

PRELIMINARY SUBSURFACE ENVIRONMENTAL SITE ASSESSMENT
SOUTHERN MARYLAND OIL S/S-550
2631 ANNAPOLIS ROAD
HANOVER, MD 21076

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SOUTHERN MARYLAND OIL
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RESPECTFULLY SUBMITTED



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DATE

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1.0 INTRODUCTION

This report has been prepared to serve as the report of findings for a Preliminary Subsurface Environmental Site Assessment performed at the Southern Maryland Oil (SMO) station no. 550 located at 261 Annapolis Road, Hanover, MD. The assessment was performed in response to the need to determine the extent of impact a suspected release of gasoline may have on the local soil and groundwater quality. The release is attributed to a late-2012 breakage of a vapor return line between the southeastern-lying dispenser island and the tankfield. The breakage was caused by a contractor for the Maryland State Highway Administration (MDSHA) who was and continue to upgrade the intersection of Annapolis Road (MD Route 175) and Rockenbach Road (MD Route 713) and cut through the line on the SMO property during underground utility and repaving activities associated with the roadway upgrades.

Per the direction of the Maryland Department of the Environment Oil Control Program (MDE), a sample of the water from the water supply well system was collected on December 6, 2012 and tested for Volatile Organic Compounds (VOCs) per EPA Method 524.2 and MDE Guidelines. The supply well water sample did not contain detectable VOC concentrations. During the early-December 2012 site visit, monitoring wells were observed to be pre-existing at the site, and were gauged to assess for the presence of gasoline product and to confirm depth to groundwater and well depths. Two six identified monitoring wells could not be accessed because of blocked/locked wellhead assemblies; two other wells were gauged to be dry - one at 34.75' below top of casing (or about 35' below grade, MW2) and a second at 11.7' below top of casing (or about 12' below grade, MW5). The latter is believed to be a tankfield monitoring pipe, as were the two monitoring wells that could not be initially accessed (MW3 and MW6). The remaining two wells (MW1 and MW4) were gauged to be approximately 34.5' deep from top of casing (or about 34.75' below grade) and contained groundwater at approximately 26.1' below top of casing (or about 26.25' below grade).

On December 26, 2012, the groundwater in the wells were regauged and sampled per MDE Guidelines. The two wells that could not be access during the early-December 2012 site visit were confirmed to be 13.25' below grade (MW3) and 10' below grade (MW6) and both contained no or very little water (MW6 contained about 0.2' of water suspected to be "bottom cap" water). Consequently, wells identified herein as MW3, MW5 and MW6 (and later described MW13) are tankfield monitoring pipes that do not contain groundwater. MW1 and MW4 were again confirmed to contain groundwater and samples of such were obtained for laboratory testing. Although MW2 is constructed to about 35' depth, the well was dry during both the early and late-December 2012 gauging events.

2.0 SITE & AREA DESCRIPTION

The site is located near Fort Meade, MD in Anne Arundel County on the southwest corner of the intersection of Annapolis Road and Rockenbach Road. To the north, across Annapolis Road and up topographic grade is an Exxon gas station and grass field, which is currently being initially developed as a residential neighborhood. To the east and across the intersection of Annapolis and Rockenbach Roads is a retail strip mall. Southeast of the site and across Rockenbach Road is a forested lot. Southwest of the property includes a Car Doc automotive repair garage (immediately south of the site), a KinderCare preschool (about 730' from the site), and entrance road to the Ridgeview Plaza shopping center that is located west of the site. An area map developed from an aerial photographic map is presented as Figure 1. A street-view photo depicting a section of the front portion of the property is presented as Figure 2.

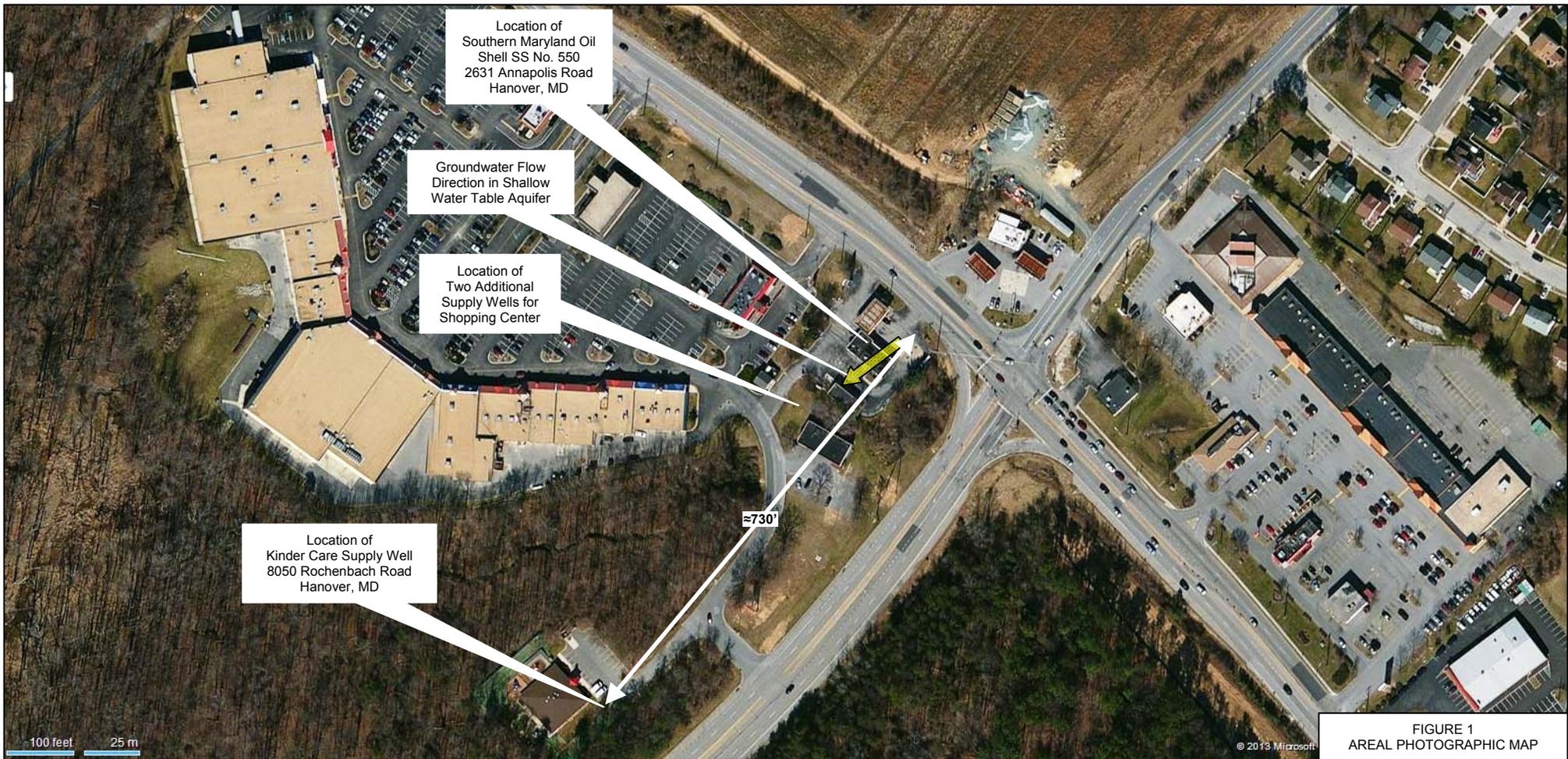


FIGURE 1
AREAL PHOTOGRAPHIC MAP

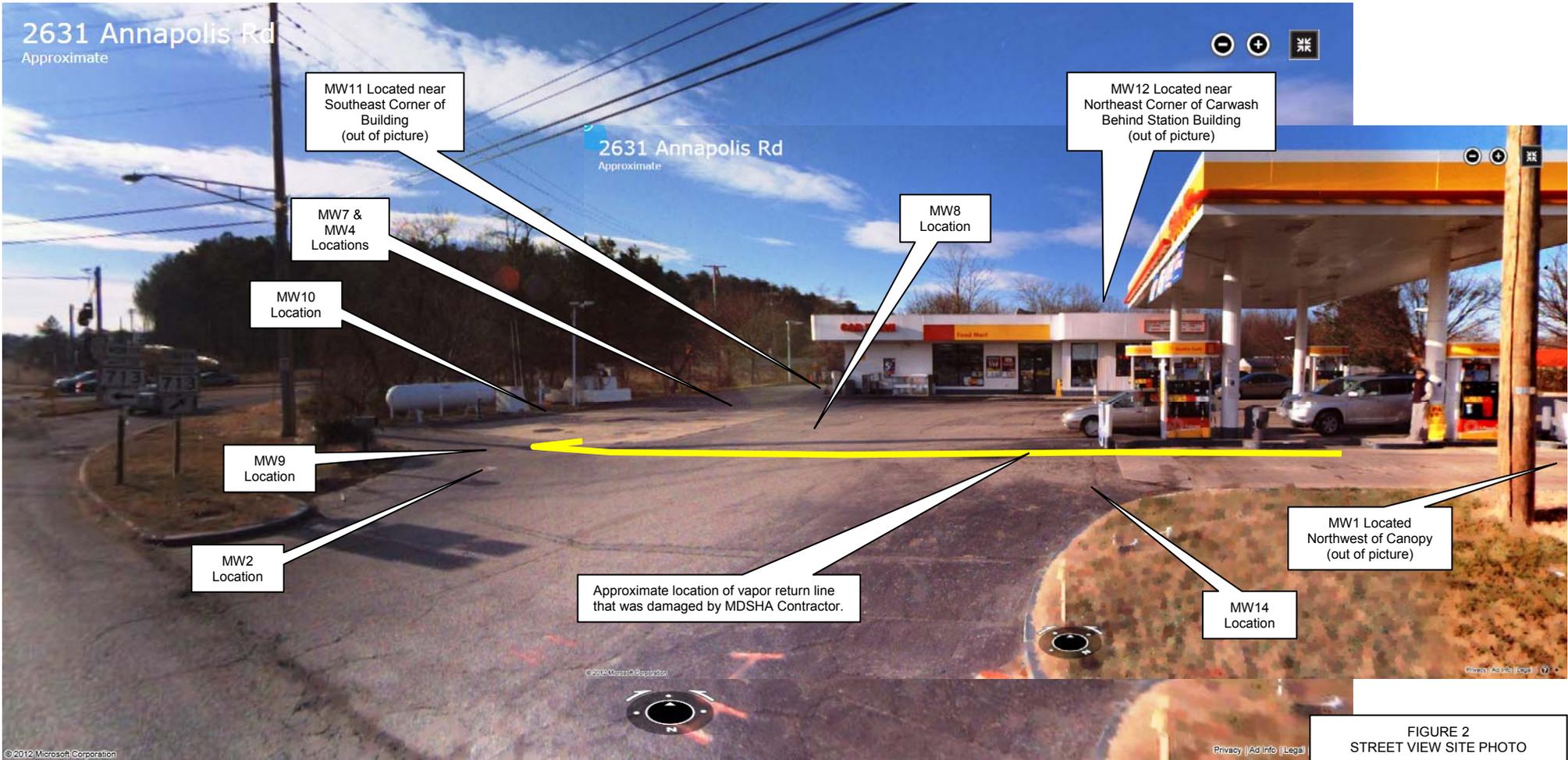
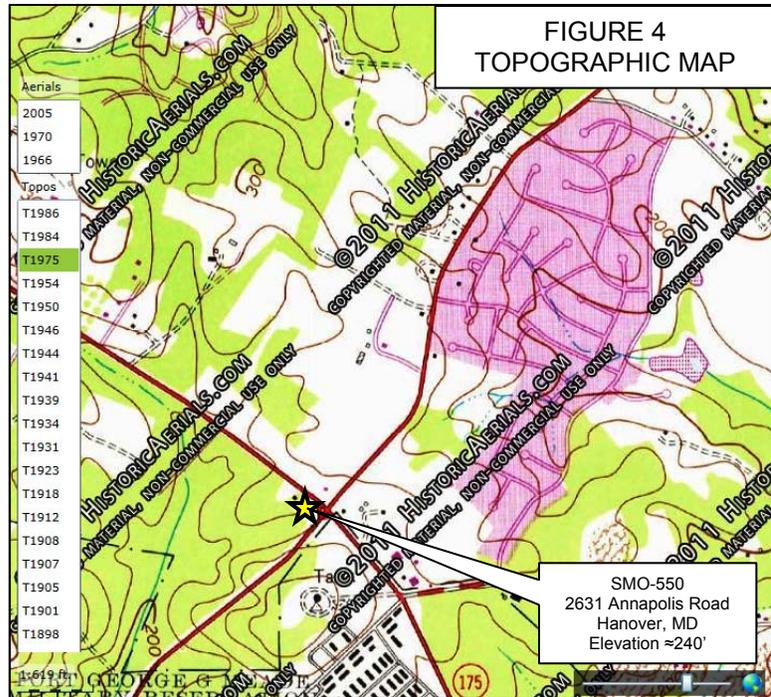


FIGURE 2
STREET VIEW SITE PHOTO

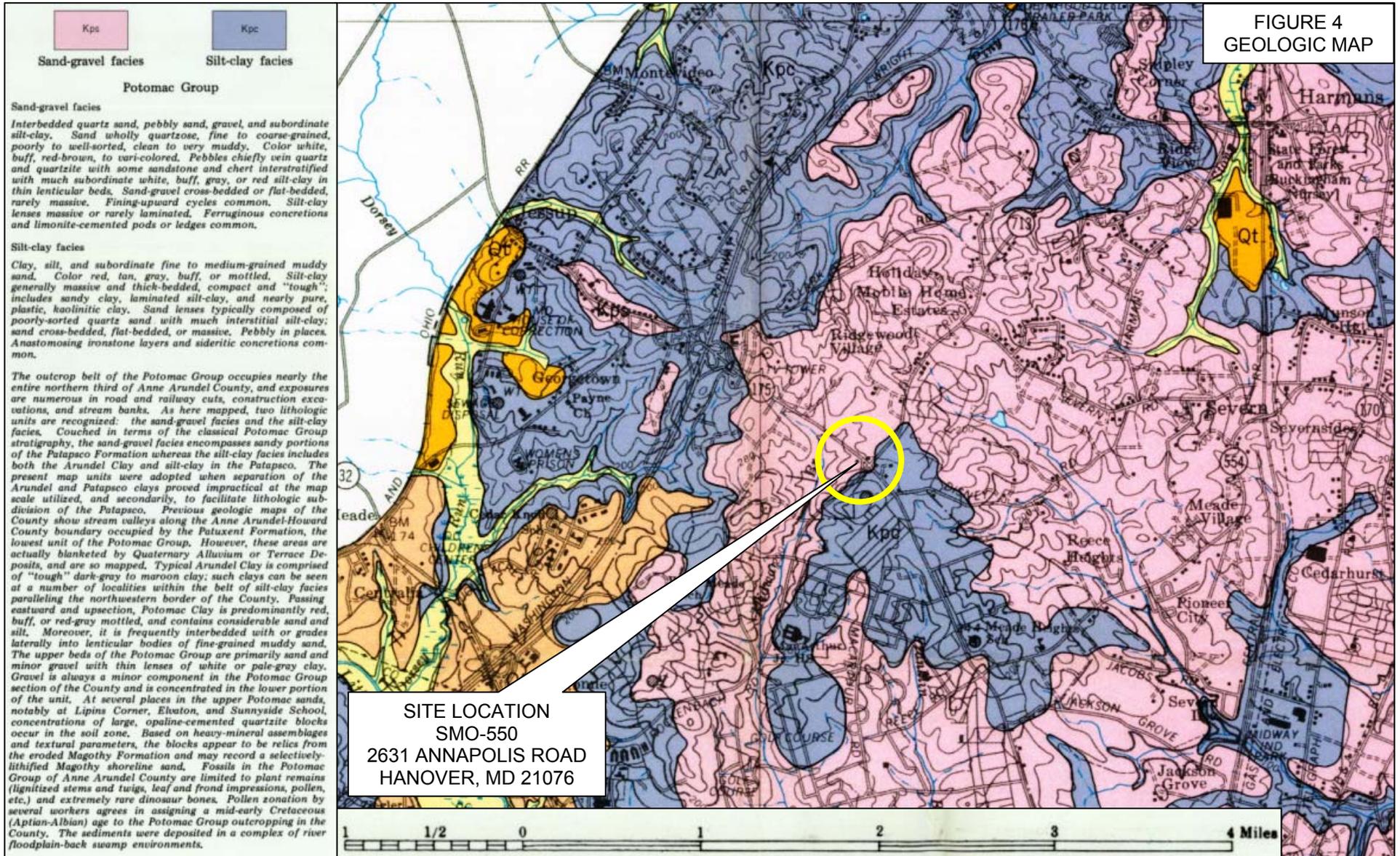
The site is located at about 240' elevation with topography sloping towards the southwest. A temporal stream is located along the eastern property boundary and feeds into a perennial stream (Midway Branch) located about 1165' to the southwest from the site. A topographic map is presented as Figure 3.

The site is mapped by the Maryland Geologic Survey as being underlain by the Potomac Group Sand-Gravel Facies, with a contact between the Sand-Gravel Facies and the Silt-Clay Facies being mapped directly through and parallel with Rockenbach Road. A geologic map is presented as Figure 4.



The surrounding area relies on water supply wells for water service, with sanitary sewers operated by Anne Arundel County. The site's supply well (AA-93-0877) is reported to be constructed in August 1995 to 402' depth (with 2" screen from 387' to 402') and 4" casing to 387' and grout to 160' depth. The static depth to groundwater was reported to be 208' with a pump column set at 245' depth. According to the Water Management Administration (WMA) well database, there is a second well on the property (AA-94-5960) that was not located. This well was reported to have been constructed in December 2000 as an irrigation well to 465' depth (with 4" screen from 440' to 460') and 4" casing to 340' and grout to 340' depth. The depth to groundwater was reported to be 205' with a pump column set at 336' depth. This well could be maintained below grade in a manhole proximate to the car wash and used by the car wash. Two supply wells (AA-81-4854 and AA-81-8514) are located on the Car Doc property immediately downgradient from the site. Both are owned and operated by the Ridgeview Plaza property owner (Ridgeview Plaza, LLC, c/o Renaud Consulting, 8605 Westwood Center Drive, Suite 410, Vienna, VA 22182, 703-404-2346). The large well (AA-81-4854) was constructed July 1985 to 530' depth (with 4" screen from 444' to 485') and 8" casing to 387' and grout to 400' depth. The smaller well (AA-81-8514) was constructed September 1987 to 466' (with 4" screen from 436' to 466') and 6" casing to 436' and grout to 420' depth. The static depth to groundwater in both wells is reported to be 200' with pump columns to 320' and 315' below grade, respectively. The fifth of five, nearby or downgradient wells is located at the KinderCare property at 8050 Rockenbach Road, which is owned and operated by KC Propco, LLC (2601 South Bayshore Drive, 9th Floor, Coconut Grove, FL 33133, and managed by Greenstreet Real Estate Partnership of the same address, 786-464-8348). This well (AA-81-4908) is reported to have been constructed July 1985 to 362' depth (with 2" screen from 356' to 362') and 4" casing to 355' and grout to 23' depth (which may be a typographical error in the WMA well database system). Otherwise, the screened and filter-packed (exposed portion of the well that can accept groundwater) is from 23' to 362' below grade. The static depth to water is 190' with a pump column set to 250' below grade. Both of the Ridgeview wells are located at a lower (downgradient) elevation than the subject site. The KinderCare well is located at about an equal elevation of the subject site.

FIGURE 4
GEOLOGIC MAP



The subject site is developed with a car wash located on the south (rear) portion of the property. Underground sewer piping is located parallel to and south of the station garage and an oil/water separator or washwater recycling tank system is used with the car wash and located underground the northwest corner of the car wash. Additional underground receptors include underground utilities (electric, communication, etc.) along the southern side of Annapolis Road (or north side of the property) and product line and electrical conduits between the tankfield and dispenser islands. A site map is presented as Figure 5.

3.0 SITE INVESTIGATION

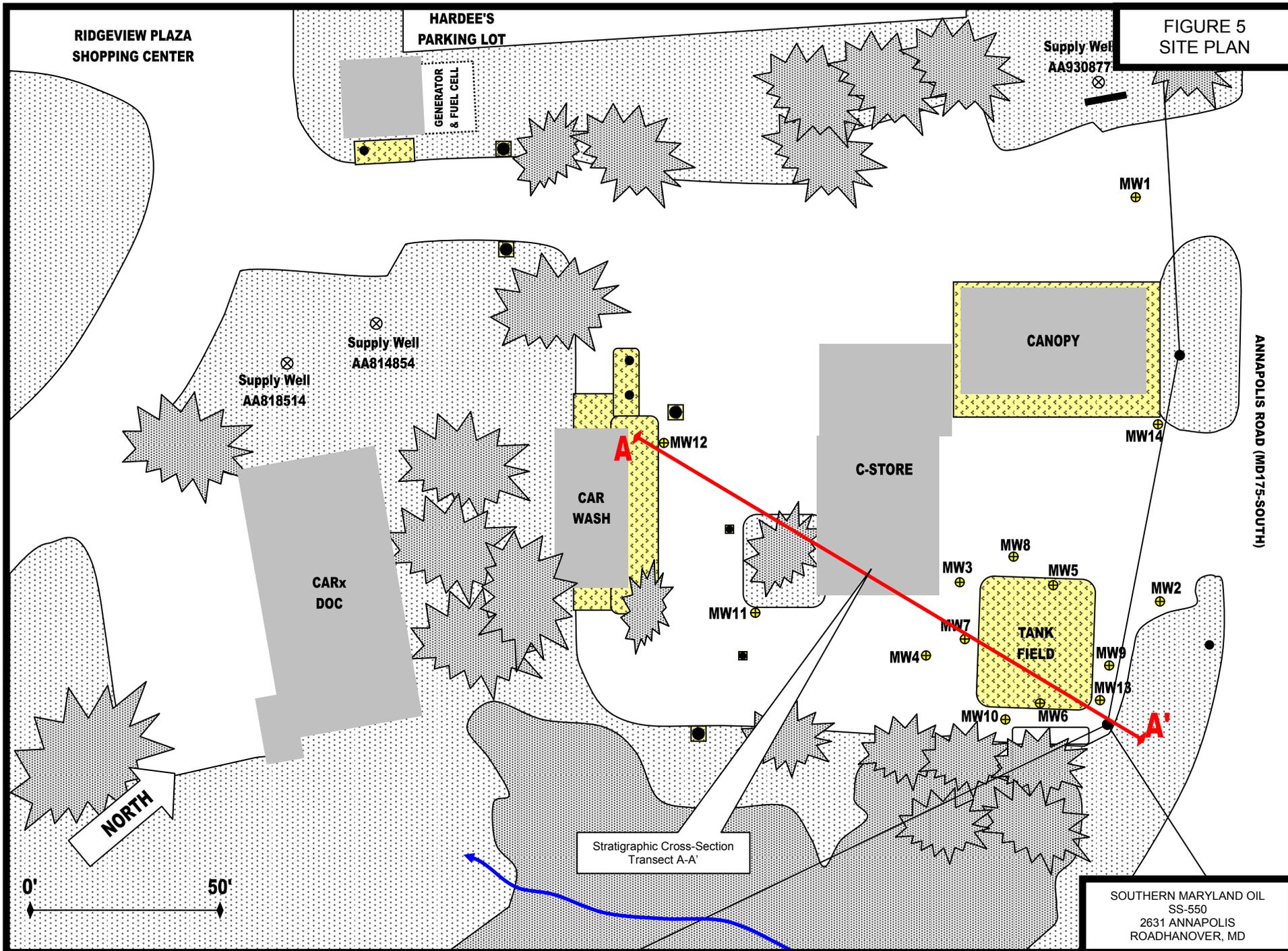
3.1 INITIAL INVESTIGATION

As presented in the introduction above, the assessment was performed in response to the need to determine the extent a release of gasoline may have impacted local soil and groundwater quality. The release is attributed to a late-2012, MDSA contractor breakage of a vapor return line between the southeastern-lying dispenser island and the tankfield. Per the direction of the MDE, a sample of the water from the water supply well system for the site was collected on December 6, 2012 and tested for Volatile Organic Compounds (VOCs) per EPA Method 524.2 and MDE Guidelines. As noted above, this well is screened from 387' to 402' below grade. The supply well water sample did not contain detectable VOC concentrations; however, the water from the well contains very strong sulfur and iron odors.

During the early-December 2012 site visit, monitoring wells were observed to be pre-existing at the site, and were gauged to assess for the presence of gasoline product and to confirm depth to groundwater and well depths. Two of the six identified monitoring wells could not be accessed because of blocked/locked wellhead assemblies; two other wells were gauged to be dry - one at 34.75' below top of casing (or about 35' below grade, MW2) and a second at 11.7' below top of casing (or about 12' below grade, MW5). The latter is believed to be a tankfield monitoring pipe, as were the two monitoring wells that could not be initially accessed (MW3 and MW6). The remaining two wells (MW1 and MW4) were gauged to be approximately 34.5' deep from top of casing (or about 34.75' below grade) and contained groundwater at approximately 26.1' below top of casing (or about 26.25' below grade).

On December 26, 2012, the groundwater in the wells were regauged and sampled per MDE Guidelines. The two wells that could not be access during the early-December 2012 site visit were confirmed to be 13.25' below grade (MW3) and 10' below grade (MW6) and both contained no or very little water (MW6 contained about 0.2' of water suspected to be "bottom cap" water). Consequently, wells identified herein as MW3, MW5 and MW6 (and later described MW13) are tankfield monitoring pipes that do not contain groundwater. MW1 and MW4 were again confirmed to contain groundwater and samples of such were obtained for laboratory testing. Although MW2 is constructed to about 35' depth, the well was dry during both the early and late-December 2012 gauging events. The groundwater sample from MW1 contained 0.35 milligrams per liter (mg/l) Diesel Range Organics (DRO) and no detectable VOCs or Gasoline Range Organics (GRO) concentrations. The groundwater sample from MW4 contained 2.9 mg/l Benzene, 5.131 mg/l Total BTEX, 61 micrograms per liter ($\mu\text{g/l}$) MTBE, 5.298 mg/l Total VOCs, 9.9 mg/l GRO and 0.28 mg/l DRO.

FIGURE 5
SITE PLAN



Based on the above results, actual groundwater flow could not be determined because only two wells contained measurable groundwater. Review of topographic maps indicated that groundwater flow was most probably to the southwest. The lack of dissolved petroleum concentrations in MW1 showed that the shallow groundwater quality in the western side of the dispenser island was relatively clean. The presence of elevated Benzene and other VOC concentrations in MW4 showed that shallow groundwater was impacted in the apparent downgradient side of the tankfield field. A work plan for conducting a subsurface soil and groundwater assessment was included in a January 8, 2012 Report of Findings, and approved by the MDE in March 2013. Pending receipt of well permits, the expanded site assessment was initiated with the construction of monitoring wells beginning on April 15, 2013.

3.2 EXPANDED SITE ASSESSMENT

The expanded site assessment was initiated with the construction and development of seven additional monitoring wells on April 15-17, 2013. During well construction activities, an additional existing monitoring wells was found beneath a thick layer of dirt proximate to the northeast corner of the tankfield and hereafter is referred to as MW13, and was gauged to be dry at approximately 11' below grade. Before each new monitoring well was constructed, geoprobe drilling methods were used to obtain continuous soil sample cores from grade to borehole completion depth. Selected samples were prepared in plastic zip-lock bags and tested to measure for the presence of VOC vapors using a headspace test and photoionization detector (PID). PID-testing results are listed on Table 1. Stratigraphic descriptions of the respective soil samples are provided in Table 2, along with well construction details for the newer monitoring wells.

After each borehole was completed at depth, hollow stem auger drilling methods were used to redrill the borehole to a larger diameter and accommodate the construction of 4"-diameter wells, except for MW11 and MW14. The latter two wells were constructed as temporary 1"-diameter by 31'-depth monitoring points, each with 15' of well screen. Four of the other new wells (MW7, MW8, MW10 and MW12) were constructed as 4"-diameter wells by approximately 34½' to 34¾' below grade. MW9 was constructed to about 40¾' below grade. These five wells were equipped with 20' of 20-slot well screen, #2 Morie Sand filter pack to at least 2' above the top of screen, at least 2' of bentonite annulus seal and remainder with grout to just below grade. All wells were constructed within steel traffic boxes. The wells were initially gauged and developed using surge block and bailer methods on April 17, 2013 along with the surveying of their relative elevations to 0.01' full-circle/tie-in accuracy. Development water was disposed through a 30-pound capacity portable carbon filter with onsite discharge. A site plan depicting the monitoring well locations is presented as Figure 5, above.

On April 29, 2013, the depths to groundwater in the wells were gauged using an electronic, oil/water interface probe to the nearest 0.01' increment. Gauging of the wells confirmed that perched groundwater conditions prevail at the site. The perched conditions are caused by relatively thin, silty and/or clayey layers in the 25' to 30' depth range. During geoprobe soil sampling activities for the borehole of MW7, located immediately south of the tankfield, liquid-phase gasoline product was observed in the soil sample collected at 25' to 27' with perched water at 27' to 29.5' setting on sandy clay at 29½' to 30' and underlain by 2' of clay to 32' depth, followed by dryer fine-grained sand to at least 35' depth. With additional strong petroleum odors in soil samples collected as shallow as 14' below grade, the well for MW7 was constructed to 34½' below grade. However, gauging of the well showed that the depth to groundwater in the well was approximately 33.6' below grade (33.18' below top of casing, or containing only about 1' of water). Similarly, during the construction of MW8, located immediately west of the tankfield, strong petroleum odors were encountered at 14' to 15', and then from about 28' to 32'. Soil obtained at 26' depth was wet and consisted of sand extending to about 28' that was underlain by clayey sand and sandy silt from 28' to 30' and followed by dryer sand.

TABLE 1
SUMMARY OF SOIL AND GROUNDWATER SAMPLE TESTING RESULTS
SMO S/S-550, 2631 ANNAPOLIS ROAD, HANOVER, MD

SOIL SAMPLE TESTING RESULTS	Well	Date	Benzene	Toluene	Ethyl-benzene	m+p-Xylenes	o-Xylenes	MTBE	Cyclo-hexane	Methyl-cyclo-hexane	Cumene	Naph-thalene	VOC	GRO	DRO	PID
	Depth (ft)		Micrograms per KilogramLiter (µg/kg)												Milligrams per Kilogram	ppm-v
MW7 14-15	04/15/13	<7	<7	<7	<14	<7	<7	<7	<7	<7	<7	<14	ND	0.62	<11	33
MW7 18-20	04/15/13															22
MW7 20-22.5	04/15/13															11
MW7 22.5-25	04/15/13	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<10	ND	0.35	<10	11
MW7 26	04/15/13															11
MW8 0-5	04/15/13															66
MW8 5-10	04/15/13															22
MW8 10-13	04/15/13															55
MW8 15-18	04/15/13															66
MW8 18-20	04/15/13															22
MW8 22-23	04/15/13	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<10	ND	0.82	<11	111
MW8 23-25	04/15/13															33
MW8 25-28	04/15/13															99
MW8 28-30	04/15/13															77
MW8 30-32.5	04/15/13	<510	<510	<510	<1000	<510	<510	<510	<510	<510	<510	<1000	ND	180	<21	333
MW8 32.5-35	04/15/13															22
MW9 8-9	04/15/13															0
MW9 9-10	04/15/13															33
MW9 11-13	04/15/13															22
MW9 13-15	04/15/13	<530	<530	<530	1200	800	<530	<530	<530	580	12000	14580	1000	100	589	
MW9 18-19	04/15/13	<480	<480	<480	<960	<480	<480	<480	<480	<480	1100	1100	210	49	322	
MW9 23-25	04/15/13															33
MW9 33-34	04/15/13															99
MW9 34-35	04/15/13															11
MW10 14-15	04/16/13	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<10	ND	<0.22	<11	44
MW10 18-20	04/16/13	<6	<6	<6	<13	<6	<6	<6	<6	<6	<6	68	68	1.1	<10	33
MW10 20-22	04/16/13															88
MW11 18.5-20	04/16/13	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<10	ND	<0.19	<11	33
MW11 23-25	04/16/13	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<10	ND	<0.2	<11	22
MW11 26-28	04/16/13															11
MW11 28-30	04/16/13															11
MW12 25-26	04/16/13	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<10	ND	<0.21	28	11
MW12 29-30	04/16/13	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<10	ND	<0.2	<11	11
MW14 13-15	04/17/13															244
MW14 18-20	04/17/13															266
MW14 23-25	04/17/13															211
MW14 27-30	04/17/13	<550	<550	<550	<1100	<550	<550	<550	3900	1600	<1100	5500	800	27	773	
MW14 30-32	04/17/13	<520	<520	<520	<1000	<520	<520	<520	1300	<520	<1000	1300	380	<12	843	
MW14 33.5-35	04/17/13															244

GROUNDWATER SAMPLE TESTING RESULTS	Well	Date	Benzene	Toluene	Ethyl-benzene	m+p-Xylenes	o-Xylenes	MTBE	Cyclo-hexane	Methyl-cyclo-hexane	Cumene	Naph-thalene	VOC	GRO	DRO
			Micrograms Per Liter (µg/l)												Milligrams per Liter (mg/l)
MW1	12/26/12	<1	<1	<1	<2	<1	<1	<1	<5	<5	<1	<10	ND	<0.2	0.35
	04/29/13	<1	<1	<1	<2	<1	<1	<1	<5	<5	<1	<10	ND	<0.2	<0.22
MW4	12/26/12	2900	300	690	1200	41	61	220	<100	35	<200	5447	9.9	0.28	
	04/29/13	160	110	62	120	26	<10	92	<50	<10	<100	570	3.1	0.37	
MW7	04/29/13	1500	800	620	1500	160	<100	<500	<500	<100	<1000	4580	20	3.4	
MW8	04/29/13	1500	900	1600	4100	490	<100	<500	<500	<100	<1000	8590	18	4.2	
MW9	04/29/13	PURGE WATER CONTAINED DARK BROWN FREE-PHASE GASOLINE PRODUCT													
MW11	04/29/13	59	4	<1	18	<1	<1	72	54	<1	<10	207	2.6	0.42	
MW12	04/29/13	<1	<1	<1	<2	<1	<1	<5	<5	<1	<10	ND	<0.2	0.31	
MW13	04/29/13	100	1300	210	880	490	<10	<50	<50	46	160	3186	13	na	
MW14	04/29/13	26	<10	36	200	12	<10	130	210	230	100	944	19	55	
Station SW	12/06/12	<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na	
	04/29/13	<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na	
KinderCare SW	06/05/13	<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na	

GROUNDWATER GAUGING RESULTS	Well	Well Elev.	Depth to Water	GW Elevation	Well Depth	Water In Well	Well	Well Elev.	Depth to Water	GW Elevation	Well Depth	Water In Well	
			17-Apr	29-Apr					17-Apr	29-Apr			
			Feet (ft)		Feet (ft)				Feet (ft)		Feet (ft)		
MW1	259.01	25.57	26.11	232.90	34.76	8.65	MW8	258.89	33.22	33.30	225.59	34.11	0.81
MW2	257.45	34.60	34.70	222.75	34.75	0.05	MW9	257.51	36.03	35.55	221.96	40.50	4.95
MW3	258.67	DRY	DRY	DRY	12.96	DRY	MW10	258.24	33.24	34.09	224.15	34.20	0.11
MW4	259.26	26.28	26.80	232.46	34.10	7.30	MW11	260.13	NA	27.58	232.55	31.70	4.12
MW5	258.24	DRY	DRY	DRY	11.70	DRY	MW12	259.29	26.61	26.98	232.31	34.70	7.72
MW6	257.86	DRY	DRY	DRY	9.70	DRY	MW13	257.56	DRY	10.76	246.80	11.10	0.34
MW7	258.45	32.76	33.18	225.27	34.10	0.92	MW14	257.61	NA	25.20	232.41	30.30	5.10

TABLE 2 - GEOLOGIC AND WELL CONSTRUCTION LOG

Site	Southern Maryland Oil S/S-550, Shell Gas Station	Well ID	MW7
Address	2631 Annapolis Road, Hanover (Anne Arundel County), MD	Diameter	4.00 inches
Date	04/15/13	Depth from Grade	34.50 feet
Driller	Jean Fritz, Advanced Environmental Concepts	Screen	20.00 feet
Logged	Doug Hamilton, Envirotech Consultants, LLC	Casing	14.10 feet
Permit		Depth from Casing	34.10 feet

Depth	PID	Soil Description	Well Construction Details
0		4" asphalt, 3" subbase gravel, tan medium-grained SAND with trace round gravel (fill) to 7.25'	PORTLAND-BENTONITE GROUT TO ≈0.5' DEPTH WITH TOP OF CASING CUT ≈0.4' BELOW GRADE HOLE-PLUG BENTONITE SEAL TO 7.5' DEPTH #2 MORIE SAND TO 12.5' DEPTH 4" X 20" SCREEN (20-SLOT)
1			
2			
3	8		
4			
5			
6			
7			
8			
9			
10		Damp clayey SILT	
11		Yellow-brown SILT	
12		Orange fine-grained SAND	
13		Clayey SAND	
14			
15	33	Damp, laminated white and black SAND with strong petroleum odor	
16		Pea gravel locked-up geoprobe spoon during liner removal, bottom of core soil salvaged. Gray fine-medium grained SAND with petroleum odor . Sandy CLAY at 16' (perched water? on top).	
17			
18			
19			
20			
21			
22	11	Brown/black/white laminated fine-coarse SAND, gray at 22.5'	
23			
24			
25	11	Fine-grained SAND with liquid petroleum in core sample at 25' to 27'.	
26			
27			
28		Sandy Clay with perched water at 29.5' to 30'.	
29			
30			
31	4	CLAY with sand laminations	
32			
33		Fine-grained SAND, wet with petroleum odor .	
34	11		
35			
36			
37			
38			
39			
40			
41			

TABLE 2 - GEOLOGIC AND WELL CONSTRUCTION LOG

Site	Southern Maryland Oil S/S-550, Shell Gas Station	Well ID	MW8
Address	2631 Annapolis Road, Hanover (Anne Arundel County), MD	Diameter	4.00 inches
Date	04/15/13	Depth from Grade	34.50 feet
Driller	Jean Fritz, Advanced Environmental Concepts	Screen	20.00 feet
Logged	Doug Hamilton, Envirotech Consultants, LLC	Casing	14.11 feet
Permit		Depth from Casing	34.11 feet

Depth	PID	Soil Description	Well Construction Details
0		4" asphalt, 3" subbase gravel, yellow medium-grained SAND with gray clay laminations	PORTLAND-BENTONITE GROUT TO ≈0.5' DEPTH WITH TOP OF CASING CUT ≈0.4' BELOW GRADE HOLE-PLUG BENTONITE SEAL TO 7.5' DEPTH #2 MORIE SAND TO 12.5' DEPTH 4" X 20" SCREEN (20-SLOT)
1			
2			
3	66		
4			
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21			
22	22	Gray clayey SAND, no odor.	
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41			

TABLE 2 - GEOLOGIC AND WELL CONSTRUCTION LOG

Site	Southern Maryland Oil S/S-550, Shell Gas Station	Well ID	MW9
Address	2631 Annapolis Road, Hanover (Anne Arundel County), MD	Diameter	4.00 inches
Date	04/15/13	Depth from Grade	40.75 feet
Driller	Jean Fritz, Advanced Environmental Concepts	Screen	20.00 feet
Logged	Doug Hamilton, Envirotech Consultants, LLC	Casing	20.50 feet
Permit		Depth from Casing	40.50 feet
Depth	PID	Soil Description	Well Construction Details
0		4" asphalt, 3" subbase gravel, tan medium-grained SAND with trace round gravel (fill) to 2.25'	<p>PORTLAND-BENTONITE GROUT TO ≈0.5' DEPTH WITH TOP OF CASING CUT ≈0.25' BELOW GRADE</p> <p>HOLE-PLUG BENTONITE SEAL TO 7.5' DEPTH</p> <p>#2 MORIE SAND TO 12.5' DEPTH</p> <p>4" X 20' SCREEN (20-SLOT)</p>
1			
2		SILT	
3			
4	0	Fine-grained SAND, laminations at 8' to 10'.	
5			
6			
7			
8			
9	0		
10	33	Black/white laminated fine-medium grained SAND. 2"-thick layer of SILT at 13' with strong petroleum odors .	
11			
12			
13			
14	589		
15		Coarse-grained SAND	
16			
17			
18	322		
19		CLAY	
20		Fine-grained (sugar) SAND, tan/orange, with strong petroleum odor and liquid petroleum in core sample on top of thin clay stringers.	
21			
22			
23			
24	33		
25		Fine-grained SAND with liquid petroleum in core sample at 25' to 27'.	
26			
27		Sandy Clay with perched water at 29.5' to 30'.	
28			
29		CLAY with sand laminations	
30			
31			
32		Fine-grained SAND, wet with petroleum odor .	
33	99		
34	11		
35			
36			
37	56		
38			
39			
40			
41			

TABLE 2 - GEOLOGIC AND WELL CONSTRUCTION LOG

Site	Southern Maryland Oil S/S-550, Shell Gas Station	Well ID	MW10
Address	2631 Annapolis Road, Hanover (Anne Arundel County), MD	Diameter	4.00 inches
Date	04/16/13	Depth from Grade	34.50 feet
Driller	Jean Fritz, Advanced Environmental Concepts	Screen	20.00 feet
Logged	Doug Hamilton, Envirotech Consultants, LLC	Casing	14.20 feet
Permit		Depth from Casing	34.20 feet
Depth	PID	Soil Description	Well Construction Details
0		4" asphalt, 6" subbase gravel, sandy silt and silty sand FILL, no odor.	<p>PORTLAND-BENTONITE GROUT TO ≈0.5' DEPTH WITH TOP OF CASING CUT ≈0.3' BELOW GRADE</p> <p>HOLE-PLUG BENTONITE SEAL TO 7.5' DEPTH</p> <p>#2 MORIE SAND TO 12.5' DEPTH</p> <p>4" X 20' SCREEN (20-SLOT)</p>
1			
2	0		
3			
4			
5			
6		Silty Sand	
7	0		
8			
9			
10			
11			
12	8		
13			
14	44		
15		Sugar Sand, gray/tan/white/orange laminations, septic smell to 17.5', low odor 17.5' to 20'.	
16			
17			
18			
19	33		
20		Same.	
21	88		
22			
23			
24			
25		Coarse-grained SAND, wet with liquid petroleum at 25'	
26			
27		Silty Sand	
28	66	Fine-grained SAND with ironstone (2"-thick)	
29			
30			
31	22	Brown, coarse-grained SAND	
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			

TABLE 2 - GEOLOGIC AND WELL CONSTRUCTION LOG

Site	Southern Maryland Oil S/S-550, Shell Gas Station		Well ID	MW11
Address	2631 Annapolis Road, Hanover (Anne Arundel County), MD		Diameter	1.00 inch
Date	04/16/13	Depth from Grade	32.00 feet	
Driller	Jean Fritz, Advanced Environmental Concepts	Screen	15.00 feet	
Logged	Doug Hamilton, Envirotech Consultants, LLC	Casing	16.70 feet	
Permit		Depth from Casing	31.70 feet	
Depth	PID	Soil Description	Well Construction Details	
0		4" asphalt, 8" subbase gravel, damp silty sand fill to 5'.	<p>PORTLAND-BENTONITE GROUT TO ≈0.5' DEPTH WITH TOP OF CASING CUT ≈0.3' BELOW GRADE</p> <p>HOLE-PLUG BENTONITE SEAL TO 7.5' DEPTH</p> <p>#2 MORIE SAND TO 12.5' DEPTH</p> <p>1" X 15' SCREEN (20-SLOT)</p>	
1				
2	0			
3				
4				
5		Moist SILT to 9', black cinders 9' to 9.5', moist brown SILT 9.5' to 13'.		
6				
7	0			
8				
9				
10				
11				
12	0			
13		Brown/orange clayey Sand, damp.		
14				
15		Silty-clayey Sand.		
16	0	Orange Sand with silt, damp.		
17				
18				
19	33	White/black/gray SAND		
20				
21		Dense, moist SILT		
22				
23		Sugar SAND, white/black/brown laminations.		
24	22			
25				
26	11			
27				
28	11	Coarse-grained SAND, gray, some petroleum odor.		
29				
30				
31	4			
32		Pasty yellow fine-grained Sand.		
33	4			
34				
35				
36				
37				
38				
39				
40				
41				

TABLE 2 - GEOLOGIC AND WELL CONSTRUCTION LOG

Site	Southern Maryland Oil S/S-550, Shell Gas Station		Well ID	MW12
Address	2631 Annapolis Road, Hanover (Anne Arundel County), MD		Diameter	4.00 inches
Date	04/15/13	Depth from Grade	35.00 feet	
Driller	Jean Fritz, Advanced Environmental Concepts	Screen	20.00 feet	
Logged	Doug Hamilton, Envirotech Consultants, LLC	Casing	14.70 feet	
Permit		Depth from Casing	34.70 feet	
Depth	PID	Soil Description	Well Construction Details	
0		4" asphalt, 8" subbase gravel, pea gravel and silt to 4.5'	<p>PORTLAND-BENTONITE GROUT TO ≈0.5' DEPTH WITH TOP OF CASING CUT ≈0.3' BELOW GRADE</p> <p>HOLE-PLUG BENTONITE SEAL TO 7.5' DEPTH</p> <p>#2 MORIE SAND TO 12.5' DEPTH</p> <p>4" X 20' SCREEN (20-SLOT)</p>	
1				
2	0			
3				
4				
5		Brown, plastic SILT		
6				
7	0			
8				
9				
10		Sandy Silt		
11				
12	0			
13		Orange, very fine-grained SAND and SILT		
14				
15		Orange, very fine-grained SAND		
16				
17	0			
18		SILT		
19		Fine-medium grained SAND		
20				
21		SILT, dense		
22		Fine-grained SAND		
23				
24	0	Sandy Gravel		
25		Orange/white laminated medium-grained SAND, wet at 25'.		
26				
27	11			
28				
29	0			
30				
31	11	Coarse-grained SAND		
32		Fine-grained SAND		
33				
34	0	Pasty yellow SAND.		
35				
36				
37				
38				
39				
40				
41				

TABLE 2 - GEOLOGIC AND WELL CONSTRUCTION LOG

Site	Southern Maryland Oil S/S-550, Shell Gas Station		Well ID	MW14
Address	2631 Annapolis Road, Hanover (Anne Arundel County), MD		Diameter	1.00 inch
Date	04/17/13	Depth from Grade	30.75	feet
Driller	Jean Fritz, Advanced Environmental Concepts	Screen	15.00	feet
Logged	Doug Hamilton, Envirotech Consultants, LLC	Casing	15.30	feet
Permit		Depth from Casing	30.30	feet

Depth	PID	Soil Description	Well Construction Details
0		6" asphalt, 6" subbase gravel, light brown/tan damp SILT	PORTLAND-BENTONITE GROUT TO ≈0.5' DEPTH WITH TOP OF CASING CUT ≈0.4' BELOW GRADE
1			
2			
3			
4			
5		Dense CLAY, tan/white/magenta	HOLE-PLUG BENTONITE SEAL TO 8' DEPTH
6			
7			
8			
9		Orange, silty medium-grained Sand with white clay laminations at 12.5'	
10			#2 MORIE SAND TO 13' DEPTH
11			
12			
13		White, fine-grained SAND	
14	244		
15		Fine-medium grained SAND	4" X 20' SCREEN (20-SLOT)
16		Gravelly Silt	
17			
18		Black/white laminated SAND	
19	266		
20		Fine-grained SAND	
21			
22			
23			
24		Mottled Sand with some Silt (black/white/brown)	
25	211		
26			
27		Fine-medium grained SAND, black with very strong petroleum odor at 27', orange coarse-sand at 27.5' to 29'.	
28	773		
29		CLAY	
30		Black SAND, wet at 31.5'	
31	843		
32		SILT, dry	
33		Damp, multi-colored Sand	
34	244		
35			
36			
37			
38			
39			
40			
41			

The well was constructed to 34½' below grade, and subsequent gauging showed a water level at about 33.7' below grade (33.3' below top of casing, or containing only about 0.8' of water). For MW9, which was constructed immediately down slope of the utility trench line for the vapor return lines that were cut, petroleum vapors were encountered at 13' depth, and then 20' depth with liquid petroleum product observed in soil samples collected from about 23' to 27' that consisted of fine-grained sand to 28' overlying sandy clay from 27½' to 30' and dense, damp clay from 30' to 32', beneath which was fine-grained sand from 32' to at least 35' below grade. Groundwater was observed in the soil sample collected at 29½' to 30' (setting above the clay) and in the underlying sand at 32' to 35'. The liquid petroleum product was observed in the soil immediately shallower than the thin lens of (perched) groundwater. MW9 was constructed to 40.75', and subsequent gauging showed a water level at about 35.8' below grade (35.55' below top of casing, or containing about 5' of water). Consequently, the perched water observed at 29½' to 30' was not coincident with the static level recorded deeper at 35¾' below grade. At the time of well development and initial gauging previous to sampling, MW9 did not contain measurable petroleum product. But, after purging the well prior to groundwater sampling, the purge water was observed to contain liquid petroleum. A repeated gauging of the well showed the presence of petroleum in the well, and a sample was not collected. Similar conditions prevail for MW10. Liquid petroleum product was observed in the soil sample collected at 25' below grade setting within coarse-grained sand and setting on silty sand beginning at 27' below grade. The well for MW10 was constructed to 34½' below grade. Subsequent gauging showed a water level essentially equal to the bottom cap level (only 0.11' of water in the well).

During the soil sampling of MW11, some petroleum odor was encountered in wet coarse-grained sand at about 28' depth that was underlain by pasty sand (moist, clayey-silty sand) from 32' to at least 35' depth. The 1"-diameter well for MW11 was constructed to 32' depth, and subsequent gauging showed a groundwater level at 27¾' below grade (27.6' below top of casing with the well containing a little more than 4' of water). Consequently, the water observed at 28' was coincident with the subsequently gauged static groundwater level. MW12 also yielded a static groundwater level that was about coincident with the depth that groundwater was first observed in soil samples. Wet sand was observed at 25' below grade, setting on fine grained sand at 29½' to 32½' and pasty (clayey-silty) sand at 32½' to at least 35'. The measured depth to groundwater in MW12 was about 27¼' below grade (27' below top of casing, yielding a water column of about 7¾'). Lastly, MW14, which was constructed as a 1"-diameter well in the general area of the vapor line break, was constructed to 30¾' below grade. Petroleum odor and liquid-phase petroleum was noted in wet fine-medium grained sand at 27', setting on damp clay that began at 29' underlain by wet sand from 30' to 31½' and a deeper ½'-thick damp silt layer to 32' below grade. PID readings of the soil samples from MW14 were the highest observed in any soil samples tested during well drilling activities.

In addition to the monitoring wells constructed in April 2013, older wells MW1 and MW4 were constructed by others to about 34¾' below grade and contained groundwater at about 26.4' and 27.2' below grade, respectively (or about 8.6' and 7.3' of water in the wells). Whereas, older well MW2 was also constructed to a similar depth as MW1 and MW4, but does not contain groundwater. MW3, MW5, MW6 and MW13 are all shallow, tankfield monitoring pipes constructed at depths of about 13', 12', 10' and 11' below grade, respectively, and do not contain groundwater.

Consequently, although groundwater was observed in soil samples at several well locations at depths between 25' to 30' depth, these water-bearing zones appear to be perched groundwater. A stratigraphic cross-section was developed through a transect from MW12 to MW9 and is presented as Figure 6.

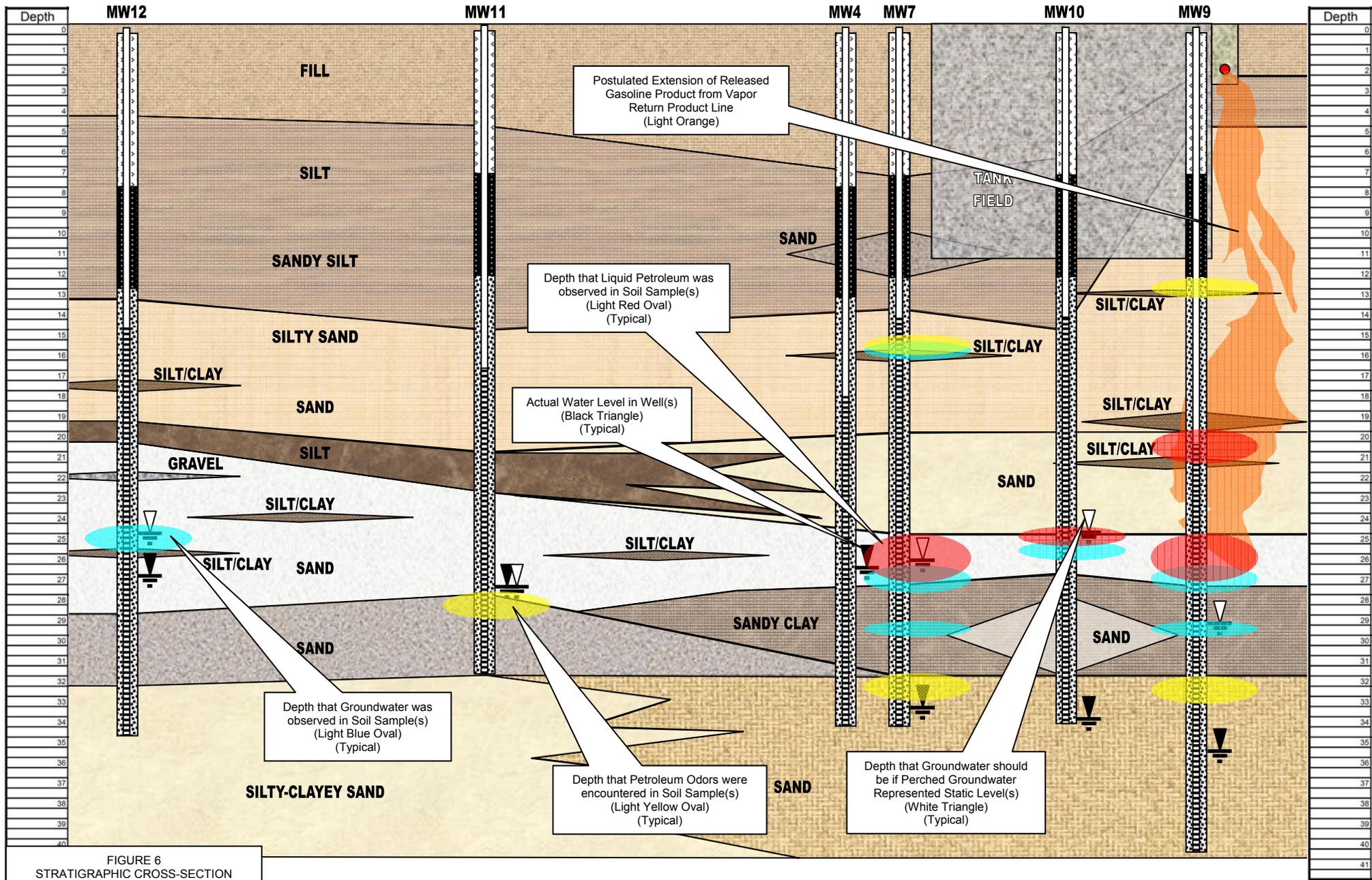


FIGURE 6
STRATIGRAPHIC CROSS-SECTION

Selected soil samples from the new monitoring well locations were prepared for laboratory testing of VOCs, GRO and DRO per MDE Guidelines. A summary of the soil sample testing results is presented in Table 1, above, and a copy of the report of analysis is provided in Attachment 1. Review of Table 1 shows that the soil sample collected at 14' to 15' and a second at 22½' to 25' depth at MW7 were below MDE Standards. However, as noted above, MW7 contained liquid-phase petroleum-saturated soil at 27' and setting on water-saturated soil to about 29½' depth. The samples collected at 22' to 23' and 30' to 32½' at MW8 similarly were below MDE Standards. Nevertheless, per above, strong petroleum odors were encountered in soil samples collected at 14' to 15' and again at 28' to 32' depth. The two samples from MW9, collected at 13' to 15' and 18' to 19' contained elevated petroleum concentrations, with the shallower sample above MDE Standards. As described previously, a relatively thick section of the soil cores collected from 23' to 27' depth at MW9 contained liquid-phase petroleum-saturated soil in sections of the cores. This well subsequently yielded liquid-phase petroleum product on top of the groundwater in the well. The two soil samples from MW10, collected at 14' to 15' and 18' to 20' depth, from MW11 at 18½' to 20' and 20' to 22', and from MW12 at 25' to 26' and 29' to 30' were below MDE Standards. However, liquid phase hydrocarbons were observed in soil samples from MW10 at approximately 25' depth.

The samples from MW14, collected at 27' to 30' and 30' to 32' depth contained elevated GRO concentrations, of which the shallower sample was above MDE Standards. Figure 7 provides photos of selected soil core samples showing the thinly perched petroleum-soaked soil and underlying silt or clay and/or water-saturated sand.

The groundwater samples were also for VOC, GRO and DRO per MDE Guidelines. Table 1 provides a summary of the groundwater testing results, and a copy of the report of analysis is provided in Attachment 2. Review of Table 1 shows that the MW1 and MW12 water samples did not contain detectable dissolved petroleum.



In December 2012, a groundwater sample from MW4 contained 2.9 mg/l Benzene, 5.45 mg/l Total BTEX and about 10 mg/l GRO. Per the April 2013 sampling event, MW4's groundwater contained 0.16 mg/l Benzene, 0.57 mg/l Total BTEX and about 3 mg/l GRO, all about an order of magnitude less than what was measured in the December 2012 sample and Benzene representing half as much of the Total BTEX concentration in April 2013 compared to December 2012. The reduction could be a result of well development efforts in mid-April 2013 during monitoring well drilling activities.

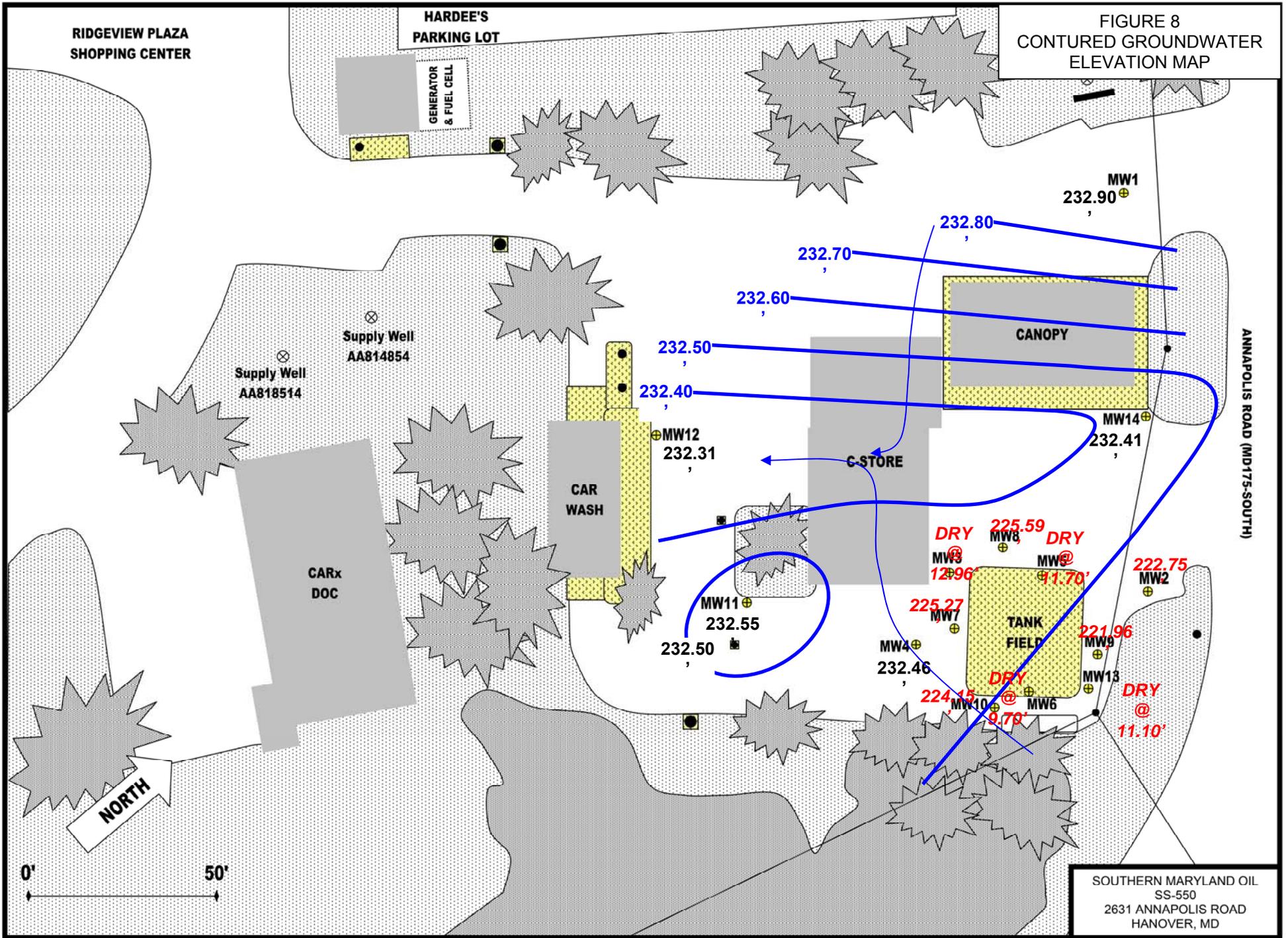
The samples from MW8 and MW9 contained about 5 to 8.5 mg/l Total BTEX including 1.5 mg/l Benzene, and MW13's "bottom cap water" (as it was gauged with only 4" of water within the shallow tankfield monitoring pipe) contained about 3.2 mg/l Total BTEX with 0.1 mg/l Benzene. MW11 and MW14's samples were measured to contain about 0.2 mg/l Total BTEX with about 60 µg/l Benzene, and 0.94 mg/l Total BTEX with 26 µg/l Benzene, respectively. MTBE and associated degradation byproducts including TBA and TAME were not detected above detection limits in any of the groundwater samples. A historical release would normally yield some remnant MTBE and/or degradation byproduct concentrations. The proportions of BTEX compounds in MW4's April 2013 groundwater sample are about the same as those in MW7's April 2013 groundwater sample, indicating a common source of petroleum yielding dissolved petroleum to the south side of the tankfield. The BTEX concentrations in MW8 are very similar to that in MW7, but with higher proportions and concentrations of Ethylbenzene and Xylenes, which may indicate that MW8 is closer to the source than MW7 and MW4 (where the latter have higher proportions of the more soluble compounds such as Benzene).

Using the gauging data collected on April 29, 2013, a contoured groundwater elevation map was developed and is presented in Figure 8. Development of the map used on the water elevations measured in MW1, MW4, MW11, MW12 and MW14. The water elevations in MW7, MW8, MW9 and MW10 were not used as these levels are not representative of a laterally continuous water surface. Based on the recorded elevations, overall groundwater flow appears to be to the southwest with a component of flow from MW1 toward the station store, and a second component of flow from the northeast corner of the property toward MW12. Regardless, the groundwater elevation in MW12, located near the carwash, was the lowest compared to MW1, MW4, MW11 and MW14.

Using the groundwater sample testing data produced by the April 29 sampling event, a contoured Benzene plume map was developed and is presented in Figure 9. Please note that this Benzene plume map does not depict the presence of shallower liquid-phase petroleum and/or very strong petroleum odors observed in soil samples from MW7, MW8, MW9, MW10 and MW14. Consequently, the presence of numerous, discontinuous silty and/or clayey layers in the 25' to 30' zone has resulted in the formation of small "pools" of liquid-phase petroleum above the less permeable layers. Often, the soil immediately beneath these layers were less-wet to damp to dry, and deeper less-permeable layers similarly yielded petroleum odor, liquid-phase petroleum and/or water-saturated above the less-permeable layers.

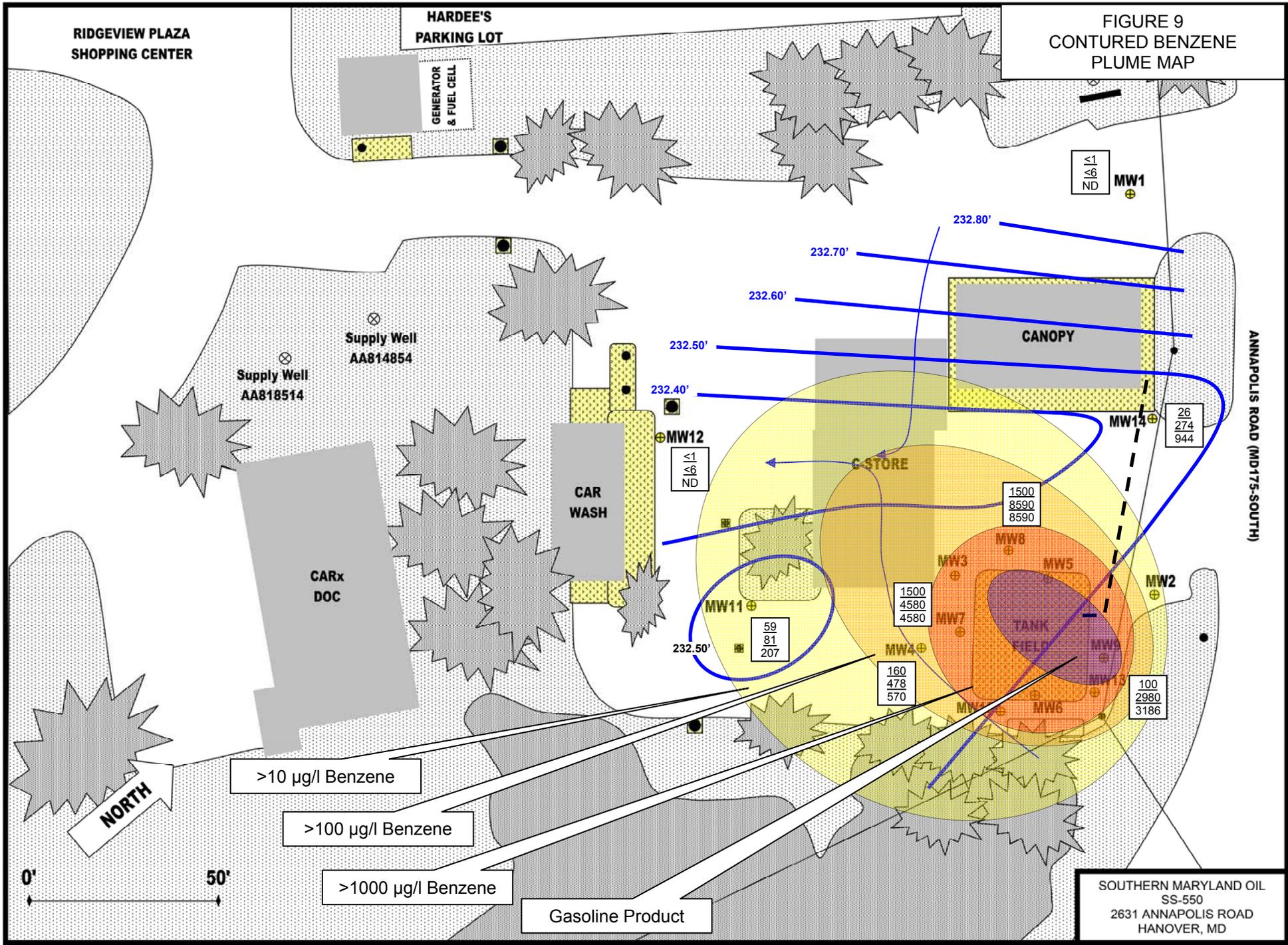
In addition to the collection of groundwater samples from the monitoring wells, samples were collected from the water well system servicing the station and the water well system servicing the KinderCare property at 8050 Rockenbach Road, Hanover, MD 21076. An attempt was made to obtain permission to sample the two water wells systems servicing Ridgeview Plaza Shopping Center and located at the Car Doc property at 2633 Annapolis Road, Hanover, MD 21076. The latter property is managed by Renaud Consulting, Inc., 8605 Westwood Center Drive, Suite 410, Vienna, VA 22182. According to Renaud Consulting, the groundwater from the supply wells were recently sampled per the direction of the MDE and found to be acceptable. Renaud did not provide property access permission to obtain samples for testing, and the verbal-account of potability could not be verified.

FIGURE 8
CONTURED GROUNDWATER
ELEVATION MAP



SOUTHERN MARYLAND OIL
SS-550
2631 ANNAPOLIS ROAD
HANOVER, MD

FIGURE 9
CONTURED BENZENE
PLUME MAP



As noted previously, the two wells at the Car Doc property, and which service the Ridgeview Plaza, are constructed with exposed sand filter/screen intervals at about 400' to 485' (8 1/4"-diameter well) and about 420' to 465' (6 1/4"-diameter well). The depth to groundwater in the two wells was reported by the Maryland WMA to be 200' depth. The supply well for the station is reported to be constructed with exposed filter/screen at about 160' to 400' depth with groundwater at about 210' depth. The KinderCare well is reported to be constructed with an exposed sand filter/screen interval at about 25' to 360' depth, but a screen interval from about 355' to 360'. Consequently, the reported (and atypically extremely shallow) ≈25'-deep grout position may be a data entry error within the Maryland WMA's well database system. The static depth to groundwater in the well was reported to be 190' with a pump column extending to 250'. The KinderCare water supply is equipped with a water quality treatment system including chlorine doser, solar salt system and water softener system, all of which to be maintained. The station water well is reported to have a sand filter/screen interval at about 160' to 400' depth, and a groundwater level at about 210'. During sampling of the KinderCare well water supply (before treatment) and the station well water supply, high sulfur odors were documented. Consequently, the water at the noted depths contains high iron and high sulfur. Prior to sampling, a sampling port was identified before any water treatment devices. An outside spigot was allowed to operate for at least 20-minutes to purge the water line and well. Samples were collected from the sampling port accordingly under low-flow, non-aspirating (e.g, trickle) conditions. The samples were analyzed for VOCs using EPA Method 524.2. Neither of the water samples was measured to contain VOCs above detection limits, and below respective drinking water standards.

As presented herein, petroleum has impacted the local soil and groundwater beneath the station property. The two topographically most-downgradient wells, MW11 and MW12, produced soil and groundwater samples that were generally free of petroleum concentrations, although a soil sample collected from MW11 near the apparent groundwater zoning yielded some petroleum odors (although laboratory testing conformed the relative absence of petroleum in the soil samples). The groundwater samples from MW11 contained 59 µg/l Benzene and 207 µg/l Total VOC. The groundwater sample from MW12, the topographically and hydraulically most-downgradient well, did not contain petroleum-derived VOC concentrations above detection limits. Both MW9 and MW14, which are located proximate to the vapor return line that was originally damaged (and since repaired), yielded the shallowest petroleum odors (and confirmed by PID-testing), soil samples from all other well locations proximate to the tankfield typically yielded strong petroleum odors and/or liquid-phase petroleum beginning at about 25' depth and coincident with the appearance of water-saturated soil on top of thin clay layers. Whereas in MW9 and MW14, strong petroleum odors were encountered as shallow as 13' in MW9 (with 589 ppm-v PID reading) and MW14 (with 244 ppm-v PID reading). Also note that the grade elevation of the trench that contains the vapor return line is graded from the dispenser island area to the tankfield location (or from MW14 toward MW9). Consequently, the site conceptual model for this site is that liquid-petroleum released from the damaged vapor return line penetrated through the gravel-filled utility trench of the vapor return line, permeated through the underlying soil (fine-grained sand was observed in soil samples from 5' to 10' at MW9) and into the deeper zones of stratified soil. Because of the presence of (apparently) numerous and discontinuous low-permeable silt and/or clay layers on top of which is coarser-grained sands, perched groundwater and perched pools of liquid-petroleum have developed in the 20' to 30' depth zone. During the construction of MW9, the soil sample collected from 25' to 27' depth was heavily saturated by gasoline product. Similarly, the gasoline-saturated soil was observed at 27' depth at the MW14 location. As can be shown in the stratigraphic cross-section, impacted soil (both shallow soil containing petroleum odors and deeper zones containing gasoline product) begins at shallower depth in MW9 than in MW10 and then MW7 and MW4. As such, the source of the petroleum appears to be the vapor return line area (of which MW9 is located at the downgradient edge of the utility trench containing the vapor return line). The

thickness and/or of the water-saturated zone above the various low-permeable layers is insufficient to yield a full column of water in a monitoring well. Similarly, the thickness and/or volume of the gasoline product on the low-permeable layers appear to be insufficient to allow drainage into the monitoring wells that have been constructed across the petroleum-saturated zones.

4.0 REVIEW OF RISK FACTORS & IMPLICATIONS FOR REMEDIAL ACTIONS

The Maryland Environmental Assessment Technology (MEAT) document produced by the MDE (June 2008) relays the requirements for determining site-specific risk with an evaluation of seven risk factors. These are presented below.

- a. Liquid Phase Hydrocarbons - liquid-phase petroleum (gasoline product) was observed in soil samples collected from MW7, MW8, MW9, MW10 and MW14. Although gasoline product was observed in the samples, the volume appears to be insufficient to allow permeation from the native soil and into the wells. During a recent sampling event, none of the wells contained measurable gasoline product accumulations. However, upon purging MW9, petroleum droplets were observed in the purge water, and after successive bailing events, approximately 1" of gasoline developed on the recharged water surface. Consequently, liquid gasoline product is present at depth, but may not be specifically observed floating on the water table aquifer as represented by static groundwater levels in the monitoring wells.
- b. Current and Future Use of Impacted Groundwater - properties within the local area of the subject site rely on water supply wells typically constructed to 100' to 540' depth (averaging 270'). At the subject site, petroleum impacted soil and/or perched groundwater appears to be within the upper 30' of the subsurface. Impact to groundwater, including the presence of liquid-phase gasoline product, is predominately on and to very localized, perched groundwater units that are not used as a water resource.
- c. Migration of Contamination - based on the distribution of dissolved petroleum compounds observed in MW4 and MW11, and as compared to the known presence of gasoline product in the area of MW7, MW8, MW9 and MW10, it appears that the presence of several discontinuous perched groundwater units has hindered the lateral migration of petroleum. Although gasoline product was observed in soil samples collected from MW7, the groundwater sample obtained from the groundwater that collected at the bottom of the well (groundwater was observed at about 26¼' below grade in soil samples, but upon gauging of the well, it was measured to contain groundwater at about 33½' below grade with the well constructed to 34½' below grade) contained 1500 µg/l Benzene, 4580 µg/l Total VOC and 20 mg/l GRO. These concentrations are lower than what would be expected from a well where gasoline product was observed in soil samples. Located only a few feet away from MW7 in the downgradient direction is MW4. MW4's groundwater sample contained 160 µg/l Benzene, 570 µg/l Total VOC and 3.1 mg/l GRO, indicating considerable reduction/retardation of dissolved concentrations toward the apparent downgradient direction. Further, MW11 is located a few feet further downgradient from MW4, and a groundwater sample from MW11 was measured to contain 59 µg/l Benzene, 207 µg/l Total VOC and 2.6 mg/l GRO, further illustrating the considerable reduction/retardation of dissolved petroleum migration. A groundwater sample collected from MW12, which is the most downgradient well, did not contain detectable VOC or GRO concentrations. MW9 is located between the tankfield and the northern property line. A considerable accumulation of gasoline product was observed in soil core samples collected from MW9, and sampling of the well yielded gasoline product upon purging of the well. Construction of an additional monitoring point north of MW9 and in the direction of Annapolis Road (MD Route 175) was evaluated, but the presence of numerous underground utilities in that area of the site

prevented safe drilling operations. A determination of the extent of petroleum impact north of MW9 was not completed during this investigation. However, gasoline product was similarly observed in soil core samples collected during the construction of MW14, located proximate to the dispenser island and upgradient portion of the utility trench containing the formerly-damaged vapor return line. Groundwater was observed in MW14 soil samples at approximately 25½' below grade, and later measured in the well at a similar depth. A groundwater sample from MW14 showed the presence of 26 µg/l Benzene, 944 µg/l Total VOC, 19 mg/l GRO and 55 mg/l DRO. Consequently, there appears to be limited extension of dissolved petroleum compounds beyond the area bounded by MW14, MW9, MW10, MW7 and MW8.

- d. Human Exposure - supply wells in the immediate and downgradient area of the site, including the water supply well to the station and the supply well at KinderCare have been sampled and determined to not contain detectable VOC concentrations. The supply wells used by the Ridgeview Plaza shopping center were not sampled as part of this study, as permission for property access was not granted. However, the property management company advised that the wells have been recently sampled and the testing results were determined to be acceptable. All of these supply wells are constructed to several hundred feet below grade. Petroleum vapors can develop from shallow, petroleum-impacted soil and/or groundwater, emanate into paths of least resistance such as utility trenches and result in vapor exposure to onsite workers such as electrical conduits extending into the station building. Petroleum odors have not been detected within the station building. At the site, groundwater was first observed in soil samples at approximately 25' below grade, and predominately as discontinuous perched groundwater units. Petroleum-impacted soil yielding PID concentrations above 30 ppm-v were encountered in soil samples collected as shallow as about 13' below grade in MW9 and MW14, and deeper in all other well locations. MW9 is located immediately downslope of the utility trench that contains the formerly-damaged vapor return line. Because the area of impacted is relatively deep, and underground utilities are shallower than the depths at which petroleum was first detected, the risk for impact by human exposure is negligible. However, workers involved with the potential future excavation/upgrade of the tankfield may encounter petroleum-impacted soil. Such excavation work is normally performed by UST contractors that are trained in the proper handling of and needed protective equipment for petroleum-impacted soil.
- e. Environmental Ecological Exposure - the stream along the eastern portion of the site, originating in the southwest corner of the intersection of Annapolis Road (MD Route 175) and Rockenbach Road (MD Route 713) and flows to the southwest through improved underground culverts, is not mapped on USGS topographical maps as a perennial or temporal stream. The invert of the depression is at a slightly higher elevation than the depths to first groundwater observed in soil borings constructed on the site proper. The Maryland Assessment and Taxation system reports that the convenience store building was constructed in 1961, and the location of the tankfield was as per current conditions. Review of historical aerial photographs dated from 1964 to 1970 show that a driveway connected the site from the eastern side of the tankfield area and directly through the current depression in which the stream is now located. Consequently, the stream area is not believed to be an environmental ecological receptor to the petroleum compounds beneath the station property.
- f. Impact to Utilities and Other Buried Services - as addressed in item d. above, underground utilities beneath and proximate to the site are at a higher elevation than the depth at which petroleum compounds were detected in soil boring samples. These utilities include the product delivery, vapor return and electrical piping and conduits between the tankfield, dispensers and convenience store. Hydrant water, natural gas, electrical and

telecommunication utilities are located underground along the northern boundary of the property (e.g., along the south side of Annapolis Road). There are no deep manhole devices in the area of the tankfield that could otherwise service as potential sensitive receptors.

- g. Other Sensitive Receptors - based on review of the surrounding properties and improvements, no other sensitive receptors were identified than those discussed above.

In consideration of the reviewed risk factors, and other than the condition of petroleum compounds that are present within a complex of perched groundwater layers, the risk for impact is relatively nominal. Regardless, the presence of petroleum in the underlying soil and perched groundwater should be addressed. Conventional pumping operations are not recommended because of the inherent lack of sustained flow from the perched groundwater units and significantly low well yields (if any). Although soil vapor vacuum extraction (SVE) may provide removal of "lighter-end" (more volatile) petroleum compounds such as Benzene, such methods may not adequately address the presence of pockets of gasoline product. Use of chemical injections, such as surfactants and/or chemical oxidizing (ChemOx) agents such as persulfate would require very fine-tuned drilling/screening and delivery to multiple depths, zones and/or layers of petroleum-containing media. Further, a substantial mass of surfactants/ChemOx may be required to address the petroleum mass. Future and/or longer-term remediation may require such remedial approaches. However, it is suggested that initial attempts be made using very high vacuum (e.g., approaching 20 to 25 inches of mercury, "Hg) to induce the movement of adsorbed petroleum from soils and perched layers to the wells. An assessment of this methodology can be made by implementing enhanced fluid recovery (EFR) or multi-phase extraction (MPE) where impacted soil vapor is removed from a well in a gaseous phase along with a smaller portion of impacted (perched) groundwater as well as gasoline product (both as a liquid-phase). EFR/MPE can initially be attempted using a vacuum truck capable of delivering a high vacuum on a well (or wells) and the generated waste liquids disposed accordingly offsite. Vacuum truck EFR can be performed on 4"-diameter wells using a 2"-diameter "stinger" pipe inserted into the well and equipped with an air-tight well seal and wellhead assembly that allows connection to vacuum-rated hose and onto the vacuum truck. Operating a vacuum of 20-25 "Hg is equivalent to a hydraulic lift of approximately 22.67' to 28.33'. Adding in the inherent effects of air-entrainment, liquid removal can often be made to depths approaching ≈30' below grade. MW7 through MW10 are 4"-diameter wells constructed proximate to the four sides of the tankfield to approximately 34½' below grade with MW9 constructed to more than 40½' below grade. MW14, located near the northeastern pump dispenser is constructed as a 1"-diameter well to about 30½' depth. The small diameter of this temporary well may preclude its use as an effective recovery location, and should be replaced with a 4"-diameter well, along with the construction of an additional 4"-diameter well that would be located between MW14 and MW9 and similarly used as an extraction location, as well as assess the extent of petroleum (if any) between MW14 and MW9.

ATTACHMENT 1

LABORATORY REPORT OF ANALYSES - SOIL SAMPLES



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 7 14-15		Matrix:	Soil	Lab ID:	13042404-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	87	%		SM2540G	04/25/13	04/25/13 9:24	LMJ	
Target Compound List - VOLATILES								
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Chloromethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Vinyl chloride	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Bromomethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Chloroethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Acetone	ND	ug/kg	160	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Carbon disulfide	ND	ug/kg	14	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Methyl acetate	ND	ug/kg	34	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Methylene chloride	ND	ug/kg	34	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
2-Butanone (MEK)	ND	ug/kg	68	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Chloroform	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Cyclohexane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Benzene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Trichloroethene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	14	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Toluene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
2-Hexanone (MBK)	ND	ug/kg	14	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Chlorobenzene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 7 14-15		Matrix:	Soil	Lab ID:	13042404-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Target Compound List - VOLATILES								
Ethylbenzene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
m&p-Xylene	ND	ug/kg	14	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
o-Xylene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Styrene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Bromoform	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Naphthalene	ND	ug/kg	14	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
tert-Butanol (TBA)	ND	ug/kg	34	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
tert-Amyl alcohol (TAA)	ND	ug/kg	34	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	7	EPA 8260B	04/25/13	04/25/13 15:48	JKL	
Total Petroleum Hydrocarbons - (C10-C28) DRO								
Diesel Range Organics	ND	mg/kg	11	EPA 8015C	04/25/13	04/25/13 16:13	AC	
Total Petroleum Hydrocarbons - (C6-C10) GRO								
Gasoline Range Organics	0.62	mg/kg	0.22	EPA 8015C	04/24/13	04/24/13 16:01	JKL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



Certificate of Analysis

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Baltimore, MD 21230

Date Sampled: 04/15/13
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Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 7 22.5-25		Matrix:	Soil	Lab ID:	13042404-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	95	%		SM2540G	04/25/13	04/25/13 9:24	LMJ	
Target Compound List - VOLATILES								
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Chloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Vinyl chloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Bromomethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Chloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Acetone	ND	ug/kg	68	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Carbon disulfide	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Methyl acetate	ND	ug/kg	24	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Methylene chloride	ND	ug/kg	24	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
2-Butanone (MEK)	ND	ug/kg	49	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Chloroform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Cyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Benzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Trichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Toluene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Chlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	



Certificate of Analysis

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Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 7 22.5-25		Matrix:	Soil	Lab ID:	13042404-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Target Compound List - VOLATILES								
Ethylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
m&p-Xylene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
o-Xylene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Styrene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Bromoform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Naphthalene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
tert-Butanol (TBA)	ND	ug/kg	24	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
tert-Amyl alcohol (TAA)	ND	ug/kg	24	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 16:16	JKL	
Total Petroleum Hydrocarbons - (C10-C28) DRO								
Diesel Range Organics	ND	mg/kg	10	EPA 8015C	04/25/13	04/25/13 16:13	AC	
Total Petroleum Hydrocarbons - (C6-C10) GRO								
Gasoline Range Organics	0.35	mg/kg	0.19	EPA 8015C	04/24/13	04/24/13 16:25	JKL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



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Envirotech Consultants, LLC.
2931 Whittington Ave.
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Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 8 30-32.5			Matrix:	Soil	Lab ID:	13042404-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Percent Solids									
Percent Solids	88	%		SM2540G	04/25/13	04/25/13 9:24	LMJ		
Target Compound List - VOLATILES									
Dichlorodifluoromethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Chloromethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Vinyl chloride	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Bromomethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Chloroethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Trichlorofluoromethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,1-Dichloroethene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Acetone	ND	ug/kg	5100	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Carbon disulfide	ND	ug/kg	1000	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Methyl acetate	ND	ug/kg	2600	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Methylene chloride	ND	ug/kg	2600	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
trans-1,2-Dichloroethene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Methyl t-butyl ether (MTBE)	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,1-Dichloroethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
cis-1,2-Dichloroethene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
2-Butanone (MEK)	ND	ug/kg	5100	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Chloroform	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,1,1-Trichloroethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Cyclohexane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Carbon tetrachloride	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Benzene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,2-Dichloroethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Trichloroethene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Methylcyclohexane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,2-Dichloropropane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Bromodichloromethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
cis-1,3-Dichloropropene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1000	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Toluene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
trans-1,3-Dichloropropene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,1,2-Trichloroethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Tetrachloroethene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
2-Hexanone (MBK)	ND	ug/kg	1000	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Dibromochloromethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,2-Dibromoethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Chlorobenzene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		



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Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 8 30-32.5			Matrix:	Soil	Lab ID:	13042404-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Target Compound List - VOLATILES									
Ethylbenzene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
m&p-Xylene	ND	ug/kg	1000	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
o-Xylene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Styrene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Bromoform	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Isopropylbenzene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,1,2,2-Tetrachloroethane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,3-Dichlorobenzene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,4-Dichlorobenzene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,2-Dichlorobenzene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,2-Dibromo-3-chloropropane	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
1,2,4-Trichlorobenzene	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Naphthalene	ND	ug/kg	1000	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Ethyl t-butyl ether (ETBE)	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
tert-Butanol (TBA)	ND	ug/kg	2600	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Diisopropyl ether (DIPE)	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
tert-Amyl methyl ether (TAME)	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
tert-Amyl alcohol (TAA)	ND	ug/kg	2600	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	510	EPA 8260B	04/25/13	04/25/13 16:44	JKL		
Total Petroleum Hydrocarbons - (C10-C28) DRO									
Diesel Range Organics	ND	mg/kg	21	EPA 8015C	04/25/13	04/25/13 16:49	AC		
Total Petroleum Hydrocarbons - (C6-C10) GRO									
Gasoline Range Organics	180	mg/kg	20	EPA 8015C	04/25/13	04/25/13 12:59	JKL		

Notes/Qualifiers:

LLQ - Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



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Date Sampled: 04/15/13
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Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 8 22-25		Matrix:	Soil	Lab ID:	13042404-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Percent Solids								
Percent Solids	92	%		SM2540G	04/25/13	04/25/13 9:25	LMJ	
Target Compound List - VOLATILES								
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Chloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Vinyl chloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Bromomethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Chloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Acetone	ND	ug/kg	67	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Carbon disulfide	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Methyl acetate	ND	ug/kg	26	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Methylene chloride	ND	ug/kg	26	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
2-Butanone (MEK)	ND	ug/kg	51	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Chloroform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Cyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Benzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Trichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Toluene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Chlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	



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Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 8 22-25		Matrix:	Soil	Lab ID:	13042404-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
Target Compound List - VOLATILES								
Ethylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
m&p-Xylene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
o-Xylene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Styrene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Bromoform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Naphthalene	20	ug/kg	10	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
tert-Butanol (TBA)	ND	ug/kg	26	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
tert-Amyl alcohol (TAA)	ND	ug/kg	26	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 17:13	JKL	
Total Petroleum Hydrocarbons - (C10-C28) DRO								
Diesel Range Organics	ND	mg/kg	11	EPA 8015C	04/25/13	04/25/13 16:49	AC	
Total Petroleum Hydrocarbons - (C6-C10) GRO								
Gasoline Range Organics	0.82	mg/kg	0.19	EPA 8015C	04/24/13	04/24/13 17:13	JKL	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



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Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	Matrix: Soil			Lab ID: 13042404-05			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	91	%		SM2540G	04/25/13	04/25/13 9:25	LMJ
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Chloromethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Vinyl chloride	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Bromomethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Chloroethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Trichlorofluoromethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,1-Dichloroethene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Acetone	ND	ug/kg	4800	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Carbon disulfide	ND	ug/kg	960	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Methyl acetate	ND	ug/kg	2400	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Methylene chloride	ND	ug/kg	2400	EPA 8260B	04/25/13	04/25/13 17:41	JKL
trans-1,2-Dichloroethene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Methyl t-butyl ether (MTBE)	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,1-Dichloroethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
cis-1,2-Dichloroethene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
2-Butanone (MEK)	ND	ug/kg	4800	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Chloroform	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,1,1-Trichloroethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Cyclohexane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Carbon tetrachloride	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Benzene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,2-Dichloroethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Trichloroethene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Methylcyclohexane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,2-Dichloropropane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Bromodichloromethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
cis-1,3-Dichloropropene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	960	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Toluene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
trans-1,3-Dichloropropene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,1,2-Trichloroethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Tetrachloroethene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
2-Hexanone (MBK)	ND	ug/kg	960	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Dibromochloromethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,2-Dibromoethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Chlorobenzene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL



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Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	Matrix: Soil			Lab ID: 13042404-05			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Ethylbenzene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
m&p-Xylene	ND	ug/kg	960	EPA 8260B	04/25/13	04/25/13 17:41	JKL
o-Xylene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Styrene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Bromoform	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Isopropylbenzene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,1,2,2-Tetrachloroethane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,3-Dichlorobenzene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,4-Dichlorobenzene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,2-Dichlorobenzene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,2-Dibromo-3-chloropropane	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
1,2,4-Trichlorobenzene	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Naphthalene	1,100	ug/kg	960	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
tert-Butanol (TBA)	ND	ug/kg	2400	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Diisopropyl ether (DIPE)	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
tert-Amyl methyl ether (TAME)	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
tert-Amyl alcohol (TAA)	ND	ug/kg	2400	EPA 8260B	04/25/13	04/25/13 17:41	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	480	EPA 8260B	04/25/13	04/25/13 17:41	JKL
Total Petroleum Hydrocarbons - (C10-C28) DRO							
Diesel Range Organics	49	mg/kg	10	EPA 8015C	04/25/13	04/25/13 17:26	AC
Total Petroleum Hydrocarbons - (C6-C10) GRO							
Gasoline Range Organics	210	mg/kg	19	EPA 8015C	04/24/13	04/24/13 17:37	JKL

Notes/Qualifiers:

LLQ - Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



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Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	Matrix: Soil			Lab ID: 13042404-06			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							
Percent Solids	87	%		SM2540G	04/25/13	04/25/13 9:25	LMJ
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Chloromethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Vinyl chloride	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Bromomethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Chloroethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Trichlorofluoromethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,1-Dichloroethene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Acetone	ND	ug/kg	5300	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Carbon disulfide	ND	ug/kg	1100	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Methyl acetate	ND	ug/kg	2700	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Methylene chloride	ND	ug/kg	2700	EPA 8260B	04/25/13	04/25/13 18:09	JKL
trans-1,2-Dichloroethene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Methyl t-butyl ether (MTBE)	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,1-Dichloroethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
cis-1,2-Dichloroethene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
2-Butanone (MEK)	ND	ug/kg	5300	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Chloroform	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,1,1-Trichloroethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Cyclohexane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Carbon tetrachloride	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Benzene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,2-Dichloroethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Trichloroethene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Methylcyclohexane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,2-Dichloropropane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Bromodichloromethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
cis-1,3-Dichloropropene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1100	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Toluene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
trans-1,3-Dichloropropene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,1,2-Trichloroethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Tetrachloroethene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
2-Hexanone (MBK)	ND	ug/kg	1100	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Dibromochloromethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,2-Dibromoethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Chlorobenzene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL



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Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	Matrix: Soil			Lab ID: 13042404-06			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Ethylbenzene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
m&p-Xylene	1,200	ug/kg	1100	EPA 8260B	04/25/13	04/25/13 18:09	JKL
o-Xylene	800	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Styrene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Bromoform	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Isopropylbenzene	580	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,1,2,2-Tetrachloroethane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,3-Dichlorobenzene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,4-Dichlorobenzene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,2-Dichlorobenzene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,2-Dibromo-3-chloropropane	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
1,2,4-Trichlorobenzene	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Naphthalene	12,000	ug/kg	1100	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
tert-Butanol (TBA)	ND	ug/kg	2700	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Diisopropyl ether (DIPE)	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
tert-Amyl methyl ether (TAME)	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
tert-Amyl alcohol (TAA)	ND	ug/kg	2700	EPA 8260B	04/25/13	04/25/13 18:09	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	530	EPA 8260B	04/25/13	04/25/13 18:09	JKL
Total Petroleum Hydrocarbons - (C10-C28) DRO							
Diesel Range Organics	100	mg/kg	22	EPA 8015C	04/25/13	04/25/13 17:26	AC
Total Petroleum Hydrocarbons - (C6-C10) GRO							
Gasoline Range Organics	1,000	mg/kg	21	EPA 8015C	04/24/13	04/24/13 18:01	JKL

Notes/Qualifiers:

LLQ - Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



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Baltimore, MD 21230

Date Sampled: 04/15/13
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Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 10 18-20			Matrix:	Soil	Lab ID:	13042404-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Percent Solids									
Percent Solids	96	%		SM2540G	04/25/13	04/25/13 9:25	LMJ		
Target Compound List - VOLATILES									
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Chloromethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Vinyl chloride	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Bromomethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Chloroethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Acetone	ND	ug/kg	76	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Carbon disulfide	ND	ug/kg	13	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Methyl acetate	ND	ug/kg	32	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Methylene chloride	ND	ug/kg	32	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
2-Butanone (MEK)	ND	ug/kg	63	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Chloroform	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Cyclohexane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Benzene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Trichloroethene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	13	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Toluene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
2-Hexanone (MBK)	ND	ug/kg	13	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Chlorobenzene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		



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Baltimore, MD 21230

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Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 10 18-20			Matrix:	Soil	Lab ID:	13042404-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Target Compound List - VOLATILES									
Ethylbenzene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
m&p-Xylene	ND	ug/kg	13	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
o-Xylene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Styrene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Bromoform	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Naphthalene	68	ug/kg	13	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
tert-Butanol (TBA)	ND	ug/kg	32	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
tert-Amyl alcohol (TAA)	ND	ug/kg	32	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	6	EPA 8260B	04/25/13	04/25/13 18:37	JKL		
Total Petroleum Hydrocarbons - (C10-C28) DRO									
Diesel Range Organics	ND	mg/kg	10	EPA 8015C	04/25/13	04/25/13 18:03	AC		
Total Petroleum Hydrocarbons - (C6-C10) GRO									
Gasoline Range Organics	1.1	mg/kg	0.44	EPA 8015C	04/25/13	04/25/13 13:42	JKL		

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



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Baltimore, MD 21230

Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 10 14-15			Matrix:	Soil	Lab ID:	13042404-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Percent Solids									
Percent Solids	89	%		SM2540G	04/25/13	04/25/13 9:25	LMJ		
Target Compound List - VOLATILES									
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Chloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Vinyl chloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Bromomethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Chloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Acetone	ND	ug/kg	81	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Carbon disulfide	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Methyl acetate	ND	ug/kg	25	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Methylene chloride	ND	ug/kg	25	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
2-Butanone (MEK)	ND	ug/kg	51	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Chloroform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Cyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Benzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Trichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Toluene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Chlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		



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Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 10 14-15			Matrix:	Soil	Lab ID:	13042404-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Target Compound List - VOLATILES									
Ethylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
m&p-Xylene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
o-Xylene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Styrene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Bromoform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Naphthalene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
tert-Butanol (TBA)	ND	ug/kg	25	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
tert-Amyl alcohol (TAA)	ND	ug/kg	25	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:06	JKL		
Total Petroleum Hydrocarbons - (C10-C28) DRO									
Diesel Range Organics	ND	mg/kg	11	EPA 8015C	04/25/13	04/25/13 18:03	AC		
Total Petroleum Hydrocarbons - (C6-C10) GRO									
Gasoline Range Organics	ND	mg/kg	0.22	EPA 8015C	04/24/13	04/24/13 18:48	JKL		

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 11 18.5-20			Matrix:	Soil	Lab ID:	13042404-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Percent Solids									
Percent Solids	87	%		SM2540G	04/25/13	04/25/13 9:25	LMJ		
Target Compound List - VOLATILES									
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Chloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Vinyl chloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Bromomethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Chloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Acetone	ND	ug/kg	64	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Carbon disulfide	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Methyl acetate	ND	ug/kg	25	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Methylene chloride	ND	ug/kg	25	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
2-Butanone (MEK)	ND	ug/kg	50	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Chloroform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Cyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Benzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Trichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Toluene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Chlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		



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Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 11 18.5-20			Matrix:	Soil	Lab ID:	13042404-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Target Compound List - VOLATILES									
Ethylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
m&p-Xylene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
o-Xylene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Styrene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Bromoform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Naphthalene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
tert-Butanol (TBA)	ND	ug/kg	25	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
tert-Amyl alcohol (TAA)	ND	ug/kg	25	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 19:33	JKL		
Total Petroleum Hydrocarbons - (C10-C28) DRO									
Diesel Range Organics	ND	mg/kg	11	EPA 8015C	04/25/13	04/25/13 18:40	AC		
Total Petroleum Hydrocarbons - (C6-C10) GRO									
Gasoline Range Organics	ND	mg/kg	0.19	EPA 8015C	04/24/13	04/24/13 19:12	JKL		

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



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2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 11 23-25			Matrix:	Soil	Lab ID:	13042404-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Percent Solids									
Percent Solids	94	%		SM2540G	04/25/13	04/25/13 9:25	LMJ		
Target Compound List - VOLATILES									
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Chloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Vinyl chloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Bromomethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Chloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Acetone	ND	ug/kg	50	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Carbon disulfide	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Methyl acetate	ND	ug/kg	25	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Methylene chloride	ND	ug/kg	25	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
2-Butanone (MEK)	ND	ug/kg	50	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Chloroform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Cyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Benzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Trichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Toluene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Chlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		



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Baltimore, MD 21230

Date Sampled: 04/15/13
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Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 11 23-25			Matrix:	Soil	Lab ID:	13042404-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Target Compound List - VOLATILES									
Ethylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
m&p-Xylene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
o-Xylene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Styrene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Bromoform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Naphthalene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
tert-Butanol (TBA)	ND	ug/kg	25	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
tert-Amyl alcohol (TAA)	ND	ug/kg	25	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:02	JKL		
Total Petroleum Hydrocarbons - (C10-C28) DRO									
Diesel Range Organics	ND	mg/kg	11	EPA 8015C	04/25/13	04/25/13 18:40	AC		
Total Petroleum Hydrocarbons - (C6-C10) GRO									
Gasoline Range Organics	ND	mg/kg	0.2	EPA 8015C	04/24/13	04/24/13 19:36	JKL		

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



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Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 12 29-30			Matrix:	Soil	Lab ID:	13042404-11		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Percent Solids									
Percent Solids	87	%		SM2540G	04/25/13	04/25/13 9:25	LMJ		
Target Compound List - VOLATILES									
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Chloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Vinyl chloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Bromomethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Chloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Acetone	ND	ug/kg	63	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Carbon disulfide	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Methyl acetate	ND	ug/kg	26	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Methylene chloride	ND	ug/kg	26	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
2-Butanone (MEK)	ND	ug/kg	52	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Chloroform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Cyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Benzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Trichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Toluene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Chlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		



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Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 12 29-30			Matrix:	Soil	Lab ID:	13042404-11		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Target Compound List - VOLATILES									
Ethylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
m&p-Xylene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
o-Xylene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Styrene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Bromoform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Naphthalene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
tert-Butanol (TBA)	ND	ug/kg	26	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
tert-Amyl alcohol (TAA)	ND	ug/kg	26	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:30	JKL		
Total Petroleum Hydrocarbons - (C10-C28) DRO									
Diesel Range Organics	ND	mg/kg	11	EPA 8015C	04/25/13	04/25/13 19:17	AC		
Total Petroleum Hydrocarbons - (C6-C10) GRO									
Gasoline Range Organics	ND	mg/kg	0.2	EPA 8015C	04/24/13	04/24/13 20:00	JKL		

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist



Certificate of Analysis

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Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 12 25-26			Matrix:	Soil	Lab ID:	13042404-12		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Percent Solids									
Percent Solids	91	%		SM2540G	04/25/13	04/25/13 9:25	LMJ		
Target Compound List - VOLATILES									
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Chloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Vinyl chloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Bromomethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Chloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Acetone	ND	ug/kg	52	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Carbon disulfide	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Methyl acetate	ND	ug/kg	26	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Methylene chloride	ND	ug/kg	26	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
2-Butanone (MEK)	ND	ug/kg	52	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Chloroform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Cyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Benzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Trichloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Toluene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Chlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		



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Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 12 25-26			Matrix:	Soil	Lab ID:	13042404-12		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
Target Compound List - VOLATILES									
Ethylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
m&p-Xylene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
o-Xylene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Styrene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Bromoform	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Naphthalene	ND	ug/kg	10	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
tert-Butanol (TBA)	ND	ug/kg	26	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
tert-Amyl alcohol (TAA)	ND	ug/kg	26	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	5	EPA 8260B	04/25/13	04/25/13 20:58	JKL		
Total Petroleum Hydrocarbons - (C10-C28) DRO									
Diesel Range Organics	28	mg/kg	11	EPA 8015C	04/25/13	04/25/13 19:17	AC		
Total Petroleum Hydrocarbons - (C6-C10) GRO									
Gasoline Range Organics	ND	mg/kg	0.21	EPA 8015C	04/24/13	04/24/13 20:24	JKL		

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
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Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 14 27-30			Matrix:	Soil			Lab ID:	13042404-13		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.				
Percent Solids											
Percent Solids	87	%		SM2540G	04/25/13	04/25/13 9:25	LMJ				
Target Compound List - VOLATILES											
Dichlorodifluoromethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Chloromethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Vinyl chloride	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Bromomethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Chloroethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Trichlorofluoromethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,1-Dichloroethene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Acetone	ND	ug/kg	5500	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Carbon disulfide	ND	ug/kg	1100	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Methyl acetate	ND	ug/kg	2700	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Methylene chloride	ND	ug/kg	2700	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
trans-1,2-Dichloroethene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Methyl t-butyl ether (MTBE)	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,1-Dichloroethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
cis-1,2-Dichloroethene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
2-Butanone (MEK)	ND	ug/kg	5500	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Chloroform	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,1,1-Trichloroethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Cyclohexane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Carbon tetrachloride	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Benzene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,2-Dichloroethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Trichloroethene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Methylcyclohexane	3,900	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,2-Dichloropropane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Bromodichloromethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
cis-1,3-Dichloropropene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1100	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Toluene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
trans-1,3-Dichloropropene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,1,2-Trichloroethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Tetrachloroethene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
2-Hexanone (MBK)	ND	ug/kg	1100	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Dibromochloromethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,2-Dibromoethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Chlorobenzene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				



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Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 14 27-30			Matrix:	Soil			Lab ID:	13042404-13		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.				
Target Compound List - VOLATILES											
Ethylbenzene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
m&p-Xylene	ND	ug/kg	1100	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
o-Xylene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Styrene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Bromoform	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Isopropylbenzene	1,600	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,1,2,2-Tetrachloroethane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,3-Dichlorobenzene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,4-Dichlorobenzene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,2-Dichlorobenzene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,2-Dibromo-3-chloropropane	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
1,2,4-Trichlorobenzene	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Naphthalene	ND	ug/kg	1100	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Ethyl t-butyl ether (ETBE)	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
tert-Butanol (TBA)	ND	ug/kg	2700	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Diisopropyl ether (DIPE)	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
tert-Amyl methyl ether (TAME)	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
tert-Amyl alcohol (TAA)	ND	ug/kg	2700	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	550	EPA 8260B	04/25/13	04/25/13 21:26	JKL				
Total Petroleum Hydrocarbons - (C10-C28) DRO											
Diesel Range Organics	27	mg/kg	23	EPA 8015C	04/25/13	04/25/13 19:53	AC				
Total Petroleum Hydrocarbons - (C6-C10) GRO											
Gasoline Range Organics	800	mg/kg	22	EPA 8015C	04/24/13	04/24/13 20:48	JKL				

Notes/Qualifiers:

LLQ - Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
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Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 14 30-32			Matrix:	Soil			Lab ID:	13042404-14		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.				
Percent Solids											
Percent Solids	84	%		SM2540G	04/25/13	04/25/13 9:25	LMJ				
Target Compound List - VOLATILES											
Dichlorodifluoromethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Chloromethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Vinyl chloride	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Bromomethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Chloroethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Trichlorofluoromethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,1-Dichloroethene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Acetone	ND	ug/kg	5200	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Carbon disulfide	ND	ug/kg	1000	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Methyl acetate	ND	ug/kg	2600	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Methylene chloride	ND	ug/kg	2600	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
trans-1,2-Dichloroethene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Methyl t-butyl ether (MTBE)	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,1-Dichloroethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
cis-1,2-Dichloroethene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
2-Butanone (MEK)	ND	ug/kg	5200	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Chloroform	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,1,1-Trichloroethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Cyclohexane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Carbon tetrachloride	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Benzene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,2-Dichloroethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Trichloroethene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Methylcyclohexane	1,300	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,2-Dichloropropane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Bromodichloromethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
cis-1,3-Dichloropropene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1000	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Toluene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
trans-1,3-Dichloropropene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,1,2-Trichloroethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Tetrachloroethene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
2-Hexanone (MBK)	ND	ug/kg	1000	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Dibromochloromethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,2-Dibromoethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Chlorobenzene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/15/13
Date Received: 04/24/13 11:50
Date Issued: 04/29/13

Project: SMO Hanover
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13042404

Field Sample ID:	SB 14 30-32			Matrix:	Soil			Lab ID:	13042404-14		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.				
Target Compound List - VOLATILES											
Ethylbenzene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
m&p-Xylene	ND	ug/kg	1000	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
o-Xylene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Styrene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Bromoform	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Isopropylbenzene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,1,2,2-Tetrachloroethane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,3-Dichlorobenzene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,4-Dichlorobenzene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,2-Dichlorobenzene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,2-Dibromo-3-chloropropane	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
1,2,4-Trichlorobenzene	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Naphthalene	ND	ug/kg	1000	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Ethyl t-butyl ether (ETBE)	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
tert-Butanol (TBA)	ND	ug/kg	2600	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Diisopropyl ether (DIPE)	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
tert-Amyl methyl ether (TAME)	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
tert-Amyl alcohol (TAA)	ND	ug/kg	2600	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	520	EPA 8260B	04/25/13	04/25/13 21:55	JKL				
Total Petroleum Hydrocarbons - (C10-C28) DRO											
Diesel Range Organics	ND	mg/kg	12	EPA 8015C	04/25/13	04/25/13 19:53	AC				
Total Petroleum Hydrocarbons - (C6-C10) GRO											
Gasoline Range Organics	380	mg/kg	21	EPA 8015C	04/24/13	04/24/13 21:12	JKL				

Notes/Qualifiers:

LLQ - Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by: 
QC Chemist

Chain of Custody Record

Customer:	ENVIRONMENTAL
Contact/Report to:	BOVA HAMILTON
Phone:	4105250045
Fax:	4105258644

E-mail address:	tphind@cali.com
Project Name:	SIMO Hanover
Project Number:	71401
Location:	Hanover, MD

SDG Number:	13042404
PO Number:	71401-

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested						Sampling Remarks/Comments	
						Preservative	4°C	VOC8260	SW68015	DRO 8015			
	SB7 14-15	4/15	Am	2	S	X	X	X					
	SB7 22.5-25	4/15	Am	2	S	X	X	X					
	SB8 30-32.5	4/15	Am	2	S	X	X	X					
	SB8 22-25	4/15	Am	1	S	X	X	X					
	SB9 18-19	4/15	Pm	1	S	X	X	X					
	SB9 13-15	4/15	Pm	1	S	X	X	X					
	SB10 18-20	4/16	Am	1	S	X	X	X					
	SB10 14-15	4/16	Am	1	S	X	X	X					
	SB11 18 1/2-20	4/16	Am	1	S	X	X	X					
	SB11 23-25	4/16	Am	1	S	X	X	X					

Relinquished by:	<i>[Signature]</i>	Date/Time:	4/24/13	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:		Date/Time:		I II III CLP EDD	Temp: <u>On Ice</u>	STD Next Day 2-Day Other <u>3 DAY</u>
Relinquished by:	<i>[Signature]</i>	Date/Time:		Custody Seals:	Comments/Special Instructions:	
Received by:	<i>[Signature]</i>	Date/Time:	4/24/13 1150	Sample Cooler	<u>Analyze By 4/29/13</u>	
Relinquished by:		Date/Time:		<u>Delivered by client</u>		
Received by:		Date/Time:				

Chain of Custody Record

Customer:	ENVIRONMENTAL
Contact/Report to:	SAME
Phone:	SAME
Fax:	SAME

E-mail address:	SAME
Project Name:	SAME
Project Number:	SAME
Location:	SAME

SDG Number:	13042404
PO Number:	71401-

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested						Sampling Remarks/Comments	
						Preservative	4°C	VOC8260	SW68015	DRO 8015			
	SB12 29-30	4/16	Pm	2	S	X	X	X					
	SB12 25-26	4/16	Pm	2	S	X	X	X					
	SB14 27-30	4/17	Am	2	S	X	X	X					
	SB14 30-32	4/17	Am	2	S	X	X	X					

Analyze By 4/29/13

Relinquished by:	<i>[Signature]</i>	Date/Time:	4/24/13	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:		Date/Time:		I II III CLP EDD	Temp: <u>On Ice</u>	STD Next Day 2-Day Other <u>3 DAY</u>
Relinquished by:	<i>[Signature]</i>	Date/Time:		Custody Seals:	Comments/Special Instructions:	
Received by:	<i>[Signature]</i>	Date/Time:	4/24/13 1150	Sample Cooler	<u>Analyze By 4/29/13</u>	
Relinquished by:		Date/Time:		<u>Delivered by client</u>		
Received by:		Date/Time:				

ATTACHMENT 2

LABORATORY REPORTS OF ANALYSES - WATER SAMPLES



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 06/05/13 12:00
Date Received: 06/05/13 13:42
Date Issued: 06/06/13

Project: SMO-Hanover MD
Site Location: Hanover - Kinder Care
Project Number: 71401

SDG Number: 13060504

Field Sample ID:	71401-KC	Matrix:	Drinking Water	Lab ID:	13060504-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Volatile Organic Compounds							
Benzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Bromobenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Bromochloromethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Bromodichloromethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Bromoform	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Bromomethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
n-Butylbenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
sec-Butylbenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
tert-Butylbenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Carbon tetrachloride	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Chlorobenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Chloroethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Chloroform	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Chloromethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
2-Chlorotoluene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
4-Chlorotoluene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Dibromochloromethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,2-Dibromoethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Dibromomethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,2-Dichlorobenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,3-Dichlorobenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,4-Dichlorobenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Dichlorodifluoromethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,1-Dichloroethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,2-Dichloroethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,1-Dichloroethene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
cis-1,2-Dichloroethene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
trans-1,2-Dichloroethene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,2-Dichloropropane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,3-Dichloropropane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
2,2-Dichloropropane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,1-Dichloropropene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
cis-1,3-Dichloropropene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
trans-1,3-Dichloropropene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Ethylbenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Isopropylbenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
p-Isopropyltoluene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Methylene chloride	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	0.2	EPA 524.2	06/06/13	06/06/13 12:18	JKL



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 06/05/13 12:00
Date Received: 06/05/13 13:42
Date Issued: 06/06/13

Project: SMO-Hanover MD
Site Location: Hanover - Kinder Care
Project Number: 71401

SDG Number: 13060504

Field Sample ID:	71401-KC	Matrix:	Drinking Water	Lab ID:	13060504-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Volatile Organic Compounds							
Naphthalene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
n-Propylbenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Styrene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Tetrachloroethene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Toluene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,2,3-Trichlorobenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,2,4-Trichlorobenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,1,1-Trichloroethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,1,2-Trichloroethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Trichloroethene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Trichlorofluoromethane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,2,3-Trichloropropane	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,2,4-Trimethylbenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
1,3,5-Trimethylbenzene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Vinyl chloride	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
m&p-Xylene	ND	ug/L	1	EPA 524.2	06/06/13	06/06/13 12:18	JKL
o-Xylene	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
tert-Butanol (TBA)	ND	ug/L	5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
Diisopropyl ether (DIPE)	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	5	EPA 524.2	06/06/13	06/06/13 12:18	JKL
tert-Amyl ethyl ether (TAE)	ND	ug/L	0.5	EPA 524.2	06/06/13	06/06/13 12:18	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-1	Matrix:	Water	Lab ID:	13043002-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Chloromethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Vinyl chloride	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Bromomethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Chloroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,1-Dichloroethene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Acetone	ND	ug/L	10	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Carbon disulfide	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Methyl acetate	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Methylene chloride	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 17:54	JKL
trans-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,1-Dichloroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
cis-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
2-Butanone (MEK)	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Chloroform	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,1,1-Trichloroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Cyclohexane	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Carbon tetrachloride	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Benzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,2-Dichloroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Trichloroethene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Methylcyclohexane	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,2-Dichloropropane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Bromodichloromethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
cis-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Toluene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
trans-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,1,2-Trichloroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Tetrachloroethene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
2-Hexanone (MBK)	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Dibromochloromethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,2-Dibromoethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Chlorobenzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Ethylbenzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
m&p-Xylene	ND	ug/L	2	EPA 8260B	05/03/13	05/03/13 17:54	JKL
o-Xylene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-1	Matrix:	Water	Lab ID:	13043002-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Styrene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Bromofom	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Isopropylbenzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,3-Dichlorobenzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,4-Dichlorobenzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,2-Dichlorobenzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
1,2,4-Trichlorobenzene	ND	ug/L	2	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Naphthalene	ND	ug/L	10	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Diisopropyl ether (DIPE)	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	05/03/13	05/03/13 17:54	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 17:54	JKL
Total Petroleum Hydrocarbons - (C10-C28) DRO							
Diesel Range Organics	ND	mg/L	0.22	EPA 8015C	05/07/13	05/06/13 12:42	AC
Total Petroleum Hydrocarbons - (C6-C10) GRO							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	05/03/13	05/03/13 18:55	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-4	Matrix:	Water	Lab ID:	13043002-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Chloromethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Vinyl chloride	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Bromomethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Chloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Trichlorofluoromethane	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,1-Dichloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Acetone	ND	ug/L	100	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Carbon disulfide	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Methyl acetate	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Methylene chloride	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:33	JKL
trans-1,2-Dichloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,1-Dichloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
cis-1,2-Dichloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
2-Butanone (MEK)	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Chloroform	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,1,1-Trichloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Cyclohexane	92	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Carbon tetrachloride	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Benzene	160	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,2-Dichloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Trichloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Methylcyclohexane	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,2-Dichloropropane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Bromodichloromethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
cis-1,3-Dichloropropene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Toluene	110	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
trans-1,3-Dichloropropene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,1,2-Trichloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Tetrachloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
2-Hexanone (MBK)	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Dibromochloromethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,2-Dibromoethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Chlorobenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Ethylbenzene	62	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
m&p-Xylene	120	ug/L	20	EPA 8260B	05/06/13	05/06/13 11:33	JKL
o-Xylene	26	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-4	Matrix:	Water	Lab ID:	13043002-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Styrene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Bromofom	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Isopropylbenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,3-Dichlorobenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,4-Dichlorobenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,2-Dichlorobenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
1,2,4-Trichlorobenzene	ND	ug/L	20	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Naphthalene	ND	ug/L	100	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
tert-Butanol (TBA)	ND	ug/L	250	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Diisopropyl ether (DIPE)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	250	EPA 8260B	05/06/13	05/06/13 11:33	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:33	JKL
Total Petroleum Hydrocarbons - (C10-C28) DRO							
Diesel Range Organics	0.37	mg/L	0.23	EPA 8015C	05/07/13	05/07/13 11:38	AC
Total Petroleum Hydrocarbons - (C6-C10) GRO							
Gasoline Range Organics	3.1	mg/L	1	EPA 8015C	05/03/13	05/03/13 19:19	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-7	Matrix:	Water	Lab ID:	13043002-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Chloromethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Vinyl chloride	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Bromomethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Chloroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Trichlorofluoromethane	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,1-Dichloroethene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Acetone	ND	ug/L	1000	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Carbon disulfide	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Methyl acetate	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Methylene chloride	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:06	JKL
trans-1,2-Dichloroethene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,1-Dichloroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
cis-1,2-Dichloroethene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
2-Butanone (MEK)	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Chloroform	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,1,1-Trichloroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Cyclohexane	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Carbon tetrachloride	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Benzene	1,500	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,2-Dichloroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Trichloroethene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Methylcyclohexane	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,2-Dichloropropane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Bromodichloromethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
cis-1,3-Dichloropropene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Toluene	800	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
trans-1,3-Dichloropropene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,1,2-Trichloroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Tetrachloroethene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
2-Hexanone (MBK)	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Dibromochloromethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,2-Dibromoethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Chlorobenzene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Ethylbenzene	620	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
m&p-Xylene	1,500	ug/L	200	EPA 8260B	05/03/13	05/03/13 19:06	JKL
o-Xylene	160	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-7	Matrix:	Water	Lab ID:	13043002-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Styrene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Bromofom	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Isopropylbenzene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,3-Dichlorobenzene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,4-Dichlorobenzene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,2-Dichlorobenzene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
1,2,4-Trichlorobenzene	ND	ug/L	200	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Naphthalene	ND	ug/L	1000	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
tert-Butanol (TBA)	ND	ug/L	2500	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Diisopropyl ether (DIPE)	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	2500	EPA 8260B	05/03/13	05/03/13 19:06	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:06	JKL
Total Petroleum Hydrocarbons - (C10-C28) DRO							
Diesel Range Organics	3.4	mg/L	0.2	EPA 8015C	05/07/13	05/07/13 12:13	AC
Total Petroleum Hydrocarbons - (C6-C10) GRO							
Gasoline Range Organics	20	mg/L	1	EPA 8015C	05/03/13	05/03/13 19:43	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-8	Matrix:	Water	Lab ID:	13043002-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Chloromethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Vinyl chloride	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Bromomethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Chloroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Trichlorofluoromethane	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,1-Dichloroethene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Acetone	ND	ug/L	1000	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Carbon disulfide	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Methyl acetate	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Methylene chloride	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:30	JKL
trans-1,2-Dichloroethene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,1-Dichloroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
cis-1,2-Dichloroethene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
2-Butanone (MEK)	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Chloroform	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,1,1-Trichloroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Cyclohexane	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Carbon tetrachloride	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Benzene	1,500	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,2-Dichloroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Trichloroethene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Methylcyclohexane	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,2-Dichloropropane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Bromodichloromethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
cis-1,3-Dichloropropene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Toluene	900	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
trans-1,3-Dichloropropene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,1,2-Trichloroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Tetrachloroethene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
2-Hexanone (MBK)	ND	ug/L	500	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Dibromochloromethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,2-Dibromoethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Chlorobenzene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Ethylbenzene	1,600	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
m&p-Xylene	4,100	ug/L	200	EPA 8260B	05/03/13	05/03/13 19:30	JKL
o-Xylene	490	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-8	Matrix:	Water	Lab ID:	13043002-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Styrene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Bromofom	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Isopropylbenzene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,3-Dichlorobenzene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,4-Dichlorobenzene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,2-Dichlorobenzene	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
1,2,4-Trichlorobenzene	ND	ug/L	200	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Naphthalene	ND	ug/L	1000	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
tert-Butanol (TBA)	ND	ug/L	2500	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Diisopropyl ether (DIPE)	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	2500	EPA 8260B	05/03/13	05/03/13 19:30	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	100	EPA 8260B	05/03/13	05/03/13 19:30	JKL
Total Petroleum Hydrocarbons - (C10-C28) DRO							
Diesel Range Organics	4.2	mg/L	0.22	EPA 8015C	05/07/13	05/07/13 12:13	AC
Total Petroleum Hydrocarbons - (C6-C10) GRO							
Gasoline Range Organics	18	mg/L	1	EPA 8015C	05/03/13	05/03/13 20:07	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-11	Matrix:	Water	Lab ID:	13043002-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Chloromethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Vinyl chloride	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Bromomethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Chloroethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,1-Dichloroethene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Acetone	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Carbon disulfide	ND	ug/L	5	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Methyl acetate	ND	ug/L	5	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Methylene chloride	ND	ug/L	5	EPA 8260B	05/06/13	05/06/13 13:27	JKL
trans-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,1-Dichloroethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
cis-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
2-Butanone (MEK)	ND	ug/L	5	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Chloroform	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,1,1-Trichloroethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Cyclohexane	72	ug/L	50	EPA 8260B	05/06/13	05/06/13 13:51	JKL
Carbon tetrachloride	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Benzene	59	ug/L	10	EPA 8260B	05/06/13	05/06/13 13:51	JKL
1,2-Dichloroethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Trichloroethene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Methylcyclohexane	54	ug/L	5	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,2-Dichloropropane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Bromodichloromethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
cis-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Toluene	4	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
trans-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,1,2-Trichloroethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Tetrachloroethene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
2-Hexanone (MBK)	ND	ug/L	5	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Dibromochloromethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,2-Dibromoethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Chlorobenzene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Ethylbenzene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
m&p-Xylene	18	ug/L	2	EPA 8260B	05/06/13	05/06/13 13:27	JKL
o-Xylene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL



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Certificate of Analysis

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2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-11	Matrix:	Water	Lab ID:	13043002-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Styrene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Bromofom	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Isopropylbenzene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,3-Dichlorobenzene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,4-Dichlorobenzene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,2-Dichlorobenzene	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
1,2,4-Trichlorobenzene	ND	ug/L	2	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Naphthalene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Diisopropyl ether (DIPE)	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	05/06/13	05/06/13 13:27	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	1	EPA 8260B	05/06/13	05/06/13 13:27	JKL
Total Petroleum Hydrocarbons - (C10-C28) DRO							
Diesel Range Organics	0.42	mg/L	0.25	EPA 8015C	05/07/13	05/07/13 12:50	AC
Total Petroleum Hydrocarbons - (C6-C10) GRO							
Gasoline Range Organics	2.6	mg/L	1	EPA 8015C	05/03/13	05/03/13 20:30	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-12	Matrix:	Water	Lab ID:	13043002-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Chloromethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Vinyl chloride	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Bromomethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Chloroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,1-Dichloroethene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Acetone	ND	ug/L	10	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Carbon disulfide	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Methyl acetate	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Methylene chloride	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 18:18	JKL
trans-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,1-Dichloroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
cis-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
2-Butanone (MEK)	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Chloroform	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,1,1-Trichloroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Cyclohexane	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Carbon tetrachloride	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Benzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,2-Dichloroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Trichloroethene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Methylcyclohexane	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,2-Dichloropropane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Bromodichloromethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
cis-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Toluene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
trans-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,1,2-Trichloroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Tetrachloroethene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
2-Hexanone (MBK)	ND	ug/L	5	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Dibromochloromethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,2-Dibromoethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Chlorobenzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Ethylbenzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
m&p-Xylene	ND	ug/L	2	EPA 8260B	05/03/13	05/03/13 18:18	JKL
o-Xylene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL



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Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-12	Matrix:	Water	Lab ID:	13043002-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Styrene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Bromofom	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Isopropylbenzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,3-Dichlorobenzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,4-Dichlorobenzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,2-Dichlorobenzene	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
1,2,4-Trichlorobenzene	ND	ug/L	2	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Naphthalene	ND	ug/L	10	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Diisopropyl ether (DIPE)	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	05/03/13	05/03/13 18:18	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	1	EPA 8260B	05/03/13	05/03/13 18:18	JKL
Total Petroleum Hydrocarbons - (C10-C28) DRO							
Diesel Range Organics	0.31	mg/L	0.23	EPA 8015C	05/07/13	05/07/13 12:50	AC
Total Petroleum Hydrocarbons - (C6-C10) GRO							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	05/03/13	05/03/13 20:54	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-13			Matrix:	Water			Lab ID:	13043002-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.				
Target Compound List - VOLATILES											
Dichlorodifluoromethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Chloromethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Vinyl chloride	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Bromomethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Chloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Trichlorofluoromethane	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,1-Dichloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,1,2-Trichlorotrifluoroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Acetone	ND	ug/L	100	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Carbon disulfide	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Methyl acetate	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Methylene chloride	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
trans-1,2-Dichloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Methyl t-butyl ether (MTBE)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,1-Dichloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
cis-1,2-Dichloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
2-Butanone (MEK)	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Chloroform	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,1,1-Trichloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Cyclohexane	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Carbon tetrachloride	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Benzene	100	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,2-Dichloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Trichloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Methylcyclohexane	57	ug/L	50	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,2-Dichloropropane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Bromodichloromethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
cis-1,3-Dichloropropene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
4-Methyl-2-pentanone (MIBK)	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Toluene	1,300	ug/L	100	EPA 8260B	05/03/13	05/03/13 20:17	JKL				
trans-1,3-Dichloropropene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,1,2-Trichloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Tetrachloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
2-Hexanone (MBK)	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Dibromochloromethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,2-Dibromoethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Chlorobenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Ethylbenzene	210	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
m&p-Xylene	880	ug/L	20	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
o-Xylene	490	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-13			Matrix:	Water			Lab ID:	13043002-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.				
Target Compound List - VOLATILES											
Styrene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Bromoform	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Isopropylbenzene	46	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,1,2,2-Tetrachloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,3-Dichlorobenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,4-Dichlorobenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,2-Dichlorobenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,2-Dibromo-3-chloropropane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
1,2,4-Trichlorobenzene	ND	ug/L	20	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Naphthalene	160	ug/L	100	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Ethyl t-butyl ether (ETBE)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
tert-Butanol (TBA)	ND	ug/L	250	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Diisopropyl ether (DIPE)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
tert-Amyl methyl ether (TAME)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
tert-Amyl alcohol (TAA)	ND	ug/L	250	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
tert-Amyl ethyl ether (TAEE)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 12:21	JKL				
Total Petroleum Hydrocarbons - (C6-C10) GRO											
Gasoline Range Organics	13	mg/L	1	EPA 8015C	05/03/13	05/03/13 21:18	JKL				

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-14	Matrix:	Water	Lab ID:	13043002-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Chloromethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Vinyl chloride	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Bromomethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Chloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Trichlorofluoromethane	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,1-Dichloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Acetone	ND	ug/L	100	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Carbon disulfide	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Methyl acetate	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Methylene chloride	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:57	JKL
trans-1,2-Dichloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,1-Dichloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
cis-1,2-Dichloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
2-Butanone (MEK)	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Chloroform	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,1,1-Trichloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Cyclohexane	130	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Carbon tetrachloride	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Benzene	26	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,2-Dichloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Trichloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Methylcyclohexane	210	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,2-Dichloropropane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Bromodichloromethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
cis-1,3-Dichloropropene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Toluene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
trans-1,3-Dichloropropene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,1,2-Trichloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Tetrachloroethene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
2-Hexanone (MBK)	ND	ug/L	50	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Dibromochloromethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,2-Dibromoethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Chlorobenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Ethylbenzene	36	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
m&p-Xylene	200	ug/L	20	EPA 8260B	05/06/13	05/06/13 11:57	JKL
o-Xylene	12	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 MW-14	Matrix:	Water	Lab ID:	13043002-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Styrene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Bromofom	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Isopropylbenzene	230	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,3-Dichlorobenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,4-Dichlorobenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,2-Dichlorobenzene	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
1,2,4-Trichlorobenzene	ND	ug/L	20	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Naphthalene	100	ug/L	100	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
tert-Butanol (TBA)	ND	ug/L	250	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Diisopropyl ether (DIPE)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	250	EPA 8260B	05/06/13	05/06/13 11:57	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	10	EPA 8260B	05/06/13	05/06/13 11:57	JKL
Total Petroleum Hydrocarbons - (C10-C28) DRO							
Diesel Range Organics	55	mg/L	0.24	EPA 8015C	05/07/13	05/07/13 13:25	AC
Total Petroleum Hydrocarbons - (C6-C10) GRO							
Gasoline Range Organics	19	mg/L	1	EPA 8015C	05/03/13	05/03/13 21:42	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 Pot	Matrix:	Drinking Water	Lab ID:	13043002-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Volatile Organic Compounds							
Benzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Bromobenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Bromochloromethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Bromodichloromethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Bromoform	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Bromomethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
n-Butylbenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
sec-Butylbenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
tert-Butylbenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Carbon tetrachloride	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Chlorobenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Chloroethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Chloroform	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Chloromethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
2-Chlorotoluene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
4-Chlorotoluene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Dibromochloromethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,2-Dibromoethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Dibromomethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,2-Dichlorobenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,3-Dichlorobenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,4-Dichlorobenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Dichlorodifluoromethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,1-Dichloroethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,2-Dichloroethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,1-Dichloroethene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
cis-1,2-Dichloroethene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
trans-1,2-Dichloroethene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,2-Dichloropropane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,3-Dichloropropane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
2,2-Dichloropropane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,1-Dichloropropene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
cis-1,3-Dichloropropene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
trans-1,3-Dichloropropene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Ethylbenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Isopropylbenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
p-Isopropyltoluene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Methylene chloride	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	0.2	EPA 524.2	05/06/13	05/06/13 17:16	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 04/29/13
Date Received: 04/30/13 11:30
Date Issued: 05/07/13

Project: SMO Ft. Meade Shell
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 13043002

Field Sample ID:	71401 Pot	Matrix:	Drinking Water	Lab ID:	13043002-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Volatile Organic Compounds							
Napthalene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
n-Propylbenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Styrene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Tetrachloroethene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Toluene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,2,3-Trichlorobenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,2,4-Trichlorobenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,1,1-Trichloroethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,1,2-Trichloroethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Trichloroethene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Trichlorofluoromethane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,2,3-Trichloropropane	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,2,4-Trimethylbenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
1,3,5-Trimethylbenzene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Vinyl chloride	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
m&p-Xylene	ND	ug/L	1	EPA 524.2	05/06/13	05/06/13 17:16	JKL
o-Xylene	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
tert-Butanol (TBA)	ND	ug/L	5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
Diisopropyl ether (DIPE)	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	5	EPA 524.2	05/06/13	05/06/13 17:16	JKL
tert-Amyl ethyl ether (TAE)	ND	ug/L	0.5	EPA 524.2	05/06/13	05/06/13 17:16	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



Chain of Custody Record

Customer:	Envirotech
Contact/Report to:	Doug Hamilton
Phone:	410) 525-0055
Fax:	410) 525-8644

E-mail address:	TPH.MD@ADL-Com
Project Name:	SMD Ft. Meade Shell
Project Number:	71401
Location:	Hanover, MD

SDG Number:	13043002
Sampled by:	
PO Number:	71401-4042

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested							Preservative	Sampling Remarks/Comments	
						VOC 8260	GRO 8015	DRO 8015	VOC 524.2						
	71401 MW-1	4/29/13	AM	4	GW	✓	✓	✓							
	71401 MW-4	4/29	AM	4	GW	✓	✓	✓							
	71401 MW-7	4/29	AM	4	GW	✓	✓	✓							
	71401 MW-8	4/29	AM	4	GW	✓	✓	✓							
	71401 MW-9	4/29	AM	4	GW	✓	✓	✓							
	71401 MW-11	4/29	AM	4	GW	✓	✓	✓							
	71401 MW-12	4/29	AM	4	GW	✓	✓	✓							
	71401 MW-13	4/29	AM	3	GW	✓	✓	✓							
	71401 MW-14	4/29	AM	4	GW	✓	✓	✓							
	71401 Pot	4/29	AM	3	GW	✓	✓	✓							

Relinquished by:	<i>[Signature]</i>	Date/Time:	4/29/13 1:30pm	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	4/30/13 1:30	I II III CLP EDD	Temp: On Ice	STD Next Day 2-Day Other
Relinquished by:		Date/Time:		Custody Seals:	Comments/Special Instructions:	
Received by:		Date/Time:		Sample Cooler		
Relinquished by:		Date/Time:		Delivered by client		
Received by:		Date/Time:				



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 12/26/12
Date Received: 12/28/12 10:15
Date Issued: 01/08/13

Project: SMO Ft. Meade
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 12122801

Field Sample ID:	71401 MW-1	Matrix:	Water	Lab ID:	12122801-01	
Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES						
Dichlorodifluoromethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Chloromethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Vinyl chloride	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Bromomethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Chloroethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,1-Dichloroethene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Acetone	ND	ug/L	10	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Carbon disulfide	ND	ug/L	5	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Methyl acetate	ND	ug/L	5	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Methylene chloride	ND	ug/L	5	EPA 8260B	01/02/13 01/02/13 16:36	JKL
trans-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,1-Dichloroethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
cis-1,2-Dichloroethene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
2-Butanone (MEK)	ND	ug/L	5	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Chloroform	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,1,1-Trichloroethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Cyclohexane	ND	ug/L	5	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Carbon tetrachloride	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Benzene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,2-Dichloroethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Trichloroethene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Methylcyclohexane	ND	ug/L	5	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,2-Dichloropropane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Bromodichloromethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
cis-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Toluene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
trans-1,3-Dichloropropene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,1,2-Trichloroethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Tetrachloroethene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
2-Hexanone (MBK)	ND	ug/L	5	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Dibromochloromethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,2-Dibromoethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Chlorobenzene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Ethylbenzene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
m&p-Xylene	ND	ug/L	2	EPA 8260B	01/02/13 01/02/13 16:36	JKL
o-Xylene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 12/26/12
Date Received: 12/28/12 10:15
Date Issued: 01/08/13

Project: SMO Ft. Meade
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 12122801

Field Sample ID:	71401 MW-1	Matrix:	Water	Lab ID:	12122801-01	
Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES						
Styrene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Bromofom	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Isopropylbenzene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,3-Dichlorobenzene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,4-Dichlorobenzene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,2-Dichlorobenzene	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
1,2,4-Trichlorobenzene	ND	ug/L	2	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Naphthalene	ND	ug/L	10	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Diisopropyl ether (DIPE)	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	01/02/13 01/02/13 16:36	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	1	EPA 8260B	01/02/13 01/02/13 16:36	JKL
Total Petroleum Hydrocarbons - (C10-C28) DRO						
Diesel Range Organics	0.35	mg/L	0.33	EPA 8015C	01/02/13 01/03/13 9:09	AC
Total Petroleum Hydrocarbons - (C6-C10) GRO						
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	01/04/13 01/04/13 20:47	CBS

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 12/26/12
Date Received: 12/28/12 10:15
Date Issued: 01/08/13

Project: SMO Ft. Meade
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 12122801

Field Sample ID:	71401 MW-4	Matrix:	Water	Lab ID:	12122801-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Dichlorodifluoromethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Chloromethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Vinyl chloride	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Bromomethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Chloroethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Trichlorofluoromethane	ND	ug/L	100	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,1-Dichloroethene	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,1,2-Trichlorotrifluoroethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Acetone	ND	ug/L	200	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Carbon disulfide	ND	ug/L	100	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Methyl acetate	ND	ug/L	100	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Methylene chloride	ND	ug/L	100	EPA 8260B	01/03/13	01/03/13 14:59	JKL
trans-1,2-Dichloroethene	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Methyl t-butyl ether (MTBE)	61	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,1-Dichloroethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
cis-1,2-Dichloroethene	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
2-Butanone (MEK)	ND	ug/L	100	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Chloroform	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,1,1-Trichloroethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Cyclohexane	220	ug/L	100	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Carbon tetrachloride	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Benzene	2,900	ug/L	100	EPA 8260B	01/04/13	01/04/13 12:37	JKL
1,2-Dichloroethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Trichloroethene	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Methylcyclohexane	ND	ug/L	100	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,2-Dichloropropane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Bromodichloromethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
cis-1,3-Dichloropropene	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Toluene	300	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
trans-1,3-Dichloropropene	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,1,2-Trichloroethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Tetrachloroethene	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
2-Hexanone (MBK)	ND	ug/L	100	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Dibromochloromethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,2-Dibromoethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Chlorobenzene	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Ethylbenzene	690	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
m&p-Xylene	1,200	ug/L	40	EPA 8260B	01/03/13	01/03/13 14:59	JKL
o-Xylene	41	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL



Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 12/26/12
Date Received: 12/28/12 10:15
Date Issued: 01/08/13

Project: SMO Ft. Meade
Site Location: Hanover, MD
Project Number: 71401

SDG Number: 12122801

Field Sample ID:	71401 MW-4	Matrix:	Water	Lab ID:	12122801-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
Styrene	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Bromofom	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Isopropylbenzene	35	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,3-Dichlorobenzene	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,4-Dichlorobenzene	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,2-Dichlorobenzene	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
1,2,4-Trichlorobenzene	ND	ug/L	40	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Naphthalene	ND	ug/L	200	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
tert-Butanol (TBA)	ND	ug/L	500	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Diisopropyl ether (DIPE)	71	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	500	EPA 8260B	01/03/13	01/03/13 14:59	JKL
tert-Amyl ethyl ether (TAEE)	ND	ug/L	20	EPA 8260B	01/03/13	01/03/13 14:59	JKL
Total Petroleum Hydrocarbons - (C10-C28) DRO							
Diesel Range Organics	0.28	mg/L	0.24	EPA 8015C	01/02/13	01/03/13 9:42	AC
Total Petroleum Hydrocarbons - (C6-C10) GRO							
Gasoline Range Organics	9.9	mg/L	0.2	EPA 8015C	01/04/13	01/04/13 21:10	CBS

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist

Chain of Custody Record

Customer:	Eukrotech
Contact/Report to:	Dave Hamilton
Phone:	410) 525-0045
Fax:	410) 525-9644

E-mail address:	SPHMD@HDL.com
Project Name:	SMD Ft. Meade
Project Number:	71401
Location:	Hanover, MD

SDG Number: 12122801

PO Number: 71401-3351

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Preservative	Sampling Remarks/Comments
	71401 MW-1	12/26/12	11 AM	4		✓	✓	✓									
	71401 MW-4	12/26/12	11 AM	4		✓	✓	✓									
	71401 MW-4	12/26/12	11 AM	4		✓	✓	✓									

Relinquished by:		Date/Time:	12/26/12 11 AM	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:		Date/Time:	12/28/12 10:15	I II III CLP EDD	Temp: On Ice	STD Next Day 2-Day Other
Relinquished by:		Date/Time:		Custody Seals:	Comments/Special Instructions:	
Received by:		Date/Time:		Sample Cooler		
Relinquished by:		Date/Time:		Delivered by client		
Received by:		Date/Time:				



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 12/06/12
Date Received: 12/06/12 10:15
Date Issued: 12/13/12

Project: SMO Ft. Meade Shell
Site Location: Severn, MD
Project Number: 71401

SDG Number: 12120601

Field Sample ID:	71401 SW-1	Matrix:	Drinking Water	Lab ID:	12120601-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Volatile Organic Compounds							
Benzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Bromobenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Bromochloromethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Bromodichloromethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Bromoform	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Bromomethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
n-Butylbenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
sec-Butylbenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
tert-Butylbenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Carbon tetrachloride	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Chlorobenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Chloroethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Chloroform	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Chloromethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
2-Chlorotoluene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
4-Chlorotoluene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Dibromochloromethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,2-Dibromoethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Dibromomethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,2-Dichlorobenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,3-Dichlorobenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,4-Dichlorobenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Dichlorodifluoromethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,1-Dichloroethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,2-Dichloroethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,1-Dichloroethene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
cis-1,2-Dichloroethene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
trans-1,2-Dichloroethene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,2-Dichloropropane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,3-Dichloropropane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
2,2-Dichloropropane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,1-Dichloropropene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
cis-1,3-Dichloropropene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
trans-1,3-Dichloropropene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Ethylbenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Isopropylbenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
p-Isopropyltoluene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Methylene chloride	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Methyl t-butyl ether (MTBE)	ND	ug/L	0.2	EPA 524.2	12/06/12	12/06/12 14:53	JKL



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Envirotech Consultants, LLC.
2931 Whittington Ave.
Baltimore, MD 21230

Date Sampled: 12/06/12
Date Received: 12/06/12 10:15
Date Issued: 12/13/12

Project: SMO Ft. Meade Shell
Site Location: Severn, MD
Project Number: 71401

SDG Number: 12120601

Field Sample ID:	71401 SW-1	Matrix:	Drinking Water	Lab ID:	12120601-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Volatile Organic Compounds							
Napthalene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
n-Propylbenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Styrene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Tetrachloroethene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Toluene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,2,3-Trichlorobenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,2,4-Trichlorobenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,1,1-Trichloroethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,1,2-Trichloroethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Trichloroethene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Trichlorofluoromethane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,2,3-Trichloropropane	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,2,4-Trimethylbenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
1,3,5-Trimethylbenzene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Vinyl chloride	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
m&p-Xylene	ND	ug/L	1	EPA 524.2	12/06/12	12/06/12 14:53	JKL
o-Xylene	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
tert-Butanol (TBA)	ND	ug/L	5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
Diisopropyl ether (DIPE)	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
tert-Amyl alcohol (TAA)	ND	ug/L	5	EPA 524.2	12/06/12	12/06/12 14:53	JKL
tert-Amyl ethyl ether (TAE)	ND	ug/L	0.5	EPA 524.2	12/06/12	12/06/12 14:53	JKL

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.

Approved by:

QC Chemist

