March 4, 2016

Mrs. Jeannette DeBartolomeo
Maryland Department of the Environment (MDE)
Oil Control Program
1800 Washington Boulevard
Baltimore, Maryland 21230-1719

Re: **Rebound Evaluation – Round Two – Month Six**
Royal Farms Store # 96
500 Mechanics Valley Road
North East, MD
OCP Case No. 2011-0729-CE
MDE Facility No. 13326

Dear Mrs. DeBartolomeo,

Advantage Environmental Consultants, LLC (AEC), on behalf of Royal Farms / Two Farms, Inc. (Royal Farms), is presenting this data and analysis package for the sixth month of the second round of the Rebound Evaluation following deactivation of the Vapor Extraction / Groundwater Extraction (VE/GE) remediation system located at 500 Mechanics Valley Road in North East, MD (i.e. the "Site"). Sampling procedures and analysis parameters used for this Rebound Evaluation are outlined in AEC's Rebound Evaluation Work Plan – Revised dated April 20, 2015 and approved by MDE in a letter dated May 21, 2015.

The rebound test is designed to continue for 12 months unless the evaluation determines that a restart of the VE/GE system is necessary. Data for the evaluation is obtained by sampling eight select representative wells on a monthly basis for the first 6 months following operation of the VE/GE System and then quarterly for the remainder of the rebound period. Eight wells are utilized for the purposes of this evaluation: MW-8, RW-1, RW-2, RW-4, RW-6, RW-8, RW-11, and RW-12. A figure depicting the well locations is included as Figure 1 of Attachment A.

Established Baseline

The rebound in the selected wells is assessed for the following fuel constituents: benzene, total BTEX (benzene, toluene, ethylbenzene, and xylenes), and naphthalene. Baseline concentrations for these constituents in each respective well have been established based on results reported from sampling events after the discovery of the release and prior to the start-up of the VE/GE system. The baseline concentrations for the rebound study are listed in Table 1 of Attachment B.

Evaluation Parameters

Laboratory results from each Rebound Evaluation event are compared to the baseline concentrations for benzene, total BTEX, and naphthalene in each well independently. A ratio is generated for each constituent in each well using the most recent laboratory results in relation to the established baseline concentration. The current rebound concentration ratios are listed in Table 1 of Attachment B. For analysis of the data obtained from each Rebound Evaluation sampling event, rebound response for benzene, total BTEX, and naphthalene in each well is classified under one of the following three cases:

- Case A – Little-to-No Rebound, defined as the rebound ratio less than 0.25 (25 percent);
- Case B – Gradual Rebound, defined as the rebound ratio greater than or equal to 0.25 percent but less than 0.75 ; and,
- Case C - Rapid Rebound, defined as the rebound ratio greater than or equal to 0.75 (75 percent).

If a rebound ratio for benzene, total BTEX, or naphthalene is greater than 75 percent (Case C - Rapid Rebound) in the same well during two consecutive sampling events, then the rebound test will be terminated and the VE/GE system will be restarted. Case C threshold concentrations for each constituent of concern in each selected well are included in Table 1 of Attachment B.

In the case that the rebound evaluation criteria is met, the VE/GE system will operate for one month before being shutdown again to begin a new round of the Rebound Evaluation. Sampling results from the third month of the first round of the Rebound Evaluation met the restart criteria for a single constituent in a single well and the VE/GE System was restarted for one month from August 5 through September 4, 2015.

Sampling Events

The VE/GE system was shut down to begin the second round of the Rebound Evaluation on September 4, 2015. AEC performed sampling for the sixth month of the second round of the Rebound Evaluation on February 17th, 2016 along with the regular quarterly sampling event for the first quarter of 2016. Samples were collected using the purge and bail method in accordance with standard operating procedures for groundwater sampling at the Site.

Results

Sampling results indicate that the Case C criteria has not been met for any of the constituents of concern in any of the selected wells. Therefore, the VE/GE system will remain in a stand-by condition. The greatest rebound for any rebound evaluation constituent in any selected well is 0.470 or 47.0% for naphthalene in RW-11. Rebound results for all wells are included in Table 1 of Attachment B. Laboratory analytical results and chain of custody documentation is included as Attachment C.

In addition to benzene, total BTEX, and naphthalene; methyl-tert butyl ether (MTBE) is also included in all laboratory analysis for this Rebound Evaluation at the request of MDE. MTBE was not reported above laboratory detection limits in samples from the selected rebound evaluation wells.

Sincerely,

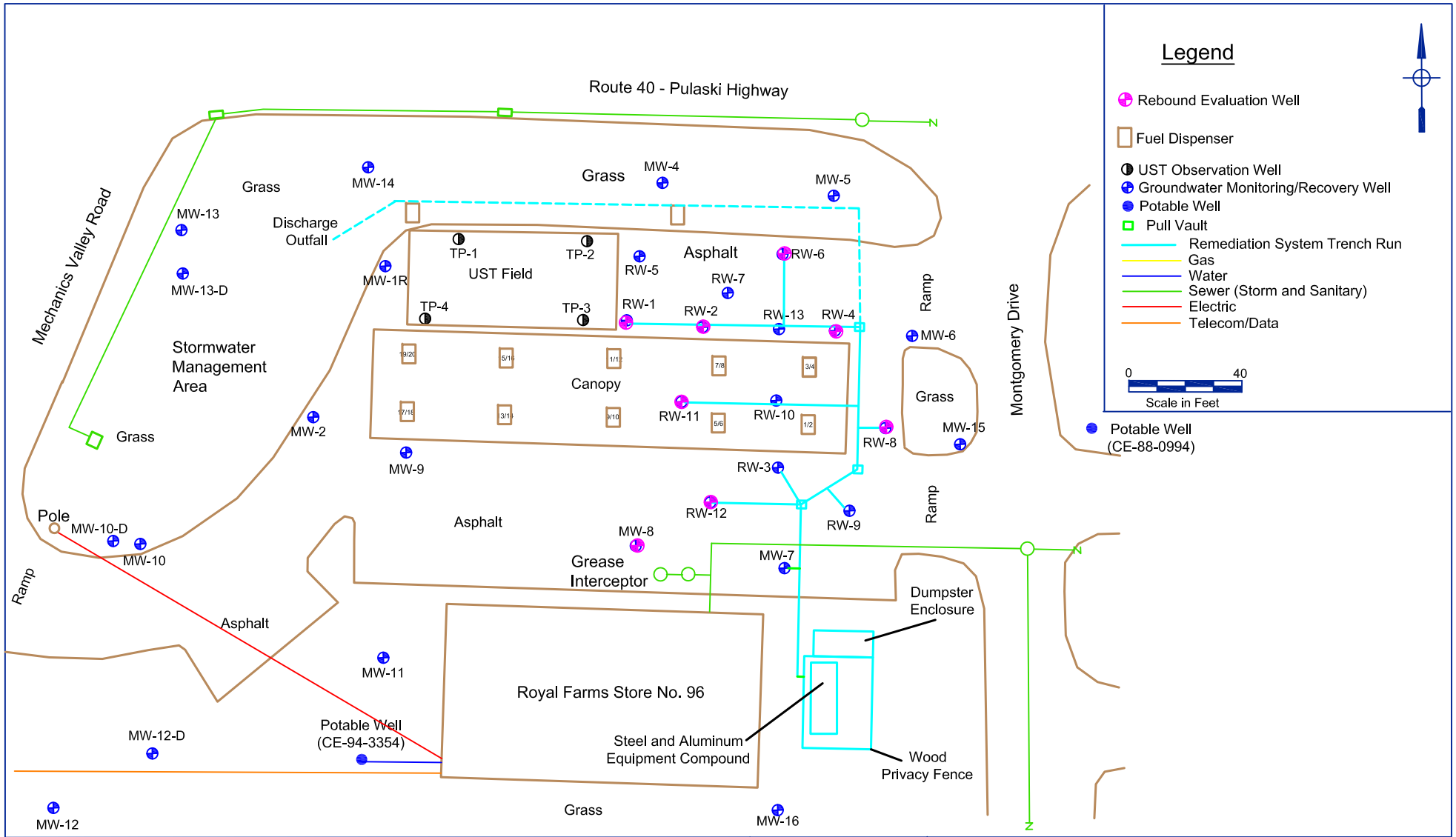
Advantage Environmental Consultants, LLC

James Wolf
Project Manager

Attachments

cc: T. Ruszin

ATTACHMENT A



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Project No.: 05-056	Drawn by: JDW
Task No.: RF96	Date: 2-16-2015
File: Site Features	Revision No.: 2

Figure 1 - Site Features Map with Selected Rebound Evaluation Wells
Royal Farms No. 96
500 Mechanics Valley Road
North East, MD

ATTACHMENT B

Table 1 - Rebound Evaluation Analysis Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road, North East, MD 21901

Well ID	Sample Date	Analyte	Pre-Start-up Mean (C_o):	Case C Threshold	Current Concentration (C)	Rebound Ratio (C/C_o)	Rebound Condition	Restart Criteria Met?
MW-8	5/28/2015	Benzene	15	11.3	0.1	0.007	Case A	No
	6/29/2015		15	11.3	0.1	0.007	Case A	No
	7/29/2015		15	11.3	0.1	0.007	Case A	No
	9/8/2015		15	11.3	6.8	0.453	Case B	No
	10/6/2015		15	11.3	0.1	0.007	Case A	No
	11/6/2015		15	11.3	0.1	0.007	Case A	No
	12/9/2015		15	11.3	0.1	0.007	Case A	No
	1/11/2016		15	11.3	0.1	0.007	Case A	No
	2/17/2016		15	11.3	0.1	0.007	Case A	No
	5/28/2015	Total BTEX	356.8	267.6	0.1	0.000	Case A	No
	6/29/2015		356.8	267.6	0.1	0.000	Case A	No
	7/29/2015		356.8	267.6	0.1	0.000	Case A	No
	9/8/2015		356.8	267.6	6.8	0.019	Case A	No
	10/6/2015		356.8	267.6	0.1	0.000	Case A	No
	11/6/2015		356.8	267.6	0.1	0.000	Case A	No
	12/9/2015		356.8	267.6	0.1	0.000	Case A	No
	1/11/2016		356.8	267.6	0.1	0.000	Case A	No
	2/17/2016		356.8	267.6	0.1	0.000	Case A	No
	5/28/2015	Naphthalene	26	19.5	0.1	0.004	Case A	No
	6/29/2015		26	19.5	0.1	0.004	Case A	No
	7/29/2015		26	19.5	0.1	0.004	Case A	No
	9/8/2015		26	19.5	0.1	0.004	Case A	No
	10/6/2015		26	19.5	0.1	0.004	Case A	No
	11/6/2015		26	19.5	0.1	0.004	Case A	No
	12/9/2015		26	19.5	0.1	0.004	Case A	No
	1/11/2016		26	19.5	0.1	0.004	Case A	No
	2/17/2016		26	19.5	0.1	0.004	Case A	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
RW-1	5/29/2015	Benzene	959.3	719.5	0.1	0.000	Case A	No
	6/29/2015		15	11.3	0.1	0.007	Case A	No
	7/29/2015		15	11.3	0.1	0.007	Case A	No
	9/8/2015		15	11.3	0.1	0.007	Case A	No
	10/6/2015		15	11.3	0.1	0.007	Case A	No
	11/6/2015		15	11.3	0.1	0.007	Case A	No
	12/9/2015		15	11.3	0.1	0.007	Case A	No
	1/11/2016		15	11.3	0.1	0.007	Case A	No
	2/17/2016		15	11.3	0.1	0.007	Case A	No
	5/29/2015	Total BTEX	205428.3	154071.2	0.1	0.000	Case A	No
	6/29/2015		205428.3	154071.2	0.1	0.000	Case A	No
	7/29/2015		205428.3	154071.2	0.1	0.000	Case A	No
	9/8/2015		205428.3	154071.2	0.1	0.000	Case A	No
	10/6/2015		205428.3	154071.2	0.1	0.000	Case A	No
	11/6/2015		205428.3	154071.2	6.1	0.000	Case A	No
	12/9/2015		205428.3	154071.2	0.1	0.000	Case A	No
	1/11/2016		205428.3	154071.2	0.1	0.000	Case A	No
	2/17/2016		205428.3	154071.2	0.1	0.000	Case A	No
	5/29/2015	Naphthalene	1351.8	1013.9	0.1	0.000	Case A	No
	6/29/2015		1351.8	1013.9	0.1	0.000	Case A	No
	7/29/2015		1351.8	1013.9	0.1	0.000	Case A	No
	9/8/2015		1351.8	1013.9	0.1	0.000	Case A	No
	10/6/2015		1351.8	1013.9	0.1	0.000	Case A	No
	11/6/2015		1351.8	1013.9	0.1	0.000	Case A	No
	12/9/2015		1351.8	1013.9	0.1	0.000	Case A	No
	1/11/2016		1351.8	1013.9	0.1	0.000	Case A	No
	2/17/2016		1351.8	1013.9	0.1	0.000	Case A	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA

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500 Mechanics Valley Road, North East, MD 21901

Well ID	Sample Date	Analyte	Pre-Start-up Mean (C_o):	Case C Threshold	Current Concentration (C)	Rebound Ratio (C/C_o)	Rebound Condition	Restart Criteria Met?
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
RW-2	5/29/2015	Benzene	8731	6548.3	5.4	0.001	Case A	No
	6/29/2015		8731	6548.3	0.1	0.000	Case A	No
	7/29/2015		8731	6548.3	2.5	0.000	Case A	No
	9/8/2015		8731	6548.3	0.1	0.000	Case A	No
	10/6/2015		8731	6548.3	0.1	0.000	Case A	No
	11/6/2015		8731	6548.3	0.1	0.000	Case A	No
	12/9/2015		8731	6548.3	0.1	0.000	Case A	No
	1/11/2016		8731	6548.3	0.1	0.000	Case A	No
	2/17/2016		8731	6548.3	0.1	0.000	Case A	No
	5/29/2015	Total BTEX	35956	26967.0	41.9	0.001	Case A	No
	6/29/2015		35956	26967.0	116.6	0.003	Case A	No
	7/29/2015		35956	26967.0	53.9	0.001	Case A	No
	9/8/2015		35956	26967.0	0.1	0.000	Case A	No
	10/6/2015		35956	26967.0	0.1	0.000	Case A	No
	11/6/2015		35956	26967.0	0.1	0.000	Case A	No
	12/9/2015		35956	26967.0	0.1	0.000	Case A	No
	1/11/2016		35956	26967.0	0.1	0.000	Case A	No
	2/17/2016		35956	26967.0	0.1	0.000	Case A	No
	5/28/2015	Naphthalene	26	19.5	0.1	0.004	Case A	No
	6/29/2015		26	19.5	0.1	0.004	Case A	No
	7/29/2015		26	19.5	0.1	0.004	Case A	No
	9/8/2015		26	19.5	0.1	0.004	Case A	No
	10/6/2015		26	19.5	0.1	0.004	Case A	No
	11/6/2015		26	19.5	0.1	0.004	Case A	No
	12/9/2015		26	19.5	0.1	0.004	Case A	No
	1/11/2016		26	19.5	0.1	0.004	Case A	No
	2/17/2016		26	19.5	0.1	0.004	Case A	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
RW-4	5/29/2015	Benzene	14250	10687.5	139	0.010	Case A	No
	6/29/2015		14250	10687.5	215	0.015	Case A	No
	7/29/2015		14250	10687.5	203	0.014	Case A	No
	9/8/2015		14250	10687.5	6.4	0.000	Case A	No
	10/6/2015		14250	10687.5	13.1	0.001	Case A	No
	11/6/2015		14250	10687.5	5.1	0.000	Case A	No
	12/9/2015		14250	10687.5	5.9	0.000	Case A	No
	1/11/2016		14250	10687.5	243	0.017	Case A	No
	2/17/2016		14250	10687.5	209	0.015	Case A	No
	5/29/2015	Total BTEX	59880	44910.0	2397	0.040	Case A	No
	6/29/2015		59880	44910.0	5661	0.095	Case A	No
	7/29/2015		59880	44910.0	4683	0.078	Case A	No
	9/8/2015		59880	44910.0	187.7	0.003	Case A	No
	10/6/2015		59880	44910.0	287	0.005	Case A	No
	11/6/2015		59880	44910.0	54.0	0.001	Case A	No
	12/9/2015		59880	44910.0	59.1	0.001	Case A	No
	1/11/2016		59880	44910.0	3952.0	0.066	Case A	No
	2/17/2016		59880	44910.0	4964.0	0.083	Case A	No
	5/29/2015	Naphthalene	1629	1221.8	81.9	0.050	Case A	No
	6/29/2015		1629	1221.8	202	0.124	Case A	No

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500 Mechanics Valley Road, North East, MD 21901

Well ID	Sample Date	Analyte	Pre-Start-up Mean (C_o):	Case C Threshold	Current Concentration (C)	Rebound Ratio (C/C_o)	Rebound Condition	Restart Criteria Met?
	7/29/2015		1629	1221.8	388	0.238	Case A	No
	9/8/2015		1629	1221.8	14.9	0.009	Case A	No
	10/6/2015		1629	1221.8	17.3	0.011	Case A	No
	11/6/2015		1629	1221.8	8.6	0.005	Case A	No
	12/9/2015		1629	1221.8	10.1	0.006	Case A	No
	1/11/2016		1629	1221.8	222	0.136	Case A	No
	2/17/2016		1629	1221.8	133	0.082	Case A	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
RW-6	5/29/2015	Benzene	1378	1033.5	0.1	0.000	Case A	No
	6/29/2015		1378	1033.5	0.1	0.000	Case A	No
	7/29/2015		1378	1033.5	0.1	0.000	Case A	No
	9/8/2015		1378	1033.5	0.1	0.000	Case A	No
	10/6/2015		1378	1033.5	0.1	0.000	Case A	No
	11/6/2015		1378	1033.5	0.1	0.000	Case A	No
	12/9/2015		1378	1033.5	0.1	0.000	Case A	No
	1/11/2016		1378	1033.5	0.1	0.000	Case A	No
	2/17/2016		1378	1033.5	0.1	0.000	Case A	No
	5/29/2015	Total BTEX	7674.6	5756.0	0.1	0.000	Case A	No
	6/29/2015		7674.6	5756.0	0.1	0.000	Case A	No
	7/29/2015		7674.6	5756.0	2.6	0.000	Case A	No
	9/8/2015		7674.6	5756.0	77.2	0.010	Case A	No
	10/6/2015		7674.6	5756.0	0.1	0.000	Case A	No
	11/6/2015		7674.6	5756.0	11.0	0.001	Case A	No
	12/9/2015		7674.6	5756.0	0.1	0.000	Case A	No
	1/11/2016		7674.6	5756.0	0.1	0.000	Case A	No
	2/17/2016		7674.6	5756.0	0.1	0.000	Case A	No
	5/29/2015	Naphthalene	400.3	300.2	0.1	0.000	Case A	No
	6/29/2015		400.3	300.2	0.1	0.000	Case A	No
	7/29/2015		400.3	300.2	0.1	0.000	Case A	No
	9/8/2015		400.3	300.2	14.3	0.036	Case A	No
	10/6/2015		400.3	300.2	0.1	0.000	Case A	No
	11/6/2015		400.3	300.2	3.8	0.009	Case A	No
	12/9/2015		400.3	300.2	0.1	0.000	Case A	No
	1/11/2016		400.3	300.2	0.1	0.000	Case A	No
	2/17/2016		400.3	300.2	0.1	0.000	Case A	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
RW-8	5/29/2015	Benzene	2460	1845.0	0.1	0.000	Case A	No
	6/29/2015		2460	1845.0	0.1	0.000	Case A	No
	7/29/2015		2460	1845.0	0.1	0.000	Case A	No
	9/8/2015		2460	1845.0	0.1	0.000	Case A	No
	10/6/2015		2460	1845.0	0.1	0.000	Case A	No
	11/6/2015		2460	1845.0	0.1	0.000	Case A	No
	12/9/2015		2460	1845.0	0.1	0.000	Case A	No
	1/11/2016		2460	1845.0	0.1	0.000	Case A	No
	2/17/2016		2460	1845.0	0.1	0.000	Case A	No
	5/29/2015	Total BTEX	10688	8016.0	1174.8	0.110	Case A	No
	6/29/2015		10688	8016.0	683.2	0.064	Case A	No
	7/29/2015		10688	8016.0	592.2	0.055	Case A	No

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500 Mechanics Valley Road, North East, MD 21901

Well ID	Sample Date	Analyte	Pre-Start-up Mean (C_o):	Case C Threshold	Current Concentration (C)	Rebound Ratio (C/C_o)	Rebound Condition	Restart Criteria Met?
	9/8/2015		10688	8016.0	0.1	0.000	Case A	No
	10/6/2015		10688	8016.0	0.1	0.000	Case A	No
	11/6/2015		10688	8016.0	56	0.005	Case A	No
	12/9/2015		10688	8016.0	84.3	0.008	Case A	No
	1/11/2016		10688	8016.0	70.4	0.007	Case A	No
	2/17/2016		10688	8016.0	312.8	0.029	Case A	No
	5/29/2015	Naphthalene	100	75.0	19.0	0.190	Case A	No
	6/29/2015		100	75.0	20.4	0.204	Case A	No
	7/29/2015		100	75.0	20.8	0.208	Case A	No
	9/8/2015		100	75.0	0.1	0.001	Case A	No
	10/6/2015		100	75.0	0.1	0.001	Case A	No
	11/6/2015		100	75.0	2.3	0.023	Case A	No
	12/9/2015		100	75.0	2.7	0.027	Case A	No
	1/11/2016		100	75.0	3.9	0.039	Case A	No
	2/17/2016		100	75.0	13.3	0.133	Case A	No
	5/29/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
RW-11	5/29/2015	Benzene	5065	3798.8	278	0.055	Case A	No
	6/29/2015		5065	3798.8	193	0.038	Case A	No
	7/29/2015		5065	3798.8	265	0.052	Case A	No
	9/8/2015		5065	3798.8	206	0.041	Case A	No
	10/6/2015		5065	3798.8	170	0.034	Case A	No
	11/6/2015		5065	3798.8	134	0.026	Case A	No
	12/9/2015		5065	3798.8	100	0.020	Case A	No
	1/11/2016		5065	3798.8	213	0.042	Case A	No
	2/17/2016		5065	3798.8	248	0.049	Case A	No
	5/29/2015	Total BTEX	25170	18877.5	1550	0.062	Case A	No
	6/29/2015		25170	18877.5	4067	0.162	Case A	No
	7/29/2015		25170	18877.5	2609	0.104	Case A	No
	9/8/2015		25170	18877.5	1991	0.079	Case A	No
	10/6/2015		25170	18877.5	2843	0.113	Case A	No
	11/6/2015		25170	18877.5	1225	0.049	Case A	No
	12/9/2015		25170	18877.5	1199	0.048	Case A	No
	1/11/2016		25170	18877.5	2124	0.084	Case A	No
	2/17/2016		25170	18877.5	3049	0.121	Case A	No
	5/29/2015	Naphthalene	304.5	228.4	158	0.519	Case B	No
	6/29/2015		304.5	228.4	283	0.929	Case C	No
	7/29/2015		304.5	228.4	297	0.975	Case C	YES
	9/8/2015		304.5	228.4	92.6	0.304	Case B	No
	10/6/2015		304.5	228.4	184	0.604	Case B	No
	11/6/2015		304.5	228.4	95.9	0.315	Case B	No
	12/9/2015		304.5	228.4	59.8	0.196	Case A	No
	1/11/2016		304.5	228.4	162	0.532	Case B	No
	2/17/2016		304.5	228.4	143	0.470	Case B	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA
RW-12	5/29/2015	Benzene	184	138.0	0.1	0.001	Case A	No
	6/29/2015		184	138.0	0.1	0.001	Case A	No
	7/29/2015		184	138.0	0.1	0.001	Case A	No
	9/8/2015		184	138.0	0.1	0.001	Case A	No

Table 1 - Rebound Evaluation Analysis Worksheet
Gasoline Fueling Station – Royal Farms #96
500 Mechanics Valley Road, North East, MD 21901

Well ID	Sample Date	Analyte	Pre-Start-up Mean (C_o):	Case C Threshold	Current Concentration (C)	Rebound Ratio (C/C_o)	Rebound Condition	Restart Criteria Met?
	10/6/2015		184	138.0	0.1	0.001	Case A	No
	11/6/2015		184	138.0	0.1	0.001	Case A	No
	12/9/2015		184	138.0	0.1	0.001	Case A	No
	1/11/2016		184	138.0	0.1	0.001	Case A	No
	2/17/2016		184	138.0	0.1	0.001	Case A	No
	5/29/2015	Total BTEX	2045.9	1534.4	0.1	0.000	Case A	No
	6/29/2015		2045.9	1534.4	0.1	0.000	Case A	No
	7/29/2015		2045.9	1534.4	0.1	0.000	Case A	No
	9/8/2015		2045.9	1534.4	0.1	0.000	Case A	No
	10/6/2015		2045.9	1534.4	0.1	0.000	Case A	No
	11/6/2015		2045.9	1534.4	0.1	0.000	Case A	No
	12/9/2015		2045.9	1534.4	0.1	0.000	Case A	No
	1/11/2016		2045.9	1534.4	0.1	0.000	Case A	No
	2/17/2016		2045.9	1534.4	0.1	0.000	Case A	No
	5/29/2015	Naphthalene	26.3	19.7	0.1	0.004	Case A	No
	6/29/2015		26.3	19.7	0.1	0.004	Case A	No
	7/29/2015		26.3	19.7	0.1	0.004	Case A	No
	9/8/2015		26.3	19.7	0.1	0.004	Case A	No
	10/6/2015		26.3	19.7	0.1	0.004	Case A	No
	11/6/2015		26.3	19.7	0.1	0.004	Case A	No
	12/9/2015		26.3	19.7	0.1	0.004	Case A	No
	1/11/2016		26.3	19.7	0.1	0.004	Case A	No
	2/17/2016		26.3	19.7	0.1	0.004	Case A	No
	5/28/2015	MTBE	NA	NA	BDL	NA	NA	NA
	6/29/2015		NA	NA	BDL	NA	NA	NA
	7/29/2015		NA	NA	BDL	NA	NA	NA
	9/8/2015		NA	NA	BDL	NA	NA	NA
	10/6/2015		NA	NA	BDL	NA	NA	NA
	11/6/2015		NA	NA	BDL	NA	NA	NA
	12/9/2015		NA	NA	BDL	NA	NA	NA
	1/11/2016		NA	NA	BDL	NA	NA	NA
	2/17/2016		NA	NA	BDL	NA	NA	NA

VE/GE - Vapor Extraction / Groundwater Extraction

All results in micrograms per liter (µg/L)

VE/GE System restart is necessary if an analyte in a single well meets the Case C criteria during two consecutive sampling events

Case C - Rapid Rebound Criteria (Rebound ratio greater than or equal to 0.75)

Case B - Gradual Rebound Criteria (Rebound ratio between 0.25 and 0.75)

Case A - Little-to-No Rebound Scenario (Rebound ratio less than or equal to 0.25)

Dotted line indicates a period of VE/GE System operation between the above and below sampling dates.

0.1 - placeholder for a result reported below detection limits for computational purposes

COC - Contaminant of Concern

B = Benzene; T = Toluene; E = Ethylbenzene; X = Xylene

MTBE = Methyl-tert-butyl-ether

NA - MTBE concentrations are monnitored, but there is no associated restart criteria

BDL - MTBE result below laboratory detection limits

ATTACHMENT C

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: **RF-096**

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 02/24/16 13:51

Advantage Environmental Consultants, LLC

8610 Baltimore Washington Blvd, Suite 217

Jessup MD, 20794

CLIENT SAMPLE ID:		MW-16	MW-15	MW-5	MW-4	MW-14	MW-13
LAB SAMPLE ID:		6021713-01	6021713-02	6021713-03	6021713-04	6021713-05	6021713-06
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (Water)							
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
tert-Amyl alcohol (TAA)	ug/L	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
tert-Amyl methyl ether (TAME)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromochloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromodichloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromoform	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromomethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
tert-Butanol (TBA)	ug/L	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0
2-Butanone (MEK)	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
n-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
sec-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
tert-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Carbon disulfide	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Carbon tetrachloride	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloroethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloromethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Chlorotoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Chlorotoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dibromochloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dibromo-3-chloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dibromoethane (EDB)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dibromomethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,3-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,4-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dichlorodifluoromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
trans-1,2-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dichlorofluoromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

2 = Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).

3 = Surrogate recovery was outside of established QC limits

Analytical Results

1500 Caton Center Dr Suite G
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VELAP ID 460040

Project: **RF-096**

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 02/24/16 13:51

Advantage Environmental Consultants, LLC
8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		MW-16	MW-15	MW-5	MW-4	MW-14	MW-13
LAB SAMPLE ID:		6021713-01	6021713-02	6021713-03	6021713-04	6021713-05	6021713-06
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)							
1,2-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,3-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2,2-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
cis-1,3-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
trans-1,3-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Diisopropyl ether (DIPE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Ethyl tert-butyl ether (ETBE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Ethylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Hexachlorobutadiene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2-Hexanone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Isopropylbenzene (Cumene)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Isopropyltoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methyl tert-butyl ether (MTBE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Methyl-2-pentanone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Methylene chloride	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Naphthalene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
n-Propylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Styrene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,1,2-Tetrachloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,2,2-Tetrachloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Tetrachloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Toluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,3-Trichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,4-Trichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,1-Trichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,2-Trichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trichlorofluoromethane (Freon 11)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,3-Trichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,4-Trimethylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,3,5-Trimethylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Vinyl chloride	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
m- & p-Xylenes	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dichloroethane-d4	[surr]	109%	111%	110%	112%	109%	110%

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3 = Surrogate recovery was outside of established QC limits

Analytical Results

1500 Caton Center Dr Suite G
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VELAP ID 460040

Project: **RF-096**

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 02/24/16 13:51

Advantage Environmental Consultants, LLC

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CLIENT SAMPLE ID:		MW-16	MW-15	MW-5	MW-4	MW-14	MW-13
LAB SAMPLE ID:		6021713-01	6021713-02	6021713-03	6021713-04	6021713-05	6021713-06
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)							
Toluene-d8	[surr]	94.9%	96.1%	97.0%	95.7%	97.1%	95.9%
4-Bromofluorobenzene	[surr]	78.0% [3]	79.8%	79.7%	76.9% [3]	78.4%	77.6% [3]
GASOLINE RANGE ORGANICS BY EPA 8015B (Water)							
Gasoline-Range Organics	ug/L	<100	<100	<100	<100	<100	<100
a,a,a-Trifluorotoluene	[surr]	108%	107%	107%	107%	108%	108%
DIESEL RANGE ORGANICS BY EPA 3510/8015B (Water)							
Diesel-Range Organics	mg/L	<0.21	<0.20	<0.23	<0.22	<0.20	<0.22
o-Terphenyl	[surr]	88.6%	89.2%	101%	92.5%	92.9%	97.6%

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8610 Baltimore Washington Blvd, Suite 217

Jessup MD, 20794

CLIENT SAMPLE ID:		MW-12	MW-11	MW-10	MW-2	MW-1R	MW-8
LAB SAMPLE ID:		6021713-07	6021713-08	6021713-09	6021713-10	6021713-11	6021713-12
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (Water)							
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
tert-Amyl alcohol (TAA)	ug/L	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
tert-Amyl methyl ether (TAME)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromochloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromodichloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromoform	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromomethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
tert-Butanol (TBA)	ug/L	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0
2-Butanone (MEK)	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
n-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
sec-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
tert-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Carbon disulfide	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Carbon tetrachloride	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloroethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloromethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Chlorotoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Chlorotoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dibromochloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dibromo-3-chloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dibromoethane (EDB)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dibromomethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,3-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,4-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dichlorodifluoromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
trans-1,2-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dichlorofluoromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

2 = Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).

3 = Surrogate recovery was outside of established QC limits

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: **RF-096**

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 02/24/16 13:51

Advantage Environmental Consultants, LLC

8610 Baltimore Washington Blvd, Suite 217

Jessup MD, 20794

CLIENT SAMPLE ID:		MW-12	MW-11	MW-10	MW-2	MW-1R	MW-8
LAB SAMPLE ID:		6021713-07	6021713-08	6021713-09	6021713-10	6021713-11	6021713-12
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)							
1,2-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,3-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2,2-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
cis-1,3-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
trans-1,3-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Diisopropyl ether (DIPE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Ethyl tert-butyl ether (ETBE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Ethylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Hexachlorobutadiene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2-Hexanone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Isopropylbenzene (Cumene)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Isopropyltoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methyl tert-butyl ether (MTBE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Methyl-2-pentanone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Methylene chloride	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Naphthalene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
n-Propylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Styrene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,1,2-Tetrachloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,2,2-Tetrachloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Tetrachloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Toluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,3-Trichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,4-Trichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,1-Trichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,2-Trichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trichlorofluoromethane (Freon 11)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,3-Trichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,4-Trimethylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,3,5-Trimethylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Vinyl chloride	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
m- & p-Xylenes	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dichloroethane-d4	[surr]	110%	113%	113%	111%	103%	99.0%

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Analytical Results

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VELAP ID 460040

Project: **RF-096**

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 02/24/16 13:51

Advantage Environmental Consultants, LLC

8610 Baltimore Washington Blvd, Suite 217

Jessup MD, 20794

CLIENT SAMPLE ID:		MW-12	MW-11	MW-10	MW-2	MW-1R	MW-8
LAB SAMPLE ID:		6021713-07	6021713-08	6021713-09	6021713-10	6021713-11	6021713-12
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)							
Toluene-d8	[surr]	95.4%	94.6%	96.1%	96.3%	96.8%	96.9%
4-Bromofluorobenzene	[surr]	78.3%	76.7% [3]	78.2%	77.4% [3]	81.0%	83.7%
GASOLINE RANGE ORGANICS BY EPA 8015B (Water)							
Gasoline-Range Organics	ug/L	<100	<100	<100	<100	<100	<100
a,a,a-Trifluorotoluene	[surr]	108%	107%	107%	107%	108%	108%
DIESEL RANGE ORGANICS BY EPA 3510/8015B (Water)							
Diesel-Range Organics	mg/L	<0.22	<0.20	<0.20	<0.20	<0.21	<0.23
o-Terphenyl	[surr]	87.1%	96.3%	89.6%	88.9%	100%	97.1%

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CLIENT SAMPLE ID:		RW-5	RW-7	RW-13	RW-2	MW-6	RW-9
LAB SAMPLE ID:		6021713-13	6021713-14	6021713-15	6021713-16	6021713-17	6021713-18
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (Water)							
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
tert-Amyl alcohol (TAA)	ug/L	<20.0	<20.0	<20.0	<20.0	<20.0	<20.0
tert-Amyl methyl ether (TAME)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromochloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromodichloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromoform	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromomethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
tert-Butanol (TBA)	ug/L	<15.0	<15.0	<15.0	<15.0	<15.0	<15.0
2-Butanone (MEK)	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
n-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
sec-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
tert-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Carbon disulfide	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Carbon tetrachloride	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloroethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloromethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Chlorotoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Chlorotoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dibromochloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dibromo-3-chloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dibromoethane (EDB)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dibromomethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,3-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,4-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dichlorodifluoromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2-Dichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
trans-1,2-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dichlorofluoromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

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Analytical Results

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VELAP ID 460040

Project: **RF-096**

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 02/24/16 13:51

Advantage Environmental Consultants, LLC

8610 Baltimore Washington Blvd, Suite 217

Jessup MD, 20794

CLIENT SAMPLE ID:		RW-5	RW-7	RW-13	RW-2	MW-6	RW-9
LAB SAMPLE ID:		6021713-13	6021713-14	6021713-15	6021713-16	6021713-17	6021713-18
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)							
1,2-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,3-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2,2-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
cis-1,3-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
trans-1,3-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Diisopropyl ether (DIPE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Ethyl tert-butyl ether (ETBE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Ethylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Hexachlorobutadiene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
2-Hexanone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Isopropylbenzene (Cumene)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Isopropyltoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methyl tert-butyl ether (MTBE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
4-Methyl-2-pentanone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Methylene chloride	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Naphthalene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
n-Propylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Styrene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,1,2-Tetrachloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,2,2-Tetrachloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Tetrachloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Toluene	ug/L	<2.0	<2.0	**28.2**	<2.0	<2.0	<2.0
1,2,3-Trichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,4-Trichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,1-Trichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1,2-Trichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trichlorofluoromethane (Freon 11)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,3-Trichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,2,4-Trimethylbenzene	ug/L	<2.0	<2.0	**4.3 [2]**	<2.0	<2.0	<2.0
1,3,5-Trimethylbenzene	ug/L	<2.0	<2.0	**2.6 [2]**	<2.0	<2.0	<2.0
Vinyl chloride	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	ug/L	<2.0	<2.0	**51.5**	<2.0	<2.0	<2.0
m- & p-Xylenes	ug/L	<2.0	<2.0	**23.6**	<2.0	<2.0	<2.0
1,2-Dichloroethane-d4	[surr]	98.0%	101%	102%	102%	104%	105%

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Analytical Results

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Project: **RF-096**

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CLIENT SAMPLE ID:		RW-5	RW-7	RW-13	RW-2	MW-6	RW-9
LAB SAMPLE ID:		6021713-13	6021713-14	6021713-15	6021713-16	6021713-17	6021713-18
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)							
Toluene-d8	[surr]	96.2%	97.1%	96.2%	96.0%	97.9%	95.5%
4-Bromofluorobenzene	[surr]	82.2%	80.9%	94.0%	81.8%	81.8%	80.0%
GASOLINE RANGE ORGANICS BY EPA 8015B (Water)							
Gasoline-Range Organics	ug/L	<100	<100	**169**	<100	<100	<100
a,a,a-Trifluorotoluene	[surr]	108%	108%	108%	108%	107%	108%
DIESEL RANGE ORGANICS BY EPA 3510/8015B (Water)							
Diesel-Range Organics	mg/L	<0.22	<0.20	**0.47**	<0.21	<0.21	<0.19
o-Terphenyl	[surr]	94.3%	93.2%	115%	99.9%	94.2%	98.3%

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CLIENT SAMPLE ID:		MW-7	RW-12	RW-3	RW-10	RW-1	RW-4
LAB SAMPLE ID:		6021713-19	6021713-20	6021713-21	6021713-22	6021713-23	6021713-24
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (Water)							
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<200
tert-Amyl alcohol (TAA)	ug/L	<20.0	<20.0	<20.0	<20.0	<20.0	<400
tert-Amyl methyl ether (TAME)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Benzene	ug/L	<2.0	<2.0	<2.0	**4.6 [2]**	<2.0	**209**
Bromobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Bromochloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Bromodichloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Bromoform	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Bromomethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<100
tert-Butanol (TBA)	ug/L	<15.0	<15.0	<15.0	<15.0	<15.0	<300
2-Butanone (MEK)	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<200
n-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
sec-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
tert-Butylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Carbon disulfide	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Carbon tetrachloride	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Chlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Chloroethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<100
Chloroform	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Chloromethane	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<100
2-Chlorotoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
4-Chlorotoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Dibromochloromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,2-Dibromo-3-chloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,2-Dibromoethane (EDB)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Dibromomethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,2-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,3-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,4-Dichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Dichlorodifluoromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,1-Dichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,2-Dichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,1-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
trans-1,2-Dichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Dichlorofluoromethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0

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3 = Surrogate recovery was outside of established QC limits

Analytical Results

1500 Caton Center Dr Suite G
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410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: **RF-096**

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 02/24/16 13:51

Advantage Environmental Consultants, LLC

8610 Baltimore Washington Blvd, Suite 217

Jessup MD, 20794

CLIENT SAMPLE ID:		MW-7	RW-12	RW-3	RW-10	RW-1	RW-4
LAB SAMPLE ID:		6021713-19	6021713-20	6021713-21	6021713-22	6021713-23	6021713-24
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)							
1,2-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,3-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
2,2-Dichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,1-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
cis-1,3-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
trans-1,3-Dichloropropene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Diisopropyl ether (DIPE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Ethyl tert-butyl ether (ETBE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Ethylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	**225**
Hexachlorobutadiene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
2-Hexanone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<200
Isopropylbenzene (Cumene)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
4-Isopropyltoluene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Methyl tert-butyl ether (MTBE)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
4-Methyl-2-pentanone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<200
Methylene chloride	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<200
Naphthalene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	**133**
n-Propylbenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	**44.4 [2]**
Styrene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,1,1,2-Tetrachloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,1,2,2-Tetrachloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Tetrachloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Toluene	ug/L	<2.0	<2.0	<2.0	**4.1 [2]**	<2.0	**2540**
1,2,3-Trichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,2,4-Trichlorobenzene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,1,1-Trichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,1,2-Trichloroethane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Trichloroethene	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
Trichlorofluoromethane (Freon 11)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,2,3-Trichloropropane	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
1,2,4-Trimethylbenzene	ug/L	**2.0 [2]**	<2.0	<2.0	<2.0	<2.0	**693**
1,3,5-Trimethylbenzene	ug/L	**2.6 [2]**	<2.0	<2.0	<2.0	<2.0	**200**
Vinyl chloride	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<40.0
o-Xylene	ug/L	<2.0	<2.0	<2.0	**2.4 [2]**	<2.0	**700**
m- & p-Xylenes	ug/L	**2.4 [2]**	<2.0	<2.0	**3.2 [2]**	<2.0	**1290**
1,2-Dichloroethane-d4	[surr]	105%	107%	108%	108%	111%	108%

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3 = Surrogate recovery was outside of established QC limits

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

Project: **RF-096**

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 02/24/16 13:51

Advantage Environmental Consultants, LLC

8610 Baltimore Washington Blvd, Suite 217

Jessup MD, 20794

CLIENT SAMPLE ID:		MW-7	RW-12	RW-3	RW-10	RW-1	RW-4
LAB SAMPLE ID:		6021713-19	6021713-20	6021713-21	6021713-22	6021713-23	6021713-24
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)							
Toluene-d8	[surr]	96.1%	96.5%	95.8%	95.3%	96.7%	95.7%
4-Bromofluorobenzene	[surr]	81.6%	80.7%	80.6%	84.2%	79.2%	94.3%
GASOLINE RANGE ORGANICS BY EPA 8015B (Water)							
Gasoline-Range Organics	ug/L	<100	<100	<100	<100	<100	**9630**
a,a,a-Trifluorotoluene	[surr]	109%	108%	108%	108%	108%	111%
DIESEL RANGE ORGANICS BY EPA 3510/8015B (Water)							
Diesel-Range Organics	mg/L	<0.21	<0.19	<0.21	<0.22	<0.19	**6.64**
o-Terphenyl	[surr]	96.0%	97.9%	97.8%	99.8%	101%	99.3%

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Project: **RF-096**

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CLIENT SAMPLE ID:		RW-6	RW-8	RW-11	MW-9	TP-3
LAB SAMPLE ID:		6021713-25	6021713-26	6021713-27	6021713-28	6021713-29
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (Water)						
Acetone	ug/L	<10.0	<10.0	<40.0	<10.0	<10.0
tert-Amyl alcohol (TAA)	ug/L	**21.0**	<20.0	**94.5**	<20.0	<20.0
tert-Amyl methyl ether (TAME)	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Benzene	ug/L	<2.0	<2.0	**248**	<2.0	<2.0
Bromobenzene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Bromochloromethane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Bromodichloromethane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Bromoform	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Bromomethane	ug/L	<5.0	<5.0	<20.0	<5.0	<5.0
tert-Butanol (TBA)	ug/L	<15.0	<15.0	<60.0	<15.0	<15.0
2-Butanone (MEK)	ug/L	<10.0	<10.0	<40.0	<10.0	<10.0
n-Butylbenzene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
sec-Butylbenzene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
tert-Butylbenzene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Carbon disulfide	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Carbon tetrachloride	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Chlorobenzene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Chloroethane	ug/L	<5.0	<5.0	<20.0	<5.0	<5.0
Chloroform	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Chloromethane	ug/L	<5.0	<5.0	<20.0	<5.0	<5.0
2-Chlorotoluene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
4-Chlorotoluene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Dibromochloromethane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,2-Dibromo-3-chloropropane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,2-Dibromoethane (EDB)	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Dibromomethane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,2-Dichlorobenzene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,3-Dichlorobenzene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,4-Dichlorobenzene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Dichlorodifluoromethane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,1-Dichloroethane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,2-Dichloroethane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,1-Dichloroethene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
cis-1,2-Dichloroethene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
trans-1,2-Dichloroethene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Dichlorofluoromethane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

2 = Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).

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Analytical Results

1500 Caton Center Dr Suite G
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VELAP ID 460040

Project: **RF-096**

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

Report Issued: 02/24/16 13:51

Advantage Environmental Consultants, LLC
8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		RW-6	RW-8	RW-11	MW-9	TP-3
LAB SAMPLE ID:		6021713-25	6021713-26	6021713-27	6021713-28	6021713-29
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)						
1,2-Dichloropropane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,3-Dichloropropane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
2,2-Dichloropropane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,1-Dichloropropene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
cis-1,3-Dichloropropene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
trans-1,3-Dichloropropene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Diisopropyl ether (DIPE)	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Ethyl tert-butyl ether (ETBE)	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Ethylbenzene	ug/L	<2.0	**48.4**	**566**	**5.8**	<2.0
Hexachlorobutadiene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
2-Hexanone	ug/L	<10.0	<10.0	<40.0	<10.0	<10.0
Isopropylbenzene (Cumene)	ug/L	<2.0	**2.2 [2]**	**41.8**	<2.0	<2.0
4-Isopropyltoluene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Methyl tert-butyl ether (MTBE)	ug/L	<2.0	<2.0	<8.0	**3.3 [2]**	<2.0
4-Methyl-2-pentanone	ug/L	<10.0	<10.0	<40.0	<10.0	<10.0
Methylene chloride	ug/L	<10.0	<10.0	<40.0	<10.0	<10.0
Naphthalene	ug/L	<2.0	**13.3**	**143**	**3.1 [2]**	<2.0
n-Propylbenzene	ug/L	<2.0	**5.2**	**134**	**2.0 [2]**	<2.0
Styrene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,1,1,2-Tetrachloroethane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,1,2,2-Tetrachloroethane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Tetrachloroethene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Toluene	ug/L	<2.0	**7.4**	**637**	<2.0	<2.0
1,2,3-Trichlorobenzene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,2,4-Trichlorobenzene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,1,1-Trichloroethane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,1,2-Trichloroethane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Trichloroethene	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
Trichlorofluoromethane (Freon 11)	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,2,3-Trichloropropane	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
1,2,4-Trimethylbenzene	ug/L	<2.0	**21.9**	**1010 [1]**	**6.7**	<2.0
1,3,5-Trimethylbenzene	ug/L	<2.0	**13.2**	**120**	<2.0	<2.0
Vinyl chloride	ug/L	<2.0	<2.0	<8.0	<2.0	<2.0
o-Xylene	ug/L	<2.0	**109**	**428**	**7.8**	<2.0
m- & p-Xylenes	ug/L	<2.0	**148**	**1170**	**10.0**	<2.0
1,2-Dichloroethane-d4	[surr]	105%	106%	102%	104%	102%

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Project: **RF-096**

Project Number: 05-056-RF96

Project Manager: Jeffery Stein

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8610 Baltimore Washington Blvd, Suite 217
Jessup MD, 20794

CLIENT SAMPLE ID:		RW-6	RW-8	RW-11	MW-9	TP-3
LAB SAMPLE ID:		6021713-25	6021713-26	6021713-27	6021713-28	6021713-29
SAMPLE DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
RECEIVED DATE:		02/17/16	02/17/16	02/17/16	02/17/16	02/17/16
MATRIX	Units	Water	Water	Water	Water	Water
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)						
Toluene-d8	[surr]	95.1%	93.5%	98.9%	95.5%	95.6%
4-Bromofluorobenzene	[surr]	80.5%	98.0%	97.5%	88.9%	81.5%
GASOLINE RANGE ORGANICS BY EPA 8015B (Water)						
Gasoline-Range Organics	ug/L	<100	**602**	**8650**	**143**	<100
a,a,a-Trifluorotoluene	[surr]	111%	109%	108%	108%	108%
DIESEL RANGE ORGANICS BY EPA 3510/8015B (Water)						
Diesel-Range Organics	mg/L	<0.22	**0.35**	**2.97**	**1.26**	**0.21**
o-Terphenyl	[surr]	93.3%	96.1%	90.7%	112%	91.0%

1 = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).

2 = Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).

3 = Surrogate recovery was outside of established QC limits

CHAIN-OF-CUSTODY RECORD

Company Name: AEC	Project Manager: JStein
Project Name: RF-096	Project ID: 05-056- RF096
Sampler(s): KPellegrini / R McLaughlin N. Edwards	P.O. Number: 05-056 -RF096

Maryland Spectral Services, Inc.
1500 Caton Center Drive, Suite G
Baltimore, MD 21227
410-247-7600 • Fax 410-247-7602
labman@mdspectral.com

Matrix Codes: NW (nonpotable water)
PW (potable water)

Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	VOCs 8260	TPH GRO 8015	TPH DRO 8015	Preservative: 1+1 HCL, H_2SO_4, Methanol, $Na_2S_2O_3$, $NaHCO_3$	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
MW-16	2/17/16	1315	X		8	8	X	X	X			6021713-01
MW-15		1317			4	4						-02
MW-5		1316			4	4						-03
MW-4		1330			4	4						-04
MW-14		1332			4	4						-05
MW-13		1334			8	8						-06
MW-12		1345			4	4						-07
MW-11		1350			4	4						-08
MW-10		1343			4	4						-09
MW-2		1352			4	4						-10

Analysis Requested

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
(Printed) Kevin Pellegrini	2/17/16	(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date/Time	Received by Lab: (Signature)			
(Printed)	2/17/16 1650	(Printed) Hannah Rosier			

Turn Around Time:
- [x] Normal (7 day)
- [ ] 5 day
- [ ] 4 day
- [ ] 3 day
- [ ] Rush (2 day)
- [ ] Next Day
- [ ] Other: _____
- [ ] Specific Due Date: _____

Lab Use:
Temp: 6.0 °C
- [x] Received on Ice
- [x] Received same day
- [ ] Preservation Appropriate

Delivery Method:
- [ ] Courier
- [x] Client
- [ ] UPS
- [ ] FedEx
- [ ] USPS
- [ ] Other: _____

Special Instructions/QC Requirements & Comments:
results to: kpellegrini@aec-env.com
jwolf
jstein
nedwards

Sample Disposal:
- [ ] Return to Client
- [x] Disposal by lab
- [ ] Archive for _____ days

MSS-F001-03/13

Company Name:	Project Manager:						Analysis Requested														CHAIN-OF-CUSTODY RECORD		
Project Name: RF096	Project ID: 05-050-RF096																				Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410–247–7600 • Fax 410–247–7602 labman@mdspectral.com		
Sampler(s):	P.O. Number:																				Matrix Codes: NW (nonpotable water) PW (potable water)		
Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	VOCs 8260	TPH GRO 8015	TPH DRO 8015												Preservative: 1+1 HCL, H_2SO_4, Methanol, $Na_2S_2O_3$, $NaHCO_3$	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
MW-1R	2/17/16	1401	X			4	X	X	X														6021713-11
MW-8		1403				4																	-12
RW-5		1405				4																	-13
RW-7		1410				4																	-14
RW-13		1416				4																	-15
RW-2		1418				4																	-16
MW-6		1422				4																	-17
RW-9		1426				4																	-18
MW-7		1429				4																	-19
RW-12		1438				4																	-20

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
(Printed) Kevin Pemegrin	2/17/16	(Printed)	(Printed)		(Printed)
Relinquished by: (Signature)	Date/Time	Received by Lab: (Signature)	Turn Around Time:	Lab Use:	
(Printed)	2/17/16 1650	(Printed) Hannah Rosier	☒ Normal (7 day) ☐ 5 day ☐ 4 day ☐ 3 day ☐ Rush (2 day) ☐ Next Day ☐ Other: _____ ☐ Specific Due Date: _____	Temp: 4.0 °C ☒ Received on Ice ☒ Received same day ☐ Preservation Appropriate	
Delivery Method: ☐ Courier ☒ Client ☐ UPS ☐ FedEx ☐ USPS ☐ Other: _____	Special Instructions/QC Requirements & Comments: See page 1			Sample Disposal: ☐ Return to Client ☒ Disposal by lab ☐ Archive for _____ days	

MSS-F001-03/13

Company Name:	Project Manager:						Analysis Requested										**CHAIN-OF-CUSTODY RECORD**		
Project Name: RF 096	Project ID: 05-056-RF096																Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410–247–7600 • Fax 410–247–7602 labman@mdspectral.com		
Sampler(s):	P.O. Number:																Matrix Codes: NW (nonpotable water) PW (potable water)		
Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	VOCs 8260	TPH GRO 8015	TPH DRO 8015								Preservative: 1+1 HCL, H_2SO_4, Methanol, $Na_2S_2O_3$, $NaHCO_3$	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
RW-3	2/17/16	1430	X			4	X	X	X										1602713-21
RW-10		1444	X			4													-22
RW-1		1455	X			4													-23
RW-4		1457	X			4													-24
RW-6		1458	X			4													-25
RW-8		1503	X			4													-26
RW-11		1509	X			4													-27
MW-9		1446	X			4													-28
TP-3		1515	X			4													-29

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*
(Printed) Kevin Chessini	2/17/16	*(Printed)*	*(Printed)*		*(Printed)*
Relinquished by: *(Signature)*	Date/Time	Received by Lab: *(Signature)*	Turn Around Time:	Lab Use:	
(Printed)	1650 2/17/16	*(Printed)* Hannah Rosier	☒ Normal (7 day) ☐ 5 day ☐ 4 day ☐ 3 day ☐ Rush (2 day) ☐ Next Day ☐ Other: _____ ☐ Specific Due Date: _____	Temp: 6.0 °C ☒ Received on Ice ☒ Received same day ☐ Preservation Appropriate	
Delivery Method: ☐ Courier ☒ Client ☐ UPS ☐ FedEx ☐ USPS ☐ Other: _____	Special Instructions/QC Requirements & Comments: See page 1			Sample Disposal: ☐ Return to Client ☒ Disposal by lab ☐ Archive for _____ days	

MSS-F001-03/13