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April 29, 2011

Ms. Loan Pham
Indiana Department of Environmental Management
Voluntary Remediation Program
100 North Senate Avenue
PO Box 6015, MC 66-30V
Indianapolis, Indiana 46206-6015

Subject: **Letter of Transmittal**
System Operation Report: Area 14 East
Honeywell Industrial Complex, South Bend, Indiana
MACTEC Project Number: 3310102011

Dear Ms. Pham:

MACTEC Engineering and Consulting, Inc. (MACTEC) is pleased to present you with one hard copy and one electronic copy of the above-referenced report.

If you have any questions, please contact our office at (231) 922-9050.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Steven D. Murray
Project Manager

Craig S. Kiekty
Project Scientist

SDM/:wms

Enclosures

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AREA 14 EAST SYSTEM OPERATION REPORT
PERIOD AUGUST 7, 2010 THROUGH FEBRUARY 11, 2011

AREA 14 EAST – HONEYWELL INDUSTRIAL COMPLEX
SOUTH BEND, INDIANA
VRP# 6980601

Prepared for:

Honeywell

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APRIL 29, 2011

MACTEC PROJECT NUMBER: 3310102011.6100

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1.0 INTRODUCTION

Mactec Engineering and Consulting, Inc. (Mactec) has been contracted by Honeywell International, Inc. (Honeywell) to provide professional services related to the continued safe operation, monitoring and maintenance of an In-Well Vapor Stripping System, which was activated in May 2003 at the Honeywell Industrial Complex in South Bend, Indiana. The system was designed to remediate soil and shallow groundwater at the Area 14 East – Former Painting and Degreasing Operations Source Area (Area 14 East), as shown on Figure 1-1. It treats volatile organic compounds (VOCs) consisting primarily of trichloroethene (TCE) and other related chlorinated VOCs, which are the contaminants of concern in this area. The system includes soil vapor extraction (SVE), air sparging and groundwater recirculation.

Area 14 East is the first area of concern (AOC) to be remediated under the approved Facility-Wide Remediation Work Plan (RWP) at the Honeywell South Bend Industrial Complex. The Area-Specific RWP for Area 14 East was approved by the Indiana Department of Environmental Management (IDEM) in the fall of 2002. Design details for contractor procurement were finalized in the first quarter of 2003, and the system was constructed from March 31, 2003 through May 7, 2003. The system was activated on May 9, 2003.

As part of system operation monitoring, Mactec and/or its operations, monitoring and maintenance (OM&M) subcontractor (Peerless Midwest) visit the site on a monthly basis and respond to system alarm messages. The system is equipped with a wireless alert system (Mission Control System), which sends an e-mail message to Mactec in the event of system shut down. The Mission Control System also logs operational time of the SVE blower and sparge air compressor.

This document presents system OM&M activities performed between August 7, 2010 and February 11, 2011. The main sections of this report include:

- Routine System Inspections
- System Operational Data
- System Performance Monitoring
- Non-Routine Maintenance and Repairs
- Conclusions

2.0 ROUTINE SYSTEM INSPECTIONS

Monthly system inspections and air sampling were performed by Mactec's OM&M subcontractor. The system was operated and inspected in accordance with the system's Operation, Monitoring and Maintenance Plan (Mactec, 2003). At the end of this reporting period the system was operating at approximately 62 inches of water vacuum, which results in a total system vapor withdrawal flow of 250 standard cubic feet per minute (scfm). During this period of operation, only the SVE component of the system was utilized. Air sparging and groundwater circulation was discontinued in December 2007.

Routine system inspections included the following:

Inside Plant 1 at the Treatment Area

- Check electrical and mechanical systems.
- Observe and record vacuum and vapor extraction flow rates from individual treatment wells at the header distribution vault in Plant 1.
- Make operational adjustments to increase efficiency of the treatment wells.

At the Treatment Trailer Area

- Inspect blower room and components: observe and record - knockout tank levels (drain if needed), vacuum, vapor extraction flow rate, air stream temperature before and after blower and building temperature.
- Inspect carbon filtration system and record pressures before primary vessel and between primary and secondary vessels.
- Collect effluent air samples on monthly basis.

Each site inspection is documented on a site inspection report form. The OM&M subcontractor records all system information readings and completes observation site inspection reports, which are forwarded electronically to Mactec for review a day after each site visit. The site inspection reports for this reporting period are presented in Appendix A.

3.0 ROUTINE MAINTENACE AND REPAIRS

A carbon vessel change out was performed by Calgon Carbon on January 18, 2011 after analytical results indicated that the activated carbon in the lead vessel was spent. Calgon Carbon delivered a new carbon vessel to the site, removed the spent carbon vessel and connected the new carbon vessel to the system. The spent carbon vessel was removed from the site and hauled under a hazardous waste manifest to a licensed disposal facility for regeneration. All other system components continue to operate as designed.

During the change out of the lead carbon vessel, one of the flanges on the lag carbon vessel became damaged. The flange was repaired, and the system was reactivated on January 20, 2011.

4.0 SYSTEM OPERATIONAL DATA

As shown on Figure 4-1, seven in-well vapor stripping wells (ART-1 through ART-7) are located in the treatment area. The treatment wells were installed at approximately 30-foot-on-centers with one additional well (ART-4) in the area of highest contaminant mass. The distribution header and controls are located in a vault beneath the Plant 1 floor, adjacent to the treatment area.

Vapor recovered from the treatment wells is treated in a trailer located approximately 425 feet west of Area 14 East. The components in the treatment trailer area consist of an air compressor, receiving tank, associated filters, dryer, blower, moisture knockout tank, heat exchanger and two 1,800-pound Carbon Vapor Pac™ units.

4.1 SYSTEM RUNTIME

Under normal operating conditions, the system operates continuously, seven days per week. The system requires manual resetting when the knockout tank fills with water or after power supply outages/surges.

Through the end of this reporting period (February 11, 2011), the system (SVE component only) was on-line for 2,454 days or 86.5% of the time. Table 4-1 presents weekly operational information including hours of operation, effluent air TCE concentrations, SVE flow rates and VOC removal rates.

4.2 AIR (VAPOR) SAMPLING DATA

Air stream samples were collected from before and between the Carbon Vapor Pac™ units. Initially, air stream samples were collected once per week for the first month of operation, then twice per month for the next two months of operation, and then approximately monthly thereafter. Air stream samples were collected from sampling ports directly into Tedlar bags, which were sent to TestAmerica Laboratories, Inc. for analysis of VOCs by USEPA Method TO-14. Laboratory analytical are summarized on Table 4-1 and the analytical reports for air samples are presented in Appendix B. The results from the air stream samples are used to assess compliance with the exempted air permit application, to evaluate the need for carbon vessel change out and to monitor the rate and amount of contaminants being removed from the subsurface by system operation.

During this period of operation (August 7, 2011 through February 11, 2011), TCE detected in vapors being drawn by the system ranged from 0.170 parts per million (ppm) to 0.610 ppm. The average weekly removal rate during this period of operation was 0.39 pounds of TCE per week. Table 4-2 shows the formula used for calculating removal rates. Chart 4-1 presents average weekly tetrachloroethene (PCE) and TCE removal rates from May 2003 through May 2004. Chart 4-2 presents average weekly removal rates from June 2004 through present. Chart 4-3 presents cumulative PCE and TCE removal rates over time. A total of 880.5 pounds of TCE and 371.4 pounds of PCE have been removed from the subsurface as a result of system operation through February 11, 2011.

5.0 SYSTEM PERFORMANCE MONITORING

During this reporting period, system performance monitoring included vapor and groundwater sampling, dissolved oxygen measurements and induced vacuum measurements.

5.1 GROUNDWATER SAMPLING

On October 19, 2010 and January 19, 2011 groundwater samples were collected from monitoring wells 86-14, 86-15, AS-1, EW-2B, MP-10, MW-16 and MW-17 (see Figure 4-1). The samples were analyzed for VOCs using Method 8260 Plus by TestAmerica Laboratories, Inc. of North Canton, Ohio.

Groundwater samples were collected using a peristaltic pump or disposable bailer. A minimum of three well volumes were purged from each well prior to sample collection. As part of the groundwater sampling process, during the purging of the monitoring wells at each location prior to sampling, the purged groundwater was field screened for temperature, pH, specific conductance, oxidation reduction potential, turbidity and dissolved oxygen (DO). Groundwater Sample Record Sheets are presented in Appendix C.

Table 5-1 summarizes VOCs detected in groundwater samples from these monitoring wells, plus historical groundwater data since April 24, 2003 when baseline groundwater sampling was performed. In previous sampling events, MW-16 had been the only monitoring well in Area 14 East at which groundwater sampling results exceeded 1996 Voluntary Remediation Program (VRP) Tier II Non-Residential cleanup goals (cleanup goals) for TCE; cis-1,2-dichloroethene (DCE) and vinyl chloride (VC). However, during the most recent sampling event, TCE and cis-1,2-DCE concentrations at MW-16 dropped below their respective cleanup goals. At MP-10 and MW-16, VC remains the only constituent still exceeding cleanup goals. At MP-10, VC concentrations ranged from <6.7 to 16 micrograms per liter (µg/l), while at MW-16, VC concentrations ranged from 560 to 88 µg/l, both during the October 2010 and January 2011 sampling events, respectively. At all other monitoring wells in the area, reported concentrations of detected VOCs are below the cleanup goals. Charts 5-1 through 5-6 present changes in VOC concentrations with time in groundwater samples from each individual monitoring well in/or adjacent to the treatment area. Groundwater analytical reports are presented in Appendix D.

Through February 2011, groundwater samples from monitoring wells 86-15, MP-10, AS-1, EW-2B, MW-16 and MW-17 have shown an overall decrease in TCE concentrations. Cis-1,2-DCE concentrations in groundwater samples are stable in MP-10 and 86-15. The remaining wells showed decreasing concentrations of cis-1,2-DCE.

Based on the most recent analytical results, the system was deactivated on February 8, 2011. Quarterly system performance monitoring will continue to monitor for changes in the remaining VC concentrations still above cleanup goals, as well as any rebound in other contaminant concentrations.

5.2 DISSOLVED OXYGEN

In addition to VOC analysis, dissolved oxygen field measurements were recorded during the October 2010 and January 2011 sampling events utilizing a direct-reading instrument (Troll 9500). Field DO data is summarized on Table 5-2. Due to discontinued use of the air sparge component, DO levels measured in groundwater across the treatment area during this reporting period were notably lower than in previous events when the air sparge was utilized. The aquifer has returned to anaerobic conditions which are favorable for EOS™ product to enhance anaerobic degradation of chlorinated VOCs. During the January 2011 sampling event, MW-17 was purged of groundwater with a disposable bailer. The agitation of the water due to bailing activities caused MW-17 to have higher than normal DO readings during this sampling event.

5.3 INDUCED VACUUM MEASUREMENTS

Induced vacuum measurement was conducted at locations MP-10 and EW-2B during the October 2010 sampling event, as shown on Figure 5-1, using an Omega Engineering, Inc. HHP-90 digital differential pressure meter. Vacuum reading were not collected during the January 2011 sampling event as the system was down pending repairs to a flange on the lag carbon vessel. Vacuum measurements for each monitoring point are summarized in Table 5-3. These data provide information on the effective radius of influence of the SVE system from the treatment wells. Similar to previous sampling, measurements indicate that the induced vacuum reaches at least as far as 40 feet from the nearest treatment well. This information was used to extrapolate the radius of influence of the induced vacuum in the treatment area where vapor monitoring points do not exist (see Figure 5-1).

6.0 CONCLUSION

During this period of operation, the SVE component of the treatment system has been in operation. Air sparging and groundwater circulation components were discontinued in December 2007. TCE removal rates are down to approximately five pounds per quarter and appear to have reached asymptotic levels in its current configuration, indicating that TCE concentrations in vadose zone soils have been reduced. A total of 880.5 pounds of TCE have been removed from soil and groundwater in the treatment area by system operations to date.

Figures 6-1 and 6-2 show the lateral extents of TCE and total VOCs in groundwater at concentrations above 0.5 ppm and one ppm in July 2003 prior to the start up of the system. Figures 6-3 and 6-4 show the current lateral extents of TCE and total VOCs in groundwater at concentrations above one ppm reported during October 2010 sampling. Figures 6-5 and 6-6 show the current lateral extents of TCE and total VOCs in groundwater at concentrations above one ppm reported during January 2011 sampling. These figures suggest that system operations have resulted in a greater than 80 percent reduction in the area in which VOCs are present in groundwater above one ppm.

Concentrations of VOCs in groundwater have stabilized or have shown a slight downward trend over the reporting period. Cleanup goals for TCE and cis-1,2-DCE have been achieved at all of the monitoring locations. Only MW-16 and MP-10 remain with contaminant concentrations exceeding cleanup goals for VC.

On February 8, 2011, Mactec discontinued operation of the SVE system for soil gas rebound evaluation. The Area 14 East system has been operated in SVE mode only since December 2007. Extracted vapor concentrations have reached an asymptotic level (<0.5 ppm). The SVE system will be re-activated after six months (August 2011) and a rebound assessment consisting of vapor sampling will be conducted. If no rebound in vapor concentrations are observed, Mactec will move forward with a confirmatory sampling program as detailed in the Area-Specific RWP (Mactec, 2002).

Groundwater monitoring will be continued to monitor progress on further VOC reduction by EOS™ enhanced bioremediation in the area of treatment. If, after one year, post-shutdown quarterly

monitoring results do not indicate rebound of contamination concentrations, Mactec will seek site closure for Area 14 East. The next performance monitoring event is scheduled for July 2011.

TABLES

Table 4-1: System Operational Information

Week Ending	*System Operation Time (hours)*	*SVE Flow Rate (scfm)*	*PCE Concentrations before Carbon (ppm)*	*TCE Concentrations before Carbon (ppm)*	*Total VOC Concentrations before Carbon (ppm)*	*PCE Concentrations between Carbon (ppm)*	*TCE Concentrations between Carbon (ppm)*	*Total VOC Concentrations between Carbon (ppm)*	*Amount of PCE Removed (pounds)*	*Amount of TCE Removed (pounds)*
5/9/2003	**18**	**150**	**ND**	**220**	**239.9**	**ND**	**<0.003**	**ND**	**0.0**	**12.1**
5/16/2003	**63.5**	**150**	**ND**	**340**	**348.8**	**ND**	**<0.003**	**0.0076**	**0.0**	**65.8**
5/23/2003	**113.75**	**150**	**ND**	**180**	**182.44**	**ND**	**<0.003**	**2.4**	**0.0**	**62.4**
5/30/2003	**61.75**	**190**	**ND**	**89**	**94**	**ND**	**<0.003**	**0.55**	**0.0**	**21.2**
6/6/2003	89	190	ND	89	94	ND	<0.003	0.55	0.0	30.6
6/13/2003	166.83	190	ND	89	94	ND	<0.003	0.55	0.0	57.3
6/20/2003	**167.50**	**190**	**ND**	**170**	**174.7**	**ND**	**120**	**123.2**	**0.0**	**109.9**
6/27/2003	125.82	150	ND	170	174.7	ND	<0.003	ND	0.0	65.1
7/4/2003	**28.75**	**150**	**ND**	**120**	**147.6**	**ND**	**<0.003**	**ND**	**0.0**	**10.5**
7/11/2003	90.00	150	ND	120	147.6	ND	<0.003	ND	0.0	32.9
7/18/2003	105.00	150	ND	120	147.6	ND	<0.003	ND	0.0	38.4
7/25/2003	93.25	150	ND	120	147.6	ND	<0.003	ND	0.0	34.1
8/1/2003	**155.58**	**150**	**ND**	**10**	**10**	**ND**	**<0.003**	**ND**	**0.0**	**4.7**
8/8/2003	110.50	150	ND	10	10	ND	<0.003	ND	0.0	3.4
8/15/2003	**158.75**	**150**	**ND**	**7.9**	**7.9**	**ND**	**<0.003**	**ND**	**0.0**	**3.8**
8/22/2003	149.50	150	ND	7.9	7.9	ND	<0.003	ND	0.0	3.6
8/29/2003	118.75	150	ND	7.9	7.9	ND	<0.003	ND	0.0	2.9
9/5/2003	**63.00**	**140**	**ND**	**8.8**	**8.8**	**ND**	**0.28**	**0.28**	**0.0**	**1.6**
9/12/2003	97.83	140	ND	8.8	8.8	ND	0.28	0.28	0.0	2.4
9/19/2003	58.45	140	ND	8.8	8.8	ND	0.28	0.28	0.0	1.5
9/26/2003	62.25	140	ND	8.8	8.8	ND	0.28	0.28	0.0	1.6
10/3/2003	167.75	140	ND	8.8	8.8	ND	0.28	0.28	0.0	4.2
10/8/2003	167.75	140	ND	8.8	8.8	ND	0.28	0.28	0.0	4.2
10/17/2003	**167.50**	**140**	**ND**	**5.1**	**5.1**	**ND**	**1.5**	**1.5**	**0.0**	**2.4**
10/24/2003	111.58	140	ND	5.1	5.1	ND	1.5	1.5	0.0	1.6
10/31/2003	159.75	140	ND	5.1	5.1	ND	1.5	1.5	0.0	2.3
11/7/2003	84.50	140	ND	5.1	5.1	ND	1.5	1.5	0.0	1.2
11/14/2003	167.75	140	ND	5.1	5.1	ND	1.5	1.5	0.0	2.4
11/21/2003	166.42	140	ND	5.1	5.1	ND	1.5	1.5	0.0	2.4
11/28/2003	167.75	140	ND	5.1	5.1	ND	1.5	1.5	0.0	2.4
12/5/2003	**102.75**	**140**	**25**	**ND**	**25**	**ND**	**3.9**	**4.3**	**9.3**	**0.0**
12/12/2003	**167.75**	**140**	**350**	**ND**	**350**	**86**	**ND**	**86**	**211.5**	**0.0**
12/17/2003	119.50	140	350	ND	350	86	ND	86	150.7	0.0
12/26/2003	**215.75**	**140**	**ND**	**13**	**13**	**ND**	**3.1**	**3.1**	**0.0**	**8.0**
1/2/2004	167.75	140	ND	13	13	ND	3.1	3.1	0.0	6.2
1/9/2004	167.75	140	ND	13	13	ND	3.1	3.1	0.0	6.2
1/16/2004	167.75	140	ND	13	13	ND	3.1	3.1	0.0	6.2
1/23/2004	166.00	140	ND	13	13	ND	3.1	3.1	0.0	6.1
1/30/2004	**159.50**	**140**	**ND**	**20**	**20**	**ND**	**0.97**	**1.33**	**0.0**	**9.1**
2/6/2004	19.00	140	ND	20	20	ND	0.97	1.33	0.0	1.1
2/13/2004	66.67	140	ND	20	20	ND	0.97	1.33	0.0	3.8
2/20/2004	80.00	140	ND	20	20	ND	0.97	1.33	0.0	4.5
2/27/2004	**38.25**	**140**	**ND**	**23**	**28.5**	**ND**	**<0.15**	**ND**	**0.0**	**2.5**
3/5/2004	64.75	140	ND	23	28.5	ND	<0.15	ND	0.0	4.2
3/12/2004	167.75	140	ND	23	28.5	ND	<0.15	ND	0.0	11.0
3/19/2004	167.75	140	ND	23	28.5	ND	<0.15	ND	0.0	11.0
3/26/2004	**166.25**	**140**	**ND**	**22**	**25**	**ND**	**<0.0074**	**0.83**	**0.0**	**10.4**
4/2/2004	167.75	140	ND	22	25	ND	<0.0074	0.83	0.0	10.5
4/9/2004	104.25	140	ND	22	25	ND	<0.0074	0.83	0.0	6.5
4/16/2004	167.75	140	ND	22	25	ND	<0.0074	0.83	0.0	10.5
4/23/2004	94.50	140	ND	22	25	ND	<0.0074	0.83	0.0	5.9
4/30/2004	**63.25**	**140**	**ND**	**6.6**	**6.6**	**ND**	**0.70**	**1.66**	**0.0**	**1.2**
5/7/2004	89.25	140	ND	6.6	6.6	ND	0.70	1.66	0.0	1.7
5/14/2004	66.50	140	ND	6.6	6.6	ND	0.70	1.66	0.0	1.2
5/21/2004	73.50	140	ND	6.6	6.6	ND	0.70	1.66	0.0	1.4
5/28/2004	25.83	140	ND	6.6	6.6	ND	0.70	1.66	0.0	0.5
6/4/2004	29.75	140	ND	6.6	6.6	ND	0.70	1.66	0.0	0.6
6/11/2004	63.25	140	ND	6.6	6.6	ND	0.70	1.66	0.0	1.2
6/18/2004	167.75	140	ND	6.6	6.6	ND	0.70	1.66	0.0	3.1
6/25/2004	**95.75**	**140**	**<0.0074**	**<0.0074**	**0.25**	**<0.0074**	**<0.0074**	**0.25**	**0.0**	**0.0**
7/2/2004	167.75	140	<0.0074	<0.0074	0.25	<0.0074	<0.0074	0.25	0.0	0.0
7/9/2004	167.75	140	<0.0074	<0.0074	0.25	<0.0074	<0.0074	0.25	0.0	0.0
7/16/2004	167.75	140	<0.0074	<0.0074	0.25	<0.0074	<0.0074	0.25	0.0	0.0
7/23/2004	167.75	140	<0.0074	<0.0074	0.25	<0.0074	<0.0074	0.25	0.0	0.0
7/30/2004	**167.75**	**140**	**<0.0074**	**0.24**	**0.45**	**<0.0074**	**<0.0074**	**ND**	**0.0**	**0.1**
8/6/2004	167.75	140	<0.0074	0.24	0.45	<0.0074	<0.0074	ND	0.0	0.1
8/13/2004	167.75	140	<0.0074	0.24	0.45	<0.0074	<0.0074	ND	0.0	0.1
8/20/2004	167.75	140	<0.0074	0.24	0.45	<0.0074	<0.0074	ND	0.0	0.1
8/27/2004	167.75	140	<0.0074	0.24	0.45	<0.0074	<0.0074	ND	0.0	0.1
9/3/2004	167.75	140	<0.0074	0.24	0.45	<0.0074	<0.0074	ND	0.0	0.1
9/10/2004	167.75	140	<0.0074	0.24	0.45	<0.0074	<0.0074	ND	0.0	0.1
9/17/2004	167.75	140	<0.0074	0.24	0.45	<0.0074	<0.0074	ND	0.0	0.1
9/24/2004	167.75	140	<0.0074	0.24	0.45	<0.0074	<0.0074	ND	0.0	0.1
9/30/2004	143.75	140	<0.0074	0.24	0.45	<0.0074	<0.0074	ND	0.0	0.1
10/8/2004	**191.75**	**180**	**<0.0074**	**8**	**10.47**	**<0.0074**	**<0.0074**	**0.87**	**0.0**	**5.6**
10/15/2004	167.75	180	<0.0074	8	10.47	<0.0074	<0.0074	0.87	0.0	4.9
10/22/2004	117.25	180	<0.0074	8	10.47	<0.0074	<0.0074	0.87	0.0	3.4
10/29/2004	**27.75**	**210**	**<0.015**	**7.1**	**9.95**	**<0.0074**	**<0.0075**	**4.5**	**0.0**	**0.8**
11/5/2004	106.75	210	<0.015	7.1	9.95	<0.0074	<0.0075	4.5	0.0	3.2
11/12/2004	24.45	210	<0.015	7.1	9.95	<0.0074	<0.0075	4.5	0.0	0.7
11/19/2004	**159.17**	**250**	**<0.0074**	**2.4**	**4.17**	**<0.0074**	**<0.0074**	**0.58**	**0.0**	**1.9**
11/26/2004	167.50	250	<0.0074	2.4	4.17	<0.0074	<0.0074	0.58	0.0	2.0
12/3/2004	167.75	250	<0.0074	2.4	4.17	<0.0074	<0.0074	0.58	0.0	2.0
12/10/2004	166.75	250	<0.0074	2.4	4.17	<0.0074	<0.0074	0.58	0.0	2.0
12/17/2004	167.75	250	<0.0074	2.4	4.17	<0.0074	<0.0074	0.58	0.0	2.0
12/24/2004	**167.75**	**250**	**<0.0074**	**1.6**	**2.22**	**<0.0074**	**<0.0074**	**ND**	**0.0**	**1.4**
12/31/2004	167.75	250	<0.0074	1.6	2.22	<0.0074	<0.0074	ND	0.0	1.4
1/7/2005	167.75	250	<0.0074	1.6	2.22	<0.0074	<0.0074	ND	0.0	1.4
1/13/2005	167.75	250	<0.0074	1.6	2.22	<0.0074	<0.0074	ND	0.0	1.4
1/20/2005	167.75	250	<0.0074	1.6	2.22	<0.0074	<0.0074	ND	0.0	1.4
1/28/2005	167.75	250	<0.0074	1.6	2.22	<0.0074	<0.0074	ND	0.0	1.4
2/4/2005	167.75	250	<0.0074	1.6	2.22	<0.0074	<0.0074	ND	0.0	1.4
2/11/2005	167.75	250	<0.0074	1.6	2.22	<0.0074	<0.0074	ND	0.0	1.4
2/18/2005	167.75	250	<0.0074	1.6	2.22	<0.0074	<0.0074	ND	0.0	1.4
2/25/2005	**152.92**	**250**	**<0.010**	**1.1**	**2.2**	**<0.0074**	**0.047**	**0.10**	**0.0**	**0.9**
3/4/2005	167.75	250	<0.010	1.1	2.2	<0.0074	0.047	0.10	0.0	0.9
3/11/2005	167.75	250	<0.010	1.1	2.2	<0.0074	0.047	0.10	0.0	0.9
3/18/2005	167.75	250	<0.010	1.1	2.2	<0.0074	0.047	0.10	0.0	0.9
3/25/2005	167.75	250	<0.010	1.1	2.2	<0.0074	0.047	0.10	0.0	0.9
4/1/2005	**167.75**	**250**	**<0.010**	**0.34**	**0.372**	**<0.0074**	**<0.0074**	**0.063**	**0.0**	**0.3**
4/8/2005	166.75	250	<0.010	0.34	0.372	<0.0074	<0.0074	0.063	0.0	0.3
4/15/2005	166.75	250	<0.010	0.34	0.372	<0.0074	<0.0074	0.063	0.0	0.3
4/22/2005	166.75	250	<0.010	0.34	0.372	<0.0074	<0.0074	0.063	0.0	0.3
4/29/2005	**166.75**	**250**	**<0.010**	**0.38**	**0.403**	**<0.0074**	**0.016**	**0.072**	**0.0**	**0.3**
5/6/2005	166.75	250	<0.010	0.38	0.403	<0.0074	0.016	0.072	0.0	0.3
5/13/2005	128.75	250	<0.010	0.38	0.403	<0.0074	0.016	0.072	0.0	0.2
5/20/2005	166.75	250	<0.010	0.38	0.403	<0.0074	0.016	0.072	0.0	0.3
5/27/2005	**166.75**	**250**	**<0.010**	**0.42**	**0.714**	**<0.010**	**<0.010**	**0.018**	**0.0**	**0.4**
6/3/2005	166.75	250	<0.010	0.42	0.714	<0.010	<0.010	0.018	0.0	0.4
6/10/2005	166.75	250	<0.010	0.42	0.714	<0.010	<0.010	0.018	0.0	0.4
6/17/2005	166.75	250	<0.010	0.42	0.714	<0.010	<0.010	0.018	0.0	0.4
6/24/2005	**166.75**	**250**	**<0.010**	**0.31**	**0.349**	**<0.0074**	**0.110**	**0.410**	**0.0**	**0.3**
7/1/2005	166.75	250	<0.010	0.31	0.349	<0.0074	0.110	0.410	0.0	0.3
7/8/2005	166.75	250	<0.010	0.31	0.349	<0.0074	0.110	0.410	0.0	0.3
7/15/2005	166.75	250	<0.010	0.31	0.349	<0.0074	0.110	0.410	0.0	0.3
7/22/2005	166.75	250	<0.010	0.31	0.349	<0.0074	0.110	0.410	0.0	0.3
7/29/2005	166.75	250	<0.010	0.31	0.349	<0.0074	0.110	0.410	0.0	0.3
8/5/2005	166.75	250	<0.010	0.31	0.349	<0.0074	0.110	0.410	0.0	0.3
8/12/2005	166.75	250	<0.010	0.31	0.349	<0.0074	0.110	0.410	0.0	0.3
8/19/2005	166.75	250	<0.010	0.31	0.349	<0.0074	0.110	0.410	0.0	0.3
8/26/2005	**166.75**	**250**	**<0.010**	**1.20**	**1.32**	**<0.0074**	**0.480**	**0.636**	**0.0**	**1.0**
9/2/2005	166.75	250	<0.010	1.20	1.32	<0.0074	0.480	0.636	0.0	1.0
9/9/2005	166.75	250	<0.010	1.20	1.32	<0.0074	0.480	0.636	0.0	1.0
9/16/2005	166.75	250	<0.010	1.20	1.32	<0.0074	0.480	0.636	0.0	1.0
9/25/2005	166.75	250	<0.010	1.20	1.32	<0.0074	0.480	0.636	0.0	1.0
10/2/2005	166.75	250	<0.010	1.20	1.32	<0.0074	0.480	0.636	0.0	1.0
10/9/2005	164.83	250	<0.010	1.20	1.32	<0.0074	0.480	0.636	0.0	1.0
10/16/2005	166.75	250	<0.010	1.20	1.32	<0.0074	0.480	0.636	0.0	1.0

Notes: Operational Summary through January 29, 2010
SVE = Soil Vapor Extraction
TCE = trichloroethylene
TCA = trichloroethane
ppm = parts per million
BOLD = laboratory analytical results (Unbolded concentrations are estimated based on previous results.
= Analytical results from current reporting perioc

Table 4-1: System Operational Information

Week Ending	*System Operation Time (hours)*	*SVE Flow Rate (scfm)*	*PCE Concentrations before Carbon (ppm)*	*TCE Concentrations before Carbon (ppm)*	*Total VOC Concentrations before Carbon (ppm)*	*PCE Concentrations between Carbon (ppm)*	*TCE Concentrations between Carbon (ppm)*	*Total VOC Concentrations between Carbon (ppm)*	*Amount of PCE Removed (pounds)*	*Amount of TCE Removed (pounds)*
10/23/2005	166.75	250	<0.010	1.20	1.32	<0.0074	0.480	0.636	0.0	1.0
10/30/2005	**166.75**	**250**	**<0.010**	**0.70**	**0.81**	**<0.010**	**<0.010**	**0.075**	**0.0**	**0.6**
11/7/2005	166.75	250	<0.010	0.70	0.81	<0.010	<0.010	0.075	0.0	0.6
11/14/2005	166.75	250	<0.010	0.70	0.81	<0.010	<0.010	0.075	0.0	0.6
11/21/2005	166.75	250	<0.010	0.70	0.81	<0.010	<0.010	0.075	0.0	0.6
11/28/2005	**166.75**	**250**	**<0.010**	**0.47**	**0.535**	**<0.010**	**<0.010**	**0.073**	**0.0**	**0.4**
12/2/2005	166.75	250	<0.010	0.47	0.535	<0.010	<0.010	0.073	0.0	0.4
12/9/2005	166.75	250	<0.010	0.47	0.535	<0.010	<0.010	0.073	0.0	0.4
12/16/2005	166.75	250	<0.010	0.47	0.535	<0.010	<0.010	0.073	0.0	0.4
12/30/2005	**166.75**	**250**	**<0.010**	**0.40**	**0.547**	**<0.010**	**<0.020**	**0.121**	**0.0**	**0.3**
1/6/2006	166.75	250	<0.010	0.40	0.547	<0.010	<0.020	0.121	0.0	0.3
1/13/2006	166.75	250	<0.010	0.40	0.547	<0.010	<0.020	0.121	0.0	0.3
1/20/2006	166.75	250	<0.010	0.40	0.547	<0.010	<0.020	0.121	0.0	0.3
1/27/2006	166.75	250	<0.010	0.40	0.547	<0.010	<0.020	0.121	0.0	0.3
2/3/2006	**166.75**	**250**	**<0.010**	**0.40**	**0.503**	**<0.010**	**<0.020**	**0.17**	**0.0**	**0.3**
2/10/2006	166.75	250	<0.010	0.40	0.503	<0.010	<0.020	0.17	0.0	0.3
2/17/2006	166.75	250	<0.010	0.40	0.503	<0.010	<0.020	0.17	0.0	0.3
2/24/2006	166.75	250	<0.010	0.40	0.503	<0.010	<0.020	0.17	0.0	0.3
3/3/2006	**166.75**	**250**	**<0.010**	**0.58**	**0.704**	**<0.010**	**<0.020**	**0.056**	**0.0**	**0.5**
3/10/2006	166.75	250	<0.010	0.58	0.704	<0.010	<0.020	0.056	0.0	0.5
3/17/2006	166.75	250	<0.010	0.58	0.704	<0.010	<0.020	0.056	0.0	0.5
3/24/2006	166.75	250	<0.010	0.58	0.704	<0.010	<0.020	0.056	0.0	0.5
3/31/2006	166.75	250	<0.010	0.58	0.704	<0.010	<0.020	0.056	0.0	0.5
4/7/2006	166.75	250	<0.010	0.58	0.704	<0.010	<0.020	0.056	0.0	0.5
4/14/2006	166.75	250	<0.010	0.58	0.704	<0.010	<0.020	0.056	0.0	0.5
4/21/2006	166.75	250	<0.010	0.58	0.704	<0.010	<0.020	0.056	0.0	0.5
4/28/2006	166.75	250	<0.010	0.58	0.704	<0.010	<0.020	0.056	0.0	0.5
5/5/2006	166.75	250	<0.010	0.58	0.704	<0.010	<0.020	0.056	0.0	0.5
5/12/2006	166.75	250	<0.010	0.58	0.704	<0.010	<0.020	0.056	0.0	0.5
5/19/2006	166.75	250	<0.010	0.58	0.704	<0.010	<0.020	0.056	0.0	0.5
5/26/2006	166.75	250	<0.010	0.58	0.704	<0.010	<0.020	0.056	0.0	0.5
6/2/2006	166.75	250	**<0.010**	**0.11**	**0.11**	**<0.010**	**<0.010**	**<0.010**	**0.0**	**0.1**
6/9/2006	166.75	250	<0.010	0.11	0.11	<0.010	<0.010	<0.010	0.0	0.1
6/16/2006	166.75	250	<0.010	0.11	0.11	<0.010	<0.010	<0.010	0.0	0.1
6/23/2006	166.75	250	<0.010	0.11	0.11	<0.010	<0.010	<0.010	0.0	0.1
6/30/2006	166.75	250	**<0.010**	**0.04**	**0.095**	**<0.010**	**<0.010**	**<0.010**	**0.0**	**0.03**
7/7/2006	166.75	250	<0.010	0.04	0.095	<0.010	<0.010	<0.010	0.0	0.03
7/14/2006	166.75	250	<0.010	0.04	0.095	<0.010	<0.010	<0.010	0.0	0.03
7/21/2006	166.75	250	<0.010	0.04	0.095	<0.010	<0.010	<0.010	0.0	0.03
7/28/2006	166.75	250	<0.010	0.04	0.095	<0.010	<0.010	<0.010	0.0	0.03
8/4/2006	166.75	250	<0.010	0.04	0.095	<0.010	<0.010	<0.010	0.0	0.03
8/11/2006	166.75	250	<0.010	0.04	0.095	<0.010	<0.010	<0.010	0.0	0.03
8/18/2006	166.75	250	<0.010	0.04	0.095	<0.010	<0.010	<0.010	0.0	0.03
8/25/2006	166.75	250	<0.010	0.04	0.095	<0.010	<0.010	<0.010	0.0	0.03
9/1/2006	166.75	250	**<0.250**	**<0.250**	**32.07**	**<0.250**	**<0.250**	**0.43**	**0.0**	**0.0**
9/8/2006	166.75	250	<0.250	<0.250	32.07	<0.250	<0.250	0.43	0.0	0.0
9/15/2006	166.75	250	<0.250	<0.250	32.07	<0.250	<0.250	0.43	0.0	0.0
9/22/2006	166.75	250	<0.250	<0.250	32.07	<0.250	<0.250	0.43	0.0	0.0
9/29/2006	166.75	250	**<0.250**	**0.536**	**12.7**	**<0.250**	**<0.250**	**<0.250**	**0.0**	**0.5**
10/6/2006	166.75	250	<0.250	0.536	12.7	<0.250	<0.250	<0.250	0.0	0.5
10/13/2006	166.75	250	<0.250	0.536	12.7	<0.250	<0.250	<0.250	0.0	0.5
10/20/2006	166.75	250	<0.250	0.536	12.7	<0.250	<0.250	<0.250	0.0	0.5
10/27/2006	**166.75**	**250**	**<0.250**	**0.618**	**0.618**	**<0.218**	**<0.218**	**<0.218**	**0.0**	**0.5**
11/3/2006	166.75	250	<0.250	0.618	0.618	<0.218	<0.218	<0.218	0.0	0.5
11/10/2006	166.75	250	<0.250	0.618	0.618	<0.218	<0.218	<0.218	0.0	0.5
11/17/2006	166.75	250	<0.250	0.618	0.618	<0.218	<0.218	<0.218	0.0	0.5
11/24/2006	166.75	250	<0.250	0.618	0.618	<0.218	<0.218	<0.218	0.0	0.5
12/1/2006	166.75	250	<0.250	0.618	0.618	<0.218	<0.218	<0.218	0.0	0.5
12/8/2006	166.75	250	<0.250	0.618	0.618	<0.218	<0.218	<0.218	0.0	0.5
12/15/2006	166.75	250	<0.250	0.618	0.618	<0.218	<0.218	<0.218	0.0	0.5
12/22/2006	166.75	250	<0.250	0.618	0.618	<0.218	<0.218	<0.218	0.0	0.5
12/29/2006	**166.75**	**250**	**<0.250**	**0.316**	**0.316**	**<0.225**	**<0.225**	**<0.225**	**0.0**	**0.3**
1/5/2007	166.75	250	<0.250	0.316	0.316	<0.225	<0.225	<0.225	0.0	0.3
1/12/2007	166.75	250	<0.250	0.316	0.316	<0.225	<0.225	<0.225	0.0	0.3
1/19/2007	166.75	250	<0.250	0.316	0.316	<0.225	<0.225	<0.225	0.0	0.3
1/26/2007	166.75	250	<0.250	0.316	0.316	<0.225	<0.225	<0.225	0.0	0.3
2/2/2007	**166.75**	**225**	**<0.250**	**0.450**	**0.45**	NA	NA	NA	**0.0**	**0.3**
2/9/2007	166.8	225	<0.250	0.450	0.45	NA	NA	NA	0.0	0.3
2/16/2007	166.8	225	<0.250	0.450	0.45	NA	NA	NA	0.0	0.3
2/23/2007	166.8	225	<0.250	0.450	0.45	NA	NA	NA	0.0	0.3
3/2/2007	166.8	225	<0.250	0.450	0.45	NA	NA	NA	0.0	0.3
3/9/2007	80.0	225	<0.250	0.450	0.45	NA	NA	NA	0.0	0.2
3/16/2007	120.0	**225**	**<0.218**	**0.581**	**0.581**	**NA**	NA	NA	0.0	0.3
3/23/2007	168.0	225	<0.218	0.581	0.581	NA	NA	NA	0.0	0.4
3/30/2007	168.0	**225**	**<0.218**	**0.386**	**0.386**	**<0.210**	**<0.210**	**<0.210**	**0.0**	**0.3**
4/6/2007	168.0	225	<0.218	0.386	0.386	<0.210	<0.210	<0.210	0.0	0.3
4/13/2007	168.0	225	<0.218	0.386	0.386	<0.210	<0.210	<0.210	0.0	0.3
4/20/2007	168.0	225	<0.218	0.386	0.386	<0.210	<0.210	<0.210	0.0	0.3
4/27/2007	168.0	**225**	**<0.218**	**0.285**	**0.285**	**<0.210**	**<0.210**	**<0.210**	**0.0**	**0.2**
5/4/2007	168.0	225	<0.218	0.285	0.285	<0.210	<0.210	<0.210	0.0	0.2
5/11/2007	168.0	225	<0.218	0.285	0.285	<0.210	<0.210	<0.210	0.0	0.2
5/18/2007	168.0	225	<0.218	0.285	0.285	<0.210	<0.210	<0.210	0.0	0.2
5/25/2007	168.0	**225**	**<0.003**	**0.550**	**0.636**	**<0.003**	**0.41**	**0.625**	**0.0**	**0.4**
6/1/2007	168.0	225	<0.003	0.550	0.636	<0.003	0.41	0.625	0.0	0.4
6/8/2007	168.0	225	<0.003	0.550	0.636	<0.003	0.41	0.625	0.0	0.4
6/15/2007	168.0	225	<0.003	0.550	0.636	<0.003	0.41	0.625	0.0	0.4
6/22/2007	168.0	225	<0.003	0.550	0.636	<0.003	0.41	0.625	0.0	0.4
6/29/2007	168.0	**225**	**<0.008**	**1.1**	**1.167**	**<0.004**	**0.0052**	**0.0172**	**0.0**	**0.8**
7/6/2007	168.0	225	<0.008	1.1	1.167	<0.004	0.0052	0.0172	0.0	0.8
7/13/2007	168.0	225	<0.008	1.1	1.167	<0.004	0.0052	0.0172	0.0	0.8
7/20/2007	168.0	225	<0.008	1.1	1.167	<0.004	0.0052	0.0172	0.0	0.8
7/27/2007	168.0	225	<0.008	1.1	1.167	<0.004	0.0052	0.0172	0.0	0.8
8/3/2007	168.0	**225**	**0.0026**	**0.350**	**0.413**	**<0.002**	**0.0046**	**0.183**	**0.0**	**0.3**
8/10/2007	168.0	225	0.0026	0.350	0.413	<0.002	0.0046	0.183	0.0	0.3
8/17/2007	168.0	225	0.0026	0.350	0.413	<0.002	0.0046	0.183	0.0	0.3
8/24/2007	168.0	225	0.0026	0.350	0.413	<0.002	0.0046	0.183	0.0	0.3
8/31/2007	168.0	**225**	**<0.004**	**0.480**	**0.528**	**<0.002**	**0.02**	**0.244**	**0.0**	**0.4**
9/7/2007	168.0	225	<0.004	0.480	0.528	<0.002	0.02	0.244	0.0	0.4
9/14/2007	168.0	225	<0.004	0.480	0.528	<0.002	0.02	0.244	0.0	0.4
9/21/2007	168.0	225	<0.004	0.480	0.528	<0.002	0.02	0.244	0.0	0.4
9/28/2007	168.0	**225**	**<0.0034**	**0.460**	**0.541**	**<0.0036**	**0.0067**	**0.049**	**0.0**	**0.4**
10/5/2007	168.0	225	<0.0034	0.460	0.541	<0.0036	0.0067	0.049	0.0	0.4
10/12/2007	168.0	225	<0.0034	0.460	0.541	<0.0036	0.0067	0.049	0.0	0.4
10/19/2007	168.0	225	<0.0034	0.460	0.541	<0.0036	0.0067	0.049	0.0	0.4
10/26/2007	168.0	225	<0.0034	0.460	0.541	<0.0036	0.0067	0.049	0.0	0.4
11/2/2007	168.0	225	<0.0034	0.460	0.541	<0.0036	0.0067	0.049	0.0	0.4
11/9/2007	168.0	225	**<0.0034**	**0.280**	**0.306**	**<0.004**	**0.13**	**0.3106**	**0.0**	**0.2**
11/16/2007	168.0	225	<0.0034	0.280	0.306	<0.004	0.13	0.3106	0.0	0.2
11/23/2007	168.0	225	<0.0034	0.280	0.306	<0.004	0.13	0.3106	0.0	0.2
11/30/2007	168.0	225	<0.0034	0.280	0.306	<0.004	0.13	0.3106	0.0	0.2
12/7/2007	168.0	225	**<0.004**	**0.170**	**0.199**	**<0.004**	**<0.004**	**0.011**	**0.0**	**0.1**
12/15/2007	168.0	225	<0.004	0.170	0.199	<0.004	<0.004	0.011	0.0	0.1
12/21/2007	168.0	225	<0.004	0.170	0.199	<0.004	<0.004	0.011	0.0	0.1
12/28/2007	168.0	225	**<0.004**	**0.450**	**0.489**	**<0.004**	**0.015**	**0.041**	0.0	0.3
1/4/2008	168.0	250	<0.004	0.450	0.489	<0.004	0.015	0.041	0.0	0.4
01/11/08	168.0	250	<0.004	0.450	0.489	<0.004	0.015	0.041	0.0	0.4
01/18/08	168.0	250	<0.004	0.450	0.489	<0.004	0.015	0.041	0.0	0.4
01/25/08	168.0	250	<0.004	0.450	0.489	<0.004	0.015	0.041	0.0	0.4
02/01/08	168.0	250	**<0.009**	**1.100**	**1.139**	**<0.002**	**0.006**	**0.1332**	**0.0**	**0.9**
02/08/08	168.0	250	<0.009	1.100	1.139	<0.002	0.006	0.1332	0.0	0.9
02/15/08	168.0	250	<0.009	1.100	1.139	<0.002	0.006	0.1332	0.0	0.9
02/22/08	168.0	250	<0.009	1.100	1.139	<0.002	0.006	0.1332	0.0	0.9
02/29/08	168.0	250	**<0.008**	**0.630**	**0.650**	**<0.004**	**0.063**	**0.125**	**0.0**	**0.5**
03/07/08	168.0	250	<0.008	0.630	0.650	<0.004	0.063	0.125	0.0	0.5
03/14/08	168.0	250	<0.008	0.630	0.650	<0.004	0.063	0.125	0.0	0.5
03/21/08	168.0	250	<0.008	0.630	0.650	<0.004	0.063	0.125	0.0	0.5
03/28/08	168.0	250	**<0.008**	**0.840**	**0.858**	**<0.004**	**0.025**	**0.044**	**0.0**	**0.7**
04/02/08	168.0	250	<0.008	0.840	0.858	<0.004	0.025	0.044	0.0	0.7

Notes: Operational Summary through January 29, 2010

SVE = Soil Vapor Extraction

TCE = trichloroethylene

TCA = trichloroethane

ppm = parts per million

BOLD = laboratory analytical results (Unbolded concentrations are estimated based on previous results.

= Analytical results from current reporting perioc

Table 4-1: System Operational Information

Week Ending	*System Operation Time (hours)*	*SVE Flow Rate (scfm)*	*PCE Concentrations before Carbon (ppm)*	*TCE Concentrations before Carbon (ppm)*	*Total VOC Concentrations before Carbon (ppm)*	*PCE Concentrations between Carbon (ppm)*	*TCE Concentrations between Carbon (ppm)*	*Total VOC Concentrations between Carbon (ppm)*	*Amount of PCE Removed (pounds)*	*Amount of TCE Removed (pounds)*
04/09/08	168.0	250	<0.008	0.840	0.858	<0.004	0.025	0.044	0.0	0.7
04/18/08	168.0	250	<0.008	0.840	0.858	<0.004	0.025	0.044	0.0	0.7
4/25/2008	168.0	250	<0.008	0.840	0.858	<0.004	0.025	0.044	0.0	0.7
5/2/2008	168.0	250	**<0.0040**	**0.350**	**0.366**	**<0.0036**	**0.036**	**0.0657**	0.0	0.3
5/9/2008	168.0	250	<0.0040	0.350	0.366	<0.0036	0.036	0.0657	0.0	0.3
5/16/2008	168.0	250	<0.0040	0.350	0.366	<0.0036	0.036	0.0657	0.0	0.3
5/23/2008	168.0	250	<0.0040	0.350	0.366	<0.0036	0.036	0.0657	0.0	0.3
5/30/2008	168.0	250	**<0.0033**	**0.530**	**0.545**	**<0.004**	**0.043**	**0.055**	**0.0**	**0.5**
6/6/2008	168.0	250	<0.0033	0.530	0.545	<0.004	0.043	0.055	0.0	0.5
6/13/2008	168.0	250	<0.0033	0.530	0.545	<0.004	0.043	0.055	0.0	0.5
6/20/2008	168.0	250	<0.0033	0.530	0.545	<0.004	0.043	0.055	0.0	0.5
6/27/2008	168.0	250	**<0.008**	**0.560**	**0.589**	**<0.004**	**0.065**	**0.087**	**0.0**	**0.5**
7/4/2008	168.0	250	<0.008	0.560	0.589	<0.004	0.065	0.087	0.0	0.5
7/11/2008	168.0	250	<0.008	0.560	0.589	<0.004	0.065	0.087	0.0	0.5
7/18/2008	168.0	250	<0.008	0.560	0.589	<0.004	0.065	0.087	0.0	0.5
7/25/2008	168.0	250	<0.008	0.560	0.589	<0.004	0.065	0.087	0.0	0.5
8/1/2008	168.0	250	**<0.0081**	**0.640**	**0.6772**	**<0.004**	**0.060**	**0.0778**	**0.0**	**0.5**
8/8/2008	168.0	250	<0.0081	0.640	0.6772	<0.004	0.060	0.0778	0.0	0.5
8/15/2008	168.0	250	<0.0081	0.640	0.6772	<0.004	0.060	0.0778	0.0	0.5
8/22/2008	168.0	250	<0.0081	0.640	0.6772	<0.004	0.060	0.0778	0.0	0.5
8/29/2008	168.0	250	**<0.00061**	**0.690**	**0.8030**	**<0.004**	**0.039**	**0.122**	**0.0**	**0.6**
9/5/2008	168.0	250	<0.00061	0.690	0.8030	<0.004	0.039	0.122	0.0	0.6
9/12/2008	168.0	250	<0.00061	0.690	0.8030	<0.004	0.039	0.122	0.0	0.6
9/19/2008	168.0	250	<0.00061	0.690	0.8030	<0.004	0.039	0.122	0.0	0.6
9/26/2008	168.0	250	<0.00061	0.690	0.8030	<0.004	0.039	0.122	0.0	0.6
10/3/2008	168.0	250	<0.00061	0.690	0.8030	<0.004	0.039	0.122	0.0	0.6
10/10/2008	168.0	250	<0.00061	0.690	0.8030	<0.004	0.039	0.122	0.0	0.6
10/17/2008	168.0	250	<0.00061	0.690	0.8030	<0.004	0.039	0.122	0.0	0.6
10/24/2008	168.0	250	<0.00061	0.690	0.8030	<0.004	0.039	0.122	0.0	0.6
10/31/2008	168.0	250	**<0.0040**	**0.580**	**0.6360**	**<0.004**	**0.056**	**0.2212**	**0.0**	**0.5**
11/7/2008	168.0	250	<0.0040	0.580	0.6360	<0.004	0.056	0.2212	0.0	0.5
11/14/2008	168.0	250	<0.0040	0.580	0.6360	<0.004	0.056	0.2212	0.0	0.5
11/21/2008	168.0	250	<0.0040	0.580	0.6360	<0.004	0.056	0.2212	0.0	0.5
11/28/2008	168.0	250	<0.0040	0.580	0.6360	<0.004	0.056	0.2212	0.0	0.5
12/5/2008	168.0	250	<0.0040	0.580	0.6360	<0.004	0.056	0.2212	0.0	0.5
12/12/2008	168.0	250	**<0.004**	**0.200**	**0.2560**	**<0.004**	**0.270**	**0.3354**	**0.0**	**0.2**
12/19/2008	168.0	250	<0.004	0.200	0.2560	<0.004	0.270	0.3354	0.0	0.2
12/26/2008	168.0	250	<0.004	0.200	0.2560	<0.004	0.270	0.3354	**0.0**	**0.2**
1/2/2009	168.0	250	<0.004	0.200	0.2560	<0.004	0.270	0.3354	0.0	0.2
1/9/2009	168.0	250	<0.004	0.200	0.2560	<0.004	0.270	0.3354	0.0	0.2
1/16/2009	168.0	250	<0.004	0.200	0.2560	<0.004	0.270	0.3354	0.0	0.2
1/23/2009	168.0	250	<0.004	0.200	0.2560	<0.004	0.270	0.3354	0.0	0.2
1/30/2009	168.0	250	**<0.0036**	**0.420**	**0.4360**	**<0.0036**	**0.043**	**0.0047**	**0.0**	**0.4**
2/6/2009	168.0	250	<0.0036	0.420	0.4360	<0.0036	0.043	0.0047	0.0	0.4
2/13/2009	168.0	250	<0.0036	0.420	0.4360	<0.0036	0.043	0.0047	0.0	0.4
2/20/2009	168.0	250	<0.0036	0.420	0.4360	<0.0036	0.043	0.0047	0.0	0.4
2/27/2009	168.0	250	**<0.005**	**0.170**	**0.1830**	**<0.004**	**0.100**	**0.1267**	**0.0**	**0.1**
3/6/2009	168.0	250	<0.005	0.170	0.1830	<0.004	0.100	0.1267	0.0	0.1
3/13/2009	168.0	250	<0.005	0.170	0.1830	<0.004	0.100	0.1267	0.0	0.1
3/20/2009	168.0	250	<0.005	0.170	0.1830	<0.004	0.100	0.1267	0.0	0.1
3/27/2009	168.0	250	**<0.0075**	**0.660**	**0.6996**	**<0.0049**	**0.280**	**0.297**	**0.0**	**0.6**
4/3/2009	168.0	250	<0.0075	0.660	0.6996	<0.0049	0.280	0.297	0.0	0.6
4/10/2009	168.0	250	<0.0075	0.660	0.6996	<0.0049	0.280	0.297	0.0	0.6
4/17/2009	168.0	250	<0.0075	0.660	0.6996	<0.0049	0.280	0.297	0.0	0.6
4/24/2009	168.0	235	<0.0075	0.660	0.6996	<0.0049	0.280	0.297	0.0	0.5
5/1/2009	168.0	235	**<0.004**	**0.160**	**0.1700**	**<0.004**	**0.140**	**0.156**	**0.0**	**0.1**
5/8/2009	168.0	235	<0.004	0.160	0.1700	<0.004	0.140	0.156	0.0	0.1
5/15/2009	168.0	235	<0.004	0.160	0.1700	<0.004	0.140	0.156	0.0	0.1
5/22/2009	168.0	235	<0.004	0.160	0.1700	<0.004	0.140	0.156	0.0	0.1
5/29/2009	168.0	235	**<0.004**	**0.170**	**0.1880**	**<0.004**	**0.075**	**0.075**	**0.0**	**0.1**
6/5/2009	168.0	235	<0.004	0.170	0.1880	<0.004	0.075	0.075	0.0	0.1
6/12/2009	168.0	235	<0.004	0.170	0.1880	<0.004	0.075	0.075	0.0	0.1
6/19/2009	168.0	235	<0.004	0.170	0.1880	<0.004	0.075	0.075	0.0	0.1
6/26/2009	168.0	235	**<0.0036**	**0.550**	**0.6080**	**<0.0036**	**0.210**	**0.229**	**0.0**	**0.4**
7/3/2009	168.0	235	<0.0036	0.550	0.6080	<0.0036	0.210	0.229	0.0	0.4
7/10/2009	168.0	235	<0.0036	0.550	0.6080	<0.0036	0.210	0.229	0.0	0.4
7/17/2009	168.0	235	<0.0036	0.550	0.6080	<0.0036	0.210	0.229	0.0	0.4
7/24/2009	168.0	235	<0.0036	0.550	0.6080	<0.0036	0.210	0.229	0.0	0.4
7/31/2009	168.0	235	**0.028**	**0.850**	**0.9330**	**<0.012**	**1.000**	**1.047**	**0.0**	**0.7**
8/7/2009	0.0	0	**Soil Vapor Extraction System Off-Line**							
1/22/2010	96.0	235	<0.0070	0.540	0.7868	<0.004	<0.004	0.21	0.0	0.2
1/29/2010	168.0	235	**<0.0070**	**0.540**	**0.7868**	**<0.004**	**<0.004**	**0.21**	**0.0**	**0.4**
2/5/2010	168.0	235	<0.0070	0.540	0.7868	<0.004	<0.004	0.21	0.0	0.4
2/12/2010	168.0	235	<0.0070	0.540	0.7868	<0.004	<0.004	0.21	0.0	0.4
2/19/2010	168.0	235	<0.0070	0.540	0.7868	<0.004	<0.004	0.21	0.0	0.4
2/26/2010	168.0	**250**	**<0.0036**	**0.390**	**0.4227**	**<0.0036**	**<0.0036**	**0.0052**	**0.0**	**0.3**
3/5/2010	168.0	250	<0.0036	0.390	0.4227	<0.0036	<0.0036	0.0052	0.0	0.3
3/12/2010	168.0	250	<0.0036	0.390	0.4227	<0.0036	<0.0036	0.0052	0.0	0.3
3/19/2010	168.0	250	<0.0036	0.390	0.4227	<0.0036	<0.0036	0.0052	0.0	0.3
3/26/2010	168.0	250	<0.0036	0.390	0.4227	<0.0036	<0.0036	0.0052	0.0	0.3
4/2/2010	168.0	**250**	**<0.0036**	**0.460**	**0.5006**	**<0.0036**	**<0.0036**	**0.0141**	**0.0**	**0.4**
4/9/2010	168.0	250	<0.0036	0.460	0.5006	<0.0036	<0.0036	0.0141	0.0	0.4
4/16/2010	168.0	250	<0.0036	0.460	0.5006	<0.0036	<0.0036	0.0141	0.0	0.4
4/23/2010	168.0	250	<0.0036	0.460	0.5006	<0.0036	<0.0036	0.0141	0.0	0.4
4/30/2010	168.0	**250**	**<0.0036**	**0.390**	**0.4050**	**<0.0036**	**<0.0036**	**<0.0036**	**0.0**	**0.3**
5/7/2010	168.0	250	<0.0036	0.390	0.4050	<0.0036	<0.0036	<0.0036	0.0	0.3
5/14/2010	168.0	250	<0.0036	0.390	0.4050	<0.0036	<0.0036	<0.0036	0.0	0.3
5/21/2010	168.0	250	<0.0036	0.390	0.4050	<0.0036	<0.0036	<0.0036	0.0	0.3
5/28/2010	168.0	**250**	**<0.012**	**0.520**	**0.6960**	**<0.004**	**<0.004**	**0.235**	**0.0**	**0.4**
6/4/2010	96.0	250	**System Off-Line from June 2, 2010 to July 13, 2010 - Seized Heat Exchanger Motor**							
7/16/2010	84.0	250	<0.012	0.520	0.6960	<0.004	<0.004	0.235	0.0	0.2
7/23/2010	168.0	250	<0.012	0.520	0.6960	<0.004	<0.004	0.235	0.0	0.4
7/30/2010	**168.0**	**250**	**<0.008**	**0.610**	**0.6280**	**<0.0036**	**<0.0036**	**0.0041**	**0.0**	**0.5**
8/6/2010	168.0	250	<0.008	0.610	0.6280	<0.0036	<0.0036	0.0041	0.0	0.5
8/13/2010	168.0	250	<0.008	0.610	0.628	<0.004	<0.004	0.0041	0.0	0.5
8/20/2010	168.0	250	<0.008	0.610	0.628	<0.004	<0.004	0.0041	0.0	0.5
8/27/2010	168.0	250	<0.008	0.610	0.628	<0.004	<0.004	0.0041	0.0	0.5
9/3/2010	168.0	250	**<0.0099**	**0.590**	**0.606**	**<0.0036**	**<0.0036**	**0.0088**	**0.0**	**0.5**
9/10/2010	168.0	250	<0.0099	0.590	0.606	<0.0036	<0.0036	0.0088	0.0	0.5
9/17/2010	168.0	250	<0.0099	0.590	0.606	<0.0036	<0.0036	0.0088	0.0	0.5
9/24/2010	168.0	250	**<0.010**	**0.520**	**0.537**	**<0.0036**	**0.0067**	**0.0424**	**0.0**	**0.4**
10/1/2010	168.0	250	<0.010	0.520	0.537	<0.0036	0.0067	0.0424	0.0	0.4
10/8/2010	168.0	250	<0.010	0.520	0.537	<0.0036	0.0067	0.0424	0.0	0.4
10/15/2010	168.0	250	<0.010	0.520	0.537	<0.0036	0.0067	0.0424	0.0	0.4
10/22/2010	168.0	250	<0.010	0.520	0.537	<0.0036	0.0067	0.0424	0.0	0.4
10/29/2010	168.0	250	**<0.0053**	**0.540**	**0.618**	**<0.0036**	**0.010**	**0.0894**	**0.0**	**0.5**
11/5/2010	168.0	250	<0.0053	0.540	0.618	<0.0036	0.010	0.0894	0.0	0.5
11/12/2010	168.0	250	<0.0053	0.540	0.618	<0.0036	0.010	0.0894	0.0	0.5
11/19/2010	168.0	250	<0.0053	0.540	0.618	<0.0036	0.010	0.0894	0.0	0.5
11/26/2010	168.0	250	<0.0053	0.540	0.618	<0.0036	0.010	0.0894	0.0	0.5
12/3/2010	168.0	250	**<0.0060**	**0.570**	**0.608**	**<0.0040**	**0.260**	**0.4008**	**0.0**	**0.5**
12/10/2010	168.0	250	<0.0060	0.570	0.608	<0.0040	0.260	0.4008	0.0	0.5
12/17/2010	168.0	250	<0.0060	0.570	0.608	<0.0040	0.260	0.4008	0.0	0.5
12/24/2010	168.0	250	**<0.0040**	**0.170**	**0.205**	**<0.0040**	**0.110**	**0.1506**	**0.0**	**0.1**
12/31/2010	168.0	250	<0.0040	0.170	0.205	<0.0040	0.110	0.1506	0.0	0.1
1/7/2011	168.0	250	<0.0040	0.170	0.205	<0.0040	0.110	0.1506	0.0	0.1
1/14/2011	168.0	250	<0.0040	0.170	0.205	<0.0040	0.110	0.1506	0.0	0.1
1/21/2011	120.0	250	<0.0040	0.170	0.205	<0.0040	0.110	0.1506	0.0	0.1
1/28/2011	168.0	250	<0.0040	0.170	0.205	<0.0040	0.110	0.1506	0.0	0.1
2/4/2011	168.0	250	**<0.0040**	**0.390**	**0.466**	**<0.0040**	**<0.0040**	**0.024**	**0.0**	**0.3**
2/11/2011	96.0	250	<0.0040	0.390	0.466	<0.0040	<0.0040	0.024	0.0	0.2
								Total (pounds):	***371.4***	***880.5***

Notes: Operational Summary through Febuary 11, 2011
SVE = Soil Vapor Extraction
TCE = trichloroethylene
TCA = trichloroethane
ppm = parts per million
BOLD = laboratory analytical results (Unbolded concentrations are estimated based on previous results.
= Analytical results from current reporting period

Number of Full Operating Days: ***2453.5***

Percentage of Time System On-line Since 05/09/2003 Startup: ***86.5%***

Prepared by: JPS Date: 03/01/11

Checked by: SDM Date: 08/15/10

Table 4-2
Contaminant Mass Removal Calculation Reference
Honeywell Industrial Complex
South Bend, Indiana

Calculating Contaminant Mass Loading and Removal Rates

Contaminant mass loading and removal rates can be calculated with the same basic equation. However, the units and conversion factors are different for air than they are for water.

For Water:

$$M_{H_2O} = Q_{H_2O} \times C_{H_2O} \times \frac{3.785\ \text{L}}{\text{gallon}} \times \frac{1440\ \text{min.}}{\text{day}} \times \frac{2.2\ \text{lbs.}}{10^9\ \text{ug}}$$

M_{H_2O} = mass loading, removal rate in water (lbs / day)
Q_{H_2O} = flow rate in water (gpm)
C_{H_2O} = contaminant concentration (ug / L, ppb)

For Air:

$$M_{air} = Q_{air} \times C_{air} \times \frac{0.0283\ \text{m}^3}{\text{ft}^3} \times \frac{1440\ \text{min.}}{\text{day}} \times \frac{2.2\ \text{lbs.}}{10^6\ \text{mg}}$$

M_{air} = mass loading, removal rate in air (lbs / day)
Q_{air} = flow rate in air (cfm)
C_{air} = contaminant concentration (mg / m^3)

For air calculations, C_{air} in mg/m^3 (with molecular weight, MW_X, in grams per mole) can be obtained at 70°F and a pressure of 1 atmosphere from parts per million by volume (ppmv) by the following steps:

$$C_{air}(mg/m^3) = \frac{Conc(ppmv)}{10^6} \times \frac{1\ \text{mole air}}{24.1\ \text{L}} \times \frac{1000\ \text{L}}{\text{m}^3} \times \frac{1000\ \text{mg}}{\text{g}} \times MW_X$$

Note: The conversion factor (1 mole air)/(24.1 L) varies with both temperature and pressure. At a pressure of 1 atmosphere and a temperature of 32°F (0°C), the conversion is (1 mole air)/(22.4 L).

Approximate Molecular Weights (MW) in grams/mole of Common Volatile Organic Compounds (VOCs)

Benzene: 78	DCE: 97	TCE: 131
Carbon tetrachloride: 154	Ethylbenzene: 106	Toluene: 92
Chlorobenzene: 113	PCE: 166	Vinyl chloride: 62.5
DCA: 99	TCA: 133	Xylene: 106

Source: "Elements for Effective Management of Operating Pump and Treat Systems", USEPA, December 2002

Table 5-1: Analytical Summary - VOCs in Groundwater

Location	Date	Result Type	Trichloroethene	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Chloroethane	Vinyl chloride
1996 VRP Tier II Non Residential Goal			**260**	**2,040**	**1,022**	**7**	**NA**	**23,160**	**10**
86-14	4/24/2003	Primary	**180**	<5	**7.3**	<5	<5	<5	<5
	11/4/2003	Primary	<5	<5	<5	<5	<5	<10	<10
	5/18/2004	Primary	<5	<5	<5	<5	<5	<10	<10
	12/7/2004	Primary	<5	<5	<5	<5	<5	<10	<10
	5/31/2005	Primary	<5	<5	<5	<5	<5	<10	<10
	12/5/2005	Primary	<5	<5	<5	<5	<5	<10	<10
	6/5/2006	Primary	<1	<1	<1	<1	<1	<1	**5.7**
	9/19/2006	Primary	<5	<5	<5	<5	<5	<5	<5
	3/14/2007	Primary	<1	<1	<1	<1	<1	<1	**1.5**
	10/9/2007	Primary	<1	<1	<1	<1	<1	<1	**1.3**
	6/23/2008	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	3/10/2009	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.3**
	6/24/2009	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/1/2009	Primary	**1.6**	**1.9**	<1.0	<1.0	<1.0	<1.0	**16**
	1/20/2010	Primary	**3.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/13/2010	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**13**
	7/13/2010	Primary	**3.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/19/2010	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.3**
	1/19/2011	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
86-15	4/24/2003	Primary	**400**	**36**	**40**	<10	<10	<20	<20
	6/19/2003	Primary	**310**	**52**	**38**	<5	<5	<5	<5
	11/4/2003	Primary	**300**	**57**	**36**	<10	<10	<20	<20
	5/18/2004	Primary	**220**	**45**	**33**	<5	<5	<10	<10
	12/7/2004	Primary	**280**	**66**	**44**	<5	<5	<10	<10
	5/31/2005	Primary	**230**	**37**	**27**	<5	<5	<10	<10
	12/5/2005	Primary	**190**	**22**	**17**	<5	<5	<10	<10
	6/5/2006	Primary	**336**	**74.0**	**42.5**	<1.0	<1.0	<1.0	**40.6**
	9/19/2006	Primary	**289**	**67.6**	**46.9**	<10	<10	<20	<20
	12/7/2006	Primary	**237**	**42.0**	**31.4**	<10	<10	<20	<20
	12/7/2006	Duplicate	**130**	**22.0**	**16.4**	<5	<5	<10	<10
	3/14/2007	Primary	**204**	**48.9**	**30.2**	<1	<1	<1	<1
	6/5/2007	Primary	**220**	**44**	**34**	<6.7	<6.7	<6.7	<6.7
	12/10/2007	Primary	**240**	**62**	**34**	<8	<8	<8	<8
	6/23/2008	Primary	**180**	**42**	**25**	<6.7	<6.7	<6.7	<6.7
	12/1/2008	Primary	**160**	**39**	**23**	<9.1	<9.1	<9.1	<9.1
	3/10/2009	Primary	**230**	**63**	**37**	<6.7	<6.7	<6.7	<6.7
	6/24/2009	Primary	**220**	**51**	**30**	<10	<10	<10	<10
	10/1/2009	Primary	**170**	**38**	**24**	<6.2	<6.2	<6.2	<6.2
	1/20/2010	Primary	**200**	**43**	**27**	<5.7	<5.7	<5.7	<5.7
	4/13/2010	Primary	**170**	**35**	**21**	<5.0	<5.0	<5.0	<5.0
	7/13/2010	Primary	**180**	**30**	**22**	<5.0	<5.0	<5.0	<5.0
	10/19/2010	Primary	**170**	**33**	**20**	<5.7	<5.7	<5.7	<5.7
	1/19/2011	Primary	**170**	**38**	**24**	<5.0	<5.0	<5.0	<5.0

Table 5-1: Analytical Summary - VOCs in Groundwater

Location	Date	Result Type	Trichloroethene	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Chloroethane	Vinyl chloride
1996 VRP Tier II Non Residential Goal			**260**	**2,040**	**1,022**	**7**	**NA**	**23,160**	**10**
AS-1	4/24/2003	Primary	**51**	<5	<5	<5	<5	<10	**20**
	7/31/2003	Primary	**640**	<25	**76**	<25	<25	<50	<50
	11/4/2003	Primary	**500**	<25	**140**	<25	<25	<50	<50
	2/26/2004	Primary	**15**	<10	**240**	<10	<10	<20	**95**
	5/18/2004	Primary	**32**	<5	**76**	<5	<5	<10	**36**
	8/24/2004	Primary	**7.5**	<5	**15**	<5	<5	<10	**17**
	12/7/2004	Primary	<5	<5	**38**	<5	<5	<10	**44**
	2/23/2005	Primary	<5	<5	**25**	<5	<5	<10	**74**
	5/31/2005	Primary	<5	**6.2**	**27**	<5	<5	<10	**80**
	8/30/2005	Primary	<5	**9.2**	**12**	<5	<5	<10	**32**
	12/5/2005	Primary	<5	**15**	**35**	<5	<5	<10	**64**
	3/22/2006	Primary	**9.2**	**6.1**	**6**	<5	<5	<10	**10**
	6/5/2006	Primary	**3.2**	<1.0	**6.1**	<1.0	<1.0	<1.0	**12.8**
	9/19/2006	Primary	<5	<5	**8.4**	<5	<5	<10	**70.4**
	12/21/2006	Primary	<5	<5	**5**	<5	<5	<10	**49.4**
	3/14/2007	Primary	<1	<1	<1	<1	<1	<1	**16.6**
	6/5/2007	Primary	<1	<1	**1.4**	<1	<1	<1	**30**
	10/9/2007	Primary	<1	**7.5**	**19**	<1	<1	<1	**33**
	10/9/2007	Primary	<1	**7.5**	**19**	<1	<1	<1	**36**
	12/10/2007	Primary	<1.4	**2.9**	**7.9**	<1.4	<1.4	<1.4	**33**
	3/17/2008	Primary	<1.0	<1.0	**1.1**	<1.0	<1.0	<1.0	**13**
	7/24/2008	Primary	<1.4	3.4	**10**	<1.4	<1.4	<1.4	**28**
	10/13/2008	Primary	<2.5	**12**	**24**	<2.5	<2.5	<1.5	**15**
	12/18/2008	Primary	<2.0	**3.4**	<2.0	<2.0	<2.0	<2.0	<2.0
	3/10/2009	Primary	<1.0	**1.4**	<1.0	<1.0	<1.0	<1.0	<1.0
	6/24/2009	Primary	<1.0	**1.3**	<1.0	<1.0	<1.0	**1.2**	<1.0
	10/1/2009	Primary	<1.0	**2.6**	<1.0	<1.0	<1.0	<1.0	**3.1**
	1/20/2010	Primary	<1.0	**1.4**	<1.0	<1.0	<1.0	<1.0	**1.9**
	4/13/2010	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.2**
	7/13/2010	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	10/19/2010	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/19/2011	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.5**

Table 5-1: Analytical Summary - VOCs in Groundwater

Location	Date	Result Type	Trichloroethene	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Chloroethane	Vinyl chloride
1996 VRP Tier II Non Residential Goal			**260**	**2,040**	**1,022**	**7**	**NA**	**23,160**	**10**
EW2B	5/9/2003	Primary	**760**	<25	**410**	**40**	<25	<50	**200**
	7/31/2003	Primary	**2,200**	<130	**380**	<130	<130	<250	<250
	11/4/2003	Primary	**530**	<50	**1,200**	**66**	<50	<100	**290**
	2/26/2004	Primary	<50	<50	**900**	<50	<50	<100	**470**
	5/18/2004	Primary	**71**	<5	**86**	<5	<5	<10	**160**
	8/24/2004	Primary	<5	<5	**28**	<5	<5	<10	**94**
	11/23/2004	Primary	<100	<100	**2,200**	<100	<100	<200	**870**
	2/23/2005	Primary	<250	<250	**4,500**	<250	<250	<250	**1,000**
	5/31/2005	Primary	**14**	<5	**22**	<5	<5	<10	**110**
	8/30/2005	Primary	<5	<5	**6.7**	<5	<5	<10	**28**
	12/5/2005	Primary	<5	<5	**5.5**	<5	<5	<10	**43**
	3/22/2006	Primary	**19**	<5	**31**	<5	<5	<10	**60**
	6/5/2006	Primary	**23.1**	<1.0	**20.9**	<1.0	<1.0	<1.0	**22.2**
	9/19/2006	Primary	<5	<5	**19.6**	<5	<5	<10	**24.2**
	12/21/2006	Primary	<5	<5	**5.8**	<5	<5	<10	**17.3**
	3/14/2007	Primary	**14.0**	<1	**12.0**	<1	<1	<1	**28.6**
	6/5/2007	Primary	**18**	<2	**14**	<2	<2	<2	**46**
	10/9/2007	Primary	**13**	<2.5	**8**	<2.5	<2.5	<2.5	**61**
	12/10/2007	Primary	**7.2**	<1	**5**	<1	<1	<1	**31**
	3/17/2008	Primary	**47**	<1.7	**17**	<1.7	<1.7	<1.7	**25**
	7/24/2008	Primary	**75**	<2.5	**31**	<2.5	<2.5	<2.5	**17**
	7/24/2008	Duplicate	**31**	<1.0	**19**	<1.0	<1.0	<1.0	**16**
	10/13/2008	Primary	**11**	<1.0	**25**	<1.0	<1.0	<1.0	**9**
	12/18/2008	Primary	**13**	<2.5	**97**	<2.5	<2.5	<2.5	**8.1**
	3/10/2009	Primary	<2.5	**6.3**	**53**	<2.5	<2.5	<2.5	**15**
	6/24/2009	Primary	<2.0	**4.5**	**49**	<2.0	<2.0	<2.0	**21**
	10/1/2009	Primary	**1.1**	<1.0	**13**	<1.0	<1.0	<1.0	**28**
	1/20/2010	Primary	**1.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	1/20/2010	Duplicate	**1.9**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	4/13/2010	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/13/2010	Primary	<1.0	<1.0	**1.3**	<1.0	<1.0	<1.0	<1.0
	10/19/2010	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.7**
	1/19/2011	Primary	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.0**

Table 5-1: Analytical Summary - VOCs in Groundwater

Location	Date	Result Type	Trichloroethene	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Chloroethane	Vinyl chloride
1996 VRP Tier II Non Residential Goal			**260**	**2,040**	**1,022**	**7**	**NA**	**23,160**	**10**
MP-10	4/24/2003	Primary	**300**	**27**	**28**	<5	<5	<10	**72**
	7/31/2003	Primary	**670**	<25	**39**	<25	<25	<50	**53**
	11/4/2003	Primary	**380**	<25	**38**	<25	<25	<50	<50
	2/26/2004	Primary	**230**	**15**	**34**	<10	<10	<20	<20
	5/18/2004	Primary	**370**	**14**	**46**	<5	<5	<10	**66**
	8/24/2004	Primary	**300**	<10	**49**	<10	<10	<10	**42**
	11/23/2004	Primary	**350**	**19**	**43**	<5	<5	<10	<10
	2/23/2005	Primary	**350**	**15**	**36**	<5	<5	<10	<10
	5/31/2005	Primary	**350**	**26**	**34**	<10	<10	<20	<20
	8/30/2005	Primary	**360**	**22**	**25**	<10	<10	<20	<20
	12/5/2005	Primary	**320**	**21**	**21**	<10	<10	<20	<20
	3/22/2006	Primary	**300**	<25	<25	<25	<25	<50	**70**
	6/5/2006	Primary	**421**	**16.4**	**32.6**	**4.7**	<1.0	<1.0	**49.5**
	9/19/2006	Primary	**430**	<25	<25	<25	<25	<50	<50
	12/21/2006	Primary	**290**	<25	<25	<25	<25	<50	<50
	3/14/2007	Primary	**237**	**18.0**	**21.6**	<2	<2	<2	**41.8**
	6/5/2007	Primary	**340**	**13**	**17**	<10	<10	<10	**15**
	10/9/2007	Primary	**180**	**31**	**32**	<6.7	<6.7	<6.7	<6.7
	12/10/2007	Primary	**270**	**20**	**18**	<10	<10	<10	<10
	3/17/2008	Primary	**220**	**18**	**18**	<6.7	<6.7	<6.7	**46**
	7/24/2008	Primary	**200**	**19**	**15**	<6.7	<6.7	<6.7	<6.7
	10/13/2008	Primary	**370**	<14	<14	<14	<14	<14	<14
	12/18/2008	Primary	**330**	**13**	<10	<10	<10	<10	<10
	3/10/2009	Primary	**170**	**28**	**22**	<5.7	<5.7	<5.7	**20**
	6/24/2009	Primary	**220**	**25**	**18**	<10	<10	<10	<10
	10/1/2009	Primary	**220**	**20**	**15**	<10	<10	<10	<10
	1/20/2010	Primary	**230**	**24**	**18**	<6.7	<6.7	<6.7	<6.7
	4/13/2010	Primary	**210**	**17**	**13**	<5.7	<5.7	<5.7	**54**
	7/13/2010	Primary	**220**	**17**	**15**	<6.7	<6.7	<6.7	**62**
	10/19/2010	Primary	**200**	**17**	**12**	<6.7	<6.7	<6.7	<6.7
	1/19/2011	Primary	**190**	**14**	**14**	<5.7	<5.7	<5.7	**16**

Table 5-1: Analytical Summary - VOCs in Groundwater

Location	Date	Result Type	Trichloroethene	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Chloroethane	Vinyl chloride
1996 VRP Tier II Non Residential Goal			**260**	**2,040**	**1,022**	**7**	**NA**	**23,160**	**10**
MW-16	4/24/2003	Primary	**5,600**	<50	**1,700**	<50	<50	<100	**340**
	7/31/2003	Primary	**5,200**	<250	**1,600**	<250	<250	<500	<500
	11/4/2003	Primary	**1,700**	<50	**970**	<50	<50	<100	**320**
	2/26/2004	Primary	**1,400**	<50	**1,100**	<50	<50	<100	**290**
	2/26/2004	Duplicate	**1,400**	<50	**1,100**	<50	<50	<100	**280**
	5/18/2004	Primary	**1,400**	<10	**1,300**	<10	<10	<20	**340**
	5/18/2004	Duplicate	**1,500**	<10	**1,300**	<10	<10	<20	**350**
	8/24/2004	Primary	**1,200**	<50	**1,300**	<50	<50	<100	**420**
	11/23/2004	Primary	**5,000**	<250	**2,300**	<250	<250	<500	**580**
	2/23/2005	Primary	**4,600**	<250	**1,200**	<250	<250	<500	<500
	5/31/2005	Primary	**3,700**	<250	**1,200**	<250	<250	<500	<500
	5/31/2005	Duplicate	**3,600**	<120	**1,200**	<120	<120	<250	**370**
	8/30/2005	Primary	**2,900**	<120	**760**	<120	<120	<250	<250
	8/30/2005	Duplicate	**2,500**	<120	**660**	<120	<120	<250	<250
	12/5/2005	Primary	**2,600**	<120	**780J**	<120	<120	<250	250J
	12/5/2005	Duplicate	**5,000J**	<250	**1,400J**	<250	<250	<500	<500
	3/22/2006	Primary	**3,900**	<250	**820**	<250	<250	<250	<500
	3/22/2006	Duplicate	**4,400**	<250	**910**	<250	<250	<500	<500
	6/5/2006	Primary	**7,040**	**5.7**	**1,840**	**6.2**	<1.0	<1.0	**149**
	6/5/2006	Duplicate	**7,830**	**7.7**	<1.0	**8.1**	<1.0	<1.0	**198**
	9/19/2006	Primary	**2,750**	<100	**1,070 J**	<100	<100	<200	<200
	9/19/2006	Duplicate	**6,920 J**	<250	**2,730 J**	<250	<250	<500	**787 J**
	12/21/2006	Primary	**4,220**	<250	**1,280**	<250	<250	<500	<500
	3/14/2007	Primary	**3,780**	<50	**1,010**	<50	<50	<50	**269**
	6/5/2007	Primary	**2,700**	<100	**980**	<100	<100	<100	**310**
	6/5/2007	Duplicate	**3,100**	<100	**1,100**	<100	<100	<100	**370**
	10/9/2007	Primary	**3,400**	<110	**900**	<110	<110	<110	**130**
	12/10/2007	Primary	**4,700**	<170	**1,400**	<170	<170	<170	**530**
	12/10/2007	Duplicate	**4,100**	<200	**1,200**	<200	<200	<200	**410**
	3/17/2008	Primary	**3,900**	<120	**1,500**	<120	<120	<120	**310**
	3/17/2008	Duplicate	**3,100**	<140	**1,300**	<120	<120	<120	**240**
	7/24/2008	Primary	**2,600**	<71	**760**	<71	<71	<71	**120**
	10/13/2008	Primary	**660**	<140	**4,500**	<140	<140	<140	**200**
	11/24/2008	Primary	**1,500**	<500	**14,000**	<500	<500	<500	**1,600**
	12/18/2008	Primary	<420	<420	**11,000**	<420	<420	<420	**1,400**
	3/10/2009	Primary	**3,800**	<200	**5,700**	<200	<200	<200	**480**
	3/10/2009	Duplicate	**4,200**	<200	**6,000**	<200	<200	<200	**550**
	6/24/2009	Primary	**7,000**	<330	**4,400**	<330	<330	<330	**350**
	10/1/2009	Primary	**9,300**	<250	**4,600**	<250	<250	<250	**560**
	1/21/2010	Primary	**12,000**	<560	**17,000**	<560	<560	<560	**1,100**
	4/13/2010	Primary	**62,000**	<2,000	**69,000**	<2,000	<2,000	<2,000	**8,200**
	4/13/2010	Duplicate	**63,000**	<2,500	**70,000**	<2,500	<2,500	<2,500	**8,200**
	7/13/2010	Primary	**5,400**	<420	**11,000**	<420	<420	<420	**720**
	7/13/2010	Duplicate	**5,100**	<150	**10,000**	<150	<150	<150	**640**
	10/19/2010	Primary	**1,000**	<330	**4,700**	<330	<330	<330	**740**
	10/19/2010	Duplicate	**750**	<330	**3,300**	<330	<330	<330	**560**
	1/19/2011	Primary	**13**	<11	**220**	<11	<11	<11	**88**

Table 5-1: Analytical Summary - VOCs in Groundwater

Location	Date	Result Type	Trichloroethene	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethane	Chloroethane	Vinyl chloride
1996 VRP Tier II Non Residential Goal			**260**	**2,040**	**1,022**	**7**	**NA**	**23,160**	**10**
MW-17	4/24/2003	Primary	**2,600**	<20	**1,200**	<20	<20	<40	<40
	7/31/2003	Primary	<50	<50	**600**	<50	<50	<100	**1,100**
	11/4/2003	Primary	<50	<50	**62**	<50	<50	<100	**1,100**
	11/4/2003	Duplicate	<50	<50	**97**	<50	<50	<100	**1,200**
	2/26/2004	Primary	<100	<100	**120**	<100	<100	<200	**2,700**
	5/18/2004	Primary	<25	<25	**330**	<25	<25	<50	**4,900**
	8/24/2004	Primary	<250	<250	<250	<250	<250	<500	**4,200**
	8/24/2004	Duplicate	<100	<100	**120**	<100	<100	<200	**2,500**
	12/7/2004	Primary	<5	<5	<5	<5	<5	<10	**180**
	12/7/2004	Duplicate	<5	<5	<5	<5	<5	**13**	**180**
	2/23/2005	Primary	<5	<5	<5	<5	<5	<10	**33**
	2/23/2005	Duplicate	<5	<5	<5	<5	<5	<10	**29**
	5/31/2005	Primary	<5	<5	<5	<5	<5	<10	**19**
	8/30/2005	Primary	<5	<5	<5	<5	<5	<10	**33**
	12/5/2005	Primary	<5	<5	<5	<5	<5	<10	**64**
	3/22/2006	Primary	<5	<5	<5	<5	<5	<10	**140**
	6/5/2006	Primary	<20	<20	<20	<20	<20	<40	**3,850**
	9/19/2006	Primary	<10	<10	<10	<10	<10	<20	**250**
	12/21/2006	Primary	<50	<50	<50	<50	<50	<100	**1,090**
	12/21/2006	Duplicate	<10	<10	<10	<10	<10	<20	**1,010**
	3/14/2006	Primary	<5	<5	<5	<5	<5	<5	**114**
	3/14/2006	Duplicate	<5	<5	<5	<5	<5	<5	**114**
	6/5/2007	Primary	<1	<1	<1	<1	**2.2**	<1	**1.4**
	10/9/2007	Primary	<25	<25	<25	<25	<25	<25	**950**
	12/10/2007	Primary	<50	<50	<50	<50	<50	<50	**1,900**
	3/17/2008	Primary	<500	<500	**2,900**	<500	<500	<500	**12,000**
	7/24/2008	Primary	<620	<620	**6,400**	<620	<620	<620	**9,700**
	10/13/2008	Primary	<420	<420	**6,300**	<420	<420	<420	**14,000**
	11/24/2008	Primary	<710	<710	**8,300**	<710	<710	<710	**21,000**
	12/18/2008	Primary	<620	<620	**7,700**	<620	<620	<620	**14,000**
	3/10/2009	Primary	<500	<500	**5,500**	<500	<500	<500	**12,000**
	6/24/2009	Primary	<1.0	<1.0	<1.0	<1.0	**3.8**	<1.0	**1.5**
	6/24/2009	Duplicate	<1.0	<1.0	<1.0	<1.0	**3.7**	<1.0	**1.5**
	10/1/2009	Primary	<2.0	<2.0	<2.0	<2.0	**3.6**	<2.0	<2.0
	10/1/2009	Duplicate	<2.0	<2.0	<2.0	<2.0	**2.6**	<2.0	<2.0
	1/20/2010	Primary	<6.7	<6.7	<6.7	<6.7	<6.7	<6.7	<6.7
	4/13/2010	Primary	<1.0	<1.0	<1.0	<1.0	**2.7**	<1.0	<1.0
	7/13/2010	Primary	<1.0	<1.0	<1.0	<1.0	**2.8**	<1.0	<1.0
	10/19/2010	Primary	<2.0	<2.0	**6.3**	**2.7**	<2.0	<2.0	<2.0
	1/19/2011	Primary	<2.0	<2.0	<2.0	<2.0	**2.5**	<2.0	<2.0
	1/19/2011	Duplicate	<2.0	<2.0	<2.0	<2.0	**2.5**	<2.0	<2.0

Notes: Samples analyzed for volatile organic compounds by USEPA Method 8260.
Only constituents detected are presented on the table for summary purposes.
Bolded value indicates detected concentration.
Criteria Comparison to Tier II Non-Residential Screening Levels under IDEM VRP Program
"J" qualifier indicates estimated value

Prepared by: JPS Date: 03/01/11

Checked by: SDM Date: 08/15/10

Table 5-2: Dissolved Oxygen Measurements

DATE	SITE / RESULT TYPE	86-14 Primary	86-15 Primary	AS-1 Primary	EW2B Primary	MP-10 Primary	MW-16 Primary	MW-17 Primary
12/7/2001	(mg/l)	NS	NS	0.53	0.5	0.66	NS	NS
5/8/2003	(mg/l)	7.7	NS	NS	0	0	0	0.6
7/31/2003	(mg/l)	NS	1.02	1.21	1.04	2.17	1.8	2.0
11/4/2003 *	(mg/l)	0.23	0.06	0.12	0.07	0.03	0.08	0.1
2/26/2004	(mg/l)	NS	NS	0.33	0.73	1.98	0.4	0.6
5/18/2004	(mg/l)	0.2	0.1	1.8	2	0.98	2.2	0.5
8/14/2004	(mg/l)	NS	NS	1.2	1.3	1.2	0.4	1.4
11/23/2004	(mg/l)	3.7	1.5	3.0	1.6	1.7	2.0	0.8
2/23/2005	(mg/l)	NS	NS	1.12	1.03	1.02	2.11	1.08
5/31/2005	(mg/l)	3.2	0.3	10.20	0.30	1.19	1.50	5.50
8/30/2005	(mg/l)	NS	NS	3.90	0.10	1.00	1.60	2.80
12/5/2005	(mg/l)	14.3	15.9	5.90	0.60	2.20	NR	7.10
3/22/2006	(mg/l)	NS	NS	5.80	5.60	1.00	16.00	6.60
6/5/2006	(mg/l)	3.3	1.5	4.20	1.60	1.40	1.40	1.20
9/19/2006	(mg/l)	1.5	8.6	2.4	2.5	1.5	0.2	1.7
12/7/2006	(mg/l)	NS	NS	5.9	2.3	2.2	Over Range	NA
3/14/2007	(mg/l)	14.3	15.9	5.9	2.3	2.2	Over Range	7.1
6/5/2007	(mg/l)	NS	NS	2.2	2.2	3.1	15.1	9.2
10/9/2007	(mg/l)	3.3	NS	2.9	0.2	1.5	2.0	0.24
3/10/2009	(mg/l)	3.53	5.94	4.71	2.87	5.4	5.6	1.39
6/24/2009	(mg/l)	2.9	3.2	3.7	2.4	2.7	2.7	3.7
1/20/2010	(mg/l)	0.08	0.19	0.03	0.04	0.24	0.0	0
4/13/2010	(mg/l)	NR	NR	NR	NR	NR	-0.05	-0.04
7/13/2010	(mg/l)	-0.04	0.02	-0.04	-0.04	-0.01	0.00	-0.05
10/19/2010	(mg/l)	-0.09	-0.04	-0.11	-0.1	-0.07	-0.13	-0.15
1/19/2011	(mg/l)	-0.05	-0.02	-0.08	-0.06		-0.07	1.07
Distance from Nearest treatment well (ft.)		***32***	***55***	***8***	***10***	***22***	***12***	***8***

Notes: NS - Not Sampled
NR - No Reading

Prepared by: JPS Date: 03/02/11

Checked by: SDM Date: 08/15/10

Table 5-3: Induced Vacuum Measurements

Date	*MP-10 (10-20')**	*EW-2B (3-18')**
5/8/2003	0.74	NM
5/22/2003	0.25	1.25
6/4/2003	0.60	2.00
7/31/2003	0.40	2.90
11/4/2003	0.55	2.20
2/26/2004	0.55	2.10
5/18/2004	0.50	2.00
8/14/2004	0.52	1.50
11/23/2004	0.32	1.10
2/23/2005	0.30	1.00
5/31/2005	0.25	0.90
8/30/2005	0.20	1.00
12/5/2005	0.15	0.95
3/22/2006	0.17	0.75
6/5/2005	0.15	0.60
9/19/2006	0.12	0.65
12/7/2006	0.13	0.65
3/14/2007	0.14	0.65
6/5/2007	0.13	0.68
10/9/2007	0.10	0.60
3/10/2009	0.24	0.86
6/24/2009	0.32	1.00
4/13/2010	0.24	0.80
7/13/2010	NM	NM
10/19/2010	0.28	0.83
1/19/2011	NM	NM
Distance from Nearest treatment well (ft.)	***22***	***10***

*Screened interval depth in feet
Measurements in inches of water
NM = Not Measured

Prepared by: JPS Date: 03/02/11

Checked by: SDM Date: 08/15/10

FIGURES

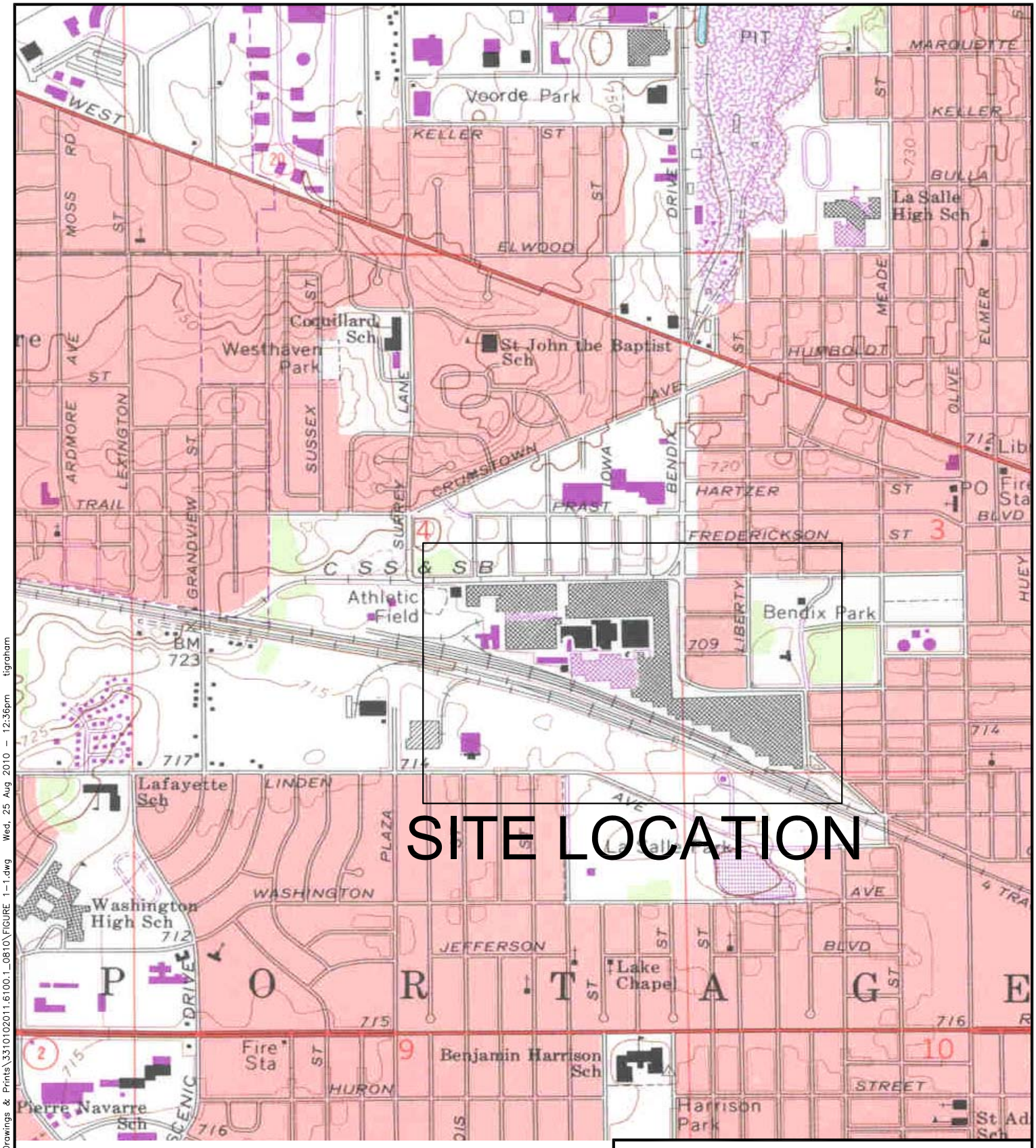

FIGURE 1-1

SITE LOCATION MAP

PILOT WORK PLAN - OFFSITE PLUME
HONEYWELL INDUSTRIAL PLUME
SOUTH BEND, INDIANA

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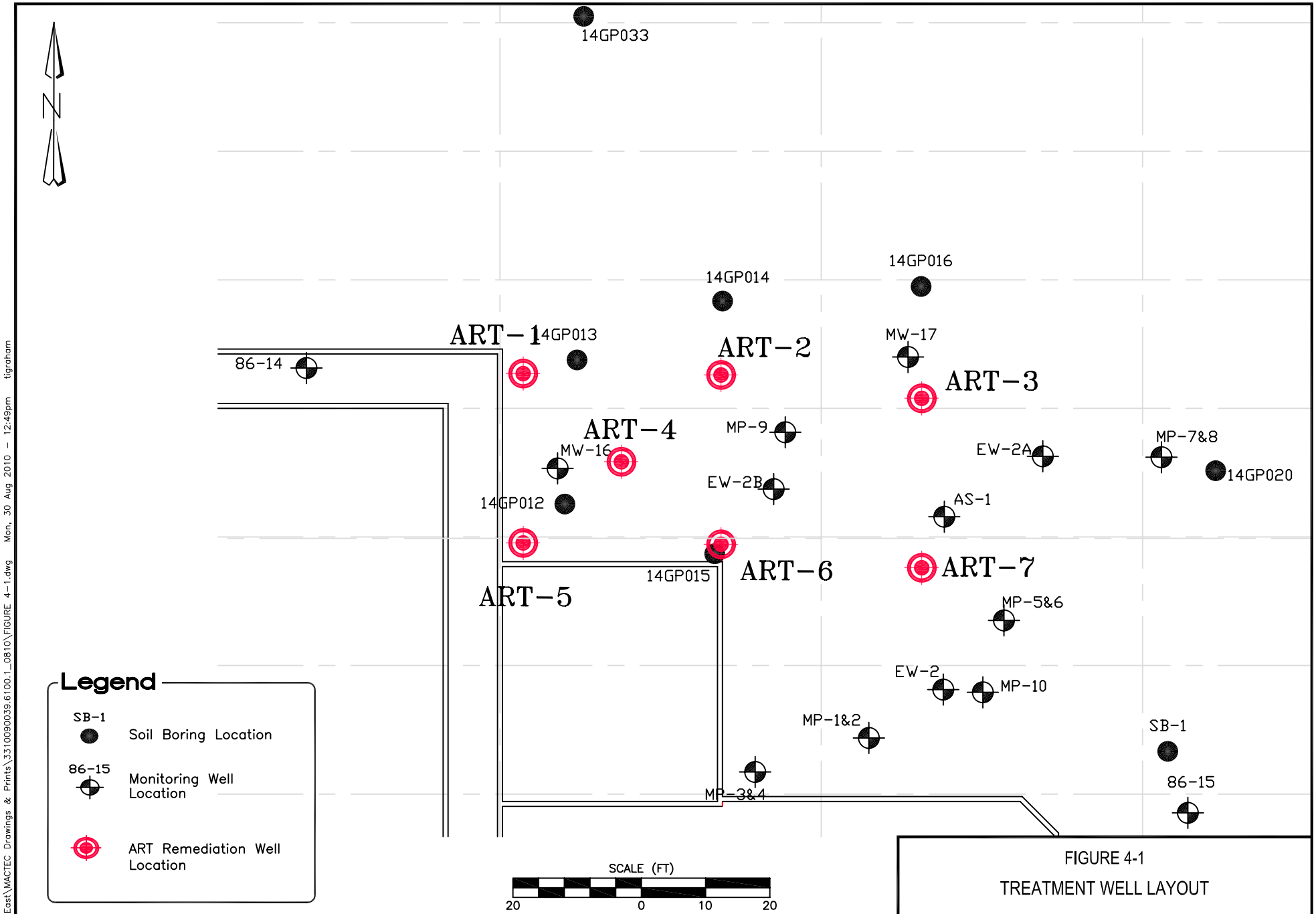

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Novi, MI 48377

FIGURE 4-1
TREATMENT WELL LAYOUT

AREA 14 EAST
HONEYWELL INDUSTRIAL COMPLEX
SOUTH BEND, INDIANA

P:\HW - SB Area 14 East\MACTEC Drawings & Prints\3310090039.6100.1_0810\FIGURE 4-1.dwg Mon, 30 Aug 2010 - 12:49pm tigraham

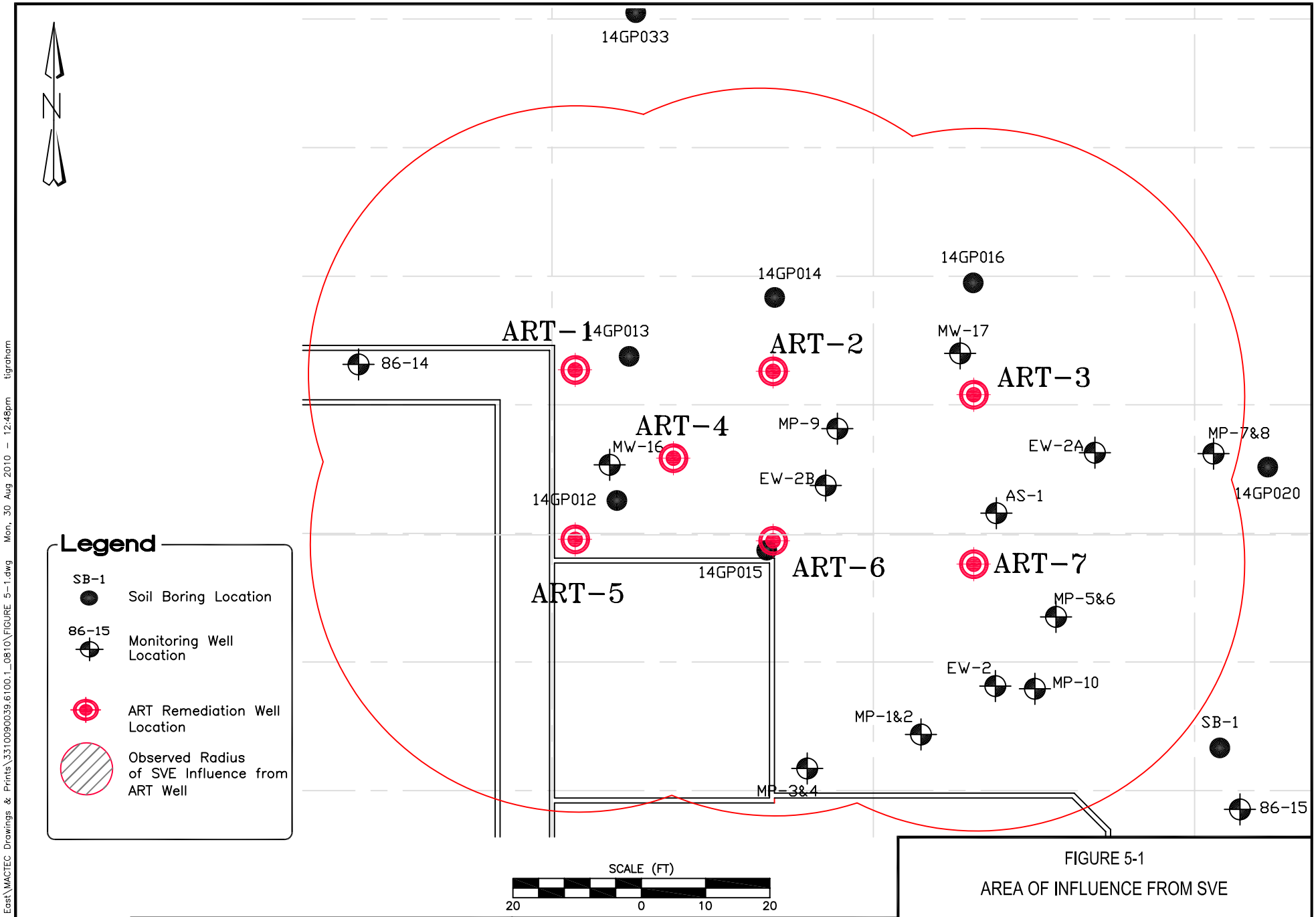

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FIGURE 5-1
AREA OF INFLUENCE FROM SVE

AREA 14 EAST
HONEYWELL INDUSTRIAL COMPLEX
SOUTH BEND, INDIANA

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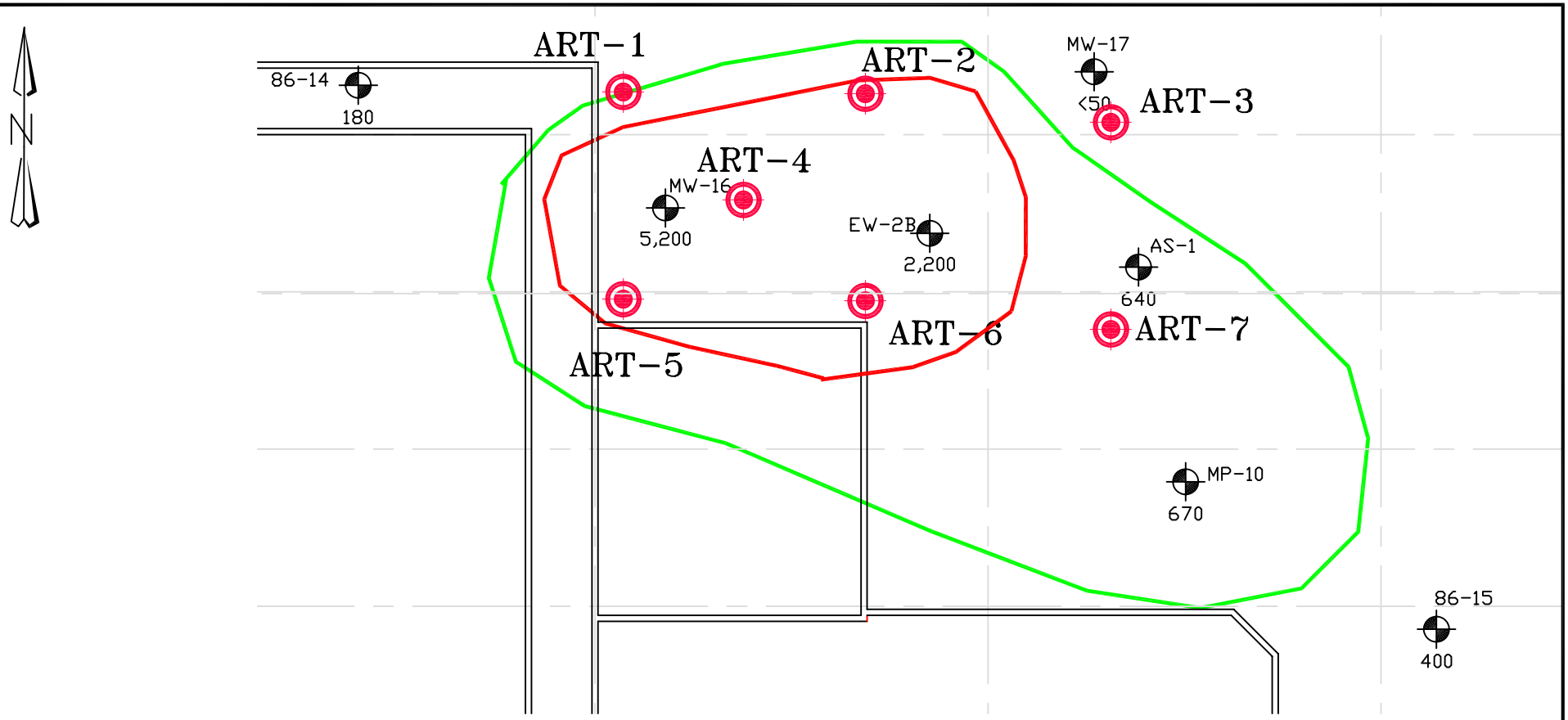

Legend

- 86-15 / 220 — Monitoring Well Location; TCE concentration in groundwater ug/L
- ART Remediation Well Location
- Limits of TCE in groundwater at concentrations greater than 1,000 ug/L
- Limits of TCE in groundwater at concentrations greater than 500 ug/L

SCALE (FT)
20 0 10 20

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FIGURE 6-1
DISTRIBUTION OF TCE IN GROUNDWATER - 7/2003

AREA 14 EAST
HONEYWELL INDUSTRIAL COMPLEX
SOUTH BEND, INDIANA

P:\HW - SB Area 14 East\MACTEC Drawings & Prints\33100900039.6100.1_0810\FIGURE 6-1.dwg Mon, 30 Aug 2010 - 12:48pm tigraham

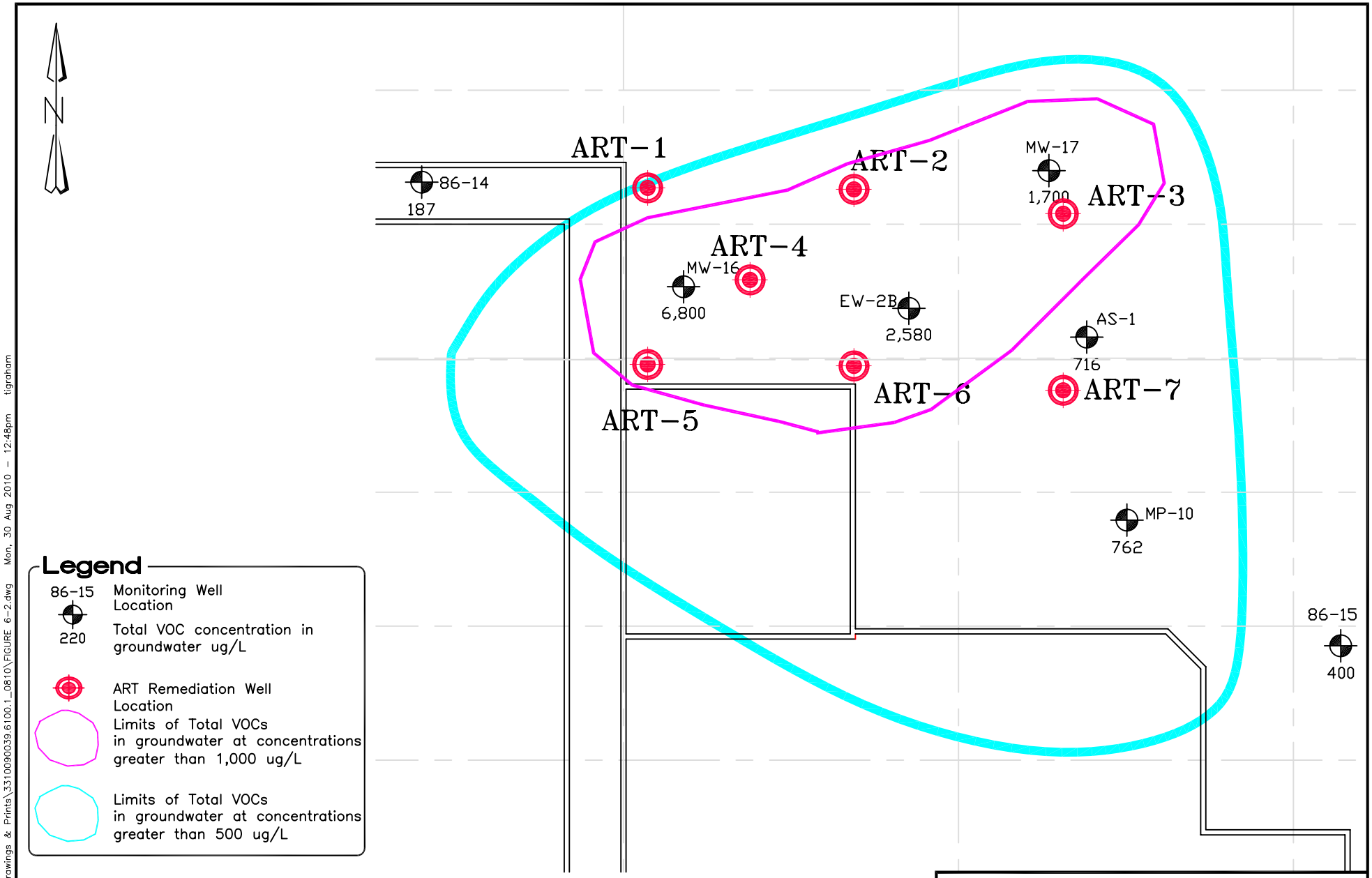

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FIGURE 6-2

DISTRIBUTION OF TOTAL VOCs IN GROUNDWATER - 7/2003

AREA 14 EAST
HONEYWELL INDUSTRIAL COMPLEX
SOUTH BEND, INDIANA

P:\HW - SB Area 14 East\MACTEC Drawings & Prints\3310090039.6100.1_0810\FIGURE 6-2.dwg Mon, 30 Aug 2010 - 12:48pm tigraham

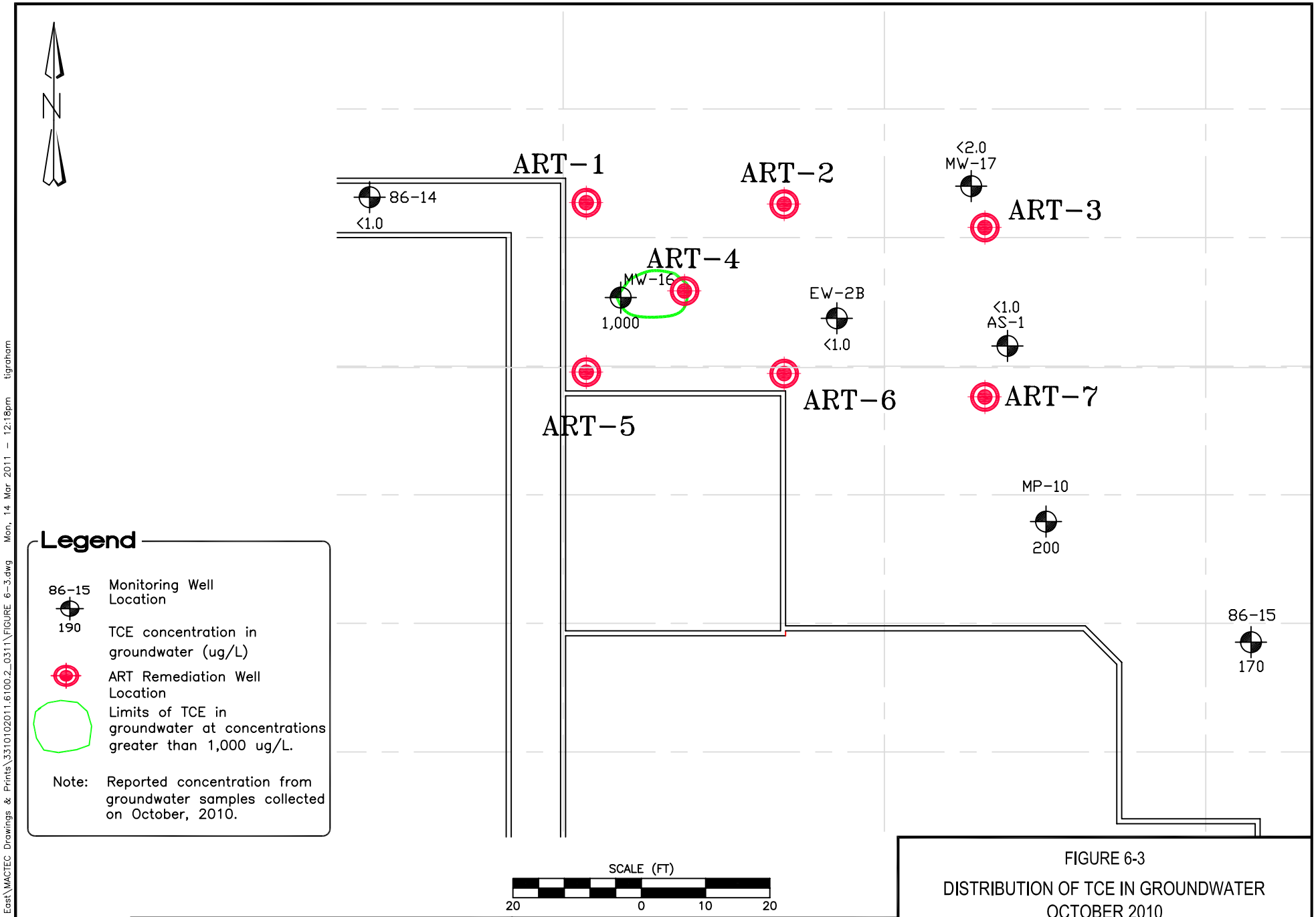

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FIGURE 6-3

DISTRIBUTION OF TCE IN GROUNDWATER
OCTOBER 2010

AREA 14 EAST
HONEYWELL INDUSTRIAL COMPLEX
SOUTH BEND, INDIANA

P:\HW - SB Area 14 East\MACTEC Drawings & Prints\33101020011.6100.2_0311\FIGURE 6-3.dwg Mon, 14 Mar 2011 - 12:18pm tigraham

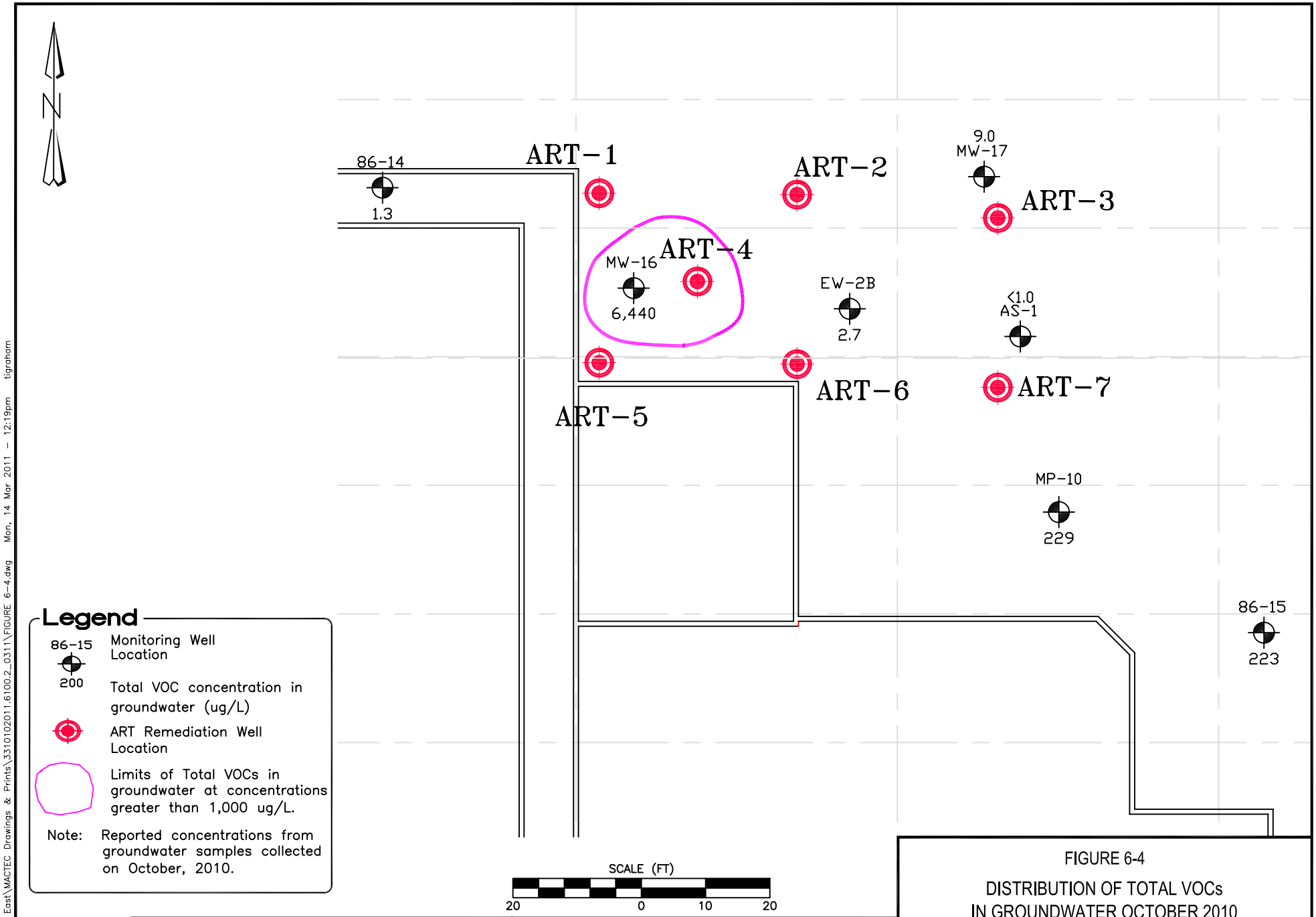

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FIGURE 6-4

DISTRIBUTION OF TOTAL VOCs
IN GROUNDWATER OCTOBER 2010

AREA 14 EAST
HONEYWELL INDUSTRIAL COMPLEX
SOUTH BEND, INDIANA

P:\HW - SB Area 14 East\MACTEC Drawings & Prints\33101020011.6100.2_0311\FIGURE 6-4.dwg Mon, 14 Mar 2011 - 12:19pm tigraham

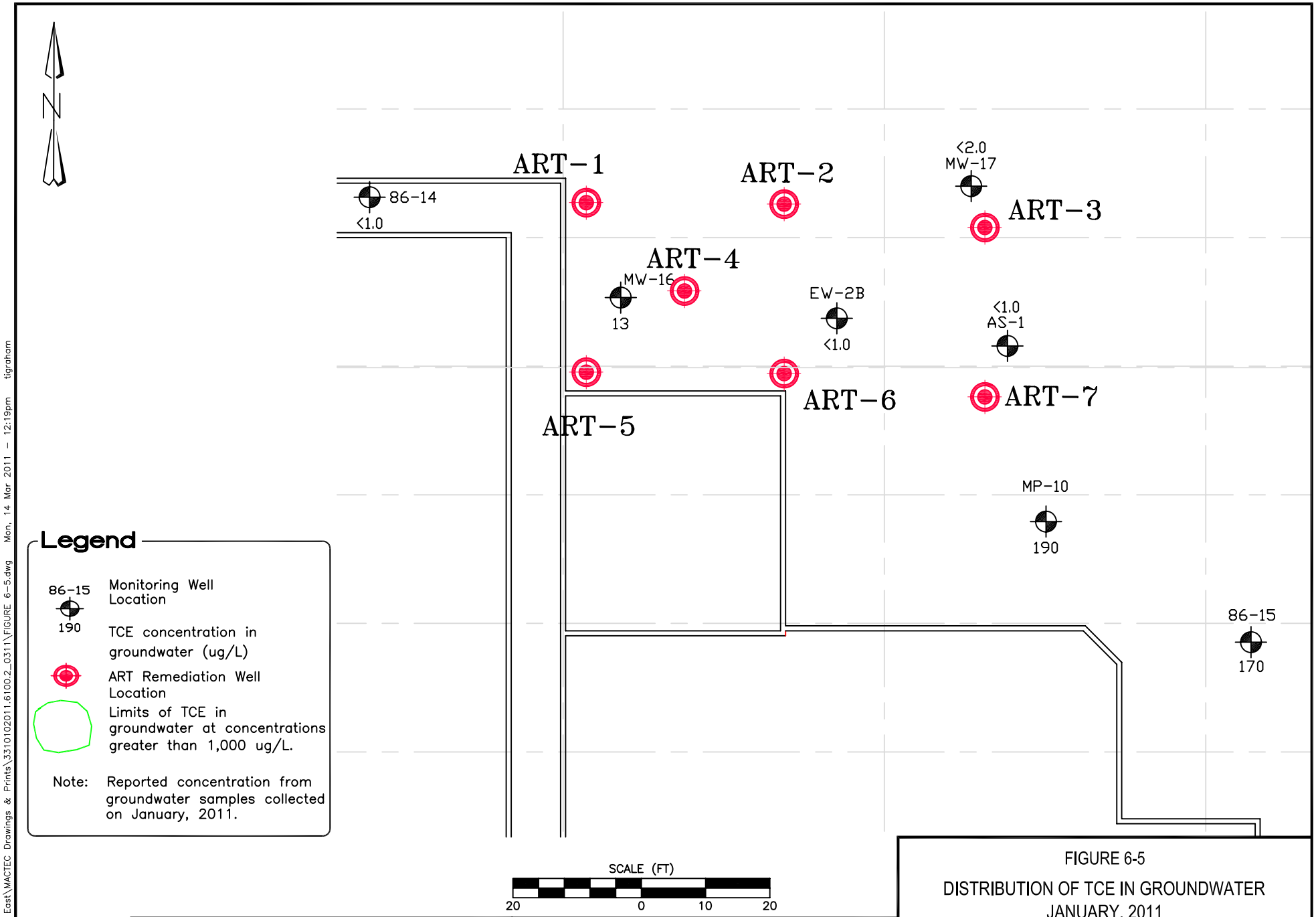

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FIGURE 6-5

DISTRIBUTION OF TCE IN GROUNDWATER
JANUARY, 2011

AREA 14 EAST
HONEYWELL INDUSTRIAL COMPLEX
SOUTH BEND, INDIANA

P:\HW - SB Area 14 East\MACTEC Drawings & Prints\33101020011.6100.2_0311\FIGURE 6-5.dwg Mon, 14 Mar 2011 - 12:19pm tigraham

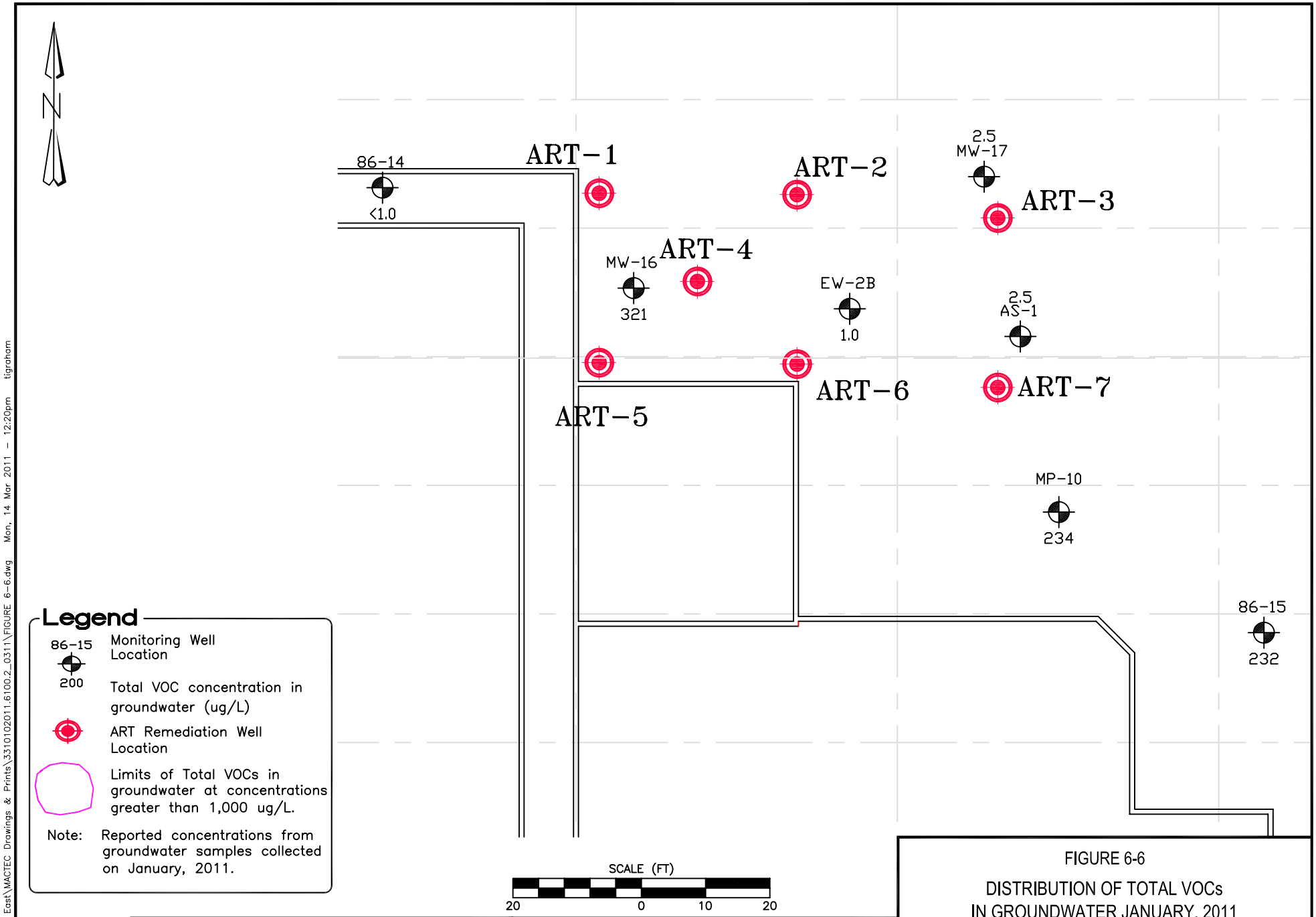

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FIGURE 6-6

DISTRIBUTION OF TOTAL VOCs
IN GROUNDWATER JANUARY, 2011

AREA 14 EAST
HONEYWELL INDUSTRIAL COMPLEX
SOUTH BEND, INDIANA

P:\HW - SB Area 14 East\MACTEC Drawings & Prints\33101020111.6100.2_0311\FIGURE 6-6.dwg Mon, 14 Mar 2011 - 12:20pm tigraham

CHARTS

Chart 4-1
Weekly Removal Rates - May 2003 through May 2004
Area 14 East - Honeywell Industrial Complex
South Bend, Indiana

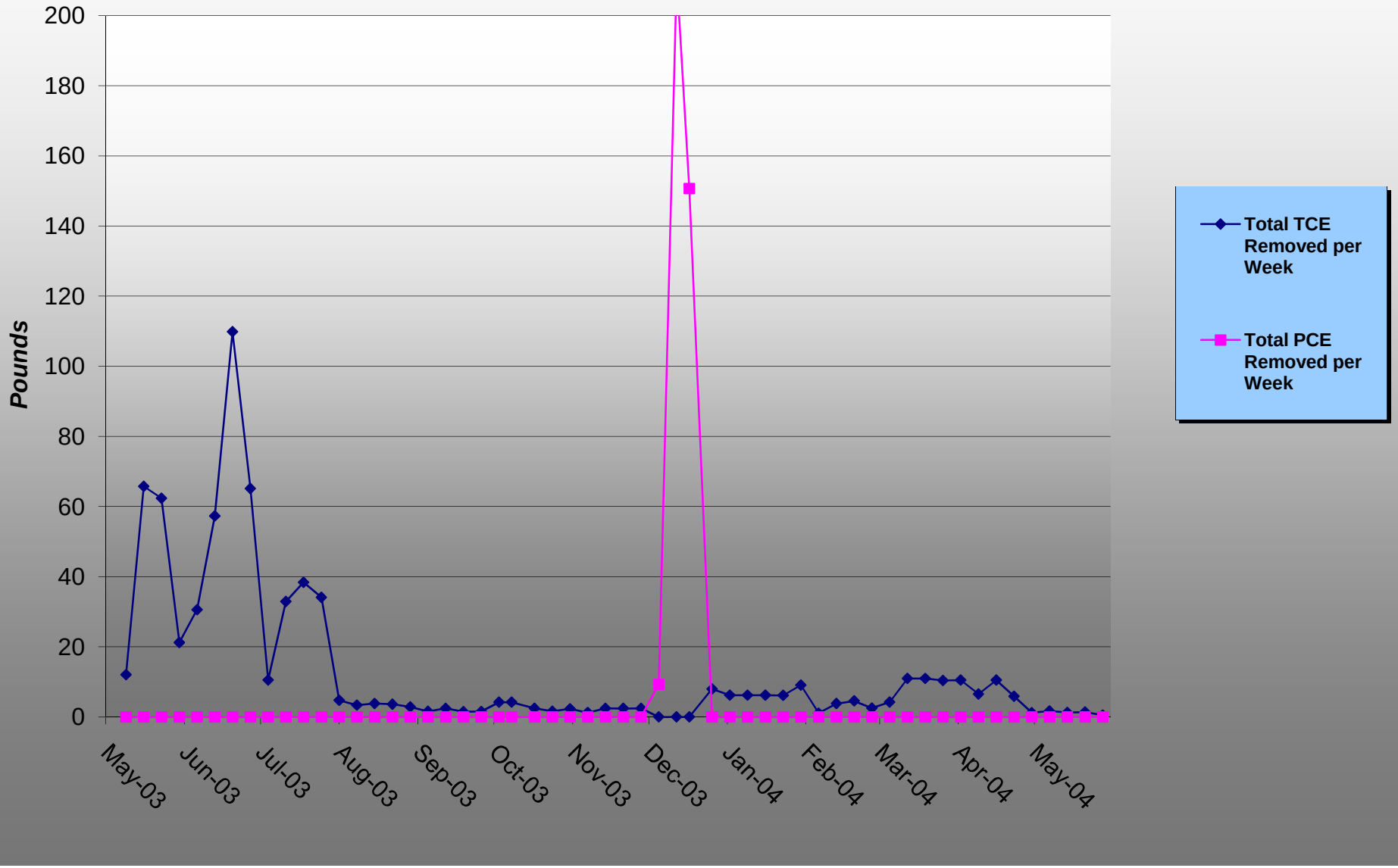


Chart 4-2
Weekly Removal Rates - June 2004 Through Present
Area 14 East - Honeywell Industrial Complex
South Bend, Indiana

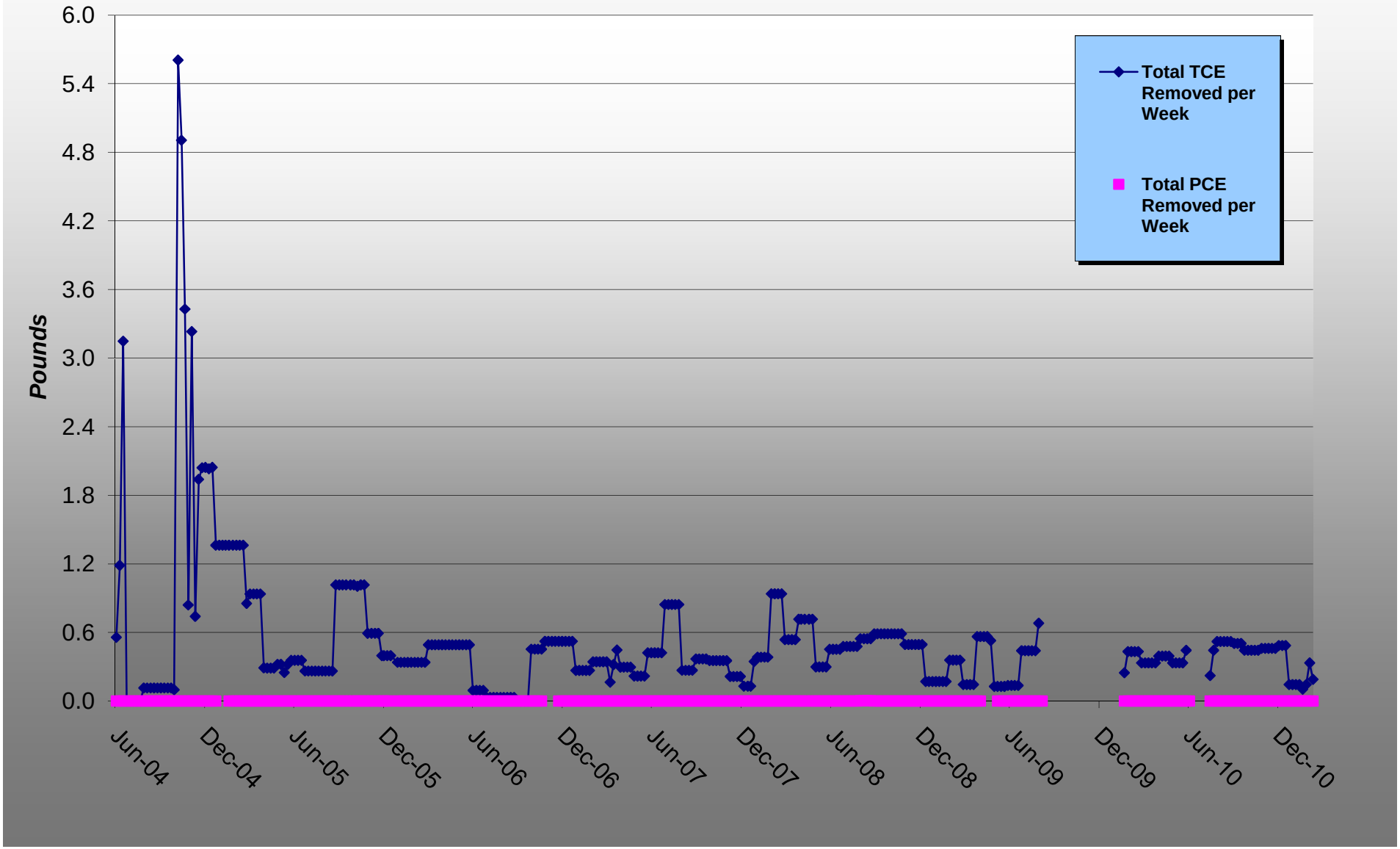


Chart 4-3
Total Mass of TCE Removed by the System
Area 14 East - Honeywell Industrial Complex
South Bend, Indiana

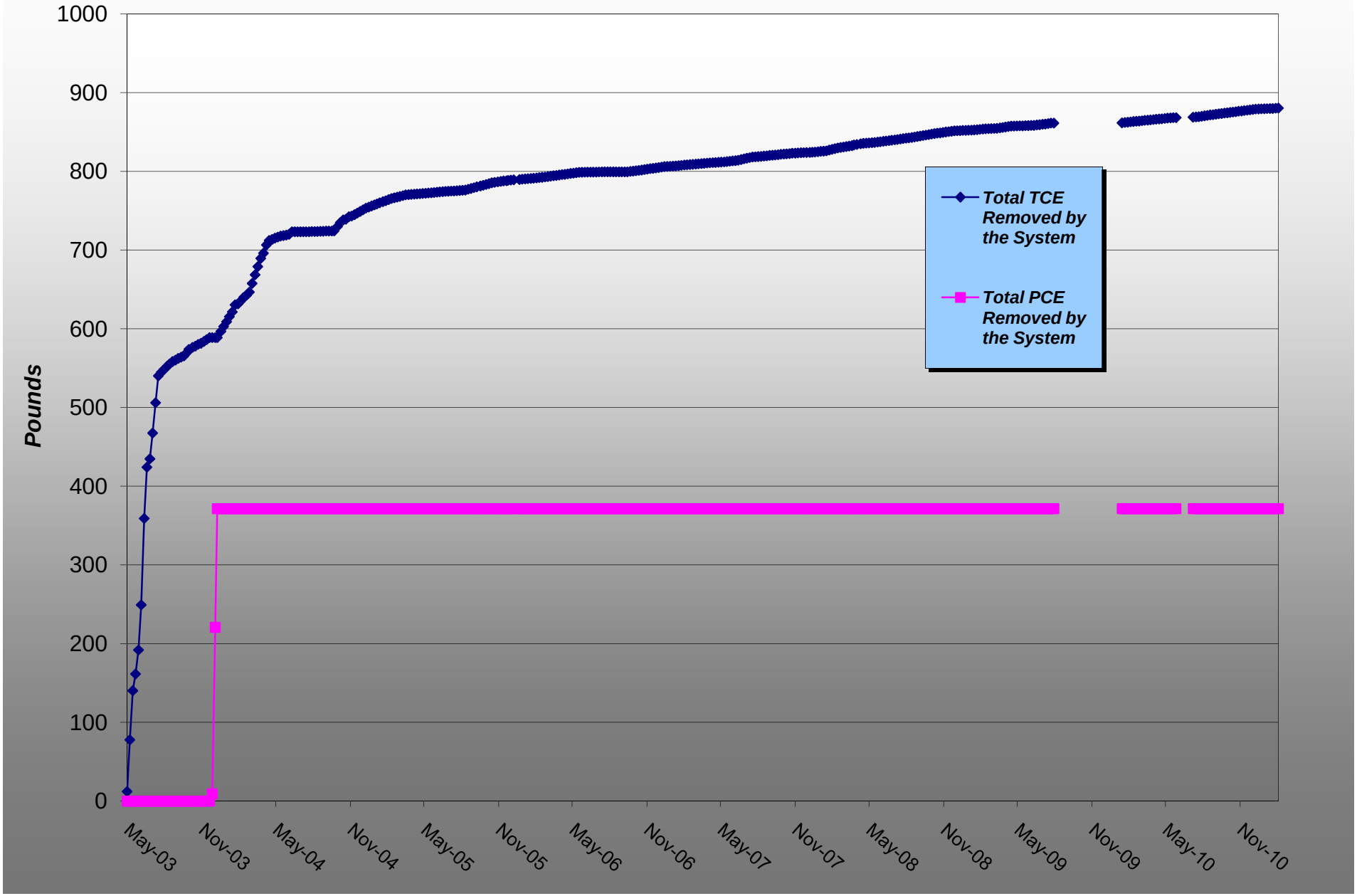


Chart 5-1
EW2B VOC Trends
Area 14 East - Honeywell Industrial Complex
South Bend, Indiana

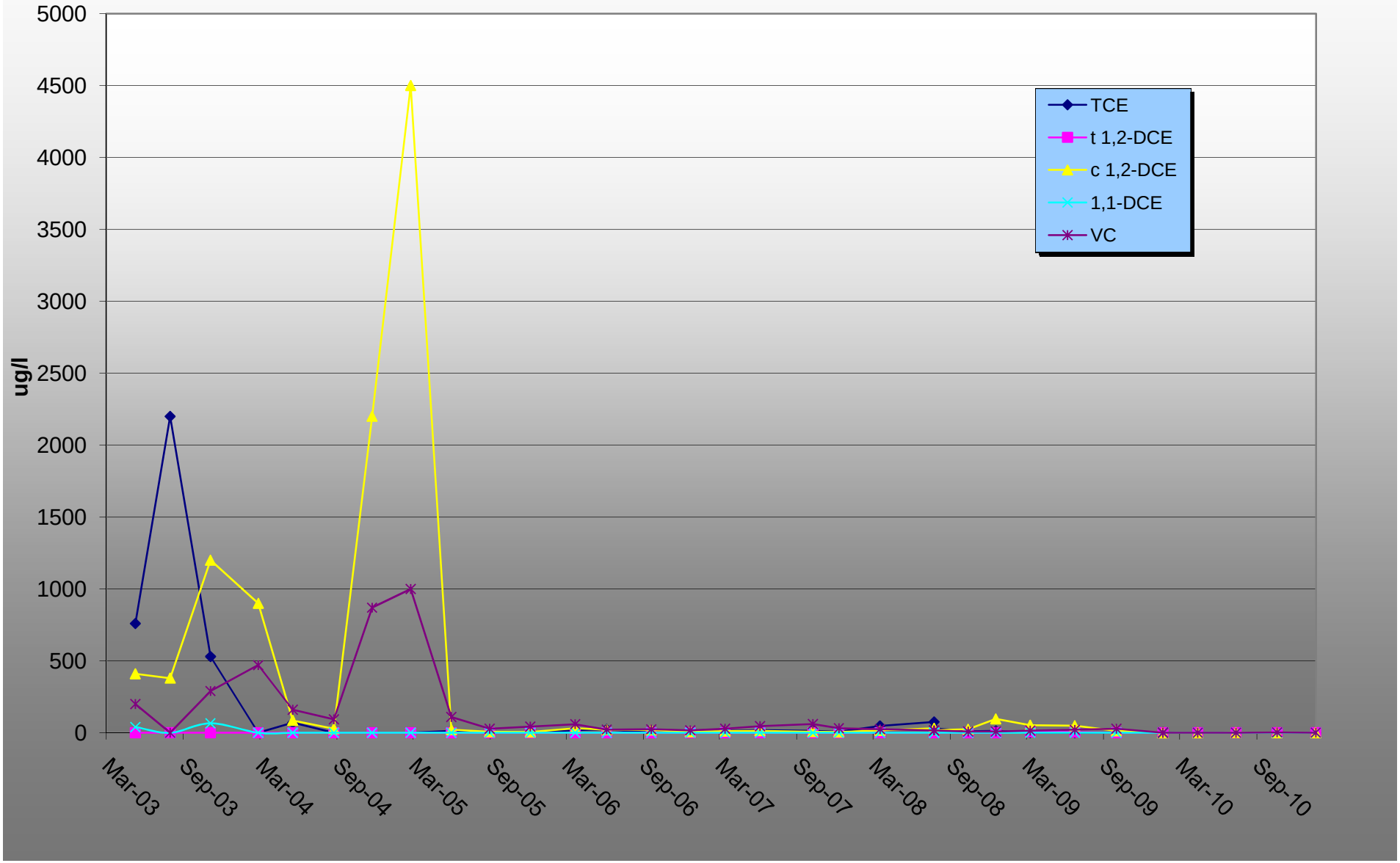


Chart 5-2
AS-1 VOC Trends
Area 14 East - Honeywell Industrial Complex
South Bend, Indiana

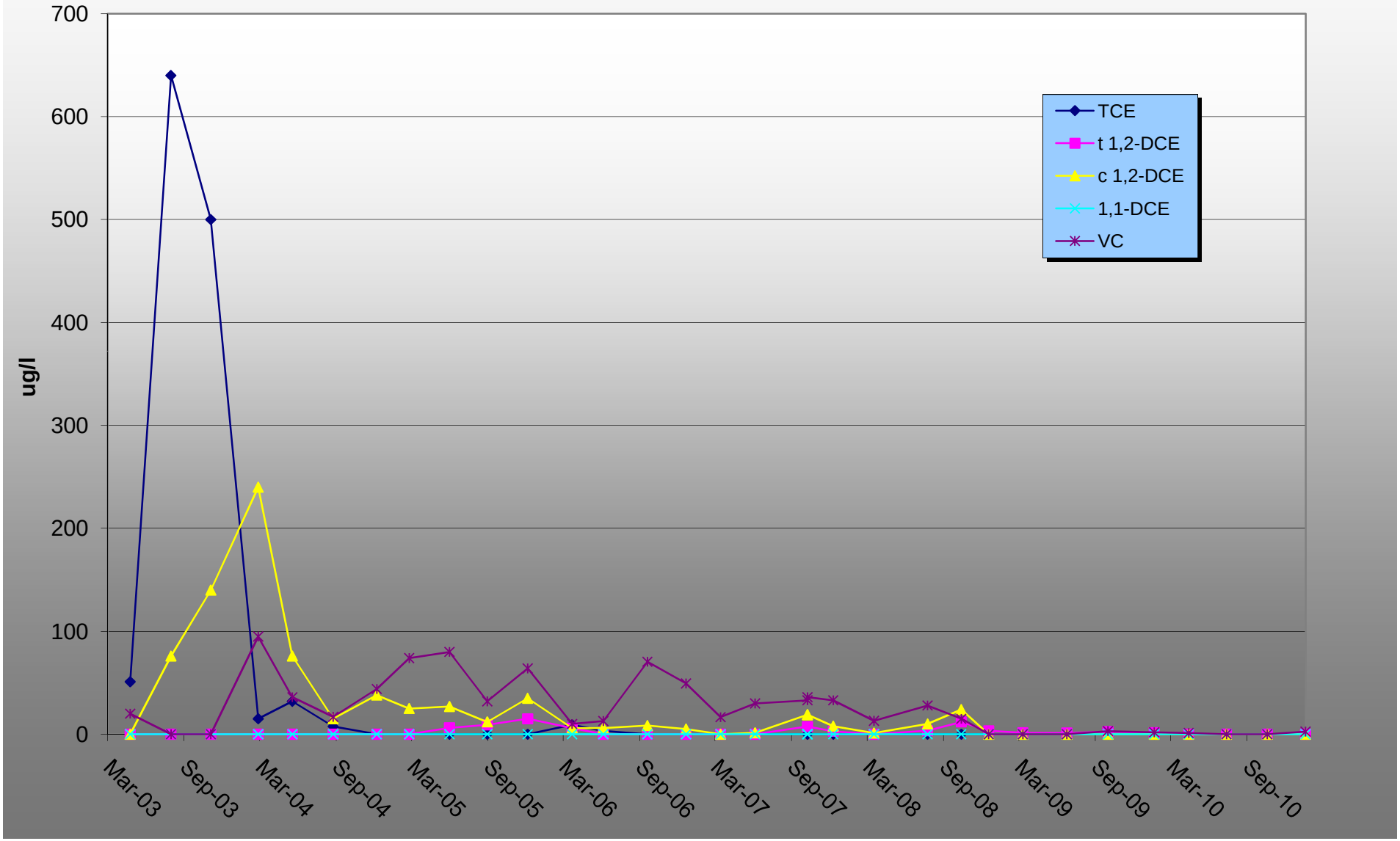


Chart 5-3
MP-10 VOC Trends
Area 14 East - Honeywell Industrial Complex
South Bend, Indiana

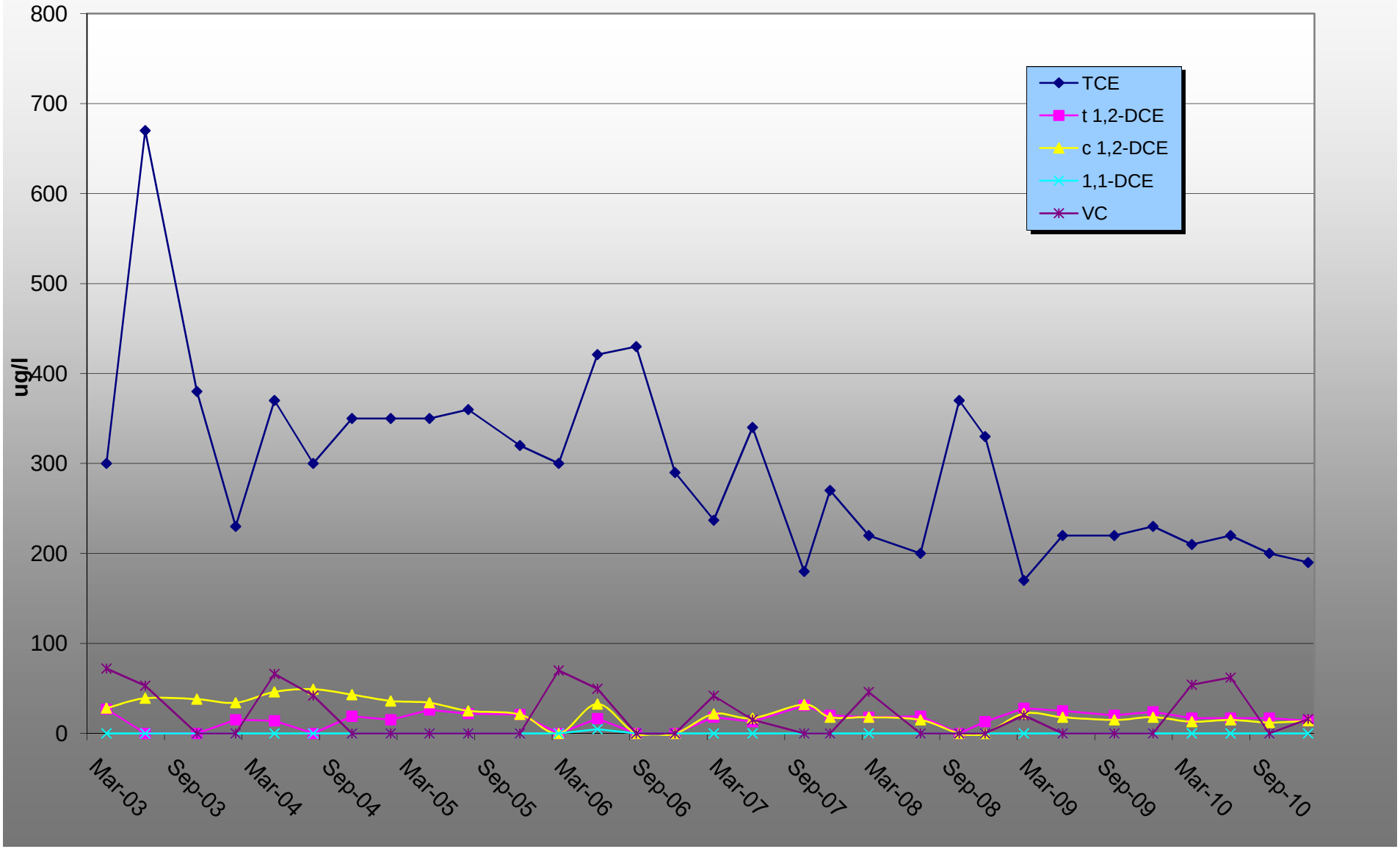


Chart 5-4
MW-16 VOC Trends
Area 14 East - Honeywell Industrial Complex
South Bend, Indiana

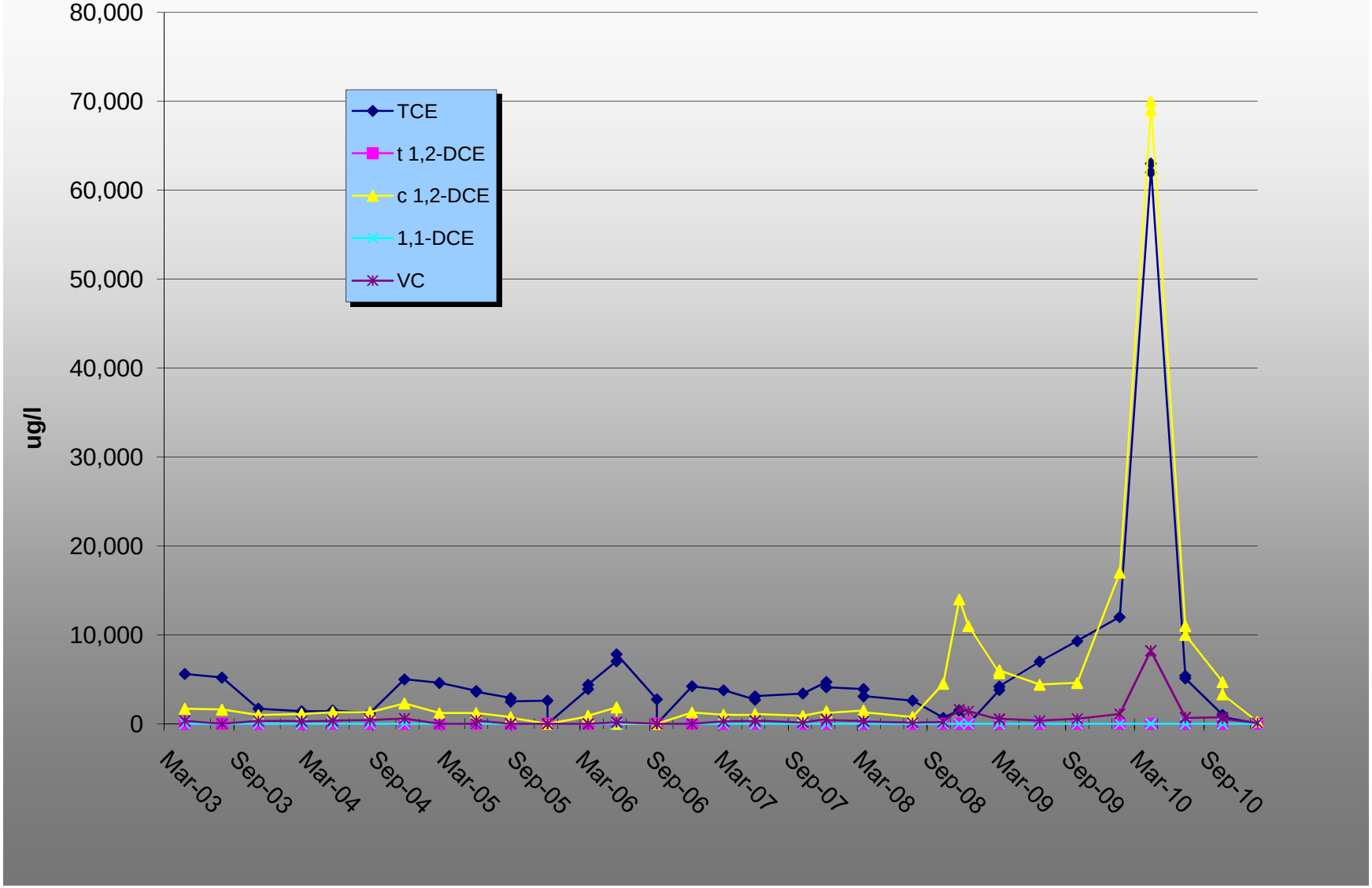


Chart 5-5
MW-17 VOC Trends
Area 14 East - Honeywell Industrial Complex
South Bend, Indiana

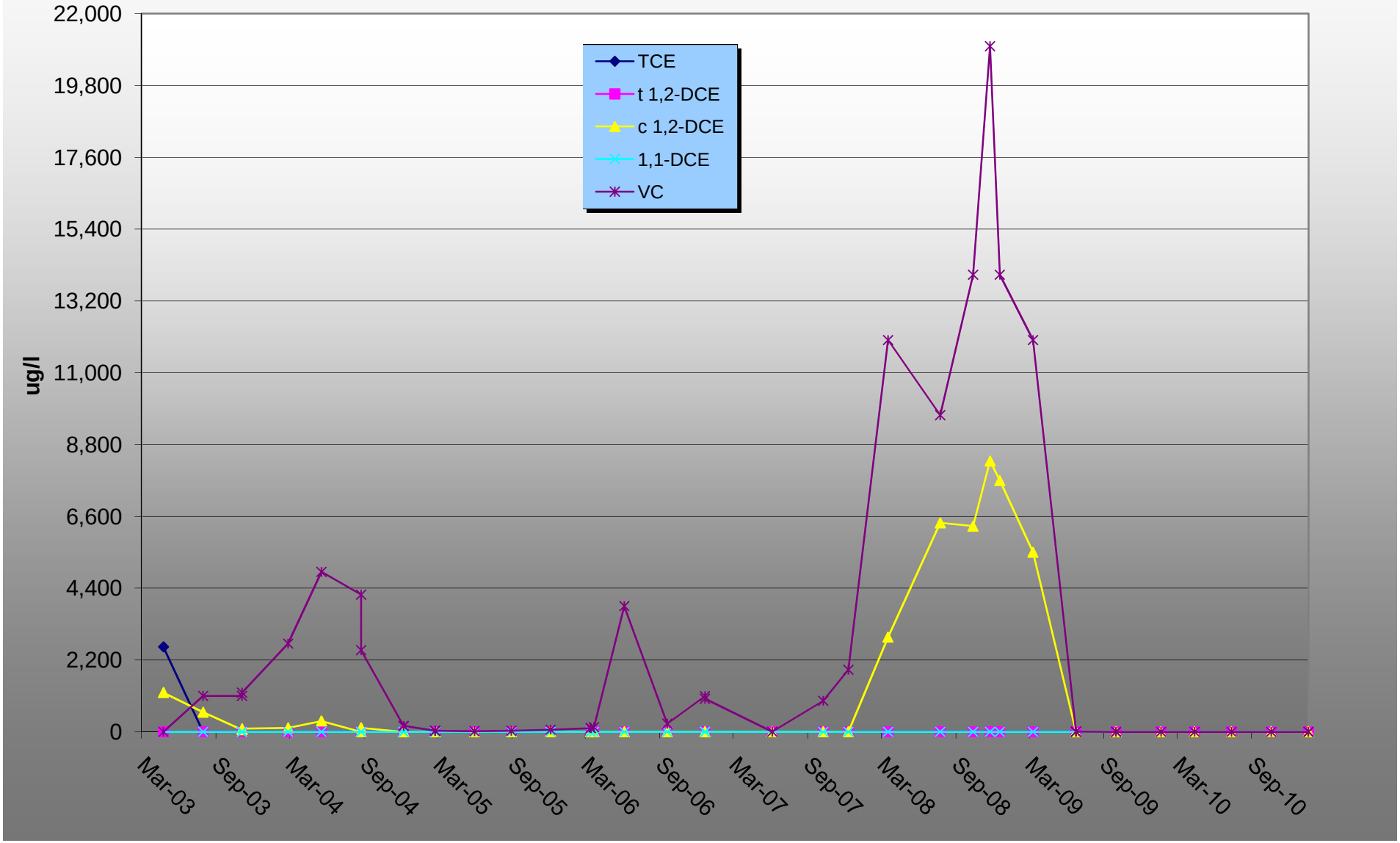
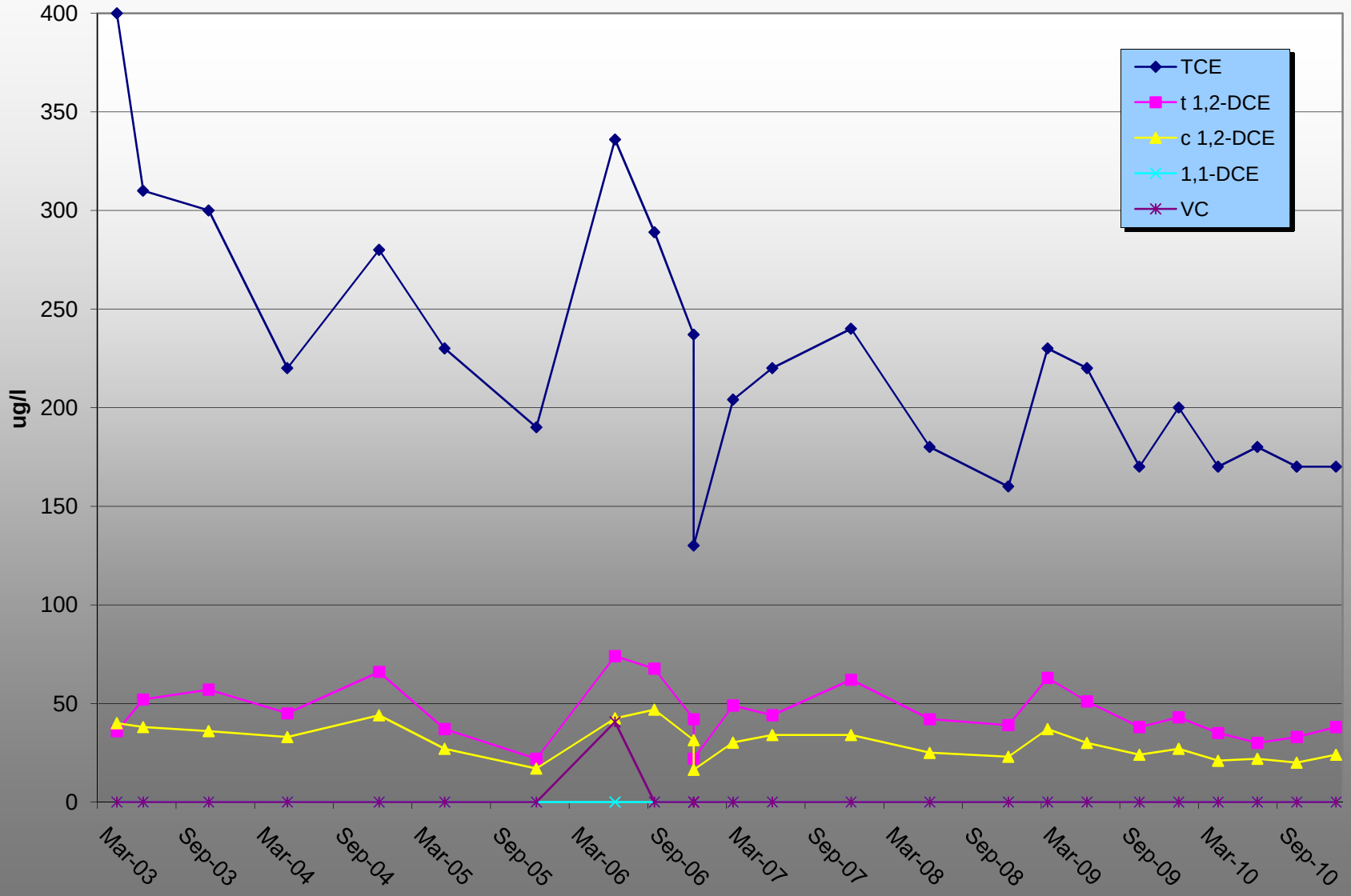


Chart 5-6
86-15 VOC Trends
Area 14 East - Honeywell Industrial Complex
South Bend, Indiana



APPENDIX A

SITE INSPECTION REPORTS

SITE INSPECTION REPORT
Area 14 East - Treatment System
Honeywell Industrial Complex

Personnel: Palmer Andresen

Date: 8/31/2010
Arrival Time: 10:15
Departure Time: NDC
Weather: Clear 83°

Reason for Visit:
Specify: End of Month

Treatment System Area

Compressor Status: off line

Compressor Temperature (F): -
Hour Meter Reading: -
Line Pressure (psi): -
Line Temperature (F): -

Total Flow (scfm): 0
In-line Filters : OK
Knock Out Tank Level: 0
Gallons Drained 0

Blower Status: On Line

Blower Temperature (F): 138°F
Total Flow (scfm): 250
Line Vacuum (in water): 80"

Carbon Vapor Pacs: SV157 Lead
SV69 intermedate

After Heat Exchanger -
Line Pressure (psi): 2
Line Temperature (F): 84°F
Between Vapor Pacs
Line Pressure (psi): 2
Line Temperature (F): N/A

Plant 1 Treatment Area

Observations: collected (2) air/gas samples

	SPARGE LINE		RECIRCULATION PUMP		SVE LINE	
Well ID	Pressure (psi)	Flow Rate (scfm)	Pump	SVE Valves	Vacuum	Flow Rate (scfm)
1	NDC	NDC	NDC		NDC	NDC
2	NDC	NDC	NDC		NDC	NDC
3	NDC	NDC	NDC		NDC	NDC
4	NDC	NDC	NDC		NDC	NDC
5	NDC	NDC	NDC		NDC	NDC
6	NDC	NDC	NDC		NDC	NDC
7	NDC	NDC	NDC		NDC	NDC

No Data Collected

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Engineering & Consulting, Inc.

SITE INSPECTION REPORT
Area 14 East - Treatment System
Honeywell Industrial Complex

Personnel: Palmer Andresen

Date: 9/28/2010
Arrival Time: 7:24
Departure Time: NDC
Weather: Cloudy 48°

Reason for Visit:
Specify: End of Month

Treatment System Area

Compressor Status: off line

Compressor Temperature (F): -
Hour Meter Reading: -

Line Pressure (psi): -
Line Temperature (F): -

Total Flow (scfm): 0
In-line Filters : OK
Knock Out Tank Level: 0

Gallons Drained 0

Blower Status: On Line

Blower Temperature (F): 218°F
Total Flow (scfm): 250
Line Vacuum (in water): 80"

Carbon Vapor Pacs: SV157 Lead
SV69 intermedate

After Heat Exchanger
Line Pressure (psi): 2
Line Temperature (F): 53°F
Between Vapor Pacs
Line Pressure (psi): 2
Line Temperature (F): N/A

Plant 1 Treatment Area

Observations: collected (2) air/gas samples

	SPARGE LINE		RECIRCULATION PUMP		SVE LINE	
Well ID	Pressure (psi)	Flow Rate (scfm)	Pump	SVE Valves	Vacuum	Flow Rate (scfm)
1	NDC	NDC	NDC		NDC	NDC
2	NDC	NDC	NDC		NDC	NDC
3	NDC	NDC	NDC		NDC	NDC
4	NDC	NDC	NDC		NDC	NDC
5	NDC	NDC	NDC		NDC	NDC
6	NDC	NDC	NDC		NDC	NDC
7	NDC	NDC	NDC		NDC	NDC

No Data Collected

MACTEC
Engineering & Consulting, Inc.

SITE INSPECTION REPORT
Area 14 East - Treatment System
Honeywell Industrial Complex

Personnel: Palmer Andresen

Date: 10/27/2010
Arrival Time: 9:10
Departure Time: NDC
Weather: Clear 52°

Reason for Visit:
Specify: End of Month

Treatment System Area

Compressor Status: off line

Compressor Temperature (F): -
Hour Meter Reading: -

Line Pressure (psi): -
Line Temperature (F): -

Total Flow (scfm): 0
In-line Filters : OK
Knock Out Tank Level: 0

Gallons Drained 0

Blower Status: On Line

Blower Temperature (F): 211°F
Total Flow (scfm): 250
Line Vacuum (in water): 81"

Carbon Vapor Pacs: SV157 Lead
SV69 intermedate

After Heat Exchanger -
Line Pressure (psi): 2
Line Temperature (F): 56°F
Between Vapor Pacs
Line Pressure (psi): 2
Line Temperature (F): N/A

Plant 1 Treatment Area

Observations: Collected (2) air/gas samples

	SPARGE LINE		RECIRCULATION PUMP		SVE LINE	
Well ID	Pressure (psi)	Flow Rate (scfm)	Pump	SVE Valves	Vacuum	Flow Rate (scfm)
1	NDC	NDC	NDC		NDC	NDC
2	NDC	NDC	NDC		NDC	NDC
3	NDC	NDC	NDC		NDC	NDC
4	NDC	NDC	NDC		NDC	NDC
5	NDC	NDC	NDC		NDC	NDC
6	NDC	NDC	NDC		NDC	NDC
7	NDC	NDC	NDC		NDC	NDC

No Data Collected

MACTEC
Engineering & Consulting, Inc.

SITE INSPECTION REPORT
Area 14 East - Treatment System
Honeywell Industrial Complex

Personnel: Palmer Andresen

Date: 11/30/2020
Arrival Time: 6:35
Departure Time: NDC
Weather: Cloudy 53°

Reason for Visit:
Specify: End of Month

Treatment System Area

Compressor Status: off line

Compressor Temperature (F): -
Hour Meter Reading: -
Line Pressure (psi): -
Line Temperature (F): -

Total Flow (scfm): 0
In-line Filters : OK
Knock Out Tank Level: 0

Gallons Drained 0

Blower Status: On Line

Blower Temperature (F): 212°F
Total Flow (scfm): 250
Line Vacuum (in water): 63"

Carbon Vapor Pacs: SV157 Lead
SV69 intermedate

After Heat Exchanger
Line Pressure (psi): 2
Line Temperature (F): 58°F
Between Vapor Pacs
Line Pressure (psi): 2
Line Temperature (F): N/A

Plant 1 Treatment Area

Observations: collected (2) air/gas samples

	SPARGE LINE		RECIRCULATION PUMP		SVE LINE	
Well ID	Pressure (psi)	Flow Rate (scfm)	Pump	SVE Valves	Vacuum	Flow Rate (scfm)
1	NDC	NDC	NDC		NDC	NDC
2	NDC	NDC	NDC		NDC	NDC
3	NDC	NDC	NDC		NDC	NDC
4	NDC	NDC	NDC		NDC	NDC
5	NDC	NDC	NDC		NDC	NDC
6	NDC	NDC	NDC		NDC	NDC
7	NDC	NDC	NDC		NDC	NDC

No Data Collected

MACTEC
Engineering & Consulting, Inc.

SITE INSPECTION REPORT
Area 14 East - Treatment System
Honeywell Industrial Complex

Personnel: Palmer Andresen

Date: 12/22/2010
Arrival Time: 7:35
Departure Time: NDC
Weather: Cloudy 32°F

Reason for Visit:
Specify: Week 3

Treatment System Area

Compressor Status: off line

Compressor Temperature (F): -
Hour Meter Reading: -
Line Pressure (psi): -
Line Temperature (F): -

Total Flow (scfm): 0
In-line Filters : OK
Knock Out Tank Level: 1/4

Gallons Drained 0

Blower Status: On Line

Blower Temperature (F): 198°F
Total Flow (scfm): 250
Line Vacuum (in water): 64"

Carbon Vapor Pacs: SV157 Lead
SV69 intermedate

After Heat Exchanger
Line Pressure (psi): 2
Line Temperature (F): 48°F
Between Vapor Pacs
Line Pressure (psi): 2
Line Temperature (F): N/A

Plant 1 Treatment Area

Observations: called Nick R. and Jim Staley. Collected (2) air / gas samples

	SPARGE LINE		RECIRCULATION PUMP		SVE LINE	
Well ID	Pressure (psi)	Flow Rate (scfm)	Pump	SVE Valves	Vacuum	Flow Rate (scfm)
1	NDC	NDC	NDC		NDC	NDC
2	NDC	NDC	NDC		NDC	NDC
3	NDC	NDC	NDC		NDC	NDC
4	NDC	NDC	NDC		NDC	NDC
5	NDC	NDC	NDC		NDC	NDC
6	NDC	NDC	NDC		NDC	NDC
7	NDC	NDC	NDC		NDC	NDC

No Data Collected

MACTEC
Engineering & Consulting, Inc.

SITE INSPECTION REPORT
Area 14 East - Treatment System
Honeywell Industrial Complex

Personnel: Palmer Andresen

Date: 2/2/2011
Arrival Time: 10:00
Departure Time: NDC
Weather: Snow 22°F

Reason for Visit:
Specify: Week 1

Treatment System Area

Compressor Status: off line

Compressor Temperature (F): -
Hour Meter Reading: -

Line Pressure (psi): -
Line Temperature (F): -

Total Flow (scfm): 0
In-line Filters : OK
Knock Out Tank Level: 0

Gallons Drained 0

Blower Status: on line

Blower Temperature (F): 186°F
Total Flow (scfm): 250"
Line Vacuum (in water): 62"

Carbon Vapor Pacs: SV216 Lead
SV69 intermedate

After Heat Exchanger -
Line Pressure (psi): 2
Line Temperature (F): 62°F
Between Vapor Pacs
Line Pressure (psi): 2
Line Temperature (F): N/A

Plant 1 Treatment Area

Observations: collected (2) air/gas samples

	SPARGE LINE		RECIRCULATION PUMP		SVE LINE	
Well ID	Pressure (psi)	Flow Rate (scfm)	Pump	SVE Valves	Vacuum	Flow Rate (scfm)
1	NDC	NDC	NDC		NDC	NDC
2	NDC	NDC	NDC		NDC	NDC
3	NDC	NDC	NDC		NDC	NDC
4	NDC	NDC	NDC		NDC	NDC
5	NDC	NDC	NDC		NDC	NDC
6	NDC	NDC	NDC		NDC	NDC
7	NDC	NDC	NDC		NDC	NDC

No Data Collected

MACTEC
Engineering & Consulting, Inc.

APPENDIX B

ANALYTICAL REPORTS – AIR SAMPLES

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Honeywell - South Bend

Lot #: H0I010421

Steven Murray

Mactec Engineering & Consultan
41 Hughes Drive
Traverse City, MI 49686

TESTAMERICA LABORATORIES, INC.

Jamie A. McKinney
Project Manager

September 7, 2010

EXECUTIVE SUMMARY - Detection Highlights

H0I010421

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
LEAD EAST 08/31/10 10:45 001				
Chloroform	0.0022 J	0.0099	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	0.016	0.0099	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	0.013 J,B	0.025	ppm(v/v)	EPA-2 TO-14A
Toluene	0.0048 J	0.0099	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	0.0031 J	0.0099	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	0.59	0.0099	ppm(v/v)	EPA-2 TO-14A
INTERMEDIATE EAST 08/31/10 10:50 002				
Chloroform	0.0021 J	0.0036	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	0.0027 J	0.0036	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	0.0047	0.0036	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethene	0.00094 J	0.0036	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	0.0041	0.0091	ppm(v/v)	EPA-2 TO-14A
	Qualifiers: J,B			
Toluene	0.0025 J	0.0036	ppm(v/v)	EPA-2 TO-14A

ANALYTICAL METHODS SUMMARY

H0I010421

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO14 A (Low Level)	EPA-2 TO-14A

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0I010421

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L6D1X	001	LEAD EAST	08/31/10	10:45
L6D10	002	INTERMEDIATE EAST	08/31/10	10:50

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0I010421

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

Custody seals were not present.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

EPA methods TO-14 and TO-14A specify that the relative accuracy of the field sampler or sample delivery system must meet 90-110% for a standard at 8ppbv/v. The laboratory control sample (LCS) summary data in this report is evaluated against alternate acceptance criteria based on the laboratory procedure for methods TO-14 and TO-14A. Please refer to the LCS summary report for the actual observed recoveries and acceptance criteria for the LCS.

The samples were received on 9/1/10 in Tedlar bags. Sample LEAD EAST was transferred into a Summa Canister within 72 hours of sampling. Sample INTERMEDIATE EAST was analyzed within 72 hours of sampling directly from the bag.

MACTEC Engineering and Consulting Inc

Client Sample ID: LEAD EAST

GC/MS Volatiles

Lot-Sample #...: H0I010421-001 **Work Order #...:** L6D1X1AA **Matrix.....:** AIR
Date Sampled...: 08/31/10 10:45 **Date Received..:** 09/01/10
Prep Date.....: 09/02/10 **Analysis Date..:** 09/02/10
Prep Batch #...: 0246186
Dilution Factor: 49.69 **Method.....:** EPA-2 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.0099	ppm(v/v)
Carbon tetrachloride	ND	0.0099	ppm(v/v)
Chlorobenzene	ND	0.0099	ppm(v/v)
Chloroethane	ND	0.0099	ppm(v/v)
Chloroform	**0.0022 J**	**0.0099**	**ppm(v/v)**
Chloromethane	ND	0.025	ppm(v/v)
1,1-Dichloroethane	ND	0.0099	ppm(v/v)
cis-1,2-Dichloroethene	**0.016**	**0.0099**	**ppm(v/v)**
trans-1,2-Dichloroethene	ND	0.0099	ppm(v/v)
1,1-Dichloroethene	ND	0.0099	ppm(v/v)
Ethylbenzene	ND	0.0099	ppm(v/v)
Methylene chloride	**0.013 J,B**	**0.025**	**ppm(v/v)**
Tetrachloroethene	ND	0.0099	ppm(v/v)
Toluene	**0.0048 J**	**0.0099**	**ppm(v/v)**
1,1,1-Trichloroethane	**0.0031 J**	**0.0099**	**ppm(v/v)**
Trichloroethene	**0.59**	**0.0099**	**ppm(v/v)**
Vinyl chloride	ND	0.0099	ppm(v/v)
m-Xylene & p-Xylene	ND	0.0099	ppm(v/v)
o-Xylene	ND	0.0099	ppm(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	91	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC Engineering and Consulting Inc

Client Sample ID: INTERMEDIATE EAST

GC/MS Volatiles

Lot-Sample #...: H0I010421-002 **Work Order #...:** L6D101AA **Matrix.....:** AIR
Date Sampled...: 08/31/10 10:50 **Date Received..:** 09/01/10
Prep Date.....: 09/01/10 **Analysis Date..:** 09/01/10
Prep Batch #...: 0245077
Dilution Factor: 18.18 **Method.....:** EPA-2 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.0036	ppm(v/v)
Carbon tetrachloride	ND	0.0036	ppm(v/v)
Chlorobenzene	ND	0.0036	ppm(v/v)
Chloroethane	ND	0.0036	ppm(v/v)
Chloroform	**0.0021 J**	**0.0036**	**ppm(v/v)**
Chloromethane	ND	0.0091	ppm(v/v)
1,1-Dichloroethane	**0.0027 J**	**0.0036**	**ppm(v/v)**
cis-1,2-Dichloroethene	**0.0047**	**0.0036**	**ppm(v/v)**
trans-1,2-Dichloroethene	ND	0.0036	ppm(v/v)
1,1-Dichloroethene	**0.00094 J**	**0.0036**	**ppm(v/v)**
Ethylbenzene	ND	0.0036	ppm(v/v)
Methylene chloride	**0.0041 J,B**	**0.0091**	**ppm(v/v)**
Tetrachloroethene	ND	0.0036	ppm(v/v)
Toluene	**0.0025 J**	**0.0036**	**ppm(v/v)**
1,1,1-Trichloroethane	ND	0.0036	ppm(v/v)
Trichloroethene	ND	0.0036	ppm(v/v)
Vinyl chloride	ND	0.0036	ppm(v/v)
m-Xylene & p-Xylene	ND	0.0036	ppm(v/v)
o-Xylene	ND	0.0036	ppm(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	99	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H0I010421 **Work Order #...:** L6FGM1AA **Matrix.....:** AIR
MB Lot-Sample #: H0I020000-077

Prep Date.....: 09/01/10
Analysis Date..: 09/01/10 **Prep Batch #...:** 0245077
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Ethylbenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Toluene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
o-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
m-Xylene & p-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Carbon tetrachloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chlorobenzene	**0.000092 J**	**0.00020**	**ppm(v/v)**	**EPA-2 TO-14A**
Chloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroform	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloromethane	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	**0.000048 J**	**0.00050**	**ppm(v/v)**	**EPA-2 TO-14A**
Tetrachloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Vinyl chloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H0I010421 **Work Order #...:** L6FGM1AC **Matrix.....:** AIR
LCS Lot-Sample#: H0I020000-077
Prep Date.....: 09/01/10 **Analysis Date..:** 09/01/10
Prep Batch #...: 0245077
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Chloromethane	**106**	**(60 - 140)**	**EPA-2 TO-14A**
Vinyl chloride	**104**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroethane	**91**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethene	**97**	**(70 - 130)**	**EPA-2 TO-14A**
Methylene chloride	**88**	**(70 - 130)**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**97**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethane	**97**	**(70 - 130)**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**98**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroform	**101**	**(70 - 130)**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**112**	**(70 - 130)**	**EPA-2 TO-14A**
Benzene	**88**	**(70 - 130)**	**EPA-2 TO-14A**
Carbon tetrachloride	**102**	**(70 - 130)**	**EPA-2 TO-14A**
Trichloroethene	**101**	**(70 - 130)**	**EPA-2 TO-14A**
Toluene	**84**	**(70 - 130)**	**EPA-2 TO-14A**
Tetrachloroethene	**98**	**(70 - 130)**	**EPA-2 TO-14A**
Chlorobenzene	**90**	**(70 - 130)**	**EPA-2 TO-14A**
Ethylbenzene	**94**	**(70 - 130)**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**97**	**(70 - 130)**	**EPA-2 TO-14A**
o-Xylene	**96**	**(70 - 130)**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	101	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H0I010421 **Work Order #...:** L6FGM1AC **Matrix.....:** AIR
LCS Lot-Sample#: H0I020000-077
Prep Date.....: 09/01/10 **Analysis Date..:** 09/01/10
Prep Batch #...: 0245077
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Chloromethane	**0.0050**	**0.0053**	**ppm(v/v)**	**106**	**EPA-2 TO-14A**
Vinyl chloride	**0.0050**	**0.0052**	**ppm(v/v)**	**104**	**EPA-2 TO-14A**
Chloroethane	**0.0050**	**0.0046**	**ppm(v/v)**	**91**	**EPA-2 TO-14A**
1,1-Dichloroethene	**0.0050**	**0.0049**	**ppm(v/v)**	**97**	**EPA-2 TO-14A**
Methylene chloride	**0.0050**	**0.0044**	**ppm(v/v)**	**88**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**0.0050**	**0.0049**	**ppm(v/v)**	**97**	**EPA-2 TO-14A**
1,1-Dichloroethane	**0.0050**	**0.0049**	**ppm(v/v)**	**97**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**0.0050**	**0.0049**	**ppm(v/v)**	**98**	**EPA-2 TO-14A**
Chloroform	**0.0050**	**0.0051**	**ppm(v/v)**	**101**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**0.0050**	**0.0056**	**ppm(v/v)**	**112**	**EPA-2 TO-14A**
Benzene	**0.0050**	**0.0044**	**ppm(v/v)**	**88**	**EPA-2 TO-14A**
Carbon tetrachloride	**0.0050**	**0.0051**	**ppm(v/v)**	**102**	**EPA-2 TO-14A**
Trichloroethene	**0.0050**	**0.0051**	**ppm(v/v)**	**101**	**EPA-2 TO-14A**
Toluene	**0.0050**	**0.0042**	**ppm(v/v)**	**84**	**EPA-2 TO-14A**
Tetrachloroethene	**0.0050**	**0.0049**	**ppm(v/v)**	**98**	**EPA-2 TO-14A**
Chlorobenzene	**0.0050**	**0.0045**	**ppm(v/v)**	**90**	**EPA-2 TO-14A**
Ethylbenzene	**0.0050**	**0.0047**	**ppm(v/v)**	**94**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**0.010**	**0.0097**	**ppm(v/v)**	**97**	**EPA-2 TO-14A**
o-Xylene	**0.0050**	**0.0048**	**ppm(v/v)**	**96**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	101	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H0I010421 **Work Order #...:** L6HWA1AA **Matrix.....:** AIR
MB Lot-Sample #: H0I030000-186

Prep Date.....: 09/02/10
Analysis Date..: 09/02/10 **Prep Batch #...:** 0246186
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Carbon tetrachloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chlorobenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroform	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloromethane	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Ethylbenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	**0.000066 J**	**0.00050**	**ppm(v/v)**	**EPA-2 TO-14A**
Tetrachloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Toluene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Vinyl chloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
o-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
m-Xylene & p-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	93	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H0I010421 **Work Order #...:** L6HWA1AC **Matrix.....:** AIR
LCS Lot-Sample#: H0I030000-186
Prep Date.....: 09/02/10 **Analysis Date..:** 09/02/10
Prep Batch #...: 0246186
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Chloromethane	**117**	**(60 - 140)**	**EPA-2 TO-14A**
Vinyl chloride	**107**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroethane	**98**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethene	**97**	**(70 - 130)**	**EPA-2 TO-14A**
Methylene chloride	**90**	**(70 - 130)**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**96**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethane	**81**	**(70 - 130)**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**82**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroform	**79**	**(70 - 130)**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**77**	**(70 - 130)**	**EPA-2 TO-14A**
Benzene	**73**	**(70 - 130)**	**EPA-2 TO-14A**
Carbon tetrachloride	**87**	**(70 - 130)**	**EPA-2 TO-14A**
Trichloroethene	**76**	**(70 - 130)**	**EPA-2 TO-14A**
Toluene	**73**	**(70 - 130)**	**EPA-2 TO-14A**
Tetrachloroethene	**74**	**(70 - 130)**	**EPA-2 TO-14A**
Chlorobenzene	**77**	**(70 - 130)**	**EPA-2 TO-14A**
Ethylbenzene	**81**	**(70 - 130)**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**83**	**(70 - 130)**	**EPA-2 TO-14A**
o-Xylene	**82**	**(70 - 130)**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H0I010421 **Work Order #...:** L6HWA1AC **Matrix.....:** AIR
LCS Lot-Sample#: H0I030000-186
Prep Date.....: 09/02/10 **Analysis Date..:** 09/02/10
Prep Batch #...: 0246186
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Chloromethane	**0.0050**	**0.0058**	**ppm(v/v)**	**117**	**EPA-2 TO-14A**
Vinyl chloride	**0.0050**	**0.0054**	**ppm(v/v)**	**107**	**EPA-2 TO-14A**
Chloroethane	**0.0050**	**0.0049**	**ppm(v/v)**	**98**	**EPA-2 TO-14A**
1,1-Dichloroethene	**0.0050**	**0.0049**	**ppm(v/v)**	**97**	**EPA-2 TO-14A**
Methylene chloride	**0.0050**	**0.0045**	**ppm(v/v)**	**90**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**0.0050**	**0.0048**	**ppm(v/v)**	**96**	**EPA-2 TO-14A**
1,1-Dichloroethane	**0.0050**	**0.0040**	**ppm(v/v)**	**81**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**0.0050**	**0.0041**	**ppm(v/v)**	**82**	**EPA-2 TO-14A**
Chloroform	**0.0050**	**0.0039**	**ppm(v/v)**	**79**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**0.0050**	**0.0038**	**ppm(v/v)**	**77**	**EPA-2 TO-14A**
Benzene	**0.0050**	**0.0036**	**ppm(v/v)**	**73**	**EPA-2 TO-14A**
Carbon tetrachloride	**0.0050**	**0.0043**	**ppm(v/v)**	**87**	**EPA-2 TO-14A**
Trichloroethene	**0.0050**	**0.0038**	**ppm(v/v)**	**76**	**EPA-2 TO-14A**
Toluene	**0.0050**	**0.0037**	**ppm(v/v)**	**73**	**EPA-2 TO-14A**
Tetrachloroethene	**0.0050**	**0.0037**	**ppm(v/v)**	**74**	**EPA-2 TO-14A**
Chlorobenzene	**0.0050**	**0.0039**	**ppm(v/v)**	**77**	**EPA-2 TO-14A**
Ethylbenzene	**0.0050**	**0.0040**	**ppm(v/v)**	**81**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**0.010**	**0.0083**	**ppm(v/v)**	**83**	**EPA-2 TO-14A**
o-Xylene	**0.0050**	**0.0041**	**ppm(v/v)**	**82**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

H0I 010421

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: Nick Rogers	Date: 8-31-10	COC No:
MACTEC Engineering and Consulting Inc.	Tel/Fax: 231 922-9050	Lab Contact: Mark Loeh/Jamie Mckinney	Carrier:	
41 Hughes Drive	Analysis Turnaround Time			24000609-0
Traverse City, MI 49686	Calendar (C) or Work Days (W) 14			
(231)922-9050 Phone	TAT if different from Below _____			SDG No.
(231)922-9055 FAX	☐ 2 weeks			
Project Name:Honeywell South Bend	☐ 1 week			
Site: Area 14	☐ 2 days			
P O # 4779250 STL	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Chlorinated VOCs TO-14	Sample Specific Notes:
Lead West	8/31/10	11:05	Air		1		X	
Intermediate West	↓	11:10	Air		1		X	
Lead East		10:45	Air		1		X	
Intermediate East	↓	10:50	Air		1		X	

1 BOX RECEIVED AMBIENT
UPS# 1Z 438 853 01 4984 9228
NO CUSTODY SEAL TS 9/1/10

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Peerless Midwest	8/31/10 13:37	[signature]	Peerless-Midwest	8/31/10 13:37
[signature]	Peerless-Midwest	8/31/10 13:39	[signature]	TA KNOX.	9/1/10 10:00
[signature]					

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: HDTD1092

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	4A
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 75525 PM Instructions: NA

Sample Receiving Associate: Glen Smith Date: 9/1/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0I010421*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (- in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
PDF 9-2-10	0850	28.96	L6D1X	12838											12838	100	+0.5	8820
			L6D10															

Original Chain of Custody Documentation

HOI 010421

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

SEVERN TRENT STL

Chain of Custody Record

Severn Trent Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: Nick Rogers	Date: 8-31-10	COC No:
MACTEC Engineering and Consulting Inc.	Tel/Fax: 231 922-9050	Lab Contact: Mark Loeb/Jamie Mckinney	Carrier:	
41 Hughes Drive	Analysis Turnaround Time			24000609-0
Traverse City, MI 49686	Calendar (C) or Work Days (W) 14			SDG No.
(231)922-9050 Phone	TAT if different from Below			
(231)922-9055 FAX	☐ 2 weeks			
Project Name:Honeywell South Bend	☐ 1 week			
Site: Area 14	☐ 2 days			
P O # 4779250 STL	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Chlorinated VOCs TO-14	Sample Specific Notes:
Lead West	8/31/10	11:05	Air		1		X	
Intermediate West		11:10	Air		1		X	
Lead East		10:45	Air		1		X	
Intermediate East		10:50	Air		1		X	

1 BOX RECEIVED AMBIENT
UPS# 1Z 438 858 01 4984 9228
NO CUSTODY SEAL TS 9/1/10

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Peerless Midwest	8/31/10 13:37	[signature]	Peerless-Midwest	8/31/10 13:37
Relinquished by: [signature]	Peerless-Midwest	8/31/10 13:39	Received by: [signature]	Company: TA KNOX.	Date/Time: 9/1/10 10:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

RECEIVED
OCT 15 2010

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Honeywell - South Bend

Lot #: H0I290408

Steven Murray

Mactec Engineering & Consultan
41 Hughes Drive
Traverse City, MI 49686

TESTAMERICA LABORATORIES, INC.

Jamie A. McKinney
Project Manager

October 8, 2010

101008 TestAmerica AI4E
90039

5815 Middlebrook Pike Knoxville, TN 37921 tel 865.291.3000 fax 865.584.4315 www.testamericainc.com

EXECUTIVE SUMMARY - Detection Highlights

H0I290408

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
LEAD EAST 09/28/10 08:10 001				
Chloroform	0.0021 J	0.010	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	0.017	0.010	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	0.0069 J	0.025	ppm(v/v)	EPA-2 TO-14A
Toluene	0.0076 J	0.010	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	0.0053 J	0.010	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	0.52	0.010	ppm(v/v)	EPA-2 TO-14A
INTERMEDIATE EAST 09/28/10 08:40 002				
Chloroform	0.0053	0.0036	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	0.0023 J	0.0036	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	0.025	0.0036	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	0.0047 J	0.0091	ppm(v/v)	EPA-2 TO-14A
Toluene	0.0012 J	0.0036	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	0.0054	0.0036	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	0.0067	0.0036	ppm(v/v)	EPA-2 TO-14A

ANALYTICAL METHODS SUMMARY

H0I290408

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO14 A (Low Level)	EPA-2 TO-14A

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0I290408

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L7MQK	001	LEAD EAST	09/28/10	08:10
L7MQP	002	INTERMEDIATE EAST	09/28/10	08:40

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0I290408

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

Custody seals were not present.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

EPA methods TO-14 and TO-14A specify that the relative accuracy of the field sampler or sample delivery system must meet 90-110% for a standard at 8ppbv/v. The laboratory control sample (LCS) summary data in this report is evaluated against alternate acceptance criteria based on the laboratory procedure for methods TO-14 and TO-14A. Please refer to the LCS summary report for the actual observed recoveries and acceptance criteria for the LCS.

Lead East was received on 9/29/10 in a Tedlar bag and transferred into a Summa Canister within 72 hours of sampling.

Intermediate East was received on 9/29/10 in a Tedlar bag and analyzed within 72 hours of sampling.

MACTEC Engineering and Consulting Inc

Client Sample ID: LEAD EAST

GC/MS Volatiles

Lot-Sample #...: H0I290408-001 **Work Order #...:** L7MQK1AA **Matrix.....:** AIR
Date Sampled...: 09/28/10 08:10 **Date Received..:** 09/29/10
Prep Date.....: 09/30/10 **Analysis Date..:** 09/30/10
Prep Batch #...: 0274085
Dilution Factor: 50.8 **Method.....:** EPA-2 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.010	ppm(v/v)
Carbon tetrachloride	ND	0.010	ppm(v/v)
Chlorobenzene	ND	0.010	ppm(v/v)
Chloroethane	ND	0.010	ppm(v/v)
Chloroform	**0.0021 J**	**0.010**	**ppm(v/v)**
Chloromethane	ND	0.025	ppm(v/v)
1,1-Dichloroethane	ND	0.010	ppm(v/v)
cis-1,2-Dichloroethene	**0.017**	**0.010**	**ppm(v/v)**
trans-1,2-Dichloroethene	ND	0.010	ppm(v/v)
1,1-Dichloroethene	ND	0.010	ppm(v/v)
Ethylbenzene	ND	0.010	ppm(v/v)
Methylene chloride	**0.0069 J**	**0.025**	**ppm(v/v)**
Tetrachloroethene	ND	0.010	ppm(v/v)
Toluene	**0.0076 J**	**0.010**	**ppm(v/v)**
1,1,1-Trichloroethane	**0.0053 J**	**0.010**	**ppm(v/v)**
Trichloroethene	**0.52**	**0.010**	**ppm(v/v)**
Vinyl chloride	ND	0.010	ppm(v/v)
m-Xylene & p-Xylene	ND	0.010	ppm(v/v)
o-Xylene	ND	0.010	ppm(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	107	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

MACTEC Engineering and Consulting Inc

Client Sample ID: INTERMEDIATE EAST

GC/MS Volatiles

Lot-Sample #...: H0I290408-002 Work Order #...: L7MQP1AA Matrix.....: AIR
Date Sampled...: 09/28/10 08:40 Date Received..: 09/29/10
Prep Date.....: 09/29/10 Analysis Date..: 09/29/10
Prep Batch #...: 0273073
Dilution Factor: 18.18 Method.....: EPA-2 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.0036	ppm(v/v)
Carbon tetrachloride	ND	0.0036	ppm(v/v)
Chlorobenzene	ND	0.0036	ppm(v/v)
Chloroethane	ND	0.0036	ppm(v/v)
Chloroform	**0.0053**	**0.0036**	**ppm(v/v)**
Chloromethane	ND	0.0091	ppm(v/v)
1,1-Dichloroethane	**0.0023 J**	**0.0036**	**ppm(v/v)**
cis-1,2-Dichloroethene	**0.025**	**0.0036**	**ppm(v/v)**
trans-1,2-Dichloroethene	ND	0.0036	ppm(v/v)
1,1-Dichloroethene	ND	0.0036	ppm(v/v)
Ethylbenzene	ND	0.0036	ppm(v/v)
Methylene chloride	**0.0047 J**	**0.0091**	**ppm(v/v)**
Tetrachloroethene	ND	0.0036	ppm(v/v)
Toluene	**0.0012 J**	**0.0036**	**ppm(v/v)**
1,1,1-Trichloroethane	**0.0054**	**0.0036**	**ppm(v/v)**
Trichloroethene	**0.0067**	**0.0036**	**ppm(v/v)**
Vinyl chloride	ND	0.0036	ppm(v/v)
m-Xylene & p-Xylene	ND	0.0036	ppm(v/v)
o-Xylene	ND	0.0036	ppm(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	103	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H0I290408 **Work Order #...:** L7PEF1AA **Matrix.....:** AIR
MB Lot-Sample #: H0I300000-073

Prep Date.....: 09/29/10
Analysis Date..: 09/29/10 **Prep Batch #...:** 0273073
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Carbon tetrachloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chlorobenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroform	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloromethane	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Ethylbenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
Tetrachloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Toluene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Vinyl chloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
o-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
m-Xylene & p-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	102	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H0I290408 Work Order #...: L7PEF1AC Matrix.....: AIR
LCS Lot-Sample#: H0I300000-073
Prep Date.....: 09/29/10 Analysis Date..: 09/29/10
Prep Batch #...: 0273073
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Chloromethane	113	(60 - 140)	EPA-2 TO-14A
Vinyl chloride	108	(70 - 130)	EPA-2 TO-14A
Chloroethane	89	(70 - 130)	EPA-2 TO-14A
1,1-Dichloroethene	99	(70 - 130)	EPA-2 TO-14A
Methylene chloride	89	(70 - 130)	EPA-2 TO-14A
trans-1,2-Dichloroethene	100	(70 - 130)	EPA-2 TO-14A
1,1-Dichloroethane	99	(70 - 130)	EPA-2 TO-14A
cis-1,2-Dichloroethene	94	(70 - 130)	EPA-2 TO-14A
Chloroform	107	(70 - 130)	EPA-2 TO-14A
1,1,1-Trichloroethane	124	(70 - 130)	EPA-2 TO-14A
Benzene	78	(70 - 130)	EPA-2 TO-14A
Carbon tetrachloride	121	(70 - 130)	EPA-2 TO-14A
Trichloroethene	91	(70 - 130)	EPA-2 TO-14A
Toluene	85	(70 - 130)	EPA-2 TO-14A
Tetrachloroethene	98	(70 - 130)	EPA-2 TO-14A
Chlorobenzene	84	(70 - 130)	EPA-2 TO-14A
Ethylbenzene	86	(70 - 130)	EPA-2 TO-14A
m-Xylene & p-Xylene	89	(70 - 130)	EPA-2 TO-14A
o-Xylene	89	(70 - 130)	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	105	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H0I290408 Work Order #...: L7PEF1AC Matrix.....: AIR
LCS Lot-Sample#: H0I300000-073
Prep Date.....: 09/29/10 Analysis Date..: 09/29/10
Prep Batch #...: 0273073
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Chloromethane	0.0050	0.0057	ppm(v/v)	113	EPA-2 TO-14A
Vinyl chloride	0.0050	0.0054	ppm(v/v)	108	EPA-2 TO-14A
Chloroethane	0.0050	0.0045	ppm(v/v)	89	EPA-2 TO-14A
1,1-Dichloroethene	0.0050	0.0050	ppm(v/v)	99	EPA-2 TO-14A
Methylene chloride	0.0050	0.0044	ppm(v/v)	89	EPA-2 TO-14A
trans-1,2-Dichloroethene	0.0050	0.0050	ppm(v/v)	100	EPA-2 TO-14A
1,1-Dichloroethane	0.0050	0.0050	ppm(v/v)	99	EPA-2 TO-14A
cis-1,2-Dichloroethene	0.0050	0.0047	ppm(v/v)	94	EPA-2 TO-14A
Chloroform	0.0050	0.0053	ppm(v/v)	107	EPA-2 TO-14A
1,1,1-Trichloroethane	0.0050	0.0062	ppm(v/v)	124	EPA-2 TO-14A
Benzene	0.0050	0.0039	ppm(v/v)	78	EPA-2 TO-14A
Carbon tetrachloride	0.0050	0.0060	ppm(v/v)	121	EPA-2 TO-14A
Trichloroethene	0.0050	0.0045	ppm(v/v)	91	EPA-2 TO-14A
Toluene	0.0050	0.0042	ppm(v/v)	85	EPA-2 TO-14A
Tetrachloroethene	0.0050	0.0049	ppm(v/v)	98	EPA-2 TO-14A
Chlorobenzene	0.0050	0.0042	ppm(v/v)	84	EPA-2 TO-14A
Ethylbenzene	0.0050	0.0043	ppm(v/v)	86	EPA-2 TO-14A
m-Xylene & p-Xylene	0.010	0.0089	ppm(v/v)	89	EPA-2 TO-14A
o-Xylene	0.0050	0.0044	ppm(v/v)	89	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	105	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H0I290408 **Work Order #...:** L7R9G1AA **Matrix.....:** AIR
MB Lot-Sample #: H0J010000-085

Prep Date.....: 09/30/10
Analysis Date..: 09/30/10 **Prep Batch #...:** 0274085
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Carbon tetrachloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chlorobenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroform	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloromethane	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Tetrachloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Vinyl chloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Ethylbenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
Toluene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
o-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
m-Xylene & p-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H0I290408 Work Order #...: L7R9G1AC Matrix.....: AIR
LCS Lot-Sample#: H0J010000-085
Prep Date.....: 09/30/10 Analysis Date..: 09/30/10
Prep Batch #...: 0274085
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
cis-1,2-Dichloroethene	91	(70 - 130)	EPA-2 TO-14A
Chloroform	102	(70 - 130)	EPA-2 TO-14A
1,1,1-Trichloroethane	121	(70 - 130)	EPA-2 TO-14A
Chloromethane	122	(60 - 140)	EPA-2 TO-14A
Vinyl chloride	113	(70 - 130)	EPA-2 TO-14A
Chloroethane	96	(70 - 130)	EPA-2 TO-14A
1,1-Dichloroethene	97	(70 - 130)	EPA-2 TO-14A
Methylene chloride	87	(70 - 130)	EPA-2 TO-14A
trans-1,2-Dichloroethene	96	(70 - 130)	EPA-2 TO-14A
1,1-Dichloroethane	100	(70 - 130)	EPA-2 TO-14A
Benzene	77	(70 - 130)	EPA-2 TO-14A
Carbon tetrachloride	129	(70 - 130)	EPA-2 TO-14A
Toluene	72	(70 - 130)	EPA-2 TO-14A
Trichloroethene	91	(70 - 130)	EPA-2 TO-14A
Tetrachloroethene	88	(70 - 130)	EPA-2 TO-14A
o-Xylene	82	(70 - 130)	EPA-2 TO-14A
Chlorobenzene	75	(70 - 130)	EPA-2 TO-14A
Ethylbenzene	80	(70 - 130)	EPA-2 TO-14A
m-Xylene & p-Xylene	84	(70 - 130)	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	106	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H0I290408 Work Order #...: L7R9G1AC Matrix.....: AIR
LCS Lot-Sample#: H0J010000-085
Prep Date.....: 09/30/10 Analysis Date..: 09/30/10
Prep Batch #...: 0274085
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
cis-1,2-Dichloroethene	0.0050	0.0046	ppm(v/v)	91	EPA-2 TO-14A
Chloroform	0.0050	0.0051	ppm(v/v)	102	EPA-2 TO-14A
1,1,1-Trichloroethane	0.0050	0.0060	ppm(v/v)	121	EPA-2 TO-14A
Chloromethane	0.0050	0.0061	ppm(v/v)	122	EPA-2 TO-14A
Vinyl chloride	0.0050	0.0057	ppm(v/v)	113	EPA-2 TO-14A
Chloroethane	0.0050	0.0048	ppm(v/v)	96	EPA-2 TO-14A
1,1-Dichloroethene	0.0050	0.0049	ppm(v/v)	97	EPA-2 TO-14A
Methylene chloride	0.0050	0.0044	ppm(v/v)	87	EPA-2 TO-14A
trans-1,2-Dichloroethene	0.0050	0.0048	ppm(v/v)	96	EPA-2 TO-14A
1,1-Dichloroethane	0.0050	0.0050	ppm(v/v)	100	EPA-2 TO-14A
Benzene	0.0050	0.0039	ppm(v/v)	77	EPA-2 TO-14A
Carbon tetrachloride	0.0050	0.0065	ppm(v/v)	129	EPA-2 TO-14A
Toluene	0.0050	0.0036	ppm(v/v)	72	EPA-2 TO-14A
Trichloroethene	0.0050	0.0046	ppm(v/v)	91	EPA-2 TO-14A
Tetrachloroethene	0.0050	0.0044	ppm(v/v)	88	EPA-2 TO-14A
o-Xylene	0.0050	0.0041	ppm(v/v)	82	EPA-2 TO-14A
Chlorobenzene	0.0050	0.0038	ppm(v/v)	75	EPA-2 TO-14A
Ethylbenzene	0.0050	0.0040	ppm(v/v)	80	EPA-2 TO-14A
m-Xylene & p-Xylene	0.010	0.0084	ppm(v/v)	84	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	106	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

HDI294408

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: Nick Rogers	Date:	COC No:
MACTEC Engineering and Consulting Inc.	Tel/Fax: 231 922-9050	Lab Contact: Mark Loeb/Jamie Mckinney	Carrier:	
41 Hughes Drive	Analysis Turnaround Time			24000609-0
Traverse City, MI 49686	Calendar (C) or Work Days (W) 14			SDG No.
(231)922-9050 Phone	TAT if different from Below ____			
(231)922-9055 FAX	☐ 2 weeks			
Project Name:Honeywell South Bend	☐ 1 week			
Site: Area 14	☐ 2 days			
P O # 4779250 STL	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N)	Chlorinated VOCs TO-14	Sample Specific Notes:
Lead West	9/28/10	8:55	Air		1		X	
Intermediate West		8:59	Air		1		X	
Lead East		8:10	Air		1		X	
Intermediate East		8:40	Air		1		X	

1 BOX RECEIVED AMBIENT
UPS# 1Z 438 878 01 5092 3939
NO CUSTODY SEAL TS 9/29/10

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Palmer Andersen	Peerless Midwest	9/28/10 13:20		Peerless-Midwest	9/28/10 1:22 PM
Relinquished by:	Company: Peerless-Midwest	Date/Time: 9/28/10 1:53	Received by:	Company: TA KNOXVILLE	Date/Time: 9/29/10 9:40
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 410129408

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	4A
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☒ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓	✓		☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 75528 PM Instructions: NA

Sample Receiving Associate: Julia Smith Date: 9/29/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0I290408*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
PDF 9.30.10	1150	28.64	L7MQK	12728	-24.8	20.3												8658
			L7MQP															

Original Chain of Custody Documentation

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HDI290408

Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: Nick Rogers	Date:	COC No:
MACTEC Engineering and Consulting Inc.	Tel/Fax: 231 922-9050	Lab Contact: Mark Loeb/Jamie Mckinney	Carrier:	
41 Hughes Drive	Analysis Turnaround Time			24000609-0
Traverse City, MI 49686	Calendar (C) or Work Days (W) 14			SDG No.
(231)922-9050 Phone	TAT if different from Below _____			
(231)922-9055 FAX	☐ 2 weeks			
Project Name:Honeywell South Bend	☐ 1 week			
Site: Area 14	☐ 2 days			
P O # 4779250 STL	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Chlorinated VOCs TO-14	Sample Specific Notes:
Lead West	9/28/10	8:55	Air		1	X	
Intermediate West	↓	8:59	Air		1	X	
Lead East		8:10	Air		1	X	
Intermediate East	↓	8:40	Air		1	X	

1 BOX RECEIVED AMBIENT
UPS# 1Z 432 878 01 5092 3939
NO CUSTODY SEAL TS 9/29/10

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Palmer Andersen	Peerless Midwest	9/28/10 13:20		Peerless-Midwest	9/28/10 1:22 PM
Relinquished by:	Company: Peerless-Midwest	Date/Time: 9/28/10 1:53	Received by:	Company: TA KNOXVILLE	Date/Time: 9/29/10 9:40
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Honeywell - South Bend

Lot #: H0J280411

Steven Murray

Mactec Engineering & Consultan
41 Hughes Drive
Traverse City, MI 49686

TESTAMERICA LABORATORIES, INC.

Jamie A. McKinney
Project Manager

November 4, 2010

EXECUTIVE SUMMARY - Detection Highlights

H0J280411

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
LEAD EAST 10/27/10 09:33 001				
Carbon tetrachloride	0.0010 J	0.0053	ppm(v/v)	EPA-2 TO-14A
Chloroform	0.0020 J	0.0053	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	0.0011 J	0.0053	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	0.017	0.0053	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	0.0018 J	0.0053	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	0.0055	0.013	ppm(v/v)	EPA-2 TO-14A
	Qualifiers: J,B			
Toluene	0.055	0.0053	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	0.0035 J	0.0053	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	0.54	0.0053	ppm(v/v)	EPA-2 TO-14A
INTERMEDIATE EAST 10/27/10 09:45 002				
Chloroform	0.0020 J	0.0036	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	0.00087 J	0.0036	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	0.022	0.0036	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	0.0013 J	0.0036	ppm(v/v)	EPA-2 TO-14A
Ethylbenzene	0.0013 J	0.0036	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	0.0034	0.0091	ppm(v/v)	EPA-2 TO-14A
	Qualifiers: J,B			
Toluene	0.054	0.0036	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	0.0028 J	0.0036	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	0.010	0.0036	ppm(v/v)	EPA-2 TO-14A
m-Xylene & p-Xylene	0.0032 J	0.0036	ppm(v/v)	EPA-2 TO-14A

ANALYTICAL METHODS SUMMARY

H0J280411

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO14 A (Low Level)	EPA-2 TO-14A

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0J280411

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L87R3	001	LEAD EAST	10/27/10	09:33
L87R4	002	INTERMEDIATE EAST	10/27/10	09:45

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0J280411

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

EPA methods TO-14 and TO-14A specify that the relative accuracy of the field sampler or sample delivery system must meet 90-110% for a standard at 8ppbv/v. The laboratory control sample (LCS) summary data in this report is evaluated against alternate acceptance criteria based on the laboratory procedure for methods TO-14 and TO-14A. Please refer to the LCS summary report for the actual observed recoveries and acceptance criteria for the LCS.

The samples were received on 10/28/10 in Tedlar bags. Sample LEAD EAST was transferred into Summa Canister within 72 hours of sampling. Sample INTERMEDIATE EAST was analyzed directly from the Tedlar bag within 72 hours of sampling.

MACTEC Engineering and Consulting Inc

Client Sample ID: LEAD EAST

GC/MS Volatiles

Lot-Sample #...: H0J280411-001 **Work Order #...:** L87R31AA **Matrix.....:** AIR
Date Sampled...: 10/27/10 09:33 **Date Received..:** 10/28/10
Prep Date.....: 11/01/10 **Analysis Date..:** 11/01/10
Prep Batch #...: 0306065
Dilution Factor: 26.43 **Method.....:** EPA-2 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.0053	ppm(v/v)
Carbon tetrachloride	**0.0010 J**	**0.0053**	**ppm(v/v)**
Chlorobenzene	ND	0.0053	ppm(v/v)
Chloroethane	ND	0.0053	ppm(v/v)
Chloroform	**0.0020 J**	**0.0053**	**ppm(v/v)**
Chloromethane	ND	0.013	ppm(v/v)
1,1-Dichloroethane	**0.0011 J**	**0.0053**	**ppm(v/v)**
cis-1,2-Dichloroethene	**0.017**	**0.0053**	**ppm(v/v)**
trans-1,2-Dichloroethene	**0.0018 J**	**0.0053**	**ppm(v/v)**
1,1-Dichloroethene	ND	0.0053	ppm(v/v)
Ethylbenzene	ND	0.0053	ppm(v/v)
Methylene chloride	**0.0055 J,B**	**0.013**	**ppm(v/v)**
Tetrachloroethene	ND	0.0053	ppm(v/v)
Toluene	**0.055**	**0.0053**	**ppm(v/v)**
1,1,1-Trichloroethane	**0.0035 J**	**0.0053**	**ppm(v/v)**
Trichloroethene	**0.54**	**0.0053**	**ppm(v/v)**
Vinyl chloride	ND	0.0053	ppm(v/v)
m-Xylene & p-Xylene	ND	0.0053	ppm(v/v)
o-Xylene	ND	0.0053	ppm(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC Engineering and Consulting Inc

Client Sample ID: INTERMEDIATE EAST

GC/MS Volatiles

Lot-Sample #...: H0J280411-002	**Work Order #...:** L87R41AA	**Matrix.....:** AIR	
Date Sampled...: 10/27/10 09:45	**Date Received..:** 10/28/10		
Prep Date.....: 10/28/10	**Analysis Date..:** 10/29/10		
Prep Batch #...: 0302169			
Dilution Factor: 18.18	**Method.....:** EPA-2 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.0036	ppm(v/v)
Carbon tetrachloride	ND	0.0036	ppm(v/v)
Chlorobenzene	ND	0.0036	ppm(v/v)
Chloroethane	ND	0.0036	ppm(v/v)
Chloroform	**0.0020 J**	**0.0036**	**ppm(v/v)**
Chloromethane	ND	0.0091	ppm(v/v)
1,1-Dichloroethane	**0.00087 J**	**0.0036**	**ppm(v/v)**
cis-1,2-Dichloroethene	**0.022**	**0.0036**	**ppm(v/v)**
trans-1,2-Dichloroethene	**0.0013 J**	**0.0036**	**ppm(v/v)**
1,1-Dichloroethene	ND	0.0036	ppm(v/v)
Ethylbenzene	**0.0013 J**	**0.0036**	**ppm(v/v)**
Methylene chloride	**0.0034 J,B**	**0.0091**	**ppm(v/v)**
Tetrachloroethene	ND	0.0036	ppm(v/v)
Toluene	**0.054**	**0.0036**	**ppm(v/v)**
1,1,1-Trichloroethane	**0.0028 J**	**0.0036**	**ppm(v/v)**
Trichloroethene	**0.010**	**0.0036**	**ppm(v/v)**
Vinyl chloride	ND	0.0036	ppm(v/v)
m-Xylene & p-Xylene	**0.0032 J**	**0.0036**	**ppm(v/v)**
o-Xylene	ND	0.0036	ppm(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	101	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H0J280411 **Work Order #...:** L89711AA **Matrix.....:** AIR
MB Lot-Sample #: H0J290000-169

Prep Date.....: 10/28/10
Analysis Date..: 10/28/10 **Prep Batch #...:** 0302169
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Carbon tetrachloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chlorobenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroform	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloromethane	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Ethylbenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	**0.000062 J**	**0.00050**	**ppm(v/v)**	**EPA-2 TO-14A**
Tetrachloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Toluene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Vinyl chloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
o-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
m-Xylene & p-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	102	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H0J280411 Work Order #...: L89711AC Matrix.....: AIR
LCS Lot-Sample#: H0J290000-169
Prep Date.....: 10/28/10 Analysis Date..: 10/28/10
Prep Batch #...: 0302169
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Chloromethane	**116**	**(60 - 140)**	**EPA-2 TO-14A**
Vinyl chloride	**112**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroethane	**113**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethene	**90**	**(70 - 130)**	**EPA-2 TO-14A**
Methylene chloride	**89**	**(70 - 130)**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**104**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethane	**91**	**(70 - 130)**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**91**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroform	**87**	**(70 - 130)**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**85**	**(70 - 130)**	**EPA-2 TO-14A**
Benzene	**91**	**(70 - 130)**	**EPA-2 TO-14A**
Carbon tetrachloride	**74**	**(70 - 130)**	**EPA-2 TO-14A**
Trichloroethene	**89**	**(70 - 130)**	**EPA-2 TO-14A**
Toluene	**81**	**(70 - 130)**	**EPA-2 TO-14A**
Tetrachloroethene	**83**	**(70 - 130)**	**EPA-2 TO-14A**
Chlorobenzene	**85**	**(70 - 130)**	**EPA-2 TO-14A**
Ethylbenzene	**79**	**(70 - 130)**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**78**	**(70 - 130)**	**EPA-2 TO-14A**
o-Xylene	**79**	**(70 - 130)**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	104	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H0J280411 Work Order #...: L89711AC Matrix.....: AIR
LCS Lot-Sample#: H0J290000-169
Prep Date.....: 10/28/10 Analysis Date..: 10/28/10
Prep Batch #...: 0302169
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Chloromethane	**0.0050**	**0.0058**	**ppm(v/v)**	**116**	**EPA-2 TO-14A**
Vinyl chloride	**0.0050**	**0.0056**	**ppm(v/v)**	**112**	**EPA-2 TO-14A**
Chloroethane	**0.0050**	**0.0056**	**ppm(v/v)**	**113**	**EPA-2 TO-14A**
1,1-Dichloroethene	**0.0050**	**0.0045**	**ppm(v/v)**	**90**	**EPA-2 TO-14A**
Methylene chloride	**0.0050**	**0.0044**	**ppm(v/v)**	**89**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**0.0050**	**0.0052**	**ppm(v/v)**	**104**	**EPA-2 TO-14A**
1,1-Dichloroethane	**0.0050**	**0.0046**	**ppm(v/v)**	**91**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**0.0050**	**0.0045**	**ppm(v/v)**	**91**	**EPA-2 TO-14A**
Chloroform	**0.0050**	**0.0044**	**ppm(v/v)**	**87**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**0.0050**	**0.0043**	**ppm(v/v)**	**85**	**EPA-2 TO-14A**
Benzene	**0.0050**	**0.0045**	**ppm(v/v)**	**91**	**EPA-2 TO-14A**
Carbon tetrachloride	**0.0050**	**0.0037**	**ppm(v/v)**	**74**	**EPA-2 TO-14A**
Trichloroethene	**0.0050**	**0.0044**	**ppm(v/v)**	**89**	**EPA-2 TO-14A**
Toluene	**0.0050**	**0.0041**	**ppm(v/v)**	**81**	**EPA-2 TO-14A**
Tetrachloroethene	**0.0050**	**0.0041**	**ppm(v/v)**	**83**	**EPA-2 TO-14A**
Chlorobenzene	**0.0050**	**0.0042**	**ppm(v/v)**	**85**	**EPA-2 TO-14A**
Ethylbenzene	**0.0050**	**0.0040**	**ppm(v/v)**	**79**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**0.010**	**0.0078**	**ppm(v/v)**	**78**	**EPA-2 TO-14A**
o-Xylene	**0.0050**	**0.0040**	**ppm(v/v)**	**79**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	104	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H0J280411 **Work Order #...:** L9EHE1AA **Matrix.....:** AIR
MB Lot-Sample #: H0K020000-065

Prep Date.....: 11/01/10
Analysis Date..: 11/01/10 **Prep Batch #...:** 0306065
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Carbon tetrachloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chlorobenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroform	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloromethane	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Ethylbenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	**0.000067 J**	**0.00050**	**ppm(v/v)**	**EPA-2 TO-14A**
Tetrachloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Toluene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Vinyl chloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
o-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
m-Xylene & p-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H0J280411 Work Order #...: L9EHE1AC Matrix.....: AIR
LCS Lot-Sample#: H0K020000-065
Prep Date.....: 11/01/10 Analysis Date..: 11/01/10
Prep Batch #...: 0306065
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**110**	**(70 - 130)**	**EPA-2 TO-14A**
Methylene chloride	**109**	**(70 - 130)**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**112**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethane	**115**	**(70 - 130)**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**116**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroform	**110**	**(70 - 130)**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**106**	**(70 - 130)**	**EPA-2 TO-14A**
Benzene	**116**	**(70 - 130)**	**EPA-2 TO-14A**
Carbon tetrachloride	**120**	**(70 - 130)**	**EPA-2 TO-14A**
Trichloroethene	**106**	**(70 - 130)**	**EPA-2 TO-14A**
Toluene	**109**	**(70 - 130)**	**EPA-2 TO-14A**
Tetrachloroethene	**104**	**(70 - 130)**	**EPA-2 TO-14A**
Chlorobenzene	**113**	**(70 - 130)**	**EPA-2 TO-14A**
Ethylbenzene	**116**	**(70 - 130)**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**115**	**(70 - 130)**	**EPA-2 TO-14A**
o-Xylene	**115**	**(70 - 130)**	**EPA-2 TO-14A**
Chloromethane	**118**	**(60 - 140)**	**EPA-2 TO-14A**
Vinyl chloride	**115**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroethane	**112**	**(70 - 130)**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	104	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H0J280411 Work Order #...: L9EHE1AC Matrix.....: AIR
LCS Lot-Sample#: H0K020000-065
Prep Date.....: 11/01/10 Analysis Date..: 11/01/10
Prep Batch #...: 0306065
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
1,1-Dichloroethene	**0.0050**	**0.0055**	**ppm(v/v)**	**110**	**EPA-2 TO-14A**
Methylene chloride	**0.0050**	**0.0054**	**ppm(v/v)**	**109**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**0.0050**	**0.0056**	**ppm(v/v)**	**112**	**EPA-2 TO-14A**
1,1-Dichloroethane	**0.0050**	**0.0058**	**ppm(v/v)**	**115**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**0.0050**	**0.0058**	**ppm(v/v)**	**116**	**EPA-2 TO-14A**
Chloroform	**0.0050**	**0.0055**	**ppm(v/v)**	**110**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**0.0050**	**0.0053**	**ppm(v/v)**	**106**	**EPA-2 TO-14A**
Benzene	**0.0050**	**0.0058**	**ppm(v/v)**	**116**	**EPA-2 TO-14A**
Carbon tetrachloride	**0.0050**	**0.0060**	**ppm(v/v)**	**120**	**EPA-2 TO-14A**
Trichloroethene	**0.0050**	**0.0053**	**ppm(v/v)**	**106**	**EPA-2 TO-14A**
Toluene	**0.0050**	**0.0055**	**ppm(v/v)**	**109**	**EPA-2 TO-14A**
Tetrachloroethene	**0.0050**	**0.0052**	**ppm(v/v)**	**104**	**EPA-2 TO-14A**
Chlorobenzene	**0.0050**	**0.0056**	**ppm(v/v)**	**113**	**EPA-2 TO-14A**
Ethylbenzene	**0.0050**	**0.0058**	**ppm(v/v)**	**116**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**0.010**	**0.011**	**ppm(v/v)**	**115**	**EPA-2 TO-14A**
o-Xylene	**0.0050**	**0.0057**	**ppm(v/v)**	**115**	**EPA-2 TO-14A**
Chloromethane	**0.0050**	**0.0059**	**ppm(v/v)**	**118**	**EPA-2 TO-14A**
Vinyl chloride	**0.0050**	**0.0057**	**ppm(v/v)**	**115**	**EPA-2 TO-14A**
Chloroethane	**0.0050**	**0.0056**	**ppm(v/v)**	**112**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	104	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

H053280411

Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: Nick Rogers	Date: 10/27/10	COC No:
MACTEC Engineering and Consulting Inc.	Tel/Fax: 231 922-9050	Lab Contact: Mark Loeb/Jamie Mckinney	Carrier:	
41 Hughes Drive	Analysis Turnaround Time			24000609-0
Traverse City, MI 49686	Calendar (C) or Work Days (W) 14			
(231)922-9050 Phone	TAT if different from Below			SDG No.
(231)922-9055 FAX	☐ 2 weeks			
Project Name:Honeywell South Bend	☐ 1 week			
Site: Area 14	☐ 2 days			
P O # 4779250 STL	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Chlorinated VOCs TO-14	Sample Specific Notes:
Lead West	10/27/10	10:00	Air		1	X	
Intermediate West	↓	10:20	Air		1	X	
Lead East		9:33	Air		1	X	
Intermediate East	↓	9:45	Air		1	X	

BOX RECEIVED AMBIENT
UPS# 1Z 438 878 01 5140 4999
CUSTODY SEAL INTACT
TS 10/28/10

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Peerless Midwest	10/27/10 12:15	[signature]	Peerless-Midwest	10/27/10 12:15
[signature]	Peerless-Midwest	10/27/10 2:2[illegible]	[signature]	TA KNOX	10/28/10 10:00

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: HDJ2601411

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 75525 PM Instructions: NA

Sample Receiving Associate: Jeff Smith Date: 10/28/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0J280411*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (- in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
AMB 10/9/20	1340	29.26	L87R3	0074	-25.5	+1.5												8909
			L87R4															

Original Chain of Custody Documentation

STL Knoxville
5815 Middlebrook Pike

Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HOS280411

Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: Nick Rogers	Date: 10/27/10	COC No:
MACTEC Engineering and Consulting Inc.	Tel/Fax: 231 922-9050	Lab Contact: Mark Loeb/Jamie Mckinney	Carrier:	
41 Hughes Drive	Analysis Turnaround Time			24000609-0
Traverse City, MI 49686	Calendar (C) or Work Days (W) 14			
(231)922-9050 Phone	TAT if different from Below _____			SDG No.
(231)922-9055 FAX	☐ 2 weeks			
Project Name:Honeywell South Bend	☐ 1 week			
Site: Area 14	☐ 2 days			
P O # 4779250 STL	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Chlorinated VOCs TO-14	Sample Specific Notes:
Lead West	10/27/10	10:00	Air		1	X	
Intermediate West	↓	10:20	Air		1	X	
Lead East		9:33	Air		1	X	
Intermediate East	↓	9:45	Air		1	X	

1 BOX RECEIVED AMBIENT
UPS# 1Z 438 878 01 5140 4999
CUSTODY SEAL INTACT
TS 10/28/10

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Peerless Midwest	10/27/10 12:15	[signature]	Peerless-Midwest	10/27/10 12:15
[signature]	Peerless-Midwest	10/28/10 2:2[illegible]	[signature]	TA KNOX	10/28/10 10:00

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Honeywell - South Bend

Lot #: H0L020406

Steven Murray

Mactec Engineering & Consultan
41 Hughes Drive
Traverse City, MI 49686

TESTAMERICA LABORATORIES, INC.

Jamie A. McKinney
Project Manager

December 8, 2010

EXECUTIVE SUMMARY - Detection Highlights

H0L020406

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
LEAD EAST 11/30/10 07:38 001				
Carbon tetrachloride	0.0017 J	0.0060	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	0.0010 J	0.0060	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	0.019	0.0060	ppm(v/v)	EPA-2 TO-14A
Toluene	0.019	0.0060	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	0.57	0.0060	ppm(v/v)	EPA-2 TO-14A
INTERMEDIATE EAST 11/30/10 07:48 002				
Carbon tetrachloride	0.0044	0.0040	ppm(v/v)	EPA-2 TO-14A
Chloroform	0.0064	0.0040	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	0.0024 J	0.0040	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	0.069	0.0040	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	0.0035 J	0.0040	ppm(v/v)	EPA-2 TO-14A
Toluene	0.044	0.0040	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	0.017	0.0040	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	0.26	0.0040	ppm(v/v)	EPA-2 TO-14A

ANALYTICAL METHODS SUMMARY

H0L020406

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO14 A (Low Level)	EPA-2 TO-14A

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0L020406

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MAQG5	001	LEAD EAST	11/30/10	07:38
MAQHQ	002	INTERMEDIATE EAST	11/30/10	07:48

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0L020406

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

Custody seals were not present.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

EPA methods TO-14 and TO-14A specify that the relative accuracy of the field sampler or sample delivery system must meet 90-110% for a standard at 8ppbv/v. The laboratory control sample (LCS) summary data in this report is evaluated against alternate acceptance criteria based on the laboratory procedure for methods TO-14 and TO-14A. Please refer to the LCS summary report for the actual observed recoveries and acceptance criteria for the LCS.

The samples were received on 12/2/10 in Tedlar bags and transferred into Summa Canisters within 72 hours of sampling.

MACTEC Engineering and Consulting Inc

Client Sample ID: LEAD EAST

GC/MS Volatiles

Lot-Sample #...: H0L020406-001 **Work Order #...:** MAQG51AA **Matrix.....:** AIR
Date Sampled...: 11/30/10 07:38 **Date Received..:** 12/02/10
Prep Date.....: 12/03/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0340065
Dilution Factor: 30 **Method.....:** EPA-2 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.0060	ppm(v/v)
Carbon tetrachloride	**0.0017 J**	**0.0060**	**ppm(v/v)**
Chlorobenzene	ND	0.0060	ppm(v/v)
Chloroethane	ND	0.0060	ppm(v/v)
Chloroform	ND	0.0060	ppm(v/v)
Chloromethane	ND	0.015	ppm(v/v)
1,1-Dichloroethane	**0.0010 J**	**0.0060**	**ppm(v/v)**
cis-1,2-Dichloroethene	**0.019**	**0.0060**	**ppm(v/v)**
trans-1,2-Dichloroethene	ND	0.0060	ppm(v/v)
1,1-Dichloroethene	ND	0.0060	ppm(v/v)
Ethylbenzene	ND	0.0060	ppm(v/v)
Methylene chloride	ND	0.015	ppm(v/v)
Tetrachloroethene	ND	0.0060	ppm(v/v)
Toluene	**0.019**	**0.0060**	**ppm(v/v)**
1,1,1-Trichloroethane	ND	0.0060	ppm(v/v)
Trichloroethene	**0.57**	**0.0060**	**ppm(v/v)**
Vinyl chloride	ND	0.0060	ppm(v/v)
m-Xylene & p-Xylene	ND	0.0060	ppm(v/v)
o-Xylene	ND	0.0060	ppm(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	92	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

MACTEC Engineering and Consulting Inc

Client Sample ID: INTERMEDIATE EAST

GC/MS Volatiles

Lot-Sample #...: H0L020406-002 **Work Order #...:** MAQHQ1AA **Matrix.....:** AIR
Date Sampled...: 11/30/10 07:48 **Date Received..:** 12/02/10
Prep Date.....: 12/03/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0340065
Dilution Factor: 20 **Method.....:** EPA-2 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.0040	ppm(v/v)
Carbon tetrachloride	**0.0044**	**0.0040**	**ppm(v/v)**
Chlorobenzene	ND	0.0040	ppm(v/v)
Chloroethane	ND	0.0040	ppm(v/v)
Chloroform	**0.0064**	**0.0040**	**ppm(v/v)**
Chloromethane	ND	0.010	ppm(v/v)
1,1-Dichloroethane	**0.0024 J**	**0.0040**	**ppm(v/v)**
cis-1,2-Dichloroethene	**0.069**	**0.0040**	**ppm(v/v)**
trans-1,2-Dichloroethene	**0.0035 J**	**0.0040**	**ppm(v/v)**
1,1-Dichloroethene	ND	0.0040	ppm(v/v)
Ethylbenzene	ND	0.0040	ppm(v/v)
Methylene chloride	ND	0.010	ppm(v/v)
Tetrachloroethene	ND	0.0040	ppm(v/v)
Toluene	**0.044**	**0.0040**	**ppm(v/v)**
1,1,1-Trichloroethane	**0.017**	**0.0040**	**ppm(v/v)**
Trichloroethene	**0.26**	**0.0040**	**ppm(v/v)**
Vinyl chloride	ND	0.0040	ppm(v/v)
m-Xylene & p-Xylene	ND	0.0040	ppm(v/v)
o-Xylene	ND	0.0040	ppm(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	93	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H0L020406 **Work Order #...:** MAWPE1AA **Matrix.....:** AIR
MB Lot-Sample #: H0L060000-065

Prep Date.....: 12/03/10
Analysis Date..: 12/03/10 **Prep Batch #...:** 0340065
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Carbon tetrachloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chlorobenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroform	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloromethane	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Ethylbenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	**0.000054 J**	**0.00050**	**ppm(v/v)**	**EPA-2 TO-14A**
Tetrachloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Toluene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Vinyl chloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
o-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
m-Xylene & p-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	96	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H0L020406 **Work Order #...:** MAWPE1AC **Matrix.....:** AIR
LCS Lot-Sample#: H0L060000-065
Prep Date.....: 12/03/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0340065
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Chloromethane	**108**	**(60 - 140)**	**EPA-2 TO-14A**
Vinyl chloride	**114**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroethane	**108**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethene	**111**	**(70 - 130)**	**EPA-2 TO-14A**
Methylene chloride	**102**	**(70 - 130)**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**107**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethane	**106**	**(70 - 130)**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**109**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroform	**107**	**(70 - 130)**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**107**	**(70 - 130)**	**EPA-2 TO-14A**
Benzene	**104**	**(70 - 130)**	**EPA-2 TO-14A**
Carbon tetrachloride	**111**	**(70 - 130)**	**EPA-2 TO-14A**
Trichloroethene	**111**	**(70 - 130)**	**EPA-2 TO-14A**
Toluene	**103**	**(70 - 130)**	**EPA-2 TO-14A**
Tetrachloroethene	**105**	**(70 - 130)**	**EPA-2 TO-14A**
Chlorobenzene	**105**	**(70 - 130)**	**EPA-2 TO-14A**
Ethylbenzene	**105**	**(70 - 130)**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**108**	**(70 - 130)**	**EPA-2 TO-14A**
o-Xylene	**107**	**(70 - 130)**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	98	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H0L020406 **Work Order #...:** MAWPE1AC **Matrix.....:** AIR
LCS Lot-Sample#: H0L060000-065
Prep Date.....: 12/03/10 **Analysis Date..:** 12/03/10
Prep Batch #...: 0340065
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Chloromethane	**0.0050**	**0.0054**	ppm(v/v)	**108**	**EPA-2 TO-14A**
Vinyl chloride	**0.0050**	**0.0057**	ppm(v/v)	**114**	**EPA-2 TO-14A**
Chloroethane	**0.0050**	**0.0054**	ppm(v/v)	**108**	**EPA-2 TO-14A**
1,1-Dichloroethene	**0.0050**	**0.0055**	ppm(v/v)	**111**	**EPA-2 TO-14A**
Methylene chloride	**0.0050**	**0.0051**	ppm(v/v)	**102**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**0.0050**	**0.0054**	ppm(v/v)	**107**	**EPA-2 TO-14A**
1,1-Dichloroethane	**0.0050**	**0.0053**	ppm(v/v)	**106**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**0.0050**	**0.0054**	ppm(v/v)	**109**	**EPA-2 TO-14A**
Chloroform	**0.0050**	**0.0054**	ppm(v/v)	**107**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**0.0050**	**0.0053**	ppm(v/v)	**107**	**EPA-2 TO-14A**
Benzene	**0.0050**	**0.0052**	ppm(v/v)	**104**	**EPA-2 TO-14A**
Carbon tetrachloride	**0.0050**	**0.0055**	ppm(v/v)	**111**	**EPA-2 TO-14A**
Trichloroethene	**0.0050**	**0.0055**	ppm(v/v)	**111**	**EPA-2 TO-14A**
Toluene	**0.0050**	**0.0052**	ppm(v/v)	**103**	**EPA-2 TO-14A**
Tetrachloroethene	**0.0050**	**0.0052**	ppm(v/v)	**105**	**EPA-2 TO-14A**
Chlorobenzene	**0.0050**	**0.0053**	ppm(v/v)	**105**	**EPA-2 TO-14A**
Ethylbenzene	**0.0050**	**0.0053**	ppm(v/v)	**105**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**0.010**	**0.011**	ppm(v/v)	**108**	**EPA-2 TO-14A**
o-Xylene	**0.0050**	**0.0053**	ppm(v/v)	**107**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	98	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

HDLD20406

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: Nick Rogers	Date: 11/30/10	COC No:
MACTEC Engineering and Consulting Inc.	Tel/Fax: 231 922-9050	Lab Contact: Mark Loeb/Jamie Mckinney	Carrier:	
41 Hughes Drive	Analysis Turnaround Time			24000609-0
Traverse City, MI 49686	Calendar (C) or Work Days (W) 14			SDG No.
(231)922-9050 Phone	TAT if different from Below _____			
(231)922-9055 FAX	☐ 2 weeks			
Project Name:Honeywell South Bend	☐ 1 week			
Site: Area 14	☐ 2 days			
P O # 4779250 STL	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Chlorinated VOCs TO-14	Sample Specific Notes:
Lead West	11/30/10	8:30	Air		1	X	
Intermediate West	↓	8:35	Air		1	X	
Lead East		7:38	Air		1	X	
Intermediate East		7:48	Air		1	X	

1 BOX RECEIVED AMBIENT
UPS# 1Z 433 878 01 4920 3607
NO CUSTODY SEAL
TS 12/2/10

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Palmer Andreasen	Peerless Midwest	11/30/10 15:00		Peerless-Midwest	11/30/10 14:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Peerless-Midwest	12/1/10 13:30		TA KNOX.	12/2/10 10:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: HDL020406

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	4A
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 75525 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 12/2/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0L020406*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 12-2-10	1500	29.20	MAQG5	12734	-26.6	+0.9												8946
↓	↓	↓	MAQHQ	92074	-26.3	+0.6												

Original Chain of Custody Documentation

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HDL020406

Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: Nick Rogers	Date: 11/30/10	COC No:
MACTEC Engineering and Consulting Inc.	Tel/Fax: 231 922-9050	Lab Contact: Mark Loeb/Jamie Mckinney	Carrier:	
41 Hughes Drive	Analysis Turnaround Time			24000609-0
Traverse City, MI 49686	Calendar (C) or Work Days (W) 14			SDG No.
(231)922-9050 Phone	TAT if different from Below _____			
(231)922-9055 FAX	☐ 2 weeks			
Project Name:Honeywell South Bend	☐ 1 week			
Site: Area 14	☐ 2 days			
P O # 4779250 STL	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Chlorinated VOCs TO-14	Sample Specific Notes:
Lead West	11/30/10	8:30	Air		1	X	
Intermediate West	↓	8:35	Air		1	X	
Lead East		7:38	Air		1	X	
Intermediate East	↓	7:48	Air		1	X	

1 BOX RECEIVED AMBIENT
UPS# 1Z 438 878 01 4920 3467
NO CUSTODY SEAL
TS 12/2/10

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Roemer Andreasen	Peerless Midwest	11/30/10 14:00		Peerless-Midwest	11/30/10 14:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Peerless-Midwest	12/1/10 13:30		TA KNOX.	12/2/10 10:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Honeywell - South Bend

Lot #: H0L230429

Steven Murray

Mactec Engineering & Consultan
41 Hughes Drive
Traverse City, MI 49686

TESTAMERICA LABORATORIES, INC.

Jamie A. McKinney
Project Manager

December 30, 2010

EXECUTIVE SUMMARY - Detection Highlights

H0L230429

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
LEAD EAST 12/22/10 001				
Benzene	0.0012 J	0.0040	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	0.00074 J	0.0040	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	0.012	0.0040	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	0.0077	0.010	ppm(v/v)	EPA-2 TO-14A
	Qualifiers: J,B			
Toluene	0.015	0.0040	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	0.17	0.0040	ppm(v/v)	EPA-2 TO-14A
INTERMEDIATE EAST 12/22/10 002				
Benzene	0.0035 J	0.0040	ppm(v/v)	EPA-2 TO-14A
Chloroform	0.0012 J	0.0040	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	0.0021 J	0.0040	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	0.024	0.0040	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	0.0031 J	0.0040	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	0.0075	0.010	ppm(v/v)	EPA-2 TO-14A
	Qualifiers: J,B			
Toluene	0.0091	0.0040	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	0.11	0.0040	ppm(v/v)	EPA-2 TO-14A

ANALYTICAL METHODS SUMMARY

H0L230429

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO14 A (Low Level)	EPA-2 TO-14A

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0L230429

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MCQWV	001	LEAD EAST	12/22/10	
MCQWW	002	INTERMEDIATE EAST	12/22/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0L230429

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

The chain of custody documentation was received with incomplete information. The chain of custody does not list the collection time.

Custody seals were not present.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

EPA methods TO-14 and TO-14A specify that the relative accuracy of the field sampler or sample delivery system must meet 90-110% for a standard at 8ppbv/v. The laboratory control sample (LCS) summary data in this report is evaluated against alternate acceptance criteria based on the laboratory procedure for methods TO-14 and TO-14A. Please refer to the LCS summary report for the actual observed recoveries and acceptance criteria for the LCS.

The samples were received on 12/23/10 in Tedlar bags and transferred into Summa Canisters within 72 hours of sampling.

MACTEC Engineering and Consulting Inc

Client Sample ID: LEAD EAST

GC/MS Volatiles

Lot-Sample #...: H0L230429-001	**Work Order #...:** MCQWV1AA	**Matrix.....:** AIR	
Date Sampled...: 12/22/10	**Date Received..:** 12/23/10		
Prep Date.....: 12/29/10	**Analysis Date..:** 12/29/10		
Prep Batch #...: 0364099			
Dilution Factor: 20	**Method.....:** EPA-2 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.0012 J**	**0.0040**	**ppm(v/v)**
Carbon tetrachloride	ND	0.0040	ppm(v/v)
Chlorobenzene	ND	0.0040	ppm(v/v)
Chloroethane	ND	0.0040	ppm(v/v)
Chloroform	ND	0.0040	ppm(v/v)
Chloromethane	ND	0.010	ppm(v/v)
1,1-Dichloroethane	**0.00074 J**	**0.0040**	**ppm(v/v)**
cis-1,2-Dichloroethene	**0.012**	**0.0040**	**ppm(v/v)**
trans-1,2-Dichloroethene	ND	0.0040	ppm(v/v)
1,1-Dichloroethene	ND	0.0040	ppm(v/v)
Ethylbenzene	ND	0.0040	ppm(v/v)
Methylene chloride	**0.0077 J,B**	**0.010**	**ppm(v/v)**
Tetrachloroethene	ND	0.0040	ppm(v/v)
Toluene	**0.015**	**0.0040**	**ppm(v/v)**
1,1,1-Trichloroethane	ND	0.0040	ppm(v/v)
Trichloroethene	**0.17**	**0.0040**	**ppm(v/v)**
Vinyl chloride	ND	0.0040	ppm(v/v)
m-Xylene & p-Xylene	ND	0.0040	ppm(v/v)
o-Xylene	ND	0.0040	ppm(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	110	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MACTEC Engineering and Consulting Inc

Client Sample ID: INTERMEDIATE EAST

GC/MS Volatiles

Lot-Sample #...: H0L230429-002	**Work Order #...:** MCQWW1AA	**Matrix.....:** AIR	
Date Sampled...: 12/22/10	**Date Received..:** 12/23/10		
Prep Date.....: 12/23/10	**Analysis Date..:** 12/23/10		
Prep Batch #...: 0362207			
Dilution Factor: 20	**Method.....:** EPA-2 TO-14A		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	**0.0035 J**	**0.0040**	**ppm(v/v)**
Carbon tetrachloride	ND	0.0040	ppm(v/v)
Chlorobenzene	ND	0.0040	ppm(v/v)
Chloroethane	ND	0.0040	ppm(v/v)
Chloroform	**0.0012 J**	**0.0040**	**ppm(v/v)**
Chloromethane	ND	0.010	ppm(v/v)
1,1-Dichloroethane	**0.0021 J**	**0.0040**	**ppm(v/v)**
cis-1,2-Dichloroethene	**0.024**	**0.0040**	**ppm(v/v)**
trans-1,2-Dichloroethene	**0.0031 J**	**0.0040**	**ppm(v/v)**
1,1-Dichloroethene	ND	0.0040	ppm(v/v)
Ethylbenzene	ND	0.0040	ppm(v/v)
Methylene chloride	**0.0075 J,B**	**0.010**	**ppm(v/v)**
Tetrachloroethene	ND	0.0040	ppm(v/v)
Toluene	**0.0091**	**0.0040**	**ppm(v/v)**
1,1,1-Trichloroethane	ND	0.0040	ppm(v/v)
Trichloroethene	**0.11**	**0.0040**	**ppm(v/v)**
Vinyl chloride	ND	0.0040	ppm(v/v)
m-Xylene & p-Xylene	ND	0.0040	ppm(v/v)
o-Xylene	ND	0.0040	ppm(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	105	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H0L230429 **Work Order #...:** MCTN81AA **Matrix.....:** AIR
MB Lot-Sample #: H0L280000-207

Prep Date.....: 12/23/10
Analysis Date..: 12/23/10 **Prep Batch #...:** 0362207
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Chloroform	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloromethane	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	**0.000045 J**	**0.00050**	**ppm(v/v)**	**EPA-2 TO-14A**
Tetrachloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Vinyl chloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Benzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Ethylbenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Toluene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
o-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
m-Xylene & p-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Carbon tetrachloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chlorobenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	108	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H0L230429 Work Order #...: MCTN81AC Matrix.....: AIR
LCS Lot-Sample#: H0L280000-207
Prep Date.....: 12/23/10 Analysis Date..: 12/23/10
Prep Batch #...: 0362207
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Chloromethane	**104**	**(60 - 140)**	**EPA-2 TO-14A**
Vinyl chloride	**100**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroethane	**94**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethene	**101**	**(70 - 130)**	**EPA-2 TO-14A**
Methylene chloride	**93**	**(70 - 130)**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**101**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethane	**100**	**(70 - 130)**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**97**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroform	**103**	**(70 - 130)**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**112**	**(70 - 130)**	**EPA-2 TO-14A**
Benzene	**88**	**(70 - 130)**	**EPA-2 TO-14A**
Carbon tetrachloride	**103**	**(70 - 130)**	**EPA-2 TO-14A**
Trichloroethene	**93**	**(70 - 130)**	**EPA-2 TO-14A**
Toluene	**73**	**(70 - 130)**	**EPA-2 TO-14A**
Tetrachloroethene	**79**	**(70 - 130)**	**EPA-2 TO-14A**
Chlorobenzene	**73**	**(70 - 130)**	**EPA-2 TO-14A**
Ethylbenzene	**76**	**(70 - 130)**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**76**	**(70 - 130)**	**EPA-2 TO-14A**
o-Xylene	**77**	**(70 - 130)**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	109	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H0L230429 **Work Order #...:** MCTN81AC **Matrix.....:** AIR
LCS Lot-Sample#: H0L280000-207
Prep Date.....: 12/23/10 **Analysis Date..:** 12/23/10
Prep Batch #...: 0362207
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Chloromethane	**0.0050**	**0.0052**	ppm(v/v)	**104**	**EPA-2 TO-14A**
Vinyl chloride	**0.0050**	**0.0050**	ppm(v/v)	**100**	**EPA-2 TO-14A**
Chloroethane	**0.0050**	**0.0047**	ppm(v/v)	**94**	**EPA-2 TO-14A**
1,1-Dichloroethene	**0.0050**	**0.0050**	ppm(v/v)	**101**	**EPA-2 TO-14A**
Methylene chloride	**0.0050**	**0.0046**	ppm(v/v)	**93**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**0.0050**	**0.0051**	ppm(v/v)	**101**	**EPA-2 TO-14A**
1,1-Dichloroethane	**0.0050**	**0.0050**	ppm(v/v)	**100**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**0.0050**	**0.0049**	ppm(v/v)	**97**	**EPA-2 TO-14A**
Chloroform	**0.0050**	**0.0052**	ppm(v/v)	**103**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**0.0050**	**0.0056**	ppm(v/v)	**112**	**EPA-2 TO-14A**
Benzene	**0.0050**	**0.0044**	ppm(v/v)	**88**	**EPA-2 TO-14A**
Carbon tetrachloride	**0.0050**	**0.0051**	ppm(v/v)	**103**	**EPA-2 TO-14A**
Trichloroethene	**0.0050**	**0.0046**	ppm(v/v)	**93**	**EPA-2 TO-14A**
Toluene	**0.0050**	**0.0037**	ppm(v/v)	**73**	**EPA-2 TO-14A**
Tetrachloroethene	**0.0050**	**0.0039**	ppm(v/v)	**79**	**EPA-2 TO-14A**
Chlorobenzene	**0.0050**	**0.0037**	ppm(v/v)	**73**	**EPA-2 TO-14A**
Ethylbenzene	**0.0050**	**0.0038**	ppm(v/v)	**76**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**0.010**	**0.0076**	ppm(v/v)	**76**	**EPA-2 TO-14A**
o-Xylene	**0.0050**	**0.0038**	ppm(v/v)	**77**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	109	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H0L230429 **Work Order #...:** MCW001AA **Matrix.....:** AIR
MB Lot-Sample #: H0L300000-099

Prep Date.....: 12/29/10
Analysis Date..: 12/29/10 **Prep Batch #...:** 0364099
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
cis-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Vinyl chloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Benzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Carbon tetrachloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chlorobenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroform	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloromethane	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Ethylbenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	**0.000048 J**	**0.00050**	**ppm(v/v)**	**EPA-2 TO-14A**
Tetrachloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Toluene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
o-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
m-Xylene & p-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	106	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H0L230429 **Work Order #...:** MCW001AC **Matrix.....:** AIR
LCS Lot-Sample#: H0L300000-099
Prep Date.....: 12/29/10 **Analysis Date..:** 12/29/10
Prep Batch #...: 0364099
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Chloromethane	**113**	**(60 - 140)**	**EPA-2 TO-14A**
Vinyl chloride	**107**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroethane	**110**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethene	**113**	**(70 - 130)**	**EPA-2 TO-14A**
Methylene chloride	**99**	**(70 - 130)**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**106**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethane	**101**	**(70 - 130)**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**100**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroform	**103**	**(70 - 130)**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**110**	**(70 - 130)**	**EPA-2 TO-14A**
Benzene	**92**	**(70 - 130)**	**EPA-2 TO-14A**
Carbon tetrachloride	**116**	**(70 - 130)**	**EPA-2 TO-14A**
Trichloroethene	**101**	**(70 - 130)**	**EPA-2 TO-14A**
Toluene	**77**	**(70 - 130)**	**EPA-2 TO-14A**
Tetrachloroethene	**97**	**(70 - 130)**	**EPA-2 TO-14A**
Chlorobenzene	**88**	**(70 - 130)**	**EPA-2 TO-14A**
Ethylbenzene	**93**	**(70 - 130)**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**93**	**(70 - 130)**	**EPA-2 TO-14A**
o-Xylene	**92**	**(70 - 130)**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	104	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H0L230429 Work Order #...: MCW001AC Matrix.....: AIR
LCS Lot-Sample#: H0L300000-099
Prep Date.....: 12/29/10 Analysis Date..: 12/29/10
Prep Batch #...: 0364099
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Chloromethane	**0.010**	**0.011**	ppm(v/v)	**113**	**EPA-2 TO-14A**
Vinyl chloride	**0.010**	**0.011**	ppm(v/v)	**107**	**EPA-2 TO-14A**
Chloroethane	**0.010**	**0.011**	ppm(v/v)	**110**	**EPA-2 TO-14A**
1,1-Dichloroethene	**0.010**	**0.011**	ppm(v/v)	**113**	**EPA-2 TO-14A**
Methylene chloride	**0.010**	**0.0099**	ppm(v/v)	**99**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**0.010**	**0.011**	ppm(v/v)	**106**	**EPA-2 TO-14A**
1,1-Dichloroethane	**0.010**	**0.010**	ppm(v/v)	**101**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**0.010**	**0.010**	ppm(v/v)	**100**	**EPA-2 TO-14A**
Chloroform	**0.010**	**0.010**	ppm(v/v)	**103**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**0.010**	**0.011**	ppm(v/v)	**110**	**EPA-2 TO-14A**
Benzene	**0.010**	**0.0092**	ppm(v/v)	**92**	**EPA-2 TO-14A**
Carbon tetrachloride	**0.010**	**0.012**	ppm(v/v)	**116**	**EPA-2 TO-14A**
Trichloroethene	**0.010**	**0.010**	ppm(v/v)	**101**	**EPA-2 TO-14A**
Toluene	**0.010**	**0.0077**	ppm(v/v)	**77**	**EPA-2 TO-14A**
Tetrachloroethene	**0.010**	**0.0097**	ppm(v/v)	**97**	**EPA-2 TO-14A**
Chlorobenzene	**0.010**	**0.0088**	ppm(v/v)	**88**	**EPA-2 TO-14A**
Ethylbenzene	**0.010**	**0.0093**	ppm(v/v)	**93**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**0.020**	**0.019**	ppm(v/v)	**93**	**EPA-2 TO-14A**
o-Xylene	**0.010**	**0.0092**	ppm(v/v)	**92**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	104	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

STL Knoxville
5815 Middlebrook Pike

Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Chain of Custody Record HDL-230429

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: Nick Rogers	Date: 12/22/10	COC No:
MACTEC Engineering and Consulting Inc.	Tel/Fax: 231 922-9050	Lab Contact: Mark Loeb/Jamie Mckinney	Carrier:	
41 Hughes Drive	Analysis Turnaround Time			24000609-0
Traverse City, MI 49686	Calendar (C) or Work Days (W) 14			
(231)922-9050 Phone	TAT if different from Below ____			SDG No.
(231)922-9055 FAX	☐ 2 weeks			
Project Name:Honeywell South Bend	☐ 1 week			
Site: Area 14	☐ 2 days			
P O # 4779250 STL	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Chlorinated VOCs TO-14	Sample Specific Notes:
Lead West	12/22/2010		Air		1	X	
Intermediate West	12/22/2010		Air		1	X	
Lead East	12/22/2010		Air		1	X	
Intermediate East	12/22/2010		Air		1	X	
							1 BOX RECEIVED AMBIENT
							UPS# 1Z4388B01500 3252
							NO CUSTODY SEAL TB 12/23/10

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Palmer Andreasen	Peerless Midwest	12/22/10 11:00	[signature]	Peerless-Midwest	12/22/10 11:15
[signature]	Peerless-Midwest	12/22/10 11:15	[signature]	TA KNOX	12/23/10 10:15
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

12/22/10

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 120230424

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)		✓		☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	1A COC DOES NOT LIST COLLECTION TIME; TEDLAR LABELS DO.
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____	4A
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☒ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?	✓		✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 75525 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 12/23/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0L230429*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 12-23-16	1250	29.31	**MCQWV**	12543	-25.4	+0.6												8983
"	"	"	**MCQWW**	04402	-26.1	+0.5												8961

Original Chain of Custody Documentation

STL Knoxville
5815 Middlebrook Pike

Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Chain of Custody Record HOL230429

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: Nick Rogers	Date: 12/22/10	COC No:
MACTEC Engineering and Consulting Inc.	Tel/Fax: 231 922-9050	Lab Contact: Mark Loeb/Jamie Mckinney	Carrier:	
41 Hughes Drive	Analysis Turnaround Time			24000609-0
Traverse City, MI 49686	Calendar (C) or Work Days (W) 14			
(231)922-9050 Phone	TAT if different from Below			SDG No.
(231)922-9055 FAX	☐ 2 weeks			
Project Name:Honeywell South Bend	☐ 1 week			
Site: Area 14	☐ 2 days			
P O # 4779250 STL	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Chlorinated VOCs TO-14	Sample Specific Notes:
Lead West	12/22/2010		Air		1	X	
Intermediate West	12/22/2010		Air		1	X	
Lead East	12/22/2010		Air		1	X	
Intermediate East	12/22/2010		Air		1	X	

1 BOX RECEIVED AMBIENT
UPS# 1Z 438 780 15 06 3252
NO CUSTODY SEAL TS 12/23/10

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Palmer Andreasen	Peerless Midwest	12/22/10 11:00		Peerless-Midwest	12/22/10 11:15
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Peerless-Midwest	12/22/10 11:15		TA KNOX	12/23/10 10:15
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

12/22/10

RECEIVED
FEB 21 2011
By

1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Honeywell - South Bend

Lot #: H1B040407

Steven Murray

Mactec Engineering & Consultan
41 Hughes Drive
Traverse City, MI 49686

TESTAMERICA LABORATORIES, INC.

Jamie A. McKinney
Project Manager

February 11, 2011

EXECUTIVE SUMMARY - Detection Highlights

H1B040407

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
LEAD EAST 02/02/11 10:30 001				
Chloroform	0.0012 J	0.0040	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	0.011	0.0040	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	0.024	0.010	ppm(v/v)	EPA-2 TO-14A
Toluene	0.041	0.0040	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	0.0023 J	0.0040	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	0.39	0.0040	ppm(v/v)	EPA-2 TO-14A
INTERMEDIATE EAST 02/02/11 10:45 002				
Methylene chloride	0.0019 J	0.010	ppm(v/v)	EPA-2 TO-14A
Toluene	0.024	0.0040	ppm(v/v)	EPA-2 TO-14A

ANALYTICAL METHODS SUMMARY

H1B040407

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO14 A (Low Level)	EPA-2 TO-14A

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H1B040407

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MD2P1	001	LEAD EAST	02/02/11	10:30
MD2P2	002	INTERMEDIATE EAST	02/02/11	10:45

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H1B040407

The results reported herein are applicable to the samples submitted for analysis only. If you have any questions about this report, please call (865) 291-3000 to speak with the TestAmerica project manager listed on the cover page.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

Custody seals were not present.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

EPA methods TO-14 and TO-14A specify that the relative accuracy of the field sampler or sample delivery system must meet 90-110% for a standard at 8ppbv/v. The laboratory control sample (LCS) summary data in this report is evaluated against alternate acceptance criteria based on the laboratory procedure for methods TO-14 and TO-14A. Please refer to the LCS summary report for the actual observed recoveries and acceptance criteria for the LCS.

The samples were received on 2/4/11 in Tedlar bags and transferred into Summa Canisters within 72 hours of sampling.

MACTEC Engineering and Consulting Inc

Client Sample ID: LEAD EAST

GC/MS Volatiles

Lot-Sample #...: H1B040407-001 **Work Order #...:** MD2P11AA **Matrix.....:** AIR
Date Sampled...: 02/02/11 10:30 **Date Received..:** 02/04/11
Prep Date.....: 02/07/11 **Analysis Date..:** 02/07/11
Prep Batch #...: 1038213
Dilution Factor: 20 **Method.....:** EPA-2 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.0040	ppm(v/v)
Carbon tetrachloride	ND	0.0040	ppm(v/v)
Chlorobenzene	ND	0.0040	ppm(v/v)
Chloroethane	ND	0.0040	ppm(v/v)
Chloroform	**0.0012 J**	**0.0040**	**ppm(v/v)**
Chloromethane	ND	0.010	ppm(v/v)
1,1-Dichloroethane	ND	0.0040	ppm(v/v)
cis-1,2-Dichloroethene	**0.011**	**0.0040**	**ppm(v/v)**
trans-1,2-Dichloroethene	ND	0.0040	ppm(v/v)
1,1-Dichloroethene	ND	0.0040	ppm(v/v)
Ethylbenzene	ND	0.0040	ppm(v/v)
Methylene chloride	**0.024**	**0.010**	**ppm(v/v)**
Tetrachloroethene	ND	0.0040	ppm(v/v)
Toluene	**0.041**	**0.0040**	**ppm(v/v)**
1,1,1-Trichloroethane	**0.0023 J**	**0.0040**	**ppm(v/v)**
Trichloroethene	**0.39**	**0.0040**	**ppm(v/v)**
Vinyl chloride	ND	0.0040	ppm(v/v)
m-Xylene & p-Xylene	ND	0.0040	ppm(v/v)
o-Xylene	ND	0.0040	ppm(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	94	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

MACTEC Engineering and Consulting Inc

Client Sample ID: INTERMEDIATE EAST

GC/MS Volatiles

Lot-Sample #...: H1B040407-002 **Work Order #...:** MD2P21AA **Matrix.....:** AIR
Date Sampled...: 02/02/11 10:45 **Date Received..:** 02/04/11
Prep Date.....: 02/07/11 **Analysis Date..:** 02/07/11
Prep Batch #...: 1038213
Dilution Factor: 20 **Method.....:** EPA-2 TO-14A

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Benzene	ND	0.0040	ppm(v/v)
Carbon tetrachloride	ND	0.0040	ppm(v/v)
Chlorobenzene	ND	0.0040	ppm(v/v)
Chloroethane	ND	0.0040	ppm(v/v)
Chloroform	ND	0.0040	ppm(v/v)
Chloromethane	ND	0.010	ppm(v/v)
1,1-Dichloroethane	ND	0.0040	ppm(v/v)
cis-1,2-Dichloroethene	ND	0.0040	ppm(v/v)
trans-1,2-Dichloroethene	ND	0.0040	ppm(v/v)
1,1-Dichloroethene	ND	0.0040	ppm(v/v)
Ethylbenzene	ND	0.0040	ppm(v/v)
Methylene chloride	**0.0019 J**	**0.010**	**ppm(v/v)**
Tetrachloroethene	ND	0.0040	ppm(v/v)
Toluene	**0.024**	**0.0040**	**ppm(v/v)**
1,1,1-Trichloroethane	ND	0.0040	ppm(v/v)
Trichloroethene	ND	0.0040	ppm(v/v)
Vinyl chloride	ND	0.0040	ppm(v/v)
m-Xylene & p-Xylene	ND	0.0040	ppm(v/v)
o-Xylene	ND	0.0040	ppm(v/v)

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	97	(60 - 140)

NOTE(S):

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: H1B040407 **Work Order #...:** MD5AV1AA **Matrix.....:** AIR
MB Lot-Sample #: H1B070000-213

Prep Date.....: 02/07/11
Analysis Date..: 02/07/11 **Prep Batch #...:** 1038213
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Carbon tetrachloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chlorobenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloroform	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Chloromethane	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
cis-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
trans-1,2-Dichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Ethylbenzene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Methylene chloride	ND	0.00050	ppm(v/v)	EPA-2 TO-14A
Tetrachloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Toluene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
1,1,1-Trichloroethane	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Trichloroethene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
Vinyl chloride	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
o-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A
m-Xylene & p-Xylene	ND	0.00020	ppm(v/v)	EPA-2 TO-14A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	93	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: H1B040407 Work Order #...: MD5AV1AC Matrix.....: AIR
LCS Lot-Sample#: H1B070000-213
Prep Date.....: 02/07/11 Analysis Date..: 02/07/11
Prep Batch #...: 1038213
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Chloromethane	**82**	**(60 - 140)**	**EPA-2 TO-14A**
Vinyl chloride	**96**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroethane	**91**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethene	**103**	**(70 - 130)**	**EPA-2 TO-14A**
Methylene chloride	**91**	**(70 - 130)**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**106**	**(70 - 130)**	**EPA-2 TO-14A**
1,1-Dichloroethane	**87**	**(70 - 130)**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**98**	**(70 - 130)**	**EPA-2 TO-14A**
Chloroform	**94**	**(70 - 130)**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**102**	**(70 - 130)**	**EPA-2 TO-14A**
Benzene	**95**	**(70 - 130)**	**EPA-2 TO-14A**
Carbon tetrachloride	**112**	**(70 - 130)**	**EPA-2 TO-14A**
Trichloroethene	**121**	**(70 - 130)**	**EPA-2 TO-14A**
Toluene	**99**	**(70 - 130)**	**EPA-2 TO-14A**
Tetrachloroethene	**120**	**(70 - 130)**	**EPA-2 TO-14A**
Chlorobenzene	**111**	**(70 - 130)**	**EPA-2 TO-14A**
Ethylbenzene	**100**	**(70 - 130)**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**101**	**(70 - 130)**	**EPA-2 TO-14A**
o-Xylene	**100**	**(70 - 130)**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	93	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: H1B040407 Work Order #...: MD5AV1AC Matrix.....: AIR
LCS Lot-Sample#: H1B070000-213
Prep Date.....: 02/07/11 Analysis Date..: 02/07/11
Prep Batch #...: 1038213
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Chloromethane	**0.0050**	**0.0041**	ppm(v/v)	**82**	**EPA-2 TO-14A**
Vinyl chloride	**0.0050**	**0.0048**	ppm(v/v)	**96**	**EPA-2 TO-14A**
Chloroethane	**0.0050**	**0.0045**	ppm(v/v)	**91**	**EPA-2 TO-14A**
1,1-Dichloroethene	**0.0050**	**0.0051**	ppm(v/v)	**103**	**EPA-2 TO-14A**
Methylene chloride	**0.0050**	**0.0046**	ppm(v/v)	**91**	**EPA-2 TO-14A**
trans-1,2-Dichloroethene	**0.0050**	**0.0053**	ppm(v/v)	**106**	**EPA-2 TO-14A**
1,1-Dichloroethane	**0.0050**	**0.0044**	ppm(v/v)	**87**	**EPA-2 TO-14A**
cis-1,2-Dichloroethene	**0.0050**	**0.0049**	ppm(v/v)	**98**	**EPA-2 TO-14A**
Chloroform	**0.0050**	**0.0047**	ppm(v/v)	**94**	**EPA-2 TO-14A**
1,1,1-Trichloroethane	**0.0050**	**0.0051**	ppm(v/v)	**102**	**EPA-2 TO-14A**
Benzene	**0.0050**	**0.0048**	ppm(v/v)	**95**	**EPA-2 TO-14A**
Carbon tetrachloride	**0.0050**	**0.0056**	ppm(v/v)	**112**	**EPA-2 TO-14A**
Trichloroethene	**0.0050**	**0.0060**	ppm(v/v)	**121**	**EPA-2 TO-14A**
Toluene	**0.0050**	**0.0049**	ppm(v/v)	**99**	**EPA-2 TO-14A**
Tetrachloroethene	**0.0050**	**0.0060**	ppm(v/v)	**120**	**EPA-2 TO-14A**
Chlorobenzene	**0.0050**	**0.0056**	ppm(v/v)	**111**	**EPA-2 TO-14A**
Ethylbenzene	**0.0050**	**0.0050**	ppm(v/v)	**100**	**EPA-2 TO-14A**
m-Xylene & p-Xylene	**0.010**	**0.010**	ppm(v/v)	**101**	**EPA-2 TO-14A**
o-Xylene	**0.0050**	**0.0050**	ppm(v/v)	**100**	**EPA-2 TO-14A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	93	(60 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

STL Knoxville
5815 Middlebrook Pike

Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HIB040407

Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: Nick Rogers	Date: 2/2/11	COC No:
MACTEC Engineering and Consulting Inc.	Tel/Fax: 231 922-9050	Lab Contact: Mark Loeb/Jamie Meldauer	Carrier:	
41 Hughes Drive	Analysis Turnaround Time			24000609-0
Traverse City, MI 49686	Calendar (C) or Work Days (W) 14			SDG No.
(231)922-9050 Phone	TAT if different from Below			
(231)922-9055 FAX	☐ 2 weeks			
Project Name:Honeywell South Bend	☐ 1 week			
Site: Area 14	☐ 2 days			
P O # 4779250 STL	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Chlorinated VOCs TO-14	Sample Specific Notes:
Lead West	2/2/11	9:15	Air		1	X	
Intermediate West	"	9:35	Air		1	X	
Lead East	"	10:30	Air		1	X	
Intermediate East	"	10:45	Air		1	X	
							NO CUSTODY SEALS
							RECEIVED AT AMBIENT
							TEMP AND. 2-4-11
							1 BOX VPSH
							1243887801511443875

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company: Peerless Midwest	Date/Time: 2/2/11 11:37	Received by:	Company: Peerless-Midwest	Date/Time: 2/2/11 11:37
Relinquished by:	Company: Peerless-Midwest	Date/Time: 2/2/11 11:38	Received by:	Company: TA	Date/Time: 2-4-11 09:30
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H1B040407

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	NA
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C)			✓	☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____ ☐ 2c Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?		✓		☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?		✓	✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?		✓	✓	☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 75525 PM Instructions: NA

Sample Receiving Associate: _____ Date: 2-4-11

QA026R22.doc, 012811

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H1B040407*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 2-4-11	1545	28.93	MD2P1	93270	-24.0	+0.8												9063
"	"	"	MD2P2	12734	-24.9	+0.8												9031

Original Chain of Custody Documentation

H1B040407

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Chain of Custody Record

SEVERN TRENT STL

Severn Trent Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: Nick Rogers	Date: 2/2/11	COC No:
MACTEC Engineering and Consulting Inc.	Tel/Fax: 231 922-9050	Lab Contact: Mark Loeb/Jamie Mckinney	Carrier:	
41 Hughes Drive	Analysis Turnaround Time			24000609-0
Traverse City, MI 49686	Calendar (C) or Work Days (W) 14			
(231)922-9050 Phone	TAT if different from Below			SDG No.
(231)922-9055 FAX	☐ 2 weeks			
Project Name:Honeywell South Bend	☐ 1 week			
Site: Area 14	☐ 2 days			
P O # 4779250 STL	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Chlorinated VOCs TO-14	Sample Specific Notes:
Lead West	2/2/11	9:15	Air		1	X	
Intermediate West	↓	9:35	Air		1	X	
Lead East		10:30	Air		1	X	
Intermediate East	↓	10:45	Air		1	X	
							NO CUSTODY SEALS
							RECEIVED AT AMBIENT
							TEMP AND 2-4-11
							1 UPS
							1Z438878015114437 5

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Palmer Andreasen	Peerless Midwest	2/2/11 11:37		Peerless-Midwest	2/2/11 11:37
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Peerless-Midwest	2/2/11 11:38		TA	2-4-11 09:30
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

APPENDIX C

GROUNDWATER SAMPLE RECORD SHEETS

MACTEC

Sample No.: 86-14 10 10
Sample Date: 19-Oct-10
Sample Time: 13:10

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: BMW
Activity Start: 12:45 Activity End: 13:15
Weather: Indoors,
Well Type and Location: 1.5" Flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 23.65 feet using _____ (from top of well casing) (measuring device) Water Depth: 15.03 feet using _____ (from top of well casing) (measuring device)

Historical Well Depth: _____ feet (from ground surface) Protective Casing Stickup: _____ feet (for above-ground surface) Protect. Casing Well Casing Difference: _____ feet

Floating Product Thickness: _____ feet using _____ (measuring device)

Well Condition: Good - No well cap
Measuring Device Decontamination Procedure: ***Alconox & DI Rinse***
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet

	.041 gal/ft (1 in)
X	.09 gal/ft (1.5 in)
	.16 gal/ft (2 in)
	.65 gal/ft (4 in)

8.62 ***0.8***

2.6 gal/ft (8 in)

X 3 casing volumes = 2.4 gallons to purge

Purge Method: Peristaltic

Purge Vol. (gal)	0.58	1.16	1.74	2.33
Time (Min.)	12:52	12:57	13:03	13:07
Temperature (C°)	20.25	20.30	20.31	20.30
pH (Units)	7.20	7.21	7.21	7.21
Conductivity at 25°C (mS/cm)	3.88	3.90	3.90	3.90
ORP (mV)	-57.00	-76.00	-84.00	-89.00
Turb (NTU)	6.30	4.00	4.53	2.94
DO (%)	-0.14	-0.06	-0.09	-0.09

Total Volume Purged 2.50 gallons

Water Appearance (describe color, clarity odor:) clear, slight odor

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic

Sample Water Appearance (color, clarity, odor): clear, slight odor, few small black floaties

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	*N*	*Y*
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

MS/MSD Collected

NAME (Print) Brent Wheat

SIGNATURE: _____

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

MACTEC

Sample No.: **86-15 10 10**
Sample Date: 19-Oct-10
Sample Time: 12:00

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: BMW
Activity Start: 11:40 Activity End: 12:08
Weather: Indoors,
Well Type and Location: 1.5" flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 25.30 feet using _____ (measuring device) (from top of well casing)
Water Depth: 15.11 feet using _____ (measuring device) (from top of well casing)
Historical Well Depth: _____ feet (from ground surface)
Protective Casing Stickup: _____ feet (for above-ground surface)
Protect. Casing Well Casing Difference: _____ feet
Floating Product Thickness: _____ feet using _____ (measuring device)
Well Condition: Well cut on Angle. Measured at highest point
Measuring Device Decontamination Procedure: ***Alconox & DI Rinse***
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet

	.041 gal/ft (1 in)
X	.09 gal/ft (1.5 in)
	.16 gal/ft (2 in)
	.65 gal/ft (4 in)

0.9 X 3 casing volumes = 2.8 gallons to purge

10.19 2.6 gal/ft (8 in)

Purge Method: Peristaltic

	0.69	1.38	2.07	2.75
Time (Min.)	11:47	11:51	11:55	11:58
Temperature (C°)	19.54	19.74	19.77	19.79
pH (Units)	6.86	6.90	6.91	6.91
Conductivity at 25°C (mS/cm)	5.49	5.61	5.69	5.67
ORP (mV)	103.00	92.00	87.00	82.00
Turb (NTU)	625.70	20.31	13.86	17.44
DO (%)	0.10	0.04	-0.01	-0.04

Total Volume Purged 3.00 gallons
Water Appearance (describe color, clarity odor:) slightly cloudy

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic
Sample Water Appearance (color, clarity, odor): clear

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	*N*	*Y*
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

-

NAME (Print) Brent Wheat
SIGNATURE: _____

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

MACTEC

Sample No.: MW-16 10 10
Sample Date: 19-Oct-10
Sample Time: 15:20

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: BMW
Activity Start: 14:45 Activity End: 15:30
Weather: Indoors,
Well Type and Location: 2" flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 20.75 feet using _____ (from top of well casing) (measuring device) Water Depth: 14.93 feet using _____ (from top of well casing) (measuring device)

Historical Well Depth: _____ feet (from ground surface) Protective Casing Stickup: _____ feet (for above-ground surface) Protect. Casing Well Casing Difference: _____ feet

Floating Product Thickness: _____ feet using _____ (measuring device)

Well Condition: Good. Well cap under strong vacuum
Measuring Device Decontamination Procedure: ***Alconox & DI Rinse***
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet

	.041 gal/ft (1 in)
	.09 gal/ft (1.5 in)
X	.16 gal/ft (2 in)
	.65 gal/ft (4 in)

0.9 X 3 casing volumes = 2.8 gallons to purge

5.82 2.6 gal/ft (8 in)

Purge Method: Peristaltic

Purge Vol. (gal)	0.69	1.40	2.10	2.80
Time (Min.)	14:54	15:02	15:08	15:16
Temperature (C°)	20.80	20.77	20.77	20.78
pH (Units)	6.56	6.52	6.51	6.51
Conductivity at 25°C (mS/cm)	5.54	5.65	5.69	5.69
ORP (mV)	-98.00	-98.00	-97.00	-98.00
Turb (NTU)	86.65	60.13	42.55	69.33
DO (%)	-0.11	-0.13	-0.13	-0.13

Total Volume Purged 3.00 gallons

Water Appearance (describe color, clarity odor:) Cloudy gray/black, very strong odor

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic

Sample Water Appearance (color, clarity, odor): -

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	*N*	*Y*
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

MW-100 = Duplicate Sample

NAME (Print) Brent Wheat

SIGNATURE: _____

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

MACTEC

Sample No.: MW-17 10 10
Sample Date: 19-Oct-10
Sample Time: 15:56

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: BMW
Activity Start: 15:30 Activity End: 16:00
Weather: Indoors,0
Well Type and Location: 2" flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 29.30 (from top of well casing) feet using _____ (measuring device) Water Depth: 14.95 (from top of well casing) feet using _____ (measuring device)

Historical Well Depth: _____ feet (from ground surface) Protective Casing Stickup: _____ feet (for above-ground surface) Protect. Casing Well Casing Difference: _____ feet

Floating Product Thickness: _____ feet using _____ (measuring device)

Well Condition: Good
Measuring Device Decontamination Procedure: ***Alconox & DI Rinse***
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet		.041 gal/ft (1 in)				
		.09 gal/ft (1.5 in)				
	X	.16 gal/ft (2 in)		X	3	casing volumes = 7.0 gallons to purge
		.65 gal/ft (4 in)	***2.3***			

14.35 2.6 gal/ft (8 in)

Purge Method: Peristaltic

Purge Vol. (gal)	1.72	3.44	5.16	6.90
Time (Min.)	15:38	15:46	15:53	15:56
Temperature (C°)	19.79	19.79	19.80	19.80
pH (Units)	6.51	6.51	6.51	6.51
Conductivity at 25°C (mS/cm)	5.43	5.48	5.51	5.53
ORP (mV)	-84.00	-85.00	-87.00	-88.00
Turb (NTU)	155.30	151.40	152.00	142.80
DO (%)	-0.13	-0.14	-0.15	-0.15

Total Volume Purged: 7.00 gallons

Water Appearance (describe color, clarity odor:): Cloudy grey, strong odor

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic

Sample Water Appearance (color, clarity, odor): slightly cloudy, moderate odor

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	*N*	*Y*
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

-

NAME (Print): Brent Wheat

SIGNATURE: _____

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

MACTEC

Sample No.: EW-2B 10 10
Sample Date: 19-Oct-10
Sample Time: 14:35

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: BMW
Activity Start: 14:15 Activity End: 14:40
Weather: Indoors,
Well Type and Location: 2" flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 18.00 (from top of well casing) feet using _____ (measuring device) Water Depth: 14.77 (from top of well casing) feet using _____ (measuring device)

Historical Well Depth: _____ feet (from ground surface) Protective Casing Stickup: _____ feet (for above-ground surface) Protect. Casing Well Casing Difference: _____ feet

Floating Product Thickness: _____ feet using _____ (measuring device)

Well Condition: Good
Measuring Device Decontamination Procedure: ***Alconox & DI Rinse***
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet

	.041 gal/ft (1 in)
	.09 gal/ft (1.5 in)
X	.16 gal/ft (2 in)
	.65 gal/ft (4 in)

0.5 X 3 casing volumes = 1.6 gallons to purge

3.23 2.6 gal/ft (8 in)

Purge Method: Peristaltic

Purge Vol. (gal)	0.39	0.78	1.17	1.55
Time (Min.)	14:23	14:26	14:29	14:32
Temperature (C°)	20.27	20.28	20.27	20.28
pH (Units)	6.80	6.80	6.80	6.80
Conductivity at 25°C (mS/cm)	5.41	5.43	5.44	5.43
ORP (mV)	-82.00	-86.00	-88.00	-91.00
Turb (NTU)	11.11	11.15	10.05	16.18
DO (%)	-0.05	-0.08	-0.09	-0.10

Total Volume Purged: 2.00 gallons

Water Appearance (describe color, clarity odor:): slightly cloudy/black, strong odor

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic

Sample Water Appearance (color, clarity, odor): clear, strong odor

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	*N*	*Y*
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

-

NAME (Print): Brent Wheat

SIGNATURE: _____

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

MACTEC

Sample No.: AS-1 10 10
Sample Date: 19-Oct-10
Sample Time: 14:00

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: BMW
Activity Start: 13:20 Activity End: 14:10
Weather: Indoors,
Well Type and Location: 2" flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 21.12 feet using _____ Water Depth: 14.78 feet using _____
(from top of well casing) (measuring device) (from top of well casing) (measuring device)

Historical Well Depth: _____ feet (from ground surface) Protective Casing Stickup: _____ feet (for above-ground surface) Protect. Casing Well Casing Difference: _____ feet

Floating Product Thickness: _____ feet using _____ (measuring device)

Well Condition: Good
Measuring Device Decontamination Procedure: ***Alconox & DI Rinse***
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet		.041 gal/ft (1 in)
		.09 gal/ft (1.5 in)
	X	.16 gal/ft (2 in)
		.65 gal/ft (4 in)

1.0 X 3 casing volumes = 3.1 gallons to purge

6.34 2.6 gal/ft (8 in)

Purge Method: Peristaltic

Purge Vol. (gal)	0.77	1.52	2.28	3.04
Time (Min.)	13:42	13:52	13:54	13:59
Temperature (C°)	19.88	19.88	19.87	19.88
pH (Units)	6.49	6.49	6.49	6.49
Conductivity at 25°C (mS/cm)	5.89	5.87	5.88	5.86
ORP (mV)	-70.00	-75.00	-75.00	-77.00
Turb (NTU)	20.02	18.03	18.17	20.62
DO (%)	-0.08	-0.10	-0.11	-0.11

Total Volume Purged 4.00 gallons

Water Appearance (describe color, clarity odor:) -

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic

Sample Water Appearance (color, clarity, odor): clear, moderate odor

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	*N*	*Y*
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

-

NAME (Print) Brent Wheat

SIGNATURE: _____

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

MACTEC

Sample No.: MP-10 10 10
Sample Date: 19-Oct-10
Sample Time: 12:40

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: BMW
Activity Start: 12:10 Activity End: 12:45
Weather: Indoors,
Well Type and Location: 2" flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 20.75 feet using _____ (from top of well casing) (measuring device)
Water Depth: 14.73 feet using _____ (from top of well casing) (measuring device)

Historical Well Depth: _____ feet (from ground surface)
Protective Casing Stickup: _____ feet (for above-ground surface)
Protect. Casing Well Casing Difference: _____ feet

Floating Product Thickness: _____ feet using _____ (measuring device)

Well Condition: Good
Measuring Device Decontamination Procedure: *Alconox & DI Rinse*
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet

	.041 gal/ft (1 in)
	.09 gal/ft (1.5 in)
X	.16 gal/ft (2 in)
	.65 gal/ft (4 in)

X 3 casing volumes = 2.9 gallons to purge

1.0

6.02 2.6 gal/ft (8 in)

Purge Method: Peristaltic

Purge Vol. (gal)	0.72	1.44	2.16	2.89
Time (Min.)	12:19	12:27	12:30	12:35
Temperature (C°)	18.80	18.82	18.82	18.81
pH (Units)	7.00	7.01	7.01	7.01
Conductivity at 25°C (mS/cm)	4.07	3.97	3.97	4.00
ORP (mV)	50.00	54.00	54.00	56.00
Turb (NTU)	8.72	13.08	7.94	4.34
DO (%)	-0.03	-0.05	-0.05	-0.07

Total Volume Purged 2.90 gallons

Water Appearance (describe color, clarity odor:) Clear

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic

Sample Water Appearance (color, clarity, odor): Clear

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	*N*	*Y*
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

-

NAME (Print) Brent Wheat

SIGNATURE: _____

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

MACTEC

Sample No.: 86-14 01 11
Sample Date: 19-Jan-11
Sample Time: 11:20

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: JPS/SGB
Activity Start: 11:00 Activity End: 11:20
Weather: Indoors,
Well Type and Location: 1.5" Flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 23.65 feet using _____ (measuring device) (from top of well casing)
Water Depth: 15.29 feet using _____ (measuring device) (from top of well casing)
Historical Well Depth: _____ feet (from ground surface)
Protective Casing Stickup: _____ feet (for above-ground surface)
Protect. Casing Well Casing Difference: _____ feet
Floating Product Thickness: _____ feet using _____ (measuring device)
Well Condition: Good - No well cap
Measuring Device Decontamination Procedure: ***Alconox & DI Rinse***
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet

	.041 gal/ft (1 in)
X	.09 gal/ft (1.5 in)
	.16 gal/ft (2 in)
	.65 gal/ft (4 in)

0.8 X 3 casing volumes = 2.3 gallons to purge

8.36 2.6 gal/ft (8 in)

Purge Method: Peristaltic

Purge Vol. (gal)	0.50	1.00	1.50	2.00
Time (Min.)	11:05	11:09	11:13	11:18
Temperature (C°)	20.01	20.07	20.08	20.09
pH (Units)	7.10	7.13	7.15	7.16
Conductivity at 25°C (mS/cm)	3.53	3.51	3.51	3.51
ORP (mV)	79.00	72.00	67.00	61.00
Turb (NTU)	9.52	5.99	11.77	19.77
DO (%)	0.02	-0.03	-0.04	-0.05

Total Volume Purged 2.30 gallons
Water Appearance (describe color, clarity odor:) clear

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic
Sample Water Appearance (color, clarity, odor): -

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	*N*	*Y*
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

MS/MSD Collected

NAME (Print) James Staley
SIGNATURE:

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

MACTEC

Sample No.: 86-15 01 11
Sample Date: 19-Jan-11
Sample Time: 10:15

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: JPS/SGB
Activity Start: 9:45 Activity End: 10:18
Weather: Indoors,
Well Type and Location: 1.5" flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 25.30 (from top of well casing) feet using _____ (measuring device) Water Depth: 15.53 (from top of well casing) feet using _____ (measuring device)

Historical Well Depth: _____ (from ground surface) feet Protective Casing Stickup: _____ (for above-ground surface) feet Protect. Casing Well Casing Difference: _____ feet

Floating Product Thickness: _____ feet using _____ (measuring device)

Well Condition: Well cut on Angle. Measured at highest point
Measuring Device Decontamination Procedure: ***Alconox & DI Rinse***
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet				
		.041 gal/ft (1 in)		
	X	.09 gal/ft (1.5 in)		
		.16 gal/ft (2 in)	X 3	casing volumes = 2.7 gallons to purge
		.65 gal/ft (4 in)	***0.9***	

9.77 2.6 gal/ft (8 in)

Purge Method: Peristaltic

	0.60	1.20	1.80	2.40
Time (Min.)	10:02	10:06	10:10	10:14
Temperature (C°)	19.46	19.52	19.54	19.54
pH (Units)	6.80	6.85	6.88	6.89
Conductivity at 25°C (mS/cm)	4.76	4.79	4.80	4.81
ORP (mV)	193.00	178.00	161.00	150.00
Turb (NTU)	27.54	26.22	23.90	50.37
DO (%)	0.06	0.02	-0.01	-0.02

Total Volume Purged 2.70 gallons

Water Appearance (describe color, clarity odor:) Clear

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic

Sample Water Appearance (color, clarity, odor): clear

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	***N***	***Y***
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

-

NAME (Print) James Staley

SIGNATURE: _____

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

MACTEC

Sample No.: MW-16 01 11
Sample Date: 19-Jan-11
Sample Time: 13:40

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: JPS/SGB
Activity Start: 13:00 Activity End: 13:45
Weather: Indoors,
Well Type and Location: 2" flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 20.75 feet using _____ (from top of well casing) (measuring device)
Water Depth: 15.21 feet using _____ (from top of well casing) (measuring device)
Historical Well Depth: _____ feet (from ground surface)
Protective Casing Stickup: _____ feet (for above-ground surface)
Protect. Casing Well Casing Difference: _____ feet
Floating Product Thickness: _____ feet using _____ (measuring device)
Well Condition: Good
Measuring Device Decontamination Procedure: ***Alconox & DI Rinse***
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet

	.041 gal/ft (1 in)
	.09 gal/ft (1.5 in)
X	.16 gal/ft (2 in)
	.65 gal/ft (4 in)

0.9 X 3 casing volumes = 2.7 gallons to purge

5.54 2.6 gal/ft (8 in)

Purge Method: Peristaltic

Purge Vol. (gal)	0.07	1.40	2.10	2.80
Time (Min.)	13:14	13:21	13:27	13:37
Temperature (C°)	20.26	20.32	20.31	20.33
pH (Units)	6.58	6.55	6.54	6.54
Conductivity at 25°C (mS/cm)	5.43	5.32	5.33	5.27
ORP (mV)	26.00	21.00	18.00	13.00
Turb (NTU)	50.58	24.55	17.84	11.12
DO (%)	0.34	0.03	-0.04	-0.07

Total Volume Purged 2.70 gallons
Water Appearance (describe color, clarity odor:) -

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic
Sample Water Appearance (color, clarity, odor): -

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	*N*	*Y*
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

-

NAME (Print) James Staley
SIGNATURE:

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

MACTEC

Sample No.: MW-17 01 11
Sample Date: 19-Jan-11
Sample Time: 12:50

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: JPS/SGB
Activity Start: 12:32 Activity End: 12:55
Weather: Indoors,
Well Type and Location: 2" flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 29.30 feet using _____ (from top of well casing) (measuring device) Water Depth: 15.24 feet using _____ (from top of well casing) (measuring device)

Historical Well Depth: _____ feet (from ground surface) Protective Casing Stickup: _____ feet (for above-ground surface) Protect. Casing Well Casing Difference: _____ feet

Floating Product Thickness: _____ feet using _____ (measuring device)

Well Condition: Good
Measuring Device Decontamination Procedure: ***Alconox & DI Rinse***
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet

	.041 gal/ft (1 in)
	.09 gal/ft (1.5 in)
X	.16 gal/ft (2 in)
	.65 gal/ft (4 in)

2.3 X 3 casing volumes = 6.9 gallons to purge

14.06 2.6 gal/ft (8 in)

Purge Method: Disposable Bailer

Purge Vol. (gal)	1.70	3.40	5.10	6.80
Time (Min.)	12:37	12:41	12:45	12:49
Temperature (C°)	19.49	19.46	19.41	19.45
pH (Units)	6.51	6.53	6.48	6.47
Conductivity at 25°C (mS/cm)	5.49	5.58	5.62	5.66
ORP (mV)	29.00	31.00	35.00	36.00
Turb (NTU)	95.30	79.74	120.90	87.52
DO (%)	0.71	1.92	1.06	1.07

Total Volume Purged 7.50 gallons

Water Appearance (describe color, clarity odor:) Gray, cloudy

SAMPLING PROCEDURES

Sampling Procedure: Disposable Bailer

Sample Water Appearance (color, clarity, odor): -

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	*N*	*Y*
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

MW-100 = Duplicate Sample

NAME (Print) James Staley

SIGNATURE: _____

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

MACTEC

Sample No.: EW-2B 01 11
Sample Date: 19-Jan-11
Sample Time: 11:50

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: JPS/SGB
Activity Start: 11:28 Activity End: 11:52
Weather: Indoors,
Well Type and Location: 2" flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 18.00 feet using _____ (from top of well casing) (measuring device)
Water Depth: 15.08 feet using _____ (from top of well casing) (measuring device)
Historical Well Depth: _____ feet (from ground surface)
Protective Casing Stickup: _____ feet (for above-ground surface)
Protect. Casing Well Casing Difference: _____ feet
Floating Product Thickness: _____ feet using _____ (measuring device)
Well Condition: Good
Measuring Device Decontamination Procedure: *Alconox & DI Rinse*
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet

	.041 gal/ft (1 in)
	.09 gal/ft (1.5 in)
X	.16 gal/ft (2 in)
	.65 gal/ft (4 in)

0.5

X 3 casing volumes = 1.4 gallons to purge

2.92 2.6 gal/ft (8 in)

Purge Method: Peristaltic

Purge Vol. (gal)	0.40	0.80	1.20	1.50
Time (Min.)	11:36	11:40	11:44	11:48
Temperature (C°)	19.87	19.86	19.86	19.86
pH (Units)	6.64	6.63	6.64	6.64
Conductivity at 25°C (mS/cm)	5.32	5.34	5.33	5.32
ORP (mV)	70.00	68.00	62.00	56.00
Turb (NTU)	8.21	11.00	7.84	9.46
DO (%)	0.00	-0.04	-0.05	-0.06

Total Volume Purged 1.50 gallons

Water Appearance (describe color, clarity odor:) clear

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic

Sample Water Appearance (color, clarity, odor): Clear

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	*N*	*Y*
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

-

NAME (Print) James Staley

SIGNATURE: _____

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

MACTEC

Sample No.: AS-1 01 11
Sample Date: 19-Jan-11
Sample Time: 12:25

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: JPS/SGB
Activity Start: 11:55 Activity End: 12:30
Weather: Indoors,
Well Type and Location: 2" flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 21.12 feet using _____ (from top of well casing) (measuring device)
Water Depth: 15.11 feet using _____ (from top of well casing) (measuring device)
Historical Well Depth: _____ feet (from ground surface)
Protective Casing Stickup: _____ feet (for above-ground surface)
Protect. Casing Well Casing Difference: _____ feet
Floating Product Thickness: _____ feet using _____ (measuring device)
Well Condition: Good
Measuring Device Decontamination Procedure: *Alconox & DI Rinse*
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column 6.01 feet

	.041 gal/ft (1 in)
	.09 gal/ft (1.5 in)
X	.16 gal/ft (2 in)
	.65 gal/ft (4 in)

1.0

X 3 casing volumes = 2.9 gallons to purge

2.6 gal/ft (8 in)

Purge Method: Peristaltic

Purge Vol. (gal)	0.75	1.50	2.25	3.00
Time (Min.)	12:11	12:15	12:18	12:22
Temperature (C°)	19.55	19.55	19.54	19.54
pH (Units)	6.77	6.77	6.77	6.76
Conductivity at 25°C (mS/cm)	5.78	5.77	5.76	5.75
ORP (mV)	30.00	28.00	25.00	23.00
Turb (NTU)	22.70	13.79	24.23	27.03
DO (%)	-0.06	-0.07	-0.07	-0.08

Total Volume Purged 3.00 gallons

Water Appearance (describe color, clarity odor:) Slightly cloudy

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic

Sample Water Appearance (color, clarity, odor): Clear

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	N	Y
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

-

NAME (Print) James Staley

SIGNATURE:

Notes: (1) *Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) *Describe sequence of purging/sampling including equipment type and decontamination method.*

MACTEC

Sample No.: MP-10 01 11
Sample Date: 19-Jan-11
Sample Time: 10:48

SITE/SAMPLE LOCATION

Site Name: Honeywell South Bend Project No.: 3310102011
Personnel Present: JPS/SGB
Activity Start: 10:20 Activity End: 10:55
Weather: Indoors,
Well Type and Location: 2" flushmount in A14E

WATER LEVEL/WELL DATA

Well Depth: 20.75 feet using _____ (from top of well casing) (measuring device) Water Depth: 15.1 feet using _____ (from top of well casing) (measuring device)

Historical Well Depth: _____ feet (from ground surface) Protective Casing Stickup: _____ feet (for above-ground surface) Protect. Casing Well Casing Difference: _____ feet

Floating Product Thickness: _____ feet using _____ (measuring device)

Well Condition: Good
Measuring Device Decontamination Procedure: ***Alconox & DI Rinse***
PI Meter ID: na Ambient Air: na ppm Well Mouth: na ppm

PURGING PROCEDURES

Height of Water Column feet		.041 gal/ft (1 in)
		.09 gal/ft (1.5 in)
	X	.16 gal/ft (2 in)
		.65 gal/ft (4 in)

0.9 X 3 casing volumes = 2.8 gallons to purge

5.65 2.6 gal/ft (8 in)

Purge Method: Peristaltic

Purge Vol. (gal)	0.70	1.40	2.10	2.80
Time (Min.)	10:30	10:34	10:40	10:46
Temperature (C°)	18.84	18.85	18.85	18.85
pH (Units)	6.89	6.89	6.90	6.91
Conductivity at 25°C (mS/cm)	4.03	3.99	4.01	4.00
ORP (mV)	117.00	112.00	107.00	103.00
Turb (NTU)	20.99	12.79	11.70	16.41
DO (%)	0.01	-0.01	-0.01	-0.02

Total Volume Purged 2.90 gallons

Water Appearance (describe color, clarity odor:) Clear

SAMPLING PROCEDURES

Sampling Procedure: Peristaltic

Sample Water Appearance (color, clarity, odor): Clear

ANALYTICAL PARAMETERS

Analysis	Method	No. of Bottles Volume, Type	Bottle Lot	Preservative/ Volume	Field Filtered?	Cool to 4°C?
VOC	8260B	3 40 ml VOA		HCL/	*N*	*Y*
				/		
				/		
				/		
				/		

OTHER OBSERVATIONS

-

NAME (Print) James Staley

SIGNATURE: _____

Notes: *(1) Described whether well was locked and the condition of the protective casing and concrete collar.*
(2) Describe sequence of purging/sampling including equipment type and decontamination method.

APPENDIX D

ANALYTICAL REPORTS – GROUNDWATER SAMPLES

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

SOUTH BEND-AREA 14 EAST

Lot #: A0J210469

Steven Murray

Mactec Engineering & Consultan
41 Hughes Drive
Traverse City, MI 49686

TESTAMERICA LABORATORIES, INC.

Mark J. Loeb
Project Manager
mark.loeb@testamericainc.com

Approved for release.
Mark J. Loeb
Project Manager II
11/5/2010 1:58 PM

November 04, 2010

ACCREDITED IN ACCORDANCE WITH nelac

4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

CASE NARRATIVE

A0J210469

The following report contains the analytical results for eight water samples and one quality control sample submitted to TestAmerica North Canton by MACTEC Engineering & Consulting, Inc. from the SOUTH BEND-AREA 14 EAST Site. The samples were received October 21, 2010, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Christopher J. Kapanowski, Nick Rogers, and Steven Murray on November 03, 2010. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

All parameters were evaluated to the reporting limit.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Mark J. Loeb, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

Due to a sample receiving oversight the cooler temperatures were not recorded on the cooler receipt form provided with this data package. The check boxes for the method used (IR) and coolant (wet ice) were marked indicating that the temperature was measured. The project was not flagged for a high temperature indicating the cooler was within the 4 degree (+/- 2 degrees) Celsius range.

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

2-Chloroethyl vinyl ether cannot be reliably recovered in an acid preserved sample.

Sample(s) MW-17 10 10 had elevated reporting limits due to TICs.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

TestAmerica Certifications and Approvals:

The laboratory is certified for the analytes listed on the documents below. These are available ~~upon request.~~
California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Nevada (#OH-000482008A), OhioVAP (#CL0024), Pennsylvania (#008), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit

EXECUTIVE SUMMARY - Detection Highlights

A0J210469

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-16 10 10 10/19/10 15:20 001				
cis-1,2-Dichloroethene	4700	330	ug/L	SW846 8260B
Vinyl chloride	740	330	ug/L	SW846 8260B
Trichloroethene	1000	330	ug/L	SW846 8260B
MW-17 10 10 10/19/10 15:56 002				
1,1-Dichloroethane	2.7	2.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	6.3	2.0	ug/L	SW846 8260B
EW-2B 10 10 10/19/10 14:35 004				
Vinyl chloride	2.7	1.0	ug/L	SW846 8260B
MP-10 10 10 10/19/10 12:40 005				
cis-1,2-Dichloroethene	12	6.7	ug/L	SW846 8260B
trans-1,2-Dichloroethene	17	6.7	ug/L	SW846 8260B
Trichloroethene	200	6.7	ug/L	SW846 8260B
86-15 10 10 10/19/10 12:00 006				
cis-1,2-Dichloroethene	20	5.7	ug/L	SW846 8260B
trans-1,2-Dichloroethene	33	5.7	ug/L	SW846 8260B
Trichloroethene	170	5.7	ug/L	SW846 8260B
86-14 10 10 10/19/10 13:10 007				
Vinyl chloride	1.3	1.0	ug/L	SW846 8260B
MW-100 10 10-14 EAST 10/19/10 008				
cis-1,2-Dichloroethene	3300	170	ug/L	SW846 8260B
Vinyl chloride	560	170	ug/L	SW846 8260B
Trichloroethene	750	170	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A0J210469

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A0J210469

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L8VDE	001	MW-16 10 10	10/19/10	15:20
L8VDP	002	MW-17 10 10	10/19/10	15:56
L8VDR	003	AS-1 10 10	10/19/10	14:00
L8VDT	004	EW-2B 10 10	10/19/10	14:35
L8VDW	005	MP-10 10 10	10/19/10	12:40
L8VDX	006	86-15 10 10	10/19/10	12:00
L8VD1	007	86-14 10 10	10/19/10	13:10
L8VD4	008	MW-100 10 10-14 EAST	10/19/10	
L8VD8	009	TRIP BLANK	10/19/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-16 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-001 **Work Order #...:** L8VDE1AA **Matrix.....:** WG
Date Sampled...: 10/19/10 15:20 **Date Received..:** 10/21/10
Prep Date.....: 10/31/10 **Analysis Date..:** 10/31/10
Prep Batch #...: 0305407
Dilution Factor: 333.33 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	3300	ug/L
Acrolein	ND	6700	ug/L
Acrylonitrile	ND	6700	ug/L
Benzene	ND	330	ug/L
Bromobenzene	ND	330	ug/L
Bromochloromethane	ND	330	ug/L
Bromodichloromethane	ND	330	ug/L
Bromoform	ND	330	ug/L
Bromomethane	ND	330	ug/L
Methyl ethyl ketone	ND	3300	ug/L
n-Butylbenzene	ND	330	ug/L
sec-Butylbenzene	ND	330	ug/L
tert-Butylbenzene	ND	330	ug/L
Carbon disulfide	ND	330	ug/L
Carbon tetrachloride	ND	330	ug/L
Chlorobenzene	ND	330	ug/L
Chlorodibromomethane	ND	330	ug/L
Chloroethane	ND	330	ug/L
2-Chloroethyl vinyl ether	ND	3300	ug/L
Chloroform	ND	330	ug/L
Chloromethane	ND	330	ug/L
2-Chlorotoluene	ND	330	ug/L
4-Chlorotoluene	ND	330	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	670	ug/L
1,2-Dibromoethane	ND	330	ug/L
Dibromomethane	ND	330	ug/L
1,2-Dichlorobenzene	ND	330	ug/L
1,3-Dichlorobenzene	ND	330	ug/L
1,4-Dichlorobenzene	ND	330	ug/L
trans-1,4-Dichloro-2-butene	ND	330	ug/L
Dichlorodifluoromethane	ND	330	ug/L
1,1-Dichloroethane	ND	330	ug/L
1,2-Dichloroethane	ND	330	ug/L
cis-1,2-Dichloroethene	**4700**	**330**	**ug/L**
trans-1,2-Dichloroethene	ND	330	ug/L
1,1-Dichloroethene	ND	330	ug/L
Dichlorofluoromethane	ND	670	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-16 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-001 Work Order #...: L8VDE1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	330	ug/L
1,3-Dichloropropane	ND	330	ug/L
2,2-Dichloropropane	ND	330	ug/L
cis-1,3-Dichloropropene	ND	330	ug/L
trans-1,3-Dichloropropene	ND	330	ug/L
1,1-Dichloropropene	ND	330	ug/L
Ethylbenzene	ND	330	ug/L
Diethyl ether	ND	670	ug/L
Ethyl methacrylate	ND	330	ug/L
Hexachlorobutadiene	ND	330	ug/L
2-Hexanone	ND	3300	ug/L
Iodomethane	ND	330	ug/L
Isopropylbenzene	ND	330	ug/L
p-Isopropyltoluene	ND	330	ug/L
Methylene chloride	ND	330	ug/L
Methyl methacrylate	ND	670	ug/L
4-Methyl-2-pentanone (MIBK)	ND	3300	ug/L
Methyl tert-butyl ether (MTBE)	ND	1700	ug/L
Naphthalene	ND	330	ug/L
n-Propylbenzene	ND	330	ug/L
Styrene	ND	330	ug/L
1,1,1,2-Tetrachloroethane	ND	330	ug/L
1,1,2,2-Tetrachloroethane	ND	330	ug/L
Tetrachloroethene	ND	330	ug/L
Tetrahydrofuran	ND	1700	ug/L
Toluene	ND	330	ug/L
1,2,3-Trichlorobenzene	ND	330	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	330	ug/L
1,2,4-Trimethylbenzene	ND	330	ug/L
1,3,5-Trimethylbenzene	ND	330	ug/L
Vinyl acetate	ND	670	ug/L
Vinyl chloride	**740**	**330**	**ug/L**
m-Xylene & p-Xylene	ND	670	ug/L
o-Xylene	ND	330	ug/L
Cyclohexanone	ND	6700	ug/L
Trichlorofluoromethane	ND	330	ug/L
Trichloroethene	**1000**	**330**	**ug/L**
1,2,4-Trichloro-benzene	ND	330	ug/L
1,1,1-Trichloroethane	ND	330	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-16 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-001 **Work Order #...:** L8VDE1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	330	ug/L
1,2,3-Trichloropropane	ND	330	ug/L
1-Chlorohexane	ND	330	ug/L
n-Heptane	ND	330	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	112	(75 - 121)
1,2-Dichloroethane-d4	98	(63 - 129)
Toluene-d8	96	(74 - 115)
4-Bromofluorobenzene	87	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-17 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-002 **Work Order #...:** L8VDP1AA **Matrix.....:** WG
Date Sampled...: 10/19/10 15:56 **Date Received..:** 10/21/10
Prep Date.....: 10/31/10 **Analysis Date..:** 10/31/10
Prep Batch #...: 0305407
Dilution Factor: 2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	20	ug/L
Acrolein	ND	40	ug/L
Acrylonitrile	ND	40	ug/L
Benzene	ND	2.0	ug/L
Bromobenzene	ND	2.0	ug/L
Bromochloromethane	ND	2.0	ug/L
Bromodichloromethane	ND	2.0	ug/L
Bromoform	ND	2.0	ug/L
Bromomethane	ND	2.0	ug/L
Methyl ethyl ketone	ND	20	ug/L
n-Butylbenzene	ND	2.0	ug/L
sec-Butylbenzene	ND	2.0	ug/L
tert-Butylbenzene	ND	2.0	ug/L
Carbon disulfide	ND	2.0	ug/L
Carbon tetrachloride	ND	2.0	ug/L
Chlorobenzene	ND	2.0	ug/L
Chlorodibromomethane	ND	2.0	ug/L
Chloroethane	ND	2.0	ug/L
2-Chloroethyl vinyl ether	ND	20	ug/L
Chloroform	ND	2.0	ug/L
Chloromethane	ND	2.0	ug/L
2-Chlorotoluene	ND	2.0	ug/L
4-Chlorotoluene	ND	2.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	4.0	ug/L
1,2-Dibromoethane	ND	2.0	ug/L
Dibromomethane	ND	2.0	ug/L
1,2-Dichlorobenzene	ND	2.0	ug/L
1,3-Dichlorobenzene	ND	2.0	ug/L
1,4-Dichlorobenzene	ND	2.0	ug/L
trans-1,4-Dichloro-2-butene	ND	2.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	**2.7**	**2.0**	**ug/L**
1,2-Dichloroethane	ND	2.0	ug/L
cis-1,2-Dichloroethene	**6.3**	**2.0**	**ug/L**
trans-1,2-Dichloroethene	ND	2.0	ug/L
1,1-Dichloroethene	ND	2.0	ug/L
Dichlorofluoromethane	ND	4.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-17 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-002 **Work Order #...:** L8VDP1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	2.0	ug/L
1,3-Dichloropropane	ND	2.0	ug/L
2,2-Dichloropropane	ND	2.0	ug/L
cis-1,3-Dichloropropene	ND	2.0	ug/L
trans-1,3-Dichloropropene	ND	2.0	ug/L
1,1-Dichloropropene	ND	2.0	ug/L
Ethylbenzene	ND	2.0	ug/L
Diethyl ether	ND	4.0	ug/L
Ethyl methacrylate	ND	2.0	ug/L
Hexachlorobutadiene	ND	2.0	ug/L
2-Hexanone	ND	20	ug/L
Iodomethane	ND	2.0	ug/L
Isopropylbenzene	ND	2.0	ug/L
p-Isopropyltoluene	ND	2.0	ug/L
Methylene chloride	ND	2.0	ug/L
Methyl methacrylate	ND	4.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	20	ug/L
Methyl tert-butyl ether (MTBE)	ND	10	ug/L
Naphthalene	ND	2.0	ug/L
n-Propylbenzene	ND	2.0	ug/L
Styrene	ND	2.0	ug/L
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L
Tetrachloroethene	ND	2.0	ug/L
Tetrahydrofuran	ND	10	ug/L
Toluene	ND	2.0	ug/L
1,2,3-Trichlorobenzene	ND	2.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ug/L
1,2,4-Trimethylbenzene	ND	2.0	ug/L
1,3,5-Trimethylbenzene	ND	2.0	ug/L
Vinyl acetate	ND	4.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	4.0	ug/L
o-Xylene	ND	2.0	ug/L
Cyclohexanone	ND	40	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
Trichloroethene	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	2.0	ug/L
1,1,1-Trichloroethane	ND	2.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-17 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-002 **Work Order #...:** L8VDP1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	2.0	ug/L
1,2,3-Trichloropropane	ND	2.0	ug/L
1-Chlorohexane	ND	2.0	ug/L
n-Heptane	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(75 - 121)
1,2-Dichloroethane-d4	90	(63 - 129)
Toluene-d8	94	(74 - 115)
4-Bromofluorobenzene	106	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: AS-1 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-003 **Work Order #...:** L8VDR1AA **Matrix.....:** WG
Date Sampled...: 10/19/10 14:00 **Date Received..:** 10/21/10
Prep Date.....: 10/31/10 **Analysis Date..:** 10/31/10
Prep Batch #...: 0305407
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Methyl ethyl ketone	ND	10	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Dichlorofluoromethane	ND	2.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: AS-1 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-003 Work Order #...: L8VDR1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Diethyl ether	ND	2.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Tetrahydrofuran	ND	5.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Cyclohexanone	ND	20	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: AS-1 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-003 **Work Order #...:** L8VDR1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1-Chlorohexane	ND	1.0	ug/L
n-Heptane	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(75 - 121)
1,2-Dichloroethane-d4	89	(63 - 129)
Toluene-d8	97	(74 - 115)
4-Bromofluorobenzene	110	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: EW-2B 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-004 **Work Order #...:** L8VDT1AA **Matrix.....:** WG
Date Sampled...: 10/19/10 14:35 **Date Received..:** 10/21/10
Prep Date.....: 10/31/10 **Analysis Date..:** 10/31/10
Prep Batch #...: 0305407
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Methyl ethyl ketone	ND	10	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Dichlorofluoromethane	ND	2.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: EW-2B 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-004 Work Order #...: L8VDT1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Diethyl ether	ND	2.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Tetrahydrofuran	ND	5.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	**2.7**	**1.0**	**ug/L**
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Cyclohexanone	ND	20	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: EW-2B 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-004 Work Order #...: L8VDT1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1-Chlorohexane	ND	1.0	ug/L
n-Heptane	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	110	(75 - 121)
1,2-Dichloroethane-d4	91	(63 - 129)
Toluene-d8	99	(74 - 115)
4-Bromofluorobenzene	97	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: MP-10 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-005 **Work Order #...:** L8VDW1AA **Matrix.....:** WG
Date Sampled...: 10/19/10 12:40 **Date Received..:** 10/21/10
Prep Date.....: 10/31/10 **Analysis Date..:** 10/31/10
Prep Batch #...: 0305407
Dilution Factor: 6.67 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	67	ug/L
Acrolein	ND	130	ug/L
Acrylonitrile	ND	130	ug/L
Benzene	ND	6.7	ug/L
Bromobenzene	ND	6.7	ug/L
Bromochloromethane	ND	6.7	ug/L
Bromodichloromethane	ND	6.7	ug/L
Bromoform	ND	6.7	ug/L
Bromomethane	ND	6.7	ug/L
Methyl ethyl ketone	ND	67	ug/L
n-Butylbenzene	ND	6.7	ug/L
sec-Butylbenzene	ND	6.7	ug/L
tert-Butylbenzene	ND	6.7	ug/L
Carbon disulfide	ND	6.7	ug/L
Carbon tetrachloride	ND	6.7	ug/L
Chlorobenzene	ND	6.7	ug/L
Chlorodibromomethane	ND	6.7	ug/L
Chloroethane	ND	6.7	ug/L
2-Chloroethyl vinyl ether	ND	67	ug/L
Chloroform	ND	6.7	ug/L
Chloromethane	ND	6.7	ug/L
2-Chlorotoluene	ND	6.7	ug/L
4-Chlorotoluene	ND	6.7	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	13	ug/L
1,2-Dibromoethane	ND	6.7	ug/L
Dibromomethane	ND	6.7	ug/L
1,2-Dichlorobenzene	ND	6.7	ug/L
1,3-Dichlorobenzene	ND	6.7	ug/L
1,4-Dichlorobenzene	ND	6.7	ug/L
trans-1,4-Dichloro-2-butene	ND	6.7	ug/L
Dichlorodifluoromethane	ND	6.7	ug/L
1,1-Dichloroethane	ND	6.7	ug/L
1,2-Dichloroethane	ND	6.7	ug/L
cis-1,2-Dichloroethene	12	**6.7**	**ug/L**
trans-1,2-Dichloroethene	17	**6.7**	**ug/L**
1,1-Dichloroethene	ND	6.7	ug/L
Dichlorofluoromethane	ND	13	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MP-10 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-005 **Work Order #...:** L8VDW1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	6.7	ug/L
1,3-Dichloropropane	ND	6.7	ug/L
2,2-Dichloropropane	ND	6.7	ug/L
cis-1,3-Dichloropropene	ND	6.7	ug/L
trans-1,3-Dichloropropene	ND	6.7	ug/L
1,1-Dichloropropene	ND	6.7	ug/L
Ethylbenzene	ND	6.7	ug/L
Diethyl ether	ND	13	ug/L
Ethyl methacrylate	ND	6.7	ug/L
Hexachlorobutadiene	ND	6.7	ug/L
2-Hexanone	ND	67	ug/L
Iodomethane	ND	6.7	ug/L
Isopropylbenzene	ND	6.7	ug/L
p-Isopropyltoluene	ND	6.7	ug/L
Methylene chloride	ND	6.7	ug/L
Methyl methacrylate	ND	13	ug/L
4-Methyl-2-pentanone (MIBK)	ND	67	ug/L
Methyl tert-butyl ether (MTBE)	ND	33	ug/L
Naphthalene	ND	6.7	ug/L
n-Propylbenzene	ND	6.7	ug/L
Styrene	ND	6.7	ug/L
1,1,1,2-Tetrachloroethane	ND	6.7	ug/L
1,1,2,2-Tetrachloroethane	ND	6.7	ug/L
Tetrachloroethene	ND	6.7	ug/L
Tetrahydrofuran	ND	33	ug/L
Toluene	ND	6.7	ug/L
1,2,3-Trichlorobenzene	ND	6.7	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	6.7	ug/L
1,2,4-Trimethylbenzene	ND	6.7	ug/L
1,3,5-Trimethylbenzene	ND	6.7	ug/L
Vinyl acetate	ND	13	ug/L
Vinyl chloride	ND	6.7	ug/L
m-Xylene & p-Xylene	ND	13	ug/L
o-Xylene	ND	6.7	ug/L
Cyclohexanone	ND	130	ug/L
Trichlorofluoromethane	ND	6.7	ug/L
Trichloroethene	200	6.7	**ug/L**
1,2,4-Trichloro-benzene	ND	6.7	ug/L
1,1,1-Trichloroethane	ND	6.7	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MP-10 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-005 Work Order #...: L8VDW1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	6.7	ug/L
1,2,3-Trichloropropane	ND	6.7	ug/L
1-Chlorohexane	ND	6.7	ug/L
n-Heptane	ND	6.7	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	106	(75 - 121)
1,2-Dichloroethane-d4	96	(63 - 129)
Toluene-d8	92	(74 - 115)
4-Bromofluorobenzene	80	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: 86-15 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-006 **Work Order #...:** L8VDX1AA **Matrix.....:** WG
Date Sampled...: 10/19/10 12:00 **Date Received..:** 10/21/10
Prep Date.....: 10/31/10 **Analysis Date..:** 10/31/10
Prep Batch #...: 0305407
Dilution Factor: 5.71 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	57	ug/L
Acrolein	ND	110	ug/L
Acrylonitrile	ND	110	ug/L
Benzene	ND	5.7	ug/L
Bromobenzene	ND	5.7	ug/L
Bromochloromethane	ND	5.7	ug/L
Bromodichloromethane	ND	5.7	ug/L
Bromoform	ND	5.7	ug/L
Bromomethane	ND	5.7	ug/L
Methyl ethyl ketone	ND	57	ug/L
n-Butylbenzene	ND	5.7	ug/L
sec-Butylbenzene	ND	5.7	ug/L
tert-Butylbenzene	ND	5.7	ug/L
Carbon disulfide	ND	5.7	ug/L
Carbon tetrachloride	ND	5.7	ug/L
Chlorobenzene	ND	5.7	ug/L
Chlorodibromomethane	ND	5.7	ug/L
Chloroethane	ND	5.7	ug/L
2-Chloroethyl vinyl ether	ND	57	ug/L
Chloroform	ND	5.7	ug/L
Chloromethane	ND	5.7	ug/L
2-Chlorotoluene	ND	5.7	ug/L
4-Chlorotoluene	ND	5.7	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	11	ug/L
1,2-Dibromoethane	ND	5.7	ug/L
Dibromomethane	ND	5.7	ug/L
1,2-Dichlorobenzene	ND	5.7	ug/L
1,3-Dichlorobenzene	ND	5.7	ug/L
1,4-Dichlorobenzene	ND	5.7	ug/L
trans-1,4-Dichloro-2-butene	ND	5.7	ug/L
Dichlorodifluoromethane	ND	5.7	ug/L
1,1-Dichloroethane	ND	5.7	ug/L
1,2-Dichloroethane	ND	5.7	ug/L
cis-1,2-Dichloroethene	**20**	**5.7**	**ug/L**
trans-1,2-Dichloroethene	**33**	**5.7**	**ug/L**
1,1-Dichloroethene	ND	5.7	ug/L
Dichlorofluoromethane	ND	11	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: 86-15 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-006 Work Order #...: L8VDX1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	5.7	ug/L
1,3-Dichloropropane	ND	5.7	ug/L
2,2-Dichloropropane	ND	5.7	ug/L
cis-1,3-Dichloropropene	ND	5.7	ug/L
trans-1,3-Dichloropropene	ND	5.7	ug/L
1,1-Dichloropropene	ND	5.7	ug/L
Ethylbenzene	ND	5.7	ug/L
Diethyl ether	ND	11	ug/L
Ethyl methacrylate	ND	5.7	ug/L
Hexachlorobutadiene	ND	5.7	ug/L
2-Hexanone	ND	57	ug/L
Iodomethane	ND	5.7	ug/L
Isopropylbenzene	ND	5.7	ug/L
p-Isopropyltoluene	ND	5.7	ug/L
Methylene chloride	ND	5.7	ug/L
Methyl methacrylate	ND	11	ug/L
4-Methyl-2-pentanone (MIBK)	ND	57	ug/L
Methyl tert-butyl ether (MTBE)	ND	29	ug/L
Naphthalene	ND	5.7	ug/L
n-Propylbenzene	ND	5.7	ug/L
Styrene	ND	5.7	ug/L
1,1,1,2-Tetrachloroethane	ND	5.7	ug/L
1,1,2,2-Tetrachloroethane	ND	5.7	ug/L
Tetrachloroethene	ND	5.7	ug/L
Tetrahydrofuran	ND	29	ug/L
Toluene	ND	5.7	ug/L
1,2,3-Trichlorobenzene	ND	5.7	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.7	ug/L
1,2,4-Trimethylbenzene	ND	5.7	ug/L
1,3,5-Trimethylbenzene	ND	5.7	ug/L
Vinyl acetate	ND	11	ug/L
Vinyl chloride	ND	5.7	ug/L
m-Xylene & p-Xylene	ND	11	ug/L
o-Xylene	ND	5.7	ug/L
Cyclohexanone	ND	110	ug/L
Trichlorofluoromethane	ND	5.7	ug/L
Trichloroethene	170	**5.7**	**ug/L**
1,2,4-Trichloro-benzene	ND	5.7	ug/L
1,1,1-Trichloroethane	ND	5.7	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: 86-15 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-006 Work Order #...: L8VDX1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.7	ug/L
1,2,3-Trichloropropane	ND	5.7	ug/L
1-Chlorohexane	ND	5.7	ug/L
n-Heptane	ND	5.7	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(75 - 121)
1,2-Dichloroethane-d4	96	(63 - 129)
Toluene-d8	101	(74 - 115)
4-Bromofluorobenzene	85	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: 86-14 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-007 Work Order #...: L8VD11AA Matrix.....: WG
Date Sampled...: 10/19/10 13:10 Date Received..: 10/21/10
Prep Date.....: 10/31/10 Analysis Date..: 10/31/10
Prep Batch #...: 0305407
Dilution Factor: 1 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1-Chlorohexane	ND	1.0	ug/L
n-Heptane	ND	1.0	ug/L
Acetone	ND	10	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Methyl ethyl ketone	ND	10	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: 86-14 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-007 **Work Order #...:** L8VD11AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1-Dichloroethene	ND	1.0	ug/L
Dichlorofluoromethane	ND	2.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Diethyl ether	ND	2.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Tetrahydrofuran	ND	5.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	**1.3**	**1.0**	**ug/L**
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Cyclohexanone	ND	20	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: 86-14 10 10

GC/MS Volatiles

Lot-Sample #...: A0J210469-007 **Work Order #...:** L8VD11AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	115	(75 - 121)
1,2-Dichloroethane-d4	101	(63 - 129)
Toluene-d8	100	(74 - 115)
4-Bromofluorobenzene	88	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-100 10 10-14 EAST

GC/MS Volatiles

Lot-Sample #...: A0J210469-008 **Work Order #...:** L8VD41AA **Matrix.....:** WG
Date Sampled...: 10/19/10 **Date Received..:** 10/21/10
Prep Date.....: 10/31/10 **Analysis Date..:** 10/31/10
Prep Batch #...: 0305407
Dilution Factor: 166.67 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	1700	ug/L
Acrolein	ND	3300	ug/L
Acrylonitrile	ND	3300	ug/L
Benzene	ND	170	ug/L
Bromobenzene	ND	170	ug/L
Bromochloromethane	ND	170	ug/L
Bromodichloromethane	ND	170	ug/L
Bromoform	ND	170	ug/L
Bromomethane	ND	170	ug/L
Methyl ethyl ketone	ND	1700	ug/L
n-Butylbenzene	ND	170	ug/L
sec-Butylbenzene	ND	170	ug/L
tert-Butylbenzene	ND	170	ug/L
Carbon disulfide	ND	170	ug/L
Carbon tetrachloride	ND	170	ug/L
Chlorobenzene	ND	170	ug/L
Chlorodibromomethane	ND	170	ug/L
Chloroethane	ND	170	ug/L
2-Chloroethyl vinyl ether	ND	1700	ug/L
Chloroform	ND	170	ug/L
Chloromethane	ND	170	ug/L
2-Chlorotoluene	ND	170	ug/L
4-Chlorotoluene	ND	170	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	330	ug/L
1,2-Dibromoethane	ND	170	ug/L
Dibromomethane	ND	170	ug/L
1,2-Dichlorobenzene	ND	170	ug/L
1,3-Dichlorobenzene	ND	170	ug/L
1,4-Dichlorobenzene	ND	170	ug/L
trans-1,4-Dichloro-2-butene	ND	170	ug/L
Dichlorodifluoromethane	ND	170	ug/L
1,1-Dichloroethane	ND	170	ug/L
1,2-Dichloroethane	ND	170	ug/L
cis-1,2-Dichloroethene	**3300**	**170**	**ug/L**
trans-1,2-Dichloroethene	ND	170	ug/L
1,1-Dichloroethene	ND	170	ug/L
Dichlorofluoromethane	ND	330	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-100 10 10-14 EAST

GC/MS Volatiles

Lot-Sample #...: A0J210469-008 Work Order #...: L8VD41AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	170	ug/L
1,3-Dichloropropane	ND	170	ug/L
2,2-Dichloropropane	ND	170	ug/L
cis-1,3-Dichloropropene	ND	170	ug/L
trans-1,3-Dichloropropene	ND	170	ug/L
1,1-Dichloropropene	ND	170	ug/L
Ethylbenzene	ND	170	ug/L
Diethyl ether	ND	330	ug/L
Ethyl methacrylate	ND	170	ug/L
Hexachlorobutadiene	ND	170	ug/L
2-Hexanone	ND	1700	ug/L
Iodomethane	ND	170	ug/L
Isopropylbenzene	ND	170	ug/L
p-Isopropyltoluene	ND	170	ug/L
Methylene chloride	ND	170	ug/L
Methyl methacrylate	ND	330	ug/L
4-Methyl-2-pentanone (MIBK)	ND	1700	ug/L
Methyl tert-butyl ether (MTBE)	ND	830	ug/L
Naphthalene	ND	170	ug/L
n-Propylbenzene	ND	170	ug/L
Styrene	ND	170	ug/L
1,1,1,2-Tetrachloroethane	ND	170	ug/L
1,1,2,2-Tetrachloroethane	ND	170	ug/L
Tetrachloroethene	ND	170	ug/L
Tetrahydrofuran	ND	830	ug/L
Toluene	ND	170	ug/L
1,2,3-Trichlorobenzene	ND	170	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	170	ug/L
1,2,4-Trimethylbenzene	ND	170	ug/L
1,3,5-Trimethylbenzene	ND	170	ug/L
Vinyl acetate	ND	330	ug/L
Vinyl chloride	**560**	**170**	**ug/L**
m-Xylene & p-Xylene	ND	330	ug/L
o-Xylene	ND	170	ug/L
Cyclohexanone	ND	3300	ug/L
Trichlorofluoromethane	ND	170	ug/L
Trichloroethene	**750**	**170**	**ug/L**
1,2,4-Trichloro-benzene	ND	170	ug/L
1,1,1-Trichloroethane	ND	170	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-100 10 10-14 EAST

GC/MS Volatiles

Lot-Sample #...: A0J210469-008 Work Order #...: L8VD41AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	170	ug/L
1,2,3-Trichloropropane	ND	170	ug/L
1-Chlorohexane	ND	170	ug/L
n-Heptane	ND	170	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	109	(75 - 121)
1,2-Dichloroethane-d4	97	(63 - 129)
Toluene-d8	99	(74 - 115)
4-Bromofluorobenzene	87	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0J210469-009 **Work Order #...:** L8VD81AA **Matrix.....:** WQ
Date Sampled...: 10/19/10 **Date Received..:** 10/21/10
Prep Date.....: 10/31/10 **Analysis Date..:** 10/31/10
Prep Batch #...: 0305407
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Methyl ethyl ketone	ND	10	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Dichlorofluoromethane	ND	2.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0J210469-009 **Work Order #...:** L8VD81AA **Matrix.....:** WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Diethyl ether	ND	2.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Tetrahydrofuran	ND	5.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Cyclohexanone	ND	20	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A0J210469-009 Work Order #...: L8VD81AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1-Chlorohexane	ND	1.0	ug/L
n-Heptane	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	108	(75 - 121)
1,2-Dichloroethane-d4	92	(63 - 129)
Toluene-d8	99	(74 - 115)
4-Bromofluorobenzene	87	(66 - 117)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0J210469 **Work Order #...:** L9EEW1AA **Matrix.....:** WATER
MB Lot-Sample #: A0K010000-407

Prep Date.....: 10/31/10
Analysis Date..: 10/31/10 **Prep Batch #...:** 0305407
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Acrolein	ND	20	ug/L	SW846 8260B
Acrylonitrile	ND	20	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Methyl ethyl ketone	ND	10	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
2-Chloroethyl vinyl ether	ND	10	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1-Chlorohexane	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
Cyclohexanone	ND	20	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Dichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0J210469 **Work Order #...:** L9EEW1AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Diethyl ether	ND	2.0	ug/L	SW846 8260B
Ethyl methacrylate	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
n-Heptane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Iodomethane	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	**2.1**	**1.0**	**ug/L**	**SW846 8260B**
Methyl methacrylate	ND	2.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Tetrahydrofuran	ND	5.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L	SW846 8260B
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A0J210469 Work Order #...: L9EEW1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	107	(75 - 121)
1,2-Dichloroethane-d4	103	(63 - 129)
Toluene-d8	98	(74 - 115)
4-Bromofluorobenzene	87	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0J210469 **Work Order #...:** L9EEW1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0K010000-407 L9EEW1AD-LCSD
Prep Date.....: 10/31/10 **Analysis Date..:** 10/31/10
Prep Batch #...: 0305407
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Chloromethane	108	(44 - 126)			SW846 8260B
	112	(44 - 126)	4.0	(0-30)	SW846 8260B
Bromomethane	63	(11 - 185)			SW846 8260B
	83	(11 - 185)	27	(0-30)	SW846 8260B
Vinyl chloride	106	(53 - 127)			SW846 8260B
	104	(53 - 127)	1.3	(0-30)	SW846 8260B
Chloroethane	95	(25 - 153)			SW846 8260B
	102	(25 - 153)	6.5	(0-30)	SW846 8260B
Methylene chloride	126	(66 - 131)			SW846 8260B
	128	(66 - 131)	1.2	(0-30)	SW846 8260B
Acetone	62	(43 - 136)			SW846 8260B
	64	(43 - 136)	2.7	(0-30)	SW846 8260B
Carbon disulfide	110	(62 - 142)			SW846 8260B
	110	(62 - 142)	0.0	(0-30)	SW846 8260B
1,1-Dichloroethene	**105**	**(78 - 131)**			**SW846 8260B**
	104	**(78 - 131)**	**0.86**	**(0-30)**	**SW846 8260B**
1,1-Dichloroethane	105	(82 - 115)			SW846 8260B
	107	(82 - 115)	1.6	(0-30)	SW846 8260B
Chloroform	104	(79 - 117)			SW846 8260B
	105	(79 - 117)	0.45	(0-30)	SW846 8260B
1,2-Dichloroethane	95	(71 - 127)			SW846 8260B
	95	(71 - 127)	0.060	(0-30)	SW846 8260B
Methyl ethyl ketone	72	(60 - 126)			SW846 8260B
	71	(60 - 126)	1.7	(0-30)	SW846 8260B
1,1,1-Trichloroethane	90	(74 - 118)			SW846 8260B
	91	(74 - 118)	0.78	(0-30)	SW846 8260B
Carbon tetrachloride	100	(66 - 128)			SW846 8260B
	101	(66 - 128)	0.89	(0-30)	SW846 8260B
Bromodichloromethane	98	(72 - 121)			SW846 8260B
	99	(72 - 121)	0.19	(0-30)	SW846 8260B
1,2-Dichloropropane	111	(81 - 115)			SW846 8260B
	110	(81 - 115)	0.58	(0-30)	SW846 8260B
cis-1,3-Dichloropropene	78	(61 - 115)			SW846 8260B
	79	(61 - 115)	2.0	(0-30)	SW846 8260B
Trichloroethene	**99**	**(76 - 117)**			**SW846 8260B**
	98	**(76 - 117)**	**0.54**	**(0-20)**	**SW846 8260B**
Chlorodibromomethane	94	(64 - 119)			SW846 8260B
	94	(64 - 119)	0.29	(0-30)	SW846 8260B
1,1,2-Trichloroethane	102	(80 - 112)			SW846 8260B
	100	(80 - 112)	1.5	(0-30)	SW846 8260B

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0J210469 Work Order #...: L9EEW1AC-LCS Matrix.....: WATER
LCS Lot-Sample#: A0K010000-407 L9EEW1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**105**	**(83 - 112)**			**SW846 8260B**
	105	**(83 - 112)**	**0.19**	**(0-30)**	**SW846 8260B**
trans-1,3-Dichloropropene	74	(58 - 117)			SW846 8260B
	76	(58 - 117)	2.6	(0-30)	SW846 8260B
Bromoform	87	(40 - 131)			SW846 8260B
	88	(40 - 131)	1.1	(0-30)	SW846 8260B
4-Methyl-2-pentanone (MIBK	73	(63 - 128)			SW846 8260B
	77	(63 - 128)	5.6	(0-30)	SW846 8260B
2-Hexanone	81	(55 - 133)			SW846 8260B
	80	(55 - 133)	0.68	(0-30)	SW846 8260B
Tetrachloroethene	100	(79 - 114)			SW846 8260B
	101	(79 - 114)	1.2	(0-30)	SW846 8260B
1,1,2,2-Tetrachloroethane	90	(68 - 118)			SW846 8260B
	90	(68 - 118)	0.88	(0-30)	SW846 8260B
Toluene	**108**	**(84 - 111)**			**SW846 8260B**
	106	**(84 - 111)**	**1.2**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**103**	**(85 - 110)**			**SW846 8260B**
	103	**(85 - 110)**	**0.010**	**(0-30)**	**SW846 8260B**
Ethylbenzene	104	(83 - 112)			SW846 8260B
	104	(83 - 112)	0.78	(0-30)	SW846 8260B
Styrene	104	(79 - 114)			SW846 8260B
	104	(79 - 114)	0.11	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	101	(80 - 113)			SW846 8260B
	103	(80 - 113)	1.6	(0-30)	SW846 8260B
trans-1,2-Dichloroethene	106	(83 - 117)			SW846 8260B
	108	(83 - 117)	2.0	(0-30)	SW846 8260B
Dichlorodifluoromethane	100	(19 - 129)			SW846 8260B
	94	(19 - 129)	6.8	(0-30)	SW846 8260B
Trichlorofluoromethane	134	(49 - 157)			SW846 8260B
	134	(49 - 157)	0.43	(0-30)	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	108	(74 - 151)			SW846 8260B
	104	(74 - 151)	4.2	(0-30)	SW846 8260B
Methyl tert-butyl ether (MTBE)	135	(52 - 144)			SW846 8260B
	141	(52 - 144)	4.8	(0-30)	SW846 8260B
1,2-Dibromoethane	88	(79 - 113)			SW846 8260B
	89	(79 - 113)	1.1	(0-30)	SW846 8260B
Isopropylbenzene	97	(75 - 114)			SW846 8260B
	97	(75 - 114)	0.20	(0-30)	SW846 8260B

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0J210469 **Work Order #...:** L9EEW1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0K010000-407 L9EEW1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,3-Dichlorobenzene	97	(80 - 110)			SW846 8260B
	98	(80 - 110)	0.40	(0-30)	SW846 8260B
1,4-Dichlorobenzene	97	(82 - 110)			SW846 8260B
	97	(82 - 110)	0.030	(0-30)	SW846 8260B
1,2-Dichlorobenzene	95	(81 - 110)			SW846 8260B
	94	(81 - 110)	1.5	(0-30)	SW846 8260B
1,2-Dibromo-3-chloro-propane	58	(42 - 136)			SW846 8260B
	58	(42 - 136)	1.2	(0-30)	SW846 8260B
1,2,4-Trichloro-benzene	67	(48 - 135)			SW846 8260B
	68	(48 - 135)	0.45	(0-30)	SW846 8260B
o-Xylene	102	(83 - 113)			SW846 8260B
	103	(83 - 113)	1.2	(0-30)	SW846 8260B
m-Xylene & p-Xylene	107	(83 - 113)			SW846 8260B
	108	(83 - 113)	0.93	(0-30)	SW846 8260B
2-Chloroethyl vinyl ether	105	(52 - 131)			SW846 8260B
	114	(52 - 131)	7.7	(0-30)	SW846 8260B
Acrolein	83	(51 - 170)			SW846 8260B
	86	(51 - 170)	4.4	(0-30)	SW846 8260B
Vinyl acetate	40 a	(46 - 161)			SW846 8260B
	40 a	(46 - 161)	1.3	(0-30)	SW846 8260B
Acrylonitrile	93	(66 - 132)			SW846 8260B
	97	(66 - 132)	4.6	(0-30)	SW846 8260B
Bromobenzene	94	(76 - 115)			SW846 8260B
	96	(76 - 115)	1.5	(0-30)	SW846 8260B
Bromochloromethane	99	(77 - 120)			SW846 8260B
	102	(77 - 120)	2.8	(0-30)	SW846 8260B
n-Butylbenzene	96	(66 - 125)			SW846 8260B
	95	(66 - 125)	1.0	(0-30)	SW846 8260B
sec-Butylbenzene	92	(70 - 117)			SW846 8260B
	92	(70 - 117)	0.32	(0-30)	SW846 8260B
tert-Butylbenzene	87	(71 - 115)			SW846 8260B
	87	(71 - 115)	0.18	(0-30)	SW846 8260B
2-Chlorotoluene	99	(76 - 116)			SW846 8260B
	99	(76 - 116)	0.63	(0-30)	SW846 8260B
4-Chlorotoluene	102	(77 - 115)			SW846 8260B
	102	(77 - 115)	0.71	(0-30)	SW846 8260B
Dibromomethane	100	(81 - 120)			SW846 8260B
	101	(81 - 120)	0.99	(0-30)	SW846 8260B

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0J210469 **Work Order #...:** L9EEW1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: A0K010000-407 L9EEW1AD-LCSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,3-Dichloropropane	100	(79 - 116)			SW846 8260B
	101	(79 - 116)	0.90	(0-30)	SW846 8260B
2,2-Dichloropropane	67	(50 - 129)			SW846 8260B
	68	(50 - 129)	1.7	(0-30)	SW846 8260B
1,1-Dichloropropene	103	(83 - 114)			SW846 8260B
	104	(83 - 114)	1.2	(0-30)	SW846 8260B
Hexachlorobutadiene	70	(36 - 134)			SW846 8260B
	70	(36 - 134)	0.47	(0-30)	SW846 8260B
Iodomethane	106	(72 - 141)			SW846 8260B
	108	(72 - 141)	1.5	(0-30)	SW846 8260B
p-Isopropyltoluene	94	(74 - 120)			SW846 8260B
	93	(74 - 120)	0.79	(0-30)	SW846 8260B
Naphthalene	50	(32 - 141)			SW846 8260B
	51	(32 - 141)	2.0	(0-30)	SW846 8260B
n-Propylbenzene	101	(74 - 121)			SW846 8260B
	102	(74 - 121)	1.5	(0-30)	SW846 8260B
1,1,1,2-Tetrachloroethane	95	(72 - 116)			SW846 8260B
	96	(72 - 116)	0.86	(0-30)	SW846 8260B
1,2,3-Trichlorobenzene	66	(54 - 126)			SW846 8260B
	67	(54 - 126)	1.3	(0-30)	SW846 8260B
1,2,3-Trichloropropane	86	(73 - 129)			SW846 8260B
	83	(73 - 129)	2.5	(0-30)	SW846 8260B
1,2,4-Trimethylbenzene	100	(76 - 120)			SW846 8260B
	98	(76 - 120)	1.5	(0-30)	SW846 8260B
1,3,5-Trimethylbenzene	96	(72 - 118)			SW846 8260B
	94	(72 - 118)	1.4	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	103	(75 - 121)
	104	(75 - 121)
1,2-Dichloroethane-d4	97	(63 - 129)
	95	(63 - 129)
Toluene-d8	107	(74 - 115)
	105	(74 - 115)
4-Bromofluorobenzene	105	(66 - 117)
	104	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0J210469 **Work Order #...:** L8VD11AC-MS **Matrix.....:** WG
MS Lot-Sample #: A0J210469-007 L8VD11AD-MSD
Date Sampled...: 10/19/10 13:10 **Date Received..:** 10/21/10
Prep Date.....: 10/31/10 **Analysis Date..:** 10/31/10
Prep Batch #...: 0305407
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**112**	**(74 - 135)**			**SW846 8260B**
	106	**(74 - 135)**	**6.2**	**(0-30)**	**SW846 8260B**
Chloromethane	96	(33 - 132)			SW846 8260B
	90	(33 - 132)	6.4	(0-30)	SW846 8260B
Bromomethane	122	(10 - 186)			SW846 8260B
	100	(10 - 186)	20	(0-30)	SW846 8260B
Vinyl chloride	107	(49 - 130)			SW846 8260B
	102	(49 - 130)	3.8	(0-30)	SW846 8260B
Chloroethane	127	(21 - 165)			SW846 8260B
	119	(21 - 165)	6.2	(0-30)	SW846 8260B
Methylene chloride	103	(63 - 128)			SW846 8260B
	98	(63 - 128)	5.8	(0-30)	SW846 8260B
Acetone	55	(33 - 145)			SW846 8260B
	51	(33 - 145)	8.2	(0-30)	SW846 8260B
Carbon disulfide	125	(57 - 147)			SW846 8260B
	116	(57 - 147)	7.0	(0-30)	SW846 8260B
1,1-Dichloroethane	108	(79 - 116)			SW846 8260B
	103	(79 - 116)	4.3	(0-30)	SW846 8260B
Chloroform	106	(76 - 118)			SW846 8260B
	99	(76 - 118)	6.9	(0-30)	SW846 8260B
1,2-Dichloroethane	89	(68 - 129)			SW846 8260B
	84	(68 - 129)	6.0	(0-30)	SW846 8260B
Methyl ethyl ketone	61	(54 - 129)			SW846 8260B
	57	(54 - 129)	6.9	(0-30)	SW846 8260B
1,1,1-Trichloroethane	99	(68 - 121)			SW846 8260B
	94	(68 - 121)	4.7	(0-30)	SW846 8260B
Carbon tetrachloride	107	(59 - 129)			SW846 8260B
	101	(59 - 129)	5.8	(0-30)	SW846 8260B
Bromodichloromethane	98	(67 - 120)			SW846 8260B
	91	(67 - 120)	7.0	(0-30)	SW846 8260B
1,2-Dichloropropane	108	(78 - 115)			SW846 8260B
	103	(78 - 115)	5.3	(0-30)	SW846 8260B
cis-1,3-Dichloropropene	69	(51 - 110)			SW846 8260B
	65	(51 - 110)	6.1	(0-30)	SW846 8260B
Trichloroethene	**97**	**(66 - 120)**			**SW846 8260B**
	94	**(66 - 120)**	**3.6**	**(0-30)**	**SW846 8260B**
Chlorodibromomethane	89	(56 - 118)			SW846 8260B
	82	(56 - 118)	9.0	(0-30)	SW846 8260B
1,1,2-Trichloroethane	94	(75 - 115)			SW846 8260B
	88	(75 - 115)	6.6	(0-30)	SW846 8260B

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0J210469 **Work Order #...:** L8VD11AC-MS **Matrix.....:** WG
MS Lot-Sample #: A0J210469-007 L8VD11AD-MSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**105**	**(72 - 121)**			**SW846 8260B**
	100	**(72 - 121)**	**4.9**	**(0-30)**	**SW846 8260B**
trans-1,3-Dichloropropene	67	(46 - 116)			SW846 8260B
	64	(46 - 116)	5.4	(0-30)	SW846 8260B
Bromoform	79	(32 - 128)			SW846 8260B
	76	(32 - 128)	3.9	(0-30)	SW846 8260B
4-Methyl-2-pentanone (MIB	66	(56 - 131)			SW846 8260B
	60	(56 - 131)	9.9	(0-30)	SW846 8260B
2-Hexanone	74	(47 - 139)			SW846 8260B
	68	(47 - 139)	9.7	(0-30)	SW846 8260B
Tetrachloroethene	99	(70 - 117)			SW846 8260B
	97	(70 - 117)	1.8	(0-30)	SW846 8260B
1,1,2,2-Tetrachloroethane	88	(63 - 122)			SW846 8260B
	86	(63 - 122)	1.9	(0-30)	SW846 8260B
Toluene	**106**	**(78 - 114)**			**SW846 8260B**
	103	**(78 - 114)**	**3.2**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**100**	**(80 - 110)**			**SW846 8260B**
	97	**(80 - 110)**	**3.3**	**(0-30)**	**SW846 8260B**
Ethylbenzene	104	(75 - 116)			SW846 8260B
	99	(75 - 116)	5.1	(0-30)	SW846 8260B
Styrene	100	(71 - 117)			SW846 8260B
	96	(71 - 117)	4.5	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	104	(70 - 120)			SW846 8260B
	98	(70 - 120)	6.0	(0-30)	SW846 8260B
trans-1,2-Dichloroethene	113	(80 - 119)			SW846 8260B
	107	(80 - 119)	5.9	(0-30)	SW846 8260B
Dichlorodifluoromethane	112	(17 - 128)			SW846 8260B
	107	(17 - 128)	4.8	(0-30)	SW846 8260B
Trichlorofluoromethane	147	(46 - 157)			SW846 8260B
	136	(46 - 157)	7.4	(0-30)	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	121	(70 - 152)			SW846 8260B
	112	(70 - 152)	7.8	(0-30)	SW846 8260B
Methyl tert-butyl ether (MTBE)	135	(46 - 144)			SW846 8260B
	126	(46 - 144)	6.8	(0-30)	SW846 8260B
1,2-Dibromoethane	82	(74 - 113)			SW846 8260B
	76	(74 - 113)	7.5	(0-30)	SW846 8260B
Isopropylbenzene	99	(68 - 116)			SW846 8260B
	96	(68 - 116)	3.0	(0-30)	SW846 8260B

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0J210469 **Work Order #...:** L8VD11AC-MS **Matrix.....:** WG
MS Lot-Sample #: A0J210469-007 L8VD11AD-MSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,3-Dichlorobenzene	98	(73 - 110)			SW846 8260B
	93	(73 - 110)	4.9	(0-30)	SW846 8260B
1,4-Dichlorobenzene	94	(75 - 110)			SW846 8260B
	91	(75 - 110)	3.2	(0-30)	SW846 8260B
1,2-Dichlorobenzene	95	(75 - 111)			SW846 8260B
	91	(75 - 111)	3.9	(0-30)	SW846 8260B
1,2-Dibromo-3-chloro-propane	58	(32 - 139)			SW846 8260B
	56	(32 - 139)	3.2	(0-30)	SW846 8260B
1,2,4-Trichloro-benzene	66	(38 - 138)			SW846 8260B
	68	(38 - 138)	2.4	(0-30)	SW846 8260B
o-Xylene	103	(76 - 116)			SW846 8260B
	98	(76 - 116)	4.5	(0-30)	SW846 8260B
m-Xylene & p-Xylene	107	(75 - 117)			SW846 8260B
	102	(75 - 117)	4.5	(0-30)	SW846 8260B
2-Chloroethyl vinyl ether	0.0 a	(10 - 150)			SW846 8260B
	0.0 a	(10 - 150)	0.0	(0-30)	SW846 8260B
Acrolein	70	(47 - 168)			SW846 8260B
	63	(47 - 168)	10	(0-30)	SW846 8260B
Acrylonitrile	84	(62 - 133)			SW846 8260B
	76	(62 - 133)	9.7	(0-30)	SW846 8260B
Vinyl acetate	50	(43 - 157)			SW846 8260B
	47	(43 - 157)	7.7	(0-30)	SW846 8260B
Bromobenzene	90	(71 - 116)			SW846 8260B
	88	(71 - 116)	3.1	(0-30)	SW846 8260B
Bromochloromethane	97	(73 - 121)			SW846 8260B
	90	(73 - 121)	7.8	(0-30)	SW846 8260B
n-Butylbenzene	100	(56 - 127)			SW846 8260B
	97	(56 - 127)	3.2	(0-30)	SW846 8260B
sec-Butylbenzene	97	(60 - 119)			SW846 8260B
	95	(60 - 119)	2.8	(0-30)	SW846 8260B
tert-Butylbenzene	90	(61 - 119)			SW846 8260B
	88	(61 - 119)	2.2	(0-30)	SW846 8260B
2-Chlorotoluene	99	(69 - 117)			SW846 8260B
	96	(69 - 117)	3.2	(0-30)	SW846 8260B
4-Chlorotoluene	102	(71 - 116)			SW846 8260B
	99	(71 - 116)	2.7	(0-30)	SW846 8260B
Dibromomethane	94	(77 - 121)			SW846 8260B
	85	(77 - 121)	10	(0-30)	SW846 8260B

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A0J210469 **Work Order #...:** L8VD11AC-MS **Matrix.....:** WG
MS Lot-Sample #: A0J210469-007 L8VD11AD-MSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,3-Dichloropropane	92	(74 - 118)			SW846 8260B
	86	(74 - 118)	6.2	(0-30)	SW846 8260B
2,2-Dichloropropane	76	(38 - 127)			SW846 8260B
	73	(38 - 127)	4.3	(0-30)	SW846 8260B
1,1-Dichloropropene	105	(80 - 114)			SW846 8260B
	103	(80 - 114)	1.6	(0-30)	SW846 8260B
Hexachlorobutadiene	71	(27 - 132)			SW846 8260B
	76	(27 - 132)	7.1	(0-30)	SW846 8260B
Iodomethane	111	(66 - 144)			SW846 8260B
	105	(66 - 144)	5.8	(0-30)	SW846 8260B
p-Isopropyltoluene	97	(64 - 122)			SW846 8260B
	94	(64 - 122)	3.4	(0-30)	SW846 8260B
Naphthalene	51	(15 - 158)			SW846 8260B
	51	(15 - 158)	0.82	(0-30)	SW846 8260B
n-Propylbenzene	102	(64 - 124)			SW846 8260B
	97	(64 - 124)	4.7	(0-30)	SW846 8260B
1,1,1,2-Tetrachloroethane	96	(64 - 118)			SW846 8260B
	95	(64 - 118)	1.6	(0-30)	SW846 8260B
1,2,3-Trichlorobenzene	68	(45 - 129)			SW846 8260B
	68	(45 - 129)	0.84	(0-30)	SW846 8260B
1,2,3-Trichloropropane	80	(67 - 132)			SW846 8260B
	75	(67 - 132)	5.6	(0-30)	SW846 8260B
1,2,4-Trimethylbenzene	101	(67 - 124)			SW846 8260B
	96	(67 - 124)	4.8	(0-30)	SW846 8260B
1,3,5-Trimethylbenzene	97	(63 - 121)			SW846 8260B
	94	(63 - 121)	3.4	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	105	(75 - 121)
	97	(75 - 121)
1,2-Dichloroethane-d4	92	(63 - 129)
	85	(63 - 129)
Toluene-d8	106	(74 - 115)
	101	(74 - 115)
4-Bromofluorobenzene	101	(66 - 117)
	97	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

North Canton
4101 Shuffel Street, N. W.
North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: James Staley	Date: 10/20/10	COC No:
Company: MACTEC Engineering and Consulting, Inc.	Tel/Fax: (231) 922-9050	Lab Contact: Mark Loeb	Carrier: FED EX	2 of 3 COCs
Address: 41 Hughes Drive	Analysis Turnaround Time			Job No.
City/State/Zip: Traverse City, Michigan 49686	Calendar (C) or Work Days (W) _____			
(231) 922-9050 Phone	TAT if different from Below _____			SDG No.
(231) 922-9055 FAX	■ 2 weeks			
Project Name: Honeywell South Bend - Area 14 East	☐ 1 week			
Site: South Bend	☐ 2 days			
P O #: 5133286	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N)	VOCs - 8260 B	Sample Specific Notes:
MW-16 10 10	10/19/10	1520	VOA/Grab	Water	3	N	X	
MW-17 10 10	10/19/10	1556	VOA/Grab	Water	3	N	X	
AS-1 10 10	10/19/10	1400	VOA/Grab	Water	3	N	X	
EW-2B 10 10	10/19/10	1435	VOA/Grab	Water	3	N	X	
MP-10 10 10	10/19/10	1540	VOA/Grab	Water	3	N	X	
86-15 10 10	10/19/10	1200	VOA/Grab	Water	3	N	X	
86-14 10 10	10/19/10	1310	VOA/Grab	Water	3	N	X	
86-14 MS/MSD 10 10	10/19/10	1310	VOA/Grab	Water	6	N	X	
MW-100 10 10 - 14 East	10/19/10	—	VOA/Grab	Water	3	N	X	

Preservation Used: 1= Ice, 2=HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
■ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Brent Wheat	MACTEC	10/20/10 1720			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TAL	10/21/10 900

TestAmerica Cooler Receipt Form/Narrative Lot Number: 240 210469
North Canton Facility

Client Mactec Project Area 14 East By: [signature]
Cooler Received on 10/21/10 Opened on 10-22-10 (Signature)
FedEx ☑ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other
TestAmerica Cooler # Multiple Coolers ☐ Foam Box ☐ Client Cooler ☑ Other

1. Were custody seals on the outside of the cooler(s)? Yes ☑ No ☐ Intact? Yes ☐ No ☐ NA ☐
   If YES, Quantity 2 Quantity Unsalvageable
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☑ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☑
   If YES, are there any exceptions?
2. Shippers' packing slip attached to the cooler(s)? Yes ☑ No ☐
3. Did custody papers accompany the sample(s)? Yes ☑ No ☐ Relinquished by client? Yes ☑ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☑ No ☐
5. Packing material used: Bubble Wrap ☑ Foam ☐ None ☐ Other
6. Cooler temperature upon receipt °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☑ Other ☐
   COOLANT: Wet Ice ☑ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☑ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☑ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☑
10. Were correct bottle(s) used for the test(s) indicated? Yes ☑ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☑
12. Sufficient quantity received to perform indicated analyses? Yes ☑ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☑ No ☐ Were VOAs on the COC? Yes ☑ No ☐

Contacted PM MOL Date 10/21/10 by COL via Verbal ☑ Voice Mail ☐ Other ☐
Concerning #14

14. CHAIN OF CUSTODY

The following discrepancies occurred:
L440 trip blank not on coc will log

15. SAMPLE CONDITION

Sample(s) were received after the recommended holding time had expired.
Sample(s) were received in a broken container.
Sample(s) were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot# 051010-HNO_3; Sulfuric Acid Lot# 051010-H_2SO_4; Sodium Hydroxide Lot# 100108 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-$(CH_3COO)_2ZN/NaOH$.* What time was preservative added to sample(s)?

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. HONEYWELL SOUTH BEND

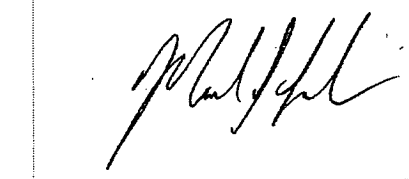
SOUTH BEND-AREA 14 EAST

Lot #: A1A210551

Steven Murray

Mactec Engineering & Consultan
41 Hughes Drive
Traverse City, MI 49686

TESTAMERICA LABORATORIES, INC.



Mark J. Loeb
Project Manager
mark.loeb@testamericainc.com

Approved for release.
Mark J. Loeb
Project Manager II
2/8/2011 12:40 PM

February 8, 2011

CASE NARRATIVE

A1A210551

The following report contains the analytical results for eight water samples and one quality control sample submitted to TestAmerica North Canton by MACTEC Engineering & Consulting, Inc. from the SOUTH BEND-AREA 14 EAST Site, project number HONEYWELL SOUTH BEND. The samples were received January 21, 2011, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Christopher J. Kapanowski, Nick Rogers, and Steven Murray on February 01, 2011. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

All parameters were evaluated to the reporting limit.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Mark J. Loeb, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

CASE NARRATIVE (continued)

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.0°C.

See TestAmerica's Cooler Receipt Form for additional information.

GC/MS VOLATILES

2-Chloroethyl vinyl ether cannot be reliably recovered in an acid preserved sample.

Sample(s) MW-100 01 11-14 EAST and MW-17 01 11 had elevated reporting limits due to TICs.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data. Program or agency specific requirements take precedence over the requirements listed in this narrative.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A1A210551

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-16 01 11 01/19/11 13:40 001				
cis-1,2-Dichloroethene	220	11	ug/L	SW846 8260B
Vinyl chloride	88	11	ug/L	SW846 8260B
Trichloroethene	13	11	ug/L	SW846 8260B
MW-17 01 11 01/19/11 12:50 002				
1,1-Dichloroethane	2.5	2.0	ug/L	SW846 8260B
AS-1 01 11 01/19/11 12:25 003				
Vinyl chloride	2.5	1.0	ug/L	SW846 8260B
EW-2B 01 11 01/19/11 11:50 004				
Vinyl chloride	1.0	1.0	ug/L	SW846 8260B
MP-10 01 11 01/19/11 10:48 005				
cis-1,2-Dichloroethene	14	5.7	ug/L	SW846 8260B
trans-1,2-Dichloroethene	14	5.7	ug/L	SW846 8260B
Vinyl chloride	16	5.7	ug/L	SW846 8260B
Trichloroethene	190	5.7	ug/L	SW846 8260B
86-15 01 11 01/19/11 10:15 006				
cis-1,2-Dichloroethene	24	5.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	38	5.0	ug/L	SW846 8260B
Trichloroethene	170	5.0	ug/L	SW846 8260B
MW-100 01 11-14 EAST 01/19/11 008				
1,1-Dichloroethane	2.5	2.0	ug/L	SW846 8260B

ANALYTICAL METHODS SUMMARY

A1A210551

PARAMETER	ANALYTICAL METHOD
Volatile Organics by GC/MS	SW846 8260B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

A1A210551

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MDK3N	001	MW-16 01 11	01/19/11	13:40
MDK3R	002	MW-17 01 11	01/19/11	12:50
MDK3T	003	AS-1 01 11	01/19/11	12:25
MDK3V	004	EW-2B 01 11	01/19/11	11:50
MDK3W	005	MP-10 01 11	01/19/11	10:48
MDK3X	006	86-15 01 11	01/19/11	10:15
MDK31	007	86-14 01 11	01/19/11	11:20
MDK33	008	MW-100 01 11-14 EAST	01/19/11	
MDK34	009	TRIP BLANK	01/19/11	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-16 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-001 Work Order #...: MDK3N1AA Matrix.....: WG
Date Sampled...: 01/19/11 13:40 Date Received..: 01/21/11
Prep Date.....: 01/26/11 Analysis Date..: 01/26/11
Prep Batch #...: 1026205
Dilution Factor: 11.11 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	110	ug/L
Acrolein	ND	220	ug/L
Acrylonitrile	ND	220	ug/L
Benzene	ND	11	ug/L
Bromobenzene	ND	11	ug/L
Bromochloromethane	ND	11	ug/L
Bromodichloromethane	ND	11	ug/L
Bromoform	ND	11	ug/L
Bromomethane	ND	11	ug/L
Methyl ethyl ketone	ND	110	ug/L
n-Butylbenzene	ND	11	ug/L
sec-Butylbenzene	ND	11	ug/L
tert-Butylbenzene	ND	11	ug/L
Carbon disulfide	ND	11	ug/L
Carbon tetrachloride	ND	11	ug/L
Chlorobenzene	ND	11	ug/L
Chlorodibromomethane	ND	11	ug/L
Chloroethane	ND	11	ug/L
2-Chloroethyl vinyl ether	ND	110	ug/L
Chloroform	ND	11	ug/L
Chloromethane	ND	11	ug/L
2-Chlorotoluene	ND	11	ug/L
4-Chlorotoluene	ND	11	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	22	ug/L
1,2-Dibromoethane	ND	11	ug/L
Dibromomethane	ND	11	ug/L
1,2-Dichlorobenzene	ND	11	ug/L
1,3-Dichlorobenzene	ND	11	ug/L
1,4-Dichlorobenzene	ND	11	ug/L
trans-1,4-Dichloro-2-butene	ND	11	ug/L
Dichlorodifluoromethane	ND	11	ug/L
1,1-Dichloroethane	ND	11	ug/L
1,2-Dichloroethane	ND	11	ug/L
cis-1,2-Dichloroethene	220	**11**	**ug/L**
trans-1,2-Dichloroethene	ND	11	ug/L
1,1-Dichloroethene	ND	11	ug/L
Dichlorofluoromethane	ND	22	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-16 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-001 Work Order #...: MDK3N1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	11	ug/L
1,3-Dichloropropane	ND	11	ug/L
2,2-Dichloropropane	ND	11	ug/L
cis-1,3-Dichloropropene	ND	11	ug/L
trans-1,3-Dichloropropene	ND	11	ug/L
1,1-Dichloropropene	ND	11	ug/L
Ethylbenzene	ND	11	ug/L
Diethyl ether	ND	22	ug/L
Ethyl methacrylate	ND	11	ug/L
Hexachlorobutadiene	ND	11	ug/L
2-Hexanone	ND	110	ug/L
Iodomethane	ND	11	ug/L
Isopropylbenzene	ND	11	ug/L
p-Isopropyltoluene	ND	11	ug/L
Methylene chloride	ND	11	ug/L
Methyl methacrylate	ND	22	ug/L
4-Methyl-2-pentanone (MIBK)	ND	110	ug/L
Methyl tert-butyl ether (MTBE)	ND	56	ug/L
Naphthalene	ND	11	ug/L
n-Propylbenzene	ND	11	ug/L
Styrene	ND	11	ug/L
1,1,1,2-Tetrachloroethane	ND	11	ug/L
1,1,2,2-Tetrachloroethane	ND	11	ug/L
Tetrachloroethene	ND	11	ug/L
Tetrahydrofuran	ND	56	ug/L
Toluene	ND	11	ug/L
1,2,3-Trichlorobenzene	ND	11	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	11	ug/L
1,2,4-Trimethylbenzene	ND	11	ug/L
1,3,5-Trimethylbenzene	ND	11	ug/L
Vinyl acetate	ND	22	ug/L
Vinyl chloride	88	11	**ug/L**
m-Xylene & p-Xylene	ND	22	ug/L
o-Xylene	ND	11	ug/L
Cyclohexanone	ND	220	ug/L
Trichlorofluoromethane	ND	11	ug/L
Trichloroethene	13	11	**ug/L**
1,2,4-Trichloro-benzene	ND	11	ug/L
1,1,1-Trichloroethane	ND	11	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-16 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-001 Work Order #...: MDK3N1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	11	ug/L
1,2,3-Trichloropropane	ND	11	ug/L
1-Chlorohexane	ND	11	ug/L
n-Heptane	ND	11	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(75 - 121)
1,2-Dichloroethane-d4	94	(63 - 129)
Toluene-d8	93	(74 - 115)
4-Bromofluorobenzene	97	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-17 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-002 **Work Order #...:** MDK3R1AA **Matrix.....:** WG
Date Sampled...: 01/19/11 12:50 **Date Received..:** 01/21/11
Prep Date.....: 01/26/11 **Analysis Date..:** 01/26/11
Prep Batch #...: 1026205
Dilution Factor: 2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Hexachlorobutadiene	ND	2.0	ug/L
2-Hexanone	ND	20	ug/L
Iodomethane	ND	2.0	ug/L
Isopropylbenzene	ND	2.0	ug/L
p-Isopropyltoluene	ND	2.0	ug/L
Methylene chloride	ND	2.0	ug/L
Methyl methacrylate	ND	4.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	20	ug/L
Methyl tert-butyl ether (MTBE)	ND	10	ug/L
Naphthalene	ND	2.0	ug/L
n-Propylbenzene	ND	2.0	ug/L
Styrene	ND	2.0	ug/L
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L
Tetrachloroethene	ND	2.0	ug/L
Tetrahydrofuran	ND	10	ug/L
Toluene	ND	2.0	ug/L
1,2,3-Trichlorobenzene	ND	2.0	ug/L
Acetone	ND	20	ug/L
Acrolein	ND	40	ug/L
Acrylonitrile	ND	40	ug/L
Benzene	ND	2.0	ug/L
Bromobenzene	ND	2.0	ug/L
Bromochloromethane	ND	2.0	ug/L
Bromodichloromethane	ND	2.0	ug/L
Bromoform	ND	2.0	ug/L
Bromomethane	ND	2.0	ug/L
Methyl ethyl ketone	ND	20	ug/L
n-Butylbenzene	ND	2.0	ug/L
sec-Butylbenzene	ND	2.0	ug/L
tert-Butylbenzene	ND	2.0	ug/L
Carbon disulfide	ND	2.0	ug/L
Carbon tetrachloride	ND	2.0	ug/L
Chlorobenzene	ND	2.0	ug/L
Chlorodibromomethane	ND	2.0	ug/L
Chloroethane	ND	2.0	ug/L
2-Chloroethyl vinyl ether	ND	20	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-17 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-002 Work Order #...: MDK3R1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Chloroform	ND	2.0	ug/L
Chloromethane	ND	2.0	ug/L
2-Chlorotoluene	ND	2.0	ug/L
4-Chlorotoluene	ND	2.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	4.0	ug/L
1,2-Dibromoethane	ND	2.0	ug/L
Dibromomethane	ND	2.0	ug/L
1,2-Dichlorobenzene	ND	2.0	ug/L
1,3-Dichlorobenzene	ND	2.0	ug/L
1,4-Dichlorobenzene	ND	2.0	ug/L
trans-1,4-Dichloro-2-butene	ND	2.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	**2.5**	**2.0**	**ug/L**
1,2-Dichloroethane	ND	2.0	ug/L
cis-1,2-Dichloroethene	ND	2.0	ug/L
trans-1,2-Dichloroethene	ND	2.0	ug/L
1,1-Dichloroethene	ND	2.0	ug/L
Dichlorofluoromethane	ND	4.0	ug/L
1,2-Dichloropropane	ND	2.0	ug/L
1,3-Dichloropropane	ND	2.0	ug/L
2,2-Dichloropropane	ND	2.0	ug/L
cis-1,3-Dichloropropene	ND	2.0	ug/L
trans-1,3-Dichloropropene	ND	2.0	ug/L
1,1-Dichloropropene	ND	2.0	ug/L
Ethylbenzene	ND	2.0	ug/L
Diethyl ether	ND	4.0	ug/L
Ethyl methacrylate	ND	2.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ug/L
1,2,4-Trimethylbenzene	ND	2.0	ug/L
1,3,5-Trimethylbenzene	ND	2.0	ug/L
Vinyl acetate	ND	4.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	4.0	ug/L
o-Xylene	ND	2.0	ug/L
Cyclohexanone	ND	40	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
Trichloroethene	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	2.0	ug/L
1,1,1-Trichloroethane	ND	2.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-17 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-002 **Work Order #...:** MDK3R1AA **Matrix.....:** WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	2.0	ug/L
1,2,3-Trichloropropane	ND	2.0	ug/L
1-Chlorohexane	ND	2.0	ug/L
n-Heptane	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(75 - 121)
1,2-Dichloroethane-d4	97	(63 - 129)
Toluene-d8	94	(74 - 115)
4-Bromofluorobenzene	106	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: AS-1 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-003 **Work Order #...:** MDK3T1AA **Matrix.....:** WG
Date Sampled...: 01/19/11 12:25 **Date Received..:** 01/21/11
Prep Date.....: 01/26/11 **Analysis Date..:** 01/26/11
Prep Batch #...: 1026205
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Methyl ethyl ketone	ND	10	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Dichlorofluoromethane	ND	2.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: AS-1 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-003 Work Order #...: MDK3T1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Diethyl ether	ND	2.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Tetrahydrofuran	ND	5.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	2.5	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Cyclohexanone	ND	20	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: AS-1 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-003 Work Order #...: MDK3T1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1-Chlorohexane	ND	1.0	ug/L
n-Heptane	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(75 - 121)
1,2-Dichloroethane-d4	97	(63 - 129)
Toluene-d8	91	(74 - 115)
4-Bromofluorobenzene	91	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: EW-2B 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-004 **Work Order #...:** MDK3V1AA **Matrix.....:** WG
Date Sampled...: 01/19/11 11:50 **Date Received..:** 01/21/11
Prep Date.....: 01/26/11 **Analysis Date..:** 01/26/11
Prep Batch #...: 1026205
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Methyl ethyl ketone	ND	10	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Dichlorofluoromethane	ND	2.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: EW-2B 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-004 Work Order #...: MDK3V1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Diethyl ether	ND	2.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Tetrahydrofuran	ND	5.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	1.0	1.0	**ug/L**
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Cyclohexanone	ND	20	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: EW-2B 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-004 Work Order #...: MDK3V1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1-Chlorohexane	ND	1.0	ug/L
n-Heptane	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(75 - 121)
1,2-Dichloroethane-d4	96	(63 - 129)
Toluene-d8	93	(74 - 115)
4-Bromofluorobenzene	90	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: MP-10 01 11

GC/MS Volatiles

Lot-Sample #...:	A1A210551-005	**Work Order #...:**	MDK3W1AA	**Matrix.....:**	WG
Date Sampled...:	01/19/11 10:48	**Date Received..:**	01/21/11		
Prep Date.....:	01/26/11	**Analysis Date..:**	01/26/11		
Prep Batch #...:	1026205				
Dilution Factor:	5.71	**Method.....:**	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	57	ug/L
Acrolein	ND	110	ug/L
Acrylonitrile	ND	110	ug/L
Benzene	ND	5.7	ug/L
Bromobenzene	ND	5.7	ug/L
Bromochloromethane	ND	5.7	ug/L
Bromodichloromethane	ND	5.7	ug/L
Bromoform	ND	5.7	ug/L
Bromomethane	ND	5.7	ug/L
Methyl ethyl ketone	ND	57	ug/L
n-Butylbenzene	ND	5.7	ug/L
sec-Butylbenzene	ND	5.7	ug/L
tert-Butylbenzene	ND	5.7	ug/L
Carbon disulfide	ND	5.7	ug/L
Carbon tetrachloride	ND	5.7	ug/L
Chlorobenzene	ND	5.7	ug/L
Chlorodibromomethane	ND	5.7	ug/L
Chloroethane	ND	5.7	ug/L
2-Chloroethyl vinyl ether	ND	57	ug/L
Chloroform	ND	5.7	ug/L
Chloromethane	ND	5.7	ug/L
2-Chlorotoluene	ND	5.7	ug/L
4-Chlorotoluene	ND	5.7	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	11	ug/L
1,2-Dibromoethane	ND	5.7	ug/L
Dibromomethane	ND	5.7	ug/L
1,2-Dichlorobenzene	ND	5.7	ug/L
1,3-Dichlorobenzene	ND	5.7	ug/L
1,4-Dichlorobenzene	ND	5.7	ug/L
trans-1,4-Dichloro-2-butene	ND	5.7	ug/L
Dichlorodifluoromethane	ND	5.7	ug/L
1,1-Dichloroethane	ND	5.7	ug/L
1,2-Dichloroethane	ND	5.7	ug/L
cis-1,2-Dichloroethene	14	5.7	**ug/L**
trans-1,2-Dichloroethene	14	5.7	**ug/L**
1,1-Dichloroethene	ND	5.7	ug/L
Dichlorofluoromethane	ND	11	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MP-10 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-005 Work Order #...: MDK3W1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	5.7	ug/L
1,3-Dichloropropane	ND	5.7	ug/L
2,2-Dichloropropane	ND	5.7	ug/L
cis-1,3-Dichloropropene	ND	5.7	ug/L
trans-1,3-Dichloropropene	ND	5.7	ug/L
1,1-Dichloropropene	ND	5.7	ug/L
Ethylbenzene	ND	5.7	ug/L
Diethyl ether	ND	11	ug/L
Ethyl methacrylate	ND	5.7	ug/L
Hexachlorobutadiene	ND	5.7	ug/L
2-Hexanone	ND	57	ug/L
Iodomethane	ND	5.7	ug/L
Isopropylbenzene	ND	5.7	ug/L
p-Isopropyltoluene	ND	5.7	ug/L
Methylene chloride	ND	5.7	ug/L
Methyl methacrylate	ND	11	ug/L
4-Methyl-2-pentanone (MIBK)	ND	57	ug/L
Methyl tert-butyl ether (MTBE)	ND	29	ug/L
Naphthalene	ND	5.7	ug/L
n-Propylbenzene	ND	5.7	ug/L
Styrene	ND	5.7	ug/L
1,1,1,2-Tetrachloroethane	ND	5.7	ug/L
1,1,2,2-Tetrachloroethane	ND	5.7	ug/L
Tetrachloroethene	ND	5.7	ug/L
Tetrahydrofuran	ND	29	ug/L
Toluene	ND	5.7	ug/L
1,2,3-Trichlorobenzene	ND	5.7	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.7	ug/L
1,2,4-Trimethylbenzene	ND	5.7	ug/L
1,3,5-Trimethylbenzene	ND	5.7	ug/L
Vinyl acetate	ND	11	ug/L
Vinyl chloride	**16**	**5.7**	**ug/L**
m-Xylene & p-Xylene	ND	11	ug/L
o-Xylene	ND	5.7	ug/L
Cyclohexanone	ND	110	ug/L
Trichlorofluoromethane	ND	5.7	ug/L
Trichloroethene	**190**	**5.7**	**ug/L**
1,2,4-Trichloro-benzene	ND	5.7	ug/L
1,1,1-Trichloroethane	ND	5.7	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MP-10 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-005 Work Order #...: MDK3W1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.7	ug/L
1,2,3-Trichloropropane	ND	5.7	ug/L
1-Chlorohexane	ND	5.7	ug/L
n-Heptane	ND	5.7	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(75 - 121)
1,2-Dichloroethane-d4	96	(63 - 129)
Toluene-d8	93	(74 - 115)
4-Bromofluorobenzene	85	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: 86-15 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-006 **Work Order #...:** MDK3X1AA **Matrix.....:** WG
Date Sampled...: 01/19/11 10:15 **Date Received..:** 01/21/11
Prep Date.....: 01/26/11 **Analysis Date..:** 01/26/11
Prep Batch #...: 1026205
Dilution Factor: 5 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	50	ug/L
Acrolein	ND	100	ug/L
Acrylonitrile	ND	100	ug/L
Benzene	ND	5.0	ug/L
Bromobenzene	ND	5.0	ug/L
Bromochloromethane	ND	5.0	ug/L
Bromodichloromethane	ND	5.0	ug/L
Bromoform	ND	5.0	ug/L
Bromomethane	ND	5.0	ug/L
Methyl ethyl ketone	ND	50	ug/L
n-Butylbenzene	ND	5.0	ug/L
sec-Butylbenzene	ND	5.0	ug/L
tert-Butylbenzene	ND	5.0	ug/L
Carbon disulfide	ND	5.0	ug/L
Carbon tetrachloride	ND	5.0	ug/L
Chlorobenzene	ND	5.0	ug/L
Chlorodibromomethane	ND	5.0	ug/L
Chloroethane	ND	5.0	ug/L
2-Chloroethyl vinyl ether	ND	50	ug/L
Chloroform	ND	5.0	ug/L
Chloromethane	ND	5.0	ug/L
2-Chlorotoluene	ND	5.0	ug/L
4-Chlorotoluene	ND	5.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	10	ug/L
1,2-Dibromoethane	ND	5.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	5.0	ug/L
1,3-Dichlorobenzene	ND	5.0	ug/L
1,4-Dichlorobenzene	ND	5.0	ug/L
trans-1,4-Dichloro-2-butene	ND	5.0	ug/L
Dichlorodifluoromethane	ND	5.0	ug/L
1,1-Dichloroethane	ND	5.0	ug/L
1,2-Dichloroethane	ND	5.0	ug/L
cis-1,2-Dichloroethene	24	5.0	**ug/L**
trans-1,2-Dichloroethene	38	5.0	**ug/L**
1,1-Dichloroethene	ND	5.0	ug/L
Dichlorofluoromethane	ND	10	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: 86-15 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-006 Work Order #...: MDK3X1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	5.0	ug/L
1,3-Dichloropropane	ND	5.0	ug/L
2,2-Dichloropropane	ND	5.0	ug/L
cis-1,3-Dichloropropene	ND	5.0	ug/L
trans-1,3-Dichloropropene	ND	5.0	ug/L
1,1-Dichloropropene	ND	5.0	ug/L
Ethylbenzene	ND	5.0	ug/L
Diethyl ether	ND	10	ug/L
Ethyl methacrylate	ND	5.0	ug/L
Hexachlorobutadiene	ND	5.0	ug/L
2-Hexanone	ND	50	ug/L
Iodomethane	ND	5.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
p-Isopropyltoluene	ND	5.0	ug/L
Methylene chloride	ND	5.0	ug/L
Methyl methacrylate	ND	10	ug/L
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L
Methyl tert-butyl ether (MTBE)	ND	25	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	5.0	ug/L
Styrene	ND	5.0	ug/L
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L
Tetrachloroethene	ND	5.0	ug/L
Tetrahydrofuran	ND	25	ug/L
Toluene	ND	5.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	5.0	ug/L
1,2,4-Trimethylbenzene	ND	5.0	ug/L
1,3,5-Trimethylbenzene	ND	5.0	ug/L
Vinyl acetate	ND	10	ug/L
Vinyl chloride	ND	5.0	ug/L
m-Xylene & p-Xylene	ND	10	ug/L
o-Xylene	ND	5.0	ug/L
Cyclohexanone	ND	100	ug/L
Trichlorofluoromethane	ND	5.0	ug/L
Trichloroethene	**170**	**5.0**	**ug/L**
1,2,4-Trichloro-benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	5.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: 86-15 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-006 Work Order #...: MDK3X1AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	5.0	ug/L
1,2,3-Trichloropropane	ND	5.0	ug/L
1-Chlorohexane	ND	5.0	ug/L
n-Heptane	ND	5.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(75 - 121)
1,2-Dichloroethane-d4	96	(63 - 129)
Toluene-d8	95	(74 - 115)
4-Bromofluorobenzene	86	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: 86-14 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-007 **Work Order #...:** MDK311AA **Matrix.....:** WG
Date Sampled...: 01/19/11 11:20 **Date Received..:** 01/21/11
Prep Date.....: 01/26/11 **Analysis Date..:** 01/26/11
Prep Batch #...: 1026205
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Methyl ethyl ketone	ND	10	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Dichlorofluoromethane	ND	2.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: 86-14 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-007 Work Order #...: MDK311AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Diethyl ether	ND	2.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Tetrahydrofuran	ND	5.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Cyclohexanone	ND	20	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: 86-14 01 11

GC/MS Volatiles

Lot-Sample #...: A1A210551-007 Work Order #...: MDK311AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1-Chlorohexane	ND	1.0	ug/L
n-Heptane	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(75 - 121)
1,2-Dichloroethane-d4	93	(63 - 129)
Toluene-d8	93	(74 - 115)
4-Bromofluorobenzene	91	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: MW-100 01 11-14 EAST

GC/MS Volatiles

Lot-Sample #...: A1A210551-008 **Work Order #...:** MDK331AA **Matrix.....:** WG
Date Sampled...: 01/19/11 **Date Received..:** 01/21/11
Prep Date.....: 01/26/11 **Analysis Date..:** 01/26/11
Prep Batch #...: 1026205
Dilution Factor: 2 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	20	ug/L
Acrolein	ND	40	ug/L
Acrylonitrile	ND	40	ug/L
Benzene	ND	2.0	ug/L
Bromobenzene	ND	2.0	ug/L
Bromochloromethane	ND	2.0	ug/L
Bromodichloromethane	ND	2.0	ug/L
Bromoform	ND	2.0	ug/L
Bromomethane	ND	2.0	ug/L
Methyl ethyl ketone	ND	20	ug/L
n-Butylbenzene	ND	2.0	ug/L
sec-Butylbenzene	ND	2.0	ug/L
tert-Butylbenzene	ND	2.0	ug/L
Carbon disulfide	ND	2.0	ug/L
Carbon tetrachloride	ND	2.0	ug/L
Chlorobenzene	ND	2.0	ug/L
Chlorodibromomethane	ND	2.0	ug/L
Chloroethane	ND	2.0	ug/L
2-Chloroethyl vinyl ether	ND	20	ug/L
Chloroform	ND	2.0	ug/L
Chloromethane	ND	2.0	ug/L
2-Chlorotoluene	ND	2.0	ug/L
4-Chlorotoluene	ND	2.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	4.0	ug/L
1,2-Dibromoethane	ND	2.0	ug/L
Dibromomethane	ND	2.0	ug/L
1,2-Dichlorobenzene	ND	2.0	ug/L
1,3-Dichlorobenzene	ND	2.0	ug/L
1,4-Dichlorobenzene	ND	2.0	ug/L
trans-1,4-Dichloro-2-butene	ND	2.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	**2.5**	**2.0**	**ug/L**
1,2-Dichloroethane	ND	2.0	ug/L
cis-1,2-Dichloroethene	ND	2.0	ug/L
trans-1,2-Dichloroethene	ND	2.0	ug/L
1,1-Dichloroethene	ND	2.0	ug/L
Dichlorofluoromethane	ND	4.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-100 01 11-14 EAST

GC/MS Volatiles

Lot-Sample #...: A1A210551-008 Work Order #...: MDK331AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	2.0	ug/L
1,3-Dichloropropane	ND	2.0	ug/L
2,2-Dichloropropane	ND	2.0	ug/L
cis-1,3-Dichloropropene	ND	2.0	ug/L
trans-1,3-Dichloropropene	ND	2.0	ug/L
1,1-Dichloropropene	ND	2.0	ug/L
Ethylbenzene	ND	2.0	ug/L
Diethyl ether	ND	4.0	ug/L
Ethyl methacrylate	ND	2.0	ug/L
Hexachlorobutadiene	ND	2.0	ug/L
2-Hexanone	ND	20	ug/L
Iodomethane	ND	2.0	ug/L
Isopropylbenzene	ND	2.0	ug/L
p-Isopropyltoluene	ND	2.0	ug/L
Methylene chloride	ND	2.0	ug/L
Methyl methacrylate	ND	4.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	20	ug/L
Methyl tert-butyl ether (MTBE)	ND	10	ug/L
Naphthalene	ND	2.0	ug/L
n-Propylbenzene	ND	2.0	ug/L
Styrene	ND	2.0	ug/L
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L
Tetrachloroethene	ND	2.0	ug/L
Tetrahydrofuran	ND	10	ug/L
Toluene	ND	2.0	ug/L
1,2,3-Trichlorobenzene	ND	2.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ug/L
1,2,4-Trimethylbenzene	ND	2.0	ug/L
1,3,5-Trimethylbenzene	ND	2.0	ug/L
Vinyl acetate	ND	4.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	4.0	ug/L
o-Xylene	ND	2.0	ug/L
Cyclohexanone	ND	40	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
Trichloroethene	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	2.0	ug/L
1,1,1-Trichloroethane	ND	2.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: MW-100 01 11-14 EAST

GC/MS Volatiles

Lot-Sample #...: A1A210551-008 Work Order #...: MDK331AA Matrix.....: WG

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	2.0	ug/L
1,2,3-Trichloropropane	ND	2.0	ug/L
1-Chlorohexane	ND	2.0	ug/L
n-Heptane	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	104	(75 - 121)
1,2-Dichloroethane-d4	95	(63 - 129)
Toluene-d8	93	(74 - 115)
4-Bromofluorobenzene	113	(66 - 117)

MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A1A210551-009 **Work Order #...:** MDK341AA **Matrix.....:** WQ
Date Sampled...: 01/19/11 **Date Received..:** 01/21/11
Prep Date.....: 01/26/11 **Analysis Date..:** 01/26/11
Prep Batch #...: 1026205
Dilution Factor: 1 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Acrolein	ND	20	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
Methyl ethyl ketone	ND	10	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
Dichlorofluoromethane	ND	2.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A1A210551-009 Work Order #...: MDK341AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Diethyl ether	ND	2.0	ug/L
Ethyl methacrylate	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	10	ug/L
Iodomethane	ND	1.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
Methyl methacrylate	ND	2.0	ug/L
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Tetrahydrofuran	ND	5.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl acetate	ND	2.0	ug/L
Vinyl chloride	ND	1.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	1.0	ug/L
Cyclohexanone	ND	20	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L

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MACTEC Engineering and Consulting Inc

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #...: A1A210551-009 Work Order #...: MDK341AA Matrix.....: WQ

PARAMETER	RESULT	REPORTING LIMIT	UNITS
1,1,2-Trichloroethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1-Chlorohexane	ND	1.0	ug/L
n-Heptane	ND	1.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	101	(75 - 121)
1,2-Dichloroethane-d4	93	(63 - 129)
Toluene-d8	95	(74 - 115)
4-Bromofluorobenzene	89	(66 - 117)

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QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1A210551 **Work Order #...:** MDP631AA **Matrix.....:** WATER
MB Lot-Sample #: A1A260000-205

Prep Date.....: 01/26/11
Analysis Date..: 01/26/11 Prep Batch #...: 1026205
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
Methyl ethyl ketone	ND	10	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
2-Chloroethyl vinyl ether	ND	10	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
1-Chlorohexane	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
Cyclohexanone	ND	20	ug/L	SW846 8260B
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
trans-1,4-Dichloro-2-butene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Dichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1A210551 **Work Order #...:** MDP631AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diethyl ether	ND	2.0	ug/L	SW846 8260B
Ethyl methacrylate	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
n-Heptane	ND	1.0	ug/L	SW846 8260B
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	10	ug/L	SW846 8260B
Iodomethane	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
Methyl methacrylate	ND	2.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Tetrahydrofuran	ND	5.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl acetate	ND	2.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	2.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	ug/L	SW846 8260B
4-Methyl-2-pentanone (MIBK)	ND	10	ug/L	SW846 8260B
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/L	SW846 8260B
Acetone	ND	10	ug/L	SW846 8260B
Acrolein	ND	20	ug/L	SW846 8260B
Acrylonitrile	ND	20	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: A1A210551 **Work Order #...:** MDP631AA **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(75 - 121)
1,2-Dichloroethane-d4	94	(63 - 129)
Toluene-d8	94	(74 - 115)
4-Bromofluorobenzene	87	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1A210551 **Work Order #...:** MDP631AC **Matrix.....:** WATER
LCS Lot-Sample#: A1A260000-205
Prep Date.....: 01/26/11 **Analysis Date..:** 01/26/11
Prep Batch #...: 1026205
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Chloromethane	89	(44 - 126)	SW846 8260B
Bromomethane	89	(11 - 185)	SW846 8260B
Vinyl chloride	101	(53 - 127)	SW846 8260B
Chloroethane	103	(25 - 153)	SW846 8260B
Methylene chloride	95	(66 - 131)	SW846 8260B
Acetone	95	(43 - 136)	SW846 8260B
Carbon disulfide	106	(62 - 142)	SW846 8260B
1,1-Dichloroethene	**107**	**(78 - 131)**	**SW846 8260B**
1,1-Dichloroethane	102	(82 - 115)	SW846 8260B
Chloroform	101	(79 - 117)	SW846 8260B
1,2-Dichloroethane	100	(71 - 127)	SW846 8260B
Methyl ethyl ketone	94	(60 - 126)	SW846 8260B
1,1,1-Trichloroethane	99	(74 - 118)	SW846 8260B
Carbon tetrachloride	100	(66 - 128)	SW846 8260B
Bromodichloromethane	103	(72 - 121)	SW846 8260B
1,2-Dichloropropane	103	(81 - 115)	SW846 8260B
cis-1,3-Dichloropropene	93	(61 - 115)	SW846 8260B
Trichloroethene	**99**	**(76 - 117)**	**SW846 8260B**
Chlorodibromomethane	99	(64 - 119)	SW846 8260B
1,1,2-Trichloroethane	96	(80 - 112)	SW846 8260B
Benzene	**99**	**(83 - 112)**	**SW846 8260B**
trans-1,3-Dichloropropene	94	(58 - 117)	SW846 8260B
Bromoform	84	(40 - 131)	SW846 8260B
4-Methyl-2-pentanone (MIB	94	(63 - 128)	SW846 8260B
2-Hexanone	94	(55 - 133)	SW846 8260B
Tetrachloroethene	98	(79 - 114)	SW846 8260B
1,1,2,2-Tetrachloroethane	90	(68 - 118)	SW846 8260B
Toluene	**97**	**(84 - 111)**	**SW846 8260B**
Chlorobenzene	**96**	**(85 - 110)**	**SW846 8260B**
Ethylbenzene	99	(83 - 112)	SW846 8260B
Styrene	102	(79 - 114)	SW846 8260B
cis-1,2-Dichloroethene	99	(80 - 113)	SW846 8260B
trans-1,2-Dichloroethene	104	(83 - 117)	SW846 8260B
Dichlorodifluoromethane	71	(19 - 129)	SW846 8260B

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1A210551 **Work Order #...:** MDP631AC **Matrix.....:** WATER
LCS Lot-Sample#: A1A260000-205

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Trichlorofluoromethane	105	(49 - 157)	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	105	(74 - 151)	SW846 8260B
Methyl tert-butyl ether (MTBE)	95	(52 - 144)	SW846 8260B
1,2-Dibromoethane	95	(79 - 113)	SW846 8260B
Isopropylbenzene	99	(75 - 114)	SW846 8260B
1,3-Dichlorobenzene	93	(80 - 110)	SW846 8260B
1,4-Dichlorobenzene	94	(82 - 110)	SW846 8260B
1,2-Dichlorobenzene	96	(81 - 110)	SW846 8260B
1,2-Dibromo-3-chloropropane	92	(42 - 136)	SW846 8260B
1,2,4-Trichlorobenzene	98	(48 - 135)	SW846 8260B
o-Xylene	101	(83 - 113)	SW846 8260B
m-Xylene & p-Xylene	100	(83 - 113)	SW846 8260B
2-Chloroethyl vinyl ether	92	(52 - 131)	SW846 8260B
Acrolein	121	(51 - 170)	SW846 8260B
Vinyl acetate	120	(46 - 161)	SW846 8260B
Acrylonitrile	98	(66 - 132)	SW846 8260B
Bromobenzene	97	(76 - 115)	SW846 8260B
Bromochloromethane	103	(77 - 120)	SW846 8260B
n-Butylbenzene	102	(66 - 125)	SW846 8260B
sec-Butylbenzene	96	(70 - 117)	SW846 8260B
tert-Butylbenzene	92	(71 - 115)	SW846 8260B
2-Chlorotoluene	95	(76 - 116)	SW846 8260B
4-Chlorotoluene	99	(77 - 115)	SW846 8260B
Dibromomethane	105	(81 - 120)	SW846 8260B
1,3-Dichloropropane	94	(79 - 116)	SW846 8260B
2,2-Dichloropropane	99	(50 - 129)	SW846 8260B
1,1-Dichloropropene	101	(83 - 114)	SW846 8260B
Hexachlorobutadiene	97	(36 - 134)	SW846 8260B
Iodomethane	110	(72 - 141)	SW846 8260B
p-Isopropyltoluene	102	(74 - 120)	SW846 8260B
Naphthalene	87	(32 - 141)	SW846 8260B
n-Propylbenzene	100	(74 - 121)	SW846 8260B
1,1,1,2-Tetrachloroethane	97	(72 - 116)	SW846 8260B

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1A210551 **Work Order #...:** MDP631AC **Matrix.....:** WATER
LCS Lot-Sample#: A1A260000-205

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,2,3-Trichlorobenzene	98	(54 - 126)	SW846 8260B
1,2,3-Trichloropropane	90	(73 - 129)	SW846 8260B
1,2,4-Trimethylbenzene	102	(76 - 120)	SW846 8260B
1,3,5-Trimethylbenzene	100	(72 - 118)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	96	(75 - 121)
1,2-Dichloroethane-d4	92	(63 - 129)
Toluene-d8	95	(74 - 115)
4-Bromofluorobenzene	103	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1A210551 **Work Order #...:** MDK311AC-MS **Matrix.....:** WG
MS Lot-Sample #: A1A210551-007 MDK311AD-MSD
Date Sampled...: 01/19/11 11:20 **Date Received..:** 01/21/11
Prep Date.....: 01/26/11 **Analysis Date..:** 01/26/11
Prep Batch #...: 1026205
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**113**	**(74 - 135)**			**SW846 8260B**
	110	**(74 - 135)**	2.3	(0-30)	**SW846 8260B**
Chloromethane	80	(33 - 132)			SW846 8260B
	79	(33 - 132)	1.8	(0-30)	SW846 8260B
Bromomethane	96	(10 - 186)			SW846 8260B
	87	(10 - 186)	10	(0-30)	SW846 8260B
Vinyl chloride	99	(49 - 130)			SW846 8260B
	104	(49 - 130)	4.1	(0-30)	SW846 8260B
Chloroethane	110	(21 - 165)			SW846 8260B
	117	(21 - 165)	6.0	(0-30)	SW846 8260B
Methylene chloride	96	(63 - 128)			SW846 8260B
	95	(63 - 128)	1.0	(0-30)	SW846 8260B
Acetone	89	(33 - 145)			SW846 8260B
	74	(33 - 145)	18	(0-30)	SW846 8260B
Carbon disulfide	121	(57 - 147)			SW846 8260B
	121	(57 - 147)	0.31	(0-30)	SW846 8260B
1,1-Dichloroethane	106	(79 - 116)			SW846 8260B
	104	(79 - 116)	2.0	(0-30)	SW846 8260B
Chloroform	103	(76 - 118)			SW846 8260B
	101	(76 - 118)	1.8	(0-30)	SW846 8260B
1,2-Dichloroethane	99	(68 - 129)			SW846 8260B
	98	(68 - 129)	1.7	(0-30)	SW846 8260B
Methyl ethyl ketone	88	(54 - 129)			SW846 8260B
	80	(54 - 129)	10	(0-30)	SW846 8260B
1,1,1-Trichloroethane	107	(68 - 121)			SW846 8260B
	106	(68 - 121)	0.25	(0-30)	SW846 8260B
Carbon tetrachloride	107	(59 - 129)			SW846 8260B
	106	(59 - 129)	0.95	(0-30)	SW846 8260B
Bromodichloromethane	104	(67 - 120)			SW846 8260B
	101	(67 - 120)	2.9	(0-30)	SW846 8260B
1,2-Dichloropropane	101	(78 - 115)			SW846 8260B
	100	(78 - 115)	0.78	(0-30)	SW846 8260B
cis-1,3-Dichloropropene	85	(51 - 110)			SW846 8260B
	83	(51 - 110)	2.7	(0-30)	SW846 8260B
Trichloroethene	**100**	**(66 - 120)**			**SW846 8260B**
	100	**(66 - 120)**	0.93	(0-30)	**SW846 8260B**
Chlorodibromomethane	99	(56 - 118)			SW846 8260B
	98	(56 - 118)	0.64	(0-30)	SW846 8260B
1,1,2-Trichloroethane	97	(75 - 115)			SW846 8260B
	97	(75 - 115)	0.67	(0-30)	SW846 8260B

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MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1A210551 **Work Order #...:** MDK311AC-MS **Matrix.....:** WG
MS Lot-Sample #: A1A210551-007 MDK311AD-MSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**100**	**(72 - 121)**			**SW846 8260B**
	99	**(72 - 121)**	**0.96**	**(0-30)**	**SW846 8260B**
trans-1,3-Dichloropropene	92	(46 - 116)			SW846 8260B
	88	(46 - 116)	3.7	(0-30)	SW846 8260B
Bromoform	85	(32 - 128)			SW846 8260B
	81	(32 - 128)	4.1	(0-30)	SW846 8260B
4-Methyl-2-pentanone (MIB	90	(56 - 131)			SW846 8260B
	87	(56 - 131)	3.6	(0-30)	SW846 8260B
2-Hexanone	86	(47 - 139)			SW846 8260B
	85	(47 - 139)	1.1	(0-30)	SW846 8260B
Tetrachloroethene	101	(70 - 117)			SW846 8260B
	101	(70 - 117)	0.48	(0-30)	SW846 8260B
1,1,2,2-Tetrachloroethane	93	(63 - 122)			SW846 8260B
	94	(63 - 122)	1.9	(0-30)	SW846 8260B
Toluene	**100**	**(78 - 114)**			**SW846 8260B**
	99	**(78 - 114)**	**0.94**	**(0-30)**	**SW846 8260B**
Chlorobenzene	**96**	**(80 - 110)**			**SW846 8260B**
	96	**(80 - 110)**	**0.43**	**(0-30)**	**SW846 8260B**
Ethylbenzene	101	(75 - 116)			SW846 8260B
	99	(75 - 116)	1.4	(0-30)	SW846 8260B
Styrene	100	(71 - 117)			SW846 8260B
	99	(71 - 117)	1.6	(0-30)	SW846 8260B
cis-1,2-Dichloroethene	100	(70 - 120)			SW846 8260B
	100	(70 - 120)	0.79	(0-30)	SW846 8260B
trans-1,2-Dichloroethene	110	(80 - 119)			SW846 8260B
	106	(80 - 119)	3.1	(0-30)	SW846 8260B
Dichlorodifluoromethane	80	(17 - 128)			SW846 8260B
	81	(17 - 128)	2.2	(0-30)	SW846 8260B
Trichlorofluoromethane	115	(46 - 157)			SW846 8260B
	112	(46 - 157)	2.6	(0-30)	SW846 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane	117	(70 - 152)			SW846 8260B
	119	(70 - 152)	2.1	(0-30)	SW846 8260B
Methyl tert-butyl ether (MTBE)	97	(46 - 144)			SW846 8260B
	96	(46 - 144)	1.1	(0-30)	SW846 8260B
1,2-Dibromoethane	94	(74 - 113)			SW846 8260B
	93	(74 - 113)	1.1	(0-30)	SW846 8260B
Isopropylbenzene	103	(68 - 116)			SW846 8260B
	100	(68 - 116)	2.8	(0-30)	SW846 8260B

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1A210551 **Work Order #...:** MDK311AC-MS **Matrix.....:** WG
MS Lot-Sample #: A1A210551-007 MDK311AD-MSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,3-Dichlorobenzene	92	(73 - 110)			SW846 8260B
	94	(73 - 110)	1.4	(0-30)	SW846 8260B
1,4-Dichlorobenzene	92	(75 - 110)			SW846 8260B
	93	(75 - 110)	1.4	(0-30)	SW846 8260B
1,2-Dichlorobenzene	98	(75 - 111)			SW846 8260B
	95	(75 - 111)	3.9	(0-30)	SW846 8260B
1,2-Dibromo-3-chloro-propane	102	(32 - 139)			SW846 8260B
	92	(32 - 139)	10	(0-30)	SW846 8260B
1,2,4-Trichloro-benzene	101	(38 - 138)			SW846 8260B
	86	(38 - 138)	16	(0-30)	SW846 8260B
o-Xylene	105	(76 - 116)			SW846 8260B
	103	(76 - 116)	1.4	(0-30)	SW846 8260B
m-Xylene & p-Xylene	103	(75 - 117)			SW846 8260B
	100	(75 - 117)	2.5	(0-30)	SW846 8260B
2-Chloroethyl vinyl ether	0.0 a	(10 - 150)			SW846 8260B
	0.0 a	(10 - 150)	0.0	(0-30)	SW846 8260B
Acrolein	108	(47 - 168)			SW846 8260B
	101	(47 - 168)	7.4	(0-30)	SW846 8260B
Acrylonitrile	99	(62 - 133)			SW846 8260B
	93	(62 - 133)	5.6	(0-30)	SW846 8260B
Vinyl acetate	119	(43 - 157)			SW846 8260B
	125	(43 - 157)	4.4	(0-30)	SW846 8260B
Bromobenzene	91	(71 - 116)			SW846 8260B
	94	(71 - 116)	3.0	(0-30)	SW846 8260B
Bromochloromethane	105	(73 - 121)			SW846 8260B
	101	(73 - 121)	3.5	(0-30)	SW846 8260B
n-Butylbenzene	105	(56 - 127)			SW846 8260B
	101	(56 - 127)	3.9	(0-30)	SW846 8260B
sec-Butylbenzene	97	(60 - 119)			SW846 8260B
	96	(60 - 119)	0.95	(0-30)	SW846 8260B
tert-Butylbenzene	93	(61 - 119)			SW846 8260B
	91	(61 - 119)	2.6	(0-30)	SW846 8260B
2-Chlorotoluene	95	(69 - 117)			SW846 8260B
	97	(69 - 117)	2.0	(0-30)	SW846 8260B
4-Chlorotoluene	94	(71 - 116)			SW846 8260B
	98	(71 - 116)	3.5	(0-30)	SW846 8260B
Dibromomethane	104	(77 - 121)			SW846 8260B
	103	(77 - 121)	1.1	(0-30)	SW846 8260B

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: A1A210551 **Work Order #...:** MDK311AC-MS **Matrix.....:** WG
MS Lot-Sample #: A1A210551-007 MDK311AD-MSD

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,3-Dichloropropane	92	(74 - 118)			SW846 8260B
	92	(74 - 118)	0.13	(0-30)	SW846 8260B
2,2-Dichloropropane	107	(38 - 127)			SW846 8260B
	105	(38 - 127)	1.3	(0-30)	SW846 8260B
1,1-Dichloropropene	101	(80 - 114)			SW846 8260B
	102	(80 - 114)	0.81	(0-30)	SW846 8260B
Hexachlorobutadiene	101	(27 - 132)			SW846 8260B
	89	(27 - 132)	12	(0-30)	SW846 8260B
Iodomethane	117	(66 - 144)			SW846 8260B
	115	(66 - 144)	1.6	(0-30)	SW846 8260B
p-Isopropyltoluene	102	(64 - 122)			SW846 8260B
	100	(64 - 122)	1.9	(0-30)	SW846 8260B
Naphthalene	96	(15 - 158)			SW846 8260B
	83	(15 - 158)	15	(0-30)	SW846 8260B
n-Propylbenzene	98	(64 - 124)			SW846 8260B
	100	(64 - 124)	1.8	(0-30)	SW846 8260B
1,1,1,2-Tetrachloroethane	104	(64 - 118)			SW846 8260B
	103	(64 - 118)	1.1	(0-30)	SW846 8260B
1,2,3-Trichlorobenzene	104	(45 - 129)			SW846 8260B
	88	(45 - 129)	17	(0-30)	SW846 8260B
1,2,3-Trichloropropane	89	(67 - 132)			SW846 8260B
	90	(67 - 132)	0.82	(0-30)	SW846 8260B
1,2,4-Trimethylbenzene	102	(67 - 124)			SW846 8260B
	101	(67 - 124)	1.1	(0-30)	SW846 8260B
1,3,5-Trimethylbenzene	101	(63 - 121)			SW846 8260B
	100	(63 - 121)	0.28	(0-30)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	100	(75 - 121)
	99	(75 - 121)
1,2-Dichloroethane-d4	92	(63 - 129)
	96	(63 - 129)
Toluene-d8	98	(74 - 115)
	98	(74 - 115)
4-Bromofluorobenzene	102	(66 - 117)
	99	(66 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

North Canton
4101 Shuffel Street, N. W.
North Canton, OH 44720
phone 330.497.9396 fax 330.497.0772

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Steve Murray	Site Contact: James Staley	Date: 1/20/2011	COC No:
Company: MACTEC Engineering and Consulting, Inc.	Tel/Fax: (231) 922-9050	Lab Contact: Mark Loeb	Carrier: Fed Ex	1 of 1 COCs
Address: 41 Hughes Drive	Analysis Turnaround Time			Job No.
City/State/Zip: Traverse City, Michigan 49686	Calendar (C) or Work Days (W) _____			
(231) 922-9050 Phone	TAT if different from Below _____			SDG No.
(231) 922-9055 FAX	■ 2 weeks			
Project Name: Honeywell South Bend - Area 14 East	☐ 1 week			
Site: South Bend	☐ 2 days			
P O #: 5133286	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y/N)	VOCs - 8260 B	Sample Specific Notes:
MW-16 01 11	1/19/11	13:40	VOA/Grab	Water	3	N	X	
MW-17 01 11	1/19/11	12:50	VOA/Grab	Water	3	N	X	
AS-1 01 11	1/19/11	12:25	VOA/Grab	Water	3	N	X	
EW-2B 01 11	1/19/11	11:50	VOA/Grab	Water	3	N	X	
MP-10 01 11	1/19/11	10:48	VOA/Grab	Water	3	N	X	
86-15 01 11	1/19/11	10:15	VOA/Grab	Water	3	N	X	
86-14 01 11	1/19/11	11:20	VOA/Grab	Water	3	N	X	
86-14 MS/MSD 01 11	1/19/11	11:20	VOA/Grab	Water	6	N	X	
MW-100 01 11 - 14 East	1/19/11	—	VOA/Grab	Water	3	N	X	

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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
■ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For _____ Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	MACTEC	1/20/10		TAL	1/21/11 1015
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 410210551
North Canton Facility

Client Mactec Project _____ By: _____ (Signature)
Cooler Received on 1-21-11 Opened on 1-21-11
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # #26 Multiple Coolers ☐ Foam Box ☐ Client Cooler ☐ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 2 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other _____
6. Cooler temperature upon receipt 2.0 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☒ Other ☐ _____
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☒
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐

Contacted PM MJL Date 1/21/11 by CSL via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:
1440 trip blank not on coc ok to log

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot#* 100110-HNO_3; *Sulfuric Acid Lot#* 110410-H_2SO_4; *Sodium Hydroxide Lot#* 100108 -*NaOH; Hydrochloric Acid Lot#* 092006-*HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-. ($CH_3COO)_2ZN$/*NaOH*. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT