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February 7, 2011

Ms. Susan Kennedy, P.G.  
Storage Tank Program  
Pennsylvania Department of Environmental Protection  
2 East Main Street  
Norristown, PA 19401

**Re: Remedial Action Progress Report  
Len's Hartsville Garage  
Warwick Township, Bucks County, PA  
DEP Facility ID #09-27935  
Liberty Project No. 060006**

Dear Ms. Kennedy:

Liberty Environmental, Inc. (Liberty) is pleased to provide you with this Remedial Action Progress Report (RAPR) for the above-referenced site. This report details remedial actions performed subsequent to the submittal of our previous RAPR, dated November 11, 2010. This report was prepared in accordance with the requirements of Section 245.312(c) of the DEP corrective action regulations.

The following activities were performed at the site during the last quarter:

- soil vapor sampling in January 2011,
- residential water supply well sampling at 1176 Hart Lane in January 2011, and
- one quarterly groundwater monitoring event in November 2010.

Summaries of these actions and future planned activities at the site are described herein.

## **CURRENT ACTIVITIES**

### Soil Vapor Sampling

Based on a telephone conversation with DEP on November 5, 2010, Liberty's November 2010 RAPR for this site included a request that DEP accept one additional soil vapor sampling event at VP-1 to complete the soil vapor intrusion risk evaluation. Liberty then collected a soil vapor sample from VP-1 on January 4, 2011. The location of VP-1 is shown on Figure 1.

Specific sampling protocols are summarized as follows:

- Prior to vapor sample collection, VP-1 was purged to remove stagnant air (0.5 liters) using a hand-held sampling pump that was connected directly to the polypropylene vapor point tubing.
- After purging was completed, a “T” connection was placed on the vapor point tubing and each side of the “T” connection was connected to the influent port on two separate Summa canisters (VP-1 and Duplicate). The flow controller regulator valves were then fully opened.
- The Summa canisters collected a vapor sample from VP-1 for a period of two hours. The flow controller on each canister was set for this duration by the laboratory.
- After two hours, the Summa canister valves were closed, the tubing was disconnected from the canisters and the vapor point tubing was crimped and sealed.

During the course of sampling, a second Summa canister was situated at the site in an area away from foot and vehicular traffic. This canister was not opened and served as a quality control trip blank for the sample.

After collection, the canisters were stored in an area away from potential vapor sources until remanded to the analytical laboratory for analysis. The samples were submitted to TestAmerica Laboratories Inc. (TestAmerica) under chain-of-custody documentation for analysis of the DEP unleaded gasoline target compounds using EPA method TO-15.

The laboratory analysis of the January 4, 2011 vapor sample from VP-1 indicates that there are no concentrations of any unleaded gasoline target compounds present in soil gas above the residential medium specific concentrations for soil gas ( $MSC_{SG}$ ), as defined in the DEP’s Vapor Intrusion Guidance. The  $MSC_{SG}$  is equal to the MSC for indoor air ( $MSC_{IAQ}$ ), as listed in Table 3 of the DEP’s Vapor Intrusion Guidance, divided by a transfer factor of 0.01 ( $[MSC_{IAQ}/0.01]$  or  $[100 \times MSC_{IAQ}]$ ).

The analytical results are summarized in Table 1 and a copy of the laboratory analytical report is included in Attachment 1.

### Domestic Well Sampling

As part of the point of entry treatment (POET) unit semi-annual operation and maintenance (O&M) inspection, S&G Water Conditioning (S&G) of Warminster, Pennsylvania performed sampling of the raw and treated water at 1176 Hart Lane on December 28, 2010. However, laboratory quality control issues required re-sampling of the water. Thus, the fourth quarter 2010 raw water and POET system performance samples were collected by Liberty on January 4, 2011, placed in an iced cooler, and remanded to QC Laboratories, Inc. (QC) of Southampton, Pennsylvania for analysis of DEP UL gas target compounds by EPA Method 524.2.

MTBE was detected below the residential Statewide Health Standard (SHS) in the raw water sample collected at 1176 Hart Lane during the January 2011 sampling event, at a concentration of 2.45 micrograms per liter ( $\mu\text{g/L}$ ). There were no other UL gas target compounds detected in this sample. The mid-point sample reported several UL gas target compounds at estimated concentrations (J values), including benzene, ethylbenzene, toluene, xylene, cumene, MTBE, and 1,3,5-trimethylbenzene (1,3,5-TMB); however, all of the J values were well below drinking water standards

and residential SHSs. No UL gas target compounds were reported above laboratory method detection limits in the effluent sample, indicating that the second carbon vessel was effective in removing all contaminants from the water. Due to the observed breakthrough in the first carbon vessel, a carbon change-out will be conducted during the next maintenance visit scheduled for June 2011. The results of the January 4, 2011 sampling are summarized in Table 2 and a copy of the analytical report is provided in Attachment 2.

### Groundwater Monitoring & Sampling

Quarterly groundwater monitoring was performed on November 9, 2010. The event included gauging of all on-site and off-site monitor wells and the tankfield observation wells, and sampling of all on-site and off-site monitor wells, except for MW-4S and MW-7/RW-7. Tankfield observation well OW-C/RW-C was also sampled. Sampling of MW-7/RW-7 was reduced to annual events beginning in February 2009, and sampling of OW-A and OW-B has been discontinued, pursuant to Liberty's February 2009 combined RAPR and RAP Addendum. Monitor well MW-4S contained an insufficient volume of water to facilitate sampling (less than six inches).

There was no separate phase liquid (SPL) detected in any of the monitor wells during the November 2010 quarterly monitoring event, except MW-2/RW-2, where 0.01 foot of SPL was detected.

Groundwater samples were submitted for analysis of UL gas target compounds, including 1,2,4-TMB and 1,3,5-TMB using EPA method SW-846 8260B. All samples were submitted to TestAmerica under chain-of-custody documentation. A summary of all monitor and observation well sample analytical results is provided in Table 3 and a copy of the laboratory analytical report for the November 2010 sampling event is provided in Attachment 3.

Table 2 shows that there were no UL gas target compounds detected above the laboratory method reporting limits (MRLs) in MW-9. In addition, MTBE was the only UL gas target compound detected above its laboratory MRL in wells MW-1, MW-3/RW-3, MW-6, MW-8, MW-10, MW-11, and MW-12. The MTBE concentrations detected in wells MW-8, MW-10 and MW-12 were below the residential SHS, but exceeded the residential SHS in the other four wells.

Benzene, MTBE, total xylenes and 1,2,4-TMB were all detected above the MRL in MW-5/RW-5 during the November 2010 sampling, but only MTBE was reported at a concentration above the residential SHS. Monitor wells MW-2/RW-2 and MW-4/RW-4, and observation well OW-C/RW-C reported detections of all UL gas target compounds; however, only the benzene, MTBE, 1,2,4-TMB, and 1,3,5-TMB concentrations were above their respective residential SHSs in the samples from these wells.

### Groundwater Flow

Using depth-to-water measurements and top-of-casing elevations to determine groundwater elevation, Liberty prepared a groundwater flow map for the monitor well gauging event performed on November 9, 2010. This map is provided as Figure 2. Groundwater flow is generally toward the north/northeast at a gradient ranging from 0.029 to 0.04 ft/ft. This is consistent with previous non-pumping flow directions and gradients observed at the site. Well gauging measurements are summarized in Table 4.

## SUMMARY AND CONCLUSIONS

The November 2010 sampling event was the eighth post-remediation sampling event, and Liberty reviewed all of the analytical results to determine if attainment of a combination of Statewide Health and Site-Specific Standards could be demonstrated in groundwater at the site. A review of the historical monitoring data determined that cumene, ethylbenzene, naphthalene, toluene, and xylenes meet residential SHSs in groundwater. However, benzene, MTBE, 1,2,4-TMB and 1,3,5-TMB concentrations at point-of-compliance well MW-4/RW-4 do not meet residential SHSs. In addition, MTBE does not meet residential SHSs in point-of-compliance wells MW-1, MW-3/RW-3 and MW-6, and off-site wells MW-11 and MW-12. Therefore, Liberty will pursue a Site-Specific Standard (SSS) for these compounds through demonstration of pathway elimination.

As the first step in demonstrating SSS by pathway elimination, Liberty will perform fate and transport modeling to determine the area in which to perform a receptor evaluation for potentially complete exposure pathways. Prior to performing fate and transport modeling, Liberty reviewed the site data to evaluate if there were any increasing concentration trends. Liberty graphed the last eight quarterly MTBE concentrations at wells MW-1, MW-3/RW-3, MW-4/RW-4, MW-6, MW-11 and MW-12, the benzene concentrations at MW-4/RW-4 and MW-6, and the 1,2,4- and 1,3,5-TMB concentrations at MW-4. These graphs were reviewed for obvious indication of an increasing trend, and are provided as Figures 2 through 4, respectively.

Review of the benzene graphs for MW-4/RW-4 and MW-6 found no obvious trend, while review of the 1,2,4-TMB and 1,3,5-TMB graphs for MW-4/RW-4 found potentially increasing trends for both compounds. Review of the MTBE graphs found potentially increasing trends at MW-1 and MW-4/RW-4, and either no obvious trend or a decreasing trend at the other four wells. Since there were potentially increasing concentration trends for 1,2,4-TMB and 1,3,5-TMB at MW-4/RW-4 and for MTBE at MW-1 and MW-4/RW-4, Liberty performed a statistical evaluation of the data using the Mann Kendall Test. This evaluation confirmed an increasing MTBE trend at MW-1 at a 95% confidence interval, but returned no trend at MW-4/RW-4. The Mann Kendall Test of the 1,2,4- and 1,3,5-TMB concentrations at MW-4/RW-4 confirmed no trend for the 1,2,4-TMB data, but indicated an increasing trend for the 1,3,5-TMB data at a 95% confidence level.


Since monitoring data from source area well MW-3/RW-3, tank field well OW-C/RW-C and downgradient wells MW-6, MW-11 and MW-12 have shown stable or declining contaminant concentrations, Liberty believes it is appropriate to perform fate-and-transport modeling at this time, in support of a demonstration of attainment of SSS by pathway elimination for those compounds that do not meet residential SHS. Since an upward trend in MTBE concentrations has been observed in point-of-compliance wells MW-1 and MW-4/RW-4 and 1,3,5-TMB also shows an upward trend in MW-4/RW-4, Liberty will use conservative input values in our fate and transport modeling and carefully evaluate the results with respect to site data.

The fate and transport modeling findings will be detailed in a letter report that will be submitted to DEP for review prior to completing the Remedial Action Completion Report for this site. Also, since the existing data demonstrates residential SHSs in groundwater for cumene, ethylbenzene, naphthalene, toluene, and xylenes, and since Liberty believes that a SSS can be demonstrated through pathway elimination for MTBE, benzene, 1,2,4-TMB and 1,3,5-TMB, no further quarterly

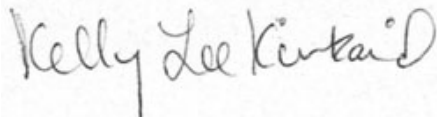
groundwater sampling will be performed at the site, and submission of quarterly Remedial Action Progress Reports will be suspending pending submission of the RACR.

If you have any questions or comments concerning the information presented herein, please feel free to contact us at 610-375-9301.

Sincerely,  
**Liberty Environmental, Inc.**



Jasen P. Book  
Environmental Engineer



Kelly Lee Kinkaid, P.G.  
Project Manager/Hydrogeologist

cc: P. Roberts, Len's Hartsville Garage  
J. Builder, ICF Consulting  
G. Weniger, Warwick Township

Attachments:

- Figure 1: November 9, 2010 Groundwater Flow Map
- Figure 2: MTBE Concentration vs. Time Chart
- Figure 3: Benzene Concentration vs. Time Chart
- Figure 4: 1,2,4- and 1,3,5-TMB Concentration vs. Time Chart
- Table 1: Soil Vapor Analytical Results
- Table 2: Domestic Supply Well Analytical Summary
- Table 3: Monitor Well Gauging Summary
- Table 4: Historical Groundwater Analytical Results
- Attachment 1: Soil Vapor Analytical Laboratory Report
- Attachment 2: Domestic Well Sampling Analytical Laboratory Report
- Attachment 3: Groundwater Analytical Laboratory Report

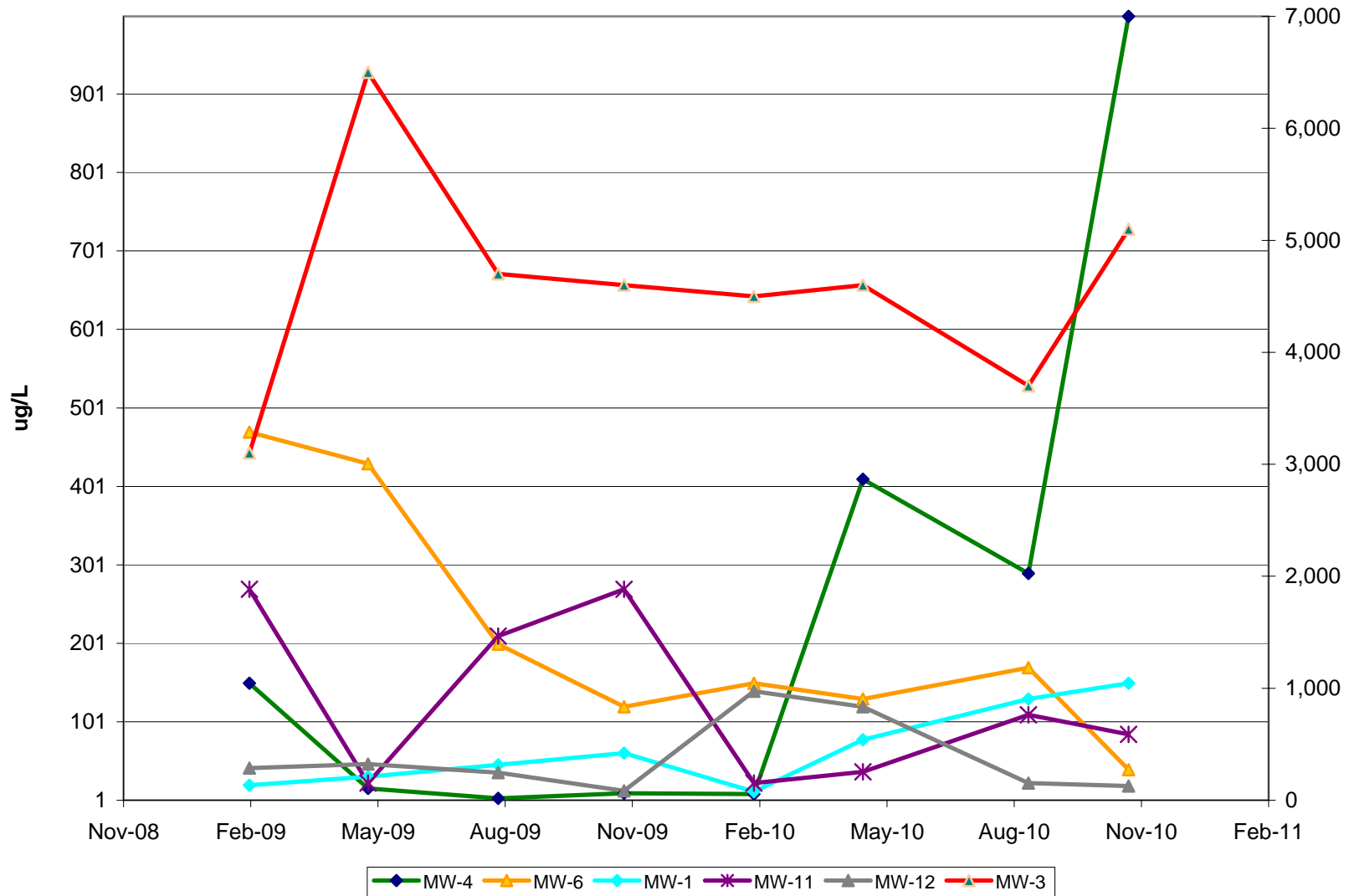
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## FIGURES

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Figure 2: MTBE Concentrations vs. Time for selected wells



Note that all wells use the left Y-axis, with the exception of MW-3, which uses the right Y-axis.

Figure 3: Benzene Concentration vs. Time for Selected Wells

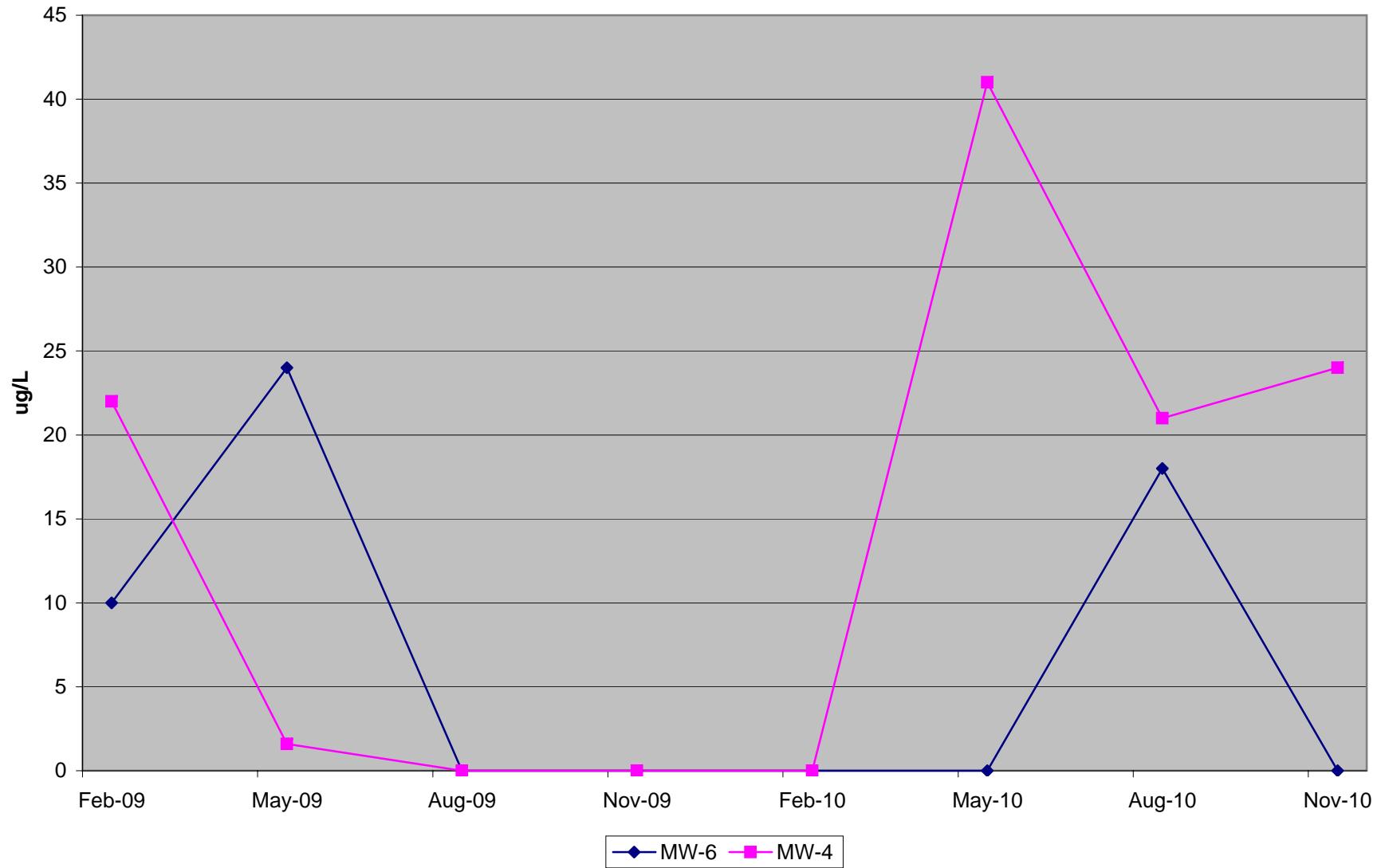
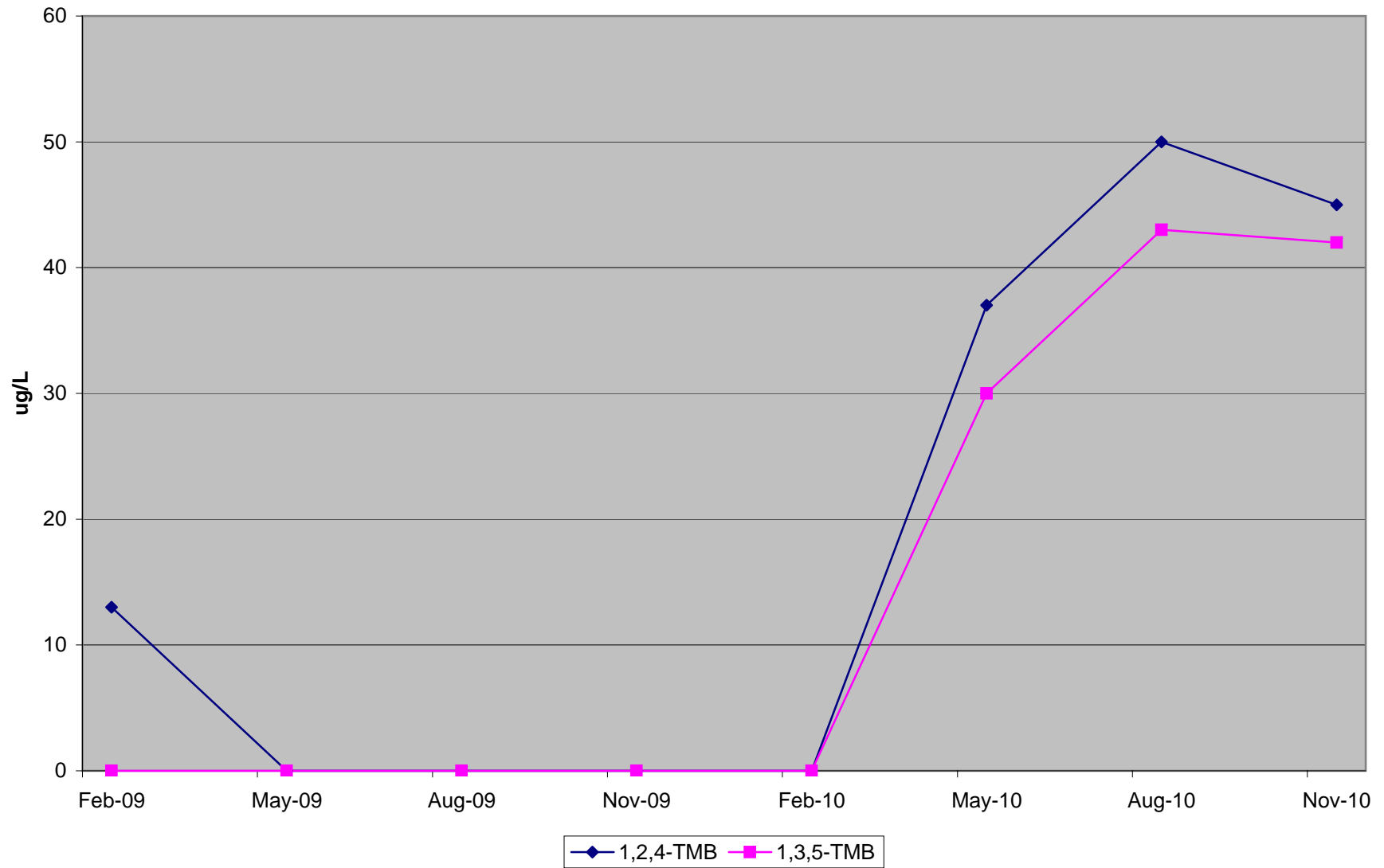


Figure 4: 1,2,4- and 1,3,5-TMB Concentrations vs. Time at MW-4



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## TABLES

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**Table 1  
Soil Vapor Analytical Results**

Lens Hartsville Garage  
Warwick Township, Bucks County, PA  
Liberty Project No. 060006

Sample ID	Date	Compound Concentration in Air (ug/m <sup>3</sup> )									
		MTBE	Benzene	Toluene	Ethylbenzene	m/p-Xylene	o-Xylene	Cumene	Naphthalene	1,2,4-TMB	1,3,5-TMB
VP-1	5/5/2010	0.72 J	2.4	7.8	2.0	3.3	1.2	0.34 J	<2.6	<0.98	<0.98
	1/4/2011	<4	<3	16	<4	11	3	<5	<13	<5	<5
Duplicate	1/4/2011	<4	<3	14	<4	<11	<4	<5	<13	<5	<5
Trip Blank	5/5/2010	<3.6	<0.64	<0.75	<0.87	<3.7	<0.64	<0.75	<0.87	<3.8	<0.98
	1/4/2011	Not Analyzed									
MSC <sub>SG</sub>	Residential	8,100	270	56,000	1,900	14,000		54,000	420	9,000	2,800
	Non-residential	31,000	1,100	120,000	7,300	30,000		110,000	880	900,000	2,800

**Notes:**

Referenced MSC<sup>SG</sup> standards refer to the medium-specific concentration for soil gas, which is defined in the DEP Vapor Intrusion Guidance as 100X the indoor air quality MSC listed in Table 3 of the Guidance.

Values preceded by ND and a "less than" sign (<) indicate that the compound was not detected above laboratory detection limits.

J = Estimated laboratory value

**TABLE 2: Domestic Supply Well Analytical Summary**  
**Len's Hartsville Garage, Warwick Township, Bucks Co., PA**  
(all concentrations in µg/L)

DEP Statewide Health Standards <sup>1</sup>		Benzene	Ethylbenzene	Cumene	MTBE	Naphthalene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB
		5	700	840	20	100	1,000	10,000	15	13
1247 W. Bristol Road	4/11/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1261 W. Bristol Road	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1176 Hart Lane	8/30/2007	<1.0	<2.0	<2.0	<2.0	<5.0	<2.0	<6.0	<2.0	<2.0
	4/8/2008	<1.0	<0.84	<0.91	<b>2.9</b>	<1.3	<1.3	<2.4	<b>1.6</b>	<0.92
	4/22/2008	<1.0	<0.84	<0.91	<b>8.2</b>	<1.3	<1.3	<2.4	<1.1	<0.92
	5/21/2008	<1.0	<0.84	<0.91	<b>7.8</b>	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<b>7.6</b>	<1.3	<1.3	<2.4	<1.1	<0.92
	9/22/2008	<0.50	<0.50	<0.50	<b>6.5J</b>	<0.50	<0.50	<0.87	<0.50	<0.50
	12/16/2008	<1.0	<0.84	<0.91	<b>8.2</b>	<1.3	<1.3	<2.4	<1.1	<0.92
	3/26/2009	<1.0	<0.84	<0.91	<b>8.4</b>	<1.3	<1.3	<2.4	<1.1	<0.92
	9/14/2009	<0.30	<0.30	<0.31	<b>4.72</b>	<0.50	<0.30	<0.87	<0.28	<0.29
	1/25/2010	<0.30	<0.30	<0.31	<b>2.62</b>	<0.50	<0.30	<0.87	<0.28	<0.29
	3/24/2010	<0.30	<0.30	<0.31	<b>5.58</b>	<0.50	<0.30	<0.87	<0.28	<0.29
	6/4/2010	<0.07	<0.08	<0.06	<b>7.17</b>	<0.50	<0.07	<0.22	<0.07	<0.07
	1/4/2011	<0.15	<0.13	<0.12	<b>2.45</b>	<0.50	<0.14	<0.48	<0.17	<0.13
	1186 Hart Lane	3/9/2006	<1.0	<2.0	<2.0	<2.0	<5.0	<2.0	<6.0	NA
8/30/2007		<1.0	<2.0	<2.0	<2.0	<5.0	<2.0	<6.0	<2.0	<2.0
3/27/2008		<1.0	<2.0	<2.0	<2.0	<5.0	<2.0	<6.0	<2.0	<2.0
6/17/2008		<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
9/22/2008		<0.50	<0.50	<0.50	<0.58	<0.50	<0.50	<0.87	<0.50	<0.50
12/16/2008		<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
3/26/2009		<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
9/14/2009		<0.30	<0.30	<0.31	<0.34	<0.50	<0.30	<0.87	<0.28	<0.29
1195 Hart Lane		9/7/2007	<1.0	<2.0	<2.0	<2.0	<5.0	<2.0	<6.0	NA
	3/27/2008	<1.0	<2.0	<2.0	<2.0	<5.0	<2.0	<6.0	<2.0	<2.0
	6/18/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	9/22/2008	<0.50	<0.50	<0.50	<0.58	<0.50	<0.50	<0.87	<0.50	<0.50
	12/16/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	3/26/2009	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	9/14/2009	<0.30	<0.30	<0.31	<0.34	<0.50	<0.30	<0.87	<0.28	<0.29
1196 Hart Lane	8/30/2007	<1.0	<2.0	<2.0	<2.0	<5.0	<2.0	<6.0	<2.0	<2.0
	3/25/2008	<1.0	<2.0	<2.0	<2.0	<5.0	<2.0	<6.0	<2.0	<2.0
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	9/22/2008	<0.50	<0.50	<0.50	<0.58	<0.50	<0.50	<0.87	<0.50	<0.50
	12/16/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	3/26/2009	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1204 Hart Lane	9/14/2009	<0.30	<0.30	<0.31	<0.34	<0.50	<0.30	<0.87	<0.28	<0.29
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1207 Hart Lane	4/22/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1215 Hart Lane	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1221 Hart Lane	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1230 Hart Lane	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1235 Hart Lane	4/14/2008	<1.0	<0.84	<0.91	<1.2	<b>2.0J</b>	<1.3	<2.4	<1.1	<0.92
	4/24/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	5/21/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	9/22/2008	<0.50	<0.50	<0.50	<0.58	<0.50	<b>0.57J</b>	<0.87	<0.50	<0.50
	12/16/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1236 Hart Lane	3/26/2009	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1250 Hart Lane	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1251 Hart Lane	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1266 Hart Lane	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1270 Hart Lane	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	8/30/2007	<1.0	<2.0	<2.0	<2.0	<5.0	<2.0	<6.0	<2.0	<2.0
1451 Graeme Way	3/27/2008	<1.0	<2.0	<2.0	<2.0	<5.0	<2.0	<6.0	<b>18</b>	<b>6.8</b>
	4/8/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	4/22/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	5/21/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	9/22/2008	<0.50	<0.50	<0.50	<0.58	<0.50	<0.50	<0.87	<0.50	<0.50
	12/16/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	3/26/2009	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/9/2009	<0.12	<0.11	<0.12	<0.11	<0.08	<0.11	<0.11	<0.13	<0.11
	9/14/2009	<0.30	<0.30	<0.31	<0.34	<0.50	<0.30	<0.87	<0.28	<0.29
	12/30/2009	<0.30	<0.30	<0.31	<0.34	<0.50	<0.30	<0.87	<0.28	<0.29

**TABLE 2: Domestic Supply Well Analytical Summary**  
**Len's Hartsville Garage, Warwick Township, Bucks Co., PA**  
(all concentrations in µg/L)

		Benzene	Ethylbenzene	Cumene	MTBE	Naphthalene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB
DEP Statewide Health Standards <sup>1</sup>		5	700	840	20	100	1,000	10,000	15	13
1454 Graeme Way	4/8/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	9/22/2008	<0.50	<0.50	<0.50	<0.58	<0.50	<0.50	<0.87	<0.50	<0.50
	12/16/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	3/26/2009	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	9/14/2009	<0.30	<0.30	<0.31	<0.34	<0.50	<0.30	<0.87	<0.28	<0.29
1457 Graeme Way	3/24/2010	<0.30	<0.30	<0.31	<0.34	<0.50	<0.30	<0.87	<0.28	<0.29
	4/8/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	9/22/2008	<0.50	<0.50	<0.50	<0.58	<0.50	<0.50	<0.87	<0.50	<0.50
	12/16/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	3/26/2009	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
9/14/2009	<0.30	<0.30	<0.31	<0.34	<0.50	<0.30	<0.87	<0.28	<0.29	
1462 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1467 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1470 Graeme Way	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1473 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1478 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1481 Graeme Way	4/22/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1488 Graeme Way	4/15/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1489 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1496 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1497 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1505 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1510 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1511 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1517 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1518 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1524 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1530 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1538 Graeme Way	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1544 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1565 Graeme Way	4/15/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1574 Graeme Way	4/11/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1590 Graeme Way	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1591 Graeme Way	4/12/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1474 Old York Road	4/8/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	9/22/2008	<0.50	<0.50	<0.50	<0.58	<0.50	<0.50	<0.87	<0.50	<0.50
	12/16/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	3/26/2009	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1484 Old York Road	4/8/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	6/17/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	9/22/2008	<0.50	<0.50	<0.50	<0.58	<0.50	<0.50	<0.87	<0.50	<0.50
	12/16/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
	3/26/2009	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1498 Old York Road	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1504 Old York Road	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1514 Old York Road	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1524 Old York Road	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1534 Old York Road	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1544 Old York Road	4/14/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1559 Old York Road	4/15/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1560 Old York Road	4/15/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1570 Old York Road	4/15/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
Graeme Way Vacant Lot Spring	6/18/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
Graeme/Hart Storm Pipe NE	6/18/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92
1457 Graeme Way Spring	6/18/2008	<1.0	<0.84	<0.91	<1.2	<1.3	<1.3	<2.4	<1.1	<0.92

Notes:

<sup>1</sup> DEP Statewide Health Standards (SHS) for TDS<2500, residential used aquifers

The "<" symbol indicates that concentrations were below laboratory detection levels

Detected compounds are shown in bold font with blue highlight. Concentrations exceeding their respective SHS are bold font with yellow highlight

**TABLE 3**  
**Summary of Groundwater Analytical Results**  
 Len's Hartsville Garage, Warwick Township, Bucks County, PA

Age, Warwick Township	Benzene	Ethylbenzene	Cumene	MTBE	Naphthalene	Toluene	Xylenes	1,2,4 TMB <sup>b</sup>	1,3,5 TMB
Act 2 Standard (µg/L)	5	700	840	20	100	1,000	10,000	15	13
<b>MW-1</b>									
2/9/2006	<1	<2	<2	20	<5	<2	<6	NA	NA
4/28/2006	<1	<2	<2	16	<5	<2	<6	NA	NA
8/30/2006	<1	<2	<2	<20	<5	<2	<6	NA	NA
11/7/2006	<1	<2	<2	28	<5	<2	<6	NA	NA
2/8/2007	<1	<2	<2	<5	<5	<2	<6	<2	<2
5/15/2007	<1	<2	<2	<2	<5	<2	<6	<2	<2
8/14/2007	<1	<2	<2	17	<5	<2	<6	<2	<2
11/20/2007	<1	<2	<2	7.3	<5	<2	<6	<2	<2
2/21/2008	<1	<2	<2	150	<5	<2	<6	<2	<2
3/25/2008	<1	<2	<2	63	<5	<2	<6	<2	<2
5/27/2008	<1	<2	<2	25	<5	<2	<6	<2	<2
8/19/2008	<1	<2	<2	19	<5	<2	<6	<2	<2
11/12/2008	<1	<2	<2	16	<5	<2	<6	<2	<2
2/25/2009	<1	<2	<2	20	<5	<2	<6	<2	<2
5/20/2009	<1	<2	<2	31	<5	<2	<6	<2	<2
8/20/2009	<1	<2	<2	46	<8	<2	<6	<2	<2
11/17/2009	<1	<2	<2	61	<8	<2	<6	<2	<2
2/17/2010	<1	<2	<2	12	<8	<2	<6	<2	<2
5/5/2010	<1	<2	<2	78	<8	<2	<6	<2	<2
8/30/2010	<1	<2	<2	130	<8	<2	<6	<2	<2
11/12/2010	<1	<2	<2	150	<8	<2	<6	<2	<2
<b>MW-2/RW-2</b>									
4/28/2006	6,000	850	39	220,000	280	13,000	7,500	NA	NA
8/30/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/7/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA
2/8/2007	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/15/2007	1,000	350	19	11,000	210	2,800	5,000	750	240
11/20/2007	690	32	<10	6,400	62	230	2,400	360	200
2/21/2008	560	150	<40	2,700	<100	230	2,300	330	260
5/27/2008	240	33	<2	1,700	14	70	540	51	62
8/19/2008	5.1	<2	<2	3,100	<5	<2	44	7.8	16
11/12/2008	3.4	<2	<2	1,300	<5	<2	18	<2	6.3
2/25/2009	200	100	4.1	1,100	45	48	540	140	87
5/20/2009	260	240	20	1,000	76	81	990	220	120
8/20/2009	150	130	10	750	42	42	560	130	78
11/17/2009	170	170	16	870	79	54	650	160	110
2/17/2010	140	130	12	710	52	45	490	110	86
5/5/2010	140	140	10	590	59	43	640	130	99
8/30/2010	81	37	3.7	1,200	22	16	330	75	59
11/9/2010	130	90	9.2	960	37	33	350	77	86
<b>MW-3/RW-3</b>									
2/9/2006	15	<2	<2	19,000	<5	4.8	57	NA	NA
4/28/2006	<1	<2	<2	12,000	<5	<2	<6	NA	NA
8/30/2006	<1	<2	<2	23,000	<5	<2	<6	NA	NA
11/7/2006	<1	<2	<2	45,000	<5	<2	<6	NA	NA
2/8/2007	<1	<2	<2	28,000	<5	<2	<6	<2	<2
5/15/2007	<1	<2	<2	18,000	<5	<2	<6	<2	<2
8/14/2007	<1	<2	<2	32,000	<5	<2	<6	<2	<2
11/20/2007	<1	<2	<2	19,000	<5	<2	<6	<2	<2
2/21/2008	<1	<2	<2	16,000	<5	<2	<6	<2	<2
5/27/2008	<1	<2	<2	2,100	<5	<2	<6	<2	<2
8/19/2008	<1	<2	<2	160	<5	<2	<6	<2	<2
11/12/2008	<1	<2	<2	680	<5	<2	<6	<2	<2
2/25/2009	<1	<2	<2	3,100	<5	<2	<6	<2	<2
5/20/2009	<1	<2	<2	6,500	<5	<2	<6	<2	<2
8/20/2009	<1	<2	<2	4,700	<8	<2	<6	<2	<2
11/17/2009	<1	<2	<2	4,600	<8	<2	<6	<2	<2
2/17/2010	<1	<2	<2	4,500	<8	<2	<6	<2	<2
5/5/2010	<1	<2	<2	4,600	<8	<2	<6	<2	<2
8/30/2010	<1	<2	<2	3,700	<8	<2	<6	<2	<2
11/9/2010	<1	<2	<2	5,100	<8	<2	<6	<2	<2
<b>MW-4 / RW-4<sup>8</sup></b>									
2/9/2006	27	<2	<2	4,400	<5	14	<6	NA	NA
4/28/2006	1,600	160	7	70,000	32	2,000	880	NA	NA
8/30/2006	1,100	110	<40	36,000	<100	1,200	530	NA	NA
11/7/2006	290	15	2.4	1,900	<5	10	<6	NA	NA
2/8/2007	260	39	2.7	2,200	9.8	210	170	20	4.2
5/15/2007	15	6.2	<2	1,100	<5	12	17	4.3	<2
8/14/2007	<10	<20	<20	1,900	<50	<20	61	60	<20
11/20/2007	<1	<2	<2	34	<5	<2	<6	<2	<2
2/21/2008	<1	<2	<2	23	<5	<2	<6	<2	<2
5/27/2008	20	8.9	<2	430	12	11	120	23	6.5
8/19/2008	4.1	<2	<2	420	<5	<2	6.3	<2	<2
11/12/2008	57	39	3.8	380	14	16	210	49	9.4
2/25/2009	22	<2	<2	150	<5	4	79	13	<2
5/20/2009	1.6	<2	<2	16	<5	<2	<6	<2	<2
8/20/2009	<1	<2	<2	3.3	<8	<2	<6	<2	<2
11/17/2009	<1	<2	<2	10.0	<8	<2	<6	<2	<2
2/17/2010	<1	<2	<2	8.9	<8	<2	<6	<2	<2
5/5/2010	41	42	3.8	410	17	13	240	37	30
8/30/2010	21	5.9	6.6	290	10	8	120	50	43
11/9/2010	24	6.8	8	1,000	11	11	130	45	42

**TABLE 3**  
**Summary of Groundwater Analytical Results**

Len's Hartsville Garage, Warwick Township, Bucks County, PA

Age, Warwick Township	Benzene	Ethylbenzene	Cumene	MTBE	Naphthalene	Toluene	Xylenes	1,2,4 TMB <sup>b</sup>	1,3,5 TMB <sup>b</sup>
Act 2 Standard (µg/L)	5	700	840	20	100	1,000	10,000	15	13
<b>MW-4-S<sup>9</sup></b>									
2/21/2008	<1	<2	<2	240	<5	<2	<6	<2	<2
3/25/2008	<1	<2	<2	270	<5	<2	<6	<2	<2
5/27/2008	<1	<2	<2	79	<5	<2	<6	<2	<2
5/20/2009	<1	<2	<2	2.0	<5	<2	<6	<2	<2
<b>MW-5 / RW-5<sup>8</sup></b>									
4/28/2006	2,600	920	<2	150,000	<5	1,800	2,100	NA	NA
5/17/2006 <sup>4</sup>	300	21	<2	18,000	13	190	130	NA	NA
8/30/2006	380	66	3	29,000	17	190	280	NA	NA
11/7/2006	310	51	2.4	16,000	5	210	230	NA	NA
2/8/2007	17	<2	<2	9,700	9.9	<2	<6	2.8	<2
5/15/2007	15	<2	<2	2,000	<5	<2	<6	<2	<2
8/14/2007	4.3	<2	<2	2,800	<5	<2	<6	<2	<2
11/20/2007	<1	<2	<2	300	<5	<2	<6	<2	<2
2/21/2008	<1	<2	<2	1,400	<5	<2	<6	<2	<2
5/27/2008	2.7	<2	<2	480	<5	<2	<6	<2	<2
8/19/2008	<1	<2	<2	1,300	<5	<2	<6	<2	<2
11/12/2008	2.3	<2	<2	520	<5	<2	<6	<2	<2
2/25/2009	1.1	<2	<2	1,100	<5	<2	<6	<2	<2
5/20/2009	11	<2	<2	620	<5	<2	<6	4.8	<2
8/20/2009	<2	<4	<4	830	<16	<4	<12	<4	<4
11/17/2009	1.4	<2	<2	740	<8	<2	<6	<2	<2
2/17/2010	<1	<2	<2	500	<8	<2	<6	<2	<2
5/5/2010	<1	<2	<2	480	<8	<2	<6	<2	<2
8/30/2010	2.3	<2	<2	1,300	<8	<2	<6	<2	<2
11/9/2010	5.1	<2	<2	660	<8	<2	6.2	4.1	<2
<b>MW-6</b>									
4/28/2006	760	44	<2	25,000	31	700	910	NA	NA
8/30/2006	530	43	<40	25,000	<100	<60	<160	NA	NA
11/7/2006	420	62	6.8	11,000	14	33	160	NA	NA
2/8/2007	170	24	3.9	6,200	5.5	10	7.8	<2	<2
5/15/2007	140	32	3.2	3,900	19	14	39	44	<2
8/14/2007	7.9	4.2	2.6	2,100	18	8	150	87	27
11/20/2007	52	9.6	5.2	1,300	<5	4	<6	<2	<2
2/21/2008	<1	<2	<2	600	<5	<2	<6	<2	<2
5/27/2008	40	4.2	3.4	770	7.6	4	8.1	<2	<2
8/19/2008	2.3	<2	<2	470	<5	<2	<6	<2	<2
11/12/2008	64	28	<10	520	<25	15	81.0	25	<10
2/25/2009	10	<2	<2	470	<5	<2	<6	<2	<2
5/20/2009	24	11	3.8	430	18	4.2	97	79	2.1
8/20/2009	<1	<2	<2	200	<8	<2	<6	<2	<2
11/17/2009	<1	<2	<2	120	<8	<2	<6	<2	<2
2/17/2010	<1	<2	<2	150	<8	<2	<6	<2	<2
5/5/2010	<1	<2	<2	130	<8	<2	<6	<2	<2
8/30/2010	18	<2	5.4	170	<8	<2	<6	<2	<2
11/9/2010	<1	<2	<2	40	<8	<2	<6	<2	<2
<b>MW-7 / RW-7<sup>8</sup></b>									
8/30/2006	550	6.8	4.7	38,000	28	100	91	NA	NA
11/7/2006	810	15	4.2	42,000	20	200	190	NA	NA
2/8/2007	320	17	5.6	23,000	24	50	120	32	7.6
5/15/2007	39	<2	<2	12,000	<5	3	20	3.5	<2
8/14/2007	<1	<2	<2	7,400	<5	<2	<6	<2	<2
11/20/2007	7.4	11	<2	6,900	<5	3	87	13	3.8
2/21/2008	48	11	<2	8,100	<5	14	100	14	8
5/27/2008	2.1	<2	<2	4,100	<5	<2	7.6	<2	<2
8/19/2008	<1	<2	<2	1,900	<5	<2	<6	<2	<2
11/12/2008	<1	<2	<2	790	<5	<2	<6	<2	<2
2/25/2009	27	<2	<2	2,400	<5	3	11	3.3	<2
2/17/2010	9.8	7.3	<2	2,100	<8	<2	8.8	<2	<2
<b>MW-8</b>									
8/30/2006	<1	<2	<2	<20	<5	<2	<6	NA	NA
11/7/2006	<1	<2	<2	<10	<5	<2	<6	NA	NA
2/8/2007	<1	<2	<2	<5	<5	<2	<6	<2	<2
5/15/2007	<1	<2	<2	<2	<5	<2	<6	<2	<2
8/14/2007	<1	<2	<2	<6	<5	<2	<2	<2	<2
8/30/2007	<1	<2	<2	6.2	<5	<2	<6	<2	<2
11/20/2007	<1	<2	<2	2.6	<5	<2	<6	<2	<2
2/21/2008	<1	<2	<2	<2	<5	<2	<6	<2	<2
5/28/2008	<1	<2	<2	<2	<5	<2	<6	<2	<2
8/19/2008	<1	<2	<2	<10	<5	<2	<6	<2	<2
11/12/2008	<1	<2	<2	18	<5	<2	<6	<2	<2
2/25/2009	<1	<2	<2	<2	<5	<2	<6	<2	<2
5/20/2009	<1	<2	<2	<2	<5	<2	<6	<2	<2
8/20/2009	<1	<2	<2	<2	<8	<2	<6	<2	<2
11/17/2009	<1	<2	<2	<2	<8	<2	<6	<2	<2
2/17/2010	<1	<2	<2	<2	<8	<2	<6	<2	<2
5/5/2010	<1	<2	<2	<2	<8	<2	<6	<2	<2
8/30/2010	<1	<2	<2	3.5	<8	<2	<6	<2	<2
11/9/2010	<1	<2	<2	4.2	<8	<2	<6	<2	<2

**TABLE 3**  
**Summary of Groundwater Analytical Results**  
 Len's Hartsville Garage, Warwick Township, Bucks County, PA

Age, Warwick Township	Benzene	Ethylbenzene	Cumene	MTBE	Naphthalene	Toluene	Xylenes	1,2,4 TMB <sup>b</sup>	1,3,5 TMB
Act 2 Standard (µg/L)	5	700	840	20	100	1,000	10,000	15	13
<b>MW-9</b>									
8/30/2006	<1	<2	<2	<20	<5	<2	<6	NA	NA
11/7/2006	<1	<2	<2	<10	<5	<2	<6	NA	NA
2/8/2007	<1	<2	<2	<5	<5	<2	<6	<2	<2
5/15/2007	<1	<2	<2	<2	<5	<2	<6	<2	<2
8/14/2007	<1	<2	<2	14	22	<2	<6	21	5.6
8/30/2007	<1	<2	<2	11	<5	<2	<6	<2	<2
11/20/2007	<1	<2	<2	<2	<5	<2	<6	<2	<2
2/21/2008	<1	<2	<2	<2	<5	<2	<6	<2	<2
5/28/2008	<1	<2	<2	<2	<5	<2	<6	<2	<2
8/19/2008	<1	<2	<2	<10	<5	<2	<6	<2	<2
11/12/2008	<1	<2	<2	<2	<5	<2	<6	<2	<2
2/25/2009	<1	<2	<2	<2	<5	<2	<6	<2	<2
5/20/2009	<1	<2	<2	<2	<5	<2	<6	<2	<2
8/20/2009	<1	<2	<2	<2	<8	<2	<6	<2	<2
11/17/2009	<1	<2	<2	<2	<8	<2	<6	<2	<2
2/17/2010	<1	<2	<2	<2	<8	<2	<6	<2	<2
5/5/2010	<1	<2	<2	<2	<8	<2	<6	<2	<2
8/30/2010	<1	<2	<2	<2	<8	<2	<6	<2	<2
11/9/2010	<1	<2	<2	<2	<8	<2	<6	<2	<2
<b>MW-10<sup>b</sup></b>									
10/18/2007	<1	<2	<2	400	<5	<2	<6	<2	<2
11/20/2007	<1	<2	<2	14	<5	<2	<6	<2	<2
2/21/2008	<1	<2	<2	4.2	<5	<2	<6	<2	<2
5/27/2008	<1	<2	<2	120	<5	<2	<6	<2	<2
8/19/2008	<1	<2	<2	<10	<5	<2	<6	<2	<2
11/12/2008	<1	<2	<2	2.6	<5	<2	<6	<2	<2
2/25/2009	<1	<2	<2	16	<5	<2	<6	<2	<2
5/20/2009	<1	<2	<2	<2	<5	<2	<6	<2	<2
8/20/2009	<1	<2	<2	<2	<8	<2	<6	<2	<2
11/17/2009	<1	<2	<2	70	<8	<2	<6	<2	<2
2/17/2010	<1	<2	<2	6.7	<8	<2	<6	<2	<2
5/5/2010	<1	<2	<2	75	<8	<2	<6	<2	<2
8/30/2010	<1	<2	<2	3.3	<8	<2	<6	<2	<2
11/9/2010	<1	<2	<2	14	<8	<2	<6	<2	<2
<b>MW-11<sup>b</sup></b>									
10/18/2007	<1.0	<2.0	<2.0	690	<5.0	<2.0	<6.0	<2.0	<2.0
11/20/2007	<1	<2	<2	350	<5	<2	<6	<2	<2
2/21/2008	2.5	17	3.7	120	7	<2	32	78	28
3/25/2008	1	7.2	<2	45	<5	<2	16	<2	<2
5/28/2008	<1	<2	<2	50	<5	<2	<6	2.6	<2
8/19/2008	<1	<2	<2	110	<5	<2	<6	<2	<2
11/12/2008	<1	<2	<2	51	<5	<2	<6	<2	<2
2/25/2009	<1	<2	<2	270	<5	<2	<6	<2	<2
5/20/2009	<1	<2	<2	23	<5	<2	<6	<2	<2
8/20/2009	<1	<2	<2	210	<8	<2	<6	<2	<2
11/17/2009	<1	<2	<2	270	<8	<2	<6	<2	<2
2/17/2010	<1	<2	<2	23	<8	<2	<6	<2	<2
5/5/2010	<1	<2	<2	37	<8	<2	<6	<2	<2
8/30/2010	<1	<2	<2	110	<8	<2	<6	<2	<2
11/9/2010	<1	<2	<2	85	<8	<2	<6	<2	<2
<b>MW-12<sup>b</sup></b>									
2/21/2007	<1	<2	<2	140	<5	<2	<6	<2	<2
3/25/2008	<1	<2	<2	89	<5	<2	<6	<2	<2
5/28/2008	<1	<2	<2	64	<5	<2	<6	<2	<2
8/19/2008	<1	<2	<2	46	<5	<2	<6	<2	<2
11/12/2008	<1	<2	<2	54	<5	<2	<6	<2	<2
2/25/2009	<1	<2	<2	42	<5	<2	<6	<2	<2
5/20/2009	<1	<2	<2	47	<5	<2	<6	<2	<2
8/20/2009	<1	<2	<2	36	<8	<2	<6	<2	<2
11/17/2009	<1	<2	<2	13	<8	<2	<6	<2	<2
2/17/2010	<1	<2	<2	140	<8	<2	<6	<2	<2
5/5/2010	<1	<2	<2	120	<8	<2	<6	<2	<2
8/30/2010	<1	<2	<2	23	<8	<2	<6	<2	<2
11/9/2010	<1	<2	<2	19	<8	<2	<6	<2	<2
<b>OW-A</b>									
8/30/2006	540	1,100	81	33,000	750	6,100	17,000	NA	NA
11/7/2006	330	1,100	85	6,100	340	4,100	14,000	NA	NA
2/8/2007	310	570	64	3,100	670	2,500	12,000	2,600	850
5/15/2007	160	580	91	300	740	1,400	11,000	2,700	810
11/20/2007	59	160	27	350	210	130	1,800	950	400
2/21/2008	9	17	3.9	60	15	13	80	110	56
5/28/2008	12	100	22	58	130	30	540	980	540
8/19/2008	13	37	13	100	89	12	94	320	58
11/12/2008	11	15	<10	45	<25	<10	44	180	<10
2/25/2009	18	15	2.3	110	9	12	24	180	<2
<b>OW-B</b>									
8/30/2006	1,300	1,100	76	8,200	910	11,000	17,000	NA	NA
11/7/2006	1,200	1,300	78	980	350	3,400	10,000	NA	NA
2/8/2007	940	1,200	64	410	990	770	11,000	3,200	430
5/15/2007	370	680	66	490	600	1,400	11,000	1,800	560
8/14/2007	290	750	61	290	490	250	9,500	2,000	520
11/20/2007	200	480	62	210	470	160	7,400	2,100	480
2/21/2008	220	230	48	820	440	93	4,100	1,700	460
5/28/2008	80	150	28	250	450	77	2,000	1,800	830
8/19/2008	65	140	30	150	380	49	980	1,300	590
11/12/2008	46	49	<20	80	130	26	390	690	300
2/25/2009	12	<2	<2	57	<5	2.3	8	28	66

**TABLE 3**  
**Summary of Groundwater Analytical Results**

Len's Hartsville Garage, Warwick Township, Bucks County, PA

Age, Warwick Township	Benzene	Ethylbenzene	Cumene	MTBE	Naphthalene	Toluene	Xylenes	1,2,4 TMB <sup>6</sup>	1,3,5 TMB <sup>7</sup>
Act 2 Standard (ug/L)	5	700	840	20	100	1,000	10,000	15	13
<b>OW-C / RW-C<sup>8</sup></b>									
8/30/2006	450	270	<100	23,000	610	2,800	15,000	NA	NA
11/7/2006	1,300	270	25	520	230	1,800	5,900	NA	NA
2/8/2007	610	420	13	270	270	1,500	6,600	770	220
5/15/2007	210	130	24	120	320	1,800	7,000	1,000	310
11/20/2007	270	300	27	300	190	500	4,500	490	180
2/21/2008	220	220	28	550	320	190	4,600	970	370
5/27/2008	180	220	30	290	110	66	3,100	980	350
8/19/2008	92	110	21	160	130	42	2,600	720	290
11/12/2008	55	50	18	72	45	35	1,400	310	190
2/25/2009	51	41	16	130	80	23	1,000	400	230
5/20/2009	72	25	17	100	43	26	870	280	190
8/20/2009	61	20	15	65	33	24	670	190	130
11/17/2009	47	19	15	52	36	21	600	180	130
2/17/2010	8.6	<2	<2	62	<8	2	30	8.4	5.7
5/5/2010	28	13	9.4	65	28	13	400	140	110
8/30/2010	38	13	14	51	<40	15	250	120	100
11/9/2010	26	8	11	61	17	12	150	52	51

Notes:

- All concentrations in micrograms per liter (ug/L).
- Act 2 Standard: PADEP Residential Statewide Health Standard for Used Aquifers, TDS <2,500 mg/L.
- NA: Not analyzed.
- May 2006 sample from MW-5 at the conclusion of the short-term constant rate pump test
- Shaded cell indicates detected concentration exceeds Act 2 Standard
- 1,2,4 Trimethylbenzene
- 1,3,5 Trimethylbenzene
- Recovery wells first operational on 3/13/2007
- Monitor wells MW-4-S, MW-10, and MW-11 installed on 9/25/2007 and 9/26/2007. MW-12 installed on February 7, 2008

**TABLE 4**  
**Well Gauging/Groundwater Elevation Data**  
 Leni's Hartsville Garage, Warwick Township, Bucks County, PA

Well No.	MW-1		MW-2/RW-2		MW-3/RW-3		MW-4/RW-4		MW-4-S		MW-5/RW-5		MW-6		MW-7/RW-7		MW-8		MW-9		MW-10		MW-11		MW-12		OW-A		OW-B		OW-C/RW-C			
Casing Diameter	4"		4"		4"		4"		2"		4"		4"		6"		4"		4"		4"		4"		4"		4"		4"					
Well Depth	45.00		35.00		47.00		30.00		15.97		40.00		40.00		50.00		35.00		35.00		49.83		50.20		50.00		not recorded		not recorded		not recorded			
Top of Casing	97.66		96.91		98.97		92.01		not applicable		95.04		93.76		not applicable		82.10		80.48		not applicable		not applicable		99.29		99.04		98.87					
Top of Casing	97.66		96.07		98.97		91.76		not available		94.68		93.76		96.78		82.10		80.48		95.13- auto level		93.70- auto level		not applicable		99.29		99.04		98.48			
Top of Casing	97.66		96.07		98.97		91.76		91.56		94.68		93.76		96.78		82.10		80.48		95.21		93.80		91.20		99.29		99.04		98.48			
Top of Casing	97.66		96.07		98.26		91.76		91.56		94.68		93.76		96.78		82.10		80.48		95.21		93.80		91.20		99.29		99.04		98.48			
	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation	DTW	Elevation		
02/09/06	21.77	75.89	15.52 - FP 15.87 - DTW	81.04	21.17	77.80	11.39	80.62	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	8.00 - FP 8.08 - DTW	91.21	7.73 - FP 7.82 - DTW	91.22	7.48 - FP 7.58 - DTW	90.90				
03/09/06	23.31	74.35	20.71 - FP 23.02 - DTW	73.89	23.09	75.88	13.74	78.27	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	8.50 - FP 8.60 - DTW	90.69	8.76 - FP 8.85 - DTW	90.19	9.02 - FP 9.11 - DTW	89.37				
04/06/06	25.55	72.11	25.00 FP 27.10 DTW	69.81	25.60	73.37	15.00	77.01	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	NA	--	DRY	--	9.36 FP 9.45 DTW	89.59	9.10 FP 9.21 DTW	89.27				
04/28/06	23.44	74.22	17.66 - FP 17.75 DTW	79.16	23.11	75.86	11.46	80.55	NA	--	21.83	73.21	23.70	70.06	NA	--	NA	--	NA	--	NA	--	NA	--	7.52 - FP 7.56 - DTW	91.73	7.27 - FP 7.28 - DTW	91.76	7.02 - FP 7.03 - DTW	91.45				
05/16/06	23.49	74.17	16.42 - FP 16.43 DTW	80.48	22.90	76.07	11.87	80.14	NA	--	21.48	73.56	23.82	69.94	NA	--	NA	--	NA	--	NA	--	NA	--	not recorded	--	not recorded	--	NA	--				
05/17/06	22.68	74.98	14.49 - FP 14.50 - DTW	82.41	22.07		11.00	81.01	NA	--	20.99	74.05	22.87	70.89	NA	--	NA	--	NA	--	NA	--	NA	--	not recorded	--	not recorded	--	NA	--				
07/06/06	21.81	75.85	17.05 - FP 17.11 DTW	79.80	20.56	78.41	9.86	82.15	NA	--	19.68	75.36	21.30	72.46	20.84	--	NA	--	NA	--	NA	--	NA	--	not recorded	--	not recorded	--	NA	--				
08/10/06	23.14	74.52	21.55 - FP 21.55 DTW	75.36	22.78	76.19	13.13	78.88	NA	--	22.51	72.53	22.44	71.32	23.60	--	NA	--	NA	--	NA	--	NA	--	7.74	91.55	7.48	91.56	NA	--				
08/30/06	25.17	72.49	22.37 - FP 22.87 DTW	74.04	25.03	73.94	13.09	78.92	NA	--	24.17	70.87	26.43	67.33	25.36	--	20.50	61.60	14.56	65.92	NA	--	NA	--	7.55	91.74	7.29	91.75	7.03 FP 7.04 - DTW	91.83				
09/11/06	22.82	74.84	19.41 - FP 19.42 DTW	77.49	22.26	76.71	11.06	80.95	NA	--	21.19	73.85	23.06	70.70	22.36	--	16.96	65.14	7.94	72.54	NA	--	NA	--	7.32	91.97	7.04	92.00	6.79	92.08				
10/11/06	26.37	71.29	24.53 - FP 24.66 DTW	72.25	25.91	73.06	14.03	77.98	NA	--	25.31	69.73	26.73	67.03	26.60	70.18	20.93	61.17	15.16	65.32	NA	--	NA	--	7.96	91.33	7.70	91.34	7.44	91.43				
11/07/06	23.61	74.05	20.55 - FP 20.71 DTW	76.20	23.53	75.44	11.85	80.16	NA	--	22.15	72.89	23.99	69.77	23.31	73.47	17.42	64.68	8.65	71.83	NA	--	NA	--	7.51	91.78	7.25	91.79	6.99	91.88				
02/08/07	24.48	73.18	23.60 - FP 23.61 DTW	72.46	24.11	74.86	13.39	78.37	NA	--	23.16	71.52	25.72	68.04	24.31	72.47	19.01	63.09	10.77	69.71	NA	--	NA	--	8.29	91.00	8.02	91.02	7.35	91.52				
05/14/07	23.08	74.58	17.80 - FP 17.83 - DTW	78.24	22.59	76.38	11.60	80.16	NA	--	21.48	73.20	24.35	69.41	22.58	74.20	17.05	65.05	7.75	72.73	NA	--	NA	--	7.92	91.37	7.68	91.36	7.02	91.46				
05/15/07	23.24	74.42	19.79 - FP 19.80 - DTW	78.27	23.00	75.97	25.78	65.98	NA	--	32.81	61.87	25.63	68.13	32.74	64.04	17.06	65.04	7.83	72.65	NA	--	NA	--	7.95	91.34	7.69	91.35	7.07	91.41				
08/13/07	29.72	--	27.90 - FP 28.43 - DTW	67.64	29.92	--	14.98	77.03	NA	--	29.28	65.76	30.99	--	30.33	66.45	24.41	--	19.13	--	NA	--	NA	--	9.27	--	9.01	--	8.33	90.54				
08/14/07	29.93	67.73	28.18 - FP 28.59 - DTW	67.48	30.27	68.70	25.82	65.94	NA	--	32.79	61.89	31.72	62.04	32.77	64.01	24.49	57.61	19.21	61.27	NA	--	NA	--	9.26	90.03	8.99	90.05	>7.80	DRY				
11/08/07	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--		
11/15/07	31.10	66.56	25.77 - FP 25.78 - DTW	70.29	not recorded	--	12.82	78.94	not recorded	--	28.55	66.13	31.18	62.58	30.59	66.19	not recorded	--	not recorded	--	31.71	63.50	33.93	59.87	NA	--	not recorded	--	not recorded	--	not recorded	--		
11/20/07	30.86	66.80	23.40	72.67	30.94	68.03	11.92	79.84	15.50	76.06	28.15	66.53	31.10	62.66	30.29	66.49	22.52	59.58	16.84	63.64	31.36	63.85	33.67	60.13	NA	--	9.04	90.25	8.77	90.27	DRY	--		
02/21/08	21.24	76.42	14.13 - FP 14.14 - DTW	81.93	20.56	78.41	8.29	83.47	13.01	78.55	18.87	75.81	21.56	72.20	19.93	76.85	11.82	70.28	5.34	75.14	22.69	72.52	22.94	70.86	25.92	65.28	7.56	91.73	7.30	91.74	6.67	91.81		
03/18/08	not recorded	--	16.13 - FP 16.16 - DTW	79.91	not recorded	--	9.21	82.55	not recorded	--	18.76	75.92	not recorded	--	20.01	64.23	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	not recorded	--	7.68	90.80		
03/25/08	21.40	76.26	31.15	64.92	20.91	78.06	25.85	65.91	14.01	77.55	32.95	61.73	23.86	69.90	32.80	63.98	12.43	69.67	4.22	76.26	24.00	71.21	22.52	71.28	25.97	65.23	9.32	89.97	9.04	90.00	>7.80	PUMPING		
05/02/08	24.33	73.33	17.10	78.97	23.37	74.89	11.66	80.10	15.56	76.00	22.46	72.22	25.63	68.13	23.55	73.23	17.58	64.52	9.75	70.73	25.68	69.53	28.80	65.00	28.82	62.38	8.60	90.69	8.32	90.72	7.72	90.76		
05/27/08	23.17	74.49	16.38	79.69	21.63	76.63	9.50	82.26	14.68	76.88	20.53	74.15	23.61	70.15	21.77	75.01	14.86	67.24	7.22	73.26	24.13	71.08	25.17	68.63	27.27	63.93	8.94	90.35	8.68	90.36	>7.78	DRY		
08/18/08	30.83	66.83	26.72	69.35	30.32	67.94	14.52	77.24	15.98	75.58	29.84	64.84	31.82	61.94	31.20	65.58	23.21	58.89	16.40	64.08	31.69	63.52	34.24	59.56	34.06	57.14	9.26	90.03	8.98	90.06	>7.70	DRY		
08/19/08	31.74	65.92	31.14	64.93	43.43	54.83	25.85	65.91	15.98	75.58	32.97	61.71	32.65	61.11	45.76	51.02	23.46	58.64	16.53	63.95	32.15	63.06	34.57	59.23	34.34	56.86	9.27	90.02	9.01	90.03	>7.70	DRY		
10/10/08	31.51	66.15	31.15	64.92	43.50	54.76	25.85	65.91	15.56	76.00	33.00	61.68	32.00	61.76	45.76	51.02	22.18	59.92	13.40	67.08	31.68	63.53	33.95	59.85	33.77	57.43	9.27	90.02	9.03	90.01	>7.70	PUMPING		
11/12/08	28.94	68.72	31.15	64.92	28.63	69.63	25.10	66.66	15.55	76.01	32.62	62.06	29.84	63.92	45.75	51.03	20.47	61.63	11.99	68.49	29.65	65.56	32.09	61.71	32.04	59.16	7.75	91.54	7.50	91.54	6.85	91.63		
12/02/08	27.11	70.55	31.15	64.92	43.50	54.76	25.75	66.01	15.56	76.00	32.97	61.71	27.95	65.81	45.75	51.03	16.66	65.44	10.19	70.29	27.32	67.89	29.98	63.82	29.93	61.27	9.27	90.02	9.01	90.03	>7.70	PUMPING		
02/25/09	24.92	72.74	19.71 - FP 19.73 - DTW	76.34	24.19	74.07	12.04	79.72	12.04	79.52	23.20	71.48	25.93	67.83	24.30	72.48	18.11	6																

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**ATTACHMENT 1**  
**SOIL VAPOR SAMPLE ANALYTICAL LABORATORY REPORT**

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica King Of Prussia  
1008 West Ninth Avenue  
King of Prussia, PA 19406  
Tel: 610.337.9992

TestAmerica Job ID: KUA0025  
TestAmerica Sample Delivery Group: KUA0025  
Client Project/Site: 060006  
Client Project Description: Len's Hartsville Garage

For:  
Liberty Environmental, Inc.  
50 North Fifth Street 5th Floor  
Reading, PA 19601

Attn: Joel Reber



Authorized for release by:  
1/17/2011 8:50 AM

Jill Miller  
Project Manager  
[jill.miller@testamericainc.com](mailto:jill.miller@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

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



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions . . . . .	3
Client Sample Results . . . . .	4
Chronicle . . . . .	6
Certification Summary . . . . .	7
Method Summary . . . . .	8
Sample Summary . . . . .	9

# Qualifier Definition/Glossary

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KUA0025  
SDG: KUA0025

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## Qualifiers

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### TBUR

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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## Glossary

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Glossary	Glossary Description
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.

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- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KUA0025  
SDG: KUA0025

**Client Sample ID: VP-1**

**Lab Sample ID: KUA0025-02**

**Date Collected: 01/04/11 10:02**

**Matrix: Air**

**Date Received: 01/04/11 14:50**

**Method: TO-15 RTN - Volatile Organic Compounds in Ambient Air**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND	U	5		ug/m3		01/08/11 05:39	01/08/11 05:39	5
1,3,5-Trimethylbenzene	ND	U	5		ug/m3		01/08/11 05:39	01/08/11 05:39	5
Benzene	ND	U	3		ug/m3		01/08/11 05:39	01/08/11 05:39	5
Ethylbenzene	ND	U	4		ug/m3		01/08/11 05:39	01/08/11 05:39	5
Isopropylbenzene	ND	U	5		ug/m3		01/08/11 05:39	01/08/11 05:39	5
<b>m,p-Xylene</b>	<b>11</b>		11		ug/m3		01/08/11 05:39	01/08/11 05:39	5
Methyl tert-butyl ether	ND	U	4		ug/m3		01/08/11 05:39	01/08/11 05:39	5
Naphthalene	ND	U	13		ug/m3		01/08/11 05:39	01/08/11 05:39	5
<b>Toluene</b>	<b>16</b>		4		ug/m3		01/08/11 05:39	01/08/11 05:39	5
<b>Xylene (total)</b>	<b>14</b>		4		ug/m3		01/08/11 05:39	01/08/11 05:39	5
Xylene, o-	ND	U	4		ug/m3		01/08/11 05:39	01/08/11 05:39	5



# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KUA0025  
SDG: KUA0025

**Client Sample ID: Duplicate**

**Lab Sample ID: KUA0025-03**

**Date Collected: 01/04/11 10:02**

**Matrix: Air**

**Date Received: 01/04/11 14:50**

**Method: TO-15 RTN - Volatile Organic Compounds in Ambient Air**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND	U	5		ug/m3		01/08/11 06:32	01/08/11 06:32	5
1,3,5-Trimethylbenzene	ND	U	5		ug/m3		01/08/11 06:32	01/08/11 06:32	5
Benzene	ND	U	3		ug/m3		01/08/11 06:32	01/08/11 06:32	5
Ethylbenzene	ND	U	4		ug/m3		01/08/11 06:32	01/08/11 06:32	5
Isopropylbenzene	ND	U	5		ug/m3		01/08/11 06:32	01/08/11 06:32	5
m,p-Xylene	ND	U	11		ug/m3		01/08/11 06:32	01/08/11 06:32	5
Methyl tert-butyl ether	ND	U	4		ug/m3		01/08/11 06:32	01/08/11 06:32	5
Naphthalene	ND	U	13		ug/m3		01/08/11 06:32	01/08/11 06:32	5
<b>Toluene</b>	<b>14</b>		4		ug/m3		01/08/11 06:32	01/08/11 06:32	5
<b>Xylene (total)</b>	<b>13</b>		4		ug/m3		01/08/11 06:32	01/08/11 06:32	5
Xylene, o-	ND	U	4		ug/m3		01/08/11 06:32	01/08/11 06:32	5



# Lab Chronicle

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KUA0025  
SDG: KUA0025

## Client Sample ID: VP-1

Date Collected: 01/04/11 10:02

Date Received: 01/04/11 14:50

## Lab Sample ID: KUA0025-02

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Analysis	TO-15 RTN		5	12017	01/08/11 05:39		TestAmerica Burlington
total	Prep	Summa Canister			12017_P	01/08/11 05:39		TestAmerica Burlington

## Client Sample ID: Duplicate

Date Collected: 01/04/11 10:02

Date Received: 01/04/11 14:50

## Lab Sample ID: KUA0025-03

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Analysis	TO-15 RTN		5	12017	01/08/11 06:32		TestAmerica Burlington
total	Prep	Summa Canister			12017_P	01/08/11 06:32		TestAmerica Burlington

# Certification Summary

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KUA0025  
SDG: KUA0025

Laboratory	Authority	Program	EPA Region	Certification ID	Expiration Date
TestAmerica King Of Prussia		USDA		P330-10-00327	09/21/13
TestAmerica King Of Prussia	Maryland	State Program	3	253	06/30/11
TestAmerica King Of Prussia	New Jersey	NELAC	2	PA004	06/30/11
TestAmerica King Of Prussia	Pennsylvania	NELAC	3	46-00505	06/30/11
TestAmerica Burlington		USDA		P330-08-00041	02/25/11
TestAmerica Burlington	ACCLASS	DoD ELAP	0	ADE-1492	10/22/12
TestAmerica Burlington	Connecticut	State Program	1	PH-0751	09/30/11
TestAmerica Burlington	Delaware	Delaware SIRB	3	DNREC	06/30/11
TestAmerica Burlington	Maine	State Program	1	VT0008	04/17/11
TestAmerica Burlington	Minnesota	State Program	5	050-999-436	03/30/11
TestAmerica Burlington	New Hampshire	NELAC	1	200609	12/18/10
TestAmerica Burlington	New Jersey	NELAC	2	VT972	06/30/11
TestAmerica Burlington	New York	NELAC	2	10391	04/01/11
TestAmerica Burlington	Pennsylvania	NELAC	3	68-00489	04/30/11
TestAmerica Burlington	Rhode Island	State Program	1	LAO00298	12/30/11
TestAmerica Burlington	Vermont	State Program	1	VT-4000	12/31/11

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



# Method Summary

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KUA0025  
SDG: KUA0025

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Method	Method Description	Protocol	Laboratory
TO-15 RTN	Volatile Organic Compounds in Ambient Air		TAL BVT

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**Protocol References:**

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**Laboratory References:**

TAL BVT = TestAmerica Burlington, 30 Community Drive, South Burlington, VT 05403, TEL (802) 660-1990



# Sample Summary

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KUA0025

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
KUA0025-01	TRIP	Air	01/04/11 00:00	01/04/11 14:50
KUA0025-02	VP-1	Air	01/04/11 10:02	01/04/11 14:50
KUA0025-03	Duplicate	Air	01/04/11 10:02	01/04/11 14:50

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**ATTACHMENT 2**  
**DOMESTIC WELL SAMPLING ANALYTICAL LABORATORY REPORT**

---



JIM CINELLI  
LIBERTY ENVIRONMENTAL, INC.  
50 NORTH 5TH STREET  
5TH FLOOR  
READING, PA 19601

Regarding:  
JIM CINELLI  
LIBERTY ENVIRONMENTAL, INC.  
50 NORTH 5TH STREET  
5TH FLOOR  
READING, PA 19601

**Account No:** SK0069, LIBERTY ENVIRONMENTAL, INC. 1 WK TAT  
**Project No:** SK0069 CINELLI, LIBERTY ENVIRONMENTAL, INC. 1 WK TAT

**P.O. No:** 060006    **Inv. No:** 1274072  
**PWSID No:**

<b>Sample Number</b>	<b>Sample Description</b>	<b>Samp. Date/Time/Temp</b>	<b>Sampled by</b>
L3621030-1	1176 HART LANE, INFLUENT	01/04/11 08:25am NA F	Customer Sampled
	Received Temp: 35.8 F    Iced (Y/N): Y		

Parameter	Method	Result	RLs	Test Date, Time, Analyst
<b>GAS CHROMATOGRAPHY MASS SPECTROMETRY; VOLATILES</b>				
METHYL TERTIARY BUTYL ETHER	EPA 524.2	2.45 ug/l	0.170 ug/l*	01/05/11 09:56AM SJP
BENZENE	EPA 524.2	ND ug/l	0.150 ug/l*	01/05/11 09:56AM SJP
TOLUENE	EPA 524.2	ND ug/l	0.140 ug/l*	01/05/11 09:56AM SJP
ETHYL BENZENE	EPA 524.2	ND ug/l	0.130 ug/l*	01/05/11 09:56AM SJP
M&P-XYLENES	EPA 524.2	ND ug/l	0.350 ug/l*	01/05/11 09:56AM SJP
O-XYLENE	EPA 524.2	ND ug/l	0.130 ug/l*	01/05/11 09:56AM SJP
ISOPROPYLBENZENE	EPA 524.2	ND ug/l	0.120 ug/l*	01/05/11 09:56AM SJP
1,3,5-TRIMETHYLBENZENE	EPA 524.2	ND ug/l	0.130 ug/l*	01/05/11 09:56AM SJP
1,2,4-TRIMETHYLBENZENE	EPA 524.2	ND ug/l	0.170 ug/l*	01/05/11 09:56AM SJP
NAPHTHALENE	EPA 524.2	ND ug/l	0.500 ug/l	01/05/11 09:56AM SJP

<b>Sample Number</b>	<b>Sample Description</b>	<b>Samp. Date/Time/Temp</b>	<b>Sampled by</b>
L3621030-2	1176 HART LANE, MIDPOINT	01/04/11 08:35am NA F	Customer Sampled
	Received Temp: 35.8 F    Iced (Y/N): Y		

Parameter	Method	Result	RLs	Test Date, Time, Analyst
<b>GAS CHROMATOGRAPHY MASS SPECTROMETRY; VOLATILES</b>				
METHYL TERTIARY BUTYL ETHER	EPA 524.2	0.200 J ug/l	0.170 ug/l*	01/05/11 11:37AM SJP
BENZENE	EPA 524.2	0.170 J ug/l	0.150 ug/l*	01/05/11 11:37AM SJP
TOLUENE	EPA 524.2	0.150 J ug/l	0.140 ug/l*	01/05/11 11:37AM SJP
ETHYL BENZENE	EPA 524.2	0.150 J ug/l	0.130 ug/l*	01/05/11 11:37AM SJP
M&P-XYLENES	EPA 524.2	ND ug/l	0.350 ug/l*	01/05/11 11:37AM SJP
O-XYLENE	EPA 524.2	0.160 J ug/l	0.130 ug/l*	01/05/11 11:37AM SJP
ISOPROPYLBENZENE	EPA 524.2	0.140 J ug/l	0.120 ug/l*	01/05/11 11:37AM SJP
1,3,5-TRIMETHYLBENZENE	EPA 524.2	0.150 J ug/l	0.130 ug/l*	01/05/11 11:37AM SJP
1,2,4-TRIMETHYLBENZENE	EPA 524.2	ND ug/l	0.170 ug/l*	01/05/11 11:37AM SJP
NAPHTHALENE	EPA 524.2	ND ug/l	0.500 ug/l	01/05/11 11:37AM SJP

Account No: SK0069, LIBERTY ENVIRONMENTAL, INC. 1 WK TAT  
 Project No: SK0069 CINELLI, LIBERTY ENVIRONMENTAL, INC. 1 WK TAT

P.O. No: 060006 Inv. No: 1274072  
 PWSID No:

**Sample Number** L3621030-3 **Sample Description** 1176 HART LANE, EFFLUENT  
**Received Temp:** 35.8 F **Iced (Y/N):** Y **Samp. Date/Time/Temp** 01/04/11 08:45am NA F **Sampled by** Customer Sampled

Parameter	Method	Result	RLs	Test Date, Time, Analyst
<b>GAS CHROMATOGRAPHY MASS SPECTROMETRY; VOLATILES</b>				
METHYL TERTIARY BUTYL ETHER	EPA 524.2	ND ug/l	0.170 ug/l*	01/05/11 12:11PM SJP
BENZENE	EPA 524.2	ND ug/l	0.150 ug/l*	01/05/11 12:11PM SJP
TOLUENE	EPA 524.2	ND ug/l	0.140 ug/l*	01/05/11 12:11PM SJP
ETHYL BENZENE	EPA 524.2	ND ug/l	0.130 ug/l*	01/05/11 12:11PM SJP
M&P-XYLENES	EPA 524.2	ND ug/l	0.350 ug/l*	01/05/11 12:11PM SJP
O-XYLENE	EPA 524.2	ND ug/l	0.130 ug/l*	01/05/11 12:11PM SJP
ISOPROPYLBENZENE	EPA 524.2	ND ug/l	0.120 ug/l*	01/05/11 12:11PM SJP
1,3,5-TRIMETHYLBENZENE	EPA 524.2	ND ug/l	0.130 ug/l*	01/05/11 12:11PM SJP
1,2,4-TRIMETHYLBENZENE	EPA 524.2	ND ug/l	0.170 ug/l*	01/05/11 12:11PM SJP
NAPHTHALENE	EPA 524.2	ND ug/l	0.500 ug/l	01/05/11 12:11PM SJP

**Sample Number** L3621030-4 **Sample Description** TRIP BLANK  
**Received Temp:** 35.8 F **Iced (Y/N):** Y **Samp. Date/Time/Temp** 01/04/11 00:00am NA F **Sampled by** Customer Sampled

Parameter	Method	Result	RLs	Test Date, Time, Analyst
<b>GAS CHROMATOGRAPHY MASS SPECTROMETRY; VOLATILES</b>				
METHYL TERTIARY BUTYL ETHER	EPA 524.2	ND ug/l	0.170 ug/l*	01/05/11 12:44PM SJP
BENZENE	EPA 524.2	ND ug/l	0.150 ug/l*	01/05/11 12:44PM SJP
TOLUENE	EPA 524.2	ND ug/l	0.140 ug/l*	01/05/11 12:44PM SJP
ETHYL BENZENE	EPA 524.2	ND ug/l	0.130 ug/l*	01/05/11 12:44PM SJP
M&P-XYLENES	EPA 524.2	ND ug/l	0.350 ug/l*	01/05/11 12:44PM SJP
O-XYLENE	EPA 524.2	ND ug/l	0.130 ug/l*	01/05/11 12:44PM SJP
ISOPROPYLBENZENE	EPA 524.2	ND ug/l	0.120 ug/l*	01/05/11 12:44PM SJP
1,3,5-TRIMETHYLBENZENE	EPA 524.2	ND ug/l	0.130 ug/l*	01/05/11 12:44PM SJP
1,2,4-TRIMETHYLBENZENE	EPA 524.2	ND ug/l	0.170 ug/l*	01/05/11 12:44PM SJP
NAPHTHALENE	EPA 524.2	ND ug/l	0.500 ug/l	01/05/11 12:44PM SJP

L3621030-2 :

QUALIFIERS: For metals parameters; "B" indicates a value that is > than the MDL but < than the laboratory quantitation limit. For Organics parameters; "B" is when the compound is found in the blank as well as in the sample; "J" indicates a value that is > than the MDL but < than the lowest standard, it is also used to indicate that a compound is tentatively identified in a library search; "E" (estimated) is when a compound exceeded the calibration range; "N" presumptive evidence of a compound; "D" is when a dilution was required.

**Notes:**

- A result of "ND" indicates the concentration of the analyte tested was either not detected or below the RLs.
- Definitions: ND=not detected; NEG=negative; POS=positive; COL=colonies; RLs=laboratory reporting limits; L/A=laboratory accident; TNTC=too numerous to count
- A result marked with "DRY" indicates that the result was calculated and reported on a dry weight basis.
- All analysis, except field tests are conducted in Southampton, PA unless otherwise identified.
- The test "pH lab" is analyzed upon receipt at the laboratory, the result will not be suitable for regulatory purposes.
- The reported results relate only to the samples.
- QC NELAP ID's: PA 09-00131, NJ PA166, FL E87954, NY 11223, CT PH-0768, DE PA-018, KY 90228, MD 206, EPA PA00018. Bioassay: PA 09-03574, NJ PA034, FL E87953, KS E10373, SC 89021001.

*Thomas J. Hines*  
 Thomas J. Hines, President

**Account No:** SK0069, LIBERTY ENVIRONMENTAL, INC. 1 WK TAT  
**Project No:** SK0069 CINELLI, LIBERTY ENVIRONMENTAL, INC. 1 WK TAT

**P.O. No:** 060006      **Inv. No:** 1274072  
**PWSID No:**

- QC STATE ID's: Wind Gap, NJ PA001, PA 48-01334; E RUTHERFORD NJ02015; Vineland NJ06005; Reading PA 06-03543.
- All samples are collected as "grab" samples unless otherwise identified.
- MCL= is the EPA recommended "maximum contaminant level" for a parameter. PLs=customer specific permit limits.
- The test results meet all requirements of NELAC unless otherwise specified.
- The report shall not be reproduced except in full without the written consent of the laboratory.

Regulatory authorities are assessing substantial fines for testing omissions. Please track your sample collections and results on a weekly, monthly, or quarterly basis to ensure compliance. QC's internet program 'LIVE ACCESS' will provide you with real-time access to collection dates and results. Please contact Customer Service for further information on acquiring LIVE ACCESS.  
\* - The "RLs" represents a reporting/quantitation limit. When an "\*" is present in the column identified as the "RLs", it is being reported as a Method Detection Limit (MDL).





1205 Industrial Blvd. Phone: 215-355-3900  
 Southampton, PA 18966-0514 Fax: 215-355-7231

# CHAIN OF CUSTODY

Page 1 of 1

Lab LIMS No: L3621030

## MATRIX CODES

Client/Acct. No. Liberty Environmental Inc.

Address 50 N. 5th St. Fifth Floor

R

City/State/Zip Reading, PA 19601

Phone/Fax 610-375-9301

Client Contact Kelly Kinkaid

Bill to/Report to: (if different)

Sampling Site Address: (if different)

1176 Hart Lane

Warrimaster, PA

P.O. No. 060006

QC Contact Wendy Beard

### LAB USE ONLY:

# 9 2TB Ascorbic/HCl Vials #      HCl Vials

#      Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

#      Na OH/Zn acetate pH

#      HNO<sub>3</sub> pH

#      H<sub>2</sub>SO<sub>4</sub> pH

#      NaOH pH

#      Unpreserved

#      Hcl pH

# 35-8 F1001 Temp control ID#     

DW: DRINKING WATER

GW: GROUND WATER

WW: WASTEWATER

SO: SOIL

SL: SLUDGE

OIL: OIL

SOL: NON SOIL SOLID

MI: MISCELLANEOUS

X: OTHER

Field pH, Temp (C or F),  
DO, Cl<sub>2</sub>, S. Cond. etc.

LAB USE ONLY

PROJECT	Collection		G R A B	C O M P	Matrix Code	Number of Containers														
	Date	Military Time				Total	H <sub>2</sub> O <sub>4</sub>	HCl	Y	HNO <sub>3</sub>	NaOH	ZnAc	Unpres	Bact						
<b>FIELD ID</b>																				
Influent	1/4/11	8:25	X		DW	3	3													
Midpoint	1/4/11	8:35	X		DW	3	3													
Effluent	1/4/11	8:45	X		DW	3	3													

### ANALYSIS REQUESTED

524.2 - UL Gas (NEW)  
524.2 - UL Gas (NEW)  
524.2 - UL Gas (NEW)

SAMPLED BY: (Name/Company)  
Joel C. Reber  
Liberty Env.

Verbal/fax data due: \_\_\_\_\_  
 Hardcopy due: \_\_\_\_\_  
 Please call for pricing and availability on rush (<14-21 day) turnaround and on all but standard format.

Report Format:  Standard  Forms  
 Standard + QC  NJ Reduced  Disk

Field Parameters Analyzed By: \_\_\_\_\_  
 Sig: \_\_\_\_\_ Date/Time: \_\_\_\_\_

### SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW. USE FULL LEGAL SIGNATURE, DATE AND MILITARY TIME (24 HOUR CLOCK, I.E. 8AM IS 0800, 4 PM IS 1600)

RELINQUISHED BY SAMPLER	DATE	TIME	RECEIVED BY	DATE	TIME	DELIVERY METHOD: <input type="checkbox"/> QC COURIER <input type="checkbox"/> CLIENT	Custody Seal Number
<u>[Signature]</u>	<u>1/4/11</u>	<u>13:05</u>	<u>[Signature]</u>	<u>1/4/11</u>	<u>1305</u>	<input type="checkbox"/> UPS <input type="checkbox"/> FEDEX <input type="checkbox"/> OTHER	
RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	COMMENTS:  Hazardous: yes / no	
2			2				
RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME		
3			3				
RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME		
4			4				
RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME		
5			5				

For example to aid completion, see reverse side.

FINAL REPORT

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**ATTACHMENT 3**  
**GROUNDWATER ANALYTICAL LABORATORY REPORT**

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica King Of Prussia  
1008 West Ninth Avenue  
King of Prussia, PA 19406  
Tel: 610.337.9992

TestAmerica Job ID: KTK0221  
TestAmerica Sample Delivery Group: KTK0221  
Client Project/Site: 060006  
Client Project Description: Lens Hartsville Garage

For:  
Liberty Environmental, Inc.  
50 North Fifth Street 5th Floor  
Reading, PA 19601

Attn: Kelly Kinkaid



Authorized for release by:  
11/24/2010 2:50 PM

Jill Miller  
Project Manager  
[jill.miller@testamericainc.com](mailto:jill.miller@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions . . . . .	3
Case Narrative . . . . .	4
Client Sample Results . . . . .	5
Chronicle . . . . .	17
Certification Summary . . . . .	20
Method Summary . . . . .	21
Sample Summary . . . . .	22
Chain of Custody . . . . .	23

# Qualifier Definition/Glossary

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

## Qualifiers

### Volatiles

Qualifier	Qualifier Description
CF6	Results confirmed by reanalysis.
H	Sample analysis performed past method-specified holding time.
H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
RL7	Sample required dilution due to high concentrations of target analyte.
Z6	Surrogate recovery was below acceptance limits.

## Glossary

Glossary	Glossary Description
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

# Case Narrative

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

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## Notes

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None.

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# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

**Client Sample ID: MW-1**  
**Date Collected: 11/09/10 13:50**  
**Date Received: 11/11/10 11:15**

**Lab Sample ID: KTK0221-01**  
**Matrix: Water**

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/12/10 22:49	1
1,3,5-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/12/10 22:49	1
Benzene	ND		1.0		ug/l		11/12/10 15:15	11/12/10 22:49	1
Ethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/12/10 22:49	1
Isopropylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/12/10 22:49	1
<b>Methyl tert-butyl ether</b>	<b>150</b>		2.0		ug/l		11/12/10 15:15	11/12/10 22:49	1
Naphthalene	ND		8.0		ug/l		11/12/10 15:15	11/12/10 22:49	1
Toluene	ND		2.0		ug/l		11/12/10 15:15	11/12/10 22:49	1
Xylenes (total)	ND		6.0		ug/l		11/12/10 15:15	11/12/10 22:49	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	102		91 - 114				11/12/10 15:15	11/12/10 22:49	1
1,2-Dichloroethane-d4	109		85 - 125				11/12/10 15:15	11/12/10 22:49	1
Toluene-d8	100		84 - 111				11/12/10 15:15	11/12/10 22:49	1
4-Bromofluorobenzene	94.3		86 - 120				11/12/10 15:15	11/12/10 22:49	1

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- 7
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# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

**Client Sample ID: RW-2**  
**Date Collected: 11/09/10 12:45**  
**Date Received: 11/11/10 11:15**

**Lab Sample ID: KTK0221-02**  
**Matrix: Water**

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	77		2.0		ug/l		11/12/10 15:15	11/16/10 23:37	1
1,3,5-Trimethylbenzene	86		2.0		ug/l		11/12/10 15:15	11/16/10 23:37	1
Benzene	130		1.0		ug/l		11/12/10 15:15	11/16/10 23:37	1
Ethylbenzene	90		2.0		ug/l		11/12/10 15:15	11/16/10 23:37	1
Isopropylbenzene	9.2		2.0		ug/l		11/12/10 15:15	11/16/10 23:37	1
Naphthalene	37		8.0		ug/l		11/12/10 15:15	11/16/10 23:37	1
Toluene	33		2.0		ug/l		11/12/10 15:15	11/16/10 23:37	1
Xylenes (total)	350		6.0		ug/l		11/12/10 15:15	11/16/10 23:37	1
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	97.5		91 - 114				11/12/10 15:15	11/16/10 23:37	1
1,2-Dichloroethane-d4	101		85 - 125				11/12/10 15:15	11/16/10 23:37	1
Toluene-d8	100		84 - 111				11/12/10 15:15	11/16/10 23:37	1
4-Bromofluorobenzene	99.9		86 - 120				11/12/10 15:15	11/16/10 23:37	1

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	960	H2, RL7	40		ug/l		11/12/10 15:15	11/24/10 05:00	20
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	102	H2, RL7	91 - 114				11/12/10 15:15	11/24/10 05:00	20

# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

**Client Sample ID: RW-3**  
**Date Collected: 11/09/10 13:15**  
**Date Received: 11/11/10 11:15**

**Lab Sample ID: KTK0221-03**  
**Matrix: Water**

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/17/10 04:30	1
1,3,5-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/17/10 04:30	1
Benzene	ND		1.0		ug/l		11/12/10 15:15	11/17/10 04:30	1
Ethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/17/10 04:30	1
Isopropylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/17/10 04:30	1
Naphthalene	ND		8.0		ug/l		11/12/10 15:15	11/17/10 04:30	1
Toluene	ND		2.0		ug/l		11/12/10 15:15	11/17/10 04:30	1
Xylenes (total)	ND		6.0		ug/l		11/12/10 15:15	11/17/10 04:30	1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.2		91 - 114	11/12/10 15:15	11/17/10 04:30	1
1,2-Dichloroethane-d4	94.7		85 - 125	11/12/10 15:15	11/17/10 04:30	1
Toluene-d8	100		84 - 111	11/12/10 15:15	11/17/10 04:30	1
4-Bromofluorobenzene	86.9		86 - 120	11/12/10 15:15	11/17/10 04:30	1

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	5100	RL7	200		ug/l		11/12/10 15:15	11/17/10 20:28	100

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	97.3	RL7	91 - 114	11/12/10 15:15	11/17/10 20:28	100
1,2-Dichloroethane-d4	94.4	RL7	85 - 125	11/12/10 15:15	11/17/10 20:28	100
Toluene-d8	96.3	RL7	84 - 111	11/12/10 15:15	11/17/10 20:28	100
4-Bromofluorobenzene	88.9	RL7	86 - 120	11/12/10 15:15	11/17/10 20:28	100

# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

**Client Sample ID: RW-4**  
**Date Collected: 11/09/10 12:50**  
**Date Received: 11/11/10 11:15**

**Lab Sample ID: KTK0221-04**  
**Matrix: Water**

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	45		2.0		ug/l		11/12/10 15:15	11/17/10 04:59	1
1,3,5-Trimethylbenzene	42		2.0		ug/l		11/12/10 15:15	11/17/10 04:59	1
Benzene	24		1.0		ug/l		11/12/10 15:15	11/17/10 04:59	1
Ethylbenzene	6.8		2.0		ug/l		11/12/10 15:15	11/17/10 04:59	1
Isopropylbenzene	8.0		2.0		ug/l		11/12/10 15:15	11/17/10 04:59	1
Naphthalene	11	CF6, Z6	8.0		ug/l		11/12/10 15:15	11/17/10 04:59	1
Toluene	11		2.0		ug/l		11/12/10 15:15	11/17/10 04:59	1
Xylenes (total)	130		6.0		ug/l		11/12/10 15:15	11/17/10 04:59	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	100		91 - 114				11/12/10 15:15	11/17/10 04:59	1
1,2-Dichloroethane-d4	98.5		85 - 125				11/12/10 15:15	11/17/10 04:59	1
Toluene-d8	94.7		84 - 111				11/12/10 15:15	11/17/10 04:59	1
4-Bromofluorobenzene	82.7	CF6, Z6	86 - 120				11/12/10 15:15	11/17/10 04:59	1

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	1000	RL7	100		ug/l		11/12/10 15:15	11/17/10 20:57	50
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	100	RL7	91 - 114				11/12/10 15:15	11/17/10 20:57	50
1,2-Dichloroethane-d4	95.9	RL7	85 - 125				11/12/10 15:15	11/17/10 20:57	50
Toluene-d8	97.7	RL7	84 - 111				11/12/10 15:15	11/17/10 20:57	50
4-Bromofluorobenzene	87.2	RL7	86 - 120				11/12/10 15:15	11/17/10 20:57	50

# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

**Client Sample ID: RW-5**  
**Date Collected: 11/09/10 12:40**  
**Date Received: 11/11/10 11:15**

**Lab Sample ID: KTK0221-05**  
**Matrix: Water**

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2,4-Trimethylbenzene</b>	<b>4.1</b>		2.0		ug/l		11/12/10 15:15	11/17/10 05:28	1
1,3,5-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/17/10 05:28	1
<b>Benzene</b>	<b>5.1</b>		1.0		ug/l		11/12/10 15:15	11/17/10 05:28	1
Ethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/17/10 05:28	1
Isopropylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/17/10 05:28	1
Naphthalene	ND		8.0		ug/l		11/12/10 15:15	11/17/10 05:28	1
Toluene	ND		2.0		ug/l		11/12/10 15:15	11/17/10 05:28	1
<b>Xylenes (total)</b>	<b>6.2</b>		6.0		ug/l		11/12/10 15:15	11/17/10 05:28	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	98.9		91 - 114				11/12/10 15:15	11/17/10 05:28	1
1,2-Dichloroethane-d4	94.9		85 - 125				11/12/10 15:15	11/17/10 05:28	1
Toluene-d8	99.4		84 - 111				11/12/10 15:15	11/17/10 05:28	1
4-Bromofluorobenzene	90.1		86 - 120				11/12/10 15:15	11/17/10 05:28	1

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Methyl tert-butyl ether</b>	<b>660</b>	<b>RL7</b>	20		ug/l		11/12/10 15:15	11/17/10 21:26	10
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	101	RL7	91 - 114				11/12/10 15:15	11/17/10 21:26	10
1,2-Dichloroethane-d4	94.4	RL7	85 - 125				11/12/10 15:15	11/17/10 21:26	10
Toluene-d8	95.4	RL7	84 - 111				11/12/10 15:15	11/17/10 21:26	10
4-Bromofluorobenzene	88.2	RL7	86 - 120				11/12/10 15:15	11/17/10 21:26	10

# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

**Client Sample ID: MW-6**  
**Date Collected: 11/09/10 15:00**  
**Date Received: 11/11/10 11:15**

**Lab Sample ID: KTK0221-06**  
**Matrix: Water**

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/22/10 12:06	1
1,3,5-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/22/10 12:06	1
Benzene	ND		1.0		ug/l		11/12/10 15:15	11/22/10 12:06	1
Ethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/22/10 12:06	1
Isopropylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/22/10 12:06	1
<b>Methyl tert-butyl ether</b>	<b>40</b>		2.0		ug/l		11/12/10 15:15	11/22/10 12:06	1
Naphthalene	ND		8.0		ug/l		11/12/10 15:15	11/22/10 12:06	1
Toluene	ND		2.0		ug/l		11/12/10 15:15	11/22/10 12:06	1
Xylenes (total)	ND		6.0		ug/l		11/12/10 15:15	11/22/10 12:06	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	101		91 - 114				11/12/10 15:15	11/22/10 12:06	1
1,2-Dichloroethane-d4	101		85 - 125				11/12/10 15:15	11/22/10 12:06	1
Toluene-d8	98.6		84 - 111				11/12/10 15:15	11/22/10 12:06	1
4-Bromofluorobenzene	101		86 - 120				11/12/10 15:15	11/22/10 12:06	1



# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

**Client Sample ID: MW-8**  
**Date Collected: 11/09/10 11:50**  
**Date Received: 11/11/10 11:15**

**Lab Sample ID: KTK0221-07**  
**Matrix: Water**

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/12/10 23:18	1
1,3,5-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/12/10 23:18	1
Benzene	ND		1.0		ug/l		11/12/10 15:15	11/12/10 23:18	1
Ethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/12/10 23:18	1
Isopropylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/12/10 23:18	1
<b>Methyl tert-butyl ether</b>	<b>4.2</b>		2.0		ug/l		11/12/10 15:15	11/12/10 23:18	1
Naphthalene	ND		8.0		ug/l		11/12/10 15:15	11/12/10 23:18	1
Toluene	ND		2.0		ug/l		11/12/10 15:15	11/12/10 23:18	1
Xylenes (total)	ND		6.0		ug/l		11/12/10 15:15	11/12/10 23:18	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	92.6		91 - 114				11/12/10 15:15	11/12/10 23:18	1
1,2-Dichloroethane-d4	103		85 - 125				11/12/10 15:15	11/12/10 23:18	1
Toluene-d8	102		84 - 111				11/12/10 15:15	11/12/10 23:18	1
4-Bromofluorobenzene	107		86 - 120				11/12/10 15:15	11/12/10 23:18	1

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# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

**Client Sample ID: MW-9**  
**Date Collected: 11/09/10 11:55**  
**Date Received: 11/11/10 11:15**

**Lab Sample ID: KTK0221-08**  
**Matrix: Water**

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 21:11	1
1,3,5-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 21:11	1
Benzene	ND		1.0		ug/l		11/12/10 15:15	11/16/10 21:11	1
Ethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 21:11	1
Isopropylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 21:11	1
Methyl tert-butyl ether	ND		2.0		ug/l		11/12/10 15:15	11/16/10 21:11	1
Naphthalene	ND		8.0		ug/l		11/12/10 15:15	11/16/10 21:11	1
Toluene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 21:11	1
Xylenes (total)	ND		6.0		ug/l		11/12/10 15:15	11/16/10 21:11	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	105		91 - 114				11/12/10 15:15	11/16/10 21:11	1
1,2-Dichloroethane-d4	105		85 - 125				11/12/10 15:15	11/16/10 21:11	1
Toluene-d8	108		84 - 111				11/12/10 15:15	11/16/10 21:11	1
4-Bromofluorobenzene	87.4		86 - 120				11/12/10 15:15	11/16/10 21:11	1

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# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

**Client Sample ID: MW-10**

**Lab Sample ID: KTK0221-09**

**Date Collected: 11/09/10 12:45**

**Matrix: Water**

**Date Received: 11/11/10 11:15**

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 22:39	1
1,3,5-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 22:39	1
Benzene	ND		1.0		ug/l		11/12/10 15:15	11/16/10 22:39	1
Ethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 22:39	1
Isopropylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 22:39	1
<b>Methyl tert-butyl ether</b>	<b>14</b>		2.0		ug/l		11/12/10 15:15	11/16/10 22:39	1
Naphthalene	ND		8.0		ug/l		11/12/10 15:15	11/16/10 22:39	1
Toluene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 22:39	1
Xylenes (total)	ND		6.0		ug/l		11/12/10 15:15	11/16/10 22:39	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.4		91 - 114				11/12/10 15:15	11/16/10 22:39	1
1,2-Dichloroethane-d4	99.1		85 - 125				11/12/10 15:15	11/16/10 22:39	1
Toluene-d8	99.4		84 - 111				11/12/10 15:15	11/16/10 22:39	1
4-Bromofluorobenzene	95.9		86 - 120				11/12/10 15:15	11/16/10 22:39	1



# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

**Client Sample ID: MW-11**

**Date Collected: 11/09/10 15:30**

**Date Received: 11/11/10 11:15**

**Lab Sample ID: KTK0221-10**

**Matrix: Water**

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 21:40	1
1,3,5-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 21:40	1
Benzene	ND		1.0		ug/l		11/12/10 15:15	11/16/10 21:40	1
Ethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 21:40	1
Isopropylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 21:40	1
<b>Methyl tert-butyl ether</b>	<b>85</b>		2.0		ug/l		11/12/10 15:15	11/16/10 21:40	1
Naphthalene	ND	CF6, Z6	8.0		ug/l		11/12/10 15:15	11/16/10 21:40	1
Toluene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 21:40	1
Xylenes (total)	ND		6.0		ug/l		11/12/10 15:15	11/16/10 21:40	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	105		91 - 114				11/12/10 15:15	11/16/10 21:40	1
1,2-Dichloroethane-d4	105		85 - 125				11/12/10 15:15	11/16/10 21:40	1
Toluene-d8	90.2		84 - 111				11/12/10 15:15	11/16/10 21:40	1
4-Bromofluorobenzene	85.5	CF6, Z6	86 - 120				11/12/10 15:15	11/16/10 21:40	1



# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

**Client Sample ID: MW-12**  
**Date Collected: 11/09/10 15:40**  
**Date Received: 11/11/10 11:15**

**Lab Sample ID: KTK0221-11**  
**Matrix: Water**

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 22:10	1
1,3,5-Trimethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 22:10	1
Benzene	ND		1.0		ug/l		11/12/10 15:15	11/16/10 22:10	1
Ethylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 22:10	1
Isopropylbenzene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 22:10	1
<b>Methyl tert-butyl ether</b>	<b>19</b>		2.0		ug/l		11/12/10 15:15	11/16/10 22:10	1
Naphthalene	ND		8.0		ug/l		11/12/10 15:15	11/16/10 22:10	1
Toluene	ND		2.0		ug/l		11/12/10 15:15	11/16/10 22:10	1
Xylenes (total)	ND		6.0		ug/l		11/12/10 15:15	11/16/10 22:10	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	98.3		91 - 114				11/12/10 15:15	11/16/10 22:10	1
1,2-Dichloroethane-d4	96.4		85 - 125				11/12/10 15:15	11/16/10 22:10	1
Toluene-d8	97.0		84 - 111				11/12/10 15:15	11/16/10 22:10	1
4-Bromofluorobenzene	94.8		86 - 120				11/12/10 15:15	11/16/10 22:10	1



# Analytical Data

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

**Client Sample ID: RW-C**  
**Date Collected: 11/09/10 13:25**  
**Date Received: 11/11/10 11:15**

**Lab Sample ID: KTK0221-12**  
**Matrix: Water**

**Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	52	H	2.0		ug/l		11/12/10 15:15	11/24/10 07:25	1
1,3,5-Trimethylbenzene	51	H	2.0		ug/l		11/12/10 15:15	11/24/10 07:25	1
Benzene	26	H	1.0		ug/l		11/12/10 15:15	11/24/10 07:25	1
Ethylbenzene	8.0	H	2.0		ug/l		11/12/10 15:15	11/24/10 07:25	1
Isopropylbenzene	11	H	2.0		ug/l		11/12/10 15:15	11/24/10 07:25	1
Methyl tert-butyl ether	61	H	2.0		ug/l		11/12/10 15:15	11/24/10 07:25	1
Naphthalene	17	H	8.0		ug/l		11/12/10 15:15	11/24/10 07:25	1
Toluene	12	H	2.0		ug/l		11/12/10 15:15	11/24/10 07:25	1
Xylenes (total)	150	H	6.0		ug/l		11/12/10 15:15	11/24/10 07:25	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	99.3	H	91 - 114				11/12/10 15:15	11/24/10 07:25	1
1,2-Dichloroethane-d4	99.2	H	85 - 125				11/12/10 15:15	11/24/10 07:25	1
Toluene-d8	98.7	H	84 - 111				11/12/10 15:15	11/24/10 07:25	1
4-Bromofluorobenzene	101	H	86 - 120				11/12/10 15:15	11/24/10 07:25	1



# Lab Chronicle

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

## Client Sample ID: MW-1

Date Collected: 11/09/10 13:50

Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-01

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B [P/T]		1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B		1	T002160	11/12/10 22:49	CB	TestAmerica King Of Prussia

## Client Sample ID: RW-2

Date Collected: 11/09/10 12:45

Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-02

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B [P/T]		1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B		1	10K0305	11/16/10 23:37	CB	TestAmerica King Of Prussia
total	Prep	EPA 5030B [P/T]	RE1	1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B	RE1	20	10K0305	11/24/10 05:00	MSL	TestAmerica King Of Prussia

## Client Sample ID: RW-3

Date Collected: 11/09/10 13:15

Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-03

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B [P/T]		1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B		1	10K0305	11/17/10 04:30	CB	TestAmerica King Of Prussia
total	Prep	EPA 5030B [P/T]	RE1	1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B	RE1	100	10K0305	11/17/10 20:28	CB	TestAmerica King Of Prussia

## Client Sample ID: RW-4

Date Collected: 11/09/10 12:50

Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-04

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B [P/T]		1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B		1	10K0305	11/17/10 04:59	CB	TestAmerica King Of Prussia
total	Prep	EPA 5030B [P/T]	RE1	1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B	RE1	50	10K0305	11/17/10 20:57	CB	TestAmerica King Of Prussia

## Client Sample ID: RW-5

Date Collected: 11/09/10 12:40

Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-05

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B [P/T]		1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B		1	10K0305	11/17/10 05:28	CB	TestAmerica King Of Prussia
total	Prep	EPA 5030B [P/T]	RE1	1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia



# Lab Chronicle

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

## Client Sample ID: RW-5

Date Collected: 11/09/10 12:40  
Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-05

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Analysis	EPA 8260B	RE1	10	10K0305	11/17/10 21:26	CB	TestAmerica King Of Prussia

## Client Sample ID: MW-6

Date Collected: 11/09/10 15:00  
Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-06

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B [P/T]		1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B		1	10K0305	11/22/10 12:06	MSL	TestAmerica King Of Prussia

## Client Sample ID: MW-8

Date Collected: 11/09/10 11:50  
Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B [P/T]		1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B		1	T002160	11/12/10 23:18	CB	TestAmerica King Of Prussia

## Client Sample ID: MW-9

Date Collected: 11/09/10 11:55  
Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-08

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B [P/T]		1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B		1	10K0305	11/16/10 21:11	CB	TestAmerica King Of Prussia

## Client Sample ID: MW-10

Date Collected: 11/09/10 12:45  
Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-09

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B [P/T]		1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B		1	10K0305	11/16/10 22:39	CB	TestAmerica King Of Prussia

## Client Sample ID: MW-11

Date Collected: 11/09/10 15:30  
Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B [P/T]		1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B		1	10K0305	11/16/10 21:40	CB	TestAmerica King Of Prussia

# Lab Chronicle

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

## Client Sample ID: MW-12

Date Collected: 11/09/10 15:40

Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B [P/T]		1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B		1	10K0305	11/16/10 22:10	CB	TestAmerica King Of Prussia

## Client Sample ID: RW-C

Date Collected: 11/09/10 13:25

Date Received: 11/11/10 11:15

## Lab Sample ID: KTK0221-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B [P/T]		1	10K0305_P	11/12/10 15:15	CB	TestAmerica King Of Prussia
total	Analysis	EPA 8260B		1	10K0305	11/24/10 07:25	MSL	TestAmerica King Of Prussia

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# Certification Summary

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

Laboratory	Authority	Program	EPA Region	Certification ID	Expiration Date
TestAmerica King Of Prussia		USDA		P330-10-00327	09/21/13
TestAmerica King Of Prussia	Maryland	State Program	3	253	06/30/11
TestAmerica King Of Prussia	New Jersey	NELAC	2	PA004	06/30/11
TestAmerica King Of Prussia	Pennsylvania	NELAC	3	46-00505	06/30/11

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



# Method Summary

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221  
SDG: KTK0221

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Method	Method Description	Protocol	Laboratory
EPA 8260B	Volatile Organic Compounds by EPA Method 8260B		TAL KOP

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**Protocol References:**

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**Laboratory References:**

TAL KOP = TestAmerica King Of Prussia, 1008 West Ninth Avenue, King of Prussia, PA 19406, TEL 610.337.9992



# Sample Summary

Client: Liberty Environmental, Inc.  
Project/Site: 060006

TestAmerica Job ID: KTK0221

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
KTK0221-01	MW-1	Water	11/09/10 13:50	11/11/10 11:15
KTK0221-02	RW-2	Water	11/09/10 12:45	11/11/10 11:15
KTK0221-03	RW-3	Water	11/09/10 13:15	11/11/10 11:15
KTK0221-04	RW-4	Water	11/09/10 12:50	11/11/10 11:15
KTK0221-05	RW-5	Water	11/09/10 12:40	11/11/10 11:15
KTK0221-06	MW-6	Water	11/09/10 15:00	11/11/10 11:15
KTK0221-07	MW-8	Water	11/09/10 11:50	11/11/10 11:15
KTK0221-08	MW-9	Water	11/09/10 11:55	11/11/10 11:15
KTK0221-09	MW-10	Water	11/09/10 12:45	11/11/10 11:15
KTK0221-10	MW-11	Water	11/09/10 15:30	11/11/10 11:15
KTK0221-11	MW-12	Water	11/09/10 15:40	11/11/10 11:15
KTK0221-12	RW-C	Water	11/09/10 13:25	11/11/10 11:15



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## CHAIN OF CUSTODY REPORT

1008 W. Ninth Avenue  
King of Prussia, PA 19406  
(610) 337-9992  
FAX (610) 337-9939

Client: Liberty Environmental Inc Bill To: "Same" TAT:  STD 5 DAY 4 DAY 3 DAY 2 DAY 1 DAY <24 HRS

Address: 50 N. Fifth St 5th Floor Address: \_\_\_\_\_ Received:  ice  ambient DATE RESULTS NEEDED: \_\_\_\_\_

Report to: Reading PA (9401) Phone #: (610) 375-9301 State & Program: PA/IST Phone #: \_\_\_\_\_ Terms: Net 30 days Deliverable Package:  NO  YES Temp. Upon Receipt: \_\_\_\_\_

E-mail: JSpanner Fax #: (610) 375-9302 Fax #: \_\_\_\_\_

Project Name: Lens Healsville Garage Project #/PO#: 000000 If Yes, please explain: \_\_\_\_\_

Sampler: Spanner / Reber **FIELD ID LOCATION**

SAMPLER	FIELD ID LOCATION	PID:	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	# of Bottles Preservative Used						TOTAL # OF BOTTLES	SAMPLER FIELD FILTERED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	ANALYSIS TYPE	LABORATORY ID NUMBER
						MeOH	DI	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH				
1	MW-1		11/19/10	13:50	GN	3						3	No	X	KTLCO221-01
2	RW-2		11/19/10	12:45	GN	3						3	No	X	
3	RW-3		11/19/10	13:15	GN	5						3	No	X	
4	RW-4		11/19/10	12:50	GN	3						3	No	X	
5	RW-5		11/19/10	12:40	GN	3						3	No	X	
6	MW-6		11/19/10	15:00	GN	3						3	No	X	
7	MW-8		11/19/10	11:50	GN	3						3	No	X	
8	MW-9		11/19/10	11:55	GN	3						3	No	X	
9	MW-10		11/19/10	12:45	GN	3						3	No	X	
10	MW-11		11/19/10	15:30	GN	3						3	No	X	

RELINQUISHED DATE/TIME: 11/19/10 8:00 RECEIVED DATE/TIME: 11/19/10 11:15 RELINQUISHED DATE/TIME: \_\_\_\_\_ RECEIVED DATE/TIME: \_\_\_\_\_

COMMENTS: \_\_\_\_\_





# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## CHAIN OF CUSTODY REPORT

1008 W. Ninth Avenue  
King of Prussia, PA 19406  
(610) 337-9992  
FAX (610) 337-9939

Client: Liberty Environmental Inc. Bill To: " Same " TAT:  STD 5 DAY  4 DAY  3 DAY  2 DAY  1 DAY  <24 HRS.

Address: 50 N. Fifth St 5th Floor Address: \_\_\_\_\_ Received:  Ice  ambient DATE RESULTS NEEDED: \_\_\_\_\_

Report to: Reading PA 19401 Phone #: (610) 375-7301 State & Program: PA / UST Phone #: \_\_\_\_\_ Terms: Net 30 days

E-mail: Jspanner Fax #: (610) 375-9302 Project Name: Lens Hauloff Garage Fax #: \_\_\_\_\_ Deliverable Package:  NO  YES Temp. Upon Receipt: \_\_\_\_\_

Project #: 00000 Project Name: Lens Hauloff Garage # of Bottles Preservative Used: \_\_\_\_\_

Sampler: J. Spanner / J. Reber MeOH \_\_\_\_\_ DI \_\_\_\_\_ HCl \_\_\_\_\_ HNO<sub>3</sub> \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub> \_\_\_\_\_ NaOH \_\_\_\_\_ NONE \_\_\_\_\_

1 NW-1a PID: \_\_\_\_\_ DATE COLLECTED: 6/19/10 TIME COLLECTED: 15:40 SAMPLE MATRIX: GN TOTAL # OF BOTTLES: 3 NO X UNLEADED GAS (NEW) \_\_\_\_\_ ANALYSIS TYPE: \_\_\_\_\_ CRACKED-BROKEN \_\_\_\_\_ IMPROPERLY SEALED \_\_\_\_\_ SAMPLE CONTROL: \_\_\_\_\_ LABORATORY ID NUMBER: KT160221-11

2 RM-C PID: \_\_\_\_\_ DATE COLLECTED: 11/19/10 TIME COLLECTED: 13:25 SAMPLE MATRIX: GN TOTAL # OF BOTTLES: 3 NO X UNLEADED GAS (NEW) \_\_\_\_\_ ANALYSIS TYPE: \_\_\_\_\_ CRACKED-BROKEN \_\_\_\_\_ IMPROPERLY SEALED \_\_\_\_\_ SAMPLE CONTROL: \_\_\_\_\_ LABORATORY ID NUMBER: -12

3 \_\_\_\_\_ PID: \_\_\_\_\_ DATE COLLECTED: \_\_\_\_\_ TIME COLLECTED: \_\_\_\_\_ SAMPLE MATRIX: \_\_\_\_\_ TOTAL # OF BOTTLES: \_\_\_\_\_ NO \_\_\_\_\_ UNLEADED GAS (NEW) \_\_\_\_\_ ANALYSIS TYPE: \_\_\_\_\_ CRACKED-BROKEN \_\_\_\_\_ IMPROPERLY SEALED \_\_\_\_\_ SAMPLE CONTROL: \_\_\_\_\_ LABORATORY ID NUMBER: \_\_\_\_\_

4 \_\_\_\_\_ PID: \_\_\_\_\_ DATE COLLECTED: \_\_\_\_\_ TIME COLLECTED: \_\_\_\_\_ SAMPLE MATRIX: \_\_\_\_\_ TOTAL # OF BOTTLES: \_\_\_\_\_ NO \_\_\_\_\_ UNLEADED GAS (NEW) \_\_\_\_\_ ANALYSIS TYPE: \_\_\_\_\_ CRACKED-BROKEN \_\_\_\_\_ IMPROPERLY SEALED \_\_\_\_\_ SAMPLE CONTROL: \_\_\_\_\_ LABORATORY ID NUMBER: \_\_\_\_\_

5 \_\_\_\_\_ PID: \_\_\_\_\_ DATE COLLECTED: \_\_\_\_\_ TIME COLLECTED: \_\_\_\_\_ SAMPLE MATRIX: \_\_\_\_\_ TOTAL # OF BOTTLES: \_\_\_\_\_ NO \_\_\_\_\_ UNLEADED GAS (NEW) \_\_\_\_\_ ANALYSIS TYPE: \_\_\_\_\_ CRACKED-BROKEN \_\_\_\_\_ IMPROPERLY SEALED \_\_\_\_\_ SAMPLE CONTROL: \_\_\_\_\_ LABORATORY ID NUMBER: \_\_\_\_\_

6 \_\_\_\_\_ PID: \_\_\_\_\_ DATE COLLECTED: \_\_\_\_\_ TIME COLLECTED: \_\_\_\_\_ SAMPLE MATRIX: \_\_\_\_\_ TOTAL # OF BOTTLES: \_\_\_\_\_ NO \_\_\_\_\_ UNLEADED GAS (NEW) \_\_\_\_\_ ANALYSIS TYPE: \_\_\_\_\_ CRACKED-BROKEN \_\_\_\_\_ IMPROPERLY SEALED \_\_\_\_\_ SAMPLE CONTROL: \_\_\_\_\_ LABORATORY ID NUMBER: \_\_\_\_\_

7 \_\_\_\_\_ PID: \_\_\_\_\_ DATE COLLECTED: \_\_\_\_\_ TIME COLLECTED: \_\_\_\_\_ SAMPLE MATRIX: \_\_\_\_\_ TOTAL # OF BOTTLES: \_\_\_\_\_ NO \_\_\_\_\_ UNLEADED GAS (NEW) \_\_\_\_\_ ANALYSIS TYPE: \_\_\_\_\_ CRACKED-BROKEN \_\_\_\_\_ IMPROPERLY SEALED \_\_\_\_\_ SAMPLE CONTROL: \_\_\_\_\_ LABORATORY ID NUMBER: \_\_\_\_\_

8 \_\_\_\_\_ PID: \_\_\_\_\_ DATE COLLECTED: \_\_\_\_\_ TIME COLLECTED: \_\_\_\_\_ SAMPLE MATRIX: \_\_\_\_\_ TOTAL # OF BOTTLES: \_\_\_\_\_ NO \_\_\_\_\_ UNLEADED GAS (NEW) \_\_\_\_\_ ANALYSIS TYPE: \_\_\_\_\_ CRACKED-BROKEN \_\_\_\_\_ IMPROPERLY SEALED \_\_\_\_\_ SAMPLE CONTROL: \_\_\_\_\_ LABORATORY ID NUMBER: \_\_\_\_\_

9 \_\_\_\_\_ PID: \_\_\_\_\_ DATE COLLECTED: \_\_\_\_\_ TIME COLLECTED: \_\_\_\_\_ SAMPLE MATRIX: \_\_\_\_\_ TOTAL # OF BOTTLES: \_\_\_\_\_ NO \_\_\_\_\_ UNLEADED GAS (NEW) \_\_\_\_\_ ANALYSIS TYPE: \_\_\_\_\_ CRACKED-BROKEN \_\_\_\_\_ IMPROPERLY SEALED \_\_\_\_\_ SAMPLE CONTROL: \_\_\_\_\_ LABORATORY ID NUMBER: \_\_\_\_\_

10 \_\_\_\_\_ PID: \_\_\_\_\_ DATE COLLECTED: \_\_\_\_\_ TIME COLLECTED: \_\_\_\_\_ SAMPLE MATRIX: \_\_\_\_\_ TOTAL # OF BOTTLES: \_\_\_\_\_ NO \_\_\_\_\_ UNLEADED GAS (NEW) \_\_\_\_\_ ANALYSIS TYPE: \_\_\_\_\_ CRACKED-BROKEN \_\_\_\_\_ IMPROPERLY SEALED \_\_\_\_\_ SAMPLE CONTROL: \_\_\_\_\_ LABORATORY ID NUMBER: \_\_\_\_\_

RELINQUISHED DATE TIME	RECEIVED DATE TIME	RELINQUISHED DATE TIME	RECEIVED DATE TIME
<u>6/19/10</u> <u>15:40</u>	<u>6/19/10</u> <u>15:40</u>	<u>6/19/10</u> <u>15:40</u>	<u>6/19/10</u> <u>15:40</u>
<u>6/19/10</u> <u>13:25</u>	<u>6/19/10</u> <u>13:25</u>	<u>6/19/10</u> <u>13:25</u>	<u>6/19/10</u> <u>13:25</u>

COMMENTS: \_\_\_\_\_