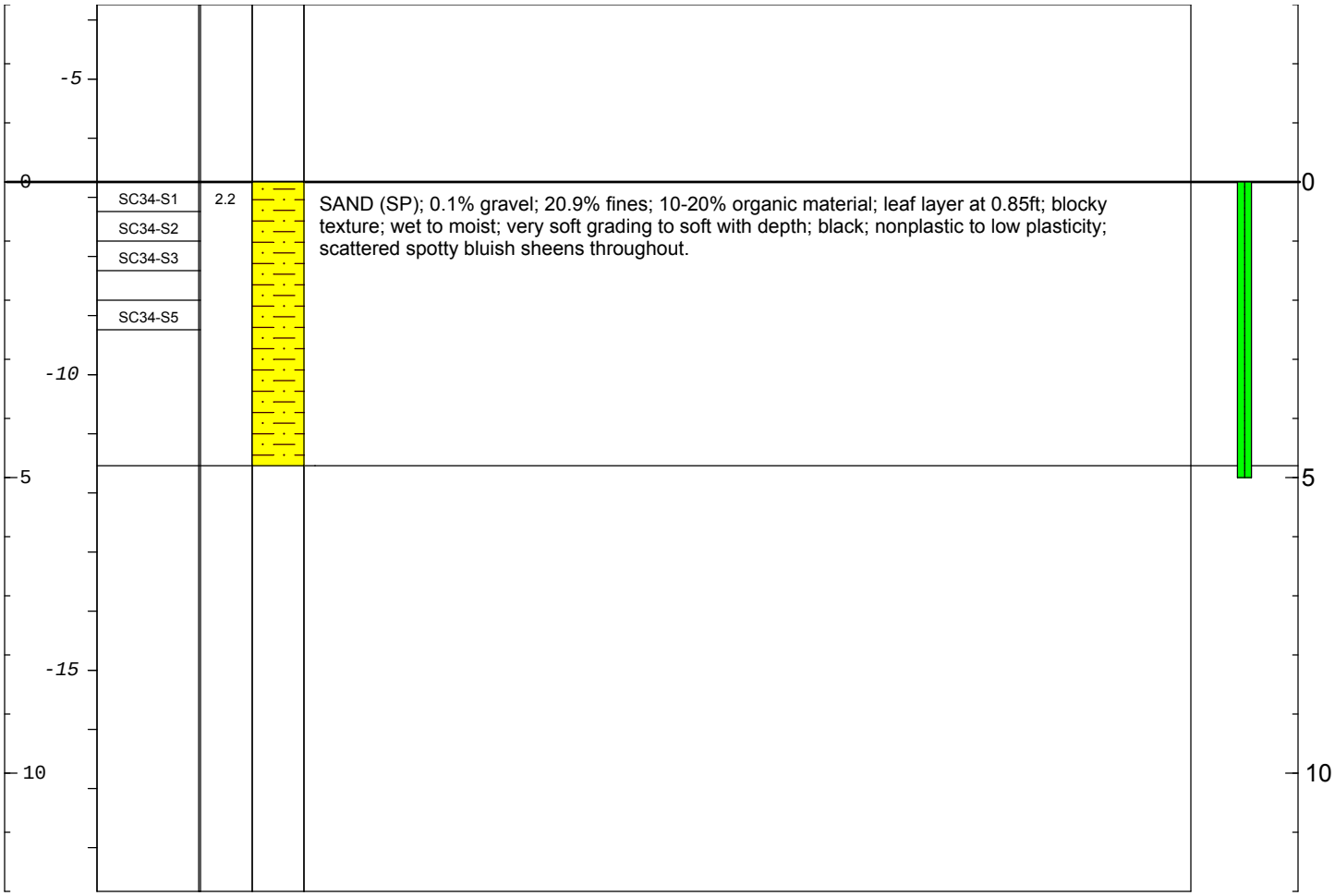


ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC33-S1 - sample obtained for laboratory analysis
SC33-S2, SC33-S3, SC33-S10 - sample obtained for laboratory archiving

Date Start/Finish:	July 11, 2008	**Latitude:**	41 51.9305 N	**Well/Boring ID:**	SC34
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7661 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	10.8 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-6.74 ft		
Penetration:	5.0 ft	**Recovery:**	4.8 ft		
		Geologist:	B. Thibault		

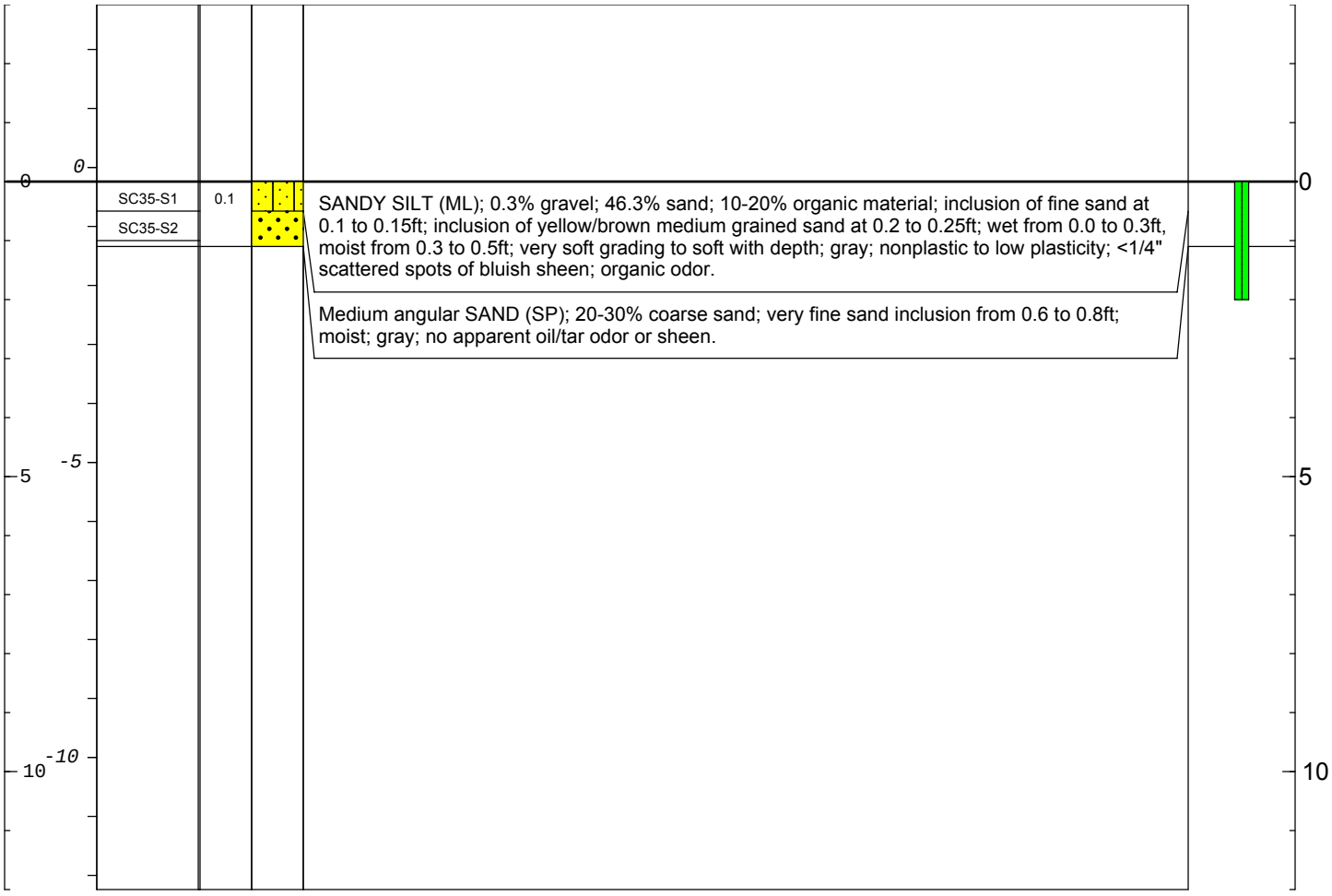
DEPTH ELEVATION	Sample ID	Headspace (ppm)	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	SC34-S1 SC34-S2 SC34-S3 SC34-S5	2.2		SAND (SP); 0.1% gravel; 20.9% fines; 10-20% organic material; leaf layer at 0.85ft; blocky texture; wet to moist; very soft grading to soft with depth; black; nonplastic to low plasticity; scattered spotty bluish sheens throughout.	



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC34-S1 - sample obtained for laboratory analysis
SC34-S2, SC34-S3, SC34-S5 - sample obtained for laboratory archiving
In short core: 0.3ft layer of gray medium sand at 0.0ft

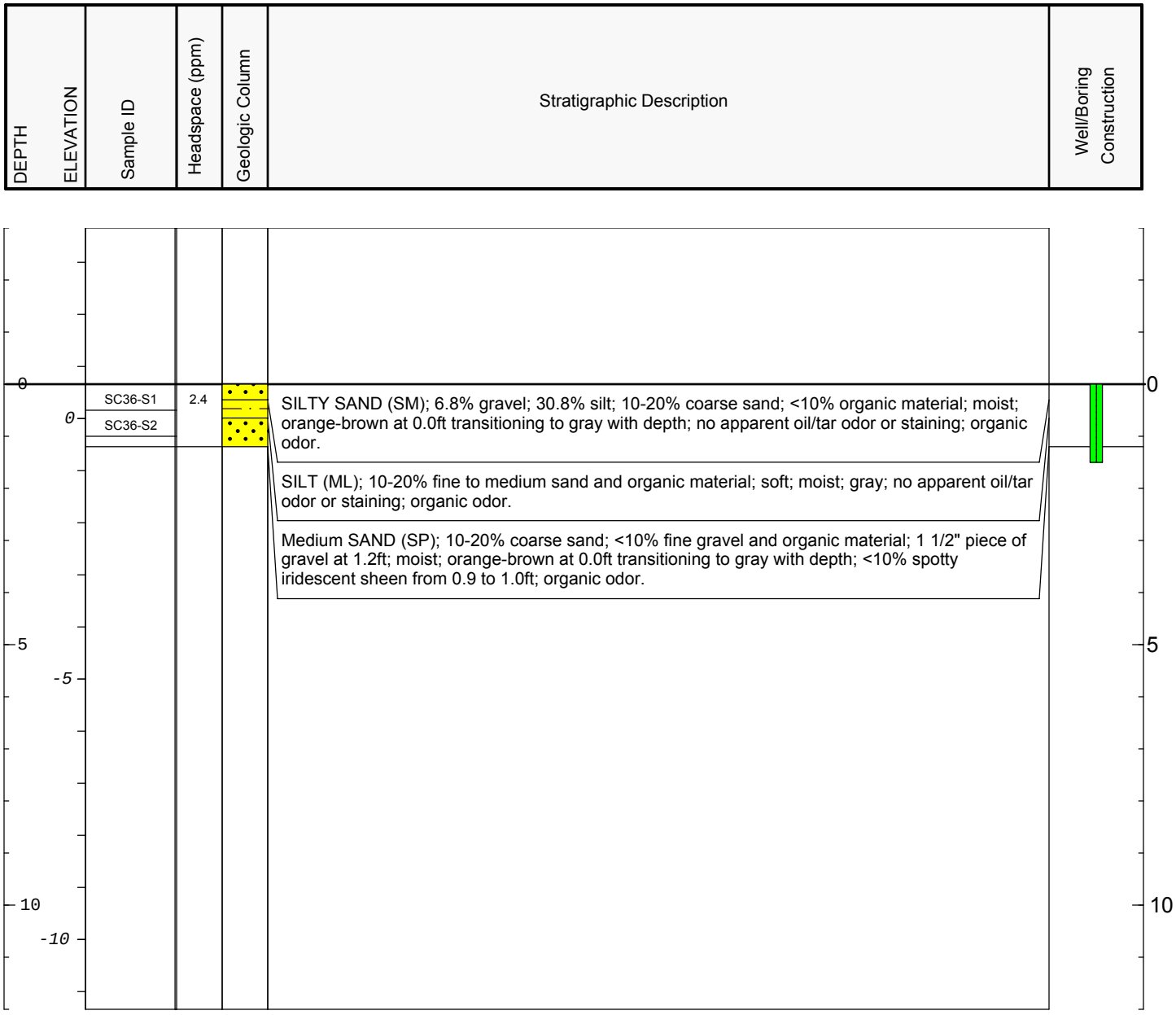
Date Start/Finish:	July 11, 2008	**Latitude:**	41 51.9303 N	**Well/Boring ID:**	SC35
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7890 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	4.5 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-0.24 ft		
Penetration:	2.0 ft (refusal)	**Recovery:**	1.1 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC35-S1 - sample obtained for laboratory analysis
SC35-S2 - sample obtained for laboratory archiving

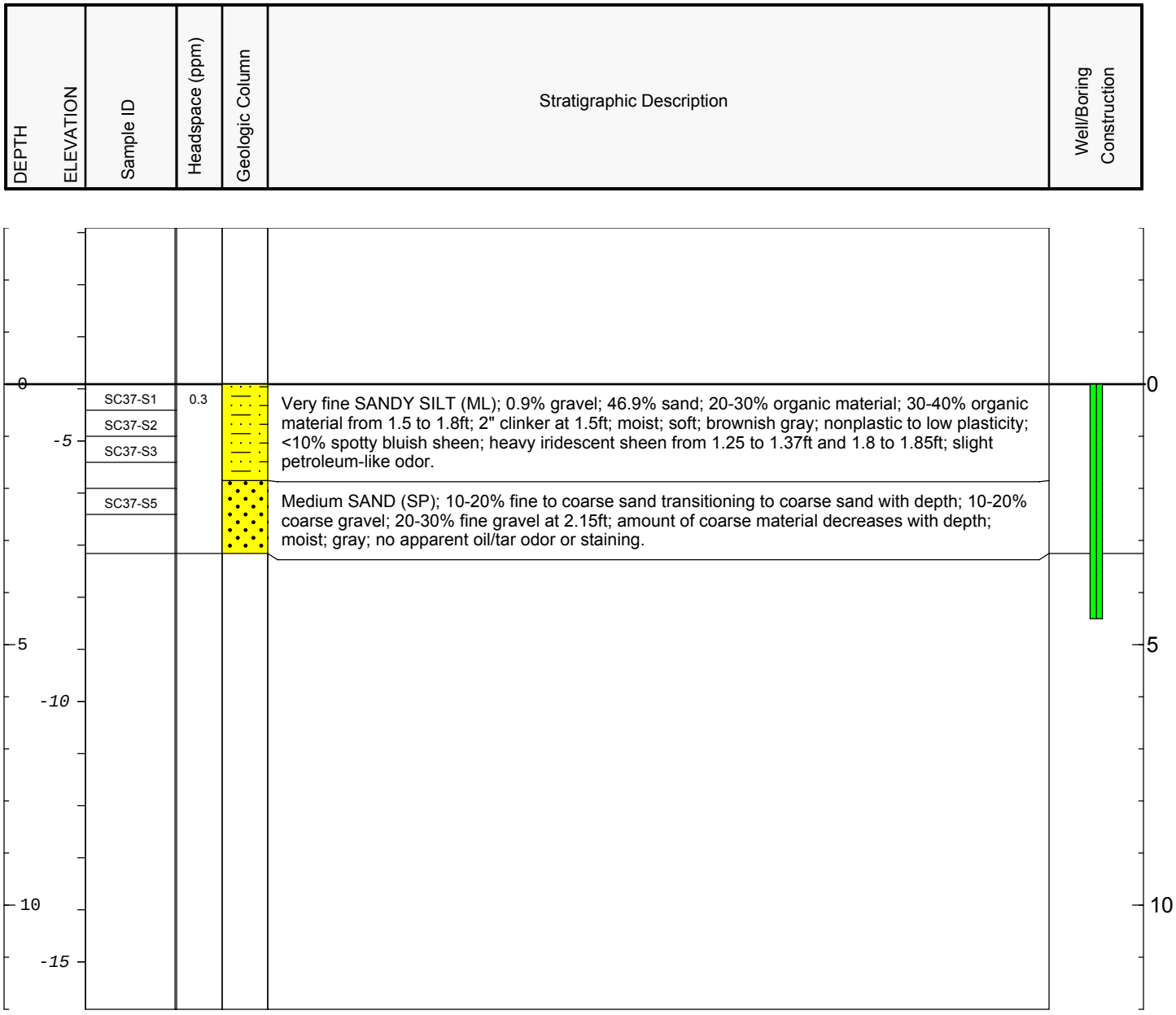
Date Start/Finish:	July 14, 2008	**Latitude:**	41 51.9327 N	**Well/Boring ID:**	SC36
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7994 W	**Client:**	National Grid
Driller's Name:	J. Scanlon and J. Balmer	**Water Depth:**	1.0 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	0.66 ft		
Penetration:	1.5 ft (refusal)	**Recovery:**	1.2 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC36-S1 - sample obtained for laboratory analysis
SC36-S2 - sample obtained for laboratory archiving

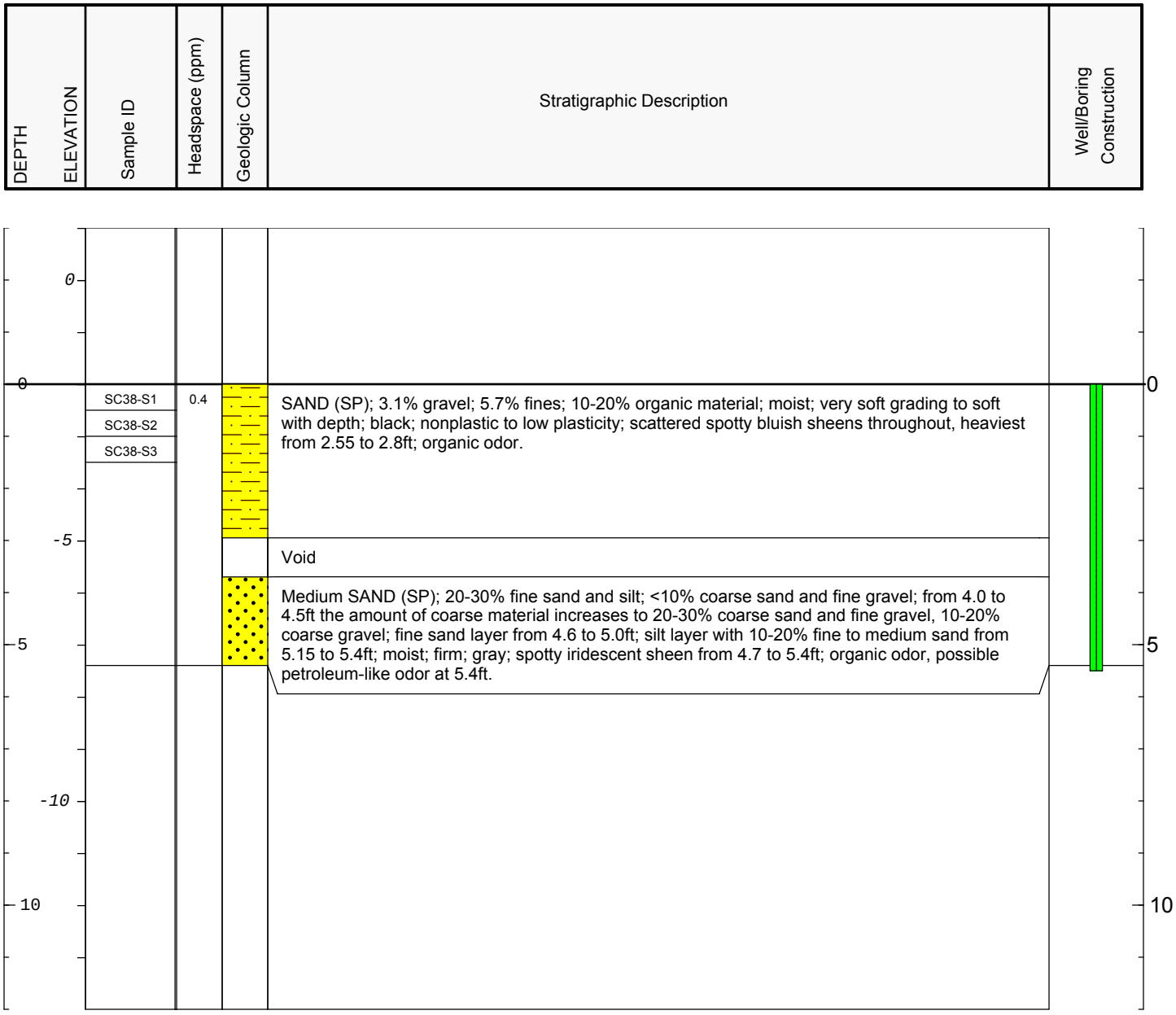
Date Start/Finish:	July 14, 2008	**Latitude:**	41 51.9209 N	**Well/Boring ID:**	SC37
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7824 W	**Client:**	National Grid
Driller's Name:	J. Scanlon and J. Balmer	**Water Depth:**	5.1 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-3.19 ft		
Penetration:	4.5 ft (refusal)	**Recovery:**	3.25 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
According to the drillers, approximately 1ft of gravel-like material was lost from the base of the core during retrieval.
SC37-S1 - sample obtained for laboratory analysis
SC37-S2, SC37-S3, SC37-S5 - sample obtained for laboratory archiving

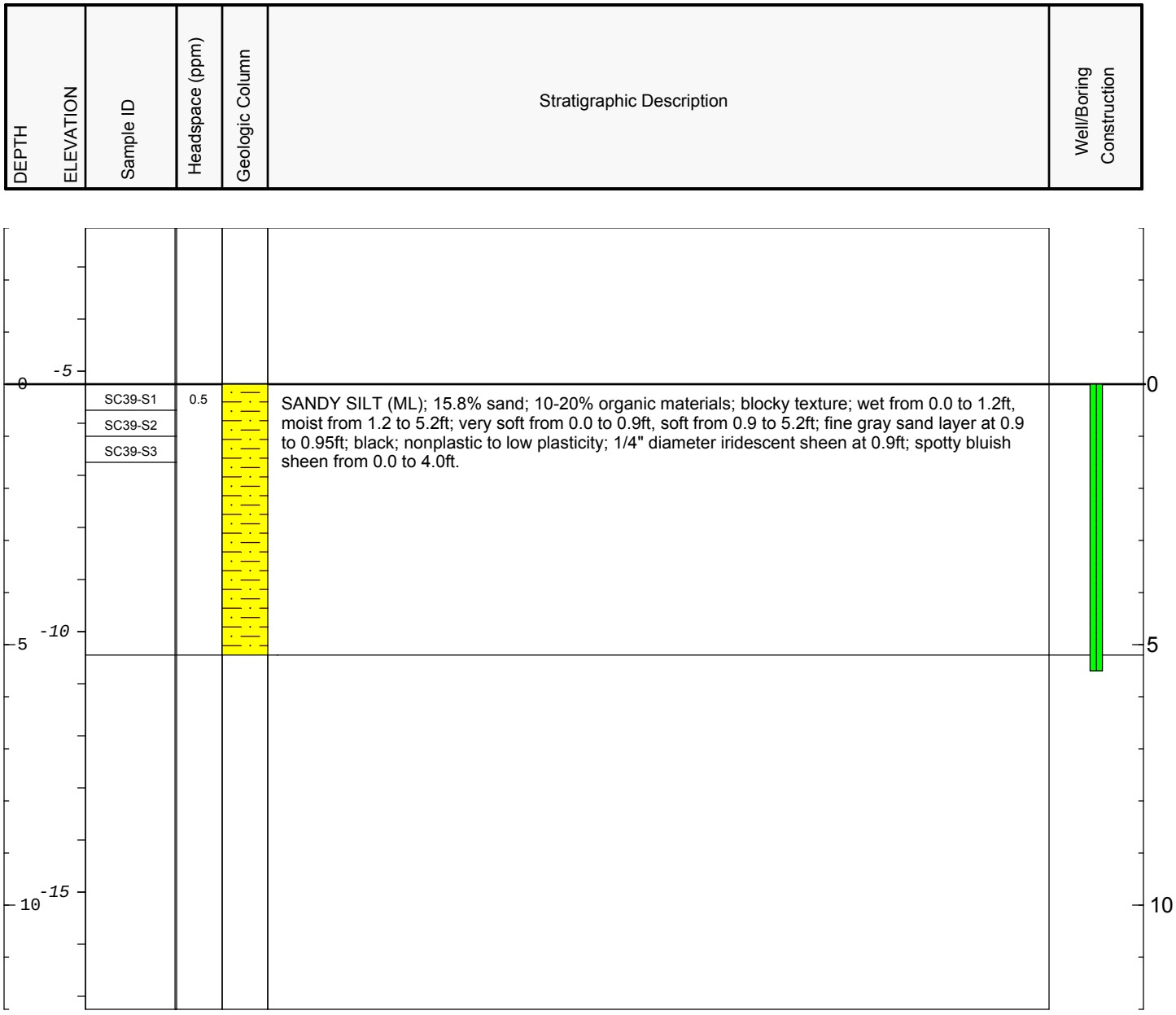
Date Start/Finish:	July 11, 2008	**Latitude:**	41 51.9134 N	**Well/Boring ID:**	SC38
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7776 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	5.6 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Push Core	**Mudline Elevation:**	-1.99 ft		
Penetration:	5.5 ft	**Recovery:**	5.4 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC38-S1 - sample obtained for laboratory analysis
SC38-S2, SC38-S3 - sample obtained for laboratory archiving

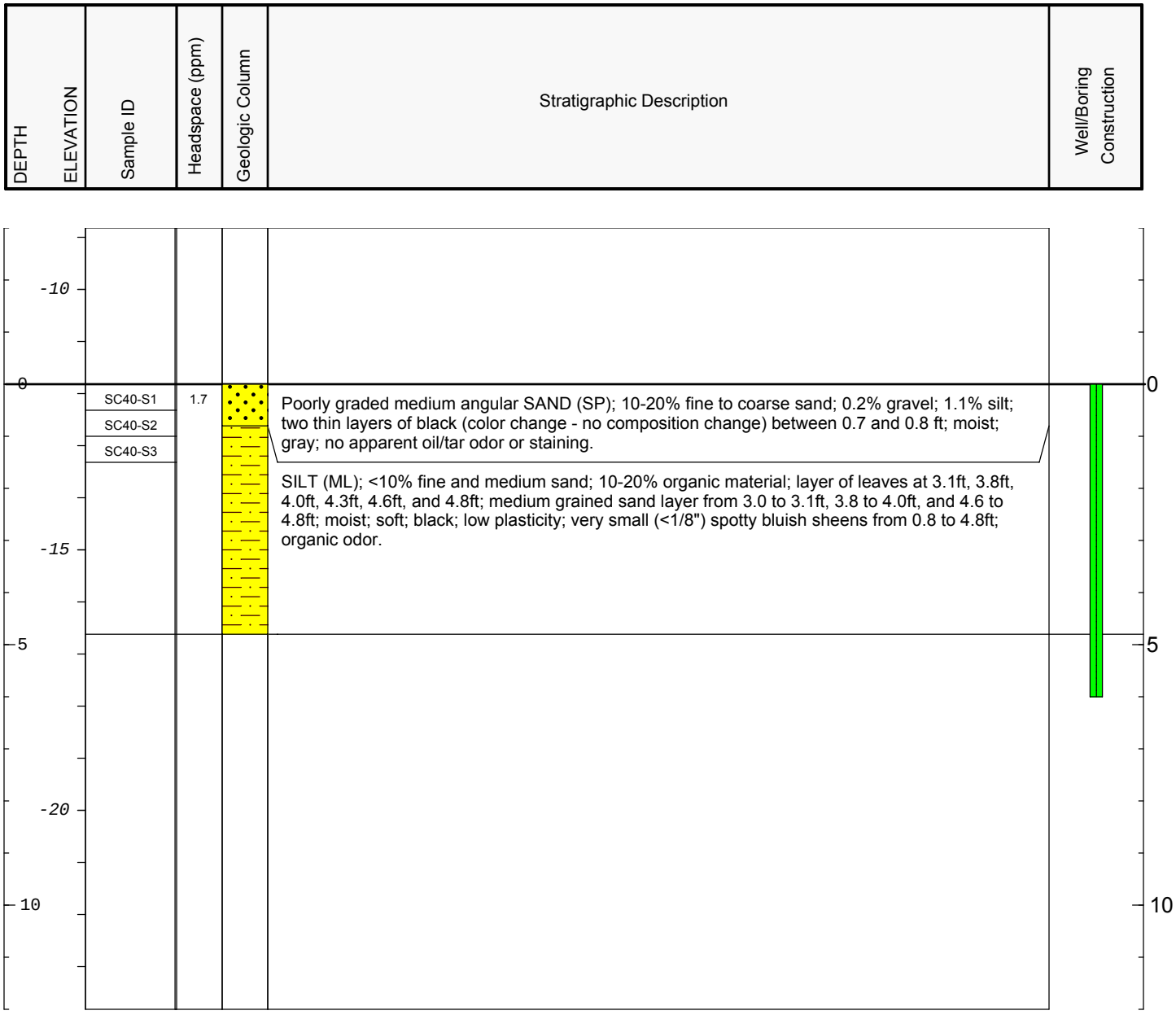
Date Start/Finish:	July 11, 2008	**Latitude:**	41 51.9129 N	**Well/Boring ID:**	SC39
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7669 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	8.4 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Push Core	**Mudline Elevation:**	-5.25 ft		
Penetration:	5.5 ft	**Recovery:**	5.2 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC39-S1 - sample obtained for laboratory analysis
SC39-S2, SC39-S3 - sample obtained for laboratory archiving

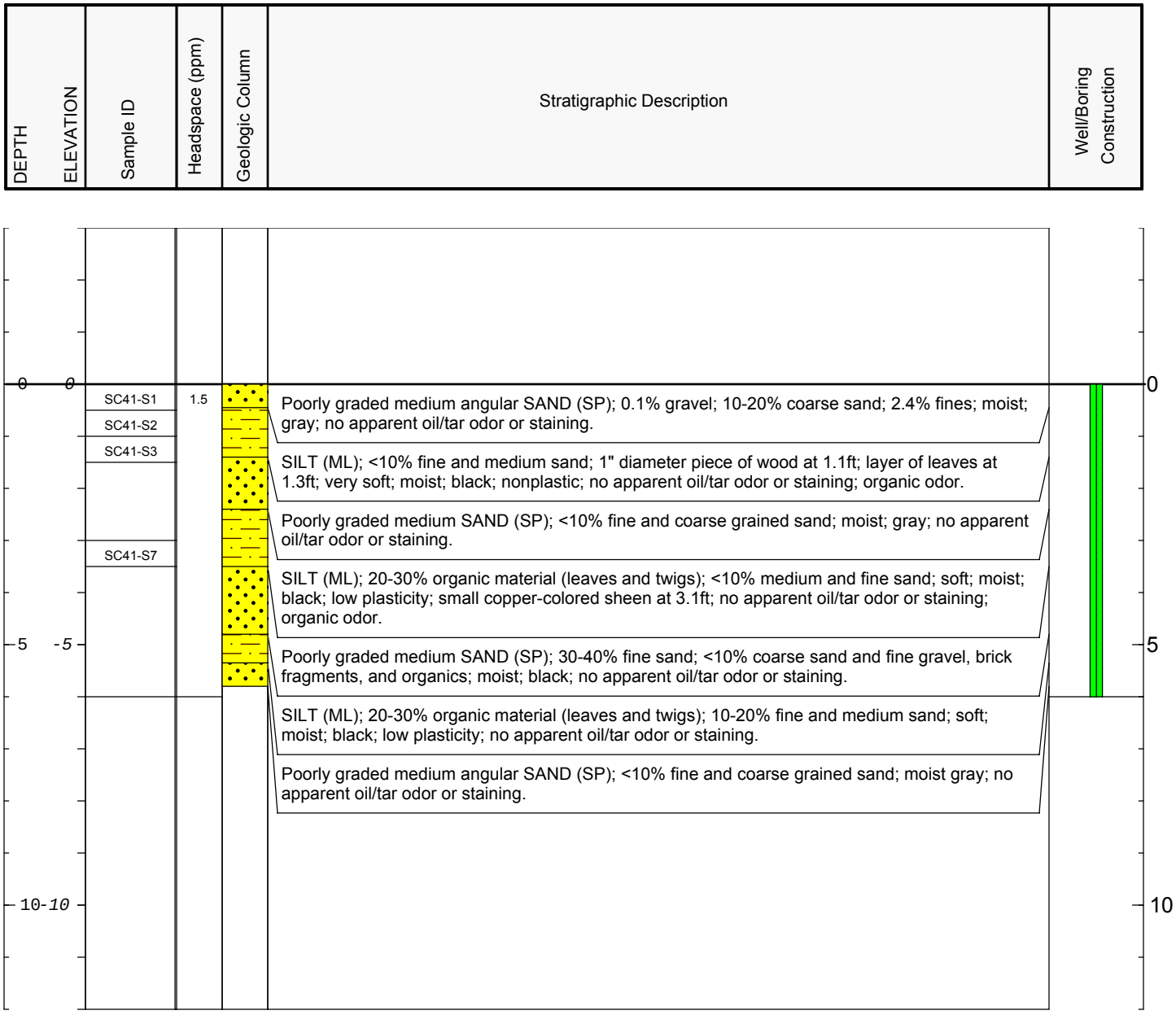
Date Start/Finish:	July 9, 2008	**Latitude:**	41 52.1430 N	**Well/Boring ID:**	SC40
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8334 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	13.7 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-11.82 ft		
Penetration:	5.0 ft	**Recovery:**	4.8 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC40-S1 - sample obtained for laboratory analysis
SC40-S2, SC40-S3 - sample obtained for laboratory archiving

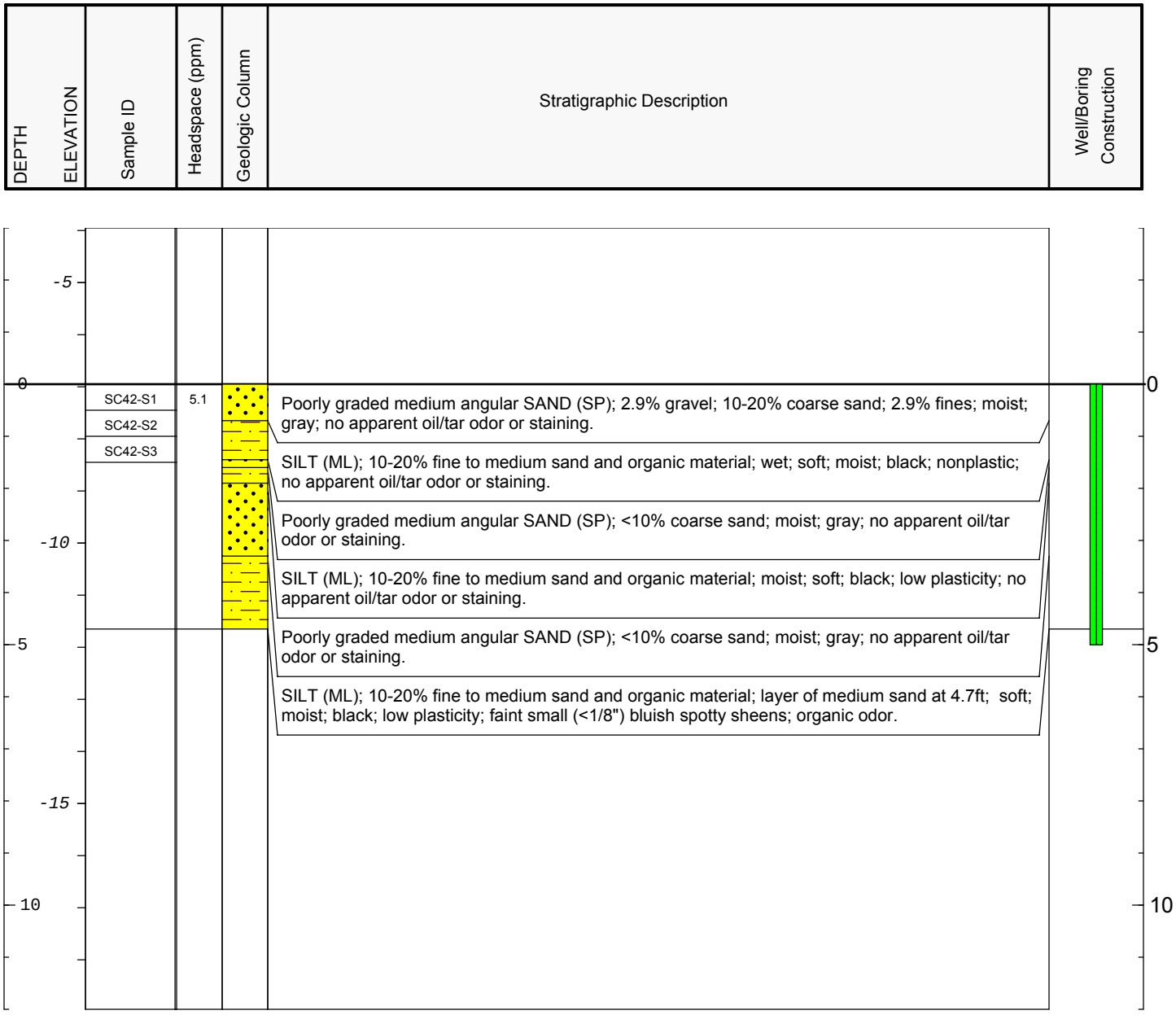
Date Start/Finish:	July 9, 2008	**Latitude:**	41 52.0865 N	**Well/Boring ID:**	SC41
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8016 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	11.2 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-9.85 ft		
Penetration:	6.0 ft	**Recovery:**	5.8 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC41-S1 - sample obtained for laboratory analysis
SC41-S2, SC41-S3, SC41-S7 - sample obtained for laboratory archiving

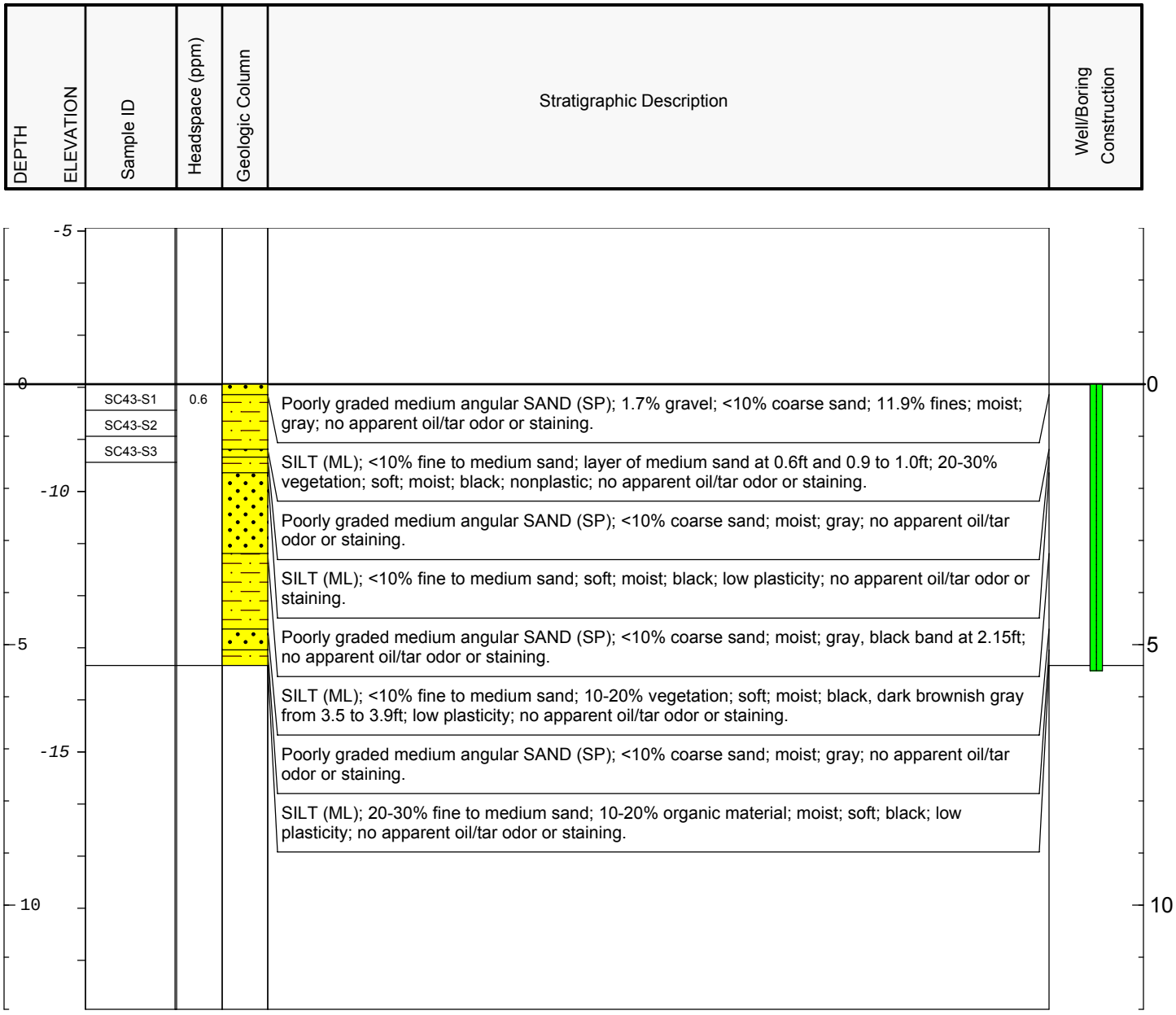
Date Start/Finish:	July 10, 2008	**Latitude:**	41 52.0218 N	**Well/Boring ID:**	SC42
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7782 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	8.5 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-6.95 ft		
Penetration:	5.0 ft	**Recovery:**	4.7 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC42-S1 - sample obtained for laboratory analysis
SC42-S2, SC42-S3 - sample obtained for laboratory archiving

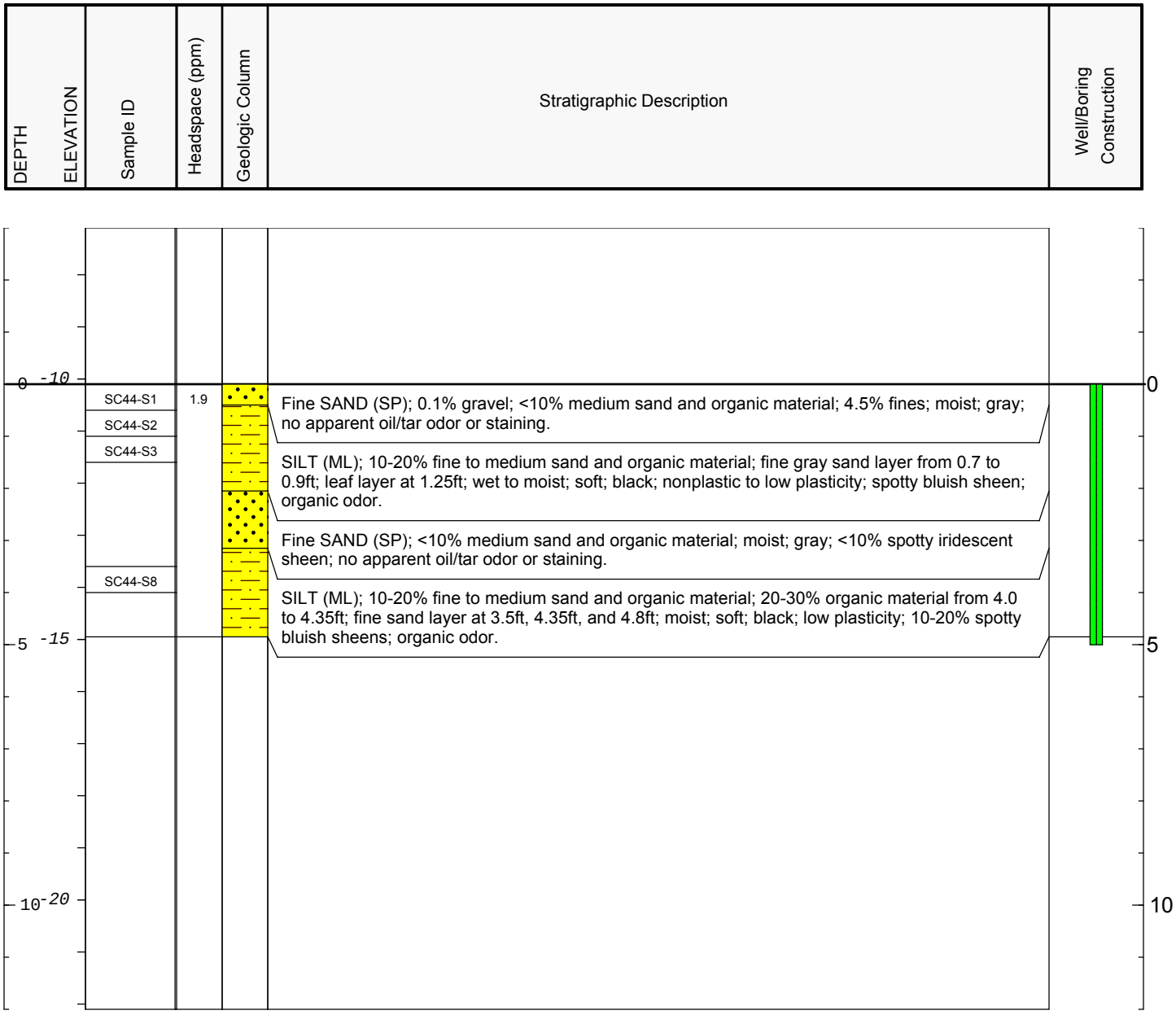
Date Start/Finish:	July 10, 2008	**Latitude:**	41 51.9817 N	**Well/Boring ID:**	SC43
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7651 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	9.1 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-7.94 ft		
Penetration:	5.5 ft	**Recovery:**	5.4 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC43-S1 - sample obtained for laboratory analysis
SC43-S2, SC43-S3 - sample obtained for laboratory archiving

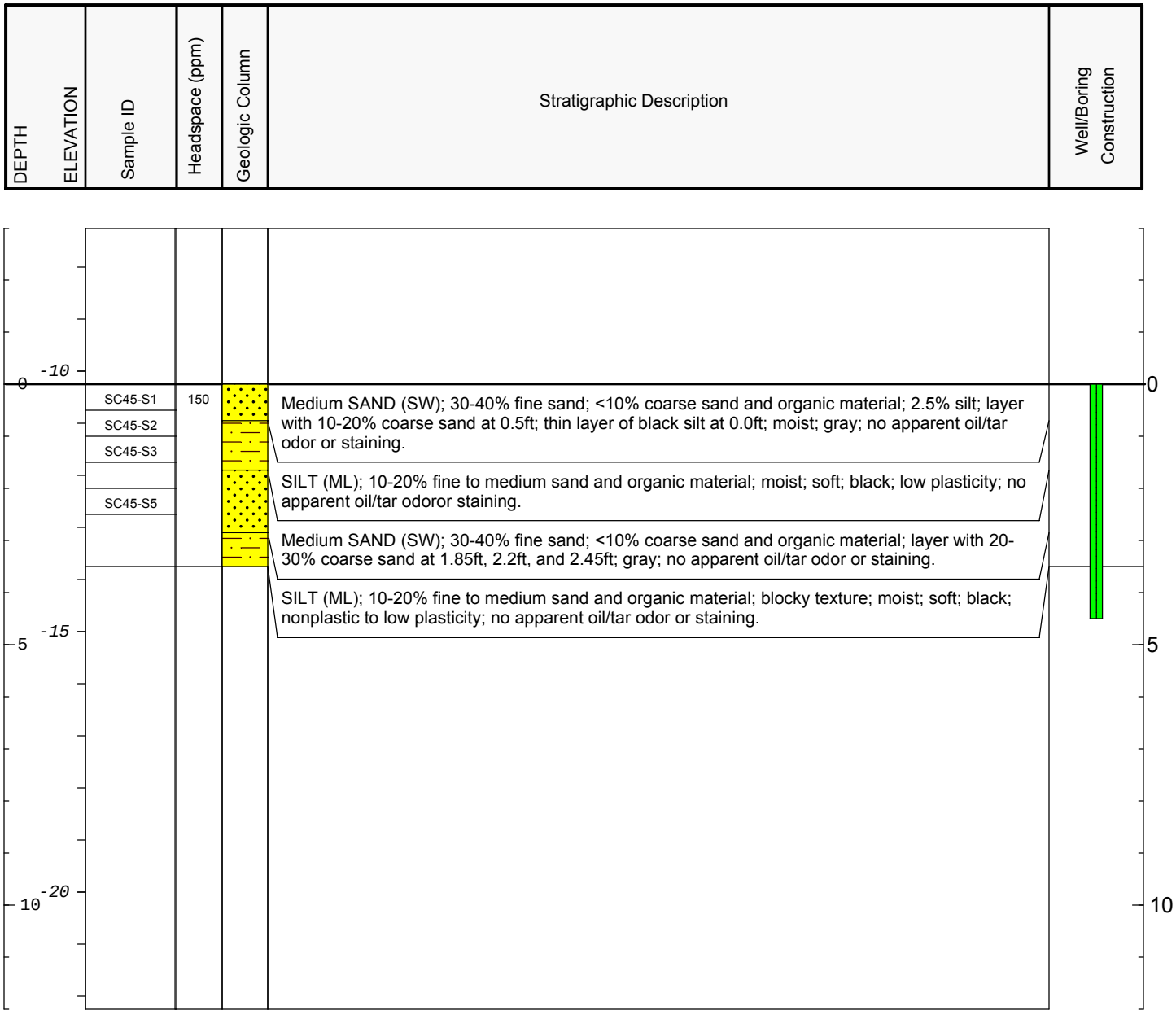
Date Start/Finish:	July 14, 2008	**Latitude:**	41 51.9151 N	**Well/Boring ID:**	SC44
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7470 W	**Client:**	National Grid
Driller's Name:	J. Scanlon and J. Balmer	**Water Depth:**	12.4 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-10.10 ft		
Penetration:	5.0 ft	**Recovery:**	4.85 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC44-S1 - sample obtained for laboratory analysis
SC44-S2, SC44-S3, SC44-S9 - sample obtained for laboratory archiving

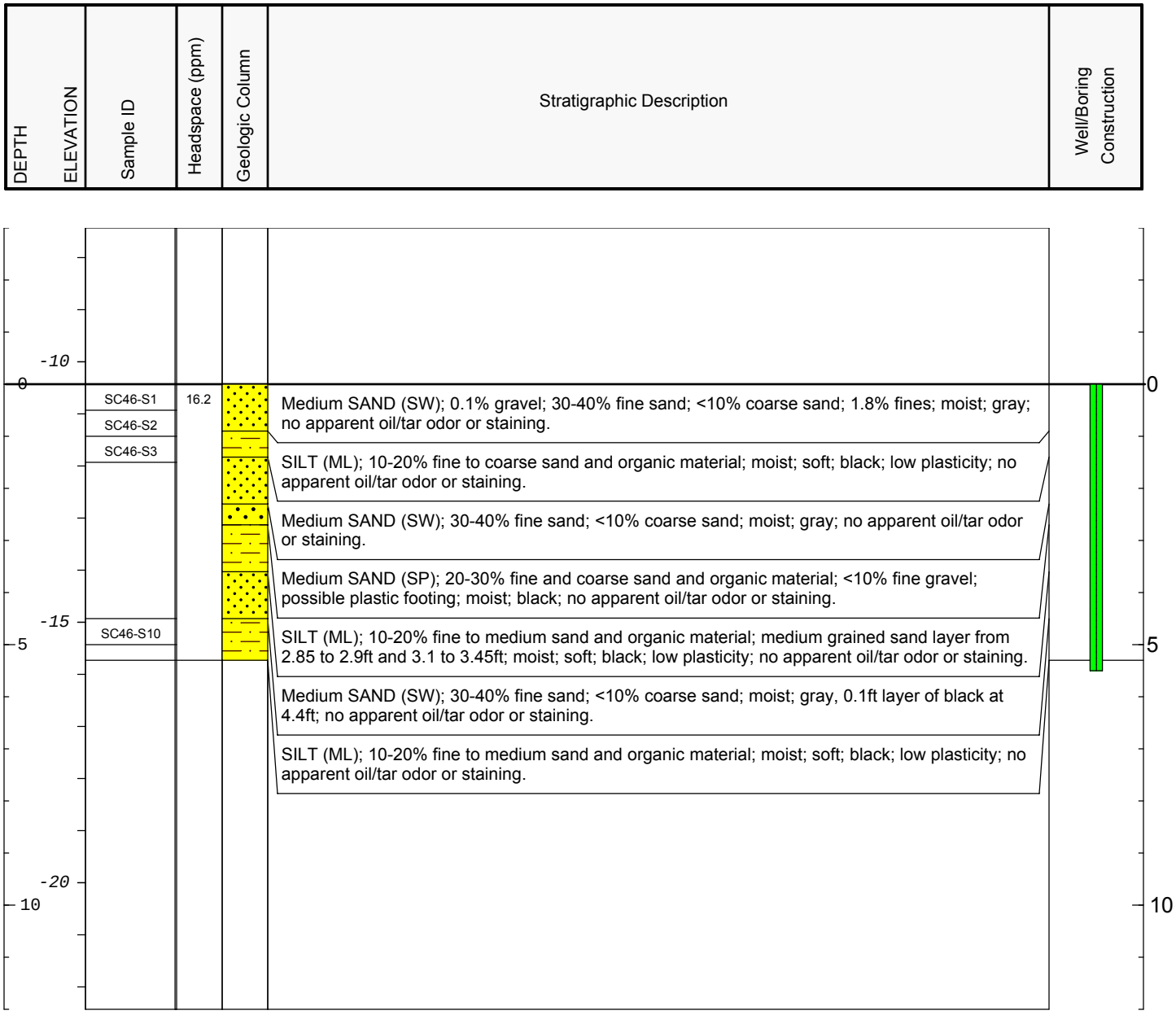
Date Start/Finish:	July 14, 2008	**Latitude:**	41 51.8819 N	**Well/Boring ID:**	SC45
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7262 W	**Client:**	National Grid
Driller's Name:	J. Scanlon and J. Balmer	**Water Depth:**	12.2 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-10.25 ft		
Penetration:	4.5 ft	**Recovery:**	3.5 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC45-S1 - sample obtained for laboratory analysis
SC45-S2, SC45-S3, SC45-S5 - sample obtained for laboratory archiving

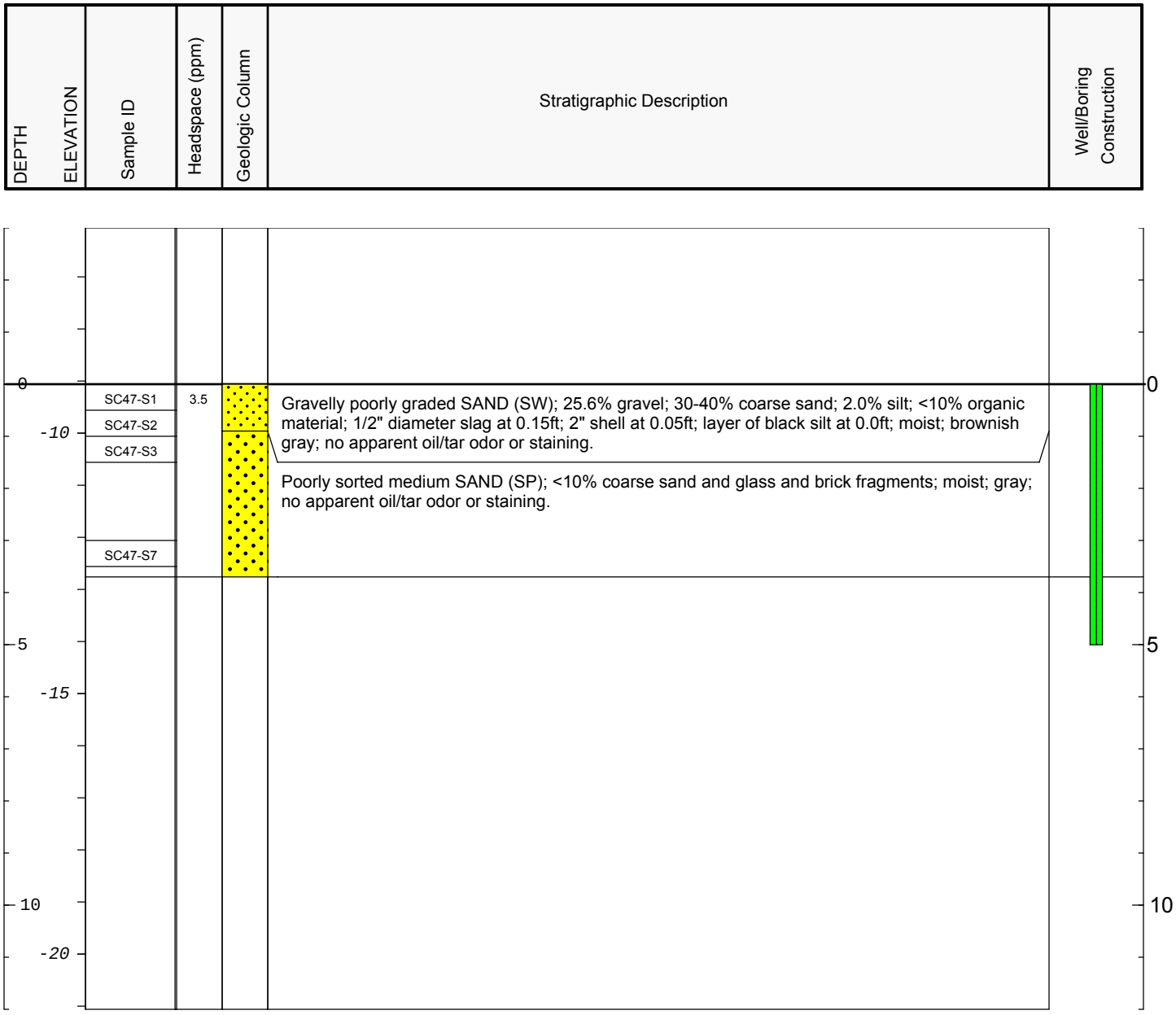
Date Start/Finish:	July 14, 2008	**Latitude:**	41 51.8555 N	**Well/Boring ID:**	SC46
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.7232 W	**Client:**	National Grid
Driller's Name:	J. Scanlon and J. Balmer	**Water Depth:**	12.0 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-10.43 ft		
Penetration:	5.5 ft	**Recovery:**	5.3 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC46-S1 - sample obtained for laboratory analysis
SC46-S2, SC46-S3, SC46-S10 - sample obtained for laboratory archiving

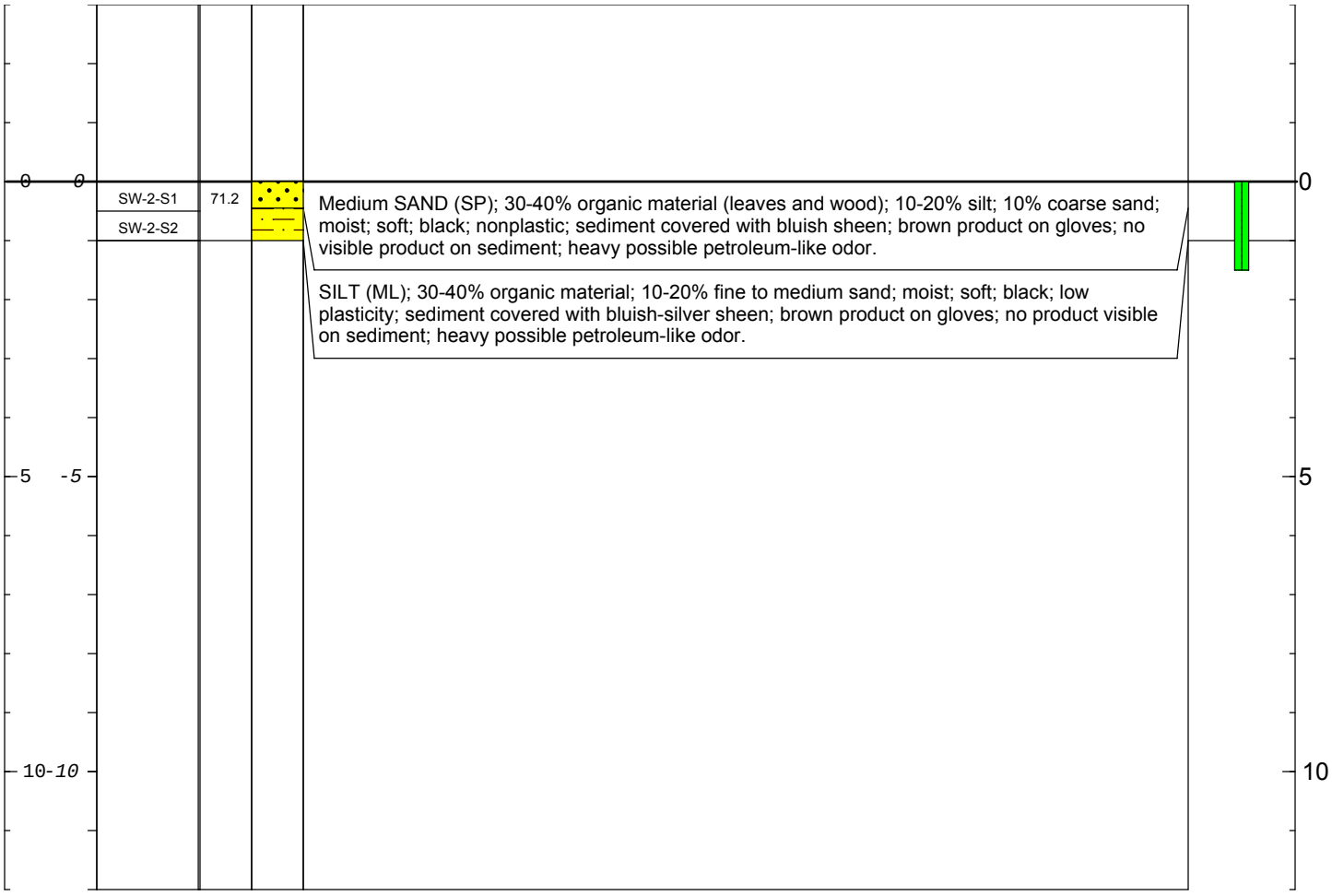
Date Start/Finish:	July 11, 2008	**Latitude:**	41 52.1253 N	**Well/Boring ID:**	SC47
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8449 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	10.5 ft	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Vibracore	**Mudline Elevation:**	-9.06 ft		
Penetration:	5.0 ft	**Recovery:**	3.7 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SC47-S1 - sample obtained for laboratory analysis
SC47-S2, SC47-S3, SC47-S7 - sample obtained for laboratory archiving

Date Start/Finish:	July 11, 2008	**Latitude:**	41 52.1252 N	**Well/Boring ID:**	SW-2
Drilling Company:	TG&B Marine Services, Inc.	**Longitude:**	71 22.8511 W	**Client:**	National Grid
Driller's Name:	M. Avakian and J. Scanlon	**Water Depth:**	NA	**Location:**	Former Tidewater MGP Site Pawtucket, RI
Drilling Method:	Push Core	**Mudline Elevation:**	NA		
Penetration:	1.5 ft	**Recovery:**	1.0 ft		
		Geologist:	B. Thibault		



ARCADIS
Infrastructure, environment, facilities

Remarks: ppm - parts per million
SW-2-S1 - sample obtained for laboratory analysis
SW-2-S2 - sample obtained for laboratory archiving

APPENDIX B
DATA VALIDATION REPORTS

DATA REVIEW FOR

TIDEWATER MGP

PAWTUCKET, RHODE ISLAND

SDG #0807059

VOLATILE, SEMIVOLATILE, METALS,
AND MISCELLANEOUS ANALYSES

Analyses performed by:

Alpha Woods Hole Labs
Mansfield, Massachusetts

Review performed by:

ARCADIS
Infrastructure, environment, facilities

Syracuse, New York
Report #8839

Summary

The following is an assessment of the data package for sample delivery group (SDG) #0807059 for sampling from the Tidewater MGP Site. Included with this assessment are the corrected sample results and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis					
				VOC	SVOC	TPH	MET	PCBs	MISC
SC23-S1	0807059-01	Sediment	7/8/2008	X	X		X		X
SC24-S1	0807059-02	Sediment	7/8/2008	X	X		X		X
SC21-S1	0807059-03	Sediment	7/8/2008	X	X		X		X
SC10-S1	0807059-04	Sediment	7/8/2008	X	X		X		X
SC12-S1	0807059-05	Sediment	7/8/2008	X	X		X		X
SC25-S1	0807059-06	Sediment	7/8/2008	X	X		X		X
SC3-S1	0807059-07	Sediment	7/9/2008	X	X		X		X
SC41-S1	0807059-08	Sediment	7/9/2008	X	X		X		X
SC40-S1	0807059-09	Sediment	7/9/2008	X	X		X		X
SC4-S1	0807059-10	Sediment	7/9/2008	X	X		X		X
SC22-S1	0807059-11	Sediment	7/9/2008	X	X		X		X
SC5-S1	0807059-12	Sediment	7/9/2008	X	X		X		X
SC6-S1	0807059-13	Sediment	7/9/2008	X	X		X		X
SC20-S1	0807059-14	Sediment	7/9/2008	X	X		X		X
SC26-S1	0807059-15	Sediment	7/10/2008	X	X		X		X
SC19-S1	0807059-16	Sediment	7/10/2008	X	X		X		X
SC43-S1	0807059-17	Sediment	7/10/2008	X	X		X		X
SC42-S1	0807059-18	Sediment	7/10/2008	X	X		X		X
SC9-S1	0807059-19	Sediment	7/10/2008	X	X		X		X
DUP-1	0807059-20	Sediment	7/10/2008	X	X		X		X
SC29-S1	0807059-21	Sediment	7/10/2008	X	X		X		X
SC17-S1	0807059-22	Sediment	7/10/2008	X	X		X		X
SC28-S1	0807059-23	Sediment	7/10/2008	X	X		X		X
SC30-S1	0807059-24	Sediment	7/10/2008	X	X		X		X
SC47-S1	0807059-25	Sediment	7/11/2008	X	X		X		X
SC32-S1	0807059-26	Sediment	7/11/2008	X	X		X		X
SC33-S1	0807059-27	Sediment	7/11/2008	X	X		X		X
SW2-S1	0807059-28	Sediment	7/11/2008	X	X		X		X
SC39-S1	0807059-29	Sediment	7/11/2008	X	X		X		X
SC38-S1	0807059-30	Sediment	7/11/2008	X	X		X		X
SC34-S1	0807059-31	Sediment	7/11/2008	X	X		X		X
SC35-S1	0807059-32	Sediment	7/11/2008	X	X		X		X
Trip Blank	0807059-33	Water	7/2/2008	X					

Notes:

1. Miscellaneous parameters include total organic carbon, physiologically available cyanide, and oil and grease.
2. Sample location DUP-1 is the field duplicate of parent sample location SC9-S1.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999. The quality indicators of this limited data review included holding times, associated blanks, matrix spike/matrix spike duplicate (MS/MSD) analysis, field duplicates, laboratory control sample and surrogate recoveries.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

The analyses that exceeded the holding are presented in the following table.

Sample Locations	Holding Time	Criteria
Trip Blank	Analysis Completed	22 Days

Sample results associated with sample locations analyzed by analytical method SW-846 8260 were qualified, as specified in the table below. All other holding times were met.

Criteria	Qualification	
	Detected Analytes	Non-detect Analytes
Analysis completed less than two times holding time	J	UJ

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method, trip, and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Target compounds were detected in the associated QA blanks. Sample results associated with blank contamination that were greater than the BAL and/or non-detect did not result in any qualification of data. Sample results less than the BAL associated with the following sample locations were qualified

as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
SC32-S1 SW2-S1	Bromomethane	Detected sample results <RL and <BAL	"U" at the PQL
SC24-S1 SC10-S1 SC12-S1 SC25-S1 SC3-S1 SC41-S1 SC40-S1 SC4-S1 SC22-S1 SC5-S1 SC20-S1 SC26-S1 SC47-S1 SW2-S1 SC35-S1	Acetone	Detected sample results >RL and <BAL	"U" at detected sample concentration

RL = reporting limit

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
SC43-S1	1,2-Dichloroethane-d4	< LL but > 10%
	4-Bromofluorobenzene	AC
	Dibromofluoromethane	AC
	Toluene-d8	AC

Upper control limit (UL)
Lower control limit (LL)
Diluted (D)
Acceptable (AC)

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J
Surrogates diluted below the calibration curve due to the high concentration of a target compounds	Non-detect	No Action
	Detect	

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

All compounds associated with sample location SC30-S1 except dichlorodifluoromethane, chloromethane, vinyl chloride, methylene chloride, methyl tert-butyl ether, 1,1-dichloroethane, chloroform, 1,2-dichlorpropane, methyl isobutyl ketone, and 2-hexanone had one or both MS/MSD recoveries below the lower control limit; therefore the associated sample result was qualified as estimated (J).

Sample locations associated with the MS/MSD exhibiting recoveries below 10% are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
SC30-S1	Acetone	<10%	<10%
	cis-1,3-Dichloropropene	<10%	<LL but > 10%
	trans-1,3-Dichloropropene	<10%	<LL but > 10%

AC = Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J

Control Limit	Sample Result	Qualification
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration (D).	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
SC30-S1	Bromomethane
	Vinyl acetate
	2-chloroethylvinyl ether
	cis-1,3-Dichloropropene
	trans-1,3-Dichloropropene
	Styrene

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	J
	Detect	J

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery
SC23-S1 SC24-S1 SC21-S1 SC10-S1 SC12-S1 SC25-S1 SC3-S1 SC41-S1	Bromomethane	<LL but > 10%	<LL but > 10%

Sample Locations	Compound	LCS Recovery	LCSD Recovery
SC40-S1 SC4-S1 SC22-S1 SC5-S1 SC6-S1 SC20-S1 SC26-S1 SC19-S1 SC43-S1 SC42-S1 SC9-S1	Bromomethane	<LL but > 10%	<LL but > 10%
	Vinyl acetate	>UL	AC
SC30-S1	Bromomethane	<LL but > 10%	AC
	Vinyl acetate	>UL	AC
SC17-S1 SC28-S1 SC47-S1 SC32-S1 SC33-S1 SW2-S1 SC39-S1 SC38-S1 SC34-S1 SC35-S1 Trip Blank	Bromomethane	<LL but > 10%	AC
	Vinyl acetate	>UL	AC
DUP-1 SC29-S1	Dichlorodifluoromethane	>UL	>UL
	Vinyl chloride	>UL	>UL
	Carbon disulfide	>UL	>UL

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J

Sample locations associated with LCS/LCSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
SC40-S1 SC4-S1 SC22-S1 SC5-S1 SC6-S1	Acetone

Sample Locations	Compound
SC20-S1 SC26-S1 SC19-S1 SC43-S1 SC42-S1 SC9-S1	
SC30-S1	Acetone
	2-Butanone
SC17-S1 SC28-S1 SC47-S1	Acetone
SC32-S1 SC33-S1 SW2-S1 SC39-S1	2-Butanone
SC38-S1 SC34-S1 SC35-S1 Trip Blank	Bromomethane

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	J
	Detect	J

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SC9-S1/DUP-1	2-Butanone (MEK)	33.4	75.5	77.3 %
	Acetone	129	298	79.1 %
	Carbon disulfide	45.3	67.4	39.2 %

ND = Not detected.
AC = The field duplicate RPD is acceptable when the RPD between parent sample and field duplicate sample is less than one/or/two times the RL and where the parent sample and/or duplicate concentration is less than five times the RL.

The calculated RPDs between the parent sample and field duplicate were acceptable.

7. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
SW2-S1	Naphthalene	39700 E	34200 D	34200 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8270 selective ion monitoring (SIM). Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999. The quality indicators of this limited data review included holding times, associated blanks, matrix spike/matrix spike duplicate (MS/MSD) analysis, field duplicates, laboratory control sample and surrogate recoveries.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270 SIM	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
SC24-S1	Acenaphthylene	<10%	> UL
SC30-S1	Dibenz(a,h)anthracene	> UL	> UL

AC = Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
SC24-S1	Acenaphthylene

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	J
	Detect	J

5. Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited acceptable recoveries and RPD between the LCS/LCSD recoveries.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SC9-S1/DUP-1	Acenaphthene	286	305	6.4 %
	Acenaphthylene	1020	943	7.8 %
	Anthracene	1310	1350	3.0 %
	Benz[a]anthracene	4170	4090	1.9 %
	Benzo[a]pyrene	4900	4780	2.4 %
	Benzo[b]fluoranthene	4720	4530	4.1 %
	Benzo[e]pyrene	3730	3620	2.9 %
	Benzo[g,h,i]perylene	3460	3380	2.3 %
	Benzo[k]fluoranthene	4280	4260	0.4 %
	C1-Chrysenes	2640	2370	10.7 %
	C1-Fluoranthenes/Pyrenes	4370	4210	3.7 %
	C1-Fluorenes	235	246	4.5 %
	C1-Naphthalenes	366	382	4.2 %
	C1-Phenanthrenes/Anthracenes	2090	2020	3.4 %
	C2-Chrysenes	1490	1240	18.3 %
	C2-Fluorenes	362	348	3.9 %
	C2-Naphthalenes	449	425	5.4 %
	C2-Phenanthrenes/Anthracenes	1420	1350	5.0 %
	C3-Chrysenes	1260	1110	12.6 %
	C3-Fluorenes	781	916	15.9 %
	C3-Naphthalenes	358	334	6.9 %
	C3-Phenanthrenes/Anthracenes	888	804	9.9 %
	C4-Chrysenes	815	724	11.8 %

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
	C4-Naphthalenes	270	263	2.6 %
	C4-Phenanthrenes/Anthracenes	549	469	15.7 %
	Chrysene	4850	4790	1.2 %
	Dibenz[a,h]anthracene	881	861	2.2 %
	Fluoranthene	9520	9600	0.8 %
	Fluorene	370	382	3.1 %
	Indeno[1,2,3-cd]pyrene	3560	3550	0.2 %
	Naphthalene	541	615	12.8 %
	Perylene	1610	1530	5.0 %
	Phenanthrene	3450	3580	3.6 %
	Pyrene	8450	8200	3.0 %

ND = Not detected.
AC = The field duplicate RPD is acceptable when the RPD between parent sample and field duplicate sample is less than one/or/two times the RL and where the parent sample and/or duplicate concentration is less than five times the RL.

The calculated RPDs between the parent sample and field duplicate were acceptable.

7. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
SC-25-S1	Fluoranthene	28800 E	24400 D	24400 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ

Reported Sample Results	Qualification
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

METALS ANALYSES

Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 6000/7000. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1994. The quality indicators of this limited data review included holding times, associated blanks, matrix spike (MS) and duplicate analysis, serial dilution analysis, field duplicate, and laboratory control sample recoveries.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

    U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

    B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

    E The reported value is estimated due to the presence of interference.

    N Spiked sample recovery is not within control limits.

    * Duplicate analysis is not within control limits.

- Validation Qualifiers

    J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

    UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

    R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6020	Water	180 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
	Soil	180 days from collection to analysis	Cooled @ 4 °C.
SW-846 7474	Soil	28 days from collection to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks, and preparation blanks) measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected analyte in an associated blank is calculated for QA blanks containing concentrations greater than the IDL. The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No analytes were detected above the reporting limit in the associated blanks.

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

All analytes associated with MS recoveries were within control limits with the exception of the

following analytes present in the table below.

Sample Location	Analytes	MS Recovery
SC24-S1	Antimony	61%
SC30-S1	Antimony	27%
	Mercury	128%

The criteria used to evaluate MS recoveries are presented in the following table. In the case of an MS deviation, the sample results are qualified. The qualifications are applied to all sample results associated with this SDG.

Control limit	Sample Result	Qualification
MS percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS percent recovery <30%	Non-detect	R
	Detect	J
MS percent recovery >125%	Non-detect	No Action
	Detect	J

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

All analytes associated with laboratory duplicate RPD were within the control limit, with the exception of the analytes presented in the following table.

Sample Location	Analytes	Laboratory RPD
SC24-S1	Arsenic	21%
	Beryllium	136%
	Cadmium	63%
	Chromium	39%
	Lead	142%
SC30-S1	Antimony	25%

The criteria used to evaluate laboratory duplicate RPD are presented in the following table. In the case of a laboratory duplicate RPD deviation, the sample results are qualified. The qualifications are applied to the all sample results associated with this SDG.

Sample Concentration	Control Limit	Sample Result	Qualification
Parent sample and laboratory sample concentration >5 times CRDL	Soil 35%	Non-detect	UJ
		Detect	J
Parent sample and/or laboratory duplicate sample result ≤ five times the RL and difference between samples >RL	Soil two times RL	Non-detect	UJ
		Detect	J

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SC9-S1/DUP-1	Antimony	1.09	1.25	13.6 %
	Arsenic	15.7	15.9	1.2 %
	Beryllium	0.982	1.04	5.7 %
	Cadmium	10.4	11.1	6.5 %
	Chromium	154	158	2.5 %
	Copper	322	314	2.5 %
	Lead	308	302	1.9 %
	Nickel	41	41	0 %
	Selenium	1.99	1.88	5.6 %
	Silver	5.8	6.1	5.0 %
	Thallium	0.18	0.183	1.6 %
	Zinc	455	446	1.9 %
	Mercury	0.903	0.942	4.2 %

ND = Not detected.
AC = The field duplicate RPD is acceptable when the RPD between parent sample and field duplicate sample is less than one/or/two times the RL and where the parent sample and/or duplicate concentration is less than five times the RL.

The calculated RPDs between the parent sample and field duplicate were acceptable.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

The LCS analysis exhibited recoveries within the control limits.

6. Serial Dilution

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

All serial dilutions were within control limits, with the exception of the analytes presented in the following table. The sample locations associated with the deviant %D are also presented in the following table.

Sample Locations	Analytes	%D
SC30-S1	Mercury	16%

The criteria used to evaluate the serial dilution are presented in the following table. In the case of a serial dilution deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

MISCELLANEOUS ANALYSES

Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 methods 9010, 9060, and 9071b. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1994. The quality indicators of this limited data review included holding times, associated blanks, matrix spike (MS) and laboratory duplicate analysis, field duplicate, and laboratory control sample recoveries.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

    U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

    B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

    N Spiked sample recovery is not within control limits.

    * Duplicate analysis is not within control limits.

- Validation Qualifiers

    J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

    UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

    R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Physiologically Available Cyanide by SW-846 9010	Soil	14 days from collection to analysis	Cooled @ 4 °C
Total Organic Carbon by 9060	Soil	28 days from collection to analysis	Cooled @ 4 °C
Oil and Grease by 9071b	Soil	28 days from collection to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks, and preparation blanks) measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected analyte in an associated blank is calculated for QA blanks containing concentrations greater than the MDL. The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No analytes were detected above the reporting limit in the associated blanks.

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS Analysis

All analyses must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater

All analytes associated with MS recoveries were within control limits with the exception of the following analytes present in the table below.

Sample Location	Analytes	MS Recovery
SC24-S1	TOC	128%
SC30-S1	TOC	272%

The criteria used to evaluate MS recoveries are presented in the following table. In the case of an MS deviation, the sample results are qualified. The qualifications are applied to all sample results associated with this SDG.

Control limit	Sample Result	Qualification
MS percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS percent recovery <30%	Non-detect	R
	Detect	J
MS percent recovery >125%	Non-detect	No Action
	Detect	J

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

All analytes associated with laboratory duplicate RPD were within the control limit, with the exception of the analytes presented in the following table.

Sample Location	Analytes	Laboratory RPD
SC30-S1	TOC	35%

The criteria used to evaluate laboratory duplicate RPD are presented in the following table. In the case of a laboratory duplicate RPD deviation, the sample results are qualified. The qualifications are applied to the all sample results associated with this SDG.

Sample Concentration	Control Limit	Sample Result	Qualification
Parent sample and laboratory sample concentration >5 times CRDL	Soil 35%	Non-detect	UJ
		Detect	J
Parent sample and/or laboratory duplicate sample result ≤ five times the RL and difference between samples >RL	Soil two times RL	Non-detect	UJ
		Detect	J

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SC9-S1/DUP-1	Total Organic Carbon (Run 1)	4.1	3.9	4.9 %
	Total Organic Carbon (Run 2)	4.2	3.6	15.3 %
	TPH, HEM-SGT	5820	5410	7.3 %
	Physiologically Available Cyanide	ND	ND	AC

ND = Not detected.
AC = The field duplicate RPD is acceptable when the RPD between parent sample and field duplicate sample is less than one/or/two times the RL and where the parent sample and/or duplicate concentration is less than five times the RL.

The calculated RPDs between the parent sample and field duplicate were acceptable.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

The LCS analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Upon validation of the TOC analysis performed within this SDG it was discovered that all samples were analyzed in duplicate. Technical compliance of method SW-846 9060 requires analysis to be performed in quadruplicate. The purpose of the quadruplicate analysis is to establish data precision. Since the laboratory performed the sample analysis in duplicate for each sample location, for data qualification and usability purposes the sample analysis precision of the two reported runs for each sample location were evaluated against laboratory duplicate criterion:

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the reporting limit (RL). A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

The criteria used to evaluate laboratory duplicate RPD (in this case the two sample runs) are presented in the following table. In the case of a laboratory duplicate RPD deviation, the sample results are qualified.

Sample Concentration	Control Limit	Sample Result	Qualification
Parent sample and laboratory sample concentration >5 times RL	Water 20% Soil 35%	Non-detect	UJ
		Detect	J
Parent sample and/or laboratory duplicate sample result ≤ five times the RL and difference between samples >RL	Water one times RL Soil two times RL	Non-detect	UJ
		Detect	J

The duplicate sample results exhibited RPD within the control limit for all sample locations within this SDG; therefore no results were qualified due to the method deviation.

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC23-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-01**
Associated Blank: **VS071808B16**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/19/08	59.3	6.53	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	2.58	U	2-Hexanone	2.58	U
Chloromethane	2.58	U	Tetrachloroethene	2.58	U
Vinyl chloride	2.58	U	1,3-Dichloropropane	2.58	U
Bromomethane	6.46	U J	Dibromochloromethane	2.58	U
Chloroethane	2.58	U	1,2-Dibromoethane	2.58	U
Trichlorofluoromethane	2.58	U	Chlorobenzene	2.58	U
Acetone	**201**	B	1,1,1,2-Tetrachloroethane	2.58	U
1,1-Dichloroethene	2.58	U	Ethylbenzene	2.58	U
Carbon disulfide	**18.1**		p/m-Xylene	5.17	U
Methylene chloride	6.46	U	o-Xylene	2.58	U
Methyl tert-butyl ether (MTBE)	2.58	U	Styrene	2.58	U
trans-1,2-Dichloroethene	2.58	U	Bromoform	2.58	U
1,1-Dichloroethane	2.58	U	Isopropylbenzene	**1.86**	J
Vinyl acetate	2.58	U	1,1,2,2-Tetrachloroethane	2.58	U
2-Butanone (MEK)	**56.4**		Bromobenzene	2.58	U
cis-1,2-Dichloroethene	2.58	U	1,2,3-Trichloropropane	2.58	U
2,2-Dichloropropane	2.58	U	n-Propylbenzene	2.58	U
Chloroform	2.58	U	2-Chlorotoluene	2.58	U
1,1,1-Trichloroethane	2.58	U	1,3,5-Trimethylbenzene	2.58	U
1,1-Dichloropropene	2.58	U	4-Chlorotoluene	2.58	U
Carbon tetrachloride	2.58	U	tert-Butylbenzene	2.58	U
Benzene	2.58	U	1,2,4-Trimethylbenzene	2.58	U
1,2-Dichloroethane	2.58	U	sec-Butylbenzene	2.58	U
Trichloroethene	2.58	U	1,3-Dichlorobenzene	2.58	U
1,2-Dichloropropane	2.58	U	p-Isopropyltoluene	2.58	U
Dibromomethane	2.58	U	1,4-Dichlorobenzene	2.58	U
Bromodichloromethane	2.58	U	n-Butylbenzene	2.58	U
2-Chloroethylvinyl ether	2.58	U	1,2-Dichlorobenzene	2.58	U
Methyl isobutyl ketone (MIBK)	2.58	U	1,2-Dibromo-3-chloropropane	2.58	U
cis-1,3-Dichloropropene	2.58	U	1,2,4-Trichlorobenzene	2.58	U
Toluene	2.58	U	Hexachlorobutadiene	2.58	U
trans-1,3-Dichloropropene	2.58	U	Naphthalene	2.58	U
1,1,2-Trichloroethane	2.58	U	1,2,3-Trichlorobenzene	2.58	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	104	70-130
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	95	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC-24-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-02**
Associated Blank: **VS071808B16**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/19/08	82.6	6.77	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.79	U	2-Hexanone	1.79	U
Chloromethane	1.79	U	Tetrachloroethene	1.79	U
Vinyl chloride	1.79	U	1,3-Dichloropropane	1.79	U
Bromomethane	4.47	U J	Dibromochloromethane	1.79	U
Chloroethane	1.79	U	1,2-Dibromoethane	1.79	U
Trichlorofluoromethane	1.79	U	Chlorobenzene	1.79	U
Acetone	**13.7**	B U	1,1,1,2-Tetrachloroethane	1.79	U
1,1-Dichloroethene	1.79	U	Ethylbenzene	1.79	U
Carbon disulfide	**3.81**		p/m-Xylene	3.58	U
Methylene chloride	4.47	U	o-Xylene	1.79	U
Methyl tert-butyl ether (MTBE)	1.79	U	Styrene	1.79	U
trans-1,2-Dichloroethene	1.79	U	Bromoform	1.79	U
1,1-Dichloroethane	1.79	U	Isopropylbenzene	1.79	U
Vinyl acetate	1.79	U	1,1,2,2-Tetrachloroethane	1.79	U
2-Butanone (MEK)	1.79	U	Bromobenzene	1.79	U
cis-1,2-Dichloroethene	1.79	U	1,2,3-Trichloropropane	1.79	U
2,2-Dichloropropane	1.79	U	n-Propylbenzene	1.79	U
Chloroform	1.79	U	2-Chlorotoluene	1.79	U
1,1,1-Trichloroethane	1.79	U	1,3,5-Trimethylbenzene	1.79	U
1,1-Dichloropropene	1.79	U	4-Chlorotoluene	1.79	U
Carbon tetrachloride	1.79	U	tert-Butylbenzene	1.79	U
Benzene	1.79	U	1,2,4-Trimethylbenzene	1.79	U
1,2-Dichloroethane	1.79	U	sec-Butylbenzene	1.79	U
Trichloroethene	1.79	U	1,3-Dichlorobenzene	1.79	U
1,2-Dichloropropane	1.79	U	p-Isopropyltoluene	1.79	U
Dibromomethane	1.79	U	1,4-Dichlorobenzene	**1.22**	J
Bromodichloromethane	1.79	U	n-Butylbenzene	1.79	U
2-Chloroethylvinyl ether	1.79	U	1,2-Dichlorobenzene	1.79	U
Methyl isobutyl ketone (MIBK)	1.79	U	1,2-Dibromo-3-chloropropane	1.79	U
cis-1,3-Dichloropropene	1.79	U	1,2,4-Trichlorobenzene	1.79	U
Toluene	1.79	U	Hexachlorobutadiene	1.79	U
trans-1,3-Dichloropropene	1.79	U	Naphthalene	**1.11**	J
1,1,2-Trichloroethane	1.79	U	1,2,3-Trichlorobenzene	1.79	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	100	70-130
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	85	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC-21-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-03**
Associated Blank: **VS071808B16**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/19/08	42.5	6.24	5	1	MLR

Parameter	Result	Parameter	Result
Dichlorodifluoromethane	3.77 U	2-Hexanone	3.77 U
Chloromethane	3.77 U	Tetrachloroethene	3.77 U
Vinyl chloride	3.77 U	1,3-Dichloropropane	3.77 U
Bromomethane	9.42 U J	Dibromochloromethane	3.77 U
Chloroethane	3.77 U	1,2-Dibromoethane	3.77 U
Trichlorofluoromethane	3.77 U	Chlorobenzene	3.77 U
Acetone	134 B	1,1,1,2-Tetrachloroethane	3.77 U
1,1-Dichloroethene	3.77 U	Ethylbenzene	3.77 U
Carbon disulfide	20.9	p/m-Xylene	7.53 U
Methylene chloride	9.42 U	o-Xylene	3.77 U
Methyl tert-butyl ether (MTBE)	3.77 U	Styrene	3.77 U
trans-1,2-Dichloroethene	3.77 U	Bromoform	3.77 U
1,1-Dichloroethane	3.77 U	Isopropylbenzene	3.77 U
Vinyl acetate	3.77 U	1,1,2,2-Tetrachloroethane	3.77 U
2-Butanone (MEK)	35.6	Bromobenzene	3.77 U
cis-1,2-Dichloroethene	3.77 U	1,2,3-Trichloropropane	3.77 U
2,2-Dichloropropane	3.77 U	n-Propylbenzene	3.77 U
Chloroform	3.77 U	2-Chlorotoluene	3.77 U
1,1,1-Trichloroethane	3.77 U	1,3,5-Trimethylbenzene	3.77 U
1,1-Dichloropropene	3.77 U	4-Chlorotoluene	3.77 U
Carbon tetrachloride	3.77 U	tert-Butylbenzene	3.77 U
Benzene	3.77 U	1,2,4-Trimethylbenzene	3.77 U
1,2-Dichloroethane	3.77 U	sec-Butylbenzene	3.77 U
Trichloroethene	3.77 U	1,3-Dichlorobenzene	3.77 U
1,2-Dichloropropane	3.77 U	p-Isopropyltoluene	3.77 U
Dibromomethane	3.77 U	1,4-Dichlorobenzene	3.77 U
Bromodichloromethane	3.77 U	n-Butylbenzene	3.77 U
2-Chloroethylvinyl ether	3.77 U	1,2-Dichlorobenzene	3.77 U
Methyl isobutyl ketone (MIBK)	3.77 U	1,2-Dibromo-3-chloropropane	3.77 U
cis-1,3-Dichloropropene	3.77 U	1,2,4-Trichlorobenzene	3.77 U
Toluene	3.77 U	Hexachlorobutadiene	3.77 U
trans-1,3-Dichloropropene	3.77 U	Naphthalene	3.77 U
1,1,2-Trichloroethane	3.77 U	1,2,3-Trichlorobenzene	3.77 U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	98	70-130
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	83	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC-10-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-04**
Associated Blank: **VS071808B16**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/19/08	82.4	7.80	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.56	U	2-Hexanone	1.56	U
Chloromethane	1.56	U	Tetrachloroethene	1.56	U
Vinyl chloride	1.56	U	1,3-Dichloropropane	1.56	U
Bromomethane	3.89	U J	Dibromochloromethane	1.56	U
Chloroethane	1.56	U	1,2-Dibromoethane	1.56	U
Trichlorofluoromethane	1.56	U	Chlorobenzene	1.56	U
Acetone	**20.9**	B U	1,1,1,2-Tetrachloroethane	1.56	U
1,1-Dichloroethene	1.56	U	Ethylbenzene	1.56	U
Carbon disulfide	**11.1**		p/m-Xylene	3.11	U
Methylene chloride	3.89	U	o-Xylene	1.56	U
Methyl tert-butyl ether (MTBE)	1.56	U	Styrene	1.56	U
trans-1,2-Dichloroethene	1.56	U	Bromoform	1.56	U
1,1-Dichloroethane	1.56	U	Isopropylbenzene	1.56	U
Vinyl acetate	1.56	U	1,1,2,2-Tetrachloroethane	1.56	U
2-Butanone (MEK)	**3.27**		Bromobenzene	1.56	U
cis-1,2-Dichloroethene	1.56	U	1,2,3-Trichloropropane	1.56	U
2,2-Dichloropropane	1.56	U	n-Propylbenzene	1.56	U
Chloroform	1.56	U	2-Chlorotoluene	1.56	U
1,1,1-Trichloroethane	1.56	U	1,3,5-Trimethylbenzene	1.56	U
1,1-Dichloropropene	1.56	U	4-Chlorotoluene	1.56	U
Carbon tetrachloride	1.56	U	tert-Butylbenzene	1.56	U
Benzene	1.56	U	1,2,4-Trimethylbenzene	1.56	U
1,2-Dichloroethane	1.56	U	sec-Butylbenzene	1.56	U
Trichloroethene	1.56	U	1,3-Dichlorobenzene	1.56	U
1,2-Dichloropropane	1.56	U	p-Isopropyltoluene	1.56	U
Dibromomethane	1.56	U	1,4-Dichlorobenzene	**7.60**	
Bromodichloromethane	1.56	U	n-Butylbenzene	1.56	U
2-Chloroethylvinyl ether	1.56	U	1,2-Dichlorobenzene	1.56	U
Methyl isobutyl ketone (MIBK)	1.56	U	1,2-Dibromo-3-chloropropane	1.56	U
cis-1,3-Dichloropropene	1.56	U	1,2,4-Trichlorobenzene	1.56	U
Toluene	1.56	U	Hexachlorobutadiene	1.56	U
trans-1,3-Dichloropropene	1.56	U	Naphthalene	**2.15**	
1,1,2-Trichloroethane	1.56	U	1,2,3-Trichlorobenzene	1.56	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	102	70-130
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	83	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC-12-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-05**
Associated Blank: **VS071808B16**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/19/08	86.0	7.46	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.56	U	2-Hexanone	1.56	U
Chloromethane	1.56	U	Tetrachloroethene	1.56	U
Vinyl chloride	1.56	U	1,3-Dichloropropane	1.56	U
Bromomethane	3.90	U J	Dibromochloromethane	1.56	U
Chloroethane	1.56	U	1,2-Dibromoethane	1.56	U
Trichlorofluoromethane	1.56	U	Chlorobenzene	1.56	U
Acetone	**20.0**	B U	1,1,1,2-Tetrachloroethane	1.56	U
1,1-Dichloroethene	1.56	U	Ethylbenzene	1.56	U
Carbon disulfide	**7.39**		p/m-Xylene	3.12	U
Methylene chloride	3.90	U	o-Xylene	1.56	U
Methyl tert-butyl ether (MTBE)	1.56	U	Styrene	1.56	U
trans-1,2-Dichloroethene	1.56	U	Bromoform	1.56	U
1,1-Dichloroethane	1.56	U	Isopropylbenzene	1.56	U
Vinyl acetate	1.56	U	1,1,2,2-Tetrachloroethane	1.56	U
2-Butanone (MEK)	**2.69**		Bromobenzene	1.56	U
cis-1,2-Dichloroethene	1.56	U	1,2,3-Trichloropropane	1.56	U
2,2-Dichloropropane	1.56	U	n-Propylbenzene	1.56	U
Chloroform	1.56	U	2-Chlorotoluene	1.56	U
1,1,1-Trichloroethane	1.56	U	1,3,5-Trimethylbenzene	1.56	U
1,1-Dichloropropene	1.56	U	4-Chlorotoluene	1.56	U
Carbon tetrachloride	1.56	U	tert-Butylbenzene	1.56	U
Benzene	1.56	U	1,2,4-Trimethylbenzene	1.56	U
1,2-Dichloroethane	1.56	U	sec-Butylbenzene	1.56	U
Trichloroethene	1.56	U	1,3-Dichlorobenzene	1.56	U
1,2-Dichloropropane	1.56	U	p-Isopropyltoluene	1.56	U
Dibromomethane	1.56	U	1,4-Dichlorobenzene	**3.97**	
Bromodichloromethane	1.56	U	n-Butylbenzene	1.56	U
2-Chloroethylvinyl ether	1.56	U	1,2-Dichlorobenzene	1.56	U
Methyl isobutyl ketone (MIBK)	1.56	U	1,2-Dibromo-3-chloropropane	1.56	U
cis-1,3-Dichloropropene	1.56	U	1,2,4-Trichlorobenzene	1.56	U
Toluene	**3.63**		Hexachlorobutadiene	1.56	U
trans-1,3-Dichloropropene	1.56	U	Naphthalene	**1.45**	J
1,1,2-Trichloroethane	1.56	U	1,2,3-Trichlorobenzene	1.56	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	104	70-130
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	84	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC-25-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-06**
Associated Blank: **VS071808B16**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/19/08	76.7	10.43	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.25	U	2-Hexanone	1.25	U
Chloromethane	1.25	U	Tetrachloroethene	1.25	U
Vinyl chloride	1.25	U	1,3-Dichloropropane	1.25	U
Bromomethane	3.13	U J	Dibromochloromethane	1.25	U
Chloroethane	1.25	U	1,2-Dibromoethane	1.25	U
Trichlorofluoromethane	1.25	U	Chlorobenzene	1.25	U
Acetone	**45.6**	B V	1,1,1,2-Tetrachloroethane	1.25	U
1,1-Dichloroethene	1.25	U	Ethylbenzene	1.25	U
Carbon disulfide	**6.88**		p/m-Xylene	2.50	U
Methylene chloride	3.13	U	o-Xylene	1.25	U
Methyl tert-butyl ether (MTBE)	1.25	U	Styrene	1.25	U
trans-1,2-Dichloroethene	1.25	U	Bromoform	1.25	U
1,1-Dichloroethane	1.25	U	Isopropylbenzene	1.25	U
Vinyl acetate	1.25	U	1,1,2,2-Tetrachloroethane	1.25	U
2-Butanone (MEK)	**9.51**		Bromobenzene	1.25	U
cis-1,2-Dichloroethene	1.25	U	1,2,3-Trichloropropane	1.25	U
2,2-Dichloropropane	1.25	U	n-Propylbenzene	1.25	U
Chloroform	1.25	U	2-Chlorotoluene	1.25	U
1,1,1-Trichloroethane	1.25	U	1,3,5-Trimethylbenzene	1.25	U
1,1-Dichloropropene	1.25	U	4-Chlorotoluene	1.25	U
Carbon tetrachloride	1.25	U	tert-Butylbenzene	1.25	U
Benzene	1.25	U	1,2,4-Trimethylbenzene	1.25	U
1,2-Dichloroethane	1.25	U	sec-Butylbenzene	1.25	U
Trichloroethene	1.25	U	1,3-Dichlorobenzene	1.25	U
1,2-Dichloropropane	1.25	U	p-Isopropyltoluene	1.25	U
Dibromomethane	1.25	U	1,4-Dichlorobenzene	**1.21**	J
Bromodichloromethane	1.25	U	n-Butylbenzene	1.25	U
2-Chloroethylvinyl ether	1.25	U	1,2-Dichlorobenzene	1.25	U
Methyl isobutyl ketone (MIBK)	1.25	U	1,2-Dibromo-3-chloropropane	1.25	U
cis-1,3-Dichloropropene	1.25	U	1,2,4-Trichlorobenzene	1.25	U
Toluene	1.25	U	Hexachlorobutadiene	1.25	U
trans-1,3-Dichloropropene	1.25	U	Naphthalene	1.25	U
1,1,2-Trichloroethane	1.25	U	1,2,3-Trichlorobenzene	1.25	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	105	70-130
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	89	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC3-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-07**
Associated Blank: **VS071808B16**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/19/08	80.2	6.29	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.98	U	2-Hexanone	1.98	U
Chloromethane	1.98	U	Tetrachloroethene	1.98	U
Vinyl chloride	1.98	U	1,3-Dichloropropane	1.98	U
Bromomethane	4.96	U J	Dibromochloromethane	1.98	U
Chloroethane	1.98	U	1,2-Dibromoethane	1.98	U
Trichlorofluoromethane	1.98	U	Chlorobenzene	1.98	U
Acetone	**21.3**	B U	1,1,1,2-Tetrachloroethane	1.98	U
1,1-Dichloroethene	1.98	U	Ethylbenzene	1.98	U
Carbon disulfide	**2.64**		p/m-Xylene	3.97	U
Methylene chloride	4.96	U	o-Xylene	1.98	U
Methyl tert-butyl ether (MTBE)	1.98	U	Styrene	1.98	U
trans-1,2-Dichloroethene	1.98	U	Bromoform	1.98	U
1,1-Dichloroethane	1.98	U	Isopropylbenzene	1.98	U
Vinyl acetate	1.98	U	1,1,2,2-Tetrachloroethane	1.98	U
2-Butanone (MEK)	**3.41**		Bromobenzene	1.98	U
cis-1,2-Dichloroethene	1.98	U	1,2,3-Trichloropropane	1.98	U
2,2-Dichloropropane	1.98	U	n-Propylbenzene	1.98	U
Chloroform	1.98	U	2-Chlorotoluene	1.98	U
1,1,1-Trichloroethane	1.98	U	1,3,5-Trimethylbenzene	1.98	U
1,1-Dichloropropene	1.98	U	4-Chlorotoluene	1.98	U
Carbon tetrachloride	1.98	U	tert-Butylbenzene	1.98	U
Benzene	1.98	U	1,2,4-Trimethylbenzene	1.98	U
1,2-Dichloroethane	1.98	U	sec-Butylbenzene	1.98	U
Trichloroethene	1.98	U	1,3-Dichlorobenzene	1.98	U
1,2-Dichloropropane	1.98	U	p-Isopropyltoluene	1.98	U
Dibromomethane	1.98	U	1,4-Dichlorobenzene	1.98	U
Bromodichloromethane	1.98	U	n-Butylbenzene	1.98	U
2-Chloroethylvinyl ether	1.98	U	1,2-Dichlorobenzene	1.98	U
Methyl isobutyl ketone (MIBK)	1.98	U	1,2-Dibromo-3-chloropropane	1.98	U
cis-1,3-Dichloropropene	1.98	U	1,2,4-Trichlorobenzene	1.98	U
Toluene	1.98	U	Hexachlorobutadiene	1.98	U
trans-1,3-Dichloropropene	1.98	U	Naphthalene	1.98	U
1,1,2-Trichloroethane	1.98	U	1,2,3-Trichlorobenzene	1.98	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	102	70-130
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	85	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC41-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-08**
Associated Blank: **VS071808B16**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/19/08	81.3	9.60	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.28	U	2-Hexanone	1.28	U
Chloromethane	1.28	U	Tetrachloroethene	1.28	U
Vinyl chloride	1.28	U	1,3-Dichloropropane	1.28	U
Bromomethane	3.20	U J	Dibromochloromethane	1.28	U
Chloroethane	1.28	U	1,2-Dibromoethane	1.28	U
Trichlorofluoromethane	1.28	U	Chlorobenzene	1.28	U
Acetone	**16.8**	B U	1,1,1,2-Tetrachloroethane	1.28	U
1,1-Dichloroethene	1.28	U	Ethylbenzene	1.28	U
Carbon disulfide	**1.63**		p/m-Xylene	2.56	U
Methylene chloride	3.20	U	o-Xylene	1.28	U
Methyl tert-butyl ether (MTBE)	1.28	U	Styrene	1.28	U
trans-1,2-Dichloroethene	1.28	U	Bromoform	1.28	U
1,1-Dichloroethane	1.28	U	Isopropylbenzene	1.28	U
Vinyl acetate	1.28	U	1,1,2,2-Tetrachloroethane	1.28	U
2-Butanone (MEK)	**1.90**		Bromobenzene	1.28	U
cis-1,2-Dichloroethene	1.28	U	1,2,3-Trichloropropane	1.28	U
2,2-Dichloropropane	1.28	U	n-Propylbenzene	1.28	U
Chloroform	1.28	U	2-Chlorotoluene	1.28	U
1,1,1-Trichloroethane	1.28	U	1,3,5-Trimethylbenzene	1.28	U
1,1-Dichloropropene	1.28	U	4-Chlorotoluene	1.28	U
Carbon tetrachloride	1.28	U	tert-Butylbenzene	1.28	U
Benzene	1.28	U	1,2,4-Trimethylbenzene	1.28	U
1,2-Dichloroethane	1.28	U	sec-Butylbenzene	1.28	U
Trichloroethene	1.28	U	1,3-Dichlorobenzene	1.28	U
1,2-Dichloropropane	1.28	U	p-Isopropyltoluene	1.28	U
Dibromomethane	1.28	U	1,4-Dichlorobenzene	1.28	U
Bromodichloromethane	1.28	U	n-Butylbenzene	1.28	U
2-Chloroethylvinyl ether	1.28	U	1,2-Dichlorobenzene	1.28	U
Methyl isobutyl ketone (MIBK)	1.28	U	1,2-Dibromo-3-chloropropane	1.28	U
cis-1,3-Dichloropropene	1.28	U	1,2,4-Trichlorobenzene	1.28	U
Toluene	1.28	U	Hexachlorobutadiene	1.28	U
trans-1,3-Dichloropropene	1.28	U	Naphthalene	1.28	U
1,1,2-Trichloroethane	1.28	U	1,2,3-Trichlorobenzene	1.28	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	105	70-130
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	86	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC40-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-09**
Associated Blank: **VS072108B21**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/21/08	84.4	10.17	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.17	U	2-Hexanone	1.17	U
Chloromethane	1.17	U	Tetrachloroethene	1.17	U
Vinyl chloride	1.17	U	1,3-Dichloropropane	1.17	U
Bromomethane	2.91	U J	Dibromochloromethane	1.17	U
Chloroethane	1.17	U	1,2-Dibromoethane	1.17	U
Trichlorofluoromethane	1.17	U	Chlorobenzene	1.17	U
Acetone	13.7	B U J	1,1,1,2-Tetrachloroethane	1.17	U
1,1-Dichloroethene	1.17	U	Ethylbenzene	1.17	U
Carbon disulfide	**1.29**		p/m-Xylene	2.33	U
Methylene chloride	2.91	U	o-Xylene	1.17	U
Methyl tert-butyl ether (MTBE)	1.17	U	Styrene	1.17	U
trans-1,2-Dichloroethene	1.17	U	Bromoform	1.17	U
1,1-Dichloroethane	1.17	U	Isopropylbenzene	1.17	U
Vinyl acetate	1.17	U	1,1,2,2-Tetrachloroethane	1.17	U
2-Butanone (MEK)	**2.03**		Bromobenzene	1.17	U
cis-1,2-Dichloroethene	1.17	U	1,2,3-Trichloropropane	1.17	U
2,2-Dichloropropane	1.17	U	n-Propylbenzene	1.17	U
Chloroform	1.17	U	2-Chlorotoluene	1.17	U
1,1,1-Trichloroethane	1.17	U	1,3,5-Trimethylbenzene	1.17	U
1,1-Dichloropropene	1.17	U	4-Chlorotoluene	1.17	U
Carbon tetrachloride	1.17	U	tert-Butylbenzene	1.17	U
Benzene	1.17	U	1,2,4-Trimethylbenzene	1.17	U
1,2-Dichloroethane	1.17	U	sec-Butylbenzene	1.17	U
Trichloroethene	1.17	U	1,3-Dichlorobenzene	1.17	U
1,2-Dichloropropane	1.17	U	p-Isopropyltoluene	1.17	U
Dibromomethane	1.17	U	1,4-Dichlorobenzene	1.17	U
Bromodichloromethane	1.17	U	n-Butylbenzene	1.17	U
2-Chloroethylvinyl ether	1.17	U	1,2-Dichlorobenzene	1.17	U
Methyl isobutyl ketone (MIBK)	1.17	U	1,2-Dibromo-3-chloropropane	1.17	U
cis-1,3-Dichloropropene	1.17	U	1,2,4-Trichlorobenzene	1.17	U
Toluene	1.17	U	Hexachlorobutadiene	1.17	U
trans-1,3-Dichloropropene	1.17	U	Naphthalene	1.17	U
1,1,2-Trichloroethane	1.17	U	1,2,3-Trichlorobenzene	1.17	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	111	70-130
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	86	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC4-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-10**
Associated Blank: **VS072108B21**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/21/08	89.3	7.76	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.44	U	2-Hexanone	1.44	U
Chloromethane	1.44	U	Tetrachloroethene	1.44	U
Vinyl chloride	1.44	U	1,3-Dichloropropane	1.44	U
Bromomethane	3.61	U J	Dibromochloromethane	1.44	U
Chloroethane	1.44	U	1,2-Dibromoethane	1.44	U
Trichlorofluoromethane	1.44	U	Chlorobenzene	1.44	U
Acetone	**25.5**	B U J	1,1,1,2-Tetrachloroethane	1.44	U
1,1-Dichloroethene	1.44	U	Ethylbenzene	1.44	U
Carbon disulfide	**4.01**		p/m-Xylene	2.89	U
Methylene chloride	3.61	U	o-Xylene	1.44	U
Methyl tert-butyl ether (MTBE)	1.44	U	Styrene	1.44	U
trans-1,2-Dichloroethene	1.44	U	Bromoform	1.44	U
1,1-Dichloroethane	1.44	U	Isopropylbenzene	1.44	U
Vinyl acetate	1.44	U	1,1,2,2-Tetrachloroethane	1.44	U
2-Butanone (MEK)	**5.81**		Bromobenzene	1.44	U
cis-1,2-Dichloroethene	1.44	U	1,2,3-Trichloropropane	1.44	U
2,2-Dichloropropane	1.44	U	n-Propylbenzene	1.44	U
Chloroform	1.44	U	2-Chlorotoluene	1.44	U
1,1,1-Trichloroethane	1.44	U	1,3,5-Trimethylbenzene	1.44	U
1,1-Dichloropropene	1.44	U	4-Chlorotoluene	1.44	U
Carbon tetrachloride	1.44	U	tert-Butylbenzene	1.44	U
Benzene	1.44	U	1,2,4-Trimethylbenzene	1.44	U
1,2-Dichloroethane	1.44	U	sec-Butylbenzene	1.44	U
Trichloroethene	1.44	U	1,3-Dichlorobenzene	1.44	U
1,2-Dichloropropane	1.44	U	p-Isopropyltoluene	1.44	U
Dibromomethane	1.44	U	1,4-Dichlorobenzene	**2.94**	
Bromodichloromethane	1.44	U	n-Butylbenzene	1.44	U
2-Chloroethylvinyl ether	1.44	U	1,2-Dichlorobenzene	1.44	U
Methyl isobutyl ketone (MIBK)	1.44	U	1,2-Dibromo-3-chloropropane	1.44	U
cis-1,3-Dichloropropene	1.44	U	1,2,4-Trichlorobenzene	1.44	U
Toluene	1.44	U	Hexachlorobutadiene	1.44	U
trans-1,3-Dichloropropene	1.44	U	Naphthalene	**2.84**	
1,1,2-Trichloroethane	1.44	U	1,2,3-Trichlorobenzene	1.44	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	109	70-130
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	93	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC22-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-11**
Associated Blank: **VS072108B21**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/21/08	80.2	10.84	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.15	U	2-Hexanone	1.15	U
Chloromethane	1.15	U	Tetrachloroethene	1.15	U
Vinyl chloride	1.15	U	1,3-Dichloropropane	1.15	U
Bromomethane	2.88	U J	Dibromochloromethane	1.15	U
Chloroethane	1.15	U	1,2-Dibromoethane	1.15	U
Trichlorofluoromethane	1.15	U	Chlorobenzene	1.15	U
Acetone	**9.63**	B U J	1,1,1,2-Tetrachloroethane	1.15	U
1,1-Dichloroethene	1.15	U	Ethylbenzene	1.15	U
Carbon disulfide	**0.64**	J	p/m-Xylene	2.30	U
Methylene chloride	2.88	U	o-Xylene	1.15	U
Methyl tert-butyl ether (MTBE)	1.15	U	Styrene	1.15	U
trans-1,2-Dichloroethene	1.15	U	Bromoform	1.15	U
1,1-Dichloroethane	1.15	U	Isopropylbenzene	1.15	U
Vinyl acetate	1.15	U	1,1,2,2-Tetrachloroethane	1.15	U
2-Butanone (MEK)	**1.72**		Bromobenzene	1.15	U
cis-1,2-Dichloroethene	1.15	U	1,2,3-Trichloropropane	1.15	U
2,2-Dichloropropane	1.15	U	n-Propylbenzene	1.15	U
Chloroform	1.15	U	2-Chlorotoluene	1.15	U
1,1,1-Trichloroethane	1.15	U	1,3,5-Trimethylbenzene	1.15	U
1,1-Dichloropropene	1.15	U	4-Chlorotoluene	1.15	U
Carbon tetrachloride	1.15	U	tert-Butylbenzene	1.15	U
Benzene	1.15	U	1,2,4-Trimethylbenzene	1.15	U
1,2-Dichloroethane	1.15	U	sec-Butylbenzene	1.15	U
Trichloroethene	1.15	U	1,3-Dichlorobenzene	1.15	U
1,2-Dichloropropane	1.15	U	p-Isopropyltoluene	1.15	U
Dibromomethane	1.15	U	1,4-Dichlorobenzene	1.15	U
Bromodichloromethane	1.15	U	n-Butylbenzene	1.15	U
2-Chloroethylvinyl ether	1.15	U	1,2-Dichlorobenzene	1.15	U
Methyl isobutyl ketone (MIBK)	1.15	U	1,2-Dibromo-3-chloropropane	1.15	U
cis-1,3-Dichloropropene	1.15	U	1,2,4-Trichlorobenzene	1.15	U
Toluene	**0.71**	J	Hexachlorobutadiene	1.15	U
trans-1,3-Dichloropropene	1.15	U	Naphthalene	1.15	U
1,1,2-Trichloroethane	1.15	U	1,2,3-Trichlorobenzene	1.15	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	101	70-130
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	86	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC5-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-12**
Associated Blank: **VS072108B21**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/21/08	81.5	9.32	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.32	U	2-Hexanone	1.32	U
Chloromethane	1.32	U	Tetrachloroethene	1.32	U
Vinyl chloride	1.32	U	1,3-Dichloropropane	1.32	U
Bromomethane	3.29	U J	Dibromochloromethane	1.32	U
Chloroethane	1.32	U	1,2-Dibromoethane	1.32	U
Trichlorofluoromethane	1.32	U	Chlorobenzene	1.32	U
Acetone	**13.4**	B U J	1,1,1,2-Tetrachloroethane	1.32	U
1,1-Dichloroethene	1.32	U	Ethylbenzene	1.32	U
Carbon disulfide	**2.03**		p/m-Xylene	2.63	U
Methylene chloride	3.29	U	o-Xylene	1.32	U
Methyl tert-butyl ether (MTBE)	1.32	U	Styrene	1.32	U
trans-1,2-Dichloroethene	1.32	U	Bromoform	1.32	U
1,1-Dichloroethane	1.32	U	Isopropylbenzene	1.32	U
Vinyl acetate	1.32	U	1,1,2,2-Tetrachloroethane	1.32	U
2-Butanone (MEK)	1.32	U	Bromobenzene	1.32	U
cis-1,2-Dichloroethene	1.32	U	1,2,3-Trichloropropane	1.32	U
2,2-Dichloropropane	1.32	U	n-Propylbenzene	1.32	U
Chloroform	1.32	U	2-Chlorotoluene	1.32	U
1,1,1-Trichloroethane	1.32	U	1,3,5-Trimethylbenzene	1.32	U
1,1-Dichloropropene	1.32	U	4-Chlorotoluene	1.32	U
Carbon tetrachloride	1.32	U	tert-Butylbenzene	1.32	U
Benzene	1.32	U	1,2,4-Trimethylbenzene	1.32	U
1,2-Dichloroethane	1.32	U	sec-Butylbenzene	1.32	U
Trichloroethene	1.32	U	1,3-Dichlorobenzene	1.32	U
1,2-Dichloropropane	1.32	U	p-Isopropyltoluene	1.32	U
Dibromomethane	1.32	U	1,4-Dichlorobenzene	1.32	U
Bromodichloromethane	1.32	U	n-Butylbenzene	1.32	U
2-Chloroethylvinyl ether	1.32	U	1,2-Dichlorobenzene	1.32	U
Methyl isobutyl ketone (MIBK)	1.32	U	1,2-Dibromo-3-chloropropane	1.32	U
cis-1,3-Dichloropropene	1.32	U	1,2,4-Trichlorobenzene	1.32	U
Toluene	1.32	U	Hexachlorobutadiene	1.32	U
trans-1,3-Dichloropropene	1.32	U	Naphthalene	1.32	U
1,1,2-Trichloroethane	1.32	U	1,2,3-Trichlorobenzene	1.32	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	102	70-130
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	86	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC6-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-13**
Associated Blank: **VS072108B21**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/21/08	30.9	6.56	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	4.94	U	2-Hexanone	4.94	U
Chloromethane	4.94	U	Tetrachloroethene	4.94	U
Vinyl chloride	4.94	U	1,3-Dichloropropane	4.94	U
Bromomethane	12.3	U J	Dibromochloromethane	4.94	U
Chloroethane	4.94	U	1,2-Dibromoethane	4.94	U
Trichlorofluoromethane	4.94	U	Chlorobenzene	4.94	U
Acetone	**490**	B J	1,1,1,2-Tetrachloroethane	4.94	U
1,1-Dichloroethene	4.94	U	Ethylbenzene	4.94	U
Carbon disulfide	**67.2**		p/m-Xylene	9.87	U
Methylene chloride	12.3	U	o-Xylene	4.94	U
Methyl tert-butyl ether (MTBE)	4.94	U	Styrene	4.94	U
trans-1,2-Dichloroethene	4.94	U	Bromoform	4.94	U
1,1-Dichloroethane	4.94	U	Isopropylbenzene	4.94	U
Vinyl acetate	4.94	U	1,1,2,2-Tetrachloroethane	4.94	U
2-Butanone (MEK)	**138**		Bromobenzene	4.94	U
cis-1,2-Dichloroethene	4.94	U	1,2,3-Trichloropropane	4.94	U
2,2-Dichloropropane	4.94	U	n-Propylbenzene	4.94	U
Chloroform	4.94	U	2-Chlorotoluene	4.94	U
1,1,1-Trichloroethane	4.94	U	1,3,5-Trimethylbenzene	4.94	U
1,1-Dichloropropene	4.94	U	4-Chlorotoluene	4.94	U
Carbon tetrachloride	4.94	U	tert-Butylbenzene	4.94	U
Benzene	4.94	U	1,2,4-Trimethylbenzene	4.94	U
1,2-Dichloroethane	4.94	U	sec-Butylbenzene	4.94	U
Trichloroethene	4.94	U	1,3-Dichlorobenzene	4.94	U
1,2-Dichloropropane	4.94	U	p-Isopropyltoluene	4.94	U
Dibromomethane	4.94	U	1,4-Dichlorobenzene	4.94	U
Bromodichloromethane	4.94	U	n-Butylbenzene	4.94	U
2-Chloroethylvinyl ether	4.94	U	1,2-Dichlorobenzene	4.94	U
Methyl isobutyl ketone (MIBK)	4.94	U	1,2-Dibromo-3-chloropropane	4.94	U
cis-1,3-Dichloropropene	4.94	U	1,2,4-Trichlorobenzene	4.94	U
Toluene	4.94	U	Hexachlorobutadiene	4.94	U
trans-1,3-Dichloropropene	4.94	U	Naphthalene	4.94	U
1,1,2-Trichloroethane	4.94	U	1,2,3-Trichlorobenzene	4.94	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	100	70-130
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	82	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC20-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-14**
Associated Blank: **VS072108B21**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/21/08	77.6	8.49	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.52	U	2-Hexanone	1.52	U
Chloromethane	1.52	U	Tetrachloroethene	1.52	U
Vinyl chloride	1.52	U	1,3-Dichloropropane	1.52	U
Bromomethane	3.79	U J	Dibromochloromethane	1.52	U
Chloroethane	1.52	U	1,2-Dibromoethane	1.52	U
Trichlorofluoromethane	1.52	U	Chlorobenzene	1.52	U
Acetone	**16.8**	B U J	1,1,1,2-Tetrachloroethane	1.52	U
1,1-Dichloroethene	1.52	U	Ethylbenzene	1.52	U
Carbon disulfide	**10.6**		p/m-Xylene	3.03	U
Methylene chloride	3.79	U	o-Xylene	1.52	U
Methyl tert-butyl ether (MTBE)	1.52	U	Styrene	1.52	U
trans-1,2-Dichloroethene	1.52	U	Bromoform	1.52	U
1,1-Dichloroethane	1.52	U	Isopropylbenzene	1.52	U
Vinyl acetate	1.52	U	1,1,2,2-Tetrachloroethane	1.52	U
2-Butanone (MEK)	**2.02**		Bromobenzene	1.52	U
cis-1,2-Dichloroethene	1.52	U	1,2,3-Trichloropropane	1.52	U
2,2-Dichloropropane	1.52	U	n-Propylbenzene	1.52	U
Chloroform	1.52	U	2-Chlorotoluene	1.52	U
1,1,1-Trichloroethane	1.52	U	1,3,5-Trimethylbenzene	1.52	U
1,1-Dichloropropene	1.52	U	4-Chlorotoluene	1.52	U
Carbon tetrachloride	1.52	U	tert-Butylbenzene	1.52	U
Benzene	1.52	U	1,2,4-Trimethylbenzene	1.52	U
1,2-Dichloroethane	1.52	U	sec-Butylbenzene	1.52	U
Trichloroethene	1.52	U	1,3-Dichlorobenzene	1.52	U
1,2-Dichloropropane	1.52	U	p-Isopropyltoluene	1.52	U
Dibromomethane	1.52	U	1,4-Dichlorobenzene	1.52	U
Bromodichloromethane	1.52	U	n-Butylbenzene	1.52	U
2-Chloroethylvinyl ether	1.52	U	1,2-Dichlorobenzene	1.52	U
Methyl isobutyl ketone (MIBK)	1.52	U	1,2-Dibromo-3-chloropropane	1.52	U
cis-1,3-Dichloropropene	1.52	U	1,2,4-Trichlorobenzene	1.52	U
Toluene	**1.07**	J	Hexachlorobutadiene	1.52	U
trans-1,3-Dichloropropene	1.52	U	Naphthalene	1.52	U
1,1,2-Trichloroethane	1.52	U	1,2,3-Trichlorobenzene	1.52	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	107	70-130
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	91	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC26-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-15**
Associated Blank: **VS072108B21**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/21/08	83.5	8.07	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.48	U	2-Hexanone	1.48	U
Chloromethane	1.48	U	Tetrachloroethene	1.48	U
Vinyl chloride	1.48	U	1,3-Dichloropropane	1.48	U
Bromomethane	3.71	U J	Dibromochloromethane	1.48	U
Chloroethane	1.48	U	1,2-Dibromoethane	1.48	U
Trichlorofluoromethane	1.48	U	Chlorobenzene	1.48	U
Acetone	**25.8**	B U J	1,1,1,2-Tetrachloroethane	1.48	U
1,1-Dichloroethene	1.48	U	Ethylbenzene	1.48	U
Carbon disulfide	**1.65**		p/m-Xylene	2.97	U
Methylene chloride	3.71	U	o-Xylene	1.48	U
Methyl tert-butyl ether (MTBE)	1.48	U	Styrene	1.48	U
trans-1,2-Dichloroethene	1.48	U	Bromoform	1.48	U
1,1-Dichloroethane	1.48	U	Isopropylbenzene	1.48	U
Vinyl acetate	1.48	U	1,1,2,2-Tetrachloroethane	1.48	U
2-Butanone (MEK)	**2.79**		Bromobenzene	1.48	U
cis-1,2-Dichloroethene	1.48	U	1,2,3-Trichloropropane	1.48	U
2,2-Dichloropropane	1.48	U	n-Propylbenzene	1.48	U
Chloroform	1.48	U	2-Chlorotoluene	1.48	U
1,1,1-Trichloroethane	1.48	U	1,3,5-Trimethylbenzene	1.48	U
1,1-Dichloropropene	1.48	U	4-Chlorotoluene	1.48	U
Carbon tetrachloride	1.48	U	tert-Butylbenzene	1.48	U
Benzene	1.48	U	1,2,4-Trimethylbenzene	1.48	U
1,2-Dichloroethane	1.48	U	sec-Butylbenzene	1.48	U
Trichloroethene	1.48	U	1,3-Dichlorobenzene	1.48	U
1,2-Dichloropropane	1.48	U	p-Isopropyltoluene	1.48	U
Dibromomethane	1.48	U	1,4-Dichlorobenzene	1.48	U
Bromodichloromethane	1.48	U	n-Butylbenzene	1.48	U
2-Chloroethylvinyl ether	1.48	U	1,2-Dichlorobenzene	1.48	U
Methyl isobutyl ketone (MIBK)	1.48	U	1,2-Dibromo-3-chloropropane	1.48	U
cis-1,3-Dichloropropene	1.48	U	1,2,4-Trichlorobenzene	1.48	U
Toluene	1.48	U	Hexachlorobutadiene	1.48	U
trans-1,3-Dichloropropene	1.48	U	Naphthalene	1.48	U
1,1,2-Trichloroethane	1.48	U	1,2,3-Trichlorobenzene	1.48	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	104	70-130
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	87	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC19-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-16**
Associated Blank: **VS072108B21**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/21/08	35.7	6.79	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	4.13	U	2-Hexanone	4.13	U
Chloromethane	4.13	U	Tetrachloroethene	4.13	U
Vinyl chloride	4.13	U	1,3-Dichloropropane	4.13	U
Bromomethane	10.3	U J	Dibromochloromethane	4.13	U
Chloroethane	4.13	U	1,2-Dibromoethane	4.13	U
Trichlorofluoromethane	4.13	U	Chlorobenzene	4.13	U
Acetone	379	B J	1,1,1,2-Tetrachloroethane	4.13	U
1,1-Dichloroethene	4.13	U	Ethylbenzene	4.13	U
Carbon disulfide	44.6		p/m-Xylene	8.26	U
Methylene chloride	10.3	U	o-Xylene	4.13	U
Methyl tert-butyl ether (MTBE)	4.13	U	Styrene	4.13	U
trans-1,2-Dichloroethene	4.13	U	Bromoform	4.13	U
1,1-Dichloroethane	4.13	U	Isopropylbenzene	4.13	U
Vinyl acetate	4.13	U	1,1,2,2-Tetrachloroethane	4.13	U
2-Butanone (MEK)	110		Bromobenzene	4.13	U
cis-1,2-Dichloroethene	4.13	U	1,2,3-Trichloropropane	4.13	U
2,2-Dichloropropane	4.13	U	n-Propylbenzene	4.13	U
Chloroform	4.13	U	2-Chlorotoluene	4.13	U
1,1,1-Trichloroethane	4.13	U	1,3,5-Trimethylbenzene	4.13	U
1,1-Dichloropropene	4.13	U	4-Chlorotoluene	4.13	U
Carbon tetrachloride	4.13	U	tert-Butylbenzene	4.13	U
Benzene	4.13	U	1,2,4-Trimethylbenzene	4.13	U
1,2-Dichloroethane	4.13	U	sec-Butylbenzene	4.13	U
Trichloroethene	4.13	U	1,3-Dichlorobenzene	4.13	U
1,2-Dichloropropane	4.13	U	p-Isopropyltoluene	4.13	U
Dibromomethane	4.13	U	1,4-Dichlorobenzene	4.13	U
Bromodichloromethane	4.13	U	n-Butylbenzene	4.13	U
2-Chloroethylvinyl ether	4.13	U	1,2-Dichlorobenzene	4.13	U
Methyl isobutyl ketone (MIBK)	4.13	U	1,2-Dibromo-3-chloropropane	4.13	U
cis-1,3-Dichloropropene	4.13	U	1,2,4-Trichlorobenzene	4.13	U
Toluene	4.13	U	Hexachlorobutadiene	4.13	U
trans-1,3-Dichloropropene	4.13	U	Naphthalene	4.13	U
1,1,2-Trichloroethane	4.13	U	1,2,3-Trichlorobenzene	4.13	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	100	70-130
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	99	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC43-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-17**
Associated Blank: **VS072108B21**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/21/08	62.0	7.62	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	2.12	U J	2-Hexanone	2.12	U J
Chloromethane	2.12	U	Tetrachloroethene	2.12	U
Vinyl chloride	2.12	U	1,3-Dichloropropane	2.12	U
Bromomethane	5.29	U	Dibromochloromethane	2.12	U
Chloroethane	2.12	U	1,2-Dibromoethane	2.12	U
Trichlorofluoromethane	2.12	U	Chlorobenzene	2.12	U
Acetone	**190**	**B**	1,1,1,2-Tetrachloroethane	2.12	U
1,1-Dichloroethene	2.12	U	Ethylbenzene	2.12	U
Carbon disulfide	**45.0**		p/m-Xylene	4.23	U
Methylene chloride	5.29	U	o-Xylene	2.12	U
Methyl tert-butyl ether (MTBE)	2.12	U	Styrene	2.12	U
trans-1,2-Dichloroethene	2.12	U	Bromoform	2.12	U
1,1-Dichloroethane	2.12	U	Isopropylbenzene	2.12	U
Vinyl acetate	2.12	U	1,1,2,2-Tetrachloroethane	2.12	U
2-Butanone (MEK)	**57.3**		Bromobenzene	2.12	U
cis-1,2-Dichloroethene	2.12	U	1,2,3-Trichloropropane	2.12	U
2,2-Dichloropropane	2.12	U	n-Propylbenzene	2.12	U
Chloroform	2.12	U	2-Chlorotoluene	2.12	U
1,1,1-Trichloroethane	2.12	U	1,3,5-Trimethylbenzene	2.12	U
1,1-Dichloropropene	2.12	U	4-Chlorotoluene	2.12	U
Carbon tetrachloride	2.12	U	tert-Butylbenzene	2.12	U
Benzene	2.12	U	1,2,4-Trimethylbenzene	2.12	U
1,2-Dichloroethane	2.12	U	sec-Butylbenzene	2.12	U
Trichloroethene	2.12	U	1,3-Dichlorobenzene	2.12	U
1,2-Dichloropropane	2.12	U	p-Isopropyltoluene	2.12	U
Dibromomethane	2.12	U	1,4-Dichlorobenzene	2.12	U
Bromodichloromethane	2.12	U	n-Butylbenzene	2.12	U
2-Chloroethylvinyl ether	2.12	U	1,2-Dichlorobenzene	2.12	U
Methyl isobutyl ketone (MIBK)	2.12	U	1,2-Dibromo-3-chloropropane	2.12	U
cis-1,3-Dichloropropene	2.12	U	1,2,4-Trichlorobenzene	2.12	U
Toluene	2.12	U	Hexachlorobutadiene	2.12	U
trans-1,3-Dichloropropene	2.12	U	Naphthalene	2.12	U
1,1,2-Trichloroethane	2.12	U	1,2,3-Trichlorobenzene	2.12	U

Surrogate	% Recovery		Acceptance Range (%)
Dibromofluoromethane	94		70-130
1,2-Dichloroethane-d4	82		70-130
Toluene-d8	84		70-130
4-Bromofluorobenzene	64	§	70-130

N/A - Not Applicable
§ - Surrogate value outside of acceptable range.
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC42-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-18**
Associated Blank: **VS072108B21**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/21/08	77.3	8.98	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.44	U	2-Hexanone	1.44	U
Chloromethane	1.44	U	Tetrachloroethene	1.44	U
Vinyl chloride	1.44	U	1,3-Dichloropropane	1.44	U
Bromomethane	3.60	U J	Dibromochloromethane	1.44	U
Chloroethane	1.44	U	1,2-Dibromoethane	1.44	U
Trichlorofluoromethane	1.44	U	Chlorobenzene	1.44	U
Acetone	**111**	B J	1,1,1,2-Tetrachloroethane	1.44	U
1,1-Dichloroethene	1.44	U	Ethylbenzene	1.44	U
Carbon disulfide	**19.9**		p/m-Xylene	2.88	U
Methylene chloride	3.60	U	o-Xylene	1.44	U
Methyl tert-butyl ether (MTBE)	1.44	U	Styrene	1.44	U
trans-1,2-Dichloroethene	1.44	U	Bromoform	1.44	U
1,1-Dichloroethane	1.44	U	Isopropylbenzene	1.44	U
Vinyl acetate	1.44	U	1,1,2,2-Tetrachloroethane	1.44	U
2-Butanone (MEK)	**30.4**		Bromobenzene	1.44	U
cis-1,2-Dichloroethene	1.44	U	1,2,3-Trichloropropane	1.44	U
2,2-Dichloropropane	1.44	U	n-Propylbenzene	1.44	U
Chloroform	1.44	U	2-Chlorotoluene	1.44	U
1,1,1-Trichloroethane	1.44	U	1,3,5-Trimethylbenzene	1.44	U
1,1-Dichloropropene	1.44	U	4-Chlorotoluene	1.44	U
Carbon tetrachloride	1.44	U	tert-Butylbenzene	1.44	U
Benzene	1.44	U	1,2,4-Trimethylbenzene	1.44	U
1,2-Dichloroethane	1.44	U	sec-Butylbenzene	1.44	U
Trichloroethene	1.44	U	1,3-Dichlorobenzene	1.44	U
1,2-Dichloropropane	1.44	U	p-Isopropyltoluene	1.44	U
Dibromomethane	1.44	U	1,4-Dichlorobenzene	1.44	U
Bromodichloromethane	1.44	U	n-Butylbenzene	1.44	U
2-Chloroethylvinyl ether	1.44	U	1,2-Dichlorobenzene	1.44	U
Methyl isobutyl ketone (MIBK)	1.44	U	1,2-Dibromo-3-chloropropane	1.44	U
cis-1,3-Dichloropropene	1.44	U	1,2,4-Trichlorobenzene	1.44	U
Toluene	1.44	U	Hexachlorobutadiene	1.44	U
trans-1,3-Dichloropropene	1.44	U	Naphthalene	1.44	U
1,1,2-Trichloroethane	1.44	U	1,2,3-Trichlorobenzene	1.44	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	90	70-130
1,2-Dichloroethane-d4	82	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	79	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC9-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-19**
Associated Blank: **VS072108B21**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/22/08	36.6	7.31	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	3.74	U	2-Hexanone	3.74	U
Chloromethane	3.74	U	Tetrachloroethene	3.74	U
Vinyl chloride	3.74	U	1,3-Dichloropropane	3.74	U
Bromomethane	9.34	U J	Dibromochloromethane	3.74	U
Chloroethane	3.74	U	1,2-Dibromoethane	3.74	U
Trichlorofluoromethane	3.74	U	Chlorobenzene	3.74	U
Acetone	**129**	B J	1,1,1,2-Tetrachloroethane	3.74	U
1,1-Dichloroethene	3.74	U	Ethylbenzene	3.74	U
Carbon disulfide	**45.3**		p/m-Xylene	7.47	U
Methylene chloride	9.34	U	o-Xylene	3.74	U
Methyl tert-butyl ether (MTBE)	3.74	U	Styrene	3.74	U
trans-1,2-Dichloroethene	3.74	U	Bromoform	3.74	U
1,1-Dichloroethane	3.74	U	Isopropylbenzene	3.74	U
Vinyl acetate	3.74	U	1,1,2,2-Tetrachloroethane	3.74	U
2-Butanone (MEK)	**33.4**		Bromobenzene	3.74	U
cis-1,2-Dichloroethene	3.74	U	1,2,3-Trichloropropane	3.74	U
2,2-Dichloropropane	3.74	U	n-Propylbenzene	3.74	U
Chloroform	3.74	U	2-Chlorotoluene	3.74	U
1,1,1-Trichloroethane	3.74	U	1,3,5-Trimethylbenzene	3.74	U
1,1-Dichloropropene	3.74	U	4-Chlorotoluene	3.74	U
Carbon tetrachloride	3.74	U	tert-Butylbenzene	3.74	U
Benzene	3.74	U	1,2,4-Trimethylbenzene	3.74	U
1,2-Dichloroethane	3.74	U	sec-Butylbenzene	3.74	U
Trichloroethene	3.74	U	1,3-Dichlorobenzene	3.74	U
1,2-Dichloropropane	3.74	U	p-Isopropyltoluene	3.74	U
Dibromomethane	3.74	U	1,4-Dichlorobenzene	3.74	U
Bromodichloromethane	3.74	U	n-Butylbenzene	3.74	U
2-Chloroethylvinyl ether	3.74	U	1,2-Dichlorobenzene	3.74	U
Methyl isobutyl ketone (MIBK)	3.74	U	1,2-Dibromo-3-chloropropane	3.74	U
cis-1,3-Dichloropropene	3.74	U	1,2,4-Trichlorobenzene	3.74	U
Toluene	3.74	U	Hexachlorobutadiene	3.74	U
trans-1,3-Dichloropropene	3.74	U	Naphthalene	3.74	U
1,1,2-Trichloroethane	3.74	U	1,2,3-Trichlorobenzene	3.74	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	97	70-130
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	84	70-130
4-Bromofluorobenzene	70	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **DUP-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-20**
Associated Blank: **VS072308B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/23/08	36.2	7.68	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	3.60	U	2-Hexanone	9.00	U
Chloromethane	3.60	U	Tetrachloroethene	3.60	U
Vinyl chloride	3.60	U	1,3-Dichloropropane	3.60	U
Bromomethane	3.60	U	Dibromochloromethane	3.60	U
Chloroethane	3.60	U	1,2-Dibromoethane	3.60	U
Trichlorofluoromethane	3.60	U	Chlorobenzene	3.60	U
Acetone	**298**		1,1,1,2-Tetrachloroethane	3.60	U
1,1-Dichloroethene	3.60	U	Ethylbenzene	3.60	U
Carbon disulfide	**67.4**		p/m-Xylene	7.20	U
Methylene chloride	9.00	U	o-Xylene	3.60	U
Methyl tert-butyl ether (MTBE)	3.60	U	Styrene	3.60	U
trans-1,2-Dichloroethene	3.60	U	Bromoform	3.60	U
1,1-Dichloroethane	3.60	U	Isopropylbenzene	3.60	U
Vinyl acetate	3.60	U	1,1,2,2-Tetrachloroethane	3.60	U
2-Butanone (MEK)	**75.5**		Bromobenzene	3.60	U
cis-1,2-Dichloroethene	3.60	U	1,2,3-Trichloropropane	3.60	U
2,2-Dichloropropane	3.60	U	n-Propylbenzene	3.60	U
Chloroform	3.60	U	2-Chlorotoluene	3.60	U
1,1,1-Trichloroethane	3.60	U	1,3,5-Trimethylbenzene	3.60	U
1,1-Dichloropropene	3.60	U	4-Chlorotoluene	3.60	U
Carbon tetrachloride	3.60	U	tert-Butylbenzene	3.60	U
Benzene	3.60	U	1,2,4-Trimethylbenzene	3.60	U
1,2-Dichloroethane	3.60	U	sec-Butylbenzene	3.60	U
Trichloroethene	3.60	U	1,3-Dichlorobenzene	3.60	U
1,2-Dichloropropane	3.60	U	p-Isopropyltoluene	9.00	U
Dibromomethane	3.60	U	1,4-Dichlorobenzene	3.60	U
Bromodichloromethane	3.60	U	n-Butylbenzene	9.00	U
2-Chloroethylvinyl ether	9.00	U	1,2-Dichlorobenzene	3.60	U
Methyl isobutyl ketone (MIBK)	3.60	U	1,2-Dibromo-3-chloropropane	3.60	U
cis-1,3-Dichloropropene	3.60	U	1,2,4-Trichlorobenzene	3.60	U
Toluene	3.60	U	Hexachlorobutadiene	3.60	U
trans-1,3-Dichloropropene	3.60	U	Naphthalene	9.00	U
1,1,2-Trichloroethane	3.60	U	1,2,3-Trichlorobenzene	3.60	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	90	70-130
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	78	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC29-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-21**
Associated Blank: **VS072308B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/23/08	42.1	7.45	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	3.19	U	2-Hexanone	7.97	U
Chloromethane	3.19	U	Tetrachloroethene	3.19	U
Vinyl chloride	3.19	U	1,3-Dichloropropane	3.19	U
Bromomethane	3.19	U	Dibromochloromethane	3.19	U
Chloroethane	3.19	U	1,2-Dibromoethane	3.19	U
Trichlorofluoromethane	3.19	U	Chlorobenzene	3.19	U
Acetone	**182**		1,1,1,2-Tetrachloroethane	3.19	U
1,1-Dichloroethene	3.19	U	Ethylbenzene	3.19	U
Carbon disulfide	**57.8**		p/m-Xylene	6.37	U
Methylene chloride	7.97	U	o-Xylene	3.19	U
Methyl tert-butyl ether (MTBE)	3.19	U	Styrene	3.19	U
trans-1,2-Dichloroethene	3.19	U	Bromoform	3.19	U
1,1-Dichloroethane	3.19	U	Isopropylbenzene	3.19	U
Vinyl acetate	3.19	U	1,1,2,2-Tetrachloroethane	3.19	U
2-Butanone (MEK)	**47.1**		Bromobenzene	3.19	U
cis-1,2-Dichloroethene	3.19	U	1,2,3-Trichloropropane	3.19	U
2,2-Dichloropropane	3.19	U	n-Propylbenzene	3.19	U
Chloroform	3.19	U	2-Chlorotoluene	3.19	U
1,1,1-Trichloroethane	3.19	U	1,3,5-Trimethylbenzene	3.19	U
1,1-Dichloropropene	3.19	U	4-Chlorotoluene	3.19	U
Carbon tetrachloride	3.19	U	tert-Butylbenzene	3.19	U
Benzene	3.19	U	1,2,4-Trimethylbenzene	3.19	U
1,2-Dichloroethane	3.19	U	sec-Butylbenzene	3.19	U
Trichloroethene	3.19	U	1,3-Dichlorobenzene	3.19	U
1,2-Dichloropropane	3.19	U	p-Isopropyltoluene	7.97	U
Dibromomethane	3.19	U	1,4-Dichlorobenzene	3.19	U
Bromodichloromethane	3.19	U	n-Butylbenzene	7.97	U
2-Chloroethylvinyl ether	7.97	U	1,2-Dichlorobenzene	3.19	U
Methyl isobutyl ketone (MIBK)	3.19	U	1,2-Dibromo-3-chloropropane	3.19	U
cis-1,3-Dichloropropene	3.19	U	1,2,4-Trichlorobenzene	3.19	U
Toluene	3.19	U	Hexachlorobutadiene	3.19	U
trans-1,3-Dichloropropene	3.19	U	Naphthalene	7.97	U
1,1,2-Trichloroethane	3.19	U	1,2,3-Trichlorobenzene	3.19	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	87	70-130
1,2-Dichloroethane-d4	78	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	73	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC17-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-22**
Associated Blank: **VS072408B15**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/24/08	52.9	7.28	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	2.60	U	2-Hexanone	6.49	U
Chloromethane	2.60	U	Tetrachloroethene	2.60	U
Vinyl chloride	2.60	U	1,3-Dichloropropane	2.60	U
Bromomethane	2.60	U	Dibromochloromethane	2.60	U
Chloroethane	2.60	U	1,2-Dibromoethane	2.60	U
Trichlorofluoromethane	2.60	U	Chlorobenzene	2.60	U
Acetone	**205**	B	1,1,1,2-Tetrachloroethane	2.60	U
1,1-Dichloroethene	2.60	U	Ethylbenzene	2.60	U
Carbon disulfide	**20.7**		p/m-Xylene	5.19	U
Methylene chloride	6.49	U	o-Xylene	2.60	U
Methyl tert-butyl ether (MTBE)	2.60	U	Styrene	2.60	U
trans-1,2-Dichloroethene	2.60	U	Bromoform	2.60	U
1,1-Dichloroethane	2.60	U	Isopropylbenzene	2.60	U
Vinyl acetate	2.60	U	1,1,2,2-Tetrachloroethane	2.60	U
2-Butanone (MEK)	**46.1**		Bromobenzene	2.60	U
cis-1,2-Dichloroethene	2.60	U	1,2,3-Trichloropropane	2.60	U
2,2-Dichloropropane	2.60	U	n-Propylbenzene	2.60	U
Chloroform	2.60	U	2-Chlorotoluene	2.60	U
1,1,1-Trichloroethane	2.60	U	1,3,5-Trimethylbenzene	2.60	U
1,1-Dichloropropene	2.60	U	4-Chlorotoluene	2.60	U
Carbon tetrachloride	2.60	U	tert-Butylbenzene	2.60	U
Benzene	2.60	U	1,2,4-Trimethylbenzene	2.60	U
1,2-Dichloroethane	2.60	U	sec-Butylbenzene	2.60	U
Trichloroethene	2.60	U	1,3-Dichlorobenzene	2.60	U
1,2-Dichloropropane	2.60	U	p-Isopropyltoluene	6.49	U
Dibromomethane	2.60	U	1,4-Dichlorobenzene	2.60	U
Bromodichloromethane	2.60	U	n-Butylbenzene	6.49	U
2-Chloroethylvinyl ether	6.49	U	1,2-Dichlorobenzene	2.60	U
Methyl isobutyl ketone (MIBK)	2.60	U	1,2-Dibromo-3-chloropropane	2.60	U
cis-1,3-Dichloropropene	2.60	U	1,2,4-Trichlorobenzene	2.60	U
Toluene	2.60	U	Hexachlorobutadiene	2.60	U
trans-1,3-Dichloropropene	2.60	U	Naphthalene	6.49	U
1,1,2-Trichloroethane	2.60	U	1,2,3-Trichlorobenzene	2.60	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	105	70-130
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	87	70-130
4-Bromofluorobenzene	77	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC28-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-23**
Associated Blank: **VS072408B15**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/24/08	34.6	7.31	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	3.95	U	2-Hexanone	9.88	U
Chloromethane	3.95	U	Tetrachloroethene	3.95	U
Vinyl chloride	3.95	U	1,3-Dichloropropane	3.95	U
Bromomethane	3.95	U J	Dibromochloromethane	3.95	U
Chloroethane	3.95	U	1,2-Dibromoethane	3.95	U
Trichlorofluoromethane	3.95	U	Chlorobenzene	3.95	U
Acetone	**280**	B J	1,1,1,2-Tetrachloroethane	3.95	U
1,1-Dichloroethene	3.95	U	Ethylbenzene	3.95	U
Carbon disulfide	**28.7**		p/m-Xylene	7.90	U
Methylene chloride	9.88	U	o-Xylene	3.95	U
Methyl tert-butyl ether (MTBE)	3.95	U	Styrene	3.95	U
trans-1,2-Dichloroethene	3.95	U	Bromoform	3.95	U
1,1-Dichloroethane	3.95	U	Isopropylbenzene	3.95	U
Vinyl acetate	3.95	U	1,1,2,2-Tetrachloroethane	3.95	U
2-Butanone (MEK)	**60.9**	J	Bromobenzene	3.95	U
cis-1,2-Dichloroethene	3.95	U	1,2,3-Trichloropropane	3.95	U
2,2-Dichloropropane	3.95	U	n-Propylbenzene	3.95	U
Chloroform	3.95	U	2-Chlorotoluene	3.95	U
1,1,1-Trichloroethane	3.95	U	1,3,5-Trimethylbenzene	3.95	U
1,1-Dichloropropene	3.95	U	4-Chlorotoluene	3.95	U
Carbon tetrachloride	3.95	U	tert-Butylbenzene	3.95	U
Benzene	3.95	U	1,2,4-Trimethylbenzene	3.95	U
1,2-Dichloroethane	3.95	U	sec-Butylbenzene	3.95	U
Trichloroethene	3.95	U	1,3-Dichlorobenzene	3.95	U
1,2-Dichloropropane	3.95	U	p-Isopropyltoluene	9.88	U
Dibromomethane	3.95	U	1,4-Dichlorobenzene	3.95	U
Bromodichloromethane	3.95	U	n-Butylbenzene	9.88	U
2-Chloroethylvinyl ether	9.88	U	1,2-Dichlorobenzene	3.95	U
Methyl isobutyl ketone (MIBK)	3.95	U	1,2-Dibromo-3-chloropropane	3.95	U
cis-1,3-Dichloropropene	3.95	U	1,2,4-Trichlorobenzene	3.95	U
Toluene	3.95	U	Hexachlorobutadiene	3.95	U
trans-1,3-Dichloropropene	3.95	U	Naphthalene	9.88	U
1,1,2-Trichloroethane	3.95	U	1,2,3-Trichlorobenzene	3.95	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	103	70-130
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	80	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC30-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-24**
Associated Blank: **VS072308B14**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/24/08	53.8	7.29	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	2.55	U	2-Hexanone	6.37	U
Chloromethane	2.55	U	Tetrachloroethene	2.55	U J
Vinyl chloride	2.55	U	1,3-Dichloropropane	2.55	U
Bromomethane	2.55	U J	Dibromochloromethane	2.55	U
Chloroethane	2.55	U	1,2-Dibromoethane	2.55	U
Trichlorofluoromethane	2.55	U	Chlorobenzene	2.55	U
Acetone	**197**		1,1,1,2-Tetrachloroethane	2.55	U
1,1-Dichloroethene	2.55	U	Ethylbenzene	2.55	U
Carbon disulfide	**29.8**	J	p/m-Xylene	5.10	U
Methylene chloride	6.37	U	o-Xylene	2.55	U
Methyl tert-butyl ether (MTBE)	2.55	U	Styrene	2.55	U
trans-1,2-Dichloroethene	2.55	U J	Bromoform	2.55	U
1,1-Dichloroethane	2.55	U	Isopropylbenzene	2.55	U
Vinyl acetate	2.55	U J	1,1,2,2-Tetrachloroethane	2.55	U
2-Butanone (MEK)	**66.3**	J	Bromobenzene	2.55	U
cis-1,2-Dichloroethene	2.55	U J	1,2,3-Trichloropropane	2.55	U
2,2-Dichloropropane	2.55	U J	n-Propylbenzene	2.55	U
Chloroform	2.55	U	2-Chlorotoluene	2.55	U
1,1,1-Trichloroethane	2.55	U J	1,3,5-Trimethylbenzene	2.55	U
1,1-Dichloropropene	2.55	U	4-Chlorotoluene	2.55	U
Carbon tetrachloride	2.55	U	tert-Butylbenzene	2.55	U
Benzene	2.55	U	1,2,4-Trimethylbenzene	2.55	U
1,2-Dichloroethane	2.55	U	sec-Butylbenzene	2.55	U
Trichloroethene	2.55	U	1,3-Dichlorobenzene	2.55	U
1,2-Dichloropropane	2.55	U	p-Isopropyltoluene	6.37	U
Dibromomethane	2.55	U J	1,4-Dichlorobenzene	2.55	U
Bromodichloromethane	2.55	U J	n-Butylbenzene	6.37	U
2-Chloroethylvinyl ether	6.37	U J	1,2-Dichlorobenzene	2.55	U
Methyl isobutyl ketone (MIBK)	2.55	U	1,2-Dibromo-3-chloropropane	2.55	U
cis-1,3-Dichloropropene	~~2.55~~	~~U~~ R	1,2,4-Trichlorobenzene	2.55	U
Toluene	2.55	U J	Hexachlorobutadiene	2.55	U
trans-1,3-Dichloropropene	~~2.55~~	~~U~~ R	Naphthalene	6.37	U
1,1,2-Trichloroethane	2.55	U J	1,2,3-Trichlorobenzene	2.55	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	87	70-130
1,2-Dichloroethane-d4	75	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	80	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC47-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-25**
Associated Blank: **VS072408B15**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/24/08	83.2	7.50	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.60	U	2-Hexanone	4.01	U
Chloromethane	1.60	U	Tetrachloroethene	1.60	U
Vinyl chloride	1.60	U	1,3-Dichloropropane	1.60	U
Bromomethane	1.60	U J	Dibromochloromethane	1.60	U
Chloroethane	1.60	U	1,2-Dibromoethane	1.60	U
Trichlorofluoromethane	1.60	U	Chlorobenzene	1.60	U
Acetone	**14.2**	B U J	1,1,1,2-Tetrachloroethane	1.60	U
1,1-Dichloroethene	1.60	U	Ethylbenzene	1.60	U
Carbon disulfide	**1.71**		p/m-Xylene	3.21	U
Methylene chloride	4.01	U	o-Xylene	1.60	U
Methyl tert-butyl ether (MTBE)	1.60	U	Styrene	1.60	U
trans-1,2-Dichloroethene	1.60	U	Bromoform	1.60	U
1,1-Dichloroethane	1.60	U	Isopropylbenzene	1.60	U
Vinyl acetate	1.60	U	1,1,2,2-Tetrachloroethane	1.60	U
2-Butanone (MEK)	1.60	U J	Bromobenzene	1.60	U
cis-1,2-Dichloroethene	1.60	U	1,2,3-Trichloropropane	1.60	U
2,2-Dichloropropane	1.60	U	n-Propylbenzene	1.60	U
Chloroform	1.60	U	2-Chlorotoluene	1.60	U
1,1,1-Trichloroethane	1.60	U	1,3,5-Trimethylbenzene	1.60	U
1,1-Dichloropropene	1.60	U	4-Chlorotoluene	1.60	U
Carbon tetrachloride	1.60	U	tert-Butylbenzene	1.60	U
Benzene	1.60	U	1,2,4-Trimethylbenzene	1.60	U
1,2-Dichloroethane	1.60	U	sec-Butylbenzene	1.60	U
Trichloroethene	1.60	U	1,3-Dichlorobenzene	1.60	U
1,2-Dichloropropane	1.60	U	p-Isopropyltoluene	4.01	U
Dibromomethane	1.60	U	1,4-Dichlorobenzene	**8.17**	
Bromodichloromethane	1.60	U	n-Butylbenzene	4.01	U
2-Chloroethylvinyl ether	4.01	U	1,2-Dichlorobenzene	1.60	U
Methyl isobutyl ketone (MIBK)	1.60	U	1,2-Dibromo-3-chloropropane	1.60	U
cis-1,3-Dichloropropene	1.60	U	1,2,4-Trichlorobenzene	1.60	U
Toluene	**6.84**	B	Hexachlorobutadiene	1.60	U
trans-1,3-Dichloropropene	1.60	U	Naphthalene	4.01	U
1,1,2-Trichloroethane	1.60	U	1,2,3-Trichlorobenzene	1.60	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	104	70-130
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	81	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC32-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-26**
Associated Blank: **VS072308B15**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Methanol Volume (ml)	Sample Amount (g)	Extract Volume (ml)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/23/08	60.1	5	7.34	0.1	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	180	U	2-Hexanone	450	U
Chloromethane	180	U	Tetrachloroethene	180	U
Vinyl chloride	180	U	1,3-Dichloropropane	180	U
Bromomethane	~~140~~ 180	JB U J	Dibromochloromethane	180	U
Chloroethane	180	U	1,2-Dibromoethane	180	U
Trichlorofluoromethane	180	U	Chlorobenzene	180	U
Acetone	**627**	B J	1,1,1,2-Tetrachloroethane	180	U
1,1-Dichloroethene	180	U	Ethylbenzene	180	U
Carbon disulfide	180	U	p/m-Xylene	360	U
Methylene chloride	450	U	o-Xylene	180	U
Methyl tert-butyl ether (MTBE)	180	U	Styrene	180	U
trans-1,2-Dichloroethene	180	U	Bromoform	180	U
1,1-Dichloroethane	180	U	Isopropylbenzene	180	U
Vinyl acetate	180	U	1,1,2,2-Tetrachloroethane	180	U
2-Butanone (MEK)	180	U J	Bromobenzene	180	U
cis-1,2-Dichloroethene	180	U	1,2,3-Trichloropropane	180	U
2,2-Dichloropropane	180	U	n-Propylbenzene	180	U
Chloroform	180	U	2-Chlorotoluene	180	U
1,1,1-Trichloroethane	180	U	1,3,5-Trimethylbenzene	180	U
1,1-Dichloropropene	180	U	4-Chlorotoluene	180	U
Carbon tetrachloride	180	U	tert-Butylbenzene	180	U
Benzene	**132**	J	1,2,4-Trimethylbenzene	180	U
1,2-Dichloroethane	180	U	sec-Butylbenzene	180	U
Trichloroethene	180	U	1,3-Dichlorobenzene	180	U
1,2-Dichloropropane	180	U	p-Isopropyltoluene	450	U
Dibromomethane	180	U	1,4-Dichlorobenzene	180	U
Bromodichloromethane	180	U	n-Butylbenzene	450	U
2-Chloroethylvinyl ether	450	U	1,2-Dichlorobenzene	180	U
Methyl isobutyl ketone (MIBK)	180	U	1,2-Dibromo-3-chloropropane	180	U
cis-1,3-Dichloropropene	180	U	1,2,4-Trichlorobenzene	180	U
Toluene	180	U	Hexachlorobutadiene	180	U
trans-1,3-Dichloropropene	180	U	Naphthalene	**2540**	
1,1,2-Trichloroethane	180	U	1,2,3-Trichlorobenzene	180	U

Surrogate	% Recovery	Acceptance Range (%)
2-Bromo-1-chloropropane	81	70-130
1-Chloro-2-fluorobenzene	80	70-130
1,4-Dichlorobutane	82	70-130
Dibromofluoromethane	99	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	97	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC33-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-27**
Associated Blank: **VS072408B15**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/24/08	31.1	6.57	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	4.90	U	2-Hexanone	12.3	U
Chloromethane	4.90	U	Tetrachloroethene	4.90	U
Vinyl chloride	4.90	U	1,3-Dichloropropane	4.90	U
Bromomethane	4.90	U J	Dibromochloromethane	4.90	U
Chloroethane	4.90	U	1,2-Dibromoethane	4.90	U
Trichlorofluoromethane	4.90	U	Chlorobenzene	4.90	U
Acetone	**368**	B J	1,1,1,2-Tetrachloroethane	4.90	U
1,1-Dichloroethene	4.90	U	Ethylbenzene	4.90	U
Carbon disulfide	**42.5**		p/m-Xylene	9.80	U
Methylene chloride	12.3	U	o-Xylene	4.90	U
Methyl tert-butyl ether (MTBE)	4.90	U	Styrene	4.90	U
trans-1,2-Dichloroethene	4.90	U	Bromoform	4.90	U
1,1-Dichloroethane	4.90	U	Isopropylbenzene	4.90	U
Vinyl acetate	4.90	U	1,1,2,2-Tetrachloroethane	4.90	U
2-Butanone (MEK)	**85.4**	J	Bromobenzene	4.90	U
cis-1,2-Dichloroethene	4.90	U	1,2,3-Trichloropropane	4.90	U
2,2-Dichloropropane	4.90	U	n-Propylbenzene	4.90	U
Chloroform	4.90	U	2-Chlorotoluene	4.90	U
1,1,1-Trichloroethane	4.90	U	1,3,5-Trimethylbenzene	4.90	U
1,1-Dichloropropene	4.90	U	4-Chlorotoluene	4.90	U
Carbon tetrachloride	4.90	U	tert-Butylbenzene	4.90	U
Benzene	4.90	U	1,2,4-Trimethylbenzene	4.90	U
1,2-Dichloroethane	4.90	U	sec-Butylbenzene	4.90	U
Trichloroethene	4.90	U	1,3-Dichlorobenzene	4.90	U
1,2-Dichloropropane	4.90	U	p-Isopropyltoluene	12.3	U
Dibromomethane	4.90	U	1,4-Dichlorobenzene	4.90	U
Bromodichloromethane	4.90	U	n-Butylbenzene	12.3	U
2-Chloroethylvinyl ether	12.3	U	1,2-Dichlorobenzene	4.90	U
Methyl isobutyl ketone (MIBK)	4.90	U	1,2-Dibromo-3-chloropropane	4.90	U
cis-1,3-Dichloropropene	4.90	U	1,2,4-Trichlorobenzene	4.90	U
Toluene	4.90	U	Hexachlorobutadiene	4.90	U
trans-1,3-Dichloropropene	4.90	U	Naphthalene	12.3	U
1,1,2-Trichloroethane	4.90	U	1,2,3-Trichlorobenzene	4.90	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	101	70-130
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	78	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SW2-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-28**
Associated Blank: **VS072308B15**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Methanol Volume (ml)	Sample Amount (g)	Extract Volume (ml)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/23/08	39.6	5	5.39	0.1	5	1	BAS

Parameter	Result	Parameter	Result
Dichlorodifluoromethane	387 U	2-Hexanone	967 U
Chloromethane	387 U	Tetrachloroethene	387 U
Vinyl chloride	387 U	1,3-Dichloropropane	387 U
Bromomethane	387 ~~321 JB~~ UJ	Dibromochloromethane	387 U
Chloroethane	387 U	1,2-Dibromoethane	387 U
Trichlorofluoromethane	387 U	Chlorobenzene	387 U
Acetone	**1480** ~~B~~ UJ	1,1,1,2-Tetrachloroethane	387 U
1,1-Dichloroethene	387 U	Ethylbenzene	**334** J
Carbon disulfide	**731**	p/m-Xylene	**998**
Methylene chloride	967 U	o-Xylene	**619**
Methyl tert-butyl ether (MTBE)	387 U	Styrene	387 U
trans-1,2-Dichloroethene	387 U	Bromoform	387 U
1,1-Dichloroethane	387 U	Isopropylbenzene	**280** J
Vinyl acetate	387 U	1,1,2,2-Tetrachloroethane	387 U
2-Butanone (MEK)	387 U J	Bromobenzene	387 U
cis-1,2-Dichloroethene	387 U	1,2,3-Trichloropropane	387 U
2,2-Dichloropropane	387 U	n-Propylbenzene	**414**
Chloroform	387 U	2-Chlorotoluene	387 U
1,1,1-Trichloroethane	387 U	1,3,5-Trimethylbenzene	**3840**
1,1-Dichloropropene	387 U	4-Chlorotoluene	387 U
Carbon tetrachloride	387 U	tert-Butylbenzene	387 U
Benzene	**234** J	1,2,4-Trimethylbenzene	**7800**
1,2-Dichloroethane	387 U	sec-Butylbenzene	**365** J
Trichloroethene	387 U	1,3-Dichlorobenzene	387 U
1,2-Dichloropropane	387 U	p-Isopropyltoluene	**1500**
Dibromomethane	387 U	1,4-Dichlorobenzene	387 U
Bromodichloromethane	387 U	n-Butylbenzene	**2680**
2-Chloroethylvinyl ether	967 U	1,2-Dichlorobenzene	387 U
Methyl isobutyl ketone (MIBK)	387 U	1,2-Dibromo-3-chloropropane	387 U
cis-1,3-Dichloropropene	387 U	1,2,4-Trichlorobenzene	387 U
Toluene	**265** J	Hexachlorobutadiene	387 U
trans-1,3-Dichloropropene	387 U	Naphthalene	34200 ~~39700~~ E D
1,1,2-Trichloroethane	387 U	1,2,3-Trichlorobenzene	387 U

Surrogate	% Recovery	Acceptance Range (%)
2-Bromo-1-chloropropane	81	70-130
1-Chloro-2-fluorobenzene	83	70-130
1,4-Dichlorobutane	85	70-130
Dibromofluoromethane	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
E - Estimated value, exceeds the upper limit of calibration.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

07/31/08 15:46

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SW2-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-28E**
Associated Blank: **VS072408B16**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Methanol Volume (ml)	Sample Amount (g)	Extract Volume (ml)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/24/08	39.6	5	5.39	0.1	5	2	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	773	U	2-Hexanone	1930	U
Chloromethane	773	U	Tetrachloroethene	773	U
Vinyl chloride	773	U	1,3-Dichloropropane	773	U
Bromomethane	**634**	JB	Dibromochloromethane	773	U
Chloroethane	773	U	1,2-Dibromoethane	773	U
Trichlorofluoromethane	773	U	Chlorobenzene	773	U
Acetone	**1570**	JB	1,1,1,2-Tetrachloroethane	773	U
1,1-Dichloroethene	773	U	Ethylbenzene	773	U
Carbon disulfide	**580**	J	p/m-Xylene	**839**	J
Methylene chloride	1930	U	o-Xylene	**541**	J
Methyl tert-butyl ether (MTBE)	773	U	Styrene	773	U
trans-1,2-Dichloroethene	773	U	Bromoform	773	U
1,1-Dichloroethane	773	U	Isopropylbenzene	773	U
Vinyl acetate	773	U	1,1,2,2-Tetrachloroethane	773	U
2-Butanone (MEK)	773	U	Bromobenzene	773	U
cis-1,2-Dichloroethene	773	U	1,2,3-Trichloropropane	773	U
2,2-Dichloropropane	773	U	n-Propylbenzene	773	U
Chloroform	773	U	2-Chlorotoluene	773	U
1,1,1-Trichloroethane	773	U	1,3,5-Trimethylbenzene	**3710**	
1,1-Dichloropropene	773	U	4-Chlorotoluene	773	U
Carbon tetrachloride	773	U	tert-Butylbenzene	773	U
Benzene	773	U	1,2,4-Trimethylbenzene	**7180**	
1,2-Dichloroethane	773	U	sec-Butylbenzene	773	U
Trichloroethene	773	U	1,3-Dichlorobenzene	773	U
1,2-Dichloropropane	773	U	p-Isopropyltoluene	**1310**	J
Dibromomethane	773	U	1,4-Dichlorobenzene	773	U
Bromodichloromethane	773	U	n-Butylbenzene	**2410**	
2-Chloroethylvinyl ether	1930	U	1,2-Dichlorobenzene	773	U
Methyl isobutyl ketone (MIBK)	773	U	1,2-Dibromo-3-chloropropane	773	U
cis-1,3-Dichloropropene	773	U	1,2,4-Trichlorobenzene	773	U
Toluene	773	U	Hexachlorobutadiene	773	U
trans-1,3-Dichloropropene	773	U	Naphthalene	**34200**	
1,1,2-Trichloroethane	773	U	1,2,3-Trichlorobenzene	773	U

Surrogate	% Recovery	Acceptance Range (%)
2-Bromo-1-chloropropane	73	70-130
1-Chloro-2-fluorobenzene	79	70-130
1,4-Dichlorobutane	77	70-130
Dibromofluoromethane	92	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	96	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC39-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-29**
Associated Blank: **VS072408B15**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/24/08	23.7	8.39	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	5.04	U	2-Hexanone	12.6	U
Chloromethane	5.04	U	Tetrachloroethene	5.04	U
Vinyl chloride	5.04	U	1,3-Dichloropropane	5.04	U
Bromomethane	5.04	U J	Dibromochloromethane	5.04	U
Chloroethane	5.04	U	1,2-Dibromoethane	5.04	U
Trichlorofluoromethane	5.04	U	Chlorobenzene	5.04	U
Acetone	**466**	B J	1,1,1,2-Tetrachloroethane	5.04	U
1,1-Dichloroethene	5.04	U	Ethylbenzene	5.04	U
Carbon disulfide	**92.0**		p/m-Xylene	10.1	U
Methylene chloride	12.6	U	o-Xylene	5.04	U
Methyl tert-butyl ether (MTBE)	5.04	U	Styrene	5.04	U
trans-1,2-Dichloroethene	5.04	U	Bromoform	5.04	U
1,1-Dichloroethane	5.04	U	Isopropylbenzene	5.04	U
Vinyl acetate	5.04	U	1,1,2,2-Tetrachloroethane	5.04	U
2-Butanone (MEK)	**119**	J	Bromobenzene	5.04	U
cis-1,2-Dichloroethene	5.04	U	1,2,3-Trichloropropane	5.04	U
2,2-Dichloropropane	5.04	U	n-Propylbenzene	5.04	U
Chloroform	5.04	U	2-Chlorotoluene	5.04	U
1,1,1-Trichloroethane	5.04	U	1,3,5-Trimethylbenzene	5.04	U
1,1-Dichloropropene	5.04	U	4-Chlorotoluene	5.04	U
Carbon tetrachloride	5.04	U	tert-Butylbenzene	5.04	U
Benzene	5.04	U	1,2,4-Trimethylbenzene	5.04	U
1,2-Dichloroethane	5.04	U	sec-Butylbenzene	5.04	U
Trichloroethene	5.04	U	1,3-Dichlorobenzene	5.04	U
1,2-Dichloropropane	5.04	U	p-Isopropyltoluene	12.6	U
Dibromomethane	5.04	U	1,4-Dichlorobenzene	5.04	U
Bromodichloromethane	5.04	U	n-Butylbenzene	12.6	U
2-Chloroethylvinyl ether	12.6	U	1,2-Dichlorobenzene	5.04	U
Methyl isobutyl ketone (MIBK)	5.04	U	1,2-Dibromo-3-chloropropane	5.04	U
cis-1,3-Dichloropropene	5.04	U	1,2,4-Trichlorobenzene	5.04	U
Toluene	5.04	U	Hexachlorobutadiene	5.04	U
trans-1,3-Dichloropropene	5.04	U	Naphthalene	12.6	U
1,1,2-Trichloroethane	5.04	U	1,2,3-Trichlorobenzene	5.04	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	102	70-130
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	80	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC38-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-30**
Associated Blank: **VS072408B15**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/24/08	34.5	7.59	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	3.82	U	2-Hexanone	9.55	U
Chloromethane	3.82	U	Tetrachloroethene	3.82	U
Vinyl chloride	3.82	U	1,3-Dichloropropane	3.82	U
Bromomethane	3.82	U J	Dibromochloromethane	3.82	U
Chloroethane	3.82	U	1,2-Dibromoethane	3.82	U
Trichlorofluoromethane	3.82	U	Chlorobenzene	3.82	U
Acetone	**206**	B J	1,1,1,2-Tetrachloroethane	3.82	U
1,1-Dichloroethene	3.82	U	Ethylbenzene	3.82	U
Carbon disulfide	**43.9**		p/m-Xylene	7.64	U
Methylene chloride	9.55	U	o-Xylene	3.82	U
Methyl tert-butyl ether (MTBE)	3.82	U	Styrene	3.82	U
trans-1,2-Dichloroethene	3.82	U	Bromoform	3.82	U
1,1-Dichloroethane	3.82	U	Isopropylbenzene	3.82	U
Vinyl acetate	3.82	U	1,1,2,2-Tetrachloroethane	3.82	U
2-Butanone (MEK)	**48.8**	J	Bromobenzene	3.82	U
cis-1,2-Dichloroethene	3.82	U	1,2,3-Trichloropropane	3.82	U
2,2-Dichloropropane	3.82	U	n-Propylbenzene	3.82	U
Chloroform	3.82	U	2-Chlorotoluene	3.82	U
1,1,1-Trichloroethane	3.82	U	1,3,5-Trimethylbenzene	3.82	U
1,1-Dichloropropene	3.82	U	4-Chlorotoluene	3.82	U
Carbon tetrachloride	3.82	U	tert-Butylbenzene	3.82	U
Benzene	3.82	U	1,2,4-Trimethylbenzene	3.82	U
1,2-Dichloroethane	3.82	U	sec-Butylbenzene	3.82	U
Trichloroethene	3.82	U	1,3-Dichlorobenzene	3.82	U
1,2-Dichloropropane	3.82	U	p-Isopropyltoluene	9.55	U
Dibromomethane	3.82	U	1,4-Dichlorobenzene	3.82	U
Bromodichloromethane	3.82	U	n-Butylbenzene	9.55	U
2-Chloroethylvinyl ether	9.55	U	1,2-Dichlorobenzene	3.82	U
Methyl isobutyl ketone (MIBK)	3.82	U	1,2-Dibromo-3-chloropropane	3.82	U
cis-1,3-Dichloropropene	3.82	U	1,2,4-Trichlorobenzene	3.82	U
Toluene	3.82	U	Hexachlorobutadiene	3.82	U
trans-1,3-Dichloropropene	3.82	U	Naphthalene	9.55	U
1,1,2-Trichloroethane	3.82	U	1,2,3-Trichlorobenzene	3.82	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	99	70-130
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	86	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC34-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-31**
Associated Blank: **VS072408B15**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/24/08	53.9	6.03	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	3.08	U	2-Hexanone	7.69	U
Chloromethane	3.08	U	Tetrachloroethene	3.08	U
Vinyl chloride	3.08	U	1,3-Dichloropropane	3.08	U
Bromomethane	3.08	U J	Dibromochloromethane	3.08	U
Chloroethane	3.08	U	1,2-Dibromoethane	3.08	U
Trichlorofluoromethane	3.08	U	Chlorobenzene	3.08	U
Acetone	251	B J	1,1,1,2-Tetrachloroethane	3.08	U
1,1-Dichloroethene	3.08	U	Ethylbenzene	3.08	U
Carbon disulfide	45.7		p/m-Xylene	6.15	U
Methylene chloride	7.69	U	o-Xylene	3.08	U
Methyl tert-butyl ether (MTBE)	3.08	U	Styrene	3.08	U
trans-1,2-Dichloroethene	3.08	U	Bromoform	3.08	U
1,1-Dichloroethane	3.08	U	Isopropylbenzene	3.08	U
Vinyl acetate	3.08	U	1,1,2,2-Tetrachloroethane	3.08	U
2-Butanone (MEK)	61.7	J	Bromobenzene	3.08	U
cis-1,2-Dichloroethene	3.08	U	1,2,3-Trichloropropane	3.08	U
2,2-Dichloropropane	3.08	U	n-Propylbenzene	3.08	U
Chloroform	3.08	U	2-Chlorotoluene	3.08	U
1,1,1-Trichloroethane	3.08	U	1,3,5-Trimethylbenzene	3.08	U
1,1-Dichloropropene	3.08	U	4-Chlorotoluene	3.08	U
Carbon tetrachloride	3.08	U	tert-Butylbenzene	3.08	U
Benzene	3.08	U	1,2,4-Trimethylbenzene	3.08	U
1,2-Dichloroethane	3.08	U	sec-Butylbenzene	3.08	U
Trichloroethene	3.08	U	1,3-Dichlorobenzene	3.08	U
1,2-Dichloropropane	3.08	U	p-Isopropyltoluene	7.69	U
Dibromomethane	3.08	U	1,4-Dichlorobenzene	3.08	U
Bromodichloromethane	3.08	U	n-Butylbenzene	7.69	U
2-Chloroethylvinyl ether	7.69	U	1,2-Dichlorobenzene	3.08	U
Methyl isobutyl ketone (MIBK)	3.08	U	1,2-Dibromo-3-chloropropane	3.08	U
cis-1,3-Dichloropropene	3.08	U	1,2,4-Trichlorobenzene	3.08	U
Toluene	3.08	U	Hexachlorobutadiene	3.08	U
trans-1,3-Dichloropropene	3.08	U	Naphthalene	7.69	U
1,1,2-Trichloroethane	3.08	U	1,2,3-Trichlorobenzene	3.08	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	100	70-130
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	86	70-130
4-Bromofluorobenzene	77	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC35-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-32**
Associated Blank: **VS072408B15**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/24/08	55.1	7.88	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	2.30	U	2-Hexanone	5.75	U
Chloromethane	2.30	U	Tetrachloroethene	2.30	U
Vinyl chloride	2.30	U	1,3-Dichloropropane	2.30	U
Bromomethane	2.30	U J	Dibromochloromethane	2.30	U
Chloroethane	2.30	U	1,2-Dibromoethane	2.30	U
Trichlorofluoromethane	2.30	U	Chlorobenzene	2.30	U
Acetone	**44.2**	B U J	1,1,1,2-Tetrachloroethane	2.30	U
1,1-Dichloroethene	2.30	U	Ethylbenzene	2.30	U
Carbon disulfide	**3.26**		p/m-Xylene	4.60	U
Methylene chloride	5.75	U	o-Xylene	2.30	U
Methyl tert-butyl ether (MTBE)	2.30	U	Styrene	2.30	U
trans-1,2-Dichloroethene	2.30	U	Bromoform	2.30	U
1,1-Dichloroethane	2.30	U	Isopropylbenzene	2.30	U
Vinyl acetate	2.30	U	1,1,2,2-Tetrachloroethane	2.30	U
2-Butanone (MEK)	**6.34**	J	Bromobenzene	2.30	U
cis-1,2-Dichloroethene	2.30	U	1,2,3-Trichloropropane	2.30	U
2,2-Dichloropropane	2.30	U	n-Propylbenzene	2.30	U
Chloroform	2.30	U	2-Chlorotoluene	2.30	U
1,1,1-Trichloroethane	2.30	U	1,3,5-Trimethylbenzene	2.30	U
1,1-Dichloropropene	2.30	U	4-Chlorotoluene	2.30	U
Carbon tetrachloride	2.30	U	tert-Butylbenzene	2.30	U
Benzene	2.30	U	1,2,4-Trimethylbenzene	2.30	U
1,2-Dichloroethane	2.30	U	sec-Butylbenzene	2.30	U
Trichloroethene	2.30	U	1,3-Dichlorobenzene	2.30	U
1,2-Dichloropropane	2.30	U	p-Isopropyltoluene	5.75	U
Dibromomethane	2.30	U	1,4-Dichlorobenzene	2.30	U
Bromodichloromethane	2.30	U	n-Butylbenzene	5.75	U
2-Chloroethylvinyl ether	5.75	U	1,2-Dichlorobenzene	2.30	U
Methyl isobutyl ketone (MIBK)	2.30	U	1,2-Dibromo-3-chloropropane	2.30	U
cis-1,3-Dichloropropene	2.30	U	1,2,4-Trichlorobenzene	2.30	U
Toluene	2.30	U	Hexachlorobutadiene	2.30	U
trans-1,3-Dichloropropene	2.30	U	Naphthalene	**4.34**	J
1,1,2-Trichloroethane	2.30	U	1,2,3-Trichlorobenzene	2.30	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	103	70-130
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	91	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **Trip Blank**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-33**
Associated Blank: **VS072408B15**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/02/08	07/11/08	07/24/08	100	5.00	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	2.00	U	2-Hexanone	5.00	U
Chloromethane	2.00	U	Tetrachloroethene	2.00	U
Vinyl chloride	2.00	U	1,3-Dichloropropane	2.00	U
Bromomethane	2.00	U	Dibromochloromethane	2.00	U
Chloroethane	2.00	U	1,2-Dibromoethane	2.00	U
Trichlorofluoromethane	2.00	U	Chlorobenzene	2.00	U
Acetone	**9.42**	B	1,1,1,2-Tetrachloroethane	2.00	U
1,1-Dichloroethene	2.00	U	Ethylbenzene	2.00	U
Carbon disulfide	2.00	U	p/m-Xylene	4.00	U
Methylene chloride	5.00	U	o-Xylene	2.00	U
Methyl tert-butyl ether (MTBE)	2.00	U	Styrene	2.00	U
trans-1,2-Dichloroethene	2.00	U	Bromoform	2.00	U
1,1-Dichloroethane	2.00	U	Isopropylbenzene	2.00	U
Vinyl acetate	2.00	U	1,1,2,2-Tetrachloroethane	2.00	U
2-Butanone (MEK)	2.00	U	Bromobenzene	2.00	U
cis-1,2-Dichloroethene	2.00	U	1,2,3-Trichloropropane	2.00	U
2,2-Dichloropropane	2.00	U	n-Propylbenzene	2.00	U
Chloroform	2.00	U	2-Chlorotoluene	2.00	U
1,1,1-Trichloroethane	2.00	U	1,3,5-Trimethylbenzene	2.00	U
1,1-Dichloropropene	2.00	U	4-Chlorotoluene	2.00	U
Carbon tetrachloride	2.00	U	tert-Butylbenzene	2.00	U
Benzene	2.00	U	1,2,4-Trimethylbenzene	2.00	U
1,2-Dichloroethane	2.00	U	sec-Butylbenzene	2.00	U
Trichloroethene	2.00	U	1,3-Dichlorobenzene	2.00	U
1,2-Dichloropropane	2.00	U	p-Isopropyltoluene	5.00	U
Dibromomethane	2.00	U	1,4-Dichlorobenzene	2.00	U
Bromodichloromethane	2.00	U	n-Butylbenzene	5.00	U
2-Chloroethylvinyl ether	5.00	U	1,2-Dichlorobenzene	2.00	U
Methyl isobutyl ketone (MIBK)	2.00	U	1,2-Dibromo-3-chloropropane	2.00	U
cis-1,3-Dichloropropene	2.00	U	1,2,4-Trichlorobenzene	2.00	U
Toluene	2.00	U	Hexachlorobutadiene	2.00	U
trans-1,3-Dichloropropene	2.00	U	Naphthalene	5.00	U
1,1,2-Trichloroethane	2.00	U	1,2,3-Trichlorobenzene	2.00	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	102	70-130
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	83	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **Trip Blank**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-33E**
Associated Blank: **VS072308B15**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Methanol Volume (ml)	Sample Amount (g)	Extract Volume (ml)	Final Volume (ml)	Dilution Factor	Analyst
07/02/08	07/11/08	07/23/08	100	5	5.00	0.1	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	100	U	2-Hexanone	250	U
Chloromethane	100	U	Tetrachloroethene	100	U
Vinyl chloride	100	U	1,3-Dichloropropane	100	U
Bromomethane	**106**	B	Dibromochloromethane	100	U
Chloroethane	100	U	1,2-Dibromoethane	100	U
Trichlorofluoromethane	100	U	Chlorobenzene	100	U
Acetone	**232**	JB	1,1,1,2-Tetrachloroethane	100	U
1,1-Dichloroethene	100	U	Ethylbenzene	100	U
Carbon disulfide	100	U	p/m-Xylene	200	U
Methylene chloride	250	U	o-Xylene	100	U
Methyl tert-butyl ether (MTBE)	100	U	Styrene	100	U
trans-1,2-Dichloroethene	100	U	Bromoform	100	U
1,1-Dichloroethane	100	U	Isopropylbenzene	100	U
Vinyl acetate	100	U	1,1,2,2-Tetrachloroethane	100	U
2-Butanone (MEK)	100	U	Bromobenzene	100	U
cis-1,2-Dichloroethene	100	U	1,2,3-Trichloropropane	100	U
2,2-Dichloropropane	100	U	n-Propylbenzene	100	U
Chloroform	100	U	2-Chlorotoluene	100	U
1,1,1-Trichloroethane	100	U	1,3,5-Trimethylbenzene	100	U
1,1-Dichloropropene	100	U	4-Chlorotoluene	100	U
Carbon tetrachloride	100	U	tert-Butylbenzene	100	U
Benzene	100	U	1,2,4-Trimethylbenzene	100	U
1,2-Dichloroethane	100	U	sec-Butylbenzene	100	U
Trichloroethene	100	U	1,3-Dichlorobenzene	100	U
1,2-Dichloropropane	100	U	p-Isopropyltoluene	250	U
Dibromomethane	100	U	1,4-Dichlorobenzene	100	U
Bromodichloromethane	100	U	n-Butylbenzene	250	U
2-Chloroethylvinyl ether	250	U	1,2-Dichlorobenzene	100	U
Methyl isobutyl ketone (MIBK)	100	U	1,2-Dibromo-3-chloropropane	100	U
cis-1,3-Dichloropropene	100	U	1,2,4-Trichlorobenzene	100	U
Toluene	100	U	Hexachlorobutadiene	100	U
trans-1,3-Dichloropropene	100	U	Naphthalene	250	U
1,1,2-Trichloroethane	100	U	1,2,3-Trichlorobenzene	100	U

Surrogate	% Recovery	Acceptance Range (%)
2-Bromo-1-chloropropane	101	70-130
1-Chloro-2-fluorobenzene	111	70-130
1,4-Dichlorobutane	96	70-130
Dibromofluoromethane	101	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	95	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC23-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-01**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/18/08	07/26/08	59.3	5.41	10	1	SEO

Parameter	Result
Naphthalene	281
Acenaphthylene	268
Acenaphthene	199
Fluorene	267
Phenanthrene	2710
Anthracene	640
Fluoranthene	5030
Pyrene	4330
Benz[a]anthracene	1950
Chrysene	2390
Benzo[b]fluoranthene	1990
Benzo[k]fluoranthene	1860
Benzo[a]pyrene	2110
Indeno[1,2,3-cd]pyrene	1380
Dibenz[a,h]anthracene	331
Benzo[g,h,i]perylene	1430

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	95	30-150
Pyrene-d10	109	30-150
Benzo[b]fluoranthene-d12	96	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC-24-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-02**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/18/08	07/27/08	82.6	30.02	20	1	SEO

Parameter	Result
Naphthalene	**461**
Acenaphthylene	**283**
Acenaphthene	**454**
Fluorene	**514**
Phenanthrene	**4620**
Anthracene	**2060**
Fluoranthene	**6000**
Pyrene	**5080**
Benz[a]anthracene	**2730**
Chrysene	**2780**
Benzo[b]fluoranthene	**1780**
Benzo[k]fluoranthene	**1980**
Benzo[a]pyrene	**2720**
Indeno[1,2,3-cd]pyrene	**1330**
Dibenz[a,h]anthracene	**344**
Benzo[g,h,i]perylene	**1160**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	98	30-150
Pyrene-d10	113	30-150
Benzo[b]fluoranthene-d12	107	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC-21-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-03**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/18/08	07/27/08	42.5	7.07	10	1	SEO

Parameter	Result
Naphthalene	**399**
Acenaphthylene	**615**
Acenaphthene	**261**
Fluorene	**367**
Phenanthrene	**3520**
Anthracene	**1030**
Fluoranthene	**8150**
Pyrene	**7400**
Benz[a]anthracene	**3590**
Chrysene	**4140**
Benzo[b]fluoranthene	**3950**
Benzo[k]fluoranthene	**3810**
Benzo[a]pyrene	**4090**
Indeno[1,2,3-cd]pyrene	**3040**
Dibenz[a,h]anthracene	**713**
Benzo[g,h,i]perylene	**2870**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	96	30-150
Pyrene-d10	109	30-150
Benzo[b]fluoranthene-d12	99	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC-10-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-04**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/18/08	07/27/08	82.4	30.15	11.11	1	SEO

Parameter	Result
Naphthalene	**438**
Acenaphthylene	**224**
Acenaphthene	**465**
Fluorene	**546**
Phenanthrene	**4430**
Anthracene	**1460**
Fluoranthene	**7110**
Pyrene	**6060**
Benz[a]anthracene	**3910**
Chrysene	**3760**
Benzo[b]fluoranthene	**3540**
Benzo[k]fluoranthene	**3350**
Benzo[a]pyrene	**4430**
Indeno[1,2,3-cd]pyrene	**2560**
Dibenz[a,h]anthracene	**725**
Benzo[g,h,i]perylene	**2250**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	97	30-150
Pyrene-d10	110	30-150
Benzo[b]fluoranthene-d12	103	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC-12-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-05**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/18/08	07/27/08	86.0	30.40	5	1	SEO

Parameter	Result
Naphthalene	57.7
Acenaphthylene	173
Acenaphthene	24.2
Fluorene	34.9
Phenanthrene	480
Anthracene	235
Fluoranthene	1380
Pyrene	1170
Benz[a]anthracene	697
Chrysene	630
Benzo[b]fluoranthene	491
Benzo[k]fluoranthene	487
Benzo[a]pyrene	616
Indeno[1,2,3-cd]pyrene	360
Dibenz[a,h]anthracene	88.2
Benzo[g,h,i]perylene	307

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	92	30-150
Pyrene-d10	111	30-150
Benzo[b]fluoranthene-d12	100	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC-25-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-06**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/18/08	07/27/08	76.7	20.93	20	1	SEO

Parameter	Result
Naphthalene	**3780**
Acenaphthylene	**1100**
Acenaphthene	**2530**
Fluorene	**3140**
Phenanthrene	**24800**
Anthracene	**8130**
Fluoranthene	24400 ~~28800 E~~ D
Pyrene	**23300**
Benz[a]anthracene	**12400**
Chrysene	**11000**
Benzo[b]fluoranthene	**8790**
Benzo[k]fluoranthene	**8440**
Benzo[a]pyrene	**11900**
Indeno[1,2,3-cd]pyrene	**6780**
Dibenz[a,h]anthracene	**1710**
Benzo[g,h,i]perylene	**5850**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	93	30-150
Pyrene-d10	105	30-150
Benzo[b]fluoranthene-d12	98	30-150

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC-25-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-06E**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/08/08	07/11/08	07/18/08	08/02/08	76.7	20.93	20	10	SEO

Parameter	Result
Naphthalene	125 U
Acenaphthylene	125 U
Acenaphthene	125 U
Fluorene	125 U
Phenanthrene	125 U
Anthracene	125 U
Fluoranthene	**24400**
Pyrene	125 U
Benz[a]anthracene	125 U
Chrysene	125 U
Benzo[b]fluoranthene	125 U
Benzo[k]fluoranthene	125 U
Benzo[a]pyrene	125 U
Indeno[1,2,3-cd]pyrene	125 U
Dibenz[a,h]anthracene	125 U
Benzo[g,h,i]perylene	125 U

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	60	30-150
Pyrene-d10	90	30-150
Benzo[b]fluoranthene-d12	74	30-150

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC3-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-07**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/18/08	08/02/08	80.2	30.44	66.67	10	AC

Parameter	Result
Naphthalene	**2530**
Acenaphthylene	**6060**
Acenaphthene	**4190**
Fluorene	**12100**
Phenanthrene	**120000**
Anthracene	**52300**
Fluoranthene	**142000**
Pyrene	**108000**
Benz[a]anthracene	**54900**
Chrysene	**45000**
Benzo[b]fluoranthene	**29500**
Benzo[k]fluoranthene	**32200**
Benzo[a]pyrene	**43300**
Indeno[1,2,3-cd]pyrene	**23000**
Dibenz[a,h]anthracene	**5870**
Benzo[g,h,i]perylene	**18000**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	63	30-150
Pyrene-d10	83	30-150
Benzo[b]fluoranthene-d12	123	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC41-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-08**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/18/08	07/27/08	81.3	30.90	5	1	SEO

Parameter	Result
Naphthalene	**42.9**
Acenaphthylene	**113**
Acenaphthene	**26.6**
Fluorene	**48.3**
Phenanthrene	**537**
Anthracene	**201**
Fluoranthene	**1080**
Pyrene	**874**
Benz[a]anthracene	**557**
Chrysene	**524**
Benzo[b]fluoranthene	**444**
Benzo[k]fluoranthene	**434**
Benzo[a]pyrene	**540**
Indeno[1,2,3-cd]pyrene	**335**
Dibenz[a,h]anthracene	**89.9**
Benzo[g,h,i]perylene	**296**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	90	30-150
Pyrene-d10	107	30-150
Benzo[b]fluoranthene-d12	100	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC40-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-09**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/18/08	07/27/08	84.4	30.84	5	1	SEO

Parameter	Result
Naphthalene	**41.7**
Acenaphthylene	**89.3**
Acenaphthene	**20.5**
Fluorene	**39.7**
Phenanthrene	**527**
Anthracene	**190**
Fluoranthene	**1090**
Pyrene	**870**
Benz[a]anthracene	**522**
Chrysene	**538**
Benzo[b]fluoranthene	**449**
Benzo[k]fluoranthene	**461**
Benzo[a]pyrene	**532**
Indeno[1,2,3-cd]pyrene	**359**
Dibenz[a,h]anthracene	**93.4**
Benzo[g,h,i]perylene	**311**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	93	30-150
Pyrene-d10	112	30-150
Benzo[b]fluoranthene-d12	103	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC4-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-10**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/18/08	07/27/08	89.3	30.33	33.33	1	SEO

Parameter	Result
Naphthalene	651
Acenaphthylene	917
Acenaphthene	565
Fluorene	508
Phenanthrene	5410
Anthracene	1940
Fluoranthene	9230
Pyrene	8290
Benz[a]anthracene	3800
Chrysene	3590
Benzo[b]fluoranthene	2770
Benzo[k]fluoranthene	2840
Benzo[a]pyrene	4450
Indeno[1,2,3-cd]pyrene	2130
Dibenz[a,h]anthracene	540
Benzo[g,h,i]perylene	1910

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	93	30-150
Pyrene-d10	112	30-150
Benzo[b]fluoranthene-d12	106	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC22-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-11**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/18/08	07/27/08	80.2	30.90	6.67	1	SEO

Parameter	Result
Naphthalene	**50.1**
Acenaphthylene	**204**
Acenaphthene	**38.0**
Fluorene	**71.9**
Phenanthrene	**880**
Anthracene	**326**
Fluoranthene	**1620**
Pyrene	**1480**
Benz[a]anthracene	**788**
Chrysene	**742**
Benzo[b]fluoranthene	**582**
Benzo[k]fluoranthene	**561**
Benzo[a]pyrene	**744**
Indeno[1,2,3-cd]pyrene	**456**
Dibenz[a,h]anthracene	**118**
Benzo[g,h,i]perylene	**418**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	96	30-150
Pyrene-d10	113	30-150
Benzo[b]fluoranthene-d12	106	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC5-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-12**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/18/08	07/27/08	81.5	30.14	20	1	SEO

Parameter	Result
Naphthalene	**226**
Acenaphthylene	**252**
Acenaphthene	**87.2**
Fluorene	**126**
Phenanthrene	**711**
Anthracene	**340**
Fluoranthene	**1340**
Pyrene	**1410**
Benz[a]anthracene	**733**
Chrysene	**715**
Benzo[b]fluoranthene	**536**
Benzo[k]fluoranthene	**550**
Benzo[a]pyrene	**828**
Indeno[1,2,3-cd]pyrene	**462**
Dibenz[a,h]anthracene	**120**
Benzo[g,h,i]perylene	**606**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	94	30-150
Pyrene-d10	112	30-150
Benzo[b]fluoranthene-d12	106	30-150

N/A - Not Applicable

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Alkylated Polynuclear Aromatic Hydrocarbons

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC6-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-13**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/18/08	07/27/08	30.9	6.12	6.67	1	SEO

Parameter	Result
Naphthalene	636
C1-Naphthalenes	376
C2-Naphthalenes	392
C3-Naphthalenes	290
C4-Naphthalenes	215
Acenaphthylene	962
Acenaphthene	235
Fluorene	308
C1-Fluorenes	212
C2-Fluorenes	303
C3-Fluorenes	765
Phenanthrene	3180
Anthracene	1080
C1-Phenanthrenes/Anthracenes	1790
C2-Phenanthrenes/Anthracenes	1270
C3-Phenanthrenes/Anthracenes	758
C4-Phenanthrenes/Anthracenes	394
Fluoranthene	10600
Pyrene	9020
C1-Fluoranthenes/Pyrenes	4290
Benz[a]anthracene	4020
Chrysene	5420
C1-Chrysenes	2620
C2-Chrysenes	1580
C3-Chrysenes	1340
C4-Chrysenes	793
Benzo[b]fluoranthene	5740
Benzo[k]fluoranthene	4890
Benzo[a]pyrene	5460
Perylene	1360
Benzo[e]pyrene	4330
Indeno[1,2,3-cd]pyrene	4400
Dibenz[a,h]anthracene	1010
Benzo[g,h,i]perylene	4160

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	95	30-150
Pyrene-d10	109	30-150
Benzo[b]fluoranthene-d12	103	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC20-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-14**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/09/08	07/11/08	07/18/08	07/28/08	77.6	10.03	6.67	1	SEO

Parameter	Result
Naphthalene	358
Acenaphthylene	189
Acenaphthene	746
Fluorene	835
Phenanthrene	6160
Anthracene	2170
Fluoranthene	7030
Pyrene	5620
Benz[a]anthracene	3120
Chrysene	2870
Benzo[b]fluoranthene	2050
Benzo[k]fluoranthene	2230
Benzo[a]pyrene	2830
Indeno[1,2,3-cd]pyrene	1500
Dibenz[a,h]anthracene	396
Benzo[g,h,i]perylene	1270

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	92	30-150
Pyrene-d10	109	30-150
Benzo[b]fluoranthene-d12	102	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC26-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-15**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/18/08	07/28/08	83.5	21.64	10	1	SEO

Parameter	Result
Naphthalene	**52.6**
Acenaphthylene	**134**
Acenaphthene	**44.7**
Fluorene	**75.4**
Phenanthrene	**1220**
Anthracene	**379**
Fluoranthene	**2680**
Pyrene	**2140**
Benz[a]anthracene	**1160**
Chrysene	**1170**
Benzo[b]fluoranthene	**954**
Benzo[k]fluoranthene	**913**
Benzo[a]pyrene	**1100**
Indeno[1,2,3-cd]pyrene	**703**
Dibenz[a,h]anthracene	**178**
Benzo[g,h,i]perylene	**624**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	94	30-150
Pyrene-d10	114	30-150
Benzo[b]fluoranthene-d12	102	30-150

N/A - Not Applicable

Alkylated Polynuclear Aromatic Hydrocarbons

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC19-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-16**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/18/08	07/28/08	35.7	6.34	12.5	1	SEO

Parameter	Result
Naphthalene	1570
C1-Naphthalenes	787
C2-Naphthalenes	1770
C3-Naphthalenes	2640
C4-Naphthalenes	2640
Acenaphthylene	1160
Acenaphthene	907
Fluorene	766
C1-Fluorenes	882
C2-Fluorenes	1660
C3-Fluorenes	2200
Phenanthrene	4550
Anthracene	2770
C1-Phenanthrenes/Anthracenes	5380
C2-Phenanthrenes/Anthracenes	4820
C3-Phenanthrenes/Anthracenes	3890
C4-Phenanthrenes/Anthracenes	3780
Fluoranthene	8310
Pyrene	8940
C1-Fluoranthenes/Pyrenes	5900
Benz[a]anthracene	4310
Chrysene	4920
C1-Chrysenes	3310
C2-Chrysenes	2230
C3-Chrysenes	1980
C4-Chrysenes	1160
Benzo[b]fluoranthene	3310
Benzo[k]fluoranthene	3530
Benzo[a]pyrene	4480
Perylene	989
Benzo[e]pyrene	3080
Indeno[1,2,3-cd]pyrene	2660
Dibenz[a,h]anthracene	731
Benzo[g,h,i]perylene	2710

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	96	30-150
Pyrene-d10	107	30-150
Benzo[b]fluoranthene-d12	103	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC43-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-17**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/18/08	07/28/08	62.0	10.14	10	1	SEO

Parameter	Result
Naphthalene	**308**
Acenaphthylene	**373**
Acenaphthene	**207**
Fluorene	**251**
Phenanthrene	**2460**
Anthracene	**726**
Fluoranthene	**4520**
Pyrene	**3770**
Benz[a]anthracene	**1940**
Chrysene	**2030**
Benzo[b]fluoranthene	**1780**
Benzo[k]fluoranthene	**1860**
Benzo[a]pyrene	**2130**
Indeno[1,2,3-cd]pyrene	**1400**
Dibenz[a,h]anthracene	**341**
Benzo[g,h,i]perylene	**1290**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	92	30-150
Pyrene-d10	107	30-150
Benzo[b]fluoranthene-d12	102	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC42-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-18**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/18/08	07/28/08	77.3	30.45	33.33	1	SEO

Parameter	Result
Naphthalene	**442**
Acenaphthylene	**338**
Acenaphthene	**154**
Fluorene	**187**
Phenanthrene	**1870**
Anthracene	**603**
Fluoranthene	**3640**
Pyrene	**3550**
Benz[a]anthracene	**1710**
Chrysene	**1750**
Benzo[b]fluoranthene	**1270**
Benzo[k]fluoranthene	**1390**
Benzo[a]pyrene	**1970**
Indeno[1,2,3-cd]pyrene	**1060**
Dibenz[a,h]anthracene	**268**
Benzo[g,h,i]perylene	**1070**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	88	30-150
Pyrene-d10	105	30-150
Benzo[b]fluoranthene-d12	102	30-150

N/A - Not Applicable

Alkylated Polynuclear Aromatic Hydrocarbons

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC9-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-19**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/18/08	07/28/08	36.6	7.51	10	1	SEO

Parameter	Result
Naphthalene	**541**
C1-Naphthalenes	**366**
C2-Naphthalenes	**449**
C3-Naphthalenes	**358**
C4-Naphthalenes	**270**
Acenaphthylene	**1020**
Acenaphthene	**286**
Fluorene	**370**
C1-Fluorenes	**235**
C2-Fluorenes	**362**
C3-Fluorenes	**781**
Phenanthrene	**3450**
Anthracene	**1310**
C1-Phenanthrenes/Anthracenes	**2090**
C2-Phenanthrenes/Anthracenes	**1420**
C3-Phenanthrenes/Anthracenes	**888**
C4-Phenanthrenes/Anthracenes	**549**
Fluoranthene	**9520**
Pyrene	**8450**
C1-Fluoranthenes/Pyrenes	**4370**
Benz[a]anthracene	**4170**
Chrysene	**4850**
C1-Chrysenes	**2640**
C2-Chrysenes	**1490**
C3-Chrysenes	**1260**
C4-Chrysenes	**815**
Benzo[b]fluoranthene	**4720**
Benzo[k]fluoranthene	**4280**
Benzo[a]pyrene	**4900**
Perylene	**1610**
Benzo[e]pyrene	**3730**
Indeno[1,2,3-cd]pyrene	**3560**
Dibenz[a,h]anthracene	**881**
Benzo[g,h,i]perylene	**3460**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	91	30-150
Pyrene-d10	108	30-150
Benzo[b]fluoranthene-d12	103	30-150

N/A - Not Applicable

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Alkylated Polynuclear Aromatic Hydrocarbons

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **DUP-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-20**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/18/08	07/28/08	36.2	6.33	6.67	1	SEO

Parameter	Result
Naphthalene	615
C1-Naphthalenes	382
C2-Naphthalenes	425
C3-Naphthalenes	334
C4-Naphthalenes	263
Acenaphthylene	943
Acenaphthene	305
Fluorene	382
C1-Fluorenes	246
C2-Fluorenes	348
C3-Fluorenes	916
Phenanthrene	3580
Anthracene	1350
C1-Phenanthrenes/Anthracenes	2020
C2-Phenanthrenes/Anthracenes	1350
C3-Phenanthrenes/Anthracenes	804
C4-Phenanthrenes/Anthracenes	469
Fluoranthene	9600
Pyrene	8200
C1-Fluoranthenes/Pyrenes	4210
Benz[a]anthracene	4090
Chrysene	4790
C1-Chrysenes	2370
C2-Chrysenes	1240
C3-Chrysenes	1110
C4-Chrysenes	724
Benzo[b]fluoranthene	4530
Benzo[k]fluoranthene	4260
Benzo[a]pyrene	4780
Perylene	1530
Benzo[e]pyrene	3620
Indeno[1,2,3-cd]pyrene	3550
Dibenz[a,h]anthracene	861
Benzo[g,h,i]perylene	3380

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	92	30-150
Pyrene-d10	108	30-150
Benzo[b]fluoranthene-d12	103	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC29-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-21**
Associated Blank: **SS071808B07**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/18/08	07/28/08	42.1	5.42	6.67	1	SEO

Parameter	Result
Naphthalene	1010
Acenaphthylene	1310
Acenaphthene	224
Fluorene	344
Phenanthrene	3300
Anthracene	1310
Fluoranthene	7850
Pyrene	8570
Benz[a]anthracene	3980
Chrysene	4870
Benzo[b]fluoranthene	4640
Benzo[k]fluoranthene	4550
Benzo[a]pyrene	4470
Indeno[1,2,3-cd]pyrene	3660
Dibenz[a,h]anthracene	926
Benzo[g,h,i]perylene	3540

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	91	30-150
Pyrene-d10	109	30-150
Benzo[b]fluoranthene-d12	100	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC17-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-22**
Associated Blank: **SS071808B07**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/18/08	07/28/08	52.9	5.57	6.67	1	SEO

Parameter	Result
Naphthalene	288
Acenaphthylene	253
Acenaphthene	59.9
Fluorene	88.8
Phenanthrene	821
Anthracene	310
Fluoranthene	2730
Pyrene	2340
Benz[a]anthracene	1080
Chrysene	1380
Benzo[b]fluoranthene	1400
Benzo[k]fluoranthene	1320
Benzo[a]pyrene	1210
Indeno[1,2,3-cd]pyrene	1050
Dibenz[a,h]anthracene	252
Benzo[g,h,i]perylene	1020

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	90	30-150
Pyrene-d10	108	30-150
Benzo[b]fluoranthene-d12	101	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC28-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-23**
Associated Blank: **SS071808B07**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/18/08	07/28/08	34.6	5.25	6.67	1	SEO

Parameter	Result
Naphthalene	**534**
Acenaphthylene	**834**
Acenaphthene	**162**
Fluorene	**241**
Phenanthrene	**2400**
Anthracene	**942**
Fluoranthene	**6810**
Pyrene	**6820**
Benz[a]anthracene	**3440**
Chrysene	**4220**
Benzo[b]fluoranthene	**4040**
Benzo[k]fluoranthene	**3970**
Benzo[a]pyrene	**3910**
Indeno[1,2,3-cd]pyrene	**3190**
Dibenz[a,h]anthracene	**804**
Benzo[g,h,i]perylene	**3070**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	89	30-150
Pyrene-d10	107	30-150
Benzo[b]fluoranthene-d12	102	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC30-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-24**
Associated Blank: **SS071808B07**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/10/08	07/11/08	07/18/08	07/29/08	53.8	5.07	10	1	SEO

Parameter	Result	
Naphthalene	**4320**	
Acenaphthylene	**5670**	
Acenaphthene	**757**	
Fluorene	**1340**	
Phenanthrene	**9510**	
Anthracene	**4620**	
Fluoranthene	**19800**	
Pyrene	**21500**	
Benz[a]anthracene	**11600**	
Chrysene	**11300**	
Benzo[b]fluoranthene	**9000**	
Benzo[k]fluoranthene	**9570**	
Benzo[a]pyrene	**11000**	
Indeno[1,2,3-cd]pyrene	**7690**	
Dibenz[a,h]anthracene	**2170**	J
Benzo[g,h,i]perylene	**7480**	

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	90	30-150
Pyrene-d10	106	30-150
Benzo[b]fluoranthene-d12	100	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC47-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-25**
Associated Blank: **SS071808B07**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/18/08	07/29/08	83.2	10.23	2.86	1	SEO

Parameter	Result
Naphthalene	215
Acenaphthylene	425
Acenaphthene	51.7
Fluorene	95.9
Phenanthrene	1460
Anthracene	976
Fluoranthene	6630
Pyrene	5960
Benz[a]anthracene	3380
Chrysene	2970
Benzo[b]fluoranthene	2520
Benzo[k]fluoranthene	2390
Benzo[a]pyrene	2670
Indeno[1,2,3-cd]pyrene	2070
Dibenz[a,h]anthracene	527
Benzo[g,h,i]perylene	1790

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	87	30-150
Pyrene-d10	109	30-150
Benzo[b]fluoranthene-d12	102	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC32-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-26**
Associated Blank: **SS071808B07**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/18/08	07/29/08	60.1	20.88	40	1	SEO

Parameter	Result
Naphthalene	**16500**
Acenaphthylene	**8590**
Acenaphthene	**2470**
Fluorene	**5780**
Phenanthrene	**32800**
Anthracene	**13000**
Fluoranthene	**29500**
Pyrene	**34500**
Benz[a]anthracene	**19200**
Chrysene	**20200**
Benzo[b]fluoranthene	**11700**
Benzo[k]fluoranthene	**13000**
Benzo[a]pyrene	**16800**
Indeno[1,2,3-cd]pyrene	**10200**
Dibenz[a,h]anthracene	**3180**
Benzo[g,h,i]perylene	**10300**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	92	30-150
Pyrene-d10	112	30-150
Benzo[b]fluoranthene-d12	104	30-150

N/A - Not Applicable

Alkylated Polynuclear Aromatic Hydrocarbons

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC33-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-27**
Associated Blank: **SS071808B07**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/18/08	07/29/08	31.1	5.91	6.67	1	SEO

Parameter	Result
Naphthalene	528
C1-Naphthalenes	288
C2-Naphthalenes	337
C3-Naphthalenes	268
C4-Naphthalenes	194
Acenaphthylene	685
Acenaphthene	222
Fluorene	279
C1-Fluorenes	173
C2-Fluorenes	308
C3-Fluorenes	631
Phenanthrene	2710
Anthracene	892
C1-Phenanthrenes/Anthracenes	1370
C2-Phenanthrenes/Anthracenes	981
C3-Phenanthrenes/Anthracenes	619
C4-Phenanthrenes/Anthracenes	322
Fluoranthene	7530
Pyrene	6460
C1-Fluoranthenes/Pyrenes	3120
Benz[a]anthracene	3000
Chrysene	3990
C1-Chrysenes	1920
C2-Chrysenes	1130
C3-Chrysenes	1060
C4-Chrysenes	684
Benzo[b]fluoranthene	3940
Benzo[k]fluoranthene	3600
Benzo[a]pyrene	3620
Perylene	996
Benzo[e]pyrene	3080
Indeno[1,2,3-cd]pyrene	2990
Dibenz[a,h]anthracene	720
Benzo[g,h,i]perylene	2850

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	89	30-150
Pyrene-d10	106	30-150
Benzo[b]fluoranthene-d12	102	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SW2-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-28**
Associated Blank: **SS071808B06**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/18/08	08/02/08	39.6	5.13	200	10	AC

Parameter	Result
Naphthalene	**104000**
Acenaphthylene	**429000**
Acenaphthene	**263000**
Fluorene	**838000**
Phenanthrene	**2350000**
Anthracene	**1220000**
Fluoranthene	**3460000**
Pyrene	**2410000**
Benz[a]anthracene	**1030000**
Chrysene	**835000**
Benzo[b]fluoranthene	**704000**
Benzo[k]fluoranthene	**667000**
Benzo[a]pyrene	**872000**
Indeno[1,2,3-cd]pyrene	**548000**
Dibenz[a,h]anthracene	**111000**
Benzo[g,h,i]perylene	**454000**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	117	30-150
Pyrene-d10	105	30-150
Benzo[b]fluoranthene-d12	107	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC39-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-29**
Associated Blank: **SS071808B07**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/18/08	07/29/08	23.7	5.08	6.67	1	SEO

Parameter	Result
Naphthalene	**514**
Acenaphthylene	**840**
Acenaphthene	**176**
Fluorene	**241**
Phenanthrene	**1900**
Anthracene	**841**
Fluoranthene	**6200**
Pyrene	**5730**
Benz[a]anthracene	**2700**
Chrysene	**3390**
Benzo[b]fluoranthene	**3680**
Benzo[k]fluoranthene	**3220**
Benzo[a]pyrene	**3040**
Indeno[1,2,3-cd]pyrene	**2720**
Dibenz[a,h]anthracene	**682**
Benzo[g,h,i]perylene	**2660**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	90	30-150
Pyrene-d10	105	30-150
Benzo[b]fluoranthene-d12	102	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC38-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-30**
Associated Blank: **SS071808B07**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/18/08	07/29/08	34.5	5.21	6.67	1	SEO

Parameter	Result
Naphthalene	**1430**
Acenaphthylene	**1950**
Acenaphthene	**314**
Fluorene	**481**
Phenanthrene	**4010**
Anthracene	**1840**
Fluoranthene	**8880**
Pyrene	**9410**
Benz[a]anthracene	**4780**
Chrysene	**5390**
Benzo[b]fluoranthene	**5170**
Benzo[k]fluoranthene	**5070**
Benzo[a]pyrene	**5030**
Indeno[1,2,3-cd]pyrene	**4260**
Dibenz[a,h]anthracene	**1110**
Benzo[g,h,i]perylene	**4070**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	90	30-150
Pyrene-d10	103	30-150
Benzo[b]fluoranthene-d12	100	30-150

N/A - Not Applicable

Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC34-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-31**
Associated Blank: **SS071808B07**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/18/08	07/29/08	53.9	5.44	4	1	SEO

Parameter	Result
Naphthalene	**131**
Acenaphthylene	**246**
Acenaphthene	**50.5**
Fluorene	**79.0**
Phenanthrene	**836**
Anthracene	**295**
Fluoranthene	**2390**
Pyrene	**2090**
Benz[a]anthracene	**954**
Chrysene	**1240**
Benzo[b]fluoranthene	**1270**
Benzo[k]fluoranthene	**1140**
Benzo[a]pyrene	**1050**
Indeno[1,2,3-cd]pyrene	**946**
Dibenz[a,h]anthracene	**239**
Benzo[g,h,i]perylene	**911**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	90	30-150
Pyrene-d10	106	30-150
Benzo[b]fluoranthene-d12	102	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC35-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-32**
Associated Blank: **SS071808B07**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/11/08	07/11/08	07/18/08	07/29/08	55.1	10.73	20	1	SEO

Parameter	Result
Naphthalene	**4290**
Acenaphthylene	**4920**
Acenaphthene	**650**
Fluorene	**1750**
Phenanthrene	**18200**
Anthracene	**6770**
Fluoranthene	**19300**
Pyrene	**23400**
Benz[a]anthracene	**12300**
Chrysene	**12900**
Benzo[b]fluoranthene	**7840**
Benzo[k]fluoranthene	**8810**
Benzo[a]pyrene	**11400**
Indeno[1,2,3-cd]pyrene	**6980**
Dibenz[a,h]anthracene	**2140**
Benzo[g,h,i]perylene	**6940**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	90	30-150
Pyrene-d10	102	30-150
Benzo[b]fluoranthene-d12	99	30-150

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC23-S1**
Matrix: **Sediment**
Percent Solid: **59.3**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-01**
Concentration Units: **mg/Kg**
Date Collected: **07/08/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.484**	J	0.119	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**8.39**	J	0.122	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.445**	J	0.0488	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**5.87**	J	0.0488	5	08/01/08	07/29/08	6020A	LMR
Chromium	**85.0**	J	0.488	5	08/01/08	07/29/08	6020A	LMR
Copper	**173**		0.244	5	08/01/08	07/29/08	6020A	LMR
Lead	**178**	J	0.122	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.374**	J	0.0187	5	07/31/08	07/29/08	7474	LCP
Nickel	**24.9**		0.244	5	08/01/08	07/29/08	6020A	LMR
Selenium	**0.918**		0.244	5	08/01/08	07/29/08	6020A	LMR
Silver	**1.94**		0.119	5	08/05/08	07/29/08	6020A	LCP
Thallium	**0.132**		0.0488	5	08/01/08	07/29/08	6020A	LMR
Zinc	**320**		1.22	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC-24-S1**
Matrix: **Sediment**
Percent Solid: **82.6**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-02**
Concentration Units: **mg/Kg**
Date Collected: **07/08/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.206**	J	0.0958	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**2.91**	J	0.0971	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**1.11**	J	0.0388	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**0.619**	J	0.0388	5	08/01/08	07/29/08	6020A	LMR
Chromium	**10.4**	J	0.388	5	08/01/08	07/29/08	6020A	LMR
Copper	**45.6**		0.194	5	08/01/08	07/29/08	6020A	LMR
Lead	**60.4**	J	0.0971	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.0252**	J	0.0139	5	07/31/08	07/29/08	7474	LCP
Nickel	**13.4**		0.194	5	08/01/08	07/29/08	6020A	LMR
Selenium	**0.318**		0.194	5	08/01/08	07/29/08	6020A	LMR
Silver	**0.120**		0.0958	5	08/05/08	07/29/08	6020A	LCP
Thallium	0.0388	U	0.0388	5	08/01/08	07/29/08	6020A	LMR
Zinc	**105**		0.971	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: N/A SDG: N/A
Client ID: **SC-21-S1**
Matrix: **Sediment**
Percent Solid: **42.5**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-03**
Concentration Units: **mg/Kg**
Date Collected: **07/08/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.654**	J	0.157	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**12.7**	J	0.168	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.827**	J	0.0672	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**11.0**	J	0.0672	5	08/01/08	07/29/08	6020A	LMR
Chromium	**130**	J	0.672	5	08/01/08	07/29/08	6020A	LMR
Copper	**249**		0.336	5	08/01/08	07/29/08	6020A	LMR
Lead	**253**	J	0.168	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.635**	J	0.0265	5	07/31/08	07/29/08	7474	LCP
Nickel	**38.4**		0.336	5	08/01/08	07/29/08	6020A	LMR
Selenium	**1.77**		0.336	5	08/01/08	07/29/08	6020A	LMR
Silver	**4.00**		0.157	5	08/05/08	07/29/08	6020A	LCP
Thallium	**0.247**		0.0672	5	08/01/08	07/29/08	6020A	LMR
Zinc	**408**		1.68	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC-10-S1**
Matrix: **Sediment**
Percent Solid: **82.4**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-04**
Concentration Units: **mg/Kg**
Date Collected: **07/08/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.345**	J	0.0960	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**7.07**	J	0.0985	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.460**	J	0.0394	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**1.37**	J	0.0394	5	08/01/08	07/29/08	6020A	LMR
Chromium	**18.9**	J	0.394	5	08/01/08	07/29/08	6020A	LMR
Copper	**336**		0.197	5	08/01/08	07/29/08	6020A	LMR
Lead	**170**	J	0.0985	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.0529**	J	0.0146	5	07/31/08	07/29/08	7474	LCP
Nickel	**15.7**		0.197	5	08/01/08	07/29/08	6020A	LMR
Selenium	**0.241**		0.197	5	08/01/08	07/29/08	6020A	LMR
Silver	**0.272**		0.0960	5	08/05/08	07/29/08	6020A	LCP
Thallium	**0.0494**		0.0394	5	08/01/08	07/29/08	6020A	LMR
Zinc	**158**		0.985	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC-12-S1**
Matrix: **Sediment**
Percent Solid: **86.0**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-05**
Concentration Units: **mg/Kg**
Date Collected: **07/08/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.154**	J	0.0944	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**3.41**	J	0.0881	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.212**	J	0.0352	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**0.555**	J	0.0352	5	08/01/08	07/29/08	6020A	LMR
Chromium	**10.1**	J	0.352	5	08/01/08	07/29/08	6020A	LMR
Copper	**25.8**		0.176	5	08/01/08	07/29/08	6020A	LMR
Lead	**40.1**	J	0.0881	5	08/01/08	07/29/08	6020A	LMR
Mercury	0.0141	U J	0.0141	5	07/31/08	07/29/08	7474	LCP
Nickel	**11.7**		0.176	5	08/01/08	07/29/08	6020A	LMR
Selenium	0.176	U	0.176	5	08/01/08	07/29/08	6020A	LMR
Silver	**0.0951**		0.0944	5	08/05/08	07/29/08	6020A	LCP
Thallium	0.0352	U	0.0352	5	08/01/08	07/29/08	6020A	LMR
Zinc	**64.9**		0.881	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC-25-S1**
Matrix: **Sediment**
Percent Solid: **76.7**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-06**
Concentration Units: **mg/Kg**
Date Collected: **07/08/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**5.13**	J	0.107	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**5.39**	J	0.104	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.283**	J	0.0418	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**2.57**	J	0.0418	5	08/01/08	07/29/08	6020A	LMR
Chromium	**28.7**	J	0.418	5	08/01/08	07/29/08	6020A	LMR
Copper	**74.5**		0.209	5	08/01/08	07/29/08	6020A	LMR
Lead	**124**	J	0.104	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.0819**	J	0.0154	5	07/31/08	07/29/08	7474	LCP
Nickel	**20.6**		0.209	5	08/01/08	07/29/08	6020A	LMR
Selenium	**0.277**		0.209	5	08/01/08	07/29/08	6020A	LMR
Silver	**0.658**		0.107	5	08/05/08	07/29/08	6020A	LCP
Thallium	**0.0549**		0.0418	5	08/01/08	07/29/08	6020A	LMR
Zinc	**131**		1.04	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC3-S1**
Matrix: **Sediment**
Percent Solid: **80.2**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-07**
Concentration Units: **mg/Kg**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.107**	J	0.101	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**4.03**	J	0.0987	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.200**	J	0.0395	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**1.15**	J	0.0395	5	08/01/08	07/29/08	6020A	LMR
Chromium	**16.2**	J	0.395	5	08/01/08	07/29/08	6020A	LMR
Copper	**24.8**		0.197	5	08/01/08	07/29/08	6020A	LMR
Lead	**71.0**	J	0.0987	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.0591**	J	0.0151	5	07/31/08	07/29/08	7474	LCP
Nickel	**10.1**		0.197	5	08/01/08	07/29/08	6020A	LMR
Selenium	**0.230**		0.197	5	08/01/08	07/29/08	6020A	LMR
Silver	**0.224**		0.101	5	08/05/08	07/29/08	6020A	LCP
Thallium	**0.0531**		0.0395	5	08/01/08	07/29/08	6020A	LMR
Zinc	**170**		0.987	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC41-S1**
Matrix: **Sediment**
Percent Solid: **81.3**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-08**
Concentration Units: **mg/Kg**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.102**	J	0.102	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**2.28**	J	0.0961	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.184**	J	0.0384	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**0.752**	J	0.0384	5	08/01/08	07/29/08	6020A	LMR
Chromium	**9.88**	J	0.384	5	08/01/08	07/29/08	6020A	LMR
Copper	**80.1**		0.192	5	08/01/08	07/29/08	6020A	LMR
Lead	**28.3**	J	0.0961	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.0264**	J	0.0146	5	07/31/08	07/29/08	7474	LCP
Nickel	**7.99**		0.192	5	08/01/08	07/29/08	6020A	LMR
Selenium	0.192	U	0.192	5	08/01/08	07/29/08	6020A	LMR
Silver	**0.167**		0.102	5	08/05/08	07/29/08	6020A	LCP
Thallium	**0.0385**		0.0384	5	08/01/08	07/29/08	6020A	LMR
Zinc	**64.4**		0.961	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC40-S1**
Matrix: **Sediment**
Percent Solid: **84.4**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-09**
Concentration Units: **mg/Kg**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.208**	J	0.0903	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**2.39**	J	0.0937	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.165**	J	0.0375	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**0.673**	J	0.0375	5	08/01/08	07/29/08	6020A	LMR
Chromium	**8.96**	J	0.375	5	08/01/08	07/29/08	6020A	LMR
Copper	**26.6**		0.187	5	08/01/08	07/29/08	6020A	LMR
Lead	**40.9**	J	0.0937	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.0264**	J	0.0140	5	07/31/08	07/29/08	7474	LCP
Nickel	**7.41**		0.187	5	08/01/08	07/29/08	6020A	LMR
Selenium	0.187	U	0.187	5	08/01/08	07/29/08	6020A	LMR
Silver	**0.109**		0.0903	5	08/05/08	07/29/08	6020A	LCP
Thallium	0.0375	U	0.0375	5	08/01/08	07/29/08	6020A	LMR
Zinc	**55.2**		0.937	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable
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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: N/A SDG: N/A
Client ID: **SC4-S1**
Matrix: **Sediment**
Percent Solid: **89.3**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-10**
Concentration Units: **mg/Kg**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.180**	J	0.0903	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**5.32**	J	0.0881	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.333**	J	0.0352	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**1.07**	J	0.0352	5	08/01/08	07/29/08	6020A	LMR
Chromium	**15.7**	J	0.352	5	08/01/08	07/29/08	6020A	LMR
Copper	**44.7**		0.176	5	08/01/08	07/29/08	6020A	LMR
Lead	**79.2**	J	0.0881	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.0312**	J	0.0131	5	07/31/08	07/29/08	7474	LCP
Nickel	**13.1**		0.176	5	08/01/08	07/29/08	6020A	LMR
Selenium	**0.448**		0.176	5	08/01/08	07/29/08	6020A	LMR
Silver	**0.225**		0.0903	5	08/05/08	07/29/08	6020A	LCP
Thallium	**0.0530**		0.0352	5	08/01/08	07/29/08	6020A	LMR
Zinc	**95.1**		0.881	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC22-S1**
Matrix: **Sediment**
Percent Solid: **80.2**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-11**
Concentration Units: **mg/Kg**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.16**	J	0.0951	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**3.07**	J	0.0963	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.184**	J	0.0385	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**0.541**	J	0.0385	5	08/01/08	07/29/08	6020A	LMR
Chromium	**11.6**	J	0.385	5	08/01/08	07/29/08	6020A	LMR
Copper	**68.3**		0.193	5	08/01/08	07/29/08	6020A	LMR
Lead	**43.6**	J	0.0963	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.0492**	J	0.0151	5	07/31/08	07/29/08	7474	LCP
Nickel	**10.4**		0.193	5	08/01/08	07/29/08	6020A	LMR
Selenium	0.193	U	0.193	5	08/01/08	07/29/08	6020A	LMR
Silver	**0.129**		0.0951	5	08/05/08	07/29/08	6020A	LCP
Thallium	0.0385	U	0.0385	5	08/01/08	07/29/08	6020A	LMR
Zinc	**69.8**		0.963	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable
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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: N/A SDG: N/A
Client ID: **SC5-S1**
Matrix: **Sediment**
Percent Solid: **81.5**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-12**
Concentration Units: **mg/Kg**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	~~0.0952~~	~~U~~ R	0.0952	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**2.58**	J	0.0996	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.385**	J	0.0398	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**0.823**	J	0.0398	5	08/01/08	07/29/08	6020A	LMR
Chromium	**10.4**	J	0.398	5	08/01/08	07/29/08	6020A	LMR
Copper	**29.0**		0.199	5	08/01/08	07/29/08	6020A	LMR
Lead	**56.0**	J	0.0996	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.0650**	J	0.0150	5	07/31/08	07/29/08	7474	LCP
Nickel	**10.1**		0.199	5	08/01/08	07/29/08	6020A	LMR
Selenium	0.199	U	0.199	5	08/01/08	07/29/08	6020A	LMR
Silver	**0.115**		0.0952	5	08/05/08	07/29/08	6020A	LCP
Thallium	0.0398	U	0.0398	5	08/01/08	07/29/08	6020A	LMR
Zinc	**89.9**		0.996	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC6-S1**
Matrix: **Sediment**
Percent Solid: **30.9**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-13**
Concentration Units: **mg/Kg**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.633**	J	0.231	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**16.8**	J	0.219	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**1.11**	J	0.0875	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**8.45**	J	0.0875	5	08/01/08	07/29/08	6020A	LMR
Chromium	**140**	J	0.875	5	08/01/08	07/29/08	6020A	LMR
Copper	**266**		0.438	5	08/01/08	07/29/08	6020A	LMR
Lead	**242**	J	0.219	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.718**	J	0.0382	5	07/31/08	07/29/08	7474	LCP
Nickel	**35.9**		0.438	5	08/01/08	07/29/08	6020A	LMR
Selenium	**2.39**		0.438	5	08/01/08	07/29/08	6020A	LMR
Silver	**3.46**		0.231	5	08/05/08	07/29/08	6020A	LCP
Thallium	**0.224**		0.0875	5	08/01/08	07/29/08	6020A	LMR
Zinc	**439**		2.19	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC20-S1**
Matrix: **Sediment**
Percent Solid: **77.6**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-14**
Concentration Units: **mg/Kg**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.395**	J	0.0976	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**3.96**	J	0.0994	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.212**	J	0.0398	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**1.58**	J	0.0398	5	08/01/08	07/29/08	6020A	LMR
Chromium	**18.3**	J	0.398	5	08/01/08	07/29/08	6020A	LMR
Copper	**54.4**		0.199	5	08/01/08	07/29/08	6020A	LMR
Lead	**128**	J	0.0994	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.182**	J	0.0156	5	07/31/08	07/29/08	7474	LCP
Nickel	**9.71**		0.199	5	08/01/08	07/29/08	6020A	LMR
Selenium	**0.271**		0.199	5	08/01/08	07/29/08	6020A	LMR
Silver	**0.436**		0.0976	5	08/05/08	07/29/08	6020A	LCP
Thallium	0.0398	U	0.0398	5	08/01/08	07/29/08	6020A	LMR
Zinc	**93.6**		0.994	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC26-S1**
Matrix: **Sediment**
Percent Solid: **83.5**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-15**
Concentration Units: **mg/Kg**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.372**	J	0.0992	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**1.79**	J	0.0936	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.143**	J	0.0374	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**0.551**	J	0.0374	5	08/01/08	07/29/08	6020A	LMR
Chromium	**7.68**	J	0.374	5	08/01/08	07/29/08	6020A	LMR
Copper	**22.5**		0.187	5	08/01/08	07/29/08	6020A	LMR
Lead	**28.4**	J	0.0936	5	08/01/08	07/29/08	6020A	LMR
Mercury	**0.0300**	J	0.0145	5	07/31/08	07/29/08	7474	LCP
Nickel	**4.91**		0.187	5	08/01/08	07/29/08	6020A	LMR
Selenium	**0.264**		0.187	5	08/01/08	07/29/08	6020A	LMR
Silver	**0.124**		0.0992	5	08/05/08	07/29/08	6020A	LCP
Thallium	0.0374	U	0.0374	5	08/01/08	07/29/08	6020A	LMR
Zinc	**58.2**		0.936	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC19-S1**
Matrix: **Sediment**
Percent Solid: **35.7**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-16**
Concentration Units: **mg/Kg**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.981**	J	0.200	5	08/05/08	07/29/08	6020A	LCP
Arsenic	**17.6**	J	0.198	5	08/01/08	07/29/08	6020A	LMR
Beryllium	**0.706**	J	0.0792	5	08/01/08	07/29/08	6020A	LMR
Cadmium	**19.7**	J	0.0792	5	08/01/08	07/29/08	6020A	LMR
Chromium	**280**	J	0.792	5	08/01/08	07/29/08	6020A	LMR
Copper	**773**		0.396	5	08/01/08	07/29/08	6020A	LMR
Lead	**383**	J	0.198	5	08/01/08	07/29/08	6020A	LMR
Mercury	**1.39**	J	0.0331	5	07/31/08	07/29/08	7474	LCP
Nickel	**49.6**		0.396	5	08/01/08	07/29/08	6020A	LMR
Selenium	**1.77**		0.396	5	08/01/08	07/29/08	6020A	LMR
Silver	**5.25**		0.200	5	08/05/08	07/29/08	6020A	LCP
Thallium	**0.200**		0.0792	5	08/01/08	07/29/08	6020A	LMR
Zinc	**792**		1.98	5	08/01/08	07/29/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC43-S1**
Matrix: **Sediment**
Percent Solid: **62.0**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-17**
Concentration Units: **mg/Kg**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.334**	J	0.117	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**4.93**	J	0.110	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**0.408**	J	0.0438	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**2.95**	J	0.0438	5	08/01/08	07/31/08	6020A	LMR
Chromium	**46.5**	J	0.438	5	08/01/08	07/31/08	6020A	LMR
Copper	**117**		0.219	5	08/01/08	07/31/08	6020A	LMR
Lead	**112**	J	0.110	5	08/01/08	07/31/08	6020A	LMR
Mercury	**0.292**	J	0.0178	5	07/31/08	07/29/08	7474	LCP
Nickel	**16.3**		0.219	5	08/01/08	07/31/08	6020A	LMR
Selenium	**0.707**		0.219	5	08/01/08	07/31/08	6020A	LMR
Silver	**1.71**		0.117	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.115**		0.0438	5	08/01/08	07/31/08	6020A	LMR
Zinc	**176**		1.10	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC42-S1**
Matrix: **Sediment**
Percent Solid: **77.3**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-18**
Concentration Units: **mg/Kg**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.139**	J	0.0934	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**3.87**	J	0.0934	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**0.237**	J	0.0374	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**2.76**	J	0.0374	5	08/01/08	07/31/08	6020A	LMR
Chromium	**15.2**	J	0.374	5	08/01/08	07/31/08	6020A	LMR
Copper	**44.4**		0.187	5	08/01/08	07/31/08	6020A	LMR
Lead	**83.1**	J	0.0934	5	08/01/08	07/31/08	6020A	LMR
Mercury	**0.0542**	J	0.0152	5	07/31/08	07/29/08	7474	LCP
Nickel	**10.8**		0.187	5	08/01/08	07/31/08	6020A	LMR
Selenium	**0.346**		0.187	5	08/01/08	07/31/08	6020A	LMR
Silver	**0.783**		0.0934	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.0441**		0.0374	5	08/01/08	07/31/08	6020A	LMR
Zinc	**992**		1.87	10	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC9-S1**
Matrix: **Sediment**
Percent Solid: **36.6**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-19**
Concentration Units: **mg/Kg**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.09**	J	0.212	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**15.7**	J	0.192	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**0.982**	J	0.0767	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**10.4**	J	0.0767	5	08/01/08	07/31/08	6020A	LMR
Chromium	**154**	J	0.767	5	08/01/08	07/31/08	6020A	LMR
Copper	**322**		0.384	5	08/01/08	07/31/08	6020A	LMR
Lead	**308**	J	0.192	5	08/01/08	07/31/08	6020A	LMR
Mercury	**0.903**	J	0.0292	5	07/31/08	07/29/08	7474	LCP
Nickel	**41.0**		0.384	5	08/01/08	07/31/08	6020A	LMR
Selenium	**1.99**		0.384	5	08/01/08	07/31/08	6020A	LMR
Silver	**5.80**		0.212	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.180**		0.0767	5	08/01/08	07/31/08	6020A	LMR
Zinc	**455**		1.92	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: N/A SDG: N/A
Client ID: **DUP-1**
Matrix: **Sediment**
Percent Solid: **36.2**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-20**
Concentration Units: **mg/Kg**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.25**	J	0.207	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**15.9**	J	0.208	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**1.04**	J	0.0833	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**11.1**	J	0.0833	5	08/01/08	07/31/08	6020A	LMR
Chromium	**158**	J	0.833	5	08/01/08	07/31/08	6020A	LMR
Copper	**314**		0.416	5	08/01/08	07/31/08	6020A	LMR
Lead	**302**	J	0.208	5	08/01/08	07/31/08	6020A	LMR
Mercury	**0.942**	J	0.0295	5	07/31/08	07/29/08	7474	LCP
Nickel	**41.0**		0.416	5	08/01/08	07/31/08	6020A	LMR
Selenium	**1.88**		0.416	5	08/01/08	07/31/08	6020A	LMR
Silver	**6.10**		0.207	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.183**		0.0833	5	08/01/08	07/31/08	6020A	LMR
Zinc	**446**		2.08	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC29-S1**
Matrix: **Sediment**
Percent Solid: **42.1**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-21**
Concentration Units: **mg/Kg**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.848**	J	0.174	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**13.2**	J	0.172	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**1.04**	J	0.0686	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**10.8**	J	0.0686	5	08/01/08	07/31/08	6020A	LMR
Chromium	**132**	J	0.686	5	08/01/08	07/31/08	6020A	LMR
Copper	**245**		0.343	5	08/01/08	07/31/08	6020A	LMR
Lead	**257**	J	0.172	5	08/01/08	07/31/08	6020A	LMR
Mercury	**0.678**	J	0.0277	5	07/31/08	07/29/08	7474	LCP
Nickel	**38.6**		0.343	5	08/01/08	07/31/08	6020A	LMR
Selenium	**2.13**		0.343	5	08/01/08	07/31/08	6020A	LMR
Silver	**4.05**		0.174	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.192**		0.0686	5	08/01/08	07/31/08	6020A	LMR
Zinc	**384**		1.72	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC17-S1**
Matrix: **Sediment**
Percent Solid: **52.9**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-22**
Concentration Units: **mg/Kg**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.19**	J	0.141	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**6.94**	J	0.130	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**0.512**	J	0.0522	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**4.68**	J	0.0522	5	08/01/08	07/31/08	6020A	LMR
Chromium	**67.9**	J	0.522	5	08/01/08	07/31/08	6020A	LMR
Copper	**158**		0.261	5	08/01/08	07/31/08	6020A	LMR
Lead	**158**	J	0.130	5	08/01/08	07/31/08	6020A	LMR
Mercury	**0.426**	J	0.0223	5	07/31/08	07/29/08	7474	LCP
Nickel	**20.4**		0.261	5	08/01/08	07/31/08	6020A	LMR
Selenium	**0.996**		0.261	5	08/01/08	07/31/08	6020A	LMR
Silver	**2.76**		0.141	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.0986**		0.0522	5	08/01/08	07/31/08	6020A	LMR
Zinc	**206**		1.30	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: N/A SDG: N/A
Client ID: **SC28-S1**
Matrix: **Sediment**
Percent Solid: **34.6**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-23**
Concentration Units: **mg/Kg**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.928**	J	0.198	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**14.7**	J	0.222	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**1.09**	J	0.0886	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**11.0**	J	0.0886	5	08/01/08	07/31/08	6020A	LMR
Chromium	**158**	J	0.886	5	08/01/08	07/31/08	6020A	LMR
Copper	**320**		0.443	5	08/01/08	07/31/08	6020A	LMR
Lead	**306**	J	0.222	5	08/01/08	07/31/08	6020A	LMR
Mercury	**0.875**	J	0.0337	5	07/31/08	07/29/08	7474	LCP
Nickel	**39.8**		0.443	5	08/01/08	07/31/08	6020A	LMR
Selenium	**2.14**		0.443	5	08/01/08	07/31/08	6020A	LMR
Silver	**5.69**		0.198	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.214**		0.0886	5	08/01/08	07/31/08	6020A	LMR
Zinc	**446**		2.22	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC30-S1**
Matrix: **Sediment**
Percent Solid: **53.8**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-24**
Concentration Units: **mg/Kg**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.40**	J	0.136	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**13.5**	J	0.136	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**1.35**	J	0.0543	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**6.46**	J	0.0543	5	08/01/08	07/31/08	6020A	LMR
Chromium	**143**	J	0.543	5	08/01/08	07/31/08	6020A	LMR
Copper	**271**		0.272	5	08/01/08	07/31/08	6020A	LMR
Lead	**246**	J	0.136	5	08/01/08	07/31/08	6020A	LMR
Mercury	**0.882**	J	0.0213	5	07/31/08	07/29/08	7474	LCP
Nickel	**61.7**		0.272	5	08/01/08	07/31/08	6020A	LMR
Selenium	**2.62**		0.272	5	08/01/08	07/31/08	6020A	LMR
Silver	**3.35**		0.136	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.179**		0.0543	5	08/01/08	07/31/08	6020A	LMR
Zinc	**496**		1.36	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC47-S1**
Matrix: **Sediment**
Percent Solid: **83.2**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-25**
Concentration Units: **mg/Kg**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.264**	J	0.0964	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**3.84**	J	0.0964	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**0.254**	J	0.0385	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**0.847**	J	0.0385	5	08/01/08	07/31/08	6020A	LMR
Chromium	**12.4**	J	0.385	5	08/01/08	07/31/08	6020A	LMR
Copper	**30.3**		0.193	5	08/01/08	07/31/08	6020A	LMR
Lead	**40.6**	J	0.0964	5	08/01/08	07/31/08	6020A	LMR
Mercury	**0.0210**	J	0.0140	5	07/31/08	07/29/08	7474	LCP
Nickel	**12.3**		0.193	5	08/01/08	07/31/08	6020A	LMR
Selenium	**0.232**		0.193	5	08/01/08	07/31/08	6020A	LMR
Silver	**0.175**		0.0964	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.0731**		0.0385	5	08/01/08	07/31/08	6020A	LMR
Zinc	**79.9**		0.964	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC32-S1**
Matrix: **Sediment**
Percent Solid: **60.1**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-26**
Concentration Units: **mg/Kg**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.66**	J	0.120	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**11.7**	J	0.120	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**1.53**	J	0.0478	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**6.93**	J	0.0478	5	08/01/08	07/31/08	6020A	LMR
Chromium	**138**	J	0.478	5	08/01/08	07/31/08	6020A	LMR
Copper	**295**		0.239	5	08/01/08	07/31/08	6020A	LMR
Lead	**239**	J	0.120	5	08/01/08	07/31/08	6020A	LMR
Mercury	**1.23**	J	0.0184	5	07/31/08	07/29/08	7474	LCP
Nickel	**33.7**		0.239	5	08/01/08	07/31/08	6020A	LMR
Selenium	**1.70**		0.239	5	08/01/08	07/31/08	6020A	LMR
Silver	**2.74**		0.120	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.148**		0.0478	5	08/01/08	07/31/08	6020A	LMR
Zinc	**391**		1.20	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC33-S1**
Matrix: **Sediment**
Percent Solid: **31.1**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-27**
Concentration Units: **mg/Kg**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.38**	J	0.224	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**17.1**	J	0.221	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**1.18**	J	0.0885	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**10.0**	J	0.0885	5	08/01/08	07/31/08	6020A	LMR
Chromium	**172**	J	0.884	5	08/01/08	07/31/08	6020A	LMR
Copper	**357**		0.442	5	08/01/08	07/31/08	6020A	LMR
Lead	**311**	J	0.221	5	08/01/08	07/31/08	6020A	LMR
Mercury	**0.922**	J	0.0373	5	07/31/08	07/29/08	7474	LCP
Nickel	**39.1**		0.442	5	08/01/08	07/31/08	6020A	LMR
Selenium	**2.45**		0.442	5	08/01/08	07/31/08	6020A	LMR
Silver	**6.72**		0.224	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.240**		0.0885	5	08/01/08	07/31/08	6020A	LMR
Zinc	**465**		2.21	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SW2-S1**
Matrix: **Sediment**
Percent Solid: **39.6**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-28**
Concentration Units: **mg/Kg**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**3.22**	J	0.188	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**10.4**	J	0.180	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**0.144**	J	0.0721	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**1.88**	J	0.0721	5	08/01/08	07/31/08	6020A	LMR
Chromium	**108**	J	0.721	5	08/01/08	07/31/08	6020A	LMR
Copper	**283**		0.361	5	08/01/08	07/31/08	6020A	LMR
Lead	**318**	J	0.180	5	08/01/08	07/31/08	6020A	LMR
Mercury	**1.48**	J	0.0301	5	07/31/08	07/29/08	7474	LCP
Nickel	**15.0**		0.361	5	08/01/08	07/31/08	6020A	LMR
Selenium	**2.52**		0.361	5	08/01/08	07/31/08	6020A	LMR
Silver	**0.697**		0.188	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.375**		0.0721	5	08/01/08	07/31/08	6020A	LMR
Zinc	**206**		1.80	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC39-S1**
Matrix: **Sediment**
Percent Solid: **23.7**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-29**
Concentration Units: **mg/Kg**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.52**	J	0.285	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**16.8**	J	0.311	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**1.34**	J	0.124	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**16.1**	J	0.124	5	08/01/08	07/31/08	6020A	LMR
Chromium	**232**	J	1.24	5	08/01/08	07/31/08	6020A	LMR
Copper	**516**		0.621	5	08/01/08	07/31/08	6020A	LMR
Lead	**413**	J	0.311	5	08/01/08	07/31/08	6020A	LMR
Mercury	**1.35**	J	0.0444	5	07/31/08	07/29/08	7474	LCP
Nickel	**55.0**		0.621	5	08/01/08	07/31/08	6020A	LMR
Selenium	**2.90**		0.621	5	08/01/08	07/31/08	6020A	LMR
Silver	**11.0**		0.285	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.283**		0.124	5	08/01/08	07/31/08	6020A	LMR
Zinc	**583**		3.11	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC38-S1**
Matrix: **Sediment**
Percent Solid: **34.5**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-30**
Concentration Units: **mg/Kg**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.06**	J	0.225	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**17.5**	J	0.211	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**1.58**	J	0.0843	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**18.2**	J	0.0843	5	08/01/08	07/31/08	6020A	LMR
Chromium	**243**	J	0.843	5	08/01/08	07/31/08	6020A	LMR
Copper	**446**		0.421	5	08/01/08	07/31/08	6020A	LMR
Lead	**450**	J	0.211	5	08/01/08	07/31/08	6020A	LMR
Mercury	**1.58**	J	0.0336	5	07/31/08	07/29/08	7474	LCP
Nickel	**71.7**		0.421	5	08/01/08	07/31/08	6020A	LMR
Selenium	**2.17**		0.421	5	08/01/08	07/31/08	6020A	LMR
Silver	**9.50**		0.225	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.243**		0.0843	5	08/01/08	07/31/08	6020A	LMR
Zinc	**593**		2.11	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC34-S1**
Matrix: **Sediment**
Percent Solid: **53.9**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-31**
Concentration Units: **mg/Kg**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.482**	J	0.136	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**7.07**	J	0.132	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**0.526**	J	0.0527	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**4.50**	J	0.0527	5	08/01/08	07/31/08	6020A	LMR
Chromium	**69.1**	J	0.527	5	08/01/08	07/31/08	6020A	LMR
Copper	**184**		0.263	5	08/01/08	07/31/08	6020A	LMR
Lead	**153**	J	0.132	5	08/01/08	07/31/08	6020A	LMR
Mercury	**0.617**	J	0.0227	5	07/31/08	07/29/08	7474	LCP
Nickel	**21.8**		0.263	5	08/01/08	07/31/08	6020A	LMR
Selenium	**0.957**		0.263	5	08/01/08	07/31/08	6020A	LMR
Silver	**2.85**		0.136	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.112**		0.0527	5	08/01/08	07/31/08	6020A	LMR
Zinc	**200**		1.32	5	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC35-S1**
Matrix: **Sediment**
Percent Solid: **55.1**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-32**
Concentration Units: **mg/Kg**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.19**	J	0.132	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**20.1**	J	0.141	5	08/01/08	07/31/08	6020A	LMR
Beryllium	**0.610**	J	0.0563	5	08/01/08	07/31/08	6020A	LMR
Cadmium	**10.4**	J	0.0563	5	08/01/08	07/31/08	6020A	LMR
Chromium	**210**	J	0.563	5	08/01/08	07/31/08	6020A	LMR
Copper	**348**		0.282	5	08/01/08	07/31/08	6020A	LMR
Lead	**553**	J	0.141	5	08/01/08	07/31/08	6020A	LMR
Mercury	**0.914**	J	0.0222	5	07/31/08	07/29/08	7474	LCP
Nickel	**50.3**		0.282	5	08/01/08	07/31/08	6020A	LMR
Selenium	**1.78**		0.282	5	08/01/08	07/31/08	6020A	LMR
Silver	**3.37**		0.132	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.174**		0.0563	5	08/01/08	07/31/08	6020A	LMR
Zinc	**1440**		2.82	10	08/01/08	07/31/08	6020A	LMR

N/A - Not Applicable

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Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC23-S1**
Matrix: **Sediment**
Percent Solid: **59.3**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-01**
Date Collected: **07/08/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**2.7**		0.01	1	07/31/08	%	9060	ES
Total Organic Carbon (Run 2)	**2.6**		0.01	1	07/31/08	%	9060	ES
Physiologically Available Cyanide	0.14	U	0.14	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Inorganics

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC-24-S1**
Matrix: **Sediment**
Percent Solid: **82.6**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-02**
Date Collected: **07/08/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.77**	J	0.01	1	07/31/08	%	9060	ES
Total Organic Carbon (Run 2)	**0.53**	J	0.01	1	07/31/08	%	9060	ES
Physiologically Available Cyanide	0.093	U	0.093	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC-21-S1**
Matrix: **Sediment**
Percent Solid: **42.5**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-03**
Date Collected: **07/08/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	2.9		0.01	1	07/31/08	%	9060	ES
Total Organic Carbon (Run 2)	2.9		0.01	1	07/31/08	%	9060	ES
Physiologically Available Cyanide	0.15	U	0.15	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC-10-S1**
Matrix: **Sediment**
Percent Solid: **82.4**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-04**
Date Collected: **07/08/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.56**		0.01	1	07/31/08	%	9060	ES
Total Organic Carbon (Run 2)	**0.60**		0.01	1	07/31/08	%	9060	ES
Physiologically Available Cyanide	0.075	U	0.075	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC-12-S1**
Matrix: **Sediment**
Percent Solid: **86.0**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-05**
Date Collected: **07/08/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.10**		0.01	1	07/31/08	%	9060	ES
Total Organic Carbon (Run 2)	**0.14**		0.01	1	07/31/08	%	9060	ES
Physiologically Available Cyanide	0.076	U	0.076	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC-25-S1**
Matrix: **Sediment**
Percent Solid: **76.7**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-06**
Date Collected: **07/08/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**1.3**		0.01	1	07/31/08	%	9060	ES
Total Organic Carbon (Run 2)	**1.6**		0.01	1	07/31/08	%	9060	ES
Physiologically Available Cyanide	0.089	U	0.089	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC3-S1**
Matrix: **Sediment**
Percent Solid: **80.2**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-07**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**1.0**		0.01	1	07/31/08	%	9060	ES
Total Organic Carbon (Run 2)	**1.0**		0.01	1	07/31/08	%	9060	ES
Physiologically Available Cyanide	0.091	U	0.091	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC41-S1**
Matrix: **Sediment**
Percent Solid: **81.3**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-08**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**1.1**		0.01	1	07/31/08	%	9060	ES
Total Organic Carbon (Run 2)	**1.3**		0.01	1	07/31/08	%	9060	ES
Physiologically Available Cyanide	0.076	U	0.076	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC40-S1**
Matrix: **Sediment**
Percent Solid: **84.4**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-09**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.97**		0.01	1	07/31/08	%	9060	ES
Total Organic Carbon (Run 2)	**1.0**		0.01	1	07/31/08	%	9060	ES
Physiologically Available Cyanide	0.089	U	0.089	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC4-S1**
Matrix: **Sediment**
Percent Solid: **89.3**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-10**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	1.4		0.01	1	07/31/08	%	9060	ES
Total Organic Carbon (Run 2)	1.9		0.01	1	07/31/08	%	9060	ES
Physiologically Available Cyanide	0.092	U	0.092	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC22-S1**
Matrix: **Sediment**
Percent Solid: **80.2**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-11**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.33**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**0.28**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.089	U	0.089	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC5-S1**
Matrix: **Sediment**
Percent Solid: **81.5**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-12**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.55**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**0.50**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.099	U	0.099	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC6-S1**
Matrix: **Sediment**
Percent Solid: **30.9**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-13**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**4.8**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**4.8**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.25	U	0.25	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC20-S1**
Matrix: **Sediment**
Percent Solid: **77.6**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-14**
Date Collected: **07/09/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**1.1**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**0.85**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.080	U	0.080	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC26-S1**
Matrix: **Sediment**
Percent Solid: **83.5**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-15**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.37**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**0.39**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.092	U	0.092	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC19-S1**
Matrix: **Sediment**
Percent Solid: **35.7**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-16**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**5.2**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**4.0**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.17	U	0.17	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC43-S1**
Matrix: **Sediment**
Percent Solid: **62.0**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-17**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**1.7**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**1.8**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.11	U	0.11	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC42-S1**
Matrix: **Sediment**
Percent Solid: **77.3**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-18**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.92**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**0.81**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.10	U	0.10	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC9-S1**
Matrix: **Sediment**
Percent Solid: **36.6**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-19**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**4.1**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**4.2**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.18	U	0.18	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **DUP-1**
Matrix: **Sediment**
Percent Solid: **36.2**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-20**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**3.9**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**3.6**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.22	U	0.22	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC29-S1**
Matrix: **Sediment**
Percent Solid: **42.1**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-21**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**3.8**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**3.4**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.17	U	0.17	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Inorganics

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC17-S1**
Matrix: **Sediment**
Percent Solid: **52.9**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-22**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**2.3**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**2.4**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.13	U	0.13	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC28-S1**
Matrix: **Sediment**
Percent Solid: **34.6**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-23**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**4.8**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**3.7**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.23	U	0.23	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Inorganics

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC30-S1**
Matrix: **Sediment**
Percent Solid: **53.8**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-24**
Date Collected: **07/10/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**9.2**	J	0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**10**	J	0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.15	U	0.15	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC47-S1**
Matrix: **Sediment**
Percent Solid: **83.2**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-25**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**1.2**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**1.4**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.091	U	0.091	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC32-S1**
Matrix: **Sediment**
Percent Solid: **60.1**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-26**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**8.3**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**10**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.13	U	0.13	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC33-S1**
Matrix: **Sediment**
Percent Solid: **31.1**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-27**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**5.1**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**4.8**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.25	U	0.25	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SW2-S1**
Matrix: **Sediment**
Percent Solid: **39.6**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-28**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**34**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**28**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.19	U	0.19	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC39-S1**
Matrix: **Sediment**
Percent Solid: **23.7**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-29**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	6.5		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	4.7		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.32	U	0.32	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC38-S1**
Matrix: **Sediment**
Percent Solid: **34.5**

Lab Code: **MA00030**
ETR: **0807059**
Lab ID: **0807059-30**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**4.1**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**4.7**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.21	U	0.21	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC34-S1**
Matrix: **Sediment**
Percent Solid: **53.9**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-31**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**1.7**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**1.6**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.13	U	0.13	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC35-S1**
Matrix: **Sediment**
Percent Solid: **55.1**

Lab Code: **MA00030**
ETR: **0807059**

Lab ID: **0807059-32**
Date Collected: **07/11/08**
Date Received: **07/11/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**4.8**		0.01	1	08/01/08	%	9060	ES
Total Organic Carbon (Run 2)	**5.4**		0.01	1	08/01/08	%	9060	ES
Physiologically Available Cyanide	0.12	U	0.12	1	07/21/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-01
SC23-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	55	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	4880	mg/kg	72.7	1 9071B	0718 11:15	0721 15:00	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-02
SC-24-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	82	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	2260	mg/kg	48.8	1 9071B	0718 11:15	0721 15:00	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-03
SC-21-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	41	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	3690	mg/kg	97.6	1 9071B	0718 11:15	0721 15:00	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-04
SC-10-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	72	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	1980	mg/kg	55.6	1 9071B	0718 11:15	0721 15:00	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-05
SC-12-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	90	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	406	mg/kg	44.4	1 9071B	0718 11:15	0721 15:00	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-06
SC-25-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	72	%	0.10	30	2540G		0717 14:23	SD
TPH, HEM-SGT	1620	mg/kg	50.0	1	9071B	0718 11:15	0721 15:00	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-07
SC3-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	83	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	1790	mg/kg	48.2	1 9071B	0718 11:15	0721 15:00	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-08
SC41-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	78	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	729	mg/kg	46.2	1 9071B	0718 11:15	0721 15:00	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-09
SC40-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	82	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	538	mg/kg	48.8	1 9071B	0721 12:45	0722 10:15	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-10
SC4-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	89	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	980	mg/kg	44.9	1 9071B	0721 12:45	0722 10:15	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-11
SC22-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	78	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	518	mg/kg	46.2	1 9071B	0721 12:45	0722 10:15	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-12
SC5-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	85	%	0.10	30	2540G		0717 14:23	SD
TPH, HEM-SGT	611	mg/kg	47.0	1	9071B	0721 12:45	0722 10:15	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-13
SC6-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	31	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	7280	mg/kg	129	1 9071B	0721 12:45	0722 10:15	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-14
SC20-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	78	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	924	mg/kg	51.3	1 9071B	0721 12:45	0722 10:15	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-15
SC26-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	81	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	594	mg/kg	49.4	1 9071B	0721 12:45	0722 10:15	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-16
SC19-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	35	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	13600	mg/kg	114	1 9071B	0721 12:45	0722 10:15	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-17
SC43-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	62	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	3150	mg/kg	64.5	1 9071B	0722 14:15	0723 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-18
SC42-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	78	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	1480	mg/kg	51.3	1 9071B	0722 14:15	0723 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-19
SC9-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	35	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	5820	mg/kg	103	1 9071B	0722 14:15	0723 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-20
DUP-1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	35	%	0.10	30 2540G		0717 14:23	SD
TPH, HEM-SGT	5410	mg/kg	114	1 9071B	0722 14:15	0723 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-21
SC29-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	43	%	0.10	30 2540G		0717 15:07	SD
TPH, HEM-SGT	3870	mg/kg	93.0	1 9071B	0722 14:15	0723 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-22
SC17-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	54	%	0.10	30 2540G		0717 15:07	SD
TPH, HEM-SGT	4330	mg/kg	74.1	1 9071B	0722 14:15	0723 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-23
SC28-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	36	%	0.10	30 2540G		0717 15:07	SD
TPH, HEM-SGT	7770	mg/kg	100	1 9071B	0722 14:15	0723 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-24
SC30-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	54	%	0.10	30 2540G		0717 15:07	SD
TPH, HEM-SGT	6090	mg/kg	74.1	1 9071B	0722 14:15	0723 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-25
SC47-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	83	%	0.10	30 2540G		0717 15:07	SD
TPH, HEM-SGT	1380	mg/kg	48.2	1 9071B	0723 14:45	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-26
SC32-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	57	%	0.10	30 2540G		0717 15:07	SD
TPH, HEM-SGT	6900	mg/kg	70.2	1 9071B	0723 14:45	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-27
SC33-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	29	%	0.10	30 2540G		0717 15:07	SD
TPH, HEM-SGT	9080	mg/kg	138	1 9071B	0723 14:45	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-28
SW2-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	53	%	0.10	30 2540G		0717 15:07	SD
TPH, HEM-SGT	87700	mg/kg	75.5	1 9071B	0723 14:45	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-29
SC39-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	23	%	0.10	30 2540G		0717 15:07	SD
TPH, HEM-SGT	12400	mg/kg	156	1 9071B	0723 14:45	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-30
SC38-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	36	%	0.10	30 2540G		0717 15:07	SD
TPH, HEM-SGT	7300	mg/kg	100	1 9071B	0723 14:45	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-31
SC34-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	49	%	0.10	30 2540G		0717 15:07	SD
TPH, HEM-SGT	3480	mg/kg	81.6	1 9071B	0723 14:45	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810512-32
SC35-S1
Sample Matrix: SOIL

Date Collected: 08-JUL-2008 11:40
Date Received : 16-JUL-2008
Date Reported : 28-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Glass

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	52	%	0.10	30 2540G		0717 15:07	SD
TPH, HEM-SGT	6600	mg/kg	76.9	1 9071B	0723 14:45	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

CHAIN OF CUSTODY

CHAIN OF CUSTODY PAGE 1 OF 11

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: G807059

Client Information

Client: Arcadis
Address: 100 Cummings Ctr, 135P
Beverly, MA ~~02152~~ 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

(4 coolers)

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAH (16)	TPH	Metals (PP13)	TOC	PACN	VOCs	PAH - MS/MSD	TPH - MS/MSD	Metals (PP13)-MS	PACN - MS	Sample Specific Comments	TOTAL # BOTTLES
-1	SC23-S1	7/8/08	1140	Sed	KEL/BJT	X	X	X	X	X	X						5
	SC23-S2	7/8/08	1145	Sed	KEL/BJT											Archive	1
	SC23-S3	7/8/08	1148	Sed	KEL/BJT											Archive	1
	SC23-S9	7/8/08	1152	Sed	KEL/BJT											Archive	1
-2	SC-24-S1	7/8/08	1247	Sed	KEL/BJT	X	X	X	X	X	X	X	X	X	X		7
	SC-24-S2	7/8/08	1250	Sed	KEL/BJT											Archive	1
	SC-24-S3	7/8/08	1251	Sed	KEL/BJT											Archive	1
-3	SC-21-S1	7/8/08	1352	Sed	KEL/BJT	X	X	X	X	X	X						5
	SC-21-S2	7/8/08	1358	Sed	KEL/BJT											Archive	1
	SC-21-S3	7/8/08	1400	Sed	KEL/BJT											Archive	1
	Container Type					G	G	G	G	G	G						
	Preservative					A	A	A	A	A	A/F						

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Bettie-Jo Thibault	7/11/08 1828	Lilian Sullivan	7/11/08 1828

FORM NO: 01-01 (rev. 30-JUL-07)

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

CHAIN OF CUSTODY PAGE 2 OF 11

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: 0807059

Client Information
Client: Arcadis
Address: 100 Cummings Ctr. 135P
Beverly, MA ~~02452~~ 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information
Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables
☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information
☒ Same as Client info PO #:

Regulatory Requirements/Report Limits
State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS
☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
(4 coolers)

ANALYSIS: PAH (16) | TPH | Metals (RP13) | TOC | PHCN | VOCs | PAH - MS/MSD

SAMPLE HANDLING
Filtration
☐ Done ☐ Not needed ☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAH (16)	TPH	Metals (RP13)	TOC	PHCN	VOCs	PAH - MS/MSD	Sample Specific Comments	TOTAL # BOTTLES
	SC-21-S5	7/8/08	1402	Sed	KEL/BJT								Archive	1
-4	SC-10-S1	7/8/08	1453	Sed	KEL/BJT	X	X	X	X	X	X			5
	SC-10-S2	7/8/08	1454	Sed	KEL/BJT								Archive	1
	SC-10-S3	7/8/08	1456	Sed	KEL/BJT								Archive	1
-5	SC-12-S1	7/8/08	1537	Sed	KEL/BJT	X	X	X	X	X	X			5
	SC-12-S2	7/8/08	1538	Sed	KEL/BJT								Archive	1
	SC-12-S3	7/8/08	1540	Sed	KEL/BJT								Archive	1
-6	SC-25-S1	7/8/08	1613	Sed	KEL/BJT	X	X	X	X	X	X			5
	SC-25-S2	7/8/08	1615	Sed	KEL/BJT								Archive	1
	SC-25-S3	7/8/08	1617	Sed	KEL/BJT								Archive	1

Container Type	G	G	G	G	G	G
Preservative	A	A	A	A	A	A/F

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie Jo Thibault	7/11/08 1878	Eileen Sullivan	7/11/08 1822

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

CHAIN OF CUSTODY PAGE 3 OF 11

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: ALPHA Job #: 08070S9

Client Information
Client: Arcadis
Address: 100 Cummings Ctr, #135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information
Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables
☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information
☐ Same as Client info PO #:

Regulatory Requirements/Report Limits
State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS
☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
(4 coolers)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAH	TPH	Metals (PP13)	TOC	PACN	VOCs	Sample Specific Comments	TOTAL # BOTTLES
-7	SC3-S1	7/9/08	906	Sed	KEL/BSLT	X	X	X	X	X	X		5
	SC3-S2	7/9/08	908	Sed	KEL/BSLT							Archive	1
	SC3-S3	7/9/08	910	Sed	KEL/BSLT							Archive	1
	SC3-S6	7/9/08	918	Sed	KEL/BSLT							Archive	1
-8	SC41-S1	7/9/08	945	Sed	KEL/BSLT	X	X	X	X	X	X		5
	SC41-S2	7/9/08	947	Sed	KEL/BSLT							Archive	1
	SC41-S3	7/9/08	949	Sed	KEL/BSLT							Archive	1
	SC41-S7	7/9/08	959	Sed	KEL/BSLT							Archive	1
-9	SC40-S1	7/9/08	1038	Sed	KEL/BSLT	X	X	X	X	X	X		5
	SC40-S2	7/9/08	1040	Sed	KEL/BSLT							Archive	1
					Container Type	G	G	G	G	G	G		
					Preservative	A	A	A	A	A	A/F		

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie Jo Thibault	7/11/08 1829	Eileen Sullivan	7/11/08 18:28

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

CHAIN OF CUSTODY PAGE 4 OF 11

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: 0807059

Client Information
Client: Arcadis
Address: 100 Cummings Ctr, #135P
Beverly, MA ~~02452~~ 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information
Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables
☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information
☐ Same as Client info PO #:

Regulatory Requirements/Report Limits
State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS
☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
(4 coolers)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAH	TPH	Metals (PP13)	TOC	PACN	VOCs	Alkylated PAHs +parents	Sample Specific Comments	Total # Bottles
	SC40-S3	7/9/08	1042	Sed	KEL/BSLT								Archive	1
-10	SC4-S1	7/9/08	1130	Sed	KEL/BSLT	X	X	X	X	X	X			5
	SC4-S2	7/9/08	1132	Sed	KEL/BSLT								Archive	1
	SC4-S3	7/9/08	1134	Sed	KEL/BSLT								Archive	1
-11	SC22-S1	7/9/08	1354	Sed	KEL/BSLT	X	X	X	X	X	X			5
-12	SC5-S1	7/9/08	1432	Sed	KEL/BSLT	X	X	X	X	X	X			5
	SC5-S2	7/9/08	1434	Sed	KEL/BSLT								Archive	1
	SC5-S3	7/9/08	1436	Sed	KEL/BSLT								Archive	1
	SC5-S5	7/9/08	1440	Sed	KEL/BSLT								Archive	1
-13	SC6-S1	7/9/08	1530	Sed	KEL/BSLT		X	X	X	X	X	X		5
					Container Type	G	G	G	G	G	G			
					Preservative	A	A	A	A	A	A/F			

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie Jo Thibault	7/11/08 1829	Eileen Sullivan	7/11/08 18:28

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

CHAIN OF CUSTODY PAGE 5 OF 11

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: ALPHA Job #:

Client Information
Client: Arcadis
Address: 100 Cummings Ctr, #135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information
Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: Time:

Report Information - Data Deliverables
☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information
☐ Same as Client info PO #:

Regulatory Requirements/Report Limits
State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS
☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
(4 coolers)

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHs	TPH	Metals (PP13)	TOC	PACN	VOCs	Sample Specific Comments	TOTAL # BOTTLES
	SC6-S2	7/9/08	1532	Sed	KEL/BJLT							Archive	1
	SC6-S3	7/9/08	1534	Sed	KEL/BJLT							Archive	1
	SC6-S11	7/9/08	1553	Sed	KEL/BJLT							Archive	1
-14	SC20-S1	7/9/08	1620	Sed	KEL/BJLT	X	X	X	X	X	X		5
	SC20-S2	7/9/08	1622	Sed	KEL/BJLT							Archive	1
	SC20-S3	7/9/08	1624	Sed	KEL/BJLT							Archive	1
-15	SC26-S1	7/10/08	0846	Sed	BJLT	X	X	X	X	X	X		5
	SC26-S2		0852		BJLT							Archive	1
	SC26-S3		0854		BJLT							Archive	1
	SC26-S9		0856		BJLT							Archive	1
	Container Type					G	G	G	G	G	G		
	Preservative					A	A	A	A	A	A/F		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie Jo Thibault	7/11/08 1829	Eileen Sullivan	7/11/08 18:29

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

CHAIN OF CUSTODY

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ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: 08070389

Client Information

Client: Arcadis
Address: 100 Cummings Ctr, #135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client Info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
(4 coolers)

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAH (16)	Alk. PAH	TPH	Metals	PACN	TOC	VOCs	Sample Specific Comments	TOTAL # BOTTLES
-16	SC19-S1	7/10/08	0931	SED	BJLT		X	X	X	X	X	X		5
	SC19-S2		0937		BJLT								Archive	1
	SC19-S3		0939		BJLT								Archive	1
	SC19-S8	↓	0942	↓	BJLT								Archive	1
-17	SC43-S1	7/10/08	1020	SED	BJLT	X		X	X	X	X			5
	SC43-S2		1025		BJLT								Archive	1
	SC43-S3	↓	1030	↓	BJLT								Archive	1
-18	SC42-S1	7/10/08	1115	SED	BJLT	X		X	X	X	X			
	SC42-S2		1121		BJLT								Archive	
	SC42-S3	↓	1125	↓	BJLT								Archive	
	Container Type					G	G	G	G	G	G	G		
	Preservative					A	A	A	A	A	A	A/E		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie Jo Thibault	7/11/08/1830	Celia Sullivan	7/11/08 18:30

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

CHAIN OF CUSTODY PAGE 7 OF 11

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: 08070S9

Client Information

Client: Arcadis
Address: 100 Cummings Ctr, #135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
(4 coolers)

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAH (16)	Alk. PAH	TPH	Metals	PACN	TOC	VOCs	Sample Specific Comments	TOTAL # BOTTLES
-19	SC9-S1	7/10/08	1200	SED	BJLT		X	X	X	X	X	X		5
	SC9-S2	7/10/08	1215		BJLT								Archive	1
	SC9-S3	7/10/08	1216		BJLT								Archive	1
-20	DUP-1	7/10/08	—		BJLT		X	X	X	X	X	X		5
	SC9-S8	7/10/08	1208		BJLT								Archive	1
-21	SC29-S1	7/10/08	1305		BJLT	X		X	X	X	X	X		5
	SC29-S2	7/10/08	1310		BJLT								Archive	1
	SC29-S3	7/10/08	1308		BJLT								Archive	1
-22	SC17-S1	7/10/08	1343		BJLT	X		X	X	X	X	X		5
	SC17-S2	7/10/08	1350		BJLT								Archive	1
	Container Type					G	G	G	G	G	G	G		
	Preservative					A	A	A	A	A	A	A/F		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie J. Thibault	7/11/08 1830	Eileen Sullivan	7/11/08 1830

FORM NO: 01-01 (rev. 30-JUL-07)

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

CHAIN OF CUSTODY PAGE 8 OF 11

Date Rec'd in Lab: ALPHA Job #: 0807059

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information
Client: Arcadis
Address: 100 Cummings Ctr, #135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information
Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables
☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information
☐ Same as Client info PO #:

Regulatory Requirements/Report Limits
State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS
☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
(4 coolers)

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAH (16)	Alk. PAH	TPH	Metals (PP13)	PACN	TOC	VOCs	Sample Specific Comments	TOTAL # BOTTLES
	SC17-S3	7/10/08	1351	Sed	BJLT								Archive	1
	SC17-S9	7/10/08	1345	Sed	BJLT								Archive	1
-23	SC28-S1	7/10/08	1420	Sed	BJLT	X		X	X	X	X	X		5
	SC28-S2	7/10/08	1423	Sed	BJLT								Archive	1
	SC28-S3	7/10/08	1426	Sed	BJLT								Archive	1
	SC28-S9	7/10/08	1433	Sed	BJLT								Archive	1
-24	SC30-S1	7/10/08	1515	Sed	BJLT	X		X	X	X	X	X	MS/MSD	10
	SC30-S2	7/10/08	1523	Sed	BJLT								Archive	1
	SC30-S3	7/10/08	1521	Sed	BJLT								Archive	1
	SC30-S4	7/10/08	1518	Sed	BJLT								Archive	1
	Container Type					G	G	G	G	G	G	G		
	Preservative					A	A	A	A	A	A	A/F		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie J. Thibault	7/11/08 1830	Eileen Sullivan	7/11/08 18:30

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

CHAIN OF CUSTODY PAGE 9 OF 11

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: 0807059

Client Information

Client: Arcadis
Address: 100 Cummings Ctr, 135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
(4 coolers)

ANALYSIS: PAHS (16) | AIK PAH | TPH | Metals (ppl3) | TOC | PACN | VOCS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHS (16)	AIK PAH	TPH	Metals (ppl3)	TOC	PACN	VOCS	Sample Specific Comments	TOTAL # BOTTLES
-25	SC47-S1	7/11/08	1128	Sed	BJLT	X		X	X	X	X	X		5
	SC47-S2	7/11/08	1130	Sed	BJLT								Archive	1
	SC47-S3	7/11/08	1133	Sed	BJLT								Archive	1
	SC47-S7	7/11/08	1129	Sed	BJLT								Archive	1
-26	SC32-S1	7/11/08	1215	Sed	BJLT	X		X	X	X	X	X		5
	SC32-S2	7/11/08	1220	Sed	BJLT								Archive	1
	SC32-S3	7/11/08	1222	Sed	BJLT								Archive	1
-27	SC33-S1	7/11/08	1254	Sed	BJLT		X	X	X	X	X	X		5
	SC33-S2	7/11/08	1305	Sed	BJLT								Archive	1
	SC33-S3	7/11/08	1302	Sed	BJLT								Archive	1
	Container Type					G	G	G	G	G	G	G		
	Preservative					A	A	A	A	A	A	A/F		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie Jo Thibault	7/11/08 1831	Eileen Sullivan	7/11/08 1845

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FORM NO: 01-01 (rev. 30-JUL-07)

CHAIN OF CUSTODY

PAGE 10 OF 11

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd In Lab:

ALPHA Job #: 0807059

Client Information

Client: Arcadis
Address: 100 Cummings Ctr, #135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
(4 coolers)

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAH (16)	AIK PAH	TPH	Metals (PP13)	TOC	PACN	VOCS	Sample Specific Comments	TOTAL # BOTTLES
	SC33-S10	7/11/08	1300	Sed	BJLT								Archive	1
-28	SW2-S1	7/11/08	1343	Sed	BJLT	X		X	X	X	X	X	expected elevated PAH conc. based on visual	5
	SW2-S2	7/11/08	1348	Sed	BJLT								Archive	1
-29	SC39-S1	7/11/08	1410	Sed	BJLT	X		X	X	X	X	X		5
	SC39-S2	7/11/08	1416	Sed	BJLT								Archive	1
	SC39-S3	7/11/08	1413	Sed	BJLT								Archive	1
-30	SC38-S1	7/11/08	1452	Sed	BJLT	X		X	X	X	X	X		5
	SC38-S2	7/11/08	1501	Sed	BJLT								Archive	1
	SC38-S3	7/11/08	1507	Sed	BJLT								Archive	1
-31	SC34-S1	7/11/08	1532	Sed	BJLT	X		X	X	X	X	X		5
					Container Type	G	G	G	G	G	G	G		
					Preservative	A	A	A	A	A	A	A/H		

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie Jo Thibault	7/11/08 1831	Elaine Sullivan	7/11/08 18:20

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FORM NO: 01-01 (rev. 30-JUL-07)

CHAIN OF CUSTODY PAGE 11 OF 11

ALPHA LABORATORIES
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
RAYNHAM, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: 08070X9

Client Information
Client: Arcadis
Address: 100 Cummings Ctr, 135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information
Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables
☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information
☐ Same as Client info PO #:

Regulatory Requirements/Report Limits
State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS
☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
(4 coolers)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHs (16)	Alk PAH	TPH	Metals (PP13)	TOC	PACN	VOCs	Sample Specific Comments	Total # Bottles
	SC34-S2	7/11/08	1553	Sed	BJLT								Archive	1
	SC34-S3	7/11/08	1551	Sed	BJLT								Archive	1
	SC34-S5	7/11/08	1547	Sed	BJLT								Archive	1
-32	SC35-S1	7/11/08	1627	Sed	BJLT	X		X	X	X	X	X		5
	SC35-S2	7/11/08	1630	Sed	BJLT								Archive	1
-33	Trip Blank	7/2/08	—	—	—							X		3

SAMPLE HANDLING
Filtration
☐ Done ☐ Not needed ☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Container Type	G	G	G	G	G	G	G							
Preservative	A	A	A	A	A	A	A/B							

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

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Billie-Jo Thibault	7/11/08 1832	Lilian Sullivan	7/11/08 18:32

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

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DATA REVIEW FOR

TIDEWATER MGP

PAWTUCKET, RHODE ISLAND

SDG #0807065

VOLATILE, SEMIVOLATILE, METALS,
AND MISCELLANEOUS ANALYSES

Analyses performed by:

Alpha Woods Hole Labs
Mansfield, Massachusetts

Review performed by:

Syracuse, New York
Report #8850

Summary

The following is an assessment of the data package for sample delivery group (SDG) #0807059 for sampling from the Tidewater MGP Site. Included with this assessment are the corrected sample results and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis					
				VOC	SVOC	TPH	MET	PCBs	MISC
SC27-S1	0807065-01	Sediment	7/14/2008	X	X		X		X
SC44-S1	0807065-02	Sediment	7/14/2008	X	X		X		X
DUP-2	0807065-03	Sediment	7/14/2008	X	X		X		X
SC45-S1	0807065-04	Sediment	7/14/2008	X	X		X		X
SC46-S1	0807065-05	Sediment	7/14/2008	X	X		X		X
SC18-S1	0807065-06	Sediment	7/14/2008	X	X		X		X
SC7-S1	0807065-07	Sediment	7/14/2008	X	X		X		X
SC8-S1	0807065-08	Sediment	7/14/2008	X	X		X		X
SC31-S1	0807065-09	Sediment	7/14/2008	X	X		X		X
SC36-S1	0807065-10	Sediment	7/14/2008	X	X		X		X
SC37-S1	0807065-11	Sediment	7/14/2008	X	X		X		X
Trip Blank	0807065-12	Water	7/14/2008	X					
SC1-S1	0807065-13	Sediment	7/15/2008	X	X		X		X
SC2-S1	0807065-14	Sediment	7/15/2008	X	X		X		X
Dup-3	0807065-15	Sediment	7/15/2008	X	X		X		X
SC11-S1	0807065-16	Sediment	7/15/2008	X	X		X		X
SC13-S1	0807065-17	Sediment	7/15/2008	X	X		X		X
SC14-S1	0807065-18	Sediment	7/15/2008	X	X		X		X
SC15-S1	0807065-19	Sediment	7/16/2008	X	X		X		X
SC16-S1	0807065-20	Sediment	7/16/2008	X	X		X		X
Rinsate-1	0807065-21	Water	7/16/2008	X	X		X		X

Notes:

1. Miscellaneous parameters include total organic carbon, physiologically available cyanide, and oil and grease.
2. Sample location DUP-2 is the field duplicate of parent sample location SC44-S1.
3. Sample location DUP-3 is the field duplicate of parent sample location SC2-S1.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999. The quality indicators of this limited data review included holding times, associated blanks, matrix spike/matrix spike duplicate (MS/MSD) analysis, field duplicates, laboratory control sample and surrogate recoveries.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cooled @ 4 °C.

The analyses that exceeded the holding are presented in the following table.

Sample Locations	Holding Time	Criteria
Trip Blank	Analysis Completed	26 Days

Sample results associated with sample locations analyzed by analytical method SW-846 8260 were qualified, as specified in the table below. All other holding times were met.

Criteria	Qualification	
	Detected Analytes	Non-detect Analytes
Analysis completed less than two times holding time	J	UJ

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method, trip, and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure contamination of samples during shipment. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Target compounds were detected in the associated QA blanks. Sample results associated with blank contamination that were greater than the BAL and/or non-detect did not result in any qualification of data. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
SC31-S1	Acetone	Detected sample results <RL and <BAL	"U" at the PQL
SC27-S1 SC44-S1 SC45-S1 SC46-S1 SC7-S1 SC8-S1 SC37-S1 SC1-S1 SC2-S1 Dup-3 SC13-S1	Acetone	Detected sample results >RL and <BAL	"U" at detected sample concentration

RL = reporting limit

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

Sample locations associated with surrogates exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Surrogate	Recovery
DUP-2	1,2-Dichloroethane-d4	AC
	4-Bromofluorobenzene	< LL but > 10%
	Dibromofluoromethane	AC
	Toluene-d8	AC

Lower control limit (LL)
Acceptable (AC)

The criteria used to evaluate the surrogate recoveries are presented in the following table. In the case of a surrogate deviation, the sample results associated with the deviant fraction are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	No Action
	Detect	J
< LL but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J
Surrogates diluted below the	Non-detect	No Action

Control Limit	Sample Result	Qualification
calibration curve due to the high concentration of a target compounds	Detect	

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Almost all compounds associated with sample location SC37-S1 had one or both MS/MSD recoveries below the lower control limit and above 10%, and all of the RPDs between the MS/MSD recoveries did not meet acceptance limits; therefore the associated sample result was qualified as estimated (J).

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
SC1-S1	Bromomethane	<LL but > 10%	<LL but > 10%
	Vinyl acetate	AC	<LL but > 10%
	p-Isopropyltoluene	AC	<LL but > 10%
	n-Butylbenzene	AC	<LL but > 10%
	1,2,4-Trichlorobenzene	AC	<LL but > 10%
	Hexachlorobutadiene	<LL but > 10%	<LL but > 10%
	1,2,3-Trichlorobenzene	AC	<LL but > 10%

AC = Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration (D).	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
SC1-S1	Vinyl acetate
	sec-Butylbenzene
	p-Isopropyltoluene
	n-Butylbenzene
	1,2,4-Trichlorobenzene
	Hexachlorobutadiene
	1,2,3-Trichlorobenzene

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	J
	Detect	J

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS/LCSD analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery	LCSD Recovery
Rinsate-1	Dichlorodifluoromethane	>UL	AC
SC27-S1 SC44-S1 SC45-S1 SC46-S1 SC18-S1 SC7-S1 SC8-S1 SC31-S1 SC36-S1 SC37-S1 Trip Blank	Bromomethane	<LL but > 10%	<LL but > 10%
	Acetone	AC	>UL
DUP-2 SC1-S1 SC2-S1 Dup-3	Bromomethane	<LL but > 10%	AC

Sample Locations	Compound	LCS Recovery	LCSD Recovery
SC11-S1 SC13-S1 SC14-S1 SC15-S1 SC16-S1	Acetone	AC	>UL

The criteria used to evaluate the LCS/LCSD recoveries are presented in the following table. In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SC44-S1/DUP-2	Acetone	ND(3.87)	97.3	NC
	Carbon disulfide	5.3	8.9	50.7%
	2-Butanone (MEK)	7.0	15	72.7%
SC2-S1/Dup-3	Carbon disulfide	5.7	4.6	21.4%

ND = Not detected.
AC = The field duplicate RPD is acceptable when the RPD between parent sample and field duplicate sample is less than one/or/two times the RL and where the parent sample and/or duplicate concentration is less than five times the RL.
NC = Not compliant.

The compound acetone associated with samples SC44-S1 and DUP-2 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed compound were qualified as estimated.

7. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

SEMI-VOLATILE ORGANIC COMPOUND (SVOC) ANALYSES

Introduction

Analyses were performed according to (United Stated Environmental Protection Agency) USEPA SW-846 Method 8270 selective ion monitoring (SIM). Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999. The quality indicators of this limited data review included holding times, associated blanks, matrix spike/matrix spike duplicate (MS/MSD) analysis, field duplicates, laboratory control sample and surrogate recoveries.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

E The compound was quantitated above the calibration range.

D Concentration is based on a diluted sample analysis.

C Identification confirmed by gas chromatograph/mass spectrometer (GC/MS).

UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270 SIM	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No compounds were detected in the associated blanks.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. SVOC analysis requires that two of the three SVOC surrogate compounds within each fraction exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations were the compounds concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
SC1-S1	Fluorene	> UL	AC
	Anthracene	> UL	AC
	Indeno(1,2,3-cd)pyrene	> UL	AC
	Benzo(g,h,i)perylene	> UL	AC

AC = Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	J
	Detect	J
< 10%	Non-detect	R
	Detect	J

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than of the control limit presented in the following table.

Sample Locations	Compound
SC1-S1	Acenaphthene Fluorene Anthracene Indeno(1,2,3-cd)pyrene Benzo(g,h,i)perylene

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	J
	Detect	J

5. Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited acceptable recoveries and RPD between the LCS/LCSD recoveries.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SC44-S1/DUP-2	Acenaphthene	36.6	56	41.9%
	Acenaphthylene	205	125	48.5%
	Anthracene	208	191	8.5%
	Benz[a]anthracene	841	739	12.9%
	Benzo[a]pyrene	688	606	12.7%
	Benzo[b]fluoranthene	701	635	9.9%
	Benzo[g,h,i]perylene	509	464	9.2%
	Benzo[k]fluoranthene	750	703	6.5%
	Chrysene	961	817	16.2%
	Dibenz[a,h]anthracene	140	124	12.1%
	Fluoranthene	1760	1670	5.2%
	Fluorene	66.4	67.1	1.0%
	Indeno[1,2,3-cd]pyrene	493	481	2.5%
	Naphthalene	58	96	49.4%
	Phenanthrene	608	721	17.0%
	Pyrene	1610	1420	12.5%
SC2-S1/Dup-3	Acenaphthene	296	50.4	141.8%
	Acenaphthylene	323	179	57.4%
	Anthracene	3200	282	167.6%
	Benz[a]anthracene	3390	929	114.0%
	Benzo[a]pyrene	2570	798	105.2%
	Benzo[b]fluoranthene	2070	790	89.5%
	Benzo[g,h,i]perylene	1250	444	95.2%
	Benzo[k]fluoranthene	2120	691	101.7%
	Chrysene	3320	1040	104.6%
	Dibenz[a,h]anthracene	406	127	104.7%
	Fluoranthene	7870	2090	116.1%
	Fluorene	523	69.4	153.1%
	Indeno[1,2,3-cd]pyrene	1440	478	100.3%
	Naphthalene	483	93.7	135.0%
	Phenanthrene	6160	1050	141.7%
	Pyrene	6570	2230	98.6%

ND = Not detected.
AC = The field duplicate RPD is acceptable when the RPD between parent sample and field duplicate sample is less than one/or/two times the RL and where the parent sample and/or duplicate concentration is less than five times the RL.

All compounds except acenaphthylene, benzo[b]fluoranthene, benzo[g,h,i]perylene, and pyrene associated with samples SC2-S1 and Dup-3 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed compound were qualified as estimated.

7. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

Sample results associated with compound that exhibited a concentration greater than the linear range of the instrument calibration are summarized in the following table.

Sample ID	Compound	Original Analysis	Diluted Analysis	Reported Analysis
SC36-S1	Phenanthrene	112000 E	105000 D	105000 D
	Fluoranthene	73600 E	73300 D	73300 D
	Pyrene	95200 E	94000 D	94000 D

Note: In the instance where both the original analysis and the diluted analysis sample results exhibited a concentration greater than and/or less than the calibration linear range of the instrument; the sample result exhibiting the greatest concentration will be reported as the final result.

Sample results associated with compounds exhibiting concentrations greater than the linear range are qualified as documented in the table below when reported as the final reported sample result.

Reported Sample Results	Qualification
Diluted sample result within calibration range	D
Diluted sample result less than the calibration range	DJ
Diluted sample result greater than the calibration range	EDJ
Original sample result greater than the calibration range	EJ

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

METALS ANALYSES

Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 6000/7000. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1994. The quality indicators of this limited data review included holding times, associated blanks, matrix spike (MS) and duplicate analysis, serial dilution analysis, field duplicate, and laboratory control sample recoveries.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

    U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

    B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

    E The reported value is estimated due to the presence of interference.

    N Spiked sample recovery is not within control limits.

    * Duplicate analysis is not within control limits.

- Validation Qualifiers

    J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

    UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

    R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6020	Water	180 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
	Soil	180 days from collection to analysis	Cooled @ 4 °C.
SW-846 7470	Water	28 days from collection to analysis	Cooled @ 4 °C; preserved to a pH of less than 2.
SW-846 7471	Soil	28 days from collection to analysis	Cooled @ 4 °C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks, and preparation blanks) measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected analyte in an associated blank is calculated for QA blanks containing concentrations greater than the IDL. The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No analytes were detected above the reporting limit in the associated blanks.

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory

qualifier “N” will be removed.

All analytes associated with MS recoveries were within control limits with the exception of the following analytes present in the table below.

Sample Location	Analytes	MS Recovery
SC1-S1	Antimony	64%
SC37-S1	Antimony	33%
	Mercury	127%

The criteria used to evaluate MS recoveries are presented in the following table. In the case of an MS deviation, the sample results are qualified. The qualifications are applied to all sample results associated with this SDG.

Control limit	Sample Result	Qualification
MS percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS percent recovery <30%	Non-detect	R
	Detect	J
MS percent recovery >125%	Non-detect	No Action
	Detect	J

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

All analytes associated with laboratory duplicate RPD were within the control limit, with the exception of the analytes presented in the following table.

Sample Location	Analytes	Laboratory RPD
SC37-S1	Selenium	26%
SC1-S1	Beryllium	42%
	Chromium	37%
	Lead	23%
	Nickel	56%
	Zinc	32%

The criteria used to evaluate laboratory duplicate RPD are presented in the following table. In the case of a laboratory duplicate RPD deviation, the sample results are qualified. The qualifications are applied to the all sample results associated with this SDG.

Sample Concentration	Control Limit	Sample Result	Qualification
Parent sample and laboratory sample concentration >5 times CRDL	Water 20% Soil 35%	Non-detect	UJ
		Detect	J
Parent sample and/or laboratory duplicate sample result ≤ five times the RL and difference between samples >RL	Water one times RL Soil two times RL	Non-detect	UJ
		Detect	J

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SC44-S1/DUP-2	Antimony	0.172	0.155	10.3 %
	Arsenic	3.04	2.79	8.5 %
	Beryllium	0.233	0.227	2.6 %
	Cadmium	1.26	1.28	1.5 %
	Chromium	18.2	17.9	1.6 %
	Copper	39.5	39.8	0.7 %
	Lead	48.9	48.3	1.2 %
	Nickel	8.87	8.57	3.4 %
	Selenium	0.34	0.333	2.0 %
	Silver	0.447	0.444	0.6 %
	Thallium	0.0566	0.0562	0.7 %
	Zinc	89.3	84.4	5.6 %
	Mercury	0.104	0.101	2.9 %
SC2-S1/Dup-3	Antimony	0.169	0.273	47.0 %
	Arsenic	5.18	3.54	37.6 %
	Beryllium	0.364	0.224	47.6 %

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
	Cadmium	0.816	0.716	13.0 %
	Chromium	15.5	16.4	5.6 %
	Copper	35.8	29	20.9 %
	Lead	55.9	47.9	15.4 %
	Nickel	11.9	9.73	20.0 %
	Silver	0.105	0.0997	5.1 %
	Thallium	0.0645	ND(0.0377)	AC
	Zinc	75.6	76.1	0.6 %
	Mercury	0.0311	0.03	3.6 %

ND = Not detected.
AC = The field duplicate RPD is acceptable when the RPD between parent sample and field duplicate sample is less than one/or/two times the RL and where the parent sample and/or duplicate concentration is less than five times the RL.

The calculated RPDs between the parent sample and field duplicate were acceptable.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

All LCS recoveries were within control limits, with the exception of the analytes associated with sample locations, as presented in the following table.

Sample Location	Analytes	LCS Recovery
Rinsate-1	Nickel	122%
	Zinc	121%

The criteria used to evaluate LCS recoveries are presented in the following table. In the case of an LCS deviation, the sample results are qualified.

Control limit	Sample Result	Qualification
LCS (water) percent recovery 50% to 79%	Non-detect	UJ
	Detect	J
LCS (water) percent recovery <50%	Non-detect	R
	Detect	J
LCS (water) percent recovery >120%	Non-detect	No Action
	Detect	J
LCS (soil) percent recovery < lower limit	Non-detect	J
	Detect	J

Control limit	Sample Result	Qualification
LCS (soil) percent recovery > upper limit	Non-detect	No Action
	Detect	J

6. Serial Dilution

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

All serial dilutions were within control limits.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

MISCELLANEOUS ANALYSES

Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 methods 9010, 9060, and 9071b. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1994. The quality indicators of this limited data review included holding times, associated blanks, matrix spike (MS) and laboratory duplicate analysis, field duplicate, and laboratory control sample recoveries.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

    U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

    B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

    N Spiked sample recovery is not within control limits.

    * Duplicate analysis is not within control limits.

- Validation Qualifiers

    J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

    UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

    R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Physiologically Available Cyanide by SW-846 9010	Soil	14 days from collection to analysis	Cooled @ 4 °C
Total Organic Carbon by 9060	Soil	28 days from collection to analysis	Cooled @ 4 °C
Oil and Grease by 9071b	Soil	28 days from collection to analysis	Cooled @ 4 °C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method or rinse blanks), are prepared to identify any contamination that may have been introduced into the samples during sample preparation or field activity. Method blanks (including initial and continuing calibration blanks, and preparation blanks) measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected analyte in an associated blank is calculated for QA blanks containing concentrations greater than the MDL. The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

No analytes were detected above the reporting limit in the associated blanks.

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS Analysis

All analyses must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater

All analytes associated with MS recoveries were within control limits with the exception of the following analytes present in the table below.

Sample Location	Analytes	MS Recovery
SC37-S1	TOC	132%
SC1-S1	TOC	215%

The criteria used to evaluate MS recoveries are presented in the following table. In the case of an MS deviation, the sample results are qualified. The qualifications are applied to all sample results associated with this SDG.

Control limit	Sample Result	Qualification
MS percent recovery 30% to 74%	Non-detect	UJ
	Detect	J
MS percent recovery <30%	Non-detect	R
	Detect	J
MS percent recovery >125%	Non-detect	No Action
	Detect	J

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

All analytes associated with laboratory duplicate RPD were within the control limit, with the exception of the analytes presented in the following table.

Sample Location	Analytes	Laboratory RPD
SC37-S1	TOC	35%

The criteria used to evaluate laboratory duplicate RPD are presented in the following table. In the case of a laboratory duplicate RPD deviation, the sample results are qualified. The qualifications are applied to the all sample results associated with this SDG.

Sample Concentration	Control Limit	Sample Result	Qualification
Parent sample and laboratory sample concentration >5 times CRDL	Soil 35%	Non-detect	UJ
		Detect	J
Parent sample and/or laboratory duplicate sample result ≤ five times the RL and difference between samples >RL	Soil two times RL	Non-detect	UJ
		Detect	J

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
SC44-S1/DUP-2	Total Organic Carbon (Run 1)	1.2	1.2	0%
	Total Organic Carbon (Run 2)	1.2	1.4	15.4%
	TPH, HEM-SGT	958	1260	27.2%
	Physiologically Available Cyanide	ND	ND	AC
SC2-S1/Dup-3	Total Organic Carbon (Run 1)	2.2	0.4	139%
	Total Organic Carbon (Run 2)	1.9	0.22	159%
	TPH, HEM-SGT	520	573	9.7%
	Physiologically Available Cyanide	ND	ND	AC

ND = Not detected.
AC = The field duplicate RPD is acceptable when the RPD between parent sample and field duplicate sample is less than one/or/two times the RL and where the parent sample and/or duplicate concentration is less than five times the RL.

The compound total organic carbon associated with samples SC2-S1 and Dup-3 exhibited a field duplicate RPD greater than the control limit. The associated sample results from sample locations for the listed compound were qualified as estimated.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

The LCS analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Upon validation of the TOC analysis performed within this SDG it was discovered that all samples were analyzed in duplicate. Technical compliance of method SW-846 9060 requires analysis to be performed in quadruplicate. The purpose of the quadruplicate analysis is to establish data precision. Since the laboratory performed the sample analysis in duplicate for each sample location, for data qualification and usability purposes the sample analysis precision of the two reported runs for each sample location were evaluated against laboratory duplicate criterion:

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the reporting limit (RL). A control

limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

All analytes associated with laboratory duplicate RPD were within the control limit, with the exception of the analytes presented in the following table.

Sample Location	Analytes	Laboratory RPD
SC11-S1	Total Organic Carbon	40.0%
SC13-S1	Total Organic Carbon	42.9%

The criteria used to evaluate laboratory duplicate RPD (in this case the two sample runs) are presented in the following table. In the case of a laboratory duplicate RPD deviation, the sample results are qualified.

Sample Concentration	Control Limit	Sample Result	Qualification
Parent sample and laboratory sample concentration >5 times RL	Water 20% Soil 35%	Non-detect	UJ
		Detect	J
Parent sample and/or laboratory duplicate sample result ≤ five times the RL and difference between samples >RL	Water one times RL Soil two times RL	Non-detect	UJ
		Detect	J

The duplicate sample results exhibited RPD within the control limit for all sample locations within this SDG; therefore no results were qualified due to the method deviation.

CORRECTED SAMPLE ANALYSIS DATA SHEETS

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC27-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-01**
Associated Blank: **VS072508B04**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/25/08	50.8	7.74	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	2.54	U	2-Hexanone	6.36	U
Chloromethane	2.54	U	Tetrachloroethene	2.54	U
Vinyl chloride	2.54	U	1,3-Dichloropropane	2.54	U
Bromomethane	2.54	U J	Dibromochloromethane	2.54	U
Chloroethane	2.54	U	1,2-Dibromoethane	2.54	U
Trichlorofluoromethane	2.54	U	Chlorobenzene	2.54	U
Acetone	**32.3**	B U	1,1,1,2-Tetrachloroethane	2.54	U
1,1-Dichloroethene	2.54	U	Ethylbenzene	2.54	U
Carbon disulfide	**2.99**		p/m-Xylene	5.09	U
Methylene chloride	6.36	U	o-Xylene	2.54	U
Methyl tert-butyl ether (MTBE)	2.54	U	Styrene	2.54	U
trans-1,2-Dichloroethene	2.54	U	Bromoform	2.54	U
1,1-Dichloroethane	2.54	U	Isopropylbenzene	2.54	U
Vinyl acetate	2.54	U	1,1,2,2-Tetrachloroethane	2.54	U
2-Butanone (MEK)	**7.28**		Bromobenzene	2.54	U
cis-1,2-Dichloroethene	2.54	U	1,2,3-Trichloropropane	2.54	U
2,2-Dichloropropane	2.54	U	n-Propylbenzene	2.54	U
Chloroform	2.54	U	2-Chlorotoluene	2.54	U
1,1,1-Trichloroethane	2.54	U	1,3,5-Trimethylbenzene	2.54	U
1,1-Dichloropropene	2.54	U	4-Chlorotoluene	2.54	U
Carbon tetrachloride	2.54	U	tert-Butylbenzene	2.54	U
Benzene	2.54	U	1,2,4-Trimethylbenzene	2.54	U
1,2-Dichloroethane	2.54	U	sec-Butylbenzene	2.54	U
Trichloroethene	2.54	U	1,3-Dichlorobenzene	2.54	U
1,2-Dichloropropane	2.54	U	p-Isopropyltoluene	6.36	U
Dibromomethane	2.54	U	1,4-Dichlorobenzene	2.54	U
Bromodichloromethane	2.54	U	n-Butylbenzene	6.36	U
2-Chloroethylvinyl ether	6.36	U	1,2-Dichlorobenzene	2.54	U
Methyl isobutyl ketone (MIBK)	2.54	U	1,2-Dibromo-3-chloropropane	2.54	U
cis-1,3-Dichloropropene	2.54	U	1,2,4-Trichlorobenzene	2.54	U
Toluene	2.54	U	Hexachlorobutadiene	2.54	U
trans-1,3-Dichloropropene	2.54	U	Naphthalene	6.36	U
1,1,2-Trichloroethane	2.54	U	1,2,3-Trichlorobenzene	2.54	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	111	70-130
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	87	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC44-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-02**
Associated Blank: **VS072508B04**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/25/08	76.0	8.49	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.55	U	2-Hexanone	3.87	U
Chloromethane	1.55	U	Tetrachloroethene	1.55	U
Vinyl chloride	1.55	U	1,3-Dichloropropane	1.55	U
Bromomethane	1.55	U J	Dibromochloromethane	1.55	U
Chloroethane	1.55	U	1,2-Dibromoethane	1.55	U
Trichlorofluoromethane	1.55	U	Chlorobenzene	1.55	U
Acetone	**43.8**	B U J	1,1,1,2-Tetrachloroethane	1.55	U
1,1-Dichloroethene	1.55	U	Ethylbenzene	1.55	U
Carbon disulfide	**5.25**		p/m-Xylene	3.10	U
Methylene chloride	3.87	U	o-Xylene	1.55	U
Methyl tert-butyl ether (MTBE)	1.55	U	Styrene	1.55	U
trans-1,2-Dichloroethene	1.55	U	Bromoform	1.55	U
1,1-Dichloroethane	1.55	U	Isopropylbenzene	1.55	U
Vinyl acetate	1.55	U	1,1,2,2-Tetrachloroethane	1.55	U
2-Butanone (MEK)	**7.04**		Bromobenzene	1.55	U
cis-1,2-Dichloroethene	1.55	U	1,2,3-Trichloropropane	1.55	U
2,2-Dichloropropane	1.55	U	n-Propylbenzene	1.55	U
Chloroform	1.55	U	2-Chlorotoluene	1.55	U
1,1,1-Trichloroethane	1.55	U	1,3,5-Trimethylbenzene	1.55	U
1,1-Dichloropropene	1.55	U	4-Chlorotoluene	1.55	U
Carbon tetrachloride	1.55	U	tert-Butylbenzene	1.55	U
Benzene	1.55	U	1,2,4-Trimethylbenzene	1.55	U
1,2-Dichloroethane	1.55	U	sec-Butylbenzene	1.55	U
Trichloroethene	1.55	U	1,3-Dichlorobenzene	1.55	U
1,2-Dichloropropane	1.55	U	p-Isopropyltoluene	3.87	U
Dibromomethane	1.55	U	1,4-Dichlorobenzene	1.55	U
Bromodichloromethane	1.55	U	n-Butylbenzene	3.87	U
2-Chloroethylvinyl ether	3.87	U	1,2-Dichlorobenzene	1.55	U
Methyl isobutyl ketone (MIBK)	1.55	U	1,2-Dibromo-3-chloropropane	1.55	U
cis-1,3-Dichloropropene	1.55	U	1,2,4-Trichlorobenzene	1.55	U
Toluene	1.55	U	Hexachlorobutadiene	1.55	U
trans-1,3-Dichloropropene	1.55	U	Naphthalene	3.87	U
1,1,2-Trichloroethane	1.55	U	1,2,3-Trichlorobenzene	1.55	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	102	70-130
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	80	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **DUP-2**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-03**
Associated Blank: **VS072608B03**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/26/08	73.4	7.40	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.84	U J	2-Hexanone	4.60	U J
Chloromethane	1.84	U	Tetrachloroethene	1.84	U
Vinyl chloride	1.84	U	1,3-Dichloropropane	1.84	U
Bromomethane	1.84	U	Dibromochloromethane	1.84	U
Chloroethane	1.84	U	1,2-Dibromoethane	1.84	U
Trichlorofluoromethane	1.84	U	Chlorobenzene	1.84	U
Acetone	**97.3**	B	1,1,1,2-Tetrachloroethane	1.84	U
1,1-Dichloroethene	1.84	U	Ethylbenzene	1.84	U
Carbon disulfide	**8.92**		p/m-Xylene	3.68	U
Methylene chloride	4.60	U	o-Xylene	1.84	U
Methyl tert-butyl ether (MTBE)	1.84	U	Styrene	1.84	U
trans-1,2-Dichloroethene	1.84	U	Bromoform	1.84	U
1,1-Dichloroethane	1.84	U	Isopropylbenzene	1.84	U
Vinyl acetate	1.84	U	1,1,2,2-Tetrachloroethane	1.84	U
2-Butanone (MEK)	**14.6**		Bromobenzene	1.84	U
cis-1,2-Dichloroethene	1.84	U	1,2,3-Trichloropropane	1.84	U
2,2-Dichloropropane	1.84	U	n-Propylbenzene	1.84	U
Chloroform	1.84	U	2-Chlorotoluene	1.84	U
1,1,1-Trichloroethane	1.84	U	1,3,5-Trimethylbenzene	1.84	U
1,1-Dichloropropene	1.84	U	4-Chlorotoluene	1.84	U
Carbon tetrachloride	1.84	U	tert-Butylbenzene	1.84	U
Benzene	1.84	U	1,2,4-Trimethylbenzene	1.84	U
1,2-Dichloroethane	1.84	U	sec-Butylbenzene	1.84	U
Trichloroethene	1.84	U	1,3-Dichlorobenzene	1.84	U
1,2-Dichloropropane	1.84	U	p-Isopropyltoluene	4.60	U
Dibromomethane	1.84	U	1,4-Dichlorobenzene	1.84	U
Bromodichloromethane	1.84	U	n-Butylbenzene	4.60	U
2-Chloroethylvinyl ether	4.60	U	1,2-Dichlorobenzene	1.84	U
Methyl isobutyl ketone (MIBK)	1.84	U	1,2-Dibromo-3-chloropropane	1.84	U
cis-1,3-Dichloropropene	1.84	U	1,2,4-Trichlorobenzene	1.84	U
Toluene	1.84	U	Hexachlorobutadiene	1.84	U
trans-1,3-Dichloropropene	1.84	U	Naphthalene	4.60	U
1,1,2-Trichloroethane	1.84	U	1,2,3-Trichlorobenzene	1.84	U

Surrogate	% Recovery		Acceptance Range (%)
Dibromofluoromethane	109		70-130
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	86		70-130
4-Bromofluorobenzene	65	§	70-130

N/A - Not Applicable
§ - Surrogate value outside of acceptable range.
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC45-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-04**
Associated Blank: **VS072508B04**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/25/08	77.8	8.43	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.52	U	2-Hexanone	3.81	U
Chloromethane	1.52	U	Tetrachloroethene	1.52	U
Vinyl chloride	1.52	U	1,3-Dichloropropane	1.52	U
Bromomethane	1.52	U J	Dibromochloromethane	1.52	U
Chloroethane	1.52	U	1,2-Dibromoethane	1.52	U
Trichlorofluoromethane	1.52	U	Chlorobenzene	1.52	U
Acetone	**13.0**	B U	1,1,1,2-Tetrachloroethane	1.52	U
1,1-Dichloroethene	1.52	U	Ethylbenzene	1.52	U
Carbon disulfide	**1.90**		p/m-Xylene	3.05	U
Methylene chloride	3.81	U	o-Xylene	1.52	U
Methyl tert-butyl ether (MTBE)	1.52	U	Styrene	1.52	U
trans-1,2-Dichloroethene	1.52	U	Bromoform	1.52	U
1,1-Dichloroethane	1.52	U	Isopropylbenzene	1.52	U
Vinyl acetate	1.52	U	1,1,2,2-Tetrachloroethane	1.52	U
2-Butanone (MEK)	**1.20**	J	Bromobenzene	1.52	U
cis-1,2-Dichloroethene	1.52	U	1,2,3-Trichloropropane	1.52	U
2,2-Dichloropropane	1.52	U	n-Propylbenzene	1.52	U
Chloroform	1.52	U	2-Chlorotoluene	1.52	U
1,1,1-Trichloroethane	1.52	U	1,3,5-Trimethylbenzene	1.52	U
1,1-Dichloropropene	1.52	U	4-Chlorotoluene	1.52	U
Carbon tetrachloride	1.52	U	tert-Butylbenzene	1.52	U
Benzene	1.52	U	1,2,4-Trimethylbenzene	1.52	U
1,2-Dichloroethane	1.52	U	sec-Butylbenzene	1.52	U
Trichloroethene	1.52	U	1,3-Dichlorobenzene	1.52	U
1,2-Dichloropropane	1.52	U	p-Isopropyltoluene	3.81	U
Dibromomethane	1.52	U	1,4-Dichlorobenzene	1.52	U
Bromodichloromethane	1.52	U	n-Butylbenzene	3.81	U
2-Chloroethylvinyl ether	3.81	U	1,2-Dichlorobenzene	1.52	U
Methyl isobutyl ketone (MIBK)	1.52	U	1,2-Dibromo-3-chloropropane	1.52	U
cis-1,3-Dichloropropene	1.52	U	1,2,4-Trichlorobenzene	1.52	U
Toluene	1.52	U	Hexachlorobutadiene	1.52	U
trans-1,3-Dichloropropene	1.52	U	Naphthalene	3.81	U
1,1,2-Trichloroethane	1.52	U	1,2,3-Trichlorobenzene	1.52	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	103	70-130
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	79	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC18-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-06**
Associated Blank: **VS072508B04**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/25/08	24.3	7.32	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	5.63	U	2-Hexanone	14.1	U
Chloromethane	5.63	U	Tetrachloroethene	5.63	U
Vinyl chloride	5.63	U	1,3-Dichloropropane	5.63	U
Bromomethane	5.63	U J	Dibromochloromethane	5.63	U
Chloroethane	5.63	U	1,2-Dibromoethane	5.63	U
Trichlorofluoromethane	5.63	U	Chlorobenzene	5.63	U
Acetone	**252**	B J	1,1,1,2-Tetrachloroethane	5.63	U
1,1-Dichloroethene	5.63	U	Ethylbenzene	5.63	U
Carbon disulfide	**32.2**		p/m-Xylene	11.2	U
Methylene chloride	14.1	U	o-Xylene	5.63	U
Methyl tert-butyl ether (MTBE)	5.63	U	Styrene	5.63	U
trans-1,2-Dichloroethene	5.63	U	Bromoform	5.63	U
1,1-Dichloroethane	5.63	U	Isopropylbenzene	5.63	U
Vinyl acetate	5.63	U	1,1,2,2-Tetrachloroethane	5.63	U
2-Butanone (MEK)	**52.2**		Bromobenzene	5.63	U
cis-1,2-Dichloroethene	5.63	U	1,2,3-Trichloropropane	5.63	U
2,2-Dichloropropane	5.63	U	n-Propylbenzene	5.63	U
Chloroform	5.63	U	2-Chlorotoluene	5.63	U
1,1,1-Trichloroethane	5.63	U	1,3,5-Trimethylbenzene	5.63	U
1,1-Dichloropropene	5.63	U	4-Chlorotoluene	5.63	U
Carbon tetrachloride	5.63	U	tert-Butylbenzene	5.63	U
Benzene	5.63	U	1,2,4-Trimethylbenzene	5.63	U
1,2-Dichloroethane	5.63	U	sec-Butylbenzene	5.63	U
Trichloroethene	5.63	U	1,3-Dichlorobenzene	5.63	U
1,2-Dichloropropane	5.63	U	p-Isopropyltoluene	14.1	U
Dibromomethane	5.63	U	1,4-Dichlorobenzene	5.63	U
Bromodichloromethane	5.63	U	n-Butylbenzene	14.1	U
2-Chloroethylvinyl ether	14.1	U	1,2-Dichlorobenzene	5.63	U
Methyl isobutyl ketone (MIBK)	5.63	U	1,2-Dibromo-3-chloropropane	5.63	U
cis-1,3-Dichloropropene	5.63	U	1,2,4-Trichlorobenzene	5.63	U
Toluene	5.63	U	Hexachlorobutadiene	5.63	U
trans-1,3-Dichloropropene	5.63	U	Naphthalene	14.1	U
1,1,2-Trichloroethane	5.63	U	1,2,3-Trichlorobenzene	5.63	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	105	70-130
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	82	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC7-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-07**
Associated Blank: **VS072508B04**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/25/08	62.5	7.88	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	2.03	U	2-Hexanone	5.08	U
Chloromethane	2.03	U	Tetrachloroethene	2.03	U
Vinyl chloride	2.03	U	1,3-Dichloropropane	2.03	U
Bromomethane	2.03	U J	Dibromochloromethane	2.03	U
Chloroethane	2.03	U	1,2-Dibromoethane	2.03	U
Trichlorofluoromethane	2.03	U	Chlorobenzene	2.03	U
Acetone	**45.5**	B U	1,1,1,2-Tetrachloroethane	2.03	U
1,1-Dichloroethene	2.03	U	Ethylbenzene	2.03	U
Carbon disulfide	**5.79**		p/m-Xylene	4.06	U
Methylene chloride	5.08	U	o-Xylene	2.03	U
Methyl tert-butyl ether (MTBE)	2.03	U	Styrene	2.03	U
trans-1,2-Dichloroethene	2.03	U	Bromoform	2.03	U
1,1-Dichloroethane	2.03	U	Isopropylbenzene	2.03	U
Vinyl acetate	2.03	U	1,1,2,2-Tetrachloroethane	2.03	U
2-Butanone (MEK)	**9.24**		Bromobenzene	2.03	U
cis-1,2-Dichloroethene	2.03	U	1,2,3-Trichloropropane	2.03	U
2,2-Dichloropropane	2.03	U	n-Propylbenzene	2.03	U
Chloroform	2.03	U	2-Chlorotoluene	2.03	U
1,1,1-Trichloroethane	2.03	U	1,3,5-Trimethylbenzene	2.03	U
1,1-Dichloropropene	2.03	U	4-Chlorotoluene	2.03	U
Carbon tetrachloride	2.03	U	tert-Butylbenzene	2.03	U
Benzene	2.03	U	1,2,4-Trimethylbenzene	2.03	U
1,2-Dichloroethane	2.03	U	sec-Butylbenzene	2.03	U
Trichloroethene	2.03	U	1,3-Dichlorobenzene	2.03	U
1,2-Dichloropropane	2.03	U	p-Isopropyltoluene	5.08	U
Dibromomethane	2.03	U	1,4-Dichlorobenzene	2.03	U
Bromodichloromethane	2.03	U	n-Butylbenzene	5.08	U
2-Chloroethylvinyl ether	5.08	U	1,2-Dichlorobenzene	2.03	U
Methyl isobutyl ketone (MIBK)	2.03	U	1,2-Dibromo-3-chloropropane	2.03	U
cis-1,3-Dichloropropene	2.03	U	1,2,4-Trichlorobenzene	2.03	U
Toluene	2.03	U	Hexachlorobutadiene	2.03	U
trans-1,3-Dichloropropene	2.03	U	Naphthalene	5.08	U
1,1,2-Trichloroethane	2.03	U	1,2,3-Trichlorobenzene	2.03	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	101	70-130
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	88	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC8-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-08**
Associated Blank: **VS072508B04**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/25/08	52.7	7.88	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	2.41	U	2-Hexanone	6.02	U
Chloromethane	2.41	U	Tetrachloroethene	2.41	U
Vinyl chloride	2.41	U	1,3-Dichloropropane	2.41	U
Bromomethane	2.41	U J	Dibromochloromethane	2.41	U
Chloroethane	2.41	U	1,2-Dibromoethane	2.41	U
Trichlorofluoromethane	2.41	U	Chlorobenzene	2.41	U
Acetone	**63.2**	B U	1,1,1,2-Tetrachloroethane	2.41	U
1,1-Dichloroethene	2.41	U	Ethylbenzene	2.41	U
Carbon disulfide	**9.04**		p/m-Xylene	4.81	U
Methylene chloride	6.02	U	o-Xylene	2.41	U
Methyl tert-butyl ether (MTBE)	2.41	U	Styrene	2.41	U
trans-1,2-Dichloroethene	2.41	U	Bromoform	2.41	U
1,1-Dichloroethane	2.41	U	Isopropylbenzene	**3.39**	
Vinyl acetate	2.41	U	1,1,2,2-Tetrachloroethane	2.41	U
2-Butanone (MEK)	**12.0**		Bromobenzene	2.41	U
cis-1,2-Dichloroethene	2.41	U	1,2,3-Trichloropropane	2.41	U
2,2-Dichloropropane	2.41	U	n-Propylbenzene	2.41	U
Chloroform	2.41	U	2-Chlorotoluene	2.41	U
1,1,1-Trichloroethane	2.41	U	1,3,5-Trimethylbenzene	2.41	U
1,1-Dichloropropene	2.41	U	4-Chlorotoluene	2.41	U
Carbon tetrachloride	2.41	U	tert-Butylbenzene	2.41	U
Benzene	2.41	U	1,2,4-Trimethylbenzene	2.41	U
1,2-Dichloroethane	2.41	U	sec-Butylbenzene	2.41	U
Trichloroethene	2.41	U	1,3-Dichlorobenzene	2.41	U
1,2-Dichloropropane	2.41	U	p-Isopropyltoluene	6.02	U
Dibromomethane	2.41	U	1,4-Dichlorobenzene	2.41	U
Bromodichloromethane	2.41	U	n-Butylbenzene	6.02	U
2-Chloroethylvinyl ether	6.02	U	1,2-Dichlorobenzene	2.41	U
Methyl isobutyl ketone (MIBK)	2.41	U	1,2-Dibromo-3-chloropropane	2.41	U
cis-1,3-Dichloropropene	2.41	U	1,2,4-Trichlorobenzene	2.41	U
Toluene	2.41	U	Hexachlorobutadiene	2.41	U
trans-1,3-Dichloropropene	2.41	U	Naphthalene	**1.74**	J
1,1,2-Trichloroethane	2.41	U	1,2,3-Trichlorobenzene	2.41	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	100	70-130
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	92	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC31-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-09**
Associated Blank: **VS081108B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Methanol Volume (ml)	Sample Amount (g)	Extract Volume (ml)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/26/08	75.4	5	7.72	0.1	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	118	U	2-Hexanone	296	U
Chloromethane	118	U	Tetrachloroethene	118	U
Vinyl chloride	118	U	1,3-Dichloropropane	118	U
Bromomethane	118	U J	Dibromochloromethane	118	U
Chloroethane	118	U	1,2-Dibromoethane	118	U
Trichlorofluoromethane	118	U	Chlorobenzene	118	U
Acetone	296 ~~207~~ ~~JB~~	U	1,1,1,2-Tetrachloroethane	118	U
1,1-Dichloroethene	118	U	Ethylbenzene	118	U
Carbon disulfide	118	U	p/m-Xylene	**126**	J
Methylene chloride	296	U	o-Xylene	**96.6**	J
Methyl tert-butyl ether (MTBE)	118	U	Styrene	118	U
trans-1,2-Dichloroethene	118	U	Bromoform	118	U
1,1-Dichloroethane	118	U	Isopropylbenzene	118	U
Vinyl acetate	118	U	1,1,2,2-Tetrachloroethane	118	U
2-Butanone (MEK)	118	U	Bromobenzene	118	U
cis-1,2-Dichloroethene	118	U	1,2,3-Trichloropropane	118	U
2,2-Dichloropropane	118	U	n-Propylbenzene	118	U
Chloroform	118	U	2-Chlorotoluene	118	U
1,1,1-Trichloroethane	118	U	1,3,5-Trimethylbenzene	**74.1**	J
1,1-Dichloropropene	118	U	4-Chlorotoluene	118	U
Carbon tetrachloride	118	U	tert-Butylbenzene	118	U
Benzene	**139**		1,2,4-Trimethylbenzene	**232**	
1,2-Dichloroethane	118	U	sec-Butylbenzene	118	U
Trichloroethene	118	U	1,3-Dichlorobenzene	118	U
1,2-Dichloropropane	118	U	p-Isopropyltoluene	296	U
Dibromomethane	118	U	1,4-Dichlorobenzene	118	U
Bromodichloromethane	118	U	n-Butylbenzene	296	U
2-Chloroethylvinyl ether	296	U	1,2-Dichlorobenzene	118	U
Methyl isobutyl ketone (MIBK)	118	U	1,2-Dibromo-3-chloropropane	118	U
cis-1,3-Dichloropropene	118	U	1,2,4-Trichlorobenzene	**69.9**	J
Toluene	**59.8**	J	Hexachlorobutadiene	118	U
trans-1,3-Dichloropropene	118	U	Naphthalene	**9530**	
1,1,2-Trichloroethane	118	U	1,2,3-Trichlorobenzene	118	U

Surrogate	% Recovery	Acceptance Range (%)
2-Bromo-1-chloropropane	98	70-130
1-Chloro-2-fluorobenzene	110	70-130
1,4-Dichlorobutane	92	70-130
Dibromofluoromethane	80	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	87	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC36-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-10**
Associated Blank: **VS072508B04**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/25/08	63.3	7.16	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	2.21	U	2-Hexanone	5.51	U
Chloromethane	2.21	U	Tetrachloroethene	2.21	U
Vinyl chloride	2.21	U	1,3-Dichloropropane	2.21	U
Bromomethane	2.21	U J	Dibromochloromethane	2.21	U
Chloroethane	2.21	U	1,2-Dibromoethane	2.21	U
Trichlorofluoromethane	2.21	U	Chlorobenzene	2.21	U
Acetone	**63.3**	B J	1,1,1,2-Tetrachloroethane	2.21	U
1,1-Dichloroethene	2.21	U	Ethylbenzene	2.21	U
Carbon disulfide	**3.37**		p/m-Xylene	**1.32**	J
Methylene chloride	5.51	U	o-Xylene	2.21	U
Methyl tert-butyl ether (MTBE)	2.21	U	Styrene	2.21	U
trans-1,2-Dichloroethene	2.21	U	Bromoform	2.21	U
1,1-Dichloroethane	2.21	U	Isopropylbenzene	2.21	U
Vinyl acetate	2.21	U	1,1,2,2-Tetrachloroethane	2.21	U
2-Butanone (MEK)	**13.3**		Bromobenzene	2.21	U
cis-1,2-Dichloroethene	2.21	U	1,2,3-Trichloropropane	2.21	U
2,2-Dichloropropane	2.21	U	n-Propylbenzene	2.21	U
Chloroform	2.21	U	2-Chlorotoluene	2.21	U
1,1,1-Trichloroethane	2.21	U	1,3,5-Trimethylbenzene	2.21	U
1,1-Dichloropropene	2.21	U	4-Chlorotoluene	2.21	U
Carbon tetrachloride	2.21	U	tert-Butylbenzene	2.21	U
Benzene	**1.26**	J	1,2,4-Trimethylbenzene	**1.97**	J
1,2-Dichloroethane	2.21	U	sec-Butylbenzene	2.21	U
Trichloroethene	2.21	U	1,3-Dichlorobenzene	2.21	U
1,2-Dichloropropane	2.21	U	p-Isopropyltoluene	5.51	U
Dibromomethane	2.21	U	1,4-Dichlorobenzene	2.21	U
Bromodichloromethane	2.21	U	n-Butylbenzene	5.51	U
2-Chloroethylvinyl ether	5.51	U	1,2-Dichlorobenzene	2.21	U
Methyl isobutyl ketone (MIBK)	2.21	U	1,2-Dibromo-3-chloropropane	2.21	U
cis-1,3-Dichloropropene	2.21	U	1,2,4-Trichlorobenzene	2.21	U
Toluene	2.21	U	Hexachlorobutadiene	2.21	U
trans-1,3-Dichloropropene	2.21	U	Naphthalene	**21.8**	
1,1,2-Trichloroethane	2.21	U	1,2,3-Trichlorobenzene	2.21	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	93	70-130
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	88	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC37-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-11**
Associated Blank: **VS072508B04**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/26/08	52.0	8.03	5	1	BAS

Parameter	Result		
Dichlorodifluoromethane	2.39	U	J
Chloromethane	2.39	U	
Vinyl chloride	2.39	U	
Bromomethane	2.39	U	
Chloroethane	2.39	U	
Trichlorofluoromethane	2.39	U	
Acetone	**52.9**	B	UJ
1,1-Dichloroethene	2.39	U	J
Carbon disulfide	**14.6**		
Methylene chloride	5.98	U	
Methyl tert-butyl ether (MTBE)	2.39	U	
trans-1,2-Dichloroethene	2.39	U	
1,1-Dichloroethane	2.39	U	
Vinyl acetate	2.39	U	
2-Butanone (MEK)	**11.8**		
cis-1,2-Dichloroethene	2.39	U	
2,2-Dichloropropane	2.39	U	
Chloroform	2.39	U	
1,1,1-Trichloroethane	2.39	U	
1,1-Dichloropropene	2.39	U	
Carbon tetrachloride	2.39	U	
Benzene	2.39	U	
1,2-Dichloroethane	2.39	U	
Trichloroethene	2.39	U	
1,2-Dichloropropane	2.39	U	
Dibromomethane	2.39	U	
Bromodichloromethane	2.39	U	
2-Chloroethylvinyl ether	5.98	U	
Methyl isobutyl ketone (MIBK)	2.39	U	
cis-1,3-Dichloropropene	2.39	U	
Toluene	2.39	U	
trans-1,3-Dichloropropene	2.39	U	
1,1,2-Trichloroethane	2.39	U	

Parameter	Result		
2-Hexanone	5.98	U	J
Tetrachloroethene	2.39	U	
1,3-Dichloropropane	2.39	U	
Dibromochloromethane	2.39	U	
1,2-Dibromoethane	2.39	U	
Chlorobenzene	2.39	U	
1,1,1,2-Tetrachloroethane	2.39	U	
Ethylbenzene	2.39	U	
p/m-Xylene	4.79	U	
o-Xylene	2.39	U	
Styrene	2.39	U	
Bromoform	2.39	U	
Isopropylbenzene	**3.22**		
1,1,2,2-Tetrachloroethane	2.39	U	
Bromobenzene	2.39	U	
1,2,3-Trichloropropane	2.39	U	
n-Propylbenzene	2.39	U	
2-Chlorotoluene	2.39	U	
1,3,5-Trimethylbenzene	2.39	U	
4-Chlorotoluene	2.39	U	
tert-Butylbenzene	2.39	U	
1,2,4-Trimethylbenzene	2.39	U	
sec-Butylbenzene	2.39	U	
1,3-Dichlorobenzene	2.39	U	
p-Isopropyltoluene	5.98	U	
1,4-Dichlorobenzene	2.39	U	
n-Butylbenzene	5.98	U	
1,2-Dichlorobenzene	2.39	U	
1,2-Dibromo-3-chloropropane	2.39	U	
1,2,4-Trichlorobenzene	2.39	U	
Hexachlorobutadiene	2.39	U	
Naphthalene	**1.24**	J	
1,2,3-Trichlorobenzene	2.39	U	J

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	86	70-130
1,2-Dichloroethane-d4	76	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	85	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **Trip Blank**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-12**
Associated Blank: **VS072508B04**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/02/08	07/16/08	07/25/08	100	5.00	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	2.00	U J	2-Hexanone	5.00	U J
Chloromethane	2.00	U	Tetrachloroethene	2.00	U
Vinyl chloride	2.00	U	1,3-Dichloropropane	2.00	U
Bromomethane	2.00	U	Dibromochloromethane	2.00	U
Chloroethane	2.00	U	1,2-Dibromoethane	2.00	U
Trichlorofluoromethane	2.00	U	Chlorobenzene	2.00	U
Acetone	**10.7**	B	1,1,1,2-Tetrachloroethane	2.00	U
1,1-Dichloroethene	2.00	U	Ethylbenzene	2.00	U
Carbon disulfide	2.00	U	p/m-Xylene	4.00	U
Methylene chloride	5.00	U	o-Xylene	2.00	U
Methyl tert-butyl ether (MTBE)	2.00	U	Styrene	2.00	U
trans-1,2-Dichloroethene	2.00	U	Bromoform	2.00	U
1,1-Dichloroethane	2.00	U	Isopropylbenzene	2.00	U
Vinyl acetate	2.00	U	1,1,2,2-Tetrachloroethane	2.00	U
2-Butanone (MEK)	2.00	U	Bromobenzene	2.00	U
cis-1,2-Dichloroethene	2.00	U	1,2,3-Trichloropropane	2.00	U
2,2-Dichloropropane	2.00	U	n-Propylbenzene	2.00	U
Chloroform	2.00	U	2-Chlorotoluene	2.00	U
1,1,1-Trichloroethane	2.00	U	1,3,5-Trimethylbenzene	2.00	U
1,1-Dichloropropene	2.00	U	4-Chlorotoluene	2.00	U
Carbon tetrachloride	2.00	U	tert-Butylbenzene	2.00	U
Benzene	2.00	U	1,2,4-Trimethylbenzene	2.00	U
1,2-Dichloroethane	2.00	U	sec-Butylbenzene	2.00	U
Trichloroethene	2.00	U	1,3-Dichlorobenzene	2.00	U
1,2-Dichloropropane	2.00	U	p-Isopropyltoluene	5.00	U
Dibromomethane	2.00	U	1,4-Dichlorobenzene	2.00	U
Bromodichloromethane	2.00	U	n-Butylbenzene	5.00	U
2-Chloroethylvinyl ether	5.00	U	1,2-Dichlorobenzene	2.00	U
Methyl isobutyl ketone (MIBK)	2.00	U	1,2-Dibromo-3-chloropropane	2.00	U
cis-1,3-Dichloropropene	2.00	U	1,2,4-Trichlorobenzene	2.00	U
Toluene	2.00	U	Hexachlorobutadiene	2.00	U
trans-1,3-Dichloropropene	2.00	U	Naphthalene	5.00	U
1,1,2-Trichloroethane	2.00	U	1,2,3-Trichlorobenzene	2.00	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	107	70-130
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	81	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **Trip Blank**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-12E**
Associated Blank: **VS072808B14**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Methanol Volume (ml)	Sample Amount (g)	Extract Volume (ml)	Final Volume (ml)	Dilution Factor	Analyst
07/02/08	07/16/08	07/28/08	100	5	5.00	0.1	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	100	U J	2-Hexanone	250	U J
Chloromethane	100	U	Tetrachloroethene	100	U
Vinyl chloride	100	U	1,3-Dichloropropane	100	U
Bromomethane	**167**	B	Dibromochloromethane	100	U
Chloroethane	100	U	1,2-Dibromoethane	100	U
Trichlorofluoromethane	100	U	Chlorobenzene	100	U
Acetone	**244**	JB	1,1,1,2-Tetrachloroethane	100	U
1,1-Dichloroethene	100	U	Ethylbenzene	100	U
Carbon disulfide	100	U	p/m-Xylene	200	U
Methylene chloride	250	U	o-Xylene	100	U
Methyl tert-butyl ether (MTBE)	100	U	Styrene	100	U
trans-1,2-Dichloroethene	100	U	Bromoform	100	U
1,1-Dichloroethane	100	U	Isopropylbenzene	100	U
Vinyl acetate	100	U	1,1,2,2-Tetrachloroethane	100	U
2-Butanone (MEK)	100	U	Bromobenzene	100	U
cis-1,2-Dichloroethene	100	U	1,2,3-Trichloropropane	100	U
2,2-Dichloropropane	100	U	n-Propylbenzene	100	U
Chloroform	100	U	2-Chlorotoluene	100	U
1,1,1-Trichloroethane	100	U	1,3,5-Trimethylbenzene	100	U
1,1-Dichloropropene	100	U	4-Chlorotoluene	100	U
Carbon tetrachloride	100	U	tert-Butylbenzene	100	U
Benzene	100	U	1,2,4-Trimethylbenzene	100	U
1,2-Dichloroethane	100	U	sec-Butylbenzene	100	U
Trichloroethene	100	U	1,3-Dichlorobenzene	100	U
1,2-Dichloropropane	100	U	p-Isopropyltoluene	250	U
Dibromomethane	100	U	1,4-Dichlorobenzene	100	U
Bromodichloromethane	100	U	n-Butylbenzene	250	U
2-Chloroethylvinyl ether	250	U	1,2-Dichlorobenzene	100	U
Methyl isobutyl ketone (MIBK)	100	U	1,2-Dibromo-3-chloropropane	100	U
cis-1,3-Dichloropropene	100	U	1,2,4-Trichlorobenzene	100	U
Toluene	100	U	Hexachlorobutadiene	100	U
trans-1,3-Dichloropropene	100	U	Naphthalene	250	U
1,1,2-Trichloroethane	100	U	1,2,3-Trichlorobenzene	100	U

Surrogate	% Recovery	Acceptance Range (%)
2-Bromo-1-chloropropane	99	70-130
1-Chloro-2-fluorobenzene	108	70-130
1,4-Dichlorobutane	98	70-130
Dibromofluoromethane	97	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	96	70-130

N/A - Not Applicable
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J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC1-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-13**
Associated Blank: **VS072608B03**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/15/08	07/16/08	07/26/08	82.7	6.97	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.73	U	2-Hexanone	4.34	U
Chloromethane	1.73	U	Tetrachloroethene	1.73	U
Vinyl chloride	1.73	U	1,3-Dichloropropane	1.73	U
Bromomethane	1.73	U J	Dibromochloromethane	1.73	U
Chloroethane	1.73	U	1,2-Dibromoethane	1.73	U
Trichlorofluoromethane	1.73	U	Chlorobenzene	1.73	U
Acetone	**23.7**	B U	1,1,1,2-Tetrachloroethane	1.73	U
1,1-Dichloroethene	1.73	U	Ethylbenzene	1.73	U
Carbon disulfide	**7.58**		p/m-Xylene	3.47	U
Methylene chloride	4.34	U	o-Xylene	1.73	U
Methyl tert-butyl ether (MTBE)	1.73	U	Styrene	1.73	U
trans-1,2-Dichloroethene	1.73	U	Bromoform	1.73	U
1,1-Dichloroethane	1.73	U	Isopropylbenzene	1.73	U
Vinyl acetate	1.73	U J	1,1,2,2-Tetrachloroethane	1.73	U
2-Butanone (MEK)	**2.26**		Bromobenzene	1.73	U
cis-1,2-Dichloroethene	1.73	U	1,2,3-Trichloropropane	1.73	U
2,2-Dichloropropane	1.73	U	n-Propylbenzene	1.73	U
Chloroform	1.73	U	2-Chlorotoluene	1.73	U
1,1,1-Trichloroethane	1.73	U	1,3,5-Trimethylbenzene	1.73	U
1,1-Dichloropropene	1.73	U	4-Chlorotoluene	1.73	U
Carbon tetrachloride	1.73	U	tert-Butylbenzene	1.73	U
Benzene	1.73	U	1,2,4-Trimethylbenzene	1.73	U
1,2-Dichloroethane	1.73	U	sec-Butylbenzene	1.73	U J
Trichloroethene	1.73	U	1,3-Dichlorobenzene	1.73	U
1,2-Dichloropropane	1.73	U	p-Isopropyltoluene	4.34	U J
Dibromomethane	1.73	U	1,4-Dichlorobenzene	**1.36**	J
Bromodichloromethane	1.73	U	n-Butylbenzene	4.34	U J
2-Chloroethylvinyl ether	4.34	U	1,2-Dichlorobenzene	1.73	U
Methyl isobutyl ketone (MIBK)	1.73	U	1,2-Dibromo-3-chloropropane	1.73	U
cis-1,3-Dichloropropene	1.73	U	1,2,4-Trichlorobenzene	1.73	U J
Toluene	**0.87**	J	Hexachlorobutadiene	1.73	U J
trans-1,3-Dichloropropene	1.73	U	Naphthalene	4.34	U
1,1,2-Trichloroethane	1.73	U	1,2,3-Trichlorobenzene	1.73	U J

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	93	70-130
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	85	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC2-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-14**
Associated Blank: **VS072608B03**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/15/08	07/16/08	07/26/08	83.0	7.40	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.63	U	2-Hexanone	4.07	U
Chloromethane	1.63	U	Tetrachloroethene	1.63	U
Vinyl chloride	1.63	U	1,3-Dichloropropane	1.63	U
Bromomethane	1.63	U J	Dibromochloromethane	1.63	U
Chloroethane	1.63	U	1,2-Dibromoethane	1.63	U
Trichlorofluoromethane	1.63	U	Chlorobenzene	1.63	U
Acetone	**12.4**	B U	1,1,1,2-Tetrachloroethane	1.63	U
1,1-Dichloroethene	1.63	U	Ethylbenzene	1.63	U
Carbon disulfide	**5.69**		p/m-Xylene	3.26	U
Methylene chloride	4.07	U	o-Xylene	1.63	U
Methyl tert-butyl ether (MTBE)	1.63	U	Styrene	1.63	U
trans-1,2-Dichloroethene	1.63	U	Bromoform	1.63	U
1,1-Dichloroethane	1.63	U	Isopropylbenzene	1.63	U
Vinyl acetate	1.63	U	1,1,2,2-Tetrachloroethane	1.63	U
2-Butanone (MEK)	1.63	U	Bromobenzene	1.63	U
cis-1,2-Dichloroethene	1.63	U	1,2,3-Trichloropropane	1.63	U
2,2-Dichloropropane	1.63	U	n-Propylbenzene	1.63	U
Chloroform	1.63	U	2-Chlorotoluene	1.63	U
1,1,1-Trichloroethane	1.63	U	1,3,5-Trimethylbenzene	1.63	U
1,1-Dichloropropene	1.63	U	4-Chlorotoluene	1.63	U
Carbon tetrachloride	1.63	U	tert-Butylbenzene	1.63	U
Benzene	1.63	U	1,2,4-Trimethylbenzene	1.63	U
1,2-Dichloroethane	1.63	U	sec-Butylbenzene	1.63	U
Trichloroethene	1.63	U	1,3-Dichlorobenzene	1.63	U
1,2-Dichloropropane	1.63	U	p-Isopropyltoluene	4.07	U
Dibromomethane	1.63	U	1,4-Dichlorobenzene	1.63	U
Bromodichloromethane	1.63	U	n-Butylbenzene	4.07	U
2-Chloroethylvinyl ether	4.07	U	1,2-Dichlorobenzene	1.63	U
Methyl isobutyl ketone (MIBK)	1.63	U	1,2-Dibromo-3-chloropropane	1.63	U
cis-1,3-Dichloropropene	1.63	U	1,2,4-Trichlorobenzene	1.63	U
Toluene	1.63	U	Hexachlorobutadiene	1.63	U
trans-1,3-Dichloropropene	1.63	U	Naphthalene	4.07	U
1,1,2-Trichloroethane	1.63	U	1,2,3-Trichlorobenzene	1.63	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	106	70-130
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	85	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **Dup-3**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-15**
Associated Blank: **VS072608B03**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/15/08	07/16/08	07/26/08	84.0	7.06	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.69	U	2-Hexanone	4.22	U
Chloromethane	1.69	U	Tetrachloroethene	1.69	U
Vinyl chloride	1.69	U	1,3-Dichloropropane	1.69	U
Bromomethane	1.69	U	Dibromochloromethane	1.69	U
Chloroethane	1.69	U	1,2-Dibromoethane	1.69	U
Trichlorofluoromethane	1.69	U	Chlorobenzene	1.69	U
Acetone	**11.5**	B U	1,1,1,2-Tetrachloroethane	1.69	U
1,1-Dichloroethene	1.69	U	Ethylbenzene	1.69	U
Carbon disulfide	**4.64**		p/m-Xylene	3.37	U
Methylene chloride	4.22	U	o-Xylene	1.69	U
Methyl tert-butyl ether (MTBE)	1.69	U	Styrene	1.69	U
trans-1,2-Dichloroethene	1.69	U	Bromoform	1.69	U
1,1-Dichloroethane	1.69	U	Isopropylbenzene	1.69	U
Vinyl acetate	1.69	U	1,1,2,2-Tetrachloroethane	1.69	U
2-Butanone (MEK)	1.69	U	Bromobenzene	1.69	U
cis-1,2-Dichloroethene	1.69	U	1,2,3-Trichloropropane	1.69	U
2,2-Dichloropropane	1.69	U	n-Propylbenzene	1.69	U
Chloroform	1.69	U	2-Chlorotoluene	1.69	U
1,1,1-Trichloroethane	1.69	U	1,3,5-Trimethylbenzene	1.69	U
1,1-Dichloropropene	1.69	U	4-Chlorotoluene	1.69	U
Carbon tetrachloride	1.69	U	tert-Butylbenzene	1.69	U
Benzene	1.69	U	1,2,4-Trimethylbenzene	1.69	U
1,2-Dichloroethane	1.69	U	sec-Butylbenzene	1.69	U
Trichloroethene	1.69	U	1,3-Dichlorobenzene	1.69	U
1,2-Dichloropropane	1.69	U	p-Isopropyltoluene	4.22	U
Dibromomethane	1.69	U	1,4-Dichlorobenzene	1.69	U
Bromodichloromethane	1.69	U	n-Butylbenzene	4.22	U
2-Chloroethylvinyl ether	4.22	U	1,2-Dichlorobenzene	1.69	U
Methyl isobutyl ketone (MIBK)	1.69	U	1,2-Dibromo-3-chloropropane	1.69	U
cis-1,3-Dichloropropene	1.69	U	1,2,4-Trichlorobenzene	1.69	U
Toluene	**1.19**	J	Hexachlorobutadiene	1.69	U
trans-1,3-Dichloropropene	1.69	U	Naphthalene	4.22	U
1,1,2-Trichloroethane	1.69	U	1,2,3-Trichlorobenzene	1.69	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	102	70-130
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	82	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC11-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-16**
Associated Blank: **VS072608B03**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/15/08	07/16/08	07/26/08	74.7	8.39	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.60	U	2-Hexanone	3.99	U
Chloromethane	1.60	U	Tetrachloroethene	1.60	U
Vinyl chloride	1.60	U	1,3-Dichloropropane	1.60	U
Bromomethane	1.60	U J	Dibromochloromethane	1.60	U
Chloroethane	1.60	U	1,2-Dibromoethane	1.60	U
Trichlorofluoromethane	1.60	U	Chlorobenzene	1.60	U
Acetone	**126**	B J	1,1,1,2-Tetrachloroethane	1.60	U
1,1-Dichloroethene	1.60	U	Ethylbenzene	1.60	U
Carbon disulfide	**14.6**		p/m-Xylene	3.19	U
Methylene chloride	3.99	U	o-Xylene	1.60	U
Methyl tert-butyl ether (MTBE)	1.60	U	Styrene	1.60	U
trans-1,2-Dichloroethene	1.60	U	Bromoform	1.60	U
1,1-Dichloroethane	1.60	U	Isopropylbenzene	**4.77**	
Vinyl acetate	1.60	U	1,1,2,2-Tetrachloroethane	1.60	U
2-Butanone (MEK)	**26.9**		Bromobenzene	1.60	U
cis-1,2-Dichloroethene	1.60	U	1,2,3-Trichloropropane	1.60	U
2,2-Dichloropropane	1.60	U	n-Propylbenzene	1.60	U
Chloroform	1.60	U	2-Chlorotoluene	1.60	U
1,1,1-Trichloroethane	1.60	U	1,3,5-Trimethylbenzene	1.60	U
1,1-Dichloropropene	1.60	U	4-Chlorotoluene	1.60	U
Carbon tetrachloride	1.60	U	tert-Butylbenzene	1.60	U
Benzene	**1.00**	J	1,2,4-Trimethylbenzene	1.60	U
1,2-Dichloroethane	1.60	U	sec-Butylbenzene	**2.48**	
Trichloroethene	1.60	U	1,3-Dichlorobenzene	1.60	U
1,2-Dichloropropane	1.60	U	p-Isopropyltoluene	3.99	U
Dibromomethane	1.60	U	1,4-Dichlorobenzene	**3.61**	
Bromodichloromethane	1.60	U	n-Butylbenzene	3.99	U
2-Chloroethylvinyl ether	3.99	U	1,2-Dichlorobenzene	**1.07**	J
Methyl isobutyl ketone (MIBK)	1.60	U	1,2-Dibromo-3-chloropropane	1.60	U
cis-1,3-Dichloropropene	1.60	U	1,2,4-Trichlorobenzene	1.60	U
Toluene	**1.55**	J	Hexachlorobutadiene	1.60	U
trans-1,3-Dichloropropene	1.60	U	Naphthalene	**3.71**	J
1,1,2-Trichloroethane	1.60	U	1,2,3-Trichlorobenzene	1.60	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	102	70-130
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	84	70-130
4-Bromofluorobenzene	79	70-130

N/A - Not Applicable
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J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC13-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-17**
Associated Blank: **VS072608B03**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/15/08	07/16/08	07/26/08	80.9	8.16	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	1.52	U	2-Hexanone	3.79	U
Chloromethane	1.52	U	Tetrachloroethene	1.52	U
Vinyl chloride	1.52	U	1,3-Dichloropropane	1.52	U
Bromomethane	1.52	U J	Dibromochloromethane	1.52	U
Chloroethane	1.52	U	1,2-Dibromoethane	1.52	U
Trichlorofluoromethane	1.52	U	Chlorobenzene	1.52	U
Acetone	**16.8**	B U	1,1,1,2-Tetrachloroethane	1.52	U
1,1-Dichloroethene	1.52	U	Ethylbenzene	1.52	U
Carbon disulfide	**4.11**		p/m-Xylene	3.03	U
Methylene chloride	3.79	U	o-Xylene	1.52	U
Methyl tert-butyl ether (MTBE)	1.52	U	Styrene	1.52	U
trans-1,2-Dichloroethene	1.52	U	Bromoform	1.52	U
1,1-Dichloroethane	**0.98**	J	Isopropylbenzene	1.52	U
Vinyl acetate	1.52	U	1,1,2,2-Tetrachloroethane	1.52	U
2-Butanone (MEK)	**3.36**		Bromobenzene	1.52	U
cis-1,2-Dichloroethene	1.52	U	1,2,3-Trichloropropane	1.52	U
2,2-Dichloropropane	1.52	U	n-Propylbenzene	1.52	U
Chloroform	1.52	U	2-Chlorotoluene	1.52	U
1,1,1-Trichloroethane	1.52	U	1,3,5-Trimethylbenzene	1.52	U
1,1-Dichloropropene	1.52	U	4-Chlorotoluene	1.52	U
Carbon tetrachloride	1.52	U	tert-Butylbenzene	1.52	U
Benzene	1.52	U	1,2,4-Trimethylbenzene	1.52	U
1,2-Dichloroethane	1.52	U	sec-Butylbenzene	1.52	U
Trichloroethene	1.52	U	1,3-Dichlorobenzene	1.52	U
1,2-Dichloropropane	1.52	U	p-Isopropyltoluene	3.79	U
Dibromomethane	1.52	U	1,4-Dichlorobenzene	**3.44**	
Bromodichloromethane	1.52	U	n-Butylbenzene	3.79	U
2-Chloroethylvinyl ether	3.79	U	1,2-Dichlorobenzene	1.52	U
Methyl isobutyl ketone (MIBK)	1.52	U	1,2-Dibromo-3-chloropropane	1.52	U
cis-1,3-Dichloropropene	1.52	U	1,2,4-Trichlorobenzene	1.52	U
Toluene	1.52	U	Hexachlorobutadiene	1.52	U
trans-1,3-Dichloropropene	1.52	U	Naphthalene	3.79	U
1,1,2-Trichloroethane	1.52	U	1,2,3-Trichlorobenzene	1.52	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	94	70-130
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	78	70-130

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B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC14-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-18**
Associated Blank: **VS072608B03**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/15/08	07/16/08	07/26/08	30.5	7.97	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	4.11	U	2-Hexanone	10.3	U
Chloromethane	4.11	U	Tetrachloroethene	4.11	U
Vinyl chloride	4.11	U	1,3-Dichloropropane	4.11	U
Bromomethane	4.11	U J	Dibromochloromethane	4.11	U
Chloroethane	4.11	U	1,2-Dibromoethane	4.11	U
Trichlorofluoromethane	4.11	U	Chlorobenzene	4.11	U
Acetone	**241**	B	1,1,1,2-Tetrachloroethane	4.11	U
1,1-Dichloroethene	4.11	U	Ethylbenzene	4.11	U
Carbon disulfide	**27.4**		p/m-Xylene	8.22	U
Methylene chloride	10.3	U	o-Xylene	4.11	U
Methyl tert-butyl ether (MTBE)	4.11	U	Styrene	4.11	U
trans-1,2-Dichloroethene	4.11	U	Bromoform	4.11	U
1,1-Dichloroethane	4.11	U	Isopropylbenzene	4.11	U
Vinyl acetate	4.11	U	1,1,2,2-Tetrachloroethane	4.11	U
2-Butanone (MEK)	**67.7**		Bromobenzene	4.11	U
cis-1,2-Dichloroethene	4.11	U	1,2,3-Trichloropropane	4.11	U
2,2-Dichloropropane	4.11	U	n-Propylbenzene	4.11	U
Chloroform	4.11	U	2-Chlorotoluene	4.11	U
1,1,1-Trichloroethane	4.11	U	1,3,5-Trimethylbenzene	4.11	U
1,1-Dichloropropene	4.11	U	4-Chlorotoluene	4.11	U
Carbon tetrachloride	4.11	U	tert-Butylbenzene	4.11	U
Benzene	4.11	U	1,2,4-Trimethylbenzene	4.11	U
1,2-Dichloroethane	4.11	U	sec-Butylbenzene	4.11	U
Trichloroethene	4.11	U	1,3-Dichlorobenzene	4.11	U
1,2-Dichloropropane	4.11	U	p-Isopropyltoluene	10.3	U
Dibromomethane	4.11	U	1,4-Dichlorobenzene	4.11	U
Bromodichloromethane	4.11	U	n-Butylbenzene	10.3	U
2-Chloroethylvinyl ether	10.3	U	1,2-Dichlorobenzene	4.11	U
Methyl isobutyl ketone (MIBK)	4.11	U	1,2-Dibromo-3-chloropropane	4.11	U
cis-1,3-Dichloropropene	4.11	U	1,2,4-Trichlorobenzene	4.11	U
Toluene	**2.14**	J	Hexachlorobutadiene	4.11	U
trans-1,3-Dichloropropene	4.11	U	Naphthalene	**11.8**	
1,1,2-Trichloroethane	4.11	U	1,2,3-Trichlorobenzene	4.11	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	90	70-130
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	87	70-130
4-Bromofluorobenzene	77	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC15-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-19**
Associated Blank: **VS072608B03**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/16/08	07/16/08	07/26/08	30.6	6.88	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	4.75	U	2-Hexanone	11.9	U
Chloromethane	4.75	U	Tetrachloroethene	4.75	U
Vinyl chloride	4.75	U	1,3-Dichloropropane	4.75	U
Bromomethane	4.75	U J	Dibromochloromethane	4.75	U
Chloroethane	4.75	U	1,2-Dibromoethane	4.75	U
Trichlorofluoromethane	4.75	U	Chlorobenzene	4.75	U
Acetone	**269**	B J	1,1,1,2-Tetrachloroethane	4.75	U
1,1-Dichloroethene	4.75	U	Ethylbenzene	4.75	U
Carbon disulfide	**40.2**		p/m-Xylene	9.50	U
Methylene chloride	11.9	U	o-Xylene	4.75	U
Methyl tert-butyl ether (MTBE)	4.75	U	Styrene	4.75	U
trans-1,2-Dichloroethene	4.75	U	Bromoform	4.75	U
1,1-Dichloroethane	4.75	U	Isopropylbenzene	4.75	U
Vinyl acetate	4.75	U	1,1,2,2-Tetrachloroethane	4.75	U
2-Butanone (MEK)	**73.3**		Bromobenzene	4.75	U
cis-1,2-Dichloroethene	4.75	U	1,2,3-Trichloropropane	4.75	U
2,2-Dichloropropane	4.75	U	n-Propylbenzene	4.75	U
Chloroform	4.75	U	2-Chlorotoluene	4.75	U
1,1,1-Trichloroethane	4.75	U	1,3,5-Trimethylbenzene	4.75	U
1,1-Dichloropropene	4.75	U	4-Chlorotoluene	4.75	U
Carbon tetrachloride	4.75	U	tert-Butylbenzene	4.75	U
Benzene	4.75	U	1,2,4-Trimethylbenzene	4.75	U
1,2-Dichloroethane	4.75	U	sec-Butylbenzene	4.75	U
Trichloroethene	4.75	U	1,3-Dichlorobenzene	4.75	U
1,2-Dichloropropane	4.75	U	p-Isopropyltoluene	11.9	U
Dibromomethane	4.75	U	1,4-Dichlorobenzene	4.75	U
Bromodichloromethane	4.75	U	n-Butylbenzene	11.9	U
2-Chloroethylvinyl ether	11.9	U	1,2-Dichlorobenzene	4.75	U
Methyl isobutyl ketone (MIBK)	4.75	U	1,2-Dibromo-3-chloropropane	4.75	U
cis-1,3-Dichloropropene	4.75	U	1,2,4-Trichlorobenzene	4.75	U
Toluene	4.75	U	Hexachlorobutadiene	4.75	U
trans-1,3-Dichloropropene	4.75	U	Naphthalene	11.9	U
1,1,2-Trichloroethane	4.75	U	1,2,3-Trichlorobenzene	4.75	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	95	70-130
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	80	70-130

N/A - Not Applicable
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U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC16-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-20**
Associated Blank: **VS072608B03**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/16/08	07/16/08	07/26/08	38.3	6.50	5	1	BAS

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	4.01	U	2-Hexanone	10.0	U
Chloromethane	4.01	U	Tetrachloroethene	4.01	U
Vinyl chloride	4.01	U	1,3-Dichloropropane	4.01	U
Bromomethane	4.01	U J	Dibromochloromethane	4.01	U
Chloroethane	4.01	U	1,2-Dibromoethane	4.01	U
Trichlorofluoromethane	4.01	U	Chlorobenzene	4.01	U
Acetone	**189**	B J	1,1,1,2-Tetrachloroethane	4.01	U
1,1-Dichloroethene	4.01	U	Ethylbenzene	4.01	U
Carbon disulfide	**25.6**		p/m-Xylene	8.03	U
Methylene chloride	10.0	U	o-Xylene	4.01	U
Methyl tert-butyl ether (MTBE)	4.01	U	Styrene	4.01	U
trans-1,2-Dichloroethene	4.01	U	Bromoform	4.01	U
1,1-Dichloroethane	4.01	U	Isopropylbenzene	4.01	U
Vinyl acetate	4.01	U	1,1,2,2-Tetrachloroethane	4.01	U
2-Butanone (MEK)	**46.0**		Bromobenzene	4.01	U
cis-1,2-Dichloroethene	4.01	U	1,2,3-Trichloropropane	4.01	U
2,2-Dichloropropane	4.01	U	n-Propylbenzene	4.01	U
Chloroform	4.01	U	2-Chlorotoluene	4.01	U
1,1,1-Trichloroethane	4.01	U	1,3,5-Trimethylbenzene	4.01	U
1,1-Dichloropropene	4.01	U	4-Chlorotoluene	4.01	U
Carbon tetrachloride	4.01	U	tert-Butylbenzene	4.01	U
Benzene	4.01	U	1,2,4-Trimethylbenzene	4.01	U
1,2-Dichloroethane	4.01	U	sec-Butylbenzene	4.01	U
Trichloroethene	4.01	U	1,3-Dichlorobenzene	4.01	U
1,2-Dichloropropane	4.01	U	p-Isopropyltoluene	10.0	U
Dibromomethane	4.01	U	1,4-Dichlorobenzene	4.01	U
Bromodichloromethane	4.01	U	n-Butylbenzene	10.0	U
2-Chloroethylvinyl ether	10.0	U	1,2-Dichlorobenzene	4.01	U
Methyl isobutyl ketone (MIBK)	4.01	U	1,2-Dibromo-3-chloropropane	4.01	U
cis-1,3-Dichloropropene	4.01	U	1,2,4-Trichlorobenzene	4.01	U
Toluene	4.01	U	Hexachlorobutadiene	4.01	U
trans-1,3-Dichloropropene	4.01	U	Naphthalene	**3.15**	J
1,1,2-Trichloroethane	4.01	U	1,2,3-Trichlorobenzene	4.01	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	94	70-130
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	84	70-130

N/A - Not Applicable
B - Found in associated blank as well as sample.
J - Estimated value, below quantitation limit.
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Volatile Organics by 8260

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **Rinsate-1**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-21**
Associated Blank: **VW072208B18**
Concentration Units: **µg/L**

Date Collected	Date Received	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
07/16/08	07/16/08	07/23/08	5	5	1	MLR

Parameter	Result		Parameter	Result	
Dichlorodifluoromethane	2.00	U	2-Hexanone	2.00	U
Chloromethane	2.00	U	Tetrachloroethene	2.00	U
Vinyl chloride	2.00	U	1,3-Dichloropropane	2.00	U
Bromomethane	2.00	U	Dibromochloromethane	2.00	U
Chloroethane	2.00	U	1,2-Dibromoethane	2.00	U
Trichlorofluoromethane	2.00	U	Chlorobenzene	2.00	U
Acetone	5.00	U	1,1,1,2-Tetrachloroethane	2.00	U
1,1-Dichloroethene	2.00	U	Ethylbenzene	2.00	U
Carbon disulfide	2.00	U	p/m-Xylene	4.00	U
Methylene chloride	5.00	U	o-Xylene	2.00	U
Methyl tert-butyl ether (MTBE)	2.00	U	Styrene	2.00	U
trans-1,2-Dichloroethene	2.00	U	Bromoform	2.00	U
1,1-Dichloroethane	2.00	U	Isopropylbenzene	2.00	U
Vinyl acetate	2.00	U	1,1,2,2-Tetrachloroethane	2.00	U
2-Butanone (MEK)	2.00	U	Bromobenzene	2.00	U
cis-1,2-Dichloroethene	2.00	U	1,2,3-Trichloropropane	2.00	U
2,2-Dichloropropane	2.00	U	n-Propylbenzene	2.00	U
Chloroform	2.00	U	2-Chlorotoluene	2.00	U
1,1,1-Trichloroethane	2.00	U	1,3,5-Trimethylbenzene	2.00	U
1,1-Dichloropropene	2.00	U	4-Chlorotoluene	2.00	U
Carbon tetrachloride	2.00	U	tert-Butylbenzene	2.00	U
Benzene	2.00	U	1,2,4-Trimethylbenzene	2.00	U
1,2-Dichloroethane	2.00	U	sec-Butylbenzene	2.00	U
Trichloroethene	2.00	U	1,3-Dichlorobenzene	2.00	U
1,2-Dichloropropane	2.00	U	p-Isopropyltoluene	2.00	U
Dibromomethane	2.00	U	1,4-Dichlorobenzene	2.00	U
Bromodichloromethane	2.00	U	n-Butylbenzene	2.00	U
2-Chloroethylvinyl ether	2.00	U	1,2-Dichlorobenzene	2.00	U
Methyl isobutyl ketone (MIBK)	2.00	U	1,2-Dibromo-3-chloropropane	2.00	U
cis-1,3-Dichloropropene	2.00	U	1,2,4-Trichlorobenzene	2.00	U
Toluene	2.00	U	Hexachlorobutadiene	2.00	U
trans-1,3-Dichloropropene	2.00	U	Naphthalene	2.00	U
1,1,2-Trichloroethane	2.00	U	1,2,3-Trichlorobenzene	2.00	U

Surrogate	% Recovery	Acceptance Range (%)
Dibromofluoromethane	106	70-130
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC27-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-01**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/22/08	07/30/08	50.8	5.77	11.11	1	SEO

Parameter	Result
Naphthalene	**7960**
Acenaphthylene	**3210**
Acenaphthene	**10900**
Fluorene	**3880**
Phenanthrene	**15600**
Anthracene	**6760**
Fluoranthene	**23400**
Pyrene	**27000**
Benz[a]anthracene	**12500**
Chrysene	**13400**
Benzo[b]fluoranthene	**7640**
Benzo[k]fluoranthene	**8200**
Benzo[a]pyrene	**10300**
Indeno[1,2,3-cd]pyrene	**6000**
Dibenz[a,h]anthracene	**1630**
Benzo[g,h,i]perylene	**5950**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	86	30-150
Pyrene-d10	104	30-150
Benzo[b]fluoranthene-d12	97	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC44-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-02**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/22/08	07/30/08	76.0	6.18	11.11	1	SEO

Parameter	Result
Naphthalene	**58.0**
Acenaphthylene	**205**
Acenaphthene	**36.6**
Fluorene	**66.4**
Phenanthrene	**608**
Anthracene	**208**
Fluoranthene	**1760**
Pyrene	**1610**
Benz[a]anthracene	**841**
Chrysene	**961**
Benzo[b]fluoranthene	**701**
Benzo[k]fluoranthene	**750**
Benzo[a]pyrene	**688**
Indeno[1,2,3-cd]pyrene	**493**
Dibenz[a,h]anthracene	**140**
Benzo[g,h,i]perylene	**509**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	73	30-150
Pyrene-d10	111	30-150
Benzo[b]fluoranthene-d12	95	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **DUP-2**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-03**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/22/08	07/30/08	73.4	6.28	4.44	1	SEO

Parameter	Result
Naphthalene	**96.0**
Acenaphthylene	**125**
Acenaphthene	**56.0**
Fluorene	**67.1**
Phenanthrene	**721**
Anthracene	**191**
Fluoranthene	**1670**
Pyrene	**1420**
Benz[a]anthracene	**739**
Chrysene	**817**
Benzo[b]fluoranthene	**635**
Benzo[k]fluoranthene	**703**
Benzo[a]pyrene	**606**
Indeno[1,2,3-cd]pyrene	**481**
Dibenz[a,h]anthracene	**124**
Benzo[g,h,i]perylene	**464**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	77	30-150
Pyrene-d10	107	30-150
Benzo[b]fluoranthene-d12	96	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC45-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-04**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/22/08	07/30/08	77.8	5.79	4.44	1	SEO

Parameter	Result
Naphthalene	612
Acenaphthylene	590
Acenaphthene	540
Fluorene	691
Phenanthrene	7050
Anthracene	1360
Fluoranthene	10500
Pyrene	9310
Benz[a]anthracene	4240
Chrysene	4440
Benzo[b]fluoranthene	3330
Benzo[k]fluoranthene	3060
Benzo[a]pyrene	3000
Indeno[1,2,3-cd]pyrene	2510
Dibenz[a,h]anthracene	626
Benzo[g,h,i]perylene	2500

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	81	30-150
Pyrene-d10	107	30-150
Benzo[b]fluoranthene-d12	92	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC46-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-05**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/22/08	07/30/08	78.4	6.41	4.44	1	SEO

Parameter	Result
Naphthalene	**52.4**
Acenaphthylene	**101**
Acenaphthene	**68.8**
Fluorene	**75.2**
Phenanthrene	**1030**
Anthracene	**223**
Fluoranthene	**2240**
Pyrene	**1790**
Benz[a]anthracene	**762**
Chrysene	**924**
Benzo[b]fluoranthene	**672**
Benzo[k]fluoranthene	**691**
Benzo[a]pyrene	**569**
Indeno[1,2,3-cd]pyrene	**470**
Dibenz[a,h]anthracene	**125**
Benzo[g,h,i]perylene	**466**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	77	30-150
Pyrene-d10	113	30-150
Benzo[b]fluoranthene-d12	94	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC18-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-06**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/22/08	07/30/08	24.3	5.09	11.11	1	SEO

Parameter	Result
Naphthalene	**470**
Acenaphthylene	**781**
Acenaphthene	**257**
Fluorene	**331**
Phenanthrene	**3270**
Anthracene	**911**
Fluoranthene	**7280**
Pyrene	**6470**
Benz[a]anthracene	**2860**
Chrysene	**3850**
Benzo[b]fluoranthene	**3450**
Benzo[k]fluoranthene	**3300**
Benzo[a]pyrene	**3340**
Indeno[1,2,3-cd]pyrene	**2510**
Dibenz[a,h]anthracene	**636**
Benzo[g,h,i]perylene	**2590**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	81	30-150
Pyrene-d10	107	30-150
Benzo[b]fluoranthene-d12	98	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC7-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-07**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/22/08	07/30/08	62.5	5.39	11.11	1	SEO

Parameter	Result
Naphthalene	**336**
Acenaphthylene	**612**
Acenaphthene	**140**
Fluorene	**181**
Phenanthrene	**1300**
Anthracene	**578**
Fluoranthene	**3260**
Pyrene	**3600**
Benz[a]anthracene	**1730**
Chrysene	**2030**
Benzo[b]fluoranthene	**2120**
Benzo[k]fluoranthene	**1950**
Benzo[a]pyrene	**1880**
Indeno[1,2,3-cd]pyrene	**1360**
Dibenz[a,h]anthracene	**373**
Benzo[g,h,i]perylene	**1380**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	83	30-150
Pyrene-d10	108	30-150
Benzo[b]fluoranthene-d12	101	30-150

N/A - Not Applicable

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Alkylated Polynuclear Aromatic Hydrocarbons

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC8-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-08**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/22/08	07/30/08	52.7	5.30	11.11	1	SEO

Parameter	Result
Naphthalene	2310
C1-Naphthalenes	1080
C2-Naphthalenes	1480
C3-Naphthalenes	2290
C4-Naphthalenes	1560
Acenaphthylene	1980
Acenaphthene	1350
Fluorene	647
C1-Fluorenes	975
C2-Fluorenes	1530
C3-Fluorenes	1840
Phenanthrene	6330
Anthracene	3520
C1-Phenanthrenes/Anthracenes	7000
C2-Phenanthrenes/Anthracenes	5860
C3-Phenanthrenes/Anthracenes	3380
C4-Phenanthrenes/Anthracenes	1720
Fluoranthene	17900
Pyrene	17600
C1-Fluoranthenes/Pyrenes	11200
Benz[a]anthracene	8320
Chrysene	8810
C1-Chrysenes	5860
C2-Chrysenes	3380
C3-Chrysenes	2570
C4-Chrysenes	1240
Benzo[b]fluoranthene	6200
Benzo[k]fluoranthene	6740
Benzo[a]pyrene	6900
Perylene	1760
Benzo[e]pyrene	5120
Indeno[1,2,3-cd]pyrene	4630
Dibenz[a,h]anthracene	1260
Benzo[g,h,i]perylene	4450

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	84	30-150
Pyrene-d10	106	30-150
Benzo[b]fluoranthene-d12	100	30-150

N/A - Not Applicable

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Alkylated Polynuclear Aromatic Hydrocarbons

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC31-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-09**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/22/08	07/30/08	75.4	6.60	11.11	1	SEO

Parameter	Result
Naphthalene	9680
C1-Naphthalenes	2500
C2-Naphthalenes	2650
C3-Naphthalenes	1800
C4-Naphthalenes	1000
Acenaphthylene	3830
Acenaphthene	990
Fluorene	2580
C1-Fluorenes	1210
C2-Fluorenes	1020
C3-Fluorenes	963
Phenanthrene	5480
Anthracene	2910
C1-Phenanthrenes/Anthracenes	6030
C2-Phenanthrenes/Anthracenes	3980
C3-Phenanthrenes/Anthracenes	1760
C4-Phenanthrenes/Anthracenes	632
Fluoranthene	12000
Pyrene	11000
C1-Fluoranthenes/Pyrenes	8020
Benz[a]anthracene	5990
Chrysene	6200
C1-Chrysenes	4510
C2-Chrysenes	2460
C3-Chrysenes	1730
C4-Chrysenes	844
Benzo[b]fluoranthene	4890
Benzo[k]fluoranthene	4750
Benzo[a]pyrene	4890
Perylene	1270
Benzo[e]pyrene	3690
Indeno[1,2,3-cd]pyrene	3660
Dibenz[a,h]anthracene	999
Benzo[g,h,i]perylene	3420

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	87	30-150
Pyrene-d10	104	30-150
Benzo[b]fluoranthene-d12	95	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC36-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-10**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/22/08	07/30/08	63.3	5.85	11.11	1	SEO

Parameter	Result
Naphthalene	21200
Acenaphthylene	30500
Acenaphthene	3220
Fluorene	22900
Phenanthrene	105000 ~~112000 E~~ D
Anthracene	33700
Fluoranthene	73300 ~~73600 E~~ D
Pyrene	94000 ~~95200 E~~ D
Benz[a]anthracene	50500
Chrysene	52700
Benzo[b]fluoranthene	24200
Benzo[k]fluoranthene	27500
Benzo[a]pyrene	37600
Indeno[1,2,3-cd]pyrene	20700
Dibenz[a,h]anthracene	7230
Benzo[g,h,i]perylene	19600

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	85	30-150
Pyrene-d10	105	30-150
Benzo[b]fluoranthene-d12	98	30-150

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC36-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-10E**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/22/08	08/02/08	63.3	5.85	11.11	10	SEO

Parameter	Result	
Naphthalene	300	U
Acenaphthylene	300	U
Acenaphthene	300	U
Fluorene	300	U
Phenanthrene	**105000**	
Anthracene	300	U
Fluoranthene	**73300**	
Pyrene	**94000**	
Benz[a]anthracene	300	U
Chrysene	300	U
Benzo[b]fluoranthene	300	U
Benzo[k]fluoranthene	300	U
Benzo[a]pyrene	300	U
Indeno[1,2,3-cd]pyrene	300	U
Dibenz[a,h]anthracene	300	U
Benzo[g,h,i]perylene	300	U

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	66	30-150
Pyrene-d10	98	30-150
Benzo[b]fluoranthene-d12	78	30-150

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC37-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-11**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/14/08	07/16/08	07/22/08	07/30/08	52.0	5.74	11.11	1	SEO

Parameter	Result
Naphthalene	**2510**
Acenaphthylene	**3220**
Acenaphthene	**1210**
Fluorene	**1220**
Phenanthrene	**5430**
Anthracene	**2480**
Fluoranthene	**11100**
Pyrene	**12100**
Benz[a]anthracene	**5760**
Chrysene	**6040**
Benzo[b]fluoranthene	**4940**
Benzo[k]fluoranthene	**5200**
Benzo[a]pyrene	**4760**
Indeno[1,2,3-cd]pyrene	**4020**
Dibenz[a,h]anthracene	**1180**
Benzo[g,h,i]perylene	**3980**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	88	30-150
Pyrene-d10	105	30-150
Benzo[b]fluoranthene-d12	97	30-150

N/A - Not Applicable

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Alkylated Polynuclear Aromatic Hydrocarbons

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC1-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-13**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/15/08	07/16/08	07/22/08	07/31/08	82.7	5.92	4.44	1	SEO

Parameter	Result	
Naphthalene	298	
C1-Naphthalenes	91.3	
C2-Naphthalenes	125	
C3-Naphthalenes	157	
C4-Naphthalenes	95.4	
Acenaphthylene	351	
Acenaphthene	153	J
Fluorene	263	J
C1-Fluorenes	158	
C2-Fluorenes	146	
C3-Fluorenes	248	
Phenanthrene	3100	
Anthracene	1010	J
C1-Phenanthrenes/Anthracenes	1680	
C2-Phenanthrenes/Anthracenes	924	
C3-Phenanthrenes/Anthracenes	384	
C4-Phenanthrenes/Anthracenes	112	
Fluoranthene	6540	
Pyrene	5660	
C1-Fluoranthenes/Pyrenes	2680	
Benz[a]anthracene	2830	
Chrysene	2850	
C1-Chrysenes	1160	
C2-Chrysenes	516	
C3-Chrysenes	375	
C4-Chrysenes	152	
Benzo[b]fluoranthene	1940	
Benzo[k]fluoranthene	2150	
Benzo[a]pyrene	2010	
Perylene	542	
Benzo[e]pyrene	1500	
Indeno[1,2,3-cd]pyrene	1400	J
Dibenz[a,h]anthracene	361	
Benzo[g,h,i]perylene	1240	J

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	81	30-150
Pyrene-d10	114	30-150
Benzo[b]fluoranthene-d12	99	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC2-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-14**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/15/08	07/16/08	07/22/08	07/31/08	83.0	20.65	11.11	1	SEO

Parameter	Result	
Naphthalene	483	J
Acenaphthylene	323	
Acenaphthene	296	J
Fluorene	523	
Phenanthrene	6160	
Anthracene	3200	
Fluoranthene	7870	
Pyrene	6570	
Benz[a]anthracene	3390	J
Chrysene	3320	J
Benzo[b]fluoranthene	2070	
Benzo[k]fluoranthene	2120	J
Benzo[a]pyrene	2570	
Indeno[1,2,3-cd]pyrene	1440	
Dibenz[a,h]anthracene	406	
Benzo[g,h,i]perylene	1250	

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	82	30-150
Pyrene-d10	109	30-150
Benzo[b]fluoranthene-d12	98	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **Dup-3**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-15**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/15/08	07/16/08	07/22/08	07/31/08	84.0	20.31	11.11	1	SEO

Parameter	Result	
Naphthalene	93.7	J
Acenaphthylene	179	
Acenaphthene	50.4	J
Fluorene	69.4	
Phenanthrene	1050	
Anthracene	282	
Fluoranthene	2090	
Pyrene	2230	
Benz[a]anthracene	929	J
Chrysene	1040	J
Benzo[b]fluoranthene	790	
Benzo[k]fluoranthene	691	J
Benzo[a]pyrene	798	
Indeno[1,2,3-cd]pyrene	478	
Dibenz[a,h]anthracene	127	
Benzo[g,h,i]perylene	444	

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	82	30-150
Pyrene-d10	109	30-150
Benzo[b]fluoranthene-d12	99	30-150

N/A - Not Applicable

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Alkylated Polynuclear Aromatic Hydrocarbons

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC11-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-16**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/15/08	07/16/08	07/22/08	07/31/08	74.7	2.35	4.44	1	SEO

Parameter	Result
Naphthalene	504
C1-Naphthalenes	279
C2-Naphthalenes	470
C3-Naphthalenes	613
C4-Naphthalenes	555
Acenaphthylene	476
Acenaphthene	398
Fluorene	451
C1-Fluorenes	274
C2-Fluorenes	403
C3-Fluorenes	738
Phenanthrene	4830
Anthracene	1780
C1-Phenanthrenes/Anthracenes	2550
C2-Phenanthrenes/Anthracenes	1840
C3-Phenanthrenes/Anthracenes	1420
C4-Phenanthrenes/Anthracenes	1060
Fluoranthene	8690
Pyrene	7420
C1-Fluoranthenes/Pyrenes	3630
Benz[a]anthracene	3860
Chrysene	4040
C1-Chrysenes	1940
C2-Chrysenes	1040
C3-Chrysenes	812
C4-Chrysenes	413
Benzo[b]fluoranthene	2560
Benzo[k]fluoranthene	2930
Benzo[a]pyrene	2850
Perylene	741
Benzo[e]pyrene	2090
Indeno[1,2,3-cd]pyrene	1810
Dibenz[a,h]anthracene	506
Benzo[g,h,i]perylene	1740

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	81	30-150
Pyrene-d10	105	30-150
Benzo[b]fluoranthene-d12	99	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC13-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-17**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/15/08	07/16/08	07/22/08	07/31/08	80.9	6.17	11.11	1	SEO

Parameter	Result
Naphthalene	**515**
Acenaphthylene	**372**
Acenaphthene	**800**
Fluorene	**555**
Phenanthrene	**11600**
Anthracene	**2070**
Fluoranthene	**15400**
Pyrene	**12400**
Benz[a]anthracene	**5770**
Chrysene	**6060**
Benzo[b]fluoranthene	**5130**
Benzo[k]fluoranthene	**5430**
Benzo[a]pyrene	**5880**
Indeno[1,2,3-cd]pyrene	**4930**
Dibenz[a,h]anthracene	**1390**
Benzo[g,h,i]perylene	**4950**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	56	30-150
Pyrene-d10	84	30-150
Benzo[b]fluoranthene-d12	91	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC14-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-18**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/15/08	07/16/08	07/22/08	07/31/08	30.5	5.10	11.11	1	SEO

Parameter	Result
Naphthalene	**556**
Acenaphthylene	**1330**
Acenaphthene	**330**
Fluorene	**373**
Phenanthrene	**3840**
Anthracene	**1260**
Fluoranthene	**10600**
Pyrene	**9840**
Benz[a]anthracene	**4660**
Chrysene	**5830**
Benzo[b]fluoranthene	**5730**
Benzo[k]fluoranthene	**5140**
Benzo[a]pyrene	**5490**
Indeno[1,2,3-cd]pyrene	**4020**
Dibenz[a,h]anthracene	**1030**
Benzo[g,h,i]perylene	**4330**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	69	30-150
Pyrene-d10	101	30-150
Benzo[b]fluoranthene-d12	94	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC15-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-19**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/16/08	07/16/08	07/22/08	07/31/08	30.6	5.50	11.11	1	SEO

Parameter	Result
Naphthalene	1670
Acenaphthylene	1100
Acenaphthene	1500
Fluorene	1750
Phenanthrene	16700
Anthracene	3880
Fluoranthene	19100
Pyrene	18000
Benz[a]anthracene	7940
Chrysene	9200
Benzo[b]fluoranthene	6520
Benzo[k]fluoranthene	6960
Benzo[a]pyrene	7560
Indeno[1,2,3-cd]pyrene	4860
Dibenz[a,h]anthracene	1190
Benzo[g,h,i]perylene	5110

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	76	30-150
Pyrene-d10	104	30-150
Benzo[b]fluoranthene-d12	98	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **SC16-S1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-20**
Associated Blank: **SS072208B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
07/16/08	07/16/08	07/22/08	07/31/08	38.3	5.75	11.11	1	SEO

Parameter	Result
Naphthalene	**793**
Acenaphthylene	**1080**
Acenaphthene	**494**
Fluorene	**583**
Phenanthrene	**5990**
Anthracene	**1660**
Fluoranthene	**11200**
Pyrene	**11000**
Benz[a]anthracene	**4700**
Chrysene	**5840**
Benzo[b]fluoranthene	**4900**
Benzo[k]fluoranthene	**5100**
Benzo[a]pyrene	**4810**
Indeno[1,2,3-cd]pyrene	**3520**
Dibenz[a,h]anthracene	**933**
Benzo[g,h,i]perylene	**3630**

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	81	30-150
Pyrene-d10	104	30-150
Benzo[b]fluoranthene-d12	97	30-150

N/A - Not Applicable

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Semi-Volatile Organics by 8270 - SIM

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Client ID: **Rinsate-1**
Case: **N/A** SDG: **N/A**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-21**
Associated Blank: **SW071808B04**
Concentration Units: **ng/L**

Date Collected	Date Received	Date Extracted	Date Analyzed	Sample Amount (ml)	Final Volume (ml)	Dilution Factor	Analyst
07/16/08	07/16/08	07/18/08	08/01/08	960	1	1	SEO

Parameter	Result
Naphthalene	10.4 U
Acenaphthylene	10.4 U
Acenaphthene	10.4 U
Fluorene	10.4 U
Phenanthrene	10.4 U
Anthracene	10.4 U
Fluoranthene	10.4 U
Pyrene	10.4 U
Benz[a]anthracene	10.4 U
Chrysene	10.4 U
Benzo[b]fluoranthene	10.4 U
Benzo[k]fluoranthene	10.4 U
Benzo[a]pyrene	10.4 U
Indeno[1,2,3-cd]pyrene	10.4 U
Dibenz[a,h]anthracene	10.4 U
Benzo[g,h,i]perylene	10.4 U

Surrogate	% Recovery	Acceptance Range (%)
2-Methylnaphthalene-d10	86	30-150
Pyrene-d10	115	30-150
Benzo[b]fluoranthene-d12	93	30-150

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: N/A SDG: N/A
Client ID: **SC27-S1**
Matrix: **Sediment**
Percent Solid: **50.8**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-01**
Concentration Units: **mg/Kg**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**3.56**	J	0.135	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**25.2**		0.138	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.671**	J	0.0553	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**2.40**		0.0553	5	08/04/08	07/31/08	6020A	LCP
Chromium	**327**	J	0.553	5	08/04/08	07/31/08	6020A	LCP
Copper	**840**		0.277	5	08/04/08	07/31/08	6020A	LCP
Lead	**14700**	J	5.53	100	08/04/08	07/31/08	6020A	LCP
Mercury	**4.91**		0.0456	10	08/04/08	07/31/08	7474	EYC
Nickel	**20.2**	J	0.277	5	08/04/08	07/31/08	6020A	LCP
Selenium	**1.53**	J	0.277	5	08/04/08	07/31/08	6020A	LCP
Silver	**1.67**		0.135	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.358**		0.0553	5	08/04/08	07/31/08	6020A	LCP
Zinc	**689**	J	1.38	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC44-S1**
Matrix: **Sediment**
Percent Solid: **76.0**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-02**
Concentration Units: **mg/Kg**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.172**	J	0.103	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**3.04**		0.0991	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.233**	J	0.0396	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**1.26**		0.0396	5	08/04/08	07/31/08	6020A	LCP
Chromium	**18.2**	J	0.396	5	08/04/08	07/31/08	6020A	LCP
Copper	**39.5**		0.198	5	08/04/08	07/31/08	6020A	LCP
Lead	**48.9**	J	0.198	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.104**		0.0322	5	08/04/08	07/31/08	7474	EYC
Nickel	**8.87**	J	0.198	5	08/04/08	07/31/08	6020A	LCP
Selenium	**0.340**	J	0.198	5	08/04/08	07/31/08	6020A	LCP
Silver	**0.447**		0.103	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.0566**		0.0396	5	08/04/08	07/31/08	6020A	LCP
Zinc	**89.3**	J	0.991	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **DUP-2**
Matrix: **Sediment**
Percent Solid: **73.4**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-03**
Concentration Units: **mg/Kg**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.155**	J	0.106	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**2.79**		0.108	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.227**	J	0.0434	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**1.28**		0.0434	5	08/04/08	07/31/08	6020A	LCP
Chromium	**17.9**	J	0.434	5	08/04/08	07/31/08	6020A	LCP
Copper	**39.8**		0.217	5	08/04/08	07/31/08	6020A	LCP
Lead	**48.3**	J	0.217	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.101**		0.0321	5	08/04/08	07/31/08	7474	EYC
Nickel	**8.57**	J	0.217	5	08/04/08	07/31/08	6020A	LCP
Selenium	**0.333**	J	0.217	5	08/04/08	07/31/08	6020A	LCP
Silver	**0.444**		0.106	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.0562**		0.0434	5	08/04/08	07/31/08	6020A	LCP
Zinc	**84.4**	J	1.08	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC45-S1**
Matrix: **Sediment**
Percent Solid: **77.8**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-04**
Concentration Units: **mg/Kg**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	0.103	U J	0.103	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**2.43**		0.100	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.181**	J	0.0401	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**1.05**		0.0401	5	08/04/08	07/31/08	6020A	LCP
Chromium	**12.6**	J	0.401	5	08/04/08	07/31/08	6020A	LCP
Copper	**26.6**		0.201	5	08/04/08	07/31/08	6020A	LCP
Lead	**56.3**	J	0.201	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.0641**		0.0315	5	08/04/08	07/31/08	7474	EYC
Nickel	**7.35**	J	0.201	5	08/04/08	07/31/08	6020A	LCP
Selenium	0.201	U J	0.201	5	08/04/08	07/31/08	6020A	LCP
Silver	**0.190**		0.103	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.0424**		0.0401	5	08/04/08	07/31/08	6020A	LCP
Zinc	**70.2**	J	1.00	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: N/A SDG: N/A
Client ID: **SC46-S1**
Matrix: **Sediment**
Percent Solid: **78.4**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-05**
Concentration Units: **mg/Kg**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	0.100	U J	0.100	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**1.72**		0.0985	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.155**	J	0.0394	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**0.814**		0.0394	5	08/04/08	07/31/08	6020A	LCP
Chromium	**9.05**	J	0.394	5	08/04/08	07/31/08	6020A	LCP
Copper	**21.7**		0.197	5	08/04/08	07/31/08	6020A	LCP
Lead	**26.4**	J	0.197	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.0577**		0.0295	5	08/04/08	07/31/08	7474	EYC
Nickel	**5.77**	J	0.197	5	08/04/08	07/31/08	6020A	LCP
Selenium	0.197	U J	0.197	5	08/04/08	07/31/08	6020A	LCP
Silver	**0.141**		0.100	5	08/05/08	07/31/08	6020A	LCP
Thallium	0.0394	U	0.0394	5	08/04/08	07/31/08	6020A	LCP
Zinc	**63.5**	J	0.985	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC18-S1**
Matrix: **Sediment**
Percent Solid: **24.3**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-06**
Concentration Units: **mg/Kg**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.77**	J	0.299	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**26.6**		0.303	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**1.43**	J	0.121	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**23.5**		0.121	5	08/04/08	07/31/08	6020A	LCP
Chromium	**345**	J	1.21	5	08/04/08	07/31/08	6020A	LCP
Copper	**668**		0.606	5	08/04/08	07/31/08	6020A	LCP
Lead	**428**	J	0.606	5	08/04/08	07/31/08	6020A	LCP
Mercury	**1.83**		0.0895	5	08/04/08	07/31/08	7474	EYC
Nickel	**76.8**	J	0.606	5	08/04/08	07/31/08	6020A	LCP
Selenium	**2.97**	J	0.606	5	08/04/08	07/31/08	6020A	LCP
Silver	**10.6**		0.299	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.310**		0.121	5	08/04/08	07/31/08	6020A	LCP
Zinc	**750**	J	3.03	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC7-S1**
Matrix: **Sediment**
Percent Solid: **62.5**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-07**
Concentration Units: **mg/Kg**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.817**	J	0.122	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**7.50**		0.123	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.529**	J	0.0494	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**7.20**		0.0494	5	08/04/08	07/31/08	6020A	LCP
Chromium	**103**	J	0.494	5	08/04/08	07/31/08	6020A	LCP
Copper	**244**		0.247	5	08/04/08	07/31/08	6020A	LCP
Lead	**177**	J	0.247	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.404**		0.0377	5	08/04/08	07/31/08	7474	EYC
Nickel	**34.9**	J	0.247	5	08/04/08	07/31/08	6020A	LCP
Selenium	**0.667**	J	0.247	5	08/04/08	07/31/08	6020A	LCP
Silver	**3.01**		0.122	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.104**		0.0494	5	08/04/08	07/31/08	6020A	LCP
Zinc	**272**	J	1.24	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC8-S1**
Matrix: **Sediment**
Percent Solid: **52.7**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-08**
Concentration Units: **mg/Kg**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.73**	J	0.147	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**16.3**		0.145	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.711**	J	0.0578	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**8.67**		0.0578	5	08/04/08	07/31/08	6020A	LCP
Chromium	**326**	J	0.578	5	08/04/08	07/31/08	6020A	LCP
Copper	**588**		0.289	5	08/04/08	07/31/08	6020A	LCP
Lead	**376**	J	0.289	5	08/04/08	07/31/08	6020A	LCP
Mercury	**1.76**		0.0451	5	08/04/08	07/31/08	7474	EYC
Nickel	**37.0**	J	0.289	5	08/04/08	07/31/08	6020A	LCP
Selenium	**1.48**	J	0.289	5	08/04/08	07/31/08	6020A	LCP
Silver	**2.88**		0.147	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.222**		0.0578	5	08/04/08	07/31/08	6020A	LCP
Zinc	**810**	J	1.44	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC31-S1**
Matrix: **Sediment**
Percent Solid: **75.4**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-09**
Concentration Units: **mg/Kg**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.350**	J	0.108	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**7.19**		0.109	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.376**	J	0.0436	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**0.620**		0.0436	5	08/04/08	07/31/08	6020A	LCP
Chromium	**28.7**	J	0.436	5	08/04/08	07/31/08	6020A	LCP
Copper	**65.8**		0.218	5	08/04/08	07/31/08	6020A	LCP
Lead	**77.0**	J	0.218	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.240**		0.0147	5	08/04/08	07/31/08	7474	EYC
Nickel	**21.6**	J	0.218	5	08/04/08	07/31/08	6020A	LCP
Selenium	**0.752**	J	0.218	5	08/04/08	07/31/08	6020A	LCP
Silver	**0.250**		0.108	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.0577**		0.0436	5	08/04/08	07/31/08	6020A	LCP
Zinc	**230**	J	1.09	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC36-S1**
Matrix: **Sediment**
Percent Solid: **63.3**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-10**
Concentration Units: **mg/Kg**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.14**	J	0.117	5	08/05/08	07/31/08	6020A	LCP
Arsenic	**19.1**		0.110	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.483**	J	0.0439	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**4.77**		0.0439	5	08/04/08	07/31/08	6020A	LCP
Chromium	**310**	J	0.439	5	08/04/08	07/31/08	6020A	LCP
Copper	**219**		0.219	5	08/04/08	07/31/08	6020A	LCP
Lead	**198**	J	0.219	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.673**		0.0186	5	08/04/08	07/31/08	7474	EYC
Nickel	**23.8**	J	0.219	5	08/04/08	07/31/08	6020A	LCP
Selenium	**1.72**	J	0.219	5	08/04/08	07/31/08	6020A	LCP
Silver	**2.33**		0.117	5	08/05/08	07/31/08	6020A	LCP
Thallium	**0.108**		0.0439	5	08/04/08	07/31/08	6020A	LCP
Zinc	**680**	J	1.10	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC37-S1**
Matrix: **Sediment**
Percent Solid: **52.0**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-11**
Concentration Units: **mg/Kg**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.815**	J	0.139	5	08/06/08	07/31/08	6020A	LCP
Arsenic	**12.6**		0.135	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**1.50**	J	0.0540	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**11.1**		0.0540	5	08/04/08	07/31/08	6020A	LCP
Chromium	**165**	J	0.540	5	08/04/08	07/31/08	6020A	LCP
Copper	**282**		0.270	5	08/04/08	07/31/08	6020A	LCP
Lead	**255**	J	0.270	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.723**		0.0213	5	08/04/08	07/31/08	7474	EYC
Nickel	**152**	J	0.270	5	08/04/08	07/31/08	6020A	LCP
Selenium	**1.44**	J	0.270	5	08/04/08	07/31/08	6020A	LCP
Silver	**4.51**		0.139	5	08/06/08	07/31/08	6020A	LCP
Thallium	**0.140**		0.0540	5	08/04/08	07/31/08	6020A	LCP
Zinc	**376**	J	1.35	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC1-S1**
Matrix: **Sediment**
Percent Solid: **82.7**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-13**
Concentration Units: **mg/Kg**
Date Collected: **07/15/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.283**	J	0.0900	5	08/06/08	07/31/08	6020A	LCP
Arsenic	**4.71**		0.0922	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.211**	J	0.0369	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**0.551**		0.0369	5	08/04/08	07/31/08	6020A	LCP
Chromium	**12.7**	J	0.369	5	08/04/08	07/31/08	6020A	LCP
Copper	**79.7**		0.184	5	08/04/08	07/31/08	6020A	LCP
Lead	**95.8**	J	0.184	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.0516**		0.0137	5	08/04/08	07/31/08	7474	EYC
Nickel	**9.39**	J	0.184	5	08/04/08	07/31/08	6020A	LCP
Selenium	0.184	UJ	0.184	5	08/04/08	07/31/08	6020A	LCP
Silver	**0.142**		0.0900	5	08/06/08	07/31/08	6020A	LCP
Thallium	**0.0486**		0.0369	5	08/04/08	07/31/08	6020A	LCP
Zinc	**83.2**	J	0.922	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC2-S1**
Matrix: **Sediment**
Percent Solid: **83.0**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-14**
Concentration Units: **mg/Kg**
Date Collected: **07/15/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.169**	J	0.0991	5	08/06/08	07/31/08	6020A	LCP
Arsenic	**5.18**		0.0972	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.364**	J	0.0389	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**0.816**		0.0389	5	08/04/08	07/31/08	6020A	LCP
Chromium	**15.5**	J	0.389	5	08/04/08	07/31/08	6020A	LCP
Copper	**35.8**		0.194	5	08/04/08	07/31/08	6020A	LCP
Lead	**55.9**	J	0.194	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.0311**		0.0146	5	08/04/08	07/31/08	7474	EYC
Nickel	**11.9**	J	0.194	5	08/04/08	07/31/08	6020A	LCP
Selenium	0.194	U J	0.194	5	08/04/08	07/31/08	6020A	LCP
Silver	**0.105**		0.0991	5	08/06/08	07/31/08	6020A	LCP
Thallium	**0.0645**		0.0389	5	08/04/08	07/31/08	6020A	LCP
Zinc	**75.6**	J	0.972	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **Dup-3**
Matrix: **Sediment**
Percent Solid: **84.0**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-15**
Concentration Units: **mg/Kg**
Date Collected: **07/15/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.273**	J	0.0918	5	08/06/08	07/31/08	6020A	LCP
Arsenic	**3.54**		0.0942	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.224**	J	0.0377	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**0.716**		0.0377	5	08/04/08	07/31/08	6020A	LCP
Chromium	**16.4**	J	0.377	5	08/04/08	07/31/08	6020A	LCP
Copper	**29.0**		0.188	5	08/04/08	07/31/08	6020A	LCP
Lead	**47.9**	J	0.188	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.0300**		0.0138	5	08/04/08	07/31/08	7474	EYC
Nickel	**9.73**	J	0.188	5	08/04/08	07/31/08	6020A	LCP
Selenium	0.188	U J	0.188	5	08/04/08	07/31/08	6020A	LCP
Silver	**0.0997**		0.0918	5	08/06/08	07/31/08	6020A	LCP
Thallium	0.0377	U	0.0377	5	08/04/08	07/31/08	6020A	LCP
Zinc	**76.1**	J	0.942	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC11-S1**
Matrix: **Sediment**
Percent Solid: **74.7**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-16**
Concentration Units: **mg/Kg**
Date Collected: **07/15/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.557**	J	0.0990	5	08/06/08	07/31/08	6020A	LCP
Arsenic	**7.48**		0.103	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.321**	J	0.0413	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**3.73**		0.0413	5	08/04/08	07/31/08	6020A	LCP
Chromium	**66.4**	J	0.413	5	08/04/08	07/31/08	6020A	LCP
Copper	**202**		0.207	5	08/04/08	07/31/08	6020A	LCP
Lead	**193**	J	0.207	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.453**		0.0155	5	08/04/08	07/31/08	7474	EYC
Nickel	**19.4**	J	0.207	5	08/04/08	07/31/08	6020A	LCP
Selenium	**0.473**	J	0.207	5	08/04/08	07/31/08	6020A	LCP
Silver	**1.39**		0.0990	5	08/06/08	07/31/08	6020A	LCP
Thallium	**0.0778**		0.0413	5	08/04/08	07/31/08	6020A	LCP
Zinc	**280**	J	1.03	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC13-S1**
Matrix: **Sediment**
Percent Solid: **80.9**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-17**
Concentration Units: **mg/Kg**
Date Collected: **07/15/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**0.271**	J	0.0926	5	08/06/08	07/31/08	6020A	LCP
Arsenic	**3.71**		0.0942	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.248**	J	0.0377	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**1.44**		0.0377	5	08/04/08	07/31/08	6020A	LCP
Chromium	**17.8**	J	0.377	5	08/04/08	07/31/08	6020A	LCP
Copper	**47.2**		0.188	5	08/04/08	07/31/08	6020A	LCP
Lead	**214**	J	0.188	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.0616**		0.0146	5	08/04/08	07/31/08	7474	EYC
Nickel	**12.4**	J	0.188	5	08/04/08	07/31/08	6020A	LCP
Selenium	**0.200**	J	0.188	5	08/04/08	07/31/08	6020A	LCP
Silver	**0.211**		0.0926	5	08/06/08	07/31/08	6020A	LCP
Thallium	**0.0400**		0.0377	5	08/04/08	07/31/08	6020A	LCP
Zinc	**225**	J	0.942	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC14-S1**
Matrix: **Sediment**
Percent Solid: **30.5**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-18**
Concentration Units: **mg/Kg**
Date Collected: **07/15/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.25**	J	0.256	5	08/06/08	07/31/08	6020A	LCP
Arsenic	**24.7**		0.258	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**1.58**	J	0.103	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**13.1**		0.103	5	08/04/08	07/31/08	6020A	LCP
Chromium	**233**	J	1.03	5	08/04/08	07/31/08	6020A	LCP
Copper	**430**		0.515	5	08/04/08	07/31/08	6020A	LCP
Lead	**355**	J	0.515	5	08/04/08	07/31/08	6020A	LCP
Mercury	**1.52**		0.0410	5	08/04/08	07/31/08	7474	EYC
Nickel	**51.6**	J	0.515	5	08/04/08	07/31/08	6020A	LCP
Selenium	**3.14**	J	0.515	5	08/04/08	07/31/08	6020A	LCP
Silver	**6.02**		0.256	5	08/06/08	07/31/08	6020A	LCP
Thallium	**0.333**		0.103	5	08/04/08	07/31/08	6020A	LCP
Zinc	**654**	J	2.58	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC15-S1**
Matrix: **Sediment**
Percent Solid: **30.6**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-19**
Concentration Units: **mg/Kg**
Date Collected: **07/16/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.34**	J	0.227	5	08/06/08	07/31/08	6020A	LCP
Arsenic	**18.0**		0.218	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**1.16**	J	0.0874	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**13.8**		0.0874	5	08/04/08	07/31/08	6020A	LCP
Chromium	**203**	J	0.874	5	08/04/08	07/31/08	6020A	LCP
Copper	**401**		0.437	5	08/04/08	07/31/08	6020A	LCP
Lead	**352**	J	0.437	5	08/04/08	07/31/08	6020A	LCP
Mercury	**1.22**		0.0378	5	08/04/08	07/31/08	7474	EYC
Nickel	**50.0**	J	0.437	5	08/04/08	07/31/08	6020A	LCP
Selenium	**2.37**	J	0.437	5	08/04/08	07/31/08	6020A	LCP
Silver	**6.94**		0.227	5	08/06/08	07/31/08	6020A	LCP
Thallium	**0.228**		0.0874	5	08/04/08	07/31/08	6020A	LCP
Zinc	**578**	J	2.18	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC16-S1**
Matrix: **Sediment**
Percent Solid: **38.3**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-20**
Concentration Units: **mg/Kg**
Date Collected: **07/16/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	**1.15**	J	0.193	5	08/06/08	07/31/08	6020A	LCP
Arsenic	**15.0**		0.198	5	08/04/08	07/31/08	6020A	LCP
Beryllium	**0.974**	J	0.0790	5	08/04/08	07/31/08	6020A	LCP
Cadmium	**9.24**		0.0790	5	08/04/08	07/31/08	6020A	LCP
Chromium	**136**	J	0.790	5	08/04/08	07/31/08	6020A	LCP
Copper	**293**		0.395	5	08/04/08	07/31/08	6020A	LCP
Lead	**277**	J	0.395	5	08/04/08	07/31/08	6020A	LCP
Mercury	**0.792**		0.0289	5	08/04/08	07/31/08	7474	EYC
Nickel	**37.0**	J	0.395	5	08/04/08	07/31/08	6020A	LCP
Selenium	**1.79**	J	0.395	5	08/04/08	07/31/08	6020A	LCP
Silver	**8.23**		0.193	5	08/06/08	07/31/08	6020A	LCP
Thallium	**0.219**		0.0790	5	08/04/08	07/31/08	6020A	LCP
Zinc	**467**	J	1.98	5	08/04/08	07/31/08	6020A	LCP

N/A - Not Applicable

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Total Metals

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **Rinsate-1**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-21**
Concentration Units: **µg/L**
Date Collected: **07/16/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	2.50	U	2.50	5	08/05/08	08/01/08	6020A	LCP
Arsenic	2.50	U	2.50	5	08/04/08	08/01/08	6020A	LCP
Beryllium	2.50	U	2.50	5	08/04/08	08/01/08	6020A	LCP
Cadmium	1.00	U	1.00	5	08/04/08	08/01/08	6020A	LCP
Chromium	2.50	U	2.50	5	08/04/08	08/01/08	6020A	LCP
Copper	2.50	U	2.50	5	08/04/08	08/01/08	6020A	LCP
Lead	5.00	U	5.00	5	08/04/08	08/01/08	6020A	LCP
Mercury	0.100	U	0.100	1	08/05/08	08/05/08	7470A	EYC
Nickel	2.50	U	2.50	5	08/04/08	08/01/08	6020A	LCP
Selenium	5.00	U	5.00	5	08/04/08	08/01/08	6020A	LCP
Silver	1.00	U	1.00	5	08/05/08	08/01/08	6020A	LCP
Thallium	1.00	U	1.00	5	08/04/08	08/01/08	6020A	LCP
Zinc	50.0	U	50.0	5	08/04/08	08/01/08	6020A	LCP

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC27-S1**
Matrix: **Sediment**
Percent Solid: **50.8**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-01**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	7.3		0.01	1	08/05/08	%	9060	ES
Total Organic Carbon (Run 2)	7.3		0.01	1	08/05/08	%	9060	ES
Physiologically Available Cyanide	0.47	U	0.47	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC44-S1**
Matrix: **Sediment**
Percent Solid: **76.0**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-02**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	1.2		0.01	1	08/05/08	%	9060	ES
Total Organic Carbon (Run 2)	1.2		0.01	1	08/05/08	%	9060	ES
Physiologically Available Cyanide	0.23	U	0.23	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **DUP-2**
Matrix: **Sediment**
Percent Solid: **73.4**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-03**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**1.2**		0.01	1	08/05/08	%	9060	ES
Total Organic Carbon (Run 2)	**1.4**		0.01	1	08/05/08	%	9060	ES
Physiologically Available Cyanide	0.30	U	0.30	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC45-S1**
Matrix: **Sediment**
Percent Solid: **77.8**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-04**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.76**		0.01	1	08/05/08	%	9060	ES
Total Organic Carbon (Run 2)	**0.56**		0.01	1	08/05/08	%	9060	ES
Physiologically Available Cyanide	0.19	U	0.19	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC46-S1**
Matrix: **Sediment**
Percent Solid: **78.4**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-05**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.34**		0.01	1	08/05/08	%	9060	ES
Total Organic Carbon (Run 2)	**0.32**		0.01	1	08/05/08	%	9060	ES
Physiologically Available Cyanide	0.27	U	0.27	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC18-S1**
Matrix: **Sediment**
Percent Solid: **24.3**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-06**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**5.8**		0.01	1	08/05/08	%	9060	ES
Total Organic Carbon (Run 2)	**5.6**		0.01	1	08/05/08	%	9060	ES
Physiologically Available Cyanide	0.73	U	0.73	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC7-S1**
Matrix: **Sediment**
Percent Solid: **62.5**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-07**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**2.7**		0.01	1	08/05/08	%	9060	ES
Total Organic Carbon (Run 2)	**2.6**		0.01	1	08/05/08	%	9060	ES
Physiologically Available Cyanide	0.15	U	0.15	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC8-S1**
Matrix: **Sediment**
Percent Solid: **52.7**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-08**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	4.7		0.01	1	08/05/08	%	9060	ES
Total Organic Carbon (Run 2)	4.7		0.01	1	08/05/08	%	9060	ES
Physiologically Available Cyanide	0.39	U	0.39	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC31-S1**
Matrix: **Sediment**
Percent Solid: **75.4**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-09**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**4.5**		0.01	1	08/05/08	%	9060	ES
Total Organic Carbon (Run 2)	**5.3**		0.01	1	08/05/08	%	9060	ES
Physiologically Available Cyanide	**1.5**		0.16	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC36-S1**
Matrix: **Sediment**
Percent Solid: **63.3**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-10**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**5.9**		0.01	1	08/05/08	%	9060	ES
Total Organic Carbon (Run 2)	**6.4**		0.01	1	08/05/08	%	9060	ES
Physiologically Available Cyanide	**3.8**		0.25	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC37-S1**
Matrix: **Sediment**
Percent Solid: **52.0**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-11**
Date Collected: **07/14/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**4.5**		0.01	1	08/05/08	%	9060	ES
Total Organic Carbon (Run 2)	**4.1**		0.01	1	08/05/08	%	9060	ES
Physiologically Available Cyanide	0.36	U	0.36	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC1-S1**
Matrix: **Sediment**
Percent Solid: **82.7**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-13**
Date Collected: **07/15/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.68**		0.01	1	08/06/08	%	9060	ES
Total Organic Carbon (Run 2)	**0.75**		0.01	1	08/06/08	%	9060	ES
Physiologically Available Cyanide	0.27	U	0.27	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC2-S1**
Matrix: **Sediment**
Percent Solid: **83.0**

Lab Code: **MA00030**
ETR: **0807065**
Lab ID: **0807065-14**
Date Collected: **07/15/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**2.2**	J	0.01	1	08/06/08	%	9060	ES
Total Organic Carbon (Run 2)	**1.9**	J	0.01	1	08/06/08	%	9060	ES
Physiologically Available Cyanide	0.30	U	0.30	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **Dup-3**
Matrix: **Sediment**
Percent Solid: **84.0**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-15**
Date Collected: **07/15/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.40**	J	0.01	1	08/06/08	%	9060	ES
Total Organic Carbon (Run 2)	**0.22**	J	0.01	1	08/06/08	%	9060	ES
Physiologically Available Cyanide	0.29	U	0.29	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Inorganics

ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC11-S1**
Matrix: **Sediment**
Percent Solid: **74.7**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-16**
Date Collected: **07/15/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**1.5**	J	0.01	1	08/06/08	%	9060	ES
Total Organic Carbon (Run 2)	**1.0**	J	0.01	1	08/06/08	%	9060	ES
Physiologically Available Cyanide	0.32	U	0.32	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC13-S1**
Matrix: **Sediment**
Percent Solid: **80.9**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-17**
Date Collected: **07/15/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	2.2	J	0.01	1	08/06/08	%	9060	ES
Total Organic Carbon (Run 2)	3.4	J	0.01	1	08/06/08	%	9060	ES
Physiologically Available Cyanide	0.26	U	0.26	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC14-S1**
Matrix: **Sediment**
Percent Solid: **30.5**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-18**
Date Collected: **07/15/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**4.6**		0.01	1	08/06/08	%	9060	ES
Total Organic Carbon (Run 2)	**4.6**		0.01	1	08/06/08	%	9060	ES
Physiologically Available Cyanide	0.78	U	0.78	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC15-S1**
Matrix: **Sediment**
Percent Solid: **30.6**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-19**
Date Collected: **07/16/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**3.6**		0.01	1	08/06/08	%	9060	ES
Total Organic Carbon (Run 2)	**3.8**		0.01	1	08/06/08	%	9060	ES
Physiologically Available Cyanide	0.80	U	0.80	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **SC16-S1**
Matrix: **Sediment**
Percent Solid: **38.3**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-20**
Date Collected: **07/16/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**4.0**		0.01	1	08/06/08	%	9060	ES
Total Organic Carbon (Run 2)	**4.0**		0.01	1	08/06/08	%	9060	ES
Physiologically Available Cyanide	0.63	U	0.63	1	07/28/08	mg/Kg	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA WOODS HOLE LABS

Client: **ARCADIS**
Project: **Tidewater MGP**
Case: **N/A** SDG: **N/A**
Client ID: **Rinsate-1**
Matrix: **Water**

Lab Code: **MA00030**
ETR: **0807065**

Lab ID: **0807065-21**
Date Collected: **07/16/08**
Date Received: **07/16/08**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Physiologically Available Cyanide	0.005	U	0.005	1	07/28/08	mg/L	9010 PACN	ES

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-01
SC27-S1
Sample Matrix: SOIL

Date Collected: 14-JUL-2008 08:50
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	53	%	0.10	30	2540G		0718 12:02	SD
TPH, HEM-SGT	8040	mg/kg	75.5	1	9071B	0724 17:00	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-02
SC44-S1
Sample Matrix: SOIL

Date Collected: 14-JUL-2008 09:32
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	73	%	0.10	30	2540G		0718 12:02	SD
TPH, HEM-SGT	958	mg/kg	54.8	1	9071B	0724 17:00	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-03
DUP-2
Sample Matrix: SOIL

Date Collected: 14-JUL-2008 00:00
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	72	%	0.10	30	2540G		0718 12:02	SD
TPH, HEM-SGT	1260	mg/kg	55.6	1	9071B	0724 17:00	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-04
SC45-S1
Sample Matrix: SOIL

Date Collected: 14-JUL-2008 10:08
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	74	%	0.10	30	2540G		0718 12:02	SD
TPH, HEM-SGT	637	mg/kg	48.6	1	9071B	0724 17:00	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-05
SC46-S1
Sample Matrix: SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1-Amber

Date Collected: 14-JUL-2008 10:46
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	78	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	451	mg/kg	46.2	1 9071B	0724 17:00	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-06
SC18-S1
Sample Matrix: SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1-Amber

Date Collected: 14-JUL-2008 11:25
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	23	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	12200	mg/kg	156	1 9071B	0724 17:00	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-07
SC7-S1
Sample Matrix: SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1-Amber

Date Collected: 14-JUL-2008 12:02
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	59	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	2750	mg/kg	67.8	1 9071B	0724 17:00	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-08
SC8-S1
Sample Matrix: SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1-Amber

Date Collected: 14-JUL-2008 12:38
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	49	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	6890	mg/kg	81.6	1 9071B	0724 17:00	0725 11:30	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-09
SC31-S1
Sample Matrix: SOIL

Date Collected: 14-JUL-2008 14:16
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	73	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	1290	mg/kg	54.8	1 9071B	0728 10:15	0729 10:45	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-10
SC36-S1
Sample Matrix: SOIL

Date Collected: 14-JUL-2008 13:18
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	61	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	4790	mg/kg	65.6	1 9071B	0728 10:15	0729 10:45	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-11
SC37-S1
Sample Matrix: SOIL

Date Collected: 14-JUL-2008 14:51
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	49	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	3960	mg/kg	81.6	1 9071B	0728 10:15	0729 10:45	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-12
SC1-S1
Sample Matrix: SOIL

Date Collected: 14-JUL-2008 11:00
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Amber

PARAMETER	RESULT	UNITS	RDL	REF	METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	79	%	0.10	30	2540G		0718 12:02	SD
TPH, HEM-SGT	1290	mg/kg	50.6	1	9071B	0728 10:15	0729 10:45	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-13
SC2-S1
Sample Matrix: SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1-Amber

Date Collected: 15-JUL-2008 12:04
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	87	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	520	mg/kg	41.4	1 9071B	0728 10:15	0729 10:45	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-14
DUP-3
Sample Matrix: SOIL

Date Collected: 15-JUL-2008 00:00
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	89	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	573	mg/kg	44.9	1 9071B	0728 10:15	0729 10:45	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-15
SC11-S1
Sample Matrix: SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1-Amber

Date Collected: 15-JUL-2008 14:05
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	70	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	5390	mg/kg	57.1	1 9071B	0728 10:15	0729 10:45	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-16
SC13-S1
Sample Matrix: SOIL

Date Collected: 15-JUL-2008 15:00
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	80	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	1730	mg/kg	45.0	1 9071B	0728 10:15	0729 10:45	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-17
SC14-S1
Sample Matrix: SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1-Amber

Date Collected: 15-JUL-2008 16:10
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	29	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	9320	mg/kg	138	1 9071B	0728 10:15	0729 10:45	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-18
SC15-S1
Sample Matrix: SOIL

Condition of Sample: Satisfactory

Number & Type of Containers: 1-Amber

Date Collected: 16-JUL-2008 10:05
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Field Prep: None

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	30	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	9630	mg/kg	120	1 9071B	0728 10:15	0729 10:45	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-19
SC16-S1
Sample Matrix: SOIL

Date Collected: 16-JUL-2008 12:22
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 1-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Solids, Total	38	%	0.10	30 2540G		0718 12:02	SD
TPH, HEM-SGT	5010	mg/kg	105	1 9071B	0728 10:15	0729 10:45	AT

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0810643-20
RINSATE-1
Sample Matrix: WATER

Date Collected: 16-JUL-2008 09:10
Date Received : 17-JUL-2008
Date Reported : 30-JUL-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Amber

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
TPH	ND	mg/l	4.00	74 1664A	0721 20:00	0722 18:00	JO

Comments: Complete list of References and Glossary of Terms found in Addendum I

CHAIN OF CUSTODY

CHAIN OF CUSTODY

PAGE 1 OF 7

ALPHA Job #: 080705

Date Rec'd in Lab:

ALPHA
WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

RAYNHAM, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: Arcadis
Address: 100 Cummings Ctr, 135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHs (16)	AIK PAH	TPH	Metals (PP13)	TOC	PACN	VOCs	Sample Specific Comments	Total # Bottles
1	SC27-S1	7/14/08	0850	Sed	BJLT	X		X	X	X	X	X		5
	SC27-S2	7/14/08	0859	Sed	BJLT								Archive	1
-2	SC44-S1	7/14/08	0932	Sed	BJLT	X		X	X	X	X	X		5
	SC44-S2	7/14/08	0948	Sed	BJLT								Archive	1
	SC44-S3	7/14/08	0942	Sed	BJLT								Archive	1
	SC44-S8	7/14/08	0936	Sed	BJLT								Archive	1
-3	DUP-2	7/14/08	—	Sed	BJLT	X		X	X	X	X	X		5
-4	SC45-S1	7/14/08	1008	Sed	BJLT	X		X	X	X	X	X		5
	SC45-S2	7/14/08	1024	Sed	BJLT								Archive	1
	SC45-S3	7/14/08	1028	Sed	BJLT								Archive	1
Container Type						G	G	G	G	G	G	G		
Preservative						A	A	A	A	A	A	A/B		

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

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PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie-Jo Thibault	7/16/08 1447		7/16/08 1447

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

CHAIN OF CUSTODY PAGE 2 OF 7

ALPHA ANALYTICAL LABS
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
RAYNHAM, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: 080805

Client Information
Client: Arcadis
Address: 100 Cummings Ctr, 135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information
Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables
☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information
☐ Same as Client info PO #:

Regulatory Requirements/Report Limits
State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS
☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHs (16)	Alk PAH	TPH	Metals (PP13)	TOC	PACN	VOCs	Sample Specific Comments	TOTAL # BOTTLES
	SC45-S5	7/14/08	1029	Sed	BJLT								Archive	1
5	SC46-S1	7/14/08	1046	Sed	BJLT	X		X	X	X	X	X		5
	SC46-S2	7/14/08	1051	Sed	BJLT								Archive	1
	SC46-S3	7/14/08	1054	Sed	BJLT								Archive	1
	SC46-S10	7/14/08	1056	Sed	BJLT								Archive	1
6	SC18-S1	7/14/08	1125	Sed	BJLT	X		X	X	X	X	X		5
	SC18-S2	7/14/08	1132	Sed	BJLT								Archive	1
	SC18-S3	7/14/08	1138	Sed	BJLT								Archive	1
	SC18-S6	7/14/08	1130	Sed	BJLT								Archive	1
7	SC7-S1	7/14/08	1202	Sed	BJLT	X		X	X	X	X	X		5
	Container Type					G	G	G	G	G	G	G		
	Preservative					A	A	A	A	A	A	A/F		

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

PLEASE ANSWER QUESTIONS ABOVE!
IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie-Jo Thibault	7/16/08 1447		7/16/08 1447

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

CHAIN OF CUSTODY PAGE 3 OF 7

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: 0907065

Client Information
Client: Arcadis
Address: 100 Cummings Ctr, #135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information
Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time
☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables
☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information
☐ Same as Client info PO #:

Regulatory Requirements/Report Limits
State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS
☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHs (16)	Alk. PAH	TPH	Metals (PRI3)	TOC	PACN	VOCs	Sample Specific Comments	TOTAL # BOTTLES
	SC7-S2	7/14/08	1213	Sed	BJLT								Archive	1
	SC7-S3	7/14/08	1215	Sed	BJLT								Archive	1
	SC7-S5	7/14/08	1210	Sed	BJLT								Archive	1
-8	SC8-S1	7/14/08	1238	Sed	BJLT		X	X	X	X	X	X		5
	SC8-S2	7/14/08	1245	Sed	BJLT								Archive	1
	SC8-S3	7/14/08	1248	Sed	BJLT								Archive	1
	SC8-S4	7/14/08	1242	Sed	BJLT								Archive	1
-9	SC31-S1	7/14/08	1416	Sed	BJLT		X	X	X	X	X	X		5
	SC31-S2	7/14/08	1419	Sed	BJLT								Archive	1
	SC31-S3	7/14/08	1423	Sed	BJLT								Archive	1
Container Type						G	G	G	G	G	G	G		
Preservative						A	A	A	A	A	A	A/F		

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PLEASE ANSWER QUESTIONS ABOVE!
IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie Jo Thibault	7/16/08 1447		7/16/08 1447

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

CHAIN OF CUSTODY

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ALPHA Job #: 08C1706X

Date Rec'd in Lab:

ALPHA ANALYTICAL LABS
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
RAYNHAM, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Arcadis
Address: 100 Cummings Ctr, #135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS: PAH (16) | Alk. PAH | TPH | Metals (13PP) | TOC | PACN | VOCs

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAH (16)	Alk. PAH	TPH	Metals (13PP)	TOC	PACN	VOCs	Sample Specific Comments	TOTAL # BOTTLES
	SC31-S4	7/14/08	1424	SED	BJLT								Archive	1
-10	SC36-S1	7/14/08	1318	SED	BJLT	X		X	X	X	X	X		5
	SC36-S2	7/14/08	1322	SED	BJLT								Archive	1
-11	SC37-S1	7/14/08	1451	SED	BJLT	X		X	X	X	X	X	MS/MSD	10
	SC37-S2	7/14/08	1504	SED	BJLT								Archive	1
	SC37-S3	7/14/08	1506	SED	BJLT								Archive	1
	SC37-S5	7/14/08	1455	SED	BJLT								Archive	1
-12	Trip Blank	7/2/08	—	W	—							X		3
-13	SC1-S1	7/15/08	1100	SED	BJLT		X	X	X	X	X	X	MS/MSD	11
	SC1-S2	7/15/08	1111	SED	BJLT								Archive	1

Container Type	G	G	G	G	G	G	G					
Preservative	A	A	A	A	A	A	A/F					

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie Jo Thibault	7/16/08 1447		7/16/08 1447

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

CHAIN OF CUSTODY PAGE 5 OF 7

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: 0807065

Client Information

Client: Arcadis US
Address: 100 Cummings Ctr, #135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Tidewater MGP
Project Location: Pawtucket RI
Project #: 366697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHs (16)	Alk. PAH	TPH	Metals (ppb)	TOC	PACN	VOCs	Sample Specific Comments	TOTAL # BOTTLES
	SC1-S3	7/15/08	1114	SED	BJLT								Archive	1
	SC1-S6	7/15/08	1110	SED	BJLT								Archive	1
14	SC2-S1	7/15/08	1204	SED	BJLT	X		X	X	X	X	X		5
	SC2-S2	7/15/08	1208	SED	BJLT								Archive	1
	SC2-S3	7/15/08	1210	SED	BJLT								Archive	1
	SC2-S12	7/15/08	1205	SED	BJLT								Archive	1
15	DUP-3	7/15/08	—	SED	BJLT	X		X	X	X	X	X		5
16	SC11-S1	7/15/08	1405	SED	BJLT		X	X	X	X	X	X		5
	SC11-S2	7/15/08	1412	SED	BJLT								Archive	1
	SC11-S3	7/15/08	1415	SED	BJLT								Archive	1

Container Type: G G G G G G G
Preservative: A A A A A A A/E

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

204 of 208

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie Jo Thibault	7/16/08 1447		7/16/08 1447

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

CHAIN OF CUSTODY

PAGE 6 OF _____

Date Rec'd in Lab:

ALPHA Job #: Q807065

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193

MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Arcadis US

Address: 100 Cummings Ctr, 135P

Beverly, MA 01915

Phone: 978-921-0442

Fax: 978-921-0939

Email:

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Tidewater MGP

Project Location: Pawtucket, RI

Project #: 36697

Project Manager: Mark Mahoney

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?

☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHs (16)	Alk. PAH	TPH	Metals (13pp)	TOC	PACN	VOCs	Sample Specific Comments	TOTAL # BOTTLES
	SC11-S4	7/15/08	1410	SED	BJLT								Archive	1
17	SC13-S1	7/15/08	1500	SED	BJLT	X		X	X	X	X	X		5
	SC13-S2	7/15/08	1514	SED	BJLT								Archive	1
	SC13-S3	7/15/08	1518	SED	BJLT								Archive	1
	SC13-S10	7/15/08	1513	SED	BJLT								Archive	1
18	SC14-S1	7/15/08	1610	SED	BJLT	X		X	X	X	X	X		5
	SC14-S2	7/15/08	1627	SED	BJLT								Archive	1
	SC14-S3	7/15/08	1629	SED	BJLT								Archive	1
	SC14-S7	7/15/08	1630	SED	BJLT								Archive	1
	SC14-32	7/15/08	1650	SED	BJLT								Archive	1
Container Type						G	G	G	G	G	G	G		
Preservative						A	A	A	A	A	A	A/F		

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PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP *or* CT RCP?

FORM NO: 01-01 (rev. 30-JUL-07)

Relinquished By:	Date/Time	Received By:	Date/Time
Billie J. Thibault	7/16/08 1447		7/16/08 1447

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CHAIN OF CUSTODY PAGE 7 OF 7

ALPHA ANALYTICAL

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: | ALPHA Job #: 08070605

Client Information

Client: Arcadis US
Address: 100 Cummings Ctr, 135P
Beverly, MA 01915
Phone: 978-921-0442
Fax: 978-921-0939
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Tidewater MGP
Project Location: Pawtucket, RI
Project #: 36697
Project Manager: Mark Mahoney
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Other Project Specific Requirements/Comments/Detection Limits:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PAHs (16)	Alk. PAHs	TPH	Metals (ppl3)	TOC	PACN	VOCs	Sample Specific Comments	TOTAL # BOTTLES
21	Rinsate-1	7/16/08	0910	W	BJLT	X		X	X		X	X		9
-19	SC15-S1	7/16/08	1005	SED	BJLT	X		X	X	X	X	X		5
	SC15-S2	7/16/08	1016	SED	BJLT								Archive	1
	SC15-S3	7/16/08	1018	SED	BJLT								Archive	1
	SC15-S4	7/16/08	1021	SED	BJLT								Archive	1
20	SC16-S1	7/16/08	1222	SED	BJLT	X		X	X	X	X	X		5
	SC16-S2	7/16/08	1230	SED	BJLT								Archive	1
	SC16-S3	7/16/08	1228	SED	BJLT								Archive	1
	SC16-S11	7/16/08	1224	SED	BJLT								Archive	1
208 of 208	SC16-S20	7/16/08	1305	SED	BJLT								Archive	1

SAMPLE HANDLING
Filtration
☐ Done ☐ Not needed ☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Container Type	G	G	G	G	G	G	G
Preservative	A	A	A	A	A	A	A/E

PLEASE ANSWER QUESTIONS ABOVE!
IS YOUR PROJECT MA MCP *or* CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Billie-Jo Thibault	7/16/08 1447		7/16/08 1447

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