

July 25, 2012  
File No. 21.0056546.00

Mr. Glenn May  
NYSDEC Region 9  
270 Michigan Avenue  
Buffalo, New York 14203



Re: Results of April 2012 Monitored Natural Attenuation Groundwater Sampling  
Delphi Harrison Thermal Systems Site (Site)  
Lockport, New York  
Registry Site No. 932113

Dear Mr. May:

535 Washington Street  
11th Floor  
Buffalo, New York  
14203  
716-685-2300  
FAX 716-685-3629  
www.gza.com

GZA GeoEnvironmental of New York (GZA) prepared this letter report to summarize the results of the April 2012 groundwater sampling and monitored natural attenuation (MNA) parameter monitoring event at the above-referenced Site. The groundwater sampling event conducted from April 18<sup>th</sup> through April 20<sup>nd</sup>, 2012 included eight (8) monitoring wells (MW-4, -7, -10, -11, -12, -13, -14 and -15) that were sampled for the five (5) compounds of concern (COCs)<sup>1</sup> and MNA parameters as identified in the Site Management Plan<sup>2</sup> (SMP). Note that as recommended in our Revised April 2011 Natural Attenuation Groundwater Sampling Report dated November 28, 2011, carbon dioxide, hydrogen, volatile fatty acids (VFAs), ethene and ethane were added to the sampling parameter list.

## BACKGROUND

In March 2005, NYSDEC issued a Record of Decision (ROD) for the Site, which selected MNA as the remedial alternative to address the COCs detected at the Site. Annual MNA groundwater sampling has been completed voluntarily since October 2006.

Six (6) monitoring wells (MW-7, MW-11, MW-12, MW-13, MW-14 and MW-15) were monitored in October 2006, November 2007 and November 2008 (see Figure 1 for locations). MW-7 is located in the vicinity of the Area of Concern (AOC) and the other five wells, MW-11 through MW-15, are the downgradient monitoring locations.

Based on the results of the groundwater sampling program through March 2009, the sampling program was expanded to include ten (10) monitoring well locations: MW-4, -7, -8, -9, -10, -11, -12, -13, -14 and -15. This expanded sampling event was completed in July 2009 and indicated that site conditions continue to be favorable for natural attenuation of the COCs via a reductive dechlorination pathway. The data did not indicate a significant change in groundwater conditions and it was recommended to

<sup>1</sup> These five COCs are trichloroethylene, tetrachloroethylene, *cis*-1,2-dichloroethene, *trans*-1,2-dichloroethylene, and vinyl chloride.

<sup>2</sup> "Delphi Harrison Thermal Systems Site, Niagara County, New York, Site Management Plan, NYSDEC Site Number 9-32-113" dated October, 2011. Prepared for the GM Components Holdings, LLC by GZA.

continue the annual MNA sampling using these ten (10) monitoring well locations.

The next groundwater sampling event was completed in April 2010 to address the NYSDEC comment letter dated January 19, 2010. The April 2010 results indicated that natural attenuation is occurring with limited evidence of a decreasing temporal trend in total organic carbon (TOC) concentrations near the source area (MW-7) and midpoint (MW-4 and -10) of the groundwater plume. However, there was adequate to strong evidence for anaerobic biodegradation of COCs at the leading edge of the groundwater plume (MW-11 through -15). Given these conditions, coupled with the lack of evidence of an expanding plume, it appears natural attenuation processes are effectively managing the COC plume migration under current conditions.

Results of the April 2011 sampling round are similar to the April 2010 results, i.e. natural attenuation of COCs is occurring. However, there appeared to be a decreasing TOC concentration trend across the Site indicating that the “fuel” that drives reductive dechlorination may becoming depleted. GZA recommended continuing the annual groundwater sampling event utilizing eight (8) monitoring wells (MW-4, -7, -10, -11, -12, -13, -14 and -15), as stated in the SMP, in the Spring of 2012 and expanding the analyte list to include the following analytes to help evaluate the efficacy of MNA for the site:

- Carbon dioxide;
- Alkalinity;
- Hydrogen;
- VFAs; and
- Ethene/Ethane.

In November 2011, GM Components Holdings, LLC (GMCH) entered into an Order on Consent and Administrative Settlement (Index #B9-0553-99-06) for the Site. The Final Engineering Report for the Site was submitted in March 2012 and a Certificate of Completion was issued by NYSDEC dated March 13, 2012. The Certificate of Completion required the following be completed.

- A record of notice for the Certificate of Completion must be filed with Niagara County within 30 days of issuance of the Certificate of Completion. The record of notice was filed on April 10, 2012.
- A fact sheet must be issued describing the institutional and engineering controls that are required at the Site. The fact sheet was distributed by NYSDEC to their listserv contact list in April 2012.
- The NYSDEC-approved SMP must be implemented. The April 2012 groundwater sampling and natural attenuation parameter monitoring event was completed in accordance with the SMP.



## APRIL 2012 GROUNDWATER MONITORING & SAMPLING

The April 2012 groundwater monitoring and sampling event was conducted in accordance with the SMP and included eight (8) monitoring wells (MW-4, -7, and -10 through -15, see Figure 1) from April 18 through 20, 2012.



### METHODOLOGY

The groundwater monitoring and sampling was performed using low flow sampling techniques with a peristaltic pump, disposable polyethylene tubing and a water quality meter with a flow-through cell to collect water quality field parameters. The sampling technique and analytical parameters were consistent with the SMP.

The following is the list of the analytical parameters for this sampling event:

**Field Measured Parameters:** temperature, specific conductance, pH, turbidity, dissolved oxygen (DO) and oxidation reduction potential (ORP).

**Compounds of Concerns:** tetrachloroethylene (PCE), trichloroethylene (TCE), *cis*-1,2-dichloroethylene (*cis*-DCE), *trans*-1,2-dichloroethylene (*trans*-DCE) and vinyl chloride (VC).

**Natural Attenuation Parameters:** methane, iron, magnesium, manganese, potassium, sodium, alkalinity, total organic carbon, chloride, nitrate, nitrite, sulfate, sulfide, carbon dioxide, hydrogen, VFAs, ethene, and ethane.

Groundwater pumping rates used during monitoring/sampling varied at the monitoring locations in order to establish a relatively stable water level. Once a stable water level was established within the monitoring well, flow rates were maintained during the monitoring/sampling period. Samples were collected for analysis after field-measured parameters stabilized, and a minimum of one (1) well volume was purged. It should be noted that a stable water level could not be established at well MW-7 (similar to previous rounds). Therefore, this location was purged to dry-like conditions and allowed to recharge until the recharge volume was sufficient to collect the sample parameters. Also, due to the lack of a stable water level, the hydrogen sample could not be collected. The Monitoring Well Observations & Groundwater Sampling Logs are included in Appendix A.

It should be noted that the DO readings for the eight (8) monitoring wells during 2012 were generally the same value (0.00 mg/L), which is not consistent with historical values. It was GZA's opinion that the DO sensor may not have been functioning properly and the data were not used as part of the evaluation. GZA obtained another water quality meter, purged and collected additional water quality data at three locations (MW-4, -10, and -15) on May 4, 2012. These data were more consistent with previous sampling events and

were substituted for the earlier data collected as part of this evaluation. See Table 1 for monitored field parameters.

## ANALYTICAL RESULTS & DISCUSSION



Analytical results for the COCs for the current sampling event along with the data from previous sample rounds are shown on Figure 1. A contour map of the Total COC concentrations is presented on Figure 2 and a groundwater elevation contour map of the groundwater elevation data collected is shown on Figure 3. It should be noted that the concentrations of *cis*-DCE and *trans*-DCE have been combined for presentation purposes as total 1,2-DCE in Figure 1. The analytical results for the COCs (current and historic) shown on Figure 1 have been graphically depicted and are included in Appendix B.

Analytical results for the MNA parameters are shown on Table 1, along with the data from previous sample rounds. The TestAmerica Laboratories, Inc. laboratory report is provided in Appendix C.

### Compounds of Concern

#### *Source Area Monitoring Well*

MW-7: The TCE concentrations at MW-7 are generally in the range of 500 to 800 mg/L from October 1996 through April 2012 with the exception of four contiguous sample rounds from April 2003 through November 2008, where the results ranged from 1.1 to 430 mg/L. The TCE concentration graph in Appendix B indicates a downward temporal trend in concentrations from April 1996 to October 1999, which is consistent with natural attenuation. The concentrations from November 2007 to April 2012 fluctuated with a slight upward trend which may be attributed to the decrease in TOC concentrations.

The concentrations of the PCE, 1,2-DCE and VC appear to generally be consistent since the start of the sampling in 1996, with some minor fluctuation.

#### *Mid Plume Monitoring Wells*

MW-4: The concentrations of the TCE, PCE, and VC appear to generally be consistent since the start of the sampling in 1996, with some minor fluctuations.

It appears there is a consistent downward temporal trend of 1,2-DCE concentrations at MW-4 since the start of the sampling in 1996, which is consistent with natural attenuation.

MW-10: It appears that there is a downward temporal trend of TCE and 1,2-DCE concentrations at MW-10 since 1996, which is consistent with natural attenuation with some minor fluctuations. The VC and PCE concentrations generally appear to be in a downward temporal trend since 1999, also consistent with natural attenuation, with some fluctuation.



*Downgradient Monitoring Wells*

MW-11: The detected concentrations of PCE and TCE have been below method detection limits since the start of MW-11 sampling in 1997.

The concentrations of 1,2-DCE have fluctuated from below method detection limits (multiple sample rounds) to 0.013 ppm (December 1998) with the majority of the detected concentrations (12 of 14 samples rounds) being below the NYSDEC Class GA criteria (0.005 ppm), including for the 2012 sampling event.

The concentrations of VC have fluctuated from below method detection limits (multiple sample rounds) to 0.008 ppm (August 2001) with just over half of the detected concentrations (8 of 14 samples rounds) being slightly above the NYSDEC Class GA criteria (0.002 ppm). The VC concentration for the 2012 sampling event was 0.0026 ppm, which is below the average VC concentrations detected above method detection limits.

MW-12: The detected concentrations of PCE and TCE have been below method detection limits or below their respective Class GA criteria (0.005 ppm) since the start of MW-12 sampling in 1997.

The concentrations of 1,2-DCE have fluctuated from 0.011 ppm (November 2007) to 0.272 ppm (April 2010). The 1,2-DCE concentration for the 2012 sampling event was 0.150 ppm, which is above the average 1,2-DCE concentration detected at this location to date.

The concentrations of VC have fluctuated from 0.011 ppm (October 2001) to 0.190 ppm (August 1997). The VC concentration for the 2012 sampling event was 0.120 ppm, which is above the average VC concentration detected above method detection limits.

MW-13: The detected concentrations of PCE, TCE, 1,2-DCE and VC have been below method detection limits in all but one sample round since the start of MW-13 sampling in 2001. TCE was detected in October 2006 at a concentration of 0.002 ppm.



MW-14: The detected concentrations of TCE have been below method detection limits in eight (8) of the ten (10) sample rounds conducted since the start of MW-14 sampling in 2001.

The detected concentrations of PCE have been below method detection limits since the start of MW-14 sampling in 2001.

The detected concentrations of 1,2-DCE have been below method detection limits or below its respective NYSDEC Class GA criteria in eight (8) of the ten (10) sample rounds conducted since the start of MW-14 sampling in 2001. The two rounds where 1,2-DCE did exceed 0.005 ppm its respective NYSDEC Class GA criteria were in November 2007 and July 2009. The detected concentration of 1,2-DCE during this round was 0.001 ppm.

The detected concentrations of VC have been below method detection limits in eight (8) of the ten (10) sample rounds conducted since the start of MW-14 sampling in 2001. The one round where VC (0.003 ppm) did slightly exceed its respective NYSDEC Class GA criteria was in November 2008. The detected concentration of VC for this round was 0.001 ppm.

MW-15: The detected concentrations of TCE have been below method detection limits in the first seven (7) of the ten (10) sample rounds conducted since the start of MW-15 sampling in 2001. The three rounds (April 2010, April 2011, and April 2012) where TCE was detected above method detection limits had concentrations of 0.0007 ppm, below the NYSDEC Class GA criteria.

The detected concentrations of PCE have been above its NYSDEC Class GA criteria in the ten sample rounds conducted since the start of MW-15 sampling in 2001 ranging from 0.02 ppm (October 2001) to 0.0059 ppm (November 2008). There appears to be a general decreasing temporal trend in the concentrations of PCE detected since 2001. The detected concentration of PCE in the 2012 sample round was 0.0081, which is slightly above the NYSDEC Class GA criteria but below the average concentration detected above method detection limits.

The detected concentrations of 1,2-DCE and VC have been below their method detection limits in the ten (10) sampling rounds conducted since the start of MW-15 sampling in 2001.

### Natural Attenuation Performance

In 2011, GZA performed an analysis of the historical water quality data collected to date to evaluate performance. The substantive conclusions of that work were as follows:



- Based on GZA's analysis of the historical data, there is limited evidence for natural attenuation near the source area (MW-7) and midpoint (MW-4) of the groundwater plume, but adequate to strong evidence for anaerobic biodegradation of COCs at the leading edge of the groundwater plume; and
- There is a general decreasing temporal concentration trend for TOC at each monitoring well over the period of record, indicating that while MNA has had some effectiveness to date in managing COC migration, the "fuel" that drives reductive dechlorination (*i.e.*, ultimately hydrogen, a fermentation product of the organic carbon) is becoming depleted.

GZA reviewed the April 2012 groundwater quality data and the data are generally consistent with the substantive conclusions and trends noted in last year's summary report with the exception that the strength of the evidence supporting natural attenuation via reductive dechlorination at downgradient locations has weakened from strong to limited based on the anaerobic biodegradation screening tables completed from EPA Document EPA/600/R-98/128, Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water, 1998 (see tables in Appendix D).

### **CONCLUSIONS & RECOMMENDATIONS**

Based on the results of the April 2012 sampling round, natural attenuation of COCs is occurring via reductive dechlorination.

- The COC concentrations of the parent compounds are decreasing from the source area (MW-7) downgradient to the mid-point of the plume (MW-4 and MW-10) and on to the downgradient portions of the Site (MW-11 through MW-15).
- There is an increase in daughter compounds concentrations from the source area to the mid-point of the plume, with an overall decrease in total COC concentrations.
- The COC concentrations at the downgradient property line do not exceed the NYSDEC Class GA criteria.

It should be noted that there is a temporal decreasing trend in TOC concentrations. TOC represents a surrogate measurement of the "fuel" that drives reductive dechlorination and should be monitored. GZA recommends continuing the annual groundwater sampling event utilizing eight (8) monitoring wells (MW-4, -7, -10, -11, -12, -13, -14 and -15), as stated in the SMP, in the Spring of 2013. The natural attenuation analytical parameter list used during the 2012 sample round should also be used in the 2013 sample round.

Please do not hesitate to contact the undersigned if you have any questions or require any additional information.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK



A handwritten signature in blue ink, appearing to read "Chris Boron".

Christopher Boron  
Senior Project Manager

A handwritten signature in blue ink, appearing to read "Bart A. Klettke".

Bart A. Klettke, P.E.  
Associate Principal

A handwritten signature in blue ink, appearing to read "I. Richard Schaffner, Jr." with the word "for" written below it.

I. Richard Schaffner, Jr., C.G.W.P.  
Consultant Reviewer

Table 1 – Natural Attenuation Parameter Results

Figure 1 – Site Plan & Compound of Concern Analytical Data

Figure 2 – Total COC Contour Plan

Figure 3 – Groundwater Contour Plan

Appendix A: Monitoring Well Observations & Groundwater Sampling Logs

Appendix B: COC Data Graphs

Appendix C: Test America Analytical Laboratory Report

Appendix D: Anaerobic Biodegradation Screening Tables

## TABLE

Table 1  
Summary of Groundwater Field Measurements and Analytical Test Results for Natural Attenuation Parameters  
April 2012 Groundwater Sampling  
Delphi Thermal Systems  
West Lockport Complex  
Lockport, New York

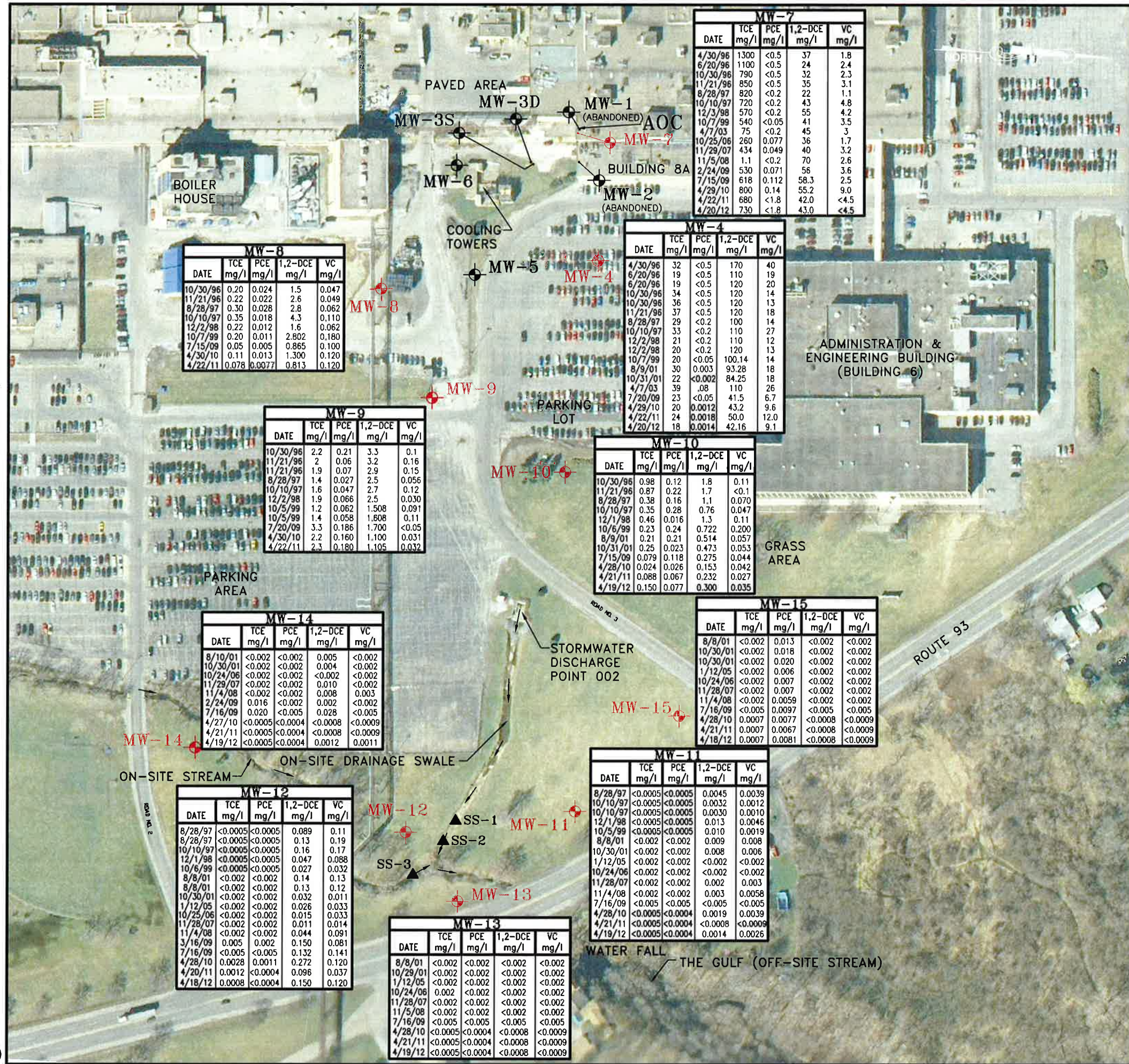
|                   |                        | Field Parameters |                        |           |          |                |                | Analytical Test Results - Inorganic and Miscellaneous Water Quality Parameters |               |                       |               |                       |                   |                |                 |                |                |                        |                |                |                |                          |             |                       |                  |                            |                  |                            |               |                         |                  |                            |                             |  |
|-------------------|------------------------|------------------|------------------------|-----------|----------|----------------|----------------|--------------------------------------------------------------------------------|---------------|-----------------------|---------------|-----------------------|-------------------|----------------|-----------------|----------------|----------------|------------------------|----------------|----------------|----------------|--------------------------|-------------|-----------------------|------------------|----------------------------|------------------|----------------------------|---------------|-------------------------|------------------|----------------------------|-----------------------------|--|
| Location          | Sample Date            | Temp. (Deg. C)   | Specific Cond. (mS/cm) | DO (mg/L) | ORP (mv) | pH (Std Units) | Methane (mg/L) | Ethane (mg/L)                                                                  | Ethene (mg/L) | Carbon Dioxide (mg/L) | Hydrogen (nm) | Organic Carbon (mg/L) | Alkalinity (mg/L) | Ammonia (mg/L) | Chloride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Nitrate Nitrite (mg/L) | Sulfate (mg/L) | Sulfide (mg/L) | Calcium (mg/L) | Dissolved Calcium (mg/L) | Iron (mg/L) | Dissolved Iron (mg/L) | Magnesium (mg/L) | Dissolved Magnesium (mg/L) | Manganese (mg/L) | Dissolved Manganese (mg/L) | Sodium (mg/L) | Dissolved Sodium (mg/L) | Potassium (mg/L) | Dissolved Potassium (mg/L) | Volatile Fatty Acids (mg/L) |  |
| MW-4              | 12/2/1998              | 14.2             | 2.730                  | 0.23      | -56      | 6.6            | 2.9            |                                                                                |               |                       |               | 19                    | 354               | 1.23           | 986             | 0.30           | <0.05          |                        | 120            | 0.2            | 503            | 443                      | 0.58        | 0.51                  | 105              | 106                        | 0.40             | 0.32                       | 282           | 293                     | 13.3             | 12.8                       |                             |  |
| MW-4 DUP          | 12/2/1998              | NA               | NA                     | NA        | NA       | NA             | 5.5            |                                                                                |               |                       |               | 8                     | 368               | 1.57           | 971             | 0.05           | <0.05          |                        | 120            | 0.2            | 431            | 335                      | 0.59        | 0.52                  | 107              | 100                        | 0.39             | 0.34                       | 282           | 306                     | 13.2             | 13.5                       |                             |  |
| MW-4              | 10/7/1999              | 13.8             | 3.412                  | 0.08      | -92.8    | 6.7            | 4.2            |                                                                                |               |                       |               | 47                    | 360               | 1.03           | 1,010           |                |                | 0.08                   | 110            | 0.3            | 269            | 318                      | 0.42        | 0.45                  | 98               | 116                        | 0.23             | 0.34                       | 240           | 305                     | 10.4             | 13.1                       |                             |  |
| MW-4              | 8/9/2001               | 12.6             | 3.420                  | 0.12      | -5.1     | 6.5            | 0.12           |                                                                                |               |                       |               | 20.2                  | 366               | 1.20           | 1,300           | 0.11           | <0.05          |                        | 190            | 0.2            | 371            |                          | 1.01        |                       | 107              |                            | 0.54             |                            | 384           |                         | 12.7             |                            |                             |  |
| MW-4              | 10/31/2001             | 13.8             | 3.444                  | 0.10      | -128.0   | 6.6            | 3.3            |                                                                                |               |                       |               | 10.8                  | 366               | 1.17           | 1,100           | <0.05          | <0.05          |                        | 160            | 1.2            |                |                          | 0.77        |                       | 102              |                            | 0.46             |                            | 358           |                         | 12.3             |                            |                             |  |
| MW-4              | 7/20/2009              | 17.7             | 1.263                  | 0.28      | 35.1     | 6.41           | 5.28           |                                                                                |               |                       |               | 13                    | 330               | 3.83           | 5,320           | <0.6           | <0.6           |                        | 295            | 2.0            |                |                          |             | 3.21                  |                  |                            | 2.64             |                            | 2,100         |                         | 50.5             |                            |                             |  |
| MW-4              | 4/29/2010              | 15.0             | 9.664                  | 0.96      | -2.1     | 6.5            | 1.8            |                                                                                |               |                       |               | 4.3                   | 333               | NA             | 3,510           | <0.05          | <0.05          |                        | 272            | <1.0           |                |                          |             | 3.15                  |                  | 152                        |                  | 1.86                       |               | 1,700                   |                  | 26.1                       |                             |  |
| MW-4 DUP          | 4/22/2011              | 11.85            | 7.391                  | 0.73      | -349.0   | 6.77           | 2              |                                                                                |               |                       |               | 0.6                   | 343               | 1.9            | 3,260           | <0.05          | <0.05          |                        | 370            | <0.1           | 493            |                          | 3.1         |                       | 139              |                            | 1.6              |                            | 1420          |                         | 17.8             |                            |                             |  |
| MW-4              | 4/20/2012 <sup>9</sup> | 14.5             | 10.130                 | 6.00      | 40.5     | 6.09           | 3.8            | 0.65                                                                           | 2.3           | 9.5                   | 28            | 3.1                   | 320               | 2.6            | 3,580           | <0.05          | <0.05          |                        | 282            | <0.1           |                |                          | 2.7         |                       | 138              |                            | 1.5              |                            | 1400          |                         | 15.6             |                            | ND                          |  |
| MW-6              | 12/2/1998              | 19.5             | 3740.000               | 0.30      | -67      | 6.8            | 0.84           |                                                                                |               |                       |               | 9                     | 319               | 0.45           | 897             | 0.22           | <0.05          |                        | 160            | 0.2            | 161            | 156                      | 7.98        | 1.13                  | 35.6             | 28.8                       | 0.48             | 0.29                       | 619           | 638                     | 9.64             | 9.51                       |                             |  |
| MW-6              | 10/7/1999              | 21.9             | 3283.000               | 0.12      | -145.8   | 7.1            | 0.34           |                                                                                |               |                       |               | 30                    | 260               | 0.32           | 476             |                |                | 0.09                   | 140            | 0.4            | 86.4           | 108                      | 3.62        | 0.55                  | 24               | 30.2                       | 0.24             | 0.19                       | 300           | 311                     | 7.4              | 8.8                        |                             |  |
| MW-7              | 12/3/1998              | 17.3             | 3.130                  | 0.33      | -35      | 7.0            | 0.06           |                                                                                |               |                       |               | 36                    | 376               | 1.43           | 944             | 0.29           | <0.05          |                        | 200            | 0.4            | 382            | 375                      | 0.14        | 0.02                  | 118              | 136                        | <0.01            | <0.01                      | 288           | 351                     | 20.5             | 23.0                       |                             |  |
| MW-7 <sup>3</sup> | 10/7/1999              | 19.4             | 3.049                  | 0.69      | -52      | 7.1            | 0.02           |                                                                                |               |                       |               | 58                    | 420               | 1.10           | 1,180           |                |                | 0.11                   | 180            | 0.4            | 286            | 255                      | 0.86        | 0.05                  | 138              | 145                        | 0.05             | 0.02                       | 292           | 306                     | 21.4             | 24.0                       |                             |  |
| MW-7              | 10/25/2006             | 17.4             | 2.620                  | 1.08      | -92      | 7.1            | 0.06           |                                                                                |               |                       |               | 28                    | 376               | 1.33           | 600             | <0.05          | <0.05          |                        | 470            | <0.01          |                |                          | 0.23        |                       | 112              |                            | 0.02             |                            | 237           |                         | 19.4             |                            |                             |  |
| MW-7              | 11/29/2007             | 15.5             | 2.162                  | 0.83      | -195     | 7.2            | 0.13           |                                                                                |               |                       |               | 14                    | 322               | 1.14           | 430             | <0.05          | <0.05          |                        | 519            | 0.8            |                |                          | 0.58        |                       | 98.5             |                            | 0.05             |                            | 278           |                         | 20.7             |                            |                             |  |
| MW-7              | 11/4/2008              | 16.2             | 3.152                  | 0.33      | -80      | 6.8            | 0.11           |                                                                                |               |                       |               | 4.4                   | 348               | 0.08           | 980             | <0.05          | <0.05          |                        | 23             | <0.1           | 327            |                          | 6.06        |                       | 74               |                            | 2.28             |                            | 277           |                         | 4.39             |                            |                             |  |
| MW-7              | 2/24/2009              | 13.1             | 1.718                  | 1.22      | -68      | 7.3            | 0.04           |                                                                                |               |                       |               | NM                    | 270               | 0.98           | 410             | <0.05          | <0.05          |                        | 430            | <0.1           | 193            |                          | 0.09        |                       | 86.7             |                            | 0.04             |                            | 213           |                         | 14.2             |                            |                             |  |
| MW-7              | 7/20/2009              | 16.4             | 2.558                  | 0.88      | 32       | 7.1            | 0.07           |                                                                                |               |                       |               | 28                    | 310               | 1.28           | 452             | <0.6           | <0.6           |                        | 460            | 2.4            |                |                          |             | 0.03                  |                  | 84.9                       |                  | 0.03                       |               | 230                     |                  | 24.1                       |                             |  |
| MW-7              | 4/29/2010              | 15.0             | 1.540                  | 3.14      | -13.4    | 7.24           | 0.057          |                                                                                |               |                       |               | 10.9                  | 239               | NA             | 280             | <0.05          | <0.05          |                        | 479            | <1.0           |                |                          |             | 0.41                  |                  | 70.2                       |                  | 0.02                       |               | 204                     |                  | 13.9                       |                             |  |
| MW-7              | 4/22/2011              | 10.4             | 1.241                  | 3.75      | -334     | 7.68           | 0.015          |                                                                                |               |                       |               | 9.2                   | 223               | 0.53           | 267             | <0.05          | <0.05          |                        | 463            | <0.1           | 121            |                          | 0.20        |                       | 60.1             |                            | 0.025            |                            | 3290          |                         | 13.8             |                            |                             |  |
| MW-7              | 4/20/2012              | 15.4             | 1.830                  | 0         | -34      | 7.49           | 0.046          | 0.017                                                                          | 0.098         | 1.6                   |               | 8.7                   | 240               | 0.77           | 416             | <0.05          | <0.05          |                        | 332            | <0.1           |                |                          | 0.06        |                       | 67.1             |                            | 0.024            |                            | 193           |                         | 13.2             |                            | Note 8.                     |  |
| MW-8              | 12/2/1998              | 16.7             | 3.210                  | 0.90      | -68      | 6.9            | 0.09           |                                                                                |               |                       |               | 12                    | 300               | 0.40           | 138             | <0.05          | <0.05          |                        | 550            | 0.2            | 215            | 227                      | 0.33        | 0.17                  | 76               | 78                         | 0.31             | 0.32                       | 102           | 114                     | 6.31             | 6.67                       |                             |  |
| MW-8              | 10/7/1999              | 19.7             | 1.640                  | 0.08      | -116.1   | 7.1            | 0.04           |                                                                                |               |                       |               | 19                    | 280               | 0.33           | 144             |                |                | 0.10                   | 570            | 0.3            | 174            | 188                      | 0.22        | 0.15                  | 82.4             | 97.5                       | 0.30             | 0.31                       | 112           | 110                     | 7.6              | 8.1                        |                             |  |
| MW-8              | 7/15/2009              | 16.3             | 2.408                  | 0.20      | -48.6    | 6.9            | 2.0            |                                                                                |               |                       |               | 22                    | 300               | 0.76           | 457             | <0.6           | <0.6           |                        | 588            | 2              |                |                          |             | 0.03                  |                  | 102                        |                  | 0.40                       |               | 246                     |                  | 15.7                       |                             |  |
| MW-8              | 4/30/2010              | 12.84            | 2.206                  | 0.36      | -58.6    | 6.9            | 0.015          |                                                                                |               |                       |               | 1.8                   | 243               | NA             | 486             | <0.05          | <0.05          |                        | 500            | <1.0           |                |                          |             | 0.21                  |                  | 99.2                       |                  | 0.46                       |               | 248                     |                  | 7.99                       |                             |  |
| MW-8              | 4/22/2011              | 9.39             | 2.327                  | 4.56      | -334     | 7.26           | 0.018          |                                                                                |               |                       |               | <1                    | 244               | 0.30           | 683             | <0.05          | <0.05          |                        | 562            | <0.1           | 220            |                          | 0.12        |                       | 102              |                            | 0.53             |                            | 355           |                         | 7.9              |                            |                             |  |
| MW-9              | 12/2/1998              | 16.2             | 7.150                  | 1.6       | 120      | 6.9            | 0.04           |                                                                                |               |                       |               | 3                     | 309               | 0.23           | 640             | 0.25           | <0.05          |                        | 680            | <0.1           | 330            | 300                      | 0.33        | <0.01                 | 89               | 84.5                       | 1.74             | 0.93                       | 444           | 445                     | 5.52             | 5.91                       |                             |  |
| MW-9              | 10/5/1999              | 18.7             | 4.042                  | 0.08      | 103.5    | 6.9            | 0.02           |                                                                                |               |                       |               | 24                    | 330               | 0.20           | 963             | 0.46           | <0.05          |                        | 520            | <0.1           | 250            | 283                      | 0.20        | 0.02                  | 63.8             | 89                         | 1.36             | 0.99                       | 476           | 535                     | 4.6              | 26.5                       |                             |  |
| MW-9 DUP          | 10/5/1999              | NA               | NA                     | NA        | NA       | NA             | 0.02           |                                                                                |               |                       |               | 27                    | 340               | 0.14           | 833             | 0.63           | <0.05          |                        | 490            | <0.1           | 252            | 284                      | 0.20        | 0.02                  | 72               | 86                         | 1.46             | 0.94                       | 478           | 560                     | 5.0              | 5.6                        |                             |  |
| MW-9              | 7/20/2009              | 17.8             | 8.381                  | 0.41      | 109.1    | 6.7            | 0.03           |                                                                                |               |                       |               | 17                    | 290               | 0.26           | 3,100           | <0.6           | 0.9            |                        | 379            | 1.2            |                |                          |             | <0.01                 |                  | 117                        |                  | 0.31                       |               | 1,600                   |                  | 19.0                       |                             |  |
| MW-9              | 4/30/2010              | 12.0             | 8.042                  | 0.79      | 86.4     | 6.7            | 0.015          |                                                                                |               |                       |               | 2.1                   | 247               | NA             | 3,040           | 0.555          | <0.05          |                        | 263            | <1.0           |                |                          |             | <0.05                 |                  | 102                        |                  | 0.15                       |               | 1,680                   |                  | 8.72                       |                             |  |
| MW-9              | 4/22/2011              | 9.49             | 7.263                  | 0.24      | -345     | 7.08           | 0.0069         |                                                                                |               |                       |               | <1                    | 233               | 0.11           | 3,410           | 0.39           | <0.05          |                        | 362            | <0.1           | 392            |                          | 0.03        |                       | 94.9             |                            | 0.11             |                            | 1,710         |                         | 6.9              |                            |                             |  |
| MW-10             | 12/1/1998              | 14.5             | 4.100                  | 0.40      | -13.7    | 6.7            | 0.23           |                                                                                |               |                       |               | 11                    | 320               | 0.32           | 1,220           | 0.19           | <0.05          |                        | 270            | 0.2            | 310            | 305                      | 1.95        | 0.76                  | 54.6             | 85.5                       | 2.30             | 2.07                       | 584           | 645                     | 13.4             | 13.2                       |                             |  |
| MW-10             | 10/5/1999              | 14.2             | 4.775                  | 0.07      | -2.0     | 6.8            | 0.14           |                                                                                |               |                       |               | 24                    | 280               | 0              |                 |                |                |                        |                |                |                |                          |             |                       |                  |                            |                  |                            |               |                         |                  |                            |                             |  |

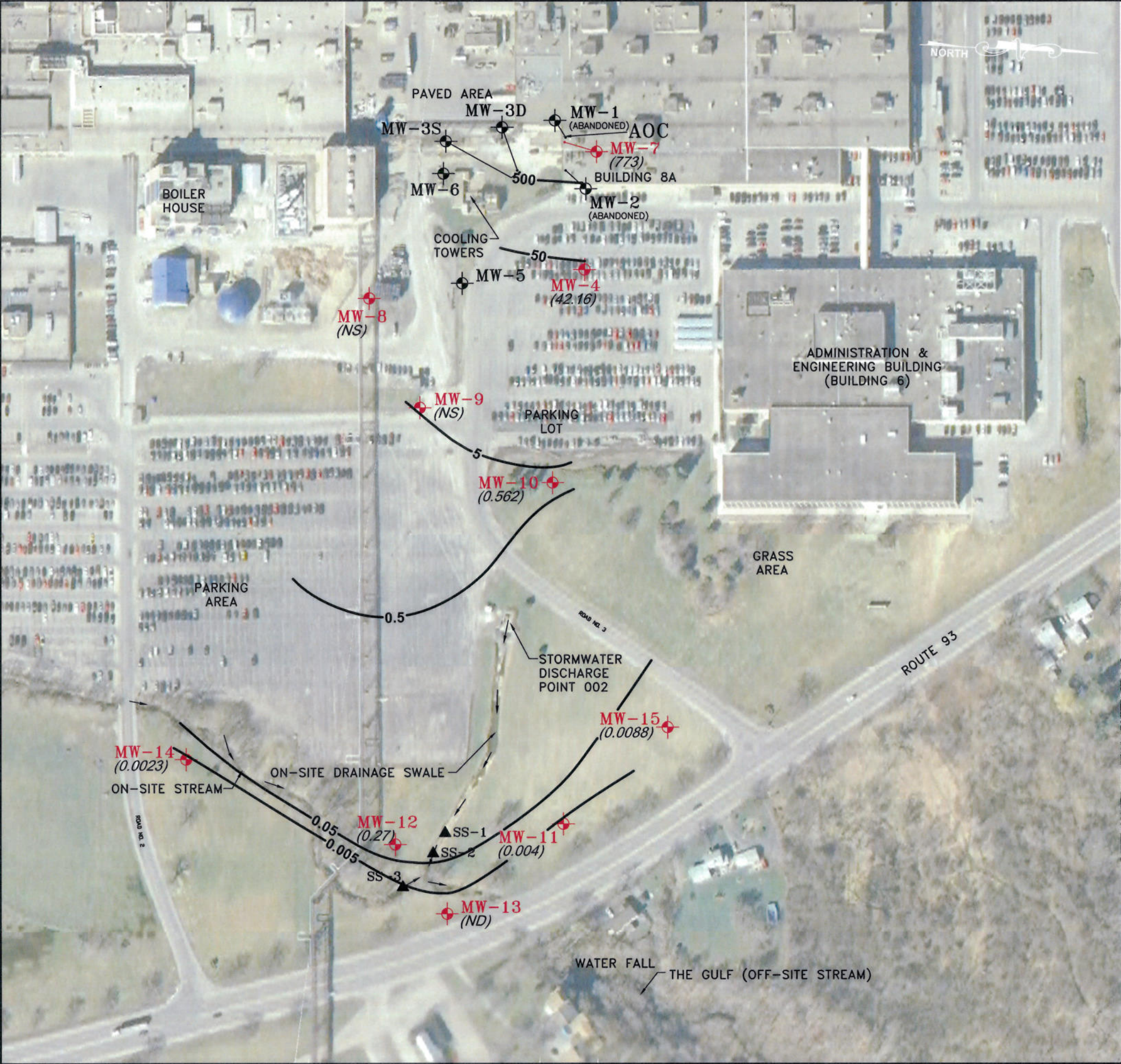
Table 1  
Summary of Groundwater Field Measurements and Analytical Test Results for Natural Attenuation Parameters  
April 2012 Groundwater Sampling  
Delphi Thermal Systems  
West Lockport Complex  
Lockport, New York

|           |             | Field Parameters |                        |           |          |                |                | Analytical Test Results - Inorganic and Miscellaneous Water Quality Parameters |               |                       |               |                       |                   |                |                 |                |                |                        |                |                |                |                          |             |                       |                  |                            |                  |                            |               |                         |                  |                            |                             |  |
|-----------|-------------|------------------|------------------------|-----------|----------|----------------|----------------|--------------------------------------------------------------------------------|---------------|-----------------------|---------------|-----------------------|-------------------|----------------|-----------------|----------------|----------------|------------------------|----------------|----------------|----------------|--------------------------|-------------|-----------------------|------------------|----------------------------|------------------|----------------------------|---------------|-------------------------|------------------|----------------------------|-----------------------------|--|
| Location  | Sample Date | Temp. (Deg. C)   | Specific Cond. (mS/cm) | DO (mg/L) | ORP (mv) | pH (Std Units) | Methane (mg/L) | Ethane (mg/L)                                                                  | Ethene (mg/L) | Carbon Dioxide (mg/L) | Hydrogen (nm) | Organic Carbon (mg/L) | Alkalinity (mg/L) | Ammonia (mg/L) | Chloride (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | Nitrate Nitrite (mg/L) | Sulfate (mg/L) | Sulfide (mg/L) | Calcium (mg/L) | Dissolved Calcium (mg/L) | Iron (mg/L) | Dissolved Iron (mg/L) | Magnesium (mg/L) | Dissolved Magnesium (mg/L) | Manganese (mg/L) | Dissolved Manganese (mg/L) | Sodium (mg/L) | Dissolved Sodium (mg/L) | Potassium (mg/L) | Dissolved Potassium (mg/L) | Volatile Fatty Acids (mg/L) |  |
| MW-12     | 12/1/1998   | 13.4             | 2.006                  | 0.39      | -41      | 6.9            | 0.5            |                                                                                |               |                       |               | 7                     | 284               | 0.94           | 294             | 0.48           | <0.05          |                        | 73             | 0.2            | 119            | 104                      | 7.48        | 4.01                  | 26.8             | 25.3                       | 4.41             | 4.40                       | 183           | 197                     | 4.1              | 3.81                       | 3.81                        |  |
| MW-12     | 10/5/1999   | 15.8             | 1.849                  | 0.10      | -105.2   | 7.0            | 0.36           |                                                                                |               |                       |               | 30                    | 300               | 0.90           | 342             | 0.27           | <0.05          |                        | 66             | 0.2            | 104            | 126                      | <0.01       | 3.66                  | 27.8             | 31.6                       | <0.01            | 4.90                       | 166           | 226                     | 4.9              | 5.3                        | 5.3                         |  |
| MW-12     | 8/8/2001    | 13.5             | 3.300                  | 0.24      | -38.5    | 6.6            | 0.50           |                                                                                |               |                       |               | 13.9                  | 336               | 1.77           | 920             | <0.05          | <0.05          |                        | 160            | <0.1           | 217            |                          | 16.9        |                       | 57.5             |                            | 8.41             |                            | 427           |                         | 6.3              |                            |                             |  |
| MW-12 DUP | 8/8/2001    | NA               | NA                     | NA        | NA       | NA             | 0.74           |                                                                                |               |                       |               | 14.9                  | 338               | 1.85           | 930             | <0.05          | <0.05          |                        | 160            | <0.1           | 217            |                          | 14.8        |                       | 56.2             |                            | 8.14             |                            | 433           |                         | 6.0              |                            |                             |  |
| MW-12     | 10/30/2001  | 14.2             | 2.850                  | 0.14      | -127.1   | 6.8            | 0.57           |                                                                                |               |                       |               | 5.7                   | 309               | 1.35           | 590             | 0.18           | <0.05          |                        | 110            | 3.5            |                |                          | 4.73        |                       | 37.0             |                            | 4.69             |                            | 342           |                         | 5.0              |                            |                             |  |
| MW-12     | 10/25/2006  | 13.7             | 3.500                  | 1.26      | -127.1   | 6.9            | 0.024          |                                                                                |               |                       |               | 6.5                   | 333               | 1.55           | 1,300           | <0.05          | <0.05          |                        | 110            | <0.1           |                |                          | 7.50        |                       | 44.8             |                            | 6.02             |                            | 684           |                         | 4.5              |                            |                             |  |
| MW-12     | 11/28/2007  | 11.2             | 3.307                  | 0.18      | -302     | 7.0            | 0.012          |                                                                                |               |                       |               | 4.0                   | 274               | 1.47           | 1,300           | <0.05          | <0.05          |                        | 79             | <0.04          |                |                          | 6.68        |                       | 46.0             |                            | 4.44             |                            | 666           |                         | 3.9              |                            |                             |  |
| MW-12     | 11/4/2008   | 14.3             | 6.319                  | 0.02      | -88      | 6.7            | 0.12           |                                                                                |               |                       |               | 2.74                  | 332               | 2.08           | 2,000           | <0.05          | <0.05          |                        | 138            | <0.1           | 259            |                          | 13.70       |                       | 69.7             |                            | 7.82             |                            | 1110          |                         | 5.6              |                            |                             |  |
| MW-12     | 3/16/2009   | 6.1              | 4.516                  | 1.08      | -48      | 6.6            | 0.87           |                                                                                |               |                       |               | NM                    | 270               | 1.89           | 2,300           | <0.05          | <0.05          |                        | 140            | <0.1           | 269            |                          | 11.50       |                       | 81.7             |                            | 8.60             |                            | 1060          |                         | 5.1              |                            |                             |  |
| MW-12     | 7/16/2009   | 14.5             | 6.493                  | 0.64      | -39.3    | 6.7            | 0.9            |                                                                                |               |                       |               | 14                    | 360               | 2.57           | 2,480           | <0.6           | <0.6           |                        | 148            | 0.8            |                |                          |             | 15.10                 |                  | 79.1                       |                  | 9.07                       |               | 1,170                   |                  | 10.9                       | 10.9                        |  |
| MW-12     | 4/28/2010   | 8.8              | 6.562                  | 0.32      | -46.1    | 6.6            | 0.46           |                                                                                |               |                       |               | 5.0                   | 315               | NA             | 2,630           | <0.05          | 0.039          |                        | 153            | <1.0           |                |                          |             | 14.0                  |                  | 98.0                       |                  | 10.40                      |               | 1,470                   |                  | 5.22                       | 5.22                        |  |
| MW-12     | 4/20/2011   | 8.83             | 6.320                  | 0.00      | -65      | 6.9            | 0.042          |                                                                                |               |                       |               | 3.3                   | 272               | 1.1            | 1,880           | <0.05          | <0.05          |                        | 108            | <1.0           | 227            |                          | 6.6         |                       | 65.1             |                            | 7.1              |                            | 958           |                         | 3.7              |                            |                             |  |
| MW-12     | 4/18/2012   | 10.02            | 7.920                  | 0.59      | -74      | 7.0            | 0.3            | 0.011                                                                          | 0.011         | 15                    | 0.76          | 3.7                   | 280               | 1.8            | 2,900           | <0.05          | <0.05          |                        | 133            | <1.0           |                |                          | 12.7        |                       | 84.3             |                            | 9.1              |                            | 1250          |                         | 3.7              |                            | ND                          |  |
| MW-13     | 8/8/2001    | 15.4             | 5.742                  | 0.23      | -118.5   | 7.8            | 0.08           |                                                                                |               |                       |               | 15.2                  | 255               | 1.45           | 1,900           | 0.05           | <0.05          |                        | 160            | <0.1           | 209            |                          | 2.59        |                       | 49.6             |                            | 2.67             |                            | 1,200         |                         | 12.1             |                            |                             |  |
| MW-13     | 10/29/2001  | 15.5             | 6.625                  | 0.20      | -136     | 7.4            | 0.07           |                                                                                |               |                       |               | 9.9                   | 426               | 1.29           | 1,700           | 0.61           | 0.08           |                        | 120            | 2.2            |                |                          | 3.75        |                       | 40.9             |                            | 2.96             |                            | 1,160         |                         | 8.2              |                            |                             |  |
| MW-13     | 10/24/2006  | 15.2             | 6.090                  | 2.67      | -146     | 7.3            | 0.16           |                                                                                |               |                       |               | 8.4                   | 431               | 1.35           | 2,200           | <0.05          | <0.05          |                        | 98             | <0.1           |                |                          | 9.21        |                       | 53.7             |                            | 6.03             |                            | 1,210         |                         | 9.1              |                            |                             |  |
| MW-13     | 11/28/2007  | 12.7             | 5.696                  | 0.08      | -274     | 7.3            | 0.003          |                                                                                |               |                       |               | 7.0                   | 420               | 1.74           | 2,200           | 0.05           | <0.05          |                        | 95             | 0.4            |                |                          | 7.83        |                       | 50.8             |                            | 4.95             |                            | 1,250         |                         | 9.6              |                            |                             |  |
| MW-13     | 11/5/2008   | 7.08             | 6.782                  | 0.12      | -97      | 7.1            | 0.021          |                                                                                |               |                       |               | 3.8                   | 410               | 1.57           | 2,000           | <0.05          | <0.5           |                        | 91             | <0.1           | 196            |                          | 7.60        |                       | 52.3             |                            | 5.40             |                            | 1,430         |                         | 11.0             |                            |                             |  |
| MW-13     | 7/16/2009   | 16.0             | 6.476                  | 0.60      | -113.4   | 7.2            | 6.15           |                                                                                |               |                       |               | 15                    | 400               | 2.10           | 2,290           | <0.6           | <0.6           |                        | 112            | <0.5           |                |                          |             | 1.75                  |                  | 53.9                       |                  | 6.51                       |               | 1,390                   |                  | 18.9                       | 18.9                        |  |
| MW-13     | 4/28/2010   | 9.4              | 5.783                  | 0.28      | -133.5   | 7.2            | 0.17           |                                                                                |               |                       |               | 6.1                   | 382               | NA             | 2,280           | 0.069          | <0.05          |                        | 102            | <1.0           |                |                          | 9.12        |                       | 59.9             |                            | 7.18             |                            | 1,380         |                         | 11.2             | 11.2                       |                             |  |
| MW-13     | 4/21/2011   | 7.64             | 5.023                  | 0.34      | -336     | 7.4            | 0.058          |                                                                                |               |                       |               | 5.8                   | 368               | 0.94           | 2,090           | 0.069          | <0.05          |                        | 105            | <0.1           | 210            |                          | 7.4         |                       | 53.2             |                            | 6.30             |                            | 1,320         |                         | 8.3              |                            |                             |  |
| MW-13 DUP | 4/19/2012   | 10.7             | 5.480                  | 0.00      | -120     | 7.4            | 0.093          | 0.0086                                                                         | 0.008         | 4.5                   | 0.79          | 4                     | 360               | 0.96           | 1,490           | 0.081          | <0.05          |                        | 71.3           | <0.1           |                |                          | 5.8         |                       | 38.5             |                            | 4.40             |                            | 940           |                         | 5.4              |                            | ND                          |  |
| MW-14     | 8/9/2001    | 11.5             | 2.064                  | 3.66      | 330.7    | 7.2            | <0.002         |                                                                                |               |                       |               | 14.1                  | 328               | 0.19           | 680             | 0.08           | <0.05          |                        | 130            | <0.1           | 144            |                          | 0.18        |                       | 64.1             |                            | 0.04             |                            | 394           |                         | 6.4              |                            |                             |  |
| MW-14     | 10/30/2001  | 13.2             | 2.478                  | 0.80      | -39.1    | 7.2            | 0.013          |                                                                                |               |                       |               | 4.3                   | 334               | 0.31           | 770             | <0.05          | <0.05          |                        | 120            | 2.5            |                |                          | 0.06        |                       | 64.8             |                            | 0.06             |                            | 466           |                         | 7.3              |                            |                             |  |
| MW-14     | 10/24/2006  | 12.9             | 4.310                  | 3.11      | -60.6    | 7.2            | 0.31           |                                                                                |               |                       |               | 3.3                   | 336               | 0.25           | 1,700           | <0.05          | <0.05          |                        | 88             | <0.1           |                |                          | 0.15        |                       | 94.9             |                            | 0.20             |                            | 831           |                         | 8.0              |                            |                             |  |
| MW-14     | 11/29/2007  | 10.3             | 4.402                  | 1.27      | -110     | 7.1            | 0.16           |                                                                                |               |                       |               | 4.0                   | 371               | 0.53           | 1,800           | <0.05          | <0.05          |                        | 87             | 0.12           |                |                          | 0.44        |                       | 111              |                            | 0.25             |                            | 777           |                         | 10.5             |                            |                             |  |
| MW-14     | 11/4/2008   | 14.5             | 6.397                  | 0.13      | 11.2     | 6.8            | 0.14           |                                                                                |               |                       |               | 2.4                   | 340               | 0.39           | 2,100           | <0.05          | <0.05          |                        | 80             | <0.1           | 320            |                          | 0.39        |                       | 138              |                            | 0.28             |                            | 1010          |                         | 13.5             |                            |                             |  |
| MW-14     | 2/24/2009   | 5.3              | 3.534                  | 0.73      | -34      | 7.2            | 0.15           |                                                                                |               |                       |               | NM                    | 299               | 0.23           | 1,500           | 0.07           | <0.05          |                        | 68             | <0.1           | 165            |                          | 0.06        |                       | 79.8             |                            | 0.18             |                            | 833           |                         | 7.3              |                            |                             |  |
| MW-14     | 7/16/2009   | 11.6             | 5.970                  | 1.87      | 72.6     | 6.8            | 0.465          |                                                                                |               |                       |               | 51                    | 380               | 0.69           | 2,430           | <0.6           | <0.6           |                        | 81.4           | 1.2            |                |                          | 0.11        |                       | 132              |                            | 0.53             |                            | 931           |                         | 21.1             | 21.1                       |                             |  |
| MW-14     | 4/27/2010   | 9.8              | 3.726                  | 0.32      | 16.8     | 7.1            | 0.055          |                                                                                |               |                       |               | 2.7                   | 354               | NA             | 1,450           | 0.03           | <0.05          |                        | 65.7           | <1.0           |                |                          | 0.06        |                       |                  | 70.2                       |                  | 0.194                      |               | 870                     |                  | 6.22                       | 6.22                        |  |
| MW-14     | 4/21/2011   | 7.72             | 3.779                  | 2.45      | -335     | 7.5            | 0.016          |                                                                                |               |                       |               | 2.8                   | 339               | 0.14           | 1,750           | 0.093          | <0.05          |                        | 78.2           | <0.1           | 149            |                          | 0.052       |                       | 68               |                            | 0.19             |                            | 875           |                         | 5.4              |                            |                             |  |
| MW-14     | 4/19/2012   | 10.85            | 5.460                  | 0.00      | -9       | 7.3            | 0.071          | 0.0086                                                                         | 0.0083        | 2.9                   | 6.7           | 1.5                   | 328               | 0.25           | 1,720           | <0.05          | <0.05          |                        | 88.2           | <0.1           |                |                          | 0.140       |                       | 86.7             |                            | 0.29             |                            | 916           |                         | 6.2              |                            | ND                          |  |
| MW-15     | 8/8/2001    | 13.0             | 2011.000               | 0.20      | 289.1    | 6.7            | <0.002         |                                                                                |               |                       |               | 11.7                  | 410               | 0.08           | 600             | 1.34           | <0.05          |                        | 160            | 0.1            | 281            |                          | 2.33        |                       | 70.4             |                            | 0.46             |                            | 204           |                         | 4.9              |                            |                             |  |
| MW-15     | 10/30/2001  | 14.6             | 1656.000               | 0.16      | 83.9     | 6.8            | <0.002         |                                                                                |               |                       |               | 4.1                   | 395               | 0.07           | 410             | 0.85           | <0.05          |                        | 110            | 1.4            |                |                          | 0.02        |                       | 47.5             |                            | 0.40             |                            | 196           |                         | 3.8              |                            |                             |  |
| MW-15 DUP | 10/30/2001  | NA               | NA                     | NA        | NA       | NA             | <0.002         |                                                                                |               |                       |               | 3.7                   | 386               | 0.05           | 450             | 0.91           | <0.05          |                        | 110            | 1.5            |                |                          | 0.03        |                       | 47.6             |                            | 0.39             |                            | 198           |                         | 4.0              |                            |                             |  |
| MW-15     | 10/24/2006  | 13.9             | 2.180                  | 1.14      | 64.2     | 6.8            | <0.002         |                                                                                |               |                       |               | 3.6                   | 434               | 0.09           | 660             | 1.89           | <0.05          |                        | 84             | <0.1           |                |                          | <0.02       |                       | 62.3             |                            | 0.27             |                            | 311           |                         | 4.7              |                            |                             |  |
| MW-15     | 11/28/2007  | 11.7             | 3.085                  | 3.16      | -128     | 7.1            | <0.002         |                                                                                |               |                       |               | 2.0                   | 346               | 1.03           | 1100            | <0.05          | <0.05          |                        | 74             | <0.04          |                |                          | 0.14        |                       | 71.7             |                            | 0.39             |                            | 455           |                         | 4.9              |                            |                             |  |
| MW-15 DUP | 11/4/2008   | 14.3             | 4.719                  | 2.42      | 75       | 6.8            | <0.002         |                                                                                |               |                       |               | 1.77                  | 345               | 0.07           | 1,900           | 0.34           | <0.05          |                        | 110            | <0.1           | 327            |                          | <0.02       |                       | 82.3             |                            | 0.82             |                            | 594           |                         | 6.1              |                            |                             |  |
| MW-15     | 7/16/2009   | 14.6             | 3.349                  | 1.49      | 135.7    | 6.8            | <0.004         |                                                                                |               |                       |               | 12                    | 400               | <0.1           | 1,13            |                |                |                        |                |                |                |                          |             |                       |                  |                            |                  |                            |               |                         |                  |                            |                             |  |

- Notes:
1. In general the field parameters were stable with very little variation. However, as noted, some readings varied.
  2. Readings were collected using a low flow peristaltic pump and water quality meter with flow through cell..
  3. Analytical Testing completed by TestAmerica Laboratories, Inc.
  3. Results shown for MW-13 are the higher of the results from the sample designated MW-13 or its duplicate sample (DUP).
  4. < - Indicates compound not detected above the specified detection limit.
  5. Blank = Not tested.
  6. NM = not measured
  7. ND = non-detect for tested volatile fatty acids: acetic acid, formic acid, lactic acid, n-Butyric acid, propionic acid, and pyruvic acid.
  8. All tested volatile fatty acids = ND; except acetic acid (4.2 ppm) and n-Butyric acid (0.62 ppm).
  9. Water quality readings were recollected on 5/4/2012 due to lack of DO readings collected with initial water quality meter.

## FIGURES





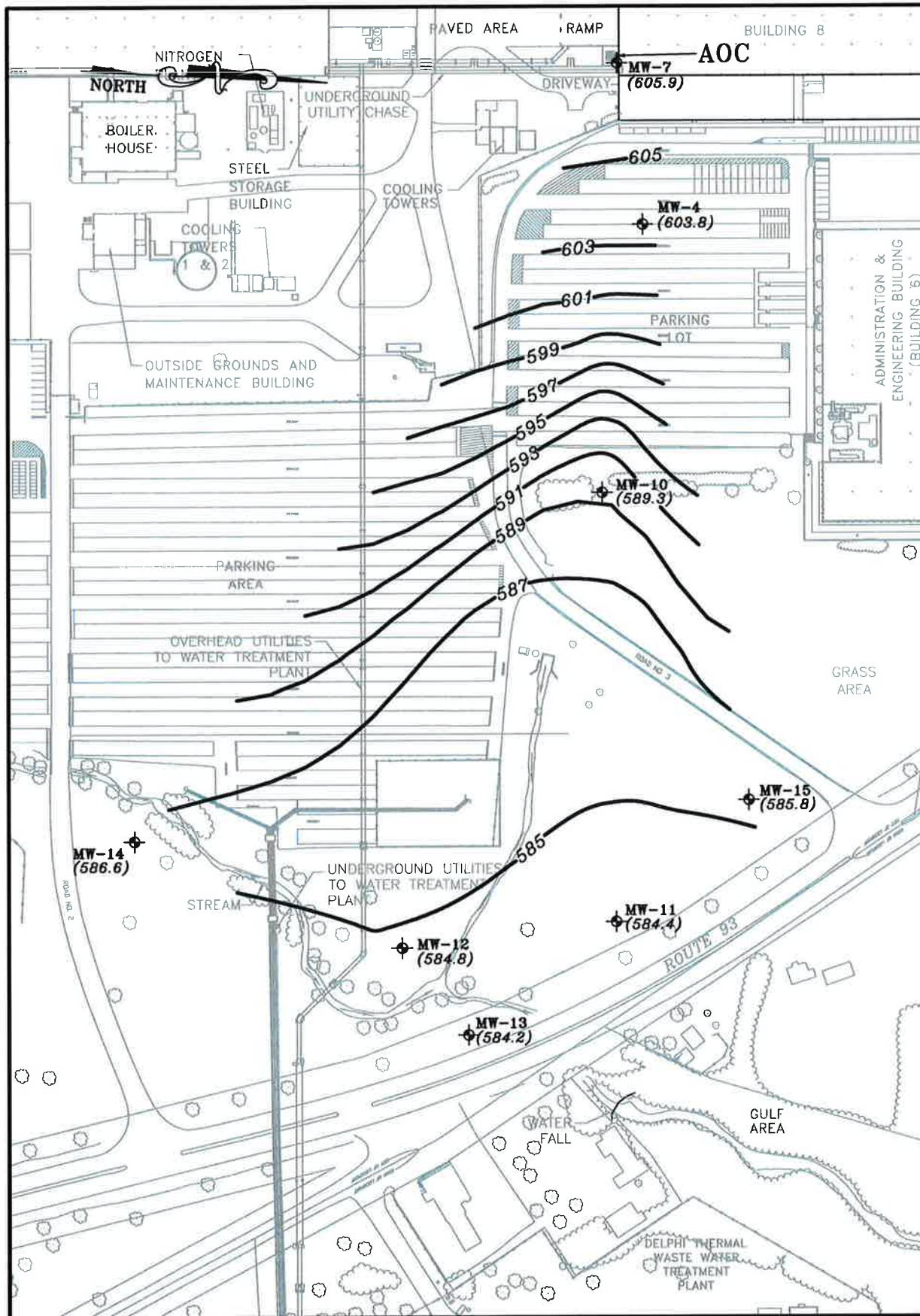
**NOTES:**

1. BASE MAP ADAPTED FROM A 2005 AERIAL PHOTOGRAPH DOWNLOADED FROM [http://www.nysgis.state.ny.us/gateway/mg/interactive\\_main.html](http://www.nysgis.state.ny.us/gateway/mg/interactive_main.html) AND SITE OBSERVATIONS.
2. ANALYTICAL TESTING WAS COMPLETED BY FREE-COL LABORATORIES, INC.
3. UNITS ARE LISTED IN MILLIGRAMS PER LITER (mg/l). (< - INDICATES COMPOUND NOT DETECTED ABOVE THE SPECIFIED DETECTION LIMIT)
4. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

**LEGEND:**

- APPROXIMATE LOCATION AND CONCENTRATION OF TOTAL VOC CONTOUR
- APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELL INSTALLED BY GZA SHOWN WITH TOTAL VOC CONCENTRATION
- APPROXIMATE LOCATION AND DESIGNATION OF STREAM WATER SAMPLE
- AOC** DENOTES AREA OF CONCERN
- NS = NOT SAMPLED

|                                                                                      |  |                |  |                                                                                                                                    |
|--------------------------------------------------------------------------------------|--|----------------|--|------------------------------------------------------------------------------------------------------------------------------------|
| DRAWN BY: DEW                                                                        |  | DATE: MAY 2012 |  | <br><b>GZA GeoEnvironmental of<br/>New York</b> |
| APPROXIMATE SCALE IN FEET                                                            |  |                |  |                                                                                                                                    |
|  |  |                |  |                                                                                                                                    |
| <b>GM COMPONENTS HOLDINGS, LLC</b>                                                   |  |                |  |                                                                                                                                    |
| <b>DELPHI HARRISON THERMAL SYSTEMS SITE</b>                                          |  |                |  |                                                                                                                                    |
| 200 UPPER MOUNTAIN ROAD                                                              |  |                |  |                                                                                                                                    |
| LOCKPORT, NEW YORK                                                                   |  |                |  |                                                                                                                                    |
| <b>APRIL 2012 SAMPLING</b>                                                           |  |                |  |                                                                                                                                    |
| <b>TOTAL VOC CONTOUR MAP</b>                                                         |  |                |  |                                                                                                                                    |
| PROJECT No.                                                                          |  |                |  |                                                                                                                                    |
| <b>21.0056546.00</b>                                                                 |  |                |  |                                                                                                                                    |
| FIGURE No.                                                                           |  |                |  |                                                                                                                                    |
| <b>2</b>                                                                             |  |                |  |                                                                                                                                    |



### LEGEND:

MW-4 (603.8) APPROXIMATE LOCATION AND DESIGNATION OF EXISTING MONITORING WELL INSTALLED BY GZA

APPROXIMATE GROUNDWATER ELEVATION MEASURED ON DATE SHOWN IN TITLE BLOCK

AOC DENOTES AREA OF CONCERN

### NOTES:

1. BASE MAP ADAPTED FROM AN AUTOCAD FILE PROVIDED BY DELPHI HARRISON THERMAL SYSTEMS.

2. WATER LEVEL READINGS HAVE BEEN MADE IN WELLS AT TIMES AND UNDER CONDITIONS PRESENTED IN THE REPORT. FLUCTUATIONS IN GROUNDWATER ELEVATIONS MAY OCCUR DUE TO VARIATIONS IN RAINFALL, BAROMETRIC PRESSURE, AND OTHER FACTORS.

DRAWN BY: DEW

DATE: MAY 2012

SCALE IN FEET



GM COMPONENTS HOLDINGS, LLC  
DELPHI HARRISON THERMAL SYSTEMS SITE

200 UPPER MOUNTAIN ROAD  
LOCKPORT, NEW YORK

APRIL 2012 SAMPLING

GROUNDWATER CONTOUR PLAN  
(APRIL 18-20, 2012)

PROJECT No.

21.0056546.00

FIGURE No.

3



GZA GeoEnvironmental of  
New York

## **APPENDIX A**

### **MONITORING WELL OBSERVATION & GROUNDWATER SAMPLING LOGS**

# SAMPLE COLLECTION DATA SHEET - GROUNDWATER SAMPLING PROGRAM

PROJECT NAME

Delphi Harrison Thermal Systems Site

PROJECT NO.

56546

SAMPLING CREW MEMBERS

T. Bohlen

SUPERVISOR

C. Boron

DATE OF SAMPLE COLLECTION

4/18/12 - 4/20/12

[Note: For 2" dia. well, 1 ft. = 0.14 gal (imp) or 0.16 gal (us)]

| Sample I.D. Number | Well No. | Measuring Point Elev. (ft. AMSL) | Bottom Depth (ft. btoc) | Water Depth (ft. btoc) | Water Elevation (ft. AMSL) | Well Volume (gallons) | Bailer Volume (No. Bails) | Volume Purged (gallons) | Field pH | Field Temp. | Field Cond. | Time      | Sample Description & Analysis |
|--------------------|----------|----------------------------------|-------------------------|------------------------|----------------------------|-----------------------|---------------------------|-------------------------|----------|-------------|-------------|-----------|-------------------------------|
| MW-15-041812-0900  | MW-15    | 594.04                           | 16.83                   | 8.23                   | 585.81                     | 8.60'<br>1.4          | /                         | 8.0                     | 7.07     | 9.84        | 334         | 4/18 930  | MW-15 GW                      |
| MW-11-041812-1245  | MW-11    | 590.10                           | 25.10                   | 5.66                   | 584.44                     | 19.44'<br>3.2         | /                         | 5.2                     | 7.60     | 10.86       | 1.45        | 4/18 1245 | MW-11 GW                      |
| MW-12-041812-1530  | MW-12    | 590.70                           | 16.40                   | 5.92                   | 584.78                     | 10.48'<br>1.7         | /                         | 7.0                     | 6.98     | 10.12       | 7.92        | 4/18 1530 | MW-12 GW                      |
| MW-13-041912-0845  | MW-13    | 589.02                           | 14.06                   | 4.80                   | 584.22                     | 9.26'<br>1.5          | /                         | 11.0                    | 7.36     | 10.70       | 5.48        | 4/19 845  | MW-13 GW                      |
| MW-14-041912-1315  | MW-14    | 592.77                           | 21.36                   | 6.21                   | 586.56                     | 15.15'<br>2.5         | /                         | 10.0                    | 7.34     | 10.85       | 5.46        | 4/19 1345 | MW-14 GW                      |
| MW-10-041912-1500  | MW-10    | 604.70                           | 23.68                   | 15.43                  | 589.27                     | 8.25'<br>1.3          | /                         | 6.0                     | 6.96     | 15.35       | 11.1        | 4/19 1500 | MW-10 GW                      |
| DUP-041912-0001    | MW-13    | 589.02                           | 14.06                   | 4.80                   | 584.22                     | 9.26'<br>1.5          | /                         | 11.0                    | 7.36     | 10.70       | 5.48        | 845       | DUP GW                        |
| MW-4-042012-1300   | MW-4     | 613.07                           | 34.88                   | 9.29                   | 603.78                     | 25.59'<br>4.2         | /                         | 12.0                    | 6.67     | 17.64       | 9.26        | 1300      | MW-4 GW                       |

Additional Comments:

Copies to:

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

# SAMPLE COLLECTION DATA SHEET - GROUNDWATER SAMPLING PROGRAM

PROJECT NAME Delphi Harrison Thermal Systems Site - GMCH PROJECT NO. 56546  
 SAMPLING CREW MEMBERS Thomas Bohlen SUPERVISOR C. Boron  
 DATE OF SAMPLE COLLECTION 4/18/12 - 4/20/12

[Note: For 2" dia. well, 1 ft. = 0.14 gal (imp) or 0.16 gal (us)]

| Sample I.D. Number    | Well No. | Measuring Point Elev. (ft. AMSL) | Bottom Depth (ft. btoc) | Water Depth (ft. btoc) | Water Elevation (ft. AMSL) | Well Volume (gallons) | Bailer Volume No. Bails | Volume Purged (gallons) | Field pH | Field Temp. | Field Cond. | Time | Sample Description & Analysis |
|-----------------------|----------|----------------------------------|-------------------------|------------------------|----------------------------|-----------------------|-------------------------|-------------------------|----------|-------------|-------------|------|-------------------------------|
| MW-7 -<br>042012-1630 | MW-7     | 613.86                           | 28.93                   | 7.99'                  | 605.87                     | 28.94'<br>3.4         | /                       | 5.0                     | 7.49     | 15.42       | 1.83        | 1516 | MW-7<br>GW                    |
|                       |          |                                  |                         |                        |                            |                       | /                       |                         |          |             |             |      |                               |
|                       |          |                                  |                         |                        |                            |                       | /                       |                         |          |             |             |      |                               |
|                       |          |                                  |                         |                        |                            |                       | /                       |                         |          |             |             |      |                               |
|                       |          |                                  |                         |                        |                            |                       | /                       |                         |          |             |             |      |                               |
|                       |          |                                  |                         |                        |                            |                       | /                       |                         |          |             |             |      |                               |
|                       |          |                                  |                         |                        |                            |                       | /                       |                         |          |             |             |      |                               |
|                       |          |                                  |                         |                        |                            |                       | /                       |                         |          |             |             |      |                               |
|                       |          |                                  |                         |                        |                            |                       | /                       |                         |          |             |             |      |                               |

Additional Comments:

Copies to:

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

# MONITORING WELL RECORD FOR LOW-FLOW PURGING

## Project Data:

Project Name: Delphi Harrison Thermal Systems Site  
 Ref. No.: 56546

Date: 4/20/12  
 Personnel: T. Bohlen

## Monitoring Well Data:

Well No.: MW-4 page 1 of 2  
 Measurement Point: TDR  
 Constructed Well Depth (ft): 32.5'  
 Measured Well Depth (ft): 34.88' (32.61' bgs)  
 Depth of Sediment (ft): NA

Screen Length (ft): 17.5 - 32.5 = (15')  
 Depth to Pump Intake (ft)<sup>(1)</sup>: 20'  
 Well Diameter, D (in): 2"  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: 4.2 gal  
 Initial Depth to Water (ft): 9.29' (TOR)

| Time | Pumping Rate (mL/min) | Depth to Water (ft) | Drawdown from Initial Water Level <sup>(3)</sup> (ft) | pH   | Temperature °C | Conductivity (mS/cm) | ORP (mV) | DO (mg/L) | Turbidity (NTU) | Volume Purged, V <sub>p</sub> (mL)<br><u>4.2 gal</u> | No. of Well Screen Volumes Purged <sup>(4)</sup> |
|------|-----------------------|---------------------|-------------------------------------------------------|------|----------------|----------------------|----------|-----------|-----------------|------------------------------------------------------|--------------------------------------------------|
| 759  | 118 *                 | 10.65               | 1.36                                                  | 6.57 | 13.27          | 9.48                 | 231      | 0.00      | 42.1            | 0.1                                                  |                                                  |
| 804  |                       | 10.74               | 1.45                                                  | 6.71 | 13.31          | 9.46                 | 169      | 0.00      | 14.0            | 0.2                                                  |                                                  |
| 810  |                       | 10.78               | 1.49                                                  | 6.72 | 13.32          | 9.45                 | 127      | 0.00      | 10.4            | 0.4                                                  |                                                  |
| 829  |                       | 11.09               | 1.80                                                  | 6.72 | 13.39          | 9.50                 | 75       | 0.00      | 10.7            | 1                                                    |                                                  |
| 833  |                       | 11.13               | 1.84                                                  | 6.72 | 13.42          | 9.51                 | 57       | 0.00      | 9.9             | 1.2                                                  |                                                  |
| 842  |                       | 11.29               | 2.00                                                  | 6.72 | 13.71          | 9.55                 | 17       | 0.00      | 5.1             | 1.5                                                  |                                                  |
| 852  |                       | 11.44               | 2.15                                                  | 6.72 | 13.96          | 9.57                 | 8        | 0.00      | 4.8             | 2                                                    |                                                  |
| 915  |                       | 11.73               | 2.44                                                  | 6.72 | 14.24          | 9.57                 | -3       | 0.00      | 1.6             | 2.8                                                  |                                                  |
| 932  |                       | 11.89               | 2.60                                                  | 6.72 | 14.52          | 9.56                 | -5       | 0.00      | 0.0             | 3.4                                                  |                                                  |
| 948  |                       | 11.99               | 2.70                                                  | 6.72 | 14.92          | 9.54                 | -7       | 0.00      | 0.0             | 4                                                    |                                                  |
| 1014 |                       | 12.19               | 2.90                                                  | 6.71 | 15.48          | 9.50                 | -8       | 0.00      | 0.0             | 5                                                    | 1                                                |
| 1039 |                       | 12.25               | 2.96                                                  | 6.72 | 15.76          | 9.52                 | -10      | 0.00      | 0.0             | 5.9                                                  |                                                  |
| 1049 |                       | 12.25               | 2.96                                                  | 6.72 | 16.10          | 9.47                 | -7       | 0.00      | 0.0             | 6.1                                                  |                                                  |

## Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length.  $V_s = \pi \cdot (D/2)^2 \cdot (5 \cdot 12) \cdot (2.54)^3$
- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged = V<sub>p</sub>/V<sub>s</sub>.

\* calculated using 2L Bottle & stopwatch



| WELL PURGING FIELD INFORMATION FORM                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                  |                                                        | JOB# <u>56546</u> |                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------|-------------------|--------------------|
| SITE/PROJECT NAME: <u>Delphi Harrison Thermal Systems Site</u>                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                  |                                                        | WELL# <u>MW-4</u> |                    |
| WELL PURGING INFORMATION                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                  |                                                        |                   |                    |
| <u>042012</u><br>PURGE DATE<br>(MM/DD/YY)                                                                                                                                                                                                                                                                                                              | <u>042012</u><br>SAMPLE DATE<br>(MM/DD/YY)                                                                                                                                                                                                                                                                                                                      | <u>42</u><br>WATER VOL. IN CASING<br>(LITERS/GALLONS)                            | <u>125</u><br>ACTUAL VOLUME PURGED<br>(LITERS/GALLONS) |                   |                    |
| PURGING AND SAMPLING EQUIPMENT                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                  |                                                        |                   |                    |
| PURGING EQUIPMENT: DEDICATED <input checked="" type="radio"/> Y<br>(CIRCLE ONE)                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                 | SAMPLING EQUIPMENT: DEDICATED <input checked="" type="radio"/> Y<br>(CIRCLE ONE) |                                                        |                   |                    |
| PURGING DEVICE                                                                                                                                                                                                                                                                                                                                         | <input checked="" type="checkbox"/> A - SUBMERSIBLE PUMP <input type="checkbox"/> D - GAS LIFT PUMP <input type="checkbox"/> E - BAILEY<br><input type="checkbox"/> B - PERISTALTIC PUMP <input type="checkbox"/> F - PURGE PUMP <input type="checkbox"/> H - WATERBATH<br><input type="checkbox"/> C - BLADDER PUMP <input type="checkbox"/> G - DIPPER BOTTLE |                                                                                  |                                                        |                   |                    |
| SAMPLING DEVICE                                                                                                                                                                                                                                                                                                                                        | <input checked="" type="checkbox"/> A - TEFLON <input type="checkbox"/> D - PVC<br><input type="checkbox"/> B - STAINLESS STEEL <input type="checkbox"/> E - POLYETHYLENE<br><input type="checkbox"/> C - POLYPROPYLENE                                                                                                                                         |                                                                                  |                                                        |                   |                    |
| PURGING DEVICE                                                                                                                                                                                                                                                                                                                                         | <input checked="" type="checkbox"/> A - TEFLON <input type="checkbox"/> D - POLYPROPYLENE <input type="checkbox"/> F - SILICONE<br><input type="checkbox"/> B - TYGON <input type="checkbox"/> E - POLYETHYLENE <input type="checkbox"/> G - COMBINATION<br><input type="checkbox"/> C - ROPS <input type="checkbox"/> H - TEFLON/POLYPROPYLENE                 |                                                                                  |                                                        |                   |                    |
| SAMPLING DEVICE                                                                                                                                                                                                                                                                                                                                        | <input checked="" type="checkbox"/> A - IN-LINE DISPOSABLE <input type="checkbox"/> B - PRESSURE <input type="checkbox"/> C - VACUUM                                                                                                                                                                                                                            |                                                                                  |                                                        |                   |                    |
| FIELD MEASUREMENTS                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                  |                                                        |                   |                    |
| WELL ELEVATION                                                                                                                                                                                                                                                                                                                                         | <u>61307</u> (m)                                                                                                                                                                                                                                                                                                                                                |                                                                                  | GROUNDWATER ELEVATION                                  | <u>60378</u> (m)  |                    |
| DEPTH TO WATER                                                                                                                                                                                                                                                                                                                                         | <u>920</u> (m)                                                                                                                                                                                                                                                                                                                                                  |                                                                                  | WELL DEPTH                                             | <u>3488</u> (m)   |                    |
| pH                                                                                                                                                                                                                                                                                                                                                     | TURBIDITY                                                                                                                                                                                                                                                                                                                                                       | CONDUCTIVITY                                                                     | ORP                                                    | DO                | SAMPLE TEMPERATURE |
| <u>7.0</u> (std)                                                                                                                                                                                                                                                                                                                                       | <u>0.1</u> (ntu)                                                                                                                                                                                                                                                                                                                                                | <u>150</u> (µm/cm) AT 25°C                                                       | <u>150</u> (mV)                                        | <u>8.5</u> (mg/L) | <u>18.0</u> (°C)   |
| <u>7.0</u> (std)                                                                                                                                                                                                                                                                                                                                       | <u>0.1</u> (ntu)                                                                                                                                                                                                                                                                                                                                                | <u>150</u> (µm/cm) AT 25°C                                                       | <u>150</u> (mV)                                        | <u>8.5</u> (mg/L) | <u>18.0</u> (°C)   |
| <u>7.0</u> (std)                                                                                                                                                                                                                                                                                                                                       | <u>0.1</u> (ntu)                                                                                                                                                                                                                                                                                                                                                | <u>150</u> (µm/cm) AT 25°C                                                       | <u>150</u> (mV)                                        | <u>8.5</u> (mg/L) | <u>18.0</u> (°C)   |
| <u>7.0</u> (std)                                                                                                                                                                                                                                                                                                                                       | <u>0.1</u> (ntu)                                                                                                                                                                                                                                                                                                                                                | <u>150</u> (µm/cm) AT 25°C                                                       | <u>150</u> (mV)                                        | <u>8.5</u> (mg/L) | <u>18.0</u> (°C)   |
| <u>7.0</u> (std)                                                                                                                                                                                                                                                                                                                                       | <u>0.1</u> (ntu)                                                                                                                                                                                                                                                                                                                                                | <u>150</u> (µm/cm) AT 25°C                                                       | <u>150</u> (mV)                                        | <u>8.5</u> (mg/L) | <u>18.0</u> (°C)   |
| FIELD COMMENTS                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                  |                                                        |                   |                    |
| SAMPLE APPEARANCE: <u>Good</u> <input checked="" type="checkbox"/> OK <input type="checkbox"/> NONE <input type="checkbox"/> CLEAR    TURBIDITY: <u>Clear</u><br>WEATHER CONDITIONS: WIND SPEED <u>0-5</u> DIRECTION: <u>SW</u> PRECIPITATION: <u>Y/N</u> OUTLOOK: <u>Sunny - 60°F</u><br>SPECIFIC COMMENTS: _____<br>_____<br>_____<br>_____<br>_____ |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                  |                                                        |                   |                    |
| I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE PROTOCOLS.<br><u>4/20/12</u> <u>Thomas Bohlen</u> <u>Thomas Bohlen</u><br>DATE    PRINT    SIGNATURE                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                  |                                                        |                   |                    |

EMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

# MONITORING WELL RECORD FOR LOW-FLOW PURGING

## Project Data:

Project Name: Delphi Harrison Thermal Systems Site  
 Ref. No.: 56546.24

Date: 5/4/12  
 Personnel: T. Bohlen

## Monitoring Well Data:

Well No.: MW-4 1 of 2  
 Measurement Point: TOR  
 Constructed Well Depth (ft): 32.5'  
 Measured Well Depth (ft): 31.6' 34.88' (TOR)  
 Depth of Sediment (ft): -

Screen Length (ft): 17.5' - 32.5' = 15'  
 Depth to Pump Intake (ft)<sup>(1)</sup>: 20'  
 Well Diameter, D (in): 2"  
 Well Screen Volume, V<sub>s</sub> (ft<sup>3</sup>)<sup>(2)</sup>: 3.14  
 Initial Depth to Water (ft): 9.14

Empty Flow-Through Cell

| Time | Pumping Rate (ml/min) | Depth to Water (ft) | Drawdown from Initial Water Level <sup>(3)</sup> (ft) | pH   | Temperature °C | Conductivity (mS/cm) | ORP (mV) | DO (mg/L) | Turbidity (NTU) | Volume Purged, V <sub>p</sub> (ml.) | No. of Well Screen Volumes Purged <sup>(4)</sup> |
|------|-----------------------|---------------------|-------------------------------------------------------|------|----------------|----------------------|----------|-----------|-----------------|-------------------------------------|--------------------------------------------------|
| 1023 | 151                   | 10.05               | 0.91                                                  | 6.51 | 14.81          | 9.984                | 173.6    | 8.07      | 8.6             | 0                                   |                                                  |
| 1028 |                       | 10.38               | 1.24                                                  | 6.20 | 14.59          | 10.01                | 197.4    | 5.38      | 27.5            | 0.1                                 |                                                  |
| 1033 |                       | 10.63               | 1.49                                                  | 6.60 | 14.30          | 10.01                | 219.6    | 5.65      | 48.8            | 0.2                                 |                                                  |
| 1038 |                       | 10.79               | 1.65                                                  | 6.09 | 14.01          | 10.02                | 238.7    | 5.60      | 40.6            | 0.3                                 |                                                  |
| 1043 |                       | 10.91               | 1.77                                                  | 6.04 | 13.91          | 10.02                | 257.2    | 6.03      | 29.6            | 0.7                                 |                                                  |
| 1048 |                       | 11.04               | 1.90                                                  | 6.04 | 13.96          | 10.02                | 248.4    | 6.03      | 30.3            | 1.0                                 |                                                  |
| 1053 |                       | 11.14               | 2.00                                                  | 6.04 | 13.98          | 10.01                | 225.0    | 6.04      | 23.4            | 1.2                                 |                                                  |
| 1058 |                       | 11.30               | 2.16                                                  | 6.06 | 14.16          | 10.00                | 210.0    | 5.87      | 4.9             | 1.3                                 |                                                  |
| 1103 |                       | 11.43               | 2.29                                                  | 6.06 | 14.10          | 10.02                | 192.0    | 5.80      | 19.0            | 1.6                                 |                                                  |
| 1108 |                       | 11.52               | 2.38                                                  | 6.06 | 13.98          | 10.05                | 91.0     | 5.77      | 14.1            | 1.8                                 |                                                  |
| 1113 |                       | 11.59               | 2.45                                                  | 6.07 | 14.13          | 10.06                | 62.7     | 5.71      | 6.7             | 2.1                                 |                                                  |
| 1123 |                       | 12.02               | 2.88                                                  | 6.14 | 13.91          | 10.12                | 39.4     | 6.18      | 4.2             | 2.5                                 |                                                  |
| 1128 |                       | 11.95               | 2.81                                                  | 6.08 | 14.40          | 10.09                | 41.4     | 6.08      | 0.0             | 2.8                                 |                                                  |

## Notes

- The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 5-foot screen length.  $V_s = \pi (D/2)^2 (5'12") (2.54)$
- The drawdown from the initial water level should not exceed 0.3 ft.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

## Project Name:

Date: 5/4/12  
 Personeel: T. Bohler

Well No.: MW-4- 2 of 2

Screen Length (ft): 15'  
Depth to Pump Intake (ft)<sup>(1)</sup>: 20'

Well Diameter, D (in). 2"Well Screen Volume,  $V_s$  (ml) 991 (2).Initial Depth to Water (ft) 9.14

### Notes

- $$\begin{aligned} & 27\text{SnO} \cdot 3\text{PbO} \cdot 12\text{CaO} \cdot 3\text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2 \\ & \text{Enrichment: } 3\text{PbO} \cdot 12\text{CaO} \cdot 3\text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2 \end{aligned}$$

# MONITORING WELL RECORD FOR LOW-FLOW PURGING

## Project Data:

Project Name: Delphi Harrison Thermal Systems Site  
 Ref. No.: 50546

Date: 4/20/12  
 Personnel: T. Bohlen

## Monitoring Well Data:

Well No.: MW-7  
 Measurement Point: TOR  
 Constructed Well Depth (ft): 27.20  
 Measured Well Depth (ft): 28.93 (27.37' bgs)  
 Depth of Sediment (ft): NA

Screen Length (ft): 10.2 - 27.2 = 15'  
 Depth to Pump Intake (ft)<sup>(1)</sup>: 20'  
 Well Diameter, D (in): 2"  
 Well Screen Volume, V<sub>s</sub> (gal)<sup>(2)</sup>: 3.4 gal  
 Initial Depth to Water (ft): 7.99 (TOR)

| Time | Pumping Rate (gal/min) | Depth to Water (ft) | Drawdown from Initial Water Level <sup>(3)</sup> (ft) | pH   | Temperature °C | Conductivity (µS/cm) | ORP (mV) | DO (mg/L) | Turbidity (NTU) | Volume Purged, V <sub>p</sub> (gal) <sup>(4)</sup> | No. of Well Screen Volumes Purged <sup>(4)</sup> |
|------|------------------------|---------------------|-------------------------------------------------------|------|----------------|----------------------|----------|-----------|-----------------|----------------------------------------------------|--------------------------------------------------|
| 1431 | 118*                   | 8.97                | 1.01                                                  | 7.59 | 17.17          | 1.83                 | 130      | 1.12      | 7.1             | 0.1                                                |                                                  |
| 1436 | ↓                      | 7.81                | 1.82                                                  | 7.56 | 16.57          | 1.84                 | 117      | 0.00      | 6.1             | 0.2                                                |                                                  |
| 1441 | ↓                      | 10.94               | 2.95                                                  | 7.53 | 16.18          | 1.82                 | 104      | 0.00      | 4.8             | 0.4                                                |                                                  |
| 1446 | ↓                      | 11.51               | 3.52                                                  | 7.52 | 16.15          | 1.81                 | 94       | 0.00      | 3.8             | 0.6                                                |                                                  |
| 1451 | 303                    | 12.31               | 4.32                                                  | 7.50 | 16.22          | 1.82                 | 47       | 0.00      | 2.3             | 1                                                  |                                                  |
| 1456 | ↓                      | 14.06               | 6.07                                                  | 7.45 | 15.32          | 1.87                 | -7       | 0.00      | 2.4             | 1.4                                                |                                                  |
| 1501 | 454                    | 16.10               | 8.11                                                  | 7.41 | 15.00          | 1.90                 | -32      | 0.00      | 1.9             | 2                                                  |                                                  |
| 1506 | 530                    | 18.35               | 10.36                                                 | 7.40 | 14.99          | 1.92                 | -37      | 0.00      | 38.0            | 2.7                                                |                                                  |
| 1511 | ↓                      | 20.35               | 12.36                                                 | 7.41 | 15.07          | 1.91                 | -36      | 0.00      | 86.3            | 3.3                                                |                                                  |
| 1516 | ↓                      | 22.26               | 14.27                                                 | 7.49 | 15.42          | 1.83                 | -34      | 0.00      | 82.1            | 4.0                                                | 1 - DRY                                          |
| 1620 |                        | 18.76               | 10.77                                                 |      |                |                      |          |           |                 |                                                    | *                                                |

## Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 5-foot screen length:  $V_s = \pi \cdot (D/2)^2 \cdot (5 \cdot 12) \cdot (2.54)^3$
- The drawdown from the initial water level should not exceed 11.3 ft.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

\* calculated w/ JL bottle & stopwatch

\* well went dry, then allowed to recharge & sample

| WELL PURGING FIELD INFORMATION FORM                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                           |                                                                                                              | JOB# <span style="border: 1px solid black; padding: 0 5px;">56546</span>   |                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------|
| SITE/PROJECT NAME: <u>Delphi Harrison Thermal Sys.</u>                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                           |                                                                                                              | WELL# <span style="border: 1px solid black; padding: 0 5px;">MW-7</span>   |                                                                         |
| WELL PURGING INFORMATION                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |
| <span style="border: 1px solid black; padding: 0 5px;">0142012</span><br>PURGE DATE<br>(MM/DD/YY)                                                                                                                                                                                           | <span style="border: 1px solid black; padding: 0 5px;">0142012</span><br>SAMPLE DATE<br>(MM/DD/YY)                                                                                                                                                                                                                                                                                                                                                                                           | <span style="border: 1px solid black; padding: 0 5px;">134</span><br>WATER VOL IN CASING<br>(LITRES/GALLONS)                              | <span style="border: 1px solid black; padding: 0 5px;">50</span><br>ACTUAL VOLUME PURGED<br>(LITRES/GALLONS) |                                                                            |                                                                         |
| PURGING AND SAMPLING EQUIPMENT                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |
| PURGING EQUIPMENT <input checked="" type="checkbox"/> DEDICATED <input type="checkbox"/> Y <input checked="" type="radio"/> (CIRCLE ONE)                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SAMPLING EQUIPMENT <input checked="" type="checkbox"/> DEDICATED <input type="checkbox"/> N <input checked="" type="radio"/> (CIRCLE ONE) |                                                                                                              |                                                                            |                                                                         |
| PURGING DEVICE                                                                                                                                                                                                                                                                              | <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> A - SUBMERSIBLE PUMP<br/> <input type="checkbox"/> B - PERISTALTIC PUMP<br/> <input type="checkbox"/> C - BLADDER PUMP </div> <div> <input type="checkbox"/> D - GAS LIFT PUMP<br/> <input type="checkbox"/> E - PURGE PUMP<br/> <input type="checkbox"/> F - DIFFER BOTTLE </div> <div> <input type="checkbox"/> G - BAILER<br/> <input type="checkbox"/> H - WATERBAY </div> </div> |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |
| SAMPLING DEVICE                                                                                                                                                                                                                                                                             | <div style="display: flex; justify-content: space-between;"> <div> <input checked="" type="checkbox"/> A - TEFLON<br/> <input type="checkbox"/> B - STAINLESS STEEL<br/> <input type="checkbox"/> C - POLYPROPYLENE </div> <div> <input type="checkbox"/> D - PVC<br/> <input type="checkbox"/> E - POLYETHYLENE </div> </div>                                                                                                                                                               |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |
| PURGING DEVICE                                                                                                                                                                                                                                                                              | <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> A - TEFLON<br/> <input type="checkbox"/> B - STAINLESS STEEL<br/> <input type="checkbox"/> C - POLYPROPYLENE </div> <div> <input type="checkbox"/> D - PVC<br/> <input type="checkbox"/> E - POLYETHYLENE </div> </div>                                                                                                                                                                          |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |
| SAMPLING DEVICE                                                                                                                                                                                                                                                                             | <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> A - TEFLON<br/> <input type="checkbox"/> B - STAINLESS STEEL<br/> <input type="checkbox"/> C - POLYPROPYLENE </div> <div> <input type="checkbox"/> D - PVC<br/> <input type="checkbox"/> E - POLYETHYLENE </div> </div>                                                                                                                                                                          |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |
| PURGING DEVICE                                                                                                                                                                                                                                                                              | <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> A - TEFLON<br/> <input type="checkbox"/> B - STAINLESS STEEL<br/> <input type="checkbox"/> C - POLYPROPYLENE </div> <div> <input type="checkbox"/> D - PVC<br/> <input type="checkbox"/> E - POLYETHYLENE </div> </div>                                                                                                                                                                          |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |
| SAMPLING DEVICE                                                                                                                                                                                                                                                                             | <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> A - TEFLON<br/> <input type="checkbox"/> B - STAINLESS STEEL<br/> <input type="checkbox"/> C - POLYPROPYLENE </div> <div> <input type="checkbox"/> D - PVC<br/> <input type="checkbox"/> E - POLYETHYLENE </div> </div>                                                                                                                                                                          |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |
| FILTERING DEVICES 0.15 <input type="checkbox"/> A - IN-LINE DISPOSABLE <input type="checkbox"/> B - PRESSURE <input type="checkbox"/> C - VACUUM                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |
| FIELD MEASUREMENTS                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |
| WELL ELEVATION                                                                                                                                                                                                                                                                              | <span style="border: 1px solid black; padding: 0 5px;">61386</span> (m/ft)                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                           | GROUNDWATER ELEVATION                                                                                        | <span style="border: 1px solid black; padding: 0 5px;">60587</span> (m/ft) |                                                                         |
| DEPTH TO WATER                                                                                                                                                                                                                                                                              | <span style="border: 1px solid black; padding: 0 5px;">799</span> (m/ft)                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                           | WELL DEPTH                                                                                                   | <span style="border: 1px solid black; padding: 0 5px;">2893</span> (m/ft)  |                                                                         |
| pH                                                                                                                                                                                                                                                                                          | TURBIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CONDUCTIVITY                                                                                                                              | ORP                                                                                                          | DO                                                                         | SAMPLE TEMPERATURE                                                      |
| <span style="border: 1px solid black; padding: 0 5px;">7.5</span> (std)                                                                                                                                                                                                                     | <span style="border: 1px solid black; padding: 0 5px;">0.1</span> (ntu)                                                                                                                                                                                                                                                                                                                                                                                                                      | <span style="border: 1px solid black; padding: 0 5px;">150</span> (µmhos/cm) AT 25°C                                                      | <span style="border: 1px solid black; padding: 0 5px;">150</span> (mV)                                       | <span style="border: 1px solid black; padding: 0 5px;">1.5</span> (mg/L)   | <span style="border: 1px solid black; padding: 0 5px;">15.0</span> (°C) |
| <span style="border: 1px solid black; padding: 0 5px;">7.5</span> (std)                                                                                                                                                                                                                     | <span style="border: 1px solid black; padding: 0 5px;">0.1</span> (ntu)                                                                                                                                                                                                                                                                                                                                                                                                                      | <span style="border: 1px solid black; padding: 0 5px;">150</span> (µmhos/cm) AT 25°C                                                      | <span style="border: 1px solid black; padding: 0 5px;">150</span> (mV)                                       | <span style="border: 1px solid black; padding: 0 5px;">1.5</span> (mg/L)   | <span style="border: 1px solid black; padding: 0 5px;">15.0</span> (°C) |
| <span style="border: 1px solid black; padding: 0 5px;">7.5</span> (std)                                                                                                                                                                                                                     | <span style="border: 1px solid black; padding: 0 5px;">0.1</span> (ntu)                                                                                                                                                                                                                                                                                                                                                                                                                      | <span style="border: 1px solid black; padding: 0 5px;">150</span> (µmhos/cm) AT 25°C                                                      | <span style="border: 1px solid black; padding: 0 5px;">150</span> (mV)                                       | <span style="border: 1px solid black; padding: 0 5px;">1.5</span> (mg/L)   | <span style="border: 1px solid black; padding: 0 5px;">15.0</span> (°C) |
| <span style="border: 1px solid black; padding: 0 5px;">7.5</span> (std)                                                                                                                                                                                                                     | <span style="border: 1px solid black; padding: 0 5px;">0.1</span> (ntu)                                                                                                                                                                                                                                                                                                                                                                                                                      | <span style="border: 1px solid black; padding: 0 5px;">150</span> (µmhos/cm) AT 25°C                                                      | <span style="border: 1px solid black; padding: 0 5px;">150</span> (mV)                                       | <span style="border: 1px solid black; padding: 0 5px;">1.5</span> (mg/L)   | <span style="border: 1px solid black; padding: 0 5px;">15.0</span> (°C) |
| FIELD COMMENTS                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |
| SAMPLE APPEARANCE: <u>Good</u> COLOR: <u>none</u> COLOR: <u>Clear</u> TURBIDITY: <u>Clear</u><br>WEATHER CONDITIONS: WIND SPEED: <u>10-15</u> DIRECTION: <u>SW</u> PRECIPITATION: <u>Y/N</u> OUTLOOK: <u>Sunny ~ 65°F</u><br>SPECIFIC COMMENTS:                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |
| I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CGL PROTOCOLS<br><div style="display: flex; justify-content: space-between;"> <div> <u>4/20/12</u><br/>DATE </div> <div> <u>Thomas Bohlen</u><br/>PRINT </div> <div> <u>Thomas Bohlen</u><br/>SIGNATURE </div> </div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                           |                                                                                                              |                                                                            |                                                                         |

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

*Project Data:*

Project Name: Delphi Harrison Thermal Systems Site  
Ref. No: 56546

Date: 4/19/12

Personnel: T. Bohlen

## Well No.: MW-10

Measurement Point: TOR

Constructed Well Depth (ft): 21.3

Measured Well Depth (ft): 13.68

Depth of Sediment (ft). NA

Screen Length (ft):  $12.5 - 21.3 = 8.8$

Depth to Pump Intake (ft)<sup>(u)</sup>: 19Well Diameter, D (in): Well Screen Volume -  $V_1 = 3.22$ 

Initial Depth to Water (ft) = 15.43 (TOR)

[illegible]

## Notes

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length.  $V_s = \pi \cdot (D/2)^2 \cdot (5' \cdot 12") \cdot (2.54)^3$
- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

\* calculated w/ 2L bottle & stopwatch

# WELL PURGING FIELD INFORMATION FORM

JOB# 56546

SITE/PROJECT NAME: Delphi Harrison Thermal Systems Site WELL# MW-10

04/19/12

PURGE DATE  
(MM/DD/YY)

04/19/12

SAMPLE DATE  
(MM/DD/YY)

113

WATER VOL IN CASING  
(LITERS/GALLONS)

6.0

ACTUAL VOLUME PURGED  
(LITERS/GALLONS)

## PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT... DEDICATED Y (C)  
(CIRCLE ONE)

SAMPLING EQUIPMENT... DEDICATED Y (C)  
(CIRCLE ONE)

PURGING DEVICE B A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILEY X-  
B - PERISTALTIC PUMP E - FUDGE PUMP H - WATERBOMB PURGING OTHER (SPECIFY)

SAMPLING DEVICE B C - BLADDER PUMP F - DIPPER BOTTLE X-  
SAMPLING OTHER (SPECIFY)

PURGING DEVICE E A - TEFLON D - PVC X-  
B - STAINLESS STEEL E - POLYETHYLENE PURGING OTHER (SPECIFY)

SAMPLING DEVICE E C - POLYPROPYLENE X-  
SAMPLING OTHER (SPECIFY)

PURGING DEVICE E A - TEFLON D - POLYPROPYLENE F - SILICONE X-  
B - TYGON E - POLYETHYLENE G - COMBINATION PURGING OTHER (SPECIFY)

SAMPLING DEVICE E C - ROPE X-  
SAMPLING OTHER (SPECIFY)

FILTERING DEVICES 0.45    A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM

## FIELD MEASUREMENTS

WELL ELEVATION 604.70 (m/ft) GROUNDWATER ELEVATION 589.27 (m/ft)

DEPTH TO WATER 154.3 (m/ft) WELL DEPTH 236.8 (m/ft)

| pH             | TURBIDITY       | CONDUCTIVITY              | ORP            | DO               | SAMPLE TEMPERATURE |
|----------------|-----------------|---------------------------|----------------|------------------|--------------------|
| <u>  </u> (nd) | <u>  </u> (ntu) | <u>  </u> (µm/cm) AT 25°C | <u>  </u> (mV) | <u>  </u> (mg/L) | <u>  </u> (°C)     |
| <u>  </u> (nd) | <u>  </u> (ntu) | <u>  </u> (µm/cm) AT 25°C | <u>  </u> (mV) | <u>  </u> (mg/L) | <u>  </u> (°C)     |
| <u>  </u> (nd) | <u>  </u> (ntu) | <u>  </u> (µm/cm) AT 25°C | <u>  </u> (mV) | <u>  </u> (mg/L) | <u>  </u> (°C)     |
| <u>  </u> (nd) | <u>  </u> (ntu) | <u>  </u> (µm/cm) AT 25°C | <u>  </u> (mV) | <u>  </u> (mg/L) | <u>  </u> (°C)     |
| <u>  </u> (nd) | <u>  </u> (ntu) | <u>  </u> (µm/cm) AT 25°C | <u>  </u> (mV) | <u>  </u> (mg/L) | <u>  </u> (°C)     |

## FIELD COMMENTS

SAMPLE APPEARANCE Good None Yellow Clear TURBIDITY: Cloudy Clear  
WEATHER CONDITIONS WIND SPEED 10-15 DIRECTION SW PRECIPITATION Y/N OUTLOOK Sunny 63°F  
SPECIFIC COMMENTS

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE ECH PROTOCOLS

4/19/12  
DATE

Thomas Bohlen  
PRINT

Thomas Bohlen  
SIGNATURE

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

# MONITORING WELL RECORD FOR LOW-FLOW PURGING

## Project Data:

Project Name: Delphi Harrison Thermal Sys. Site  
 Ref. No.: 58546.04

Date: 5/4/12  
 Personnel: T. Bohlen

## Monitoring Well Data:

Well No.: MW-10  
 Measurement Point: TOR  
 Constructed Well Depth (ft): 21.3  
 Measured Well Depth (ft): 23.69  
 Depth of Sediment (ft): -

Screen Length (ft): 8.8'  
 Depth to Pump Intake (ft)<sup>(1)</sup>: 19'  
 Well Diameter, D (in): 2  
 Well Screen Volume, V<sub>s</sub> (ft<sup>3</sup>)<sup>(2)</sup>: 7.5  
 Initial Depth to Water (ft): 14.65

| Time | Pumping Rate (ml/min) | Depth to Water (ft) | Drawdown from Initial Water Level <sup>(3)</sup> (ft) | pH   | Temperature °C | Conductivity (mS/cm) | ORP (mV) | DO (mg/L) | Turbidity (NTU) | Volume Purged, V <sub>p</sub> (mL) | No. of Well Screen Volumes Purged <sup>(4)</sup> |
|------|-----------------------|---------------------|-------------------------------------------------------|------|----------------|----------------------|----------|-----------|-----------------|------------------------------------|--------------------------------------------------|
| 1356 | 151                   | 15.39               | 0.74                                                  | 6.44 | 13.94          | 3.380                | 126.1    | 6.61      | 1.2             | 0                                  |                                                  |
| 1401 | ↓                     | 15.37               | 0.72                                                  | 6.17 | 12.93          | 5.106                | 133.5    | 4.87      | 1.5             | 0.2                                |                                                  |
| 1406 | 454                   | 15.37               |                                                       | 6.14 | 12.84          | 6.126                | 132.1    | 4.93      | 0.0             | 0.4                                |                                                  |
| 1411 | ↓                     | 15.37               |                                                       | 6.16 | 12.75          | 6.951                | 131.8    | 5.07      | 3.6             | 1.0                                |                                                  |
| 1416 | 303                   | 15.37               |                                                       | 6.06 | 12.74          | 7.424                | 131.0    | 5.08      | 3.3             | 1.3                                |                                                  |
| 1421 |                       | 15.37               |                                                       | 6.06 | 12.66          | 7.977                | 128.0    | 5.13      | 2.0             | 1.7                                | 1                                                |
| 1426 |                       | 15.37               |                                                       | 6.05 | 12.68          | 7.981                | 127.4    | 5.15      | 1.8             | 2.1                                |                                                  |
| 1431 |                       | 15.37               |                                                       | 6.06 | 12.70          | 7.984                | 128.3    | 5.17      | 1.9             | 2.5                                |                                                  |
| 1436 | ↓                     | 15.37               | ↓                                                     | 6.07 | 12.71          | 7.974                | 129.1    | 5.16      | 1.6             | 2.9                                |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                    |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                    |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                    |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                    |                                                  |

## Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length.  $V_s = \pi (D/2)^2 (5 \times 12) (2.54)^3$
- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged = V<sub>p</sub>/V<sub>s</sub>.

# MONITORING WELL RECORD FOR LOW-FLOW PURGING

## Project Data:

Project Name: Delphi Harrison Thermal Systems Site  
 Ref. No.: 21.0056.546

Date: 4/18/12  
 Personnel: T. Bohlen

## Monitoring Well Data:

Well No.: MW-11  
 Measurement Point: TOR  
 Constructed Well Depth (ft): 24.10  
 Measured Well Depth (ft): 25.10 (23.70' bag)  
 Depth of Sediment (ft): 1.4 (0.4')

Screen Length (ft): 9-21.4 (15.1')  
 Depth to Pump Intake (ft)<sup>(1)</sup>: 15'  
 Well Diameter, D (in): 2  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: 3.17 gal  
 Initial Depth to Water (ft): 5.66 (TOR)

| Time | Pumping Rate (ml/min) | Depth to Water (ft) | Drawdown from Initial Water Level <sup>(3)</sup> (ft) | pH   | Temperature °C | Conductivity (mS/cm) | ORP (mV) | DO (mg/L) | Turbidity (NTU) | Volume Purged, V <sub>p</sub> (gal) | No. of Well Screen Volumes Purged <sup>(4)</sup> |
|------|-----------------------|---------------------|-------------------------------------------------------|------|----------------|----------------------|----------|-----------|-----------------|-------------------------------------|--------------------------------------------------|
| 1135 |                       | 6.99                | 1.33                                                  | 7.71 | 10.43          | 1.19                 | 135      | 0.00      | 18.7            | 0.2                                 |                                                  |
| 1141 |                       | 7.28                | 1.62                                                  | 7.65 | 10.43          | 1.19                 | 16       | 0.00      | 15.0            | 0.5                                 |                                                  |
| 1145 |                       | 7.39                | 1.73                                                  | 7.65 | 10.48          | 1.20                 | -27      | 0.00      | 6.7             | 0.8                                 |                                                  |
| 1151 |                       | 7.46                | 1.80                                                  | 7.65 | 10.57          | 1.21                 | -49      | 0.00      | 3.4             | 1.2                                 |                                                  |
| 1159 |                       | 7.50                | 1.84                                                  | 7.64 | 10.62          | 1.33                 | -60      | 0.00      | 1.8             | 1.8                                 |                                                  |
| 1205 |                       | 7.51                | 1.85                                                  | 7.65 | 10.67          | 1.36                 | -64      | 0.00      | 1.7             | 2.0                                 |                                                  |
| 1213 | 170 *                 | 7.51                | ↓                                                     | 7.64 | 10.74          | 1.39                 | -68      | 0.00      | 1.0             | 2.4                                 |                                                  |
| 1223 | ↓                     | 7.51                | ↓                                                     | 7.62 | 10.75          | 1.40                 | -71      | 0.00      | 0.2             | 3.0                                 |                                                  |
| 1240 | ↓                     | 7.51                | ↓                                                     | 7.60 | 10.86          | 1.45                 | -75      | 0.00      | 0.0             | 4.0                                 | 1                                                |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |

## Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi (D/2)^2 (5 \times 12) (2.54)^3$
- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ .

\* calculated using 2L bottle & stopwatch

| WELL PURGING FIELD INFORMATION FORM                                                                                                            |                                            |                                                                                  |                                            | JOB# <u>56546</u>                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------|------------------------------------------------------|
| SITE/PROJECT NAME: <u>Delphi Harrison Thermal Systems Site</u>                                                                                 |                                            |                                                                                  |                                            | WELL# <u>MW-11</u>                                   |
| PURGE DATE<br>(MM/DD/YY)<br><u>04/18/12</u>                                                                                                    |                                            | SAMPLE DATE<br>(MM/DD/YY)<br><u>04/18/12</u>                                     |                                            | WATER VOL IN CASING<br>(LITRES/GALLONS)<br><u>32</u> |
| ACTUAL VOLUME PURGED<br>(LITRES/GALLONS)<br><u>152</u>                                                                                         |                                            |                                                                                  |                                            |                                                      |
| PURGING AND SAMPLING EQUIPMENT                                                                                                                 |                                            |                                                                                  |                                            |                                                      |
| PURGING EQUIPMENT: DEDICATED <input checked="" type="radio"/> Y<br>(CIRCLE ONE)                                                                |                                            | SAMPLING EQUIPMENT: DEDICATED <input checked="" type="radio"/> N<br>(CIRCLE ONE) |                                            |                                                      |
| PURGING DEVICE: <u>B</u>                                                                                                                       | A - SUBMERSIBLE PUMP                       | D - GAS LIFT PUMP                                                                | G - BAILEY                                 | X- _____<br>PURGING OTHER (SPECIFY):                 |
| SAMPLING DEVICE: <u>B</u>                                                                                                                      | B - PERISTALTIC PUMP                       | E - PURGE PUMP                                                                   | H - WATERBATH                              | X- _____<br>SAMPLING OTHER (SPECIFY):                |
| PURGING DEVICE: <u>E</u>                                                                                                                       | C - BLADDER PUMP                           | F - DIPPER BOTTLE                                                                |                                            | X- _____<br>SAMPLING OTHER (SPECIFY):                |
| PURGING DEVICE: <u>E</u>                                                                                                                       | A - TEFLON                                 | D - POLYPROPYLENE                                                                | E - SILICONE                               | X- _____<br>PURGING OTHER (SPECIFY):                 |
| SAMPLING DEVICE: <u>E</u>                                                                                                                      | B - STAINLESS STEEL                        | E - POLYETHYLENE                                                                 |                                            | X- _____<br>SAMPLING OTHER (SPECIFY):                |
| PURGING DEVICE: <u>E</u>                                                                                                                       | C - POLYPROPYLENE                          |                                                                                  |                                            | X- _____<br>SAMPLING OTHER (SPECIFY):                |
| PURGING DEVICE: <u>E</u>                                                                                                                       | A - TEFLON                                 | D - POLYPROPYLENE                                                                | E - SILICONE                               | X- _____<br>PURGING OTHER (SPECIFY):                 |
| SAMPLING DEVICE: <u>E</u>                                                                                                                      | B - TYGON                                  | E - POLYETHYLENE                                                                 | G - COMBINATION<br>TEFLON/POLYPROPYLENE    | X- _____<br>SAMPLING OTHER (SPECIFY):                |
| FILLING DEVICES 0.15 <input type="checkbox"/> A - IN-LINE DISPOSABLE <input type="checkbox"/> B - PRESSURE <input type="checkbox"/> C - VACUUM |                                            |                                                                                  |                                            |                                                      |
| FIELD MEASUREMENTS                                                                                                                             |                                            |                                                                                  |                                            |                                                      |
| WELL ELEVATION <u>590.10</u> (m/ft)                                                                                                            | GROUNDWATER ELEVATION <u>584.44</u> (m/ft) |                                                                                  | WELL DEPTH <u>24.10</u> (m/ft)             |                                                      |
| DEPTH TO WATER <u>5.66</u> (m/ft)                                                                                                              | pH <u>7.0</u>                              | TURBIDITY <u>0.1</u> (ntu)                                                       | CONDUCTIVITY <u>150</u> (µm/cm)<br>AT 25°C | ORP <u>150</u> (mV)                                  |
|                                                                                                                                                |                                            |                                                                                  |                                            |                                                      |
|                                                                                                                                                |                                            |                                                                                  |                                            |                                                      |
|                                                                                                                                                |                                            |                                                                                  |                                            |                                                      |
|                                                                                                                                                |                                            |                                                                                  |                                            |                                                      |
|                                                                                                                                                |                                            |                                                                                  |                                            |                                                      |
|                                                                                                                                                |                                            |                                                                                  |                                            |                                                      |
| FIELD COMMENTS                                                                                                                                 |                                            |                                                                                  |                                            |                                                      |
| SAMPLE APPEARANCE: <u>Good</u> COLOR: <u>none</u> TURBIDITY: <u>clear</u>                                                                      |                                            |                                                                                  |                                            |                                                      |
| WEATHER CONDITIONS: WIND SPEED: <u>0-5</u> DIRECTION: <u>SW</u> PRECIPITATION: <u>Y/N</u> OUTLOOK: <u>Sunny ~50°F</u>                          |                                            |                                                                                  |                                            |                                                      |
| SPECIFIC COMMENTS: _____                                                                                                                       |                                            |                                                                                  |                                            |                                                      |
| I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE EGM PROTOCOLS                                                            |                                            |                                                                                  |                                            |                                                      |
| DATE: <u>4/18/12</u>                                                                                                                           | PRINT: <u>Thomas Bohlen</u>                |                                                                                  | SIGNATURE: <u>Thomas Bohlen</u>            |                                                      |

EGM MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

# MONITORING WELL RECORD FOR LOW-FLOW PURGING

## Project Data:

Project Name: Dephi Harrison Thermal System Site  
 Ref. No.: 21.00 56546

Date: 4/18/11  
 Personnel: T. Bohlen

## Monitoring Well Data:

Well No.: MW-12  
 Measurement Point: TOR  
 Constructed Well Depth (ft): 15.1  
 Measured Well Depth (ft): 16.40 (14.8' bgs)  
 Depth of Sediment (ft): 0.3'

Screen Length (ft): 8-15.1 = 7.1'  
 Depth to Pump Intake (ft)<sup>(1)</sup>: 14.4  
 Well Diameter, D (in): 2  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: 1.7 gal  
 Initial Depth to Water (ft): 5.92

| Time | Pumping Rate (mL/min) | Depth to Water (ft) | Drawdown from Initial Water Level <sup>(3)</sup> (ft) | pH   | Temperature °C | Conductivity (mS/cm) | ORP (mV) | DO (mg/L) | Turbidity (NTU) | Volume Purged, V <sub>p</sub> (mL) <sup>(4)</sup> | No. of Well Screen Volumes Purged <sup>(4)</sup> |
|------|-----------------------|---------------------|-------------------------------------------------------|------|----------------|----------------------|----------|-----------|-----------------|---------------------------------------------------|--------------------------------------------------|
| 225  | 333*                  | 6.24                | 0.33                                                  | 7.07 | 10.64          | 7.09                 | 47       | 3.56      | 66.2            | 0.2                                               |                                                  |
| 232  |                       | 6.25                | 0.33                                                  | 6.99 | 10.34          | 7.65                 | -50      | 6.88      | 72.0            | 1                                                 |                                                  |
| 237  |                       | 6.25                |                                                       | 6.99 | 10.36          | 7.81                 | -60      | 6.10      | 93.1            | 1.2                                               |                                                  |
| 244  |                       | 6.25                |                                                       | 6.98 | 10.25          | 7.92                 | -67      | 4.70      | 89.6            | 2                                                 | 1                                                |
| 252  |                       | 6.25                |                                                       | 6.97 | 10.19          | 7.98                 | -71      | 3.40      | 48.4            | 2.8                                               |                                                  |
| 300  |                       | 6.25                |                                                       | 6.97 | 10.11          | 7.98                 | -72      | 2.51      | 28.0            | 3.2                                               |                                                  |
| 305  |                       | 6.25                |                                                       | 6.98 | 10.11          | 7.96                 | -73      | 1.95      | 18.5            | 3.9                                               | 2                                                |
| 312  |                       | 6.25                |                                                       | 6.98 | 10.05          | 7.94                 | -73      | 1.22      | 10.4            | 4.5                                               |                                                  |
| 320  |                       | 6.25                |                                                       | 6.98 | 10.02          | 7.92                 | -74      | 0.59      | 3.7             | 5.0                                               |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                                   |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                                   |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                                   |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                                   |                                                  |

## Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length.  $V_s = \pi \cdot (D/2)^2 \cdot (5'12") \cdot (2.54)^3$
- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

\* - calculated using JL bottle & stopwatch



## Project Dates:

Project Name: Daphi Harrison Thermal Systems Site  
Ref. No.: 56546

Date: 4/19/12  
Personnel: T. Bohlen

### Monitoring Well Data:

Well No.: MW-13  
Measurement Point: TOR  
Constructed Well Depth (ft): 15'  
Measured Well Depth (ft): 14.06 (14.54' bgs)  
Depth of Sediment (ft): 0.46'

|                                                           |                 |
|-----------------------------------------------------------|-----------------|
| Screen Length (ft):                                       | $8' - 15' = 7'$ |
| Depth to Pump Intake (ft) <sup>(1)</sup> :                | 12'             |
| Well Diameter, D (in):                                    | 2               |
| Well Screen Volume, V <sub>sc</sub> (mL) <sup>(2)</sup> : | 1.5             |
| Initial Depth to Water (ft):                              | 4.80            |

[illegible]

## Notes

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length.  $V_s = \pi \cdot (D/2)^2 \cdot (5 \cdot 12)^2 \cdot (2.54)^3$
- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing).  $No. \text{ of Well Screen Volumes Purged} = V_p / V_s$

\* calculated using JL bottle & stopwatch

| WELL PURGING FIELD INFORMATION FORM                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      |                                                                                                                                      |                                                                                                                              | JOB# <span style="border: 1px solid black; padding: 0 5px;">56546</span>                                                                        |                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| SITE/PROJECT NAME: <u>Delphi Thermal Systems Site</u>                                                                                                                                                                                                                                                                                                                                                              |                                                                                                      |                                                                                                                                      |                                                                                                                              | WELL# <span style="border: 1px solid black; padding: 0 5px;">MW-13</span>                                                                       |                                                                                                     |
| <div style="border: 1px solid black; display: inline-block; padding: 2px;">041912</div><br><small>PURGE DATE<br/>(MM DD YY)</small>                                                                                                                                                                                                                                                                                |                                                                                                      | <div style="border: 1px solid black; display: inline-block; padding: 2px;">041912</div><br><small>SAMPLE DATE<br/>(MM DD YY)</small> |                                                                                                                              | <div style="border: 1px solid black; display: inline-block; padding: 2px;">115</div><br><small>WATER VOL IN CASING<br/>(LITRES/GALLONS)</small> |                                                                                                     |
| <div style="border: 1px solid black; display: inline-block; padding: 2px;">1110</div><br><small>ACTUAL VOLUME PURGED<br/>(LITRES/GALLONS)</small>                                                                                                                                                                                                                                                                  |                                                                                                      |                                                                                                                                      |                                                                                                                              |                                                                                                                                                 |                                                                                                     |
| PURGING AND SAMPLING EQUIPMENT                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                      |                                                                                                                                      |                                                                                                                              |                                                                                                                                                 |                                                                                                     |
| PURGING EQUIPMENT _____ DEDICATED <input checked="" type="radio"/> Y <input type="radio"/> N<br><small>(CIRCLE ONE)</small>                                                                                                                                                                                                                                                                                        |                                                                                                      |                                                                                                                                      | SAMPLING EQUIPMENT _____ DEDICATED <input checked="" type="radio"/> Y <input type="radio"/> N<br><small>(CIRCLE ONE)</small> |                                                                                                                                                 |                                                                                                     |
| PURGING DEVICE                                                                                                                                                                                                                                                                                                                                                                                                     | <div style="border: 1px solid black; display: inline-block; padding: 0 5px;">B</div>                 | A - SUBMERSIBLE PUMP                                                                                                                 | D - GAS LIFT PUMP                                                                                                            | G - BAILER                                                                                                                                      | X- _____<br><small>PURGING OTHER (SPECIFY)</small>                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      | B - PERISTALTIC PUMP                                                                                                                 | F - FORCE PUMP                                                                                                               | H - WATERBAY                                                                                                                                    |                                                                                                     |
| SAMPLING DEVICE                                                                                                                                                                                                                                                                                                                                                                                                    | <div style="border: 1px solid black; display: inline-block; padding: 0 5px;">B</div>                 | C - SLADDER PUMP                                                                                                                     | F - DIPPER BOTTLE                                                                                                            |                                                                                                                                                 | X- _____<br><small>SAMPLING OTHER (SPECIFY)</small>                                                 |
| PURGING DEVICE                                                                                                                                                                                                                                                                                                                                                                                                     | <div style="border: 1px solid black; display: inline-block; padding: 0 5px;">E</div>                 | A - TEFLON                                                                                                                           | D - PVC                                                                                                                      |                                                                                                                                                 | X- _____<br><small>PURGING OTHER (SPECIFY)</small>                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      | B - STAINLESS STEEL                                                                                                                  | E - POLYETHYLENE                                                                                                             |                                                                                                                                                 |                                                                                                     |
| SAMPLING DEVICE                                                                                                                                                                                                                                                                                                                                                                                                    | <div style="border: 1px solid black; display: inline-block; padding: 0 5px;">E</div>                 | C - POLYPROPYLENE                                                                                                                    |                                                                                                                              |                                                                                                                                                 | X- _____<br><small>SAMPLING OTHER (SPECIFY)</small>                                                 |
| PURGING DEVICE                                                                                                                                                                                                                                                                                                                                                                                                     | <div style="border: 1px solid black; display: inline-block; padding: 0 5px;">E</div>                 | A - TEFLON                                                                                                                           | D - POLYPROPYLENE                                                                                                            | F - SILICONE                                                                                                                                    | X- _____<br><small>PURGING OTHER (SPECIFY)</small>                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      | B - TYGON                                                                                                                            | E - POLYETHYLENE                                                                                                             | G - COMBINATION                                                                                                                                 |                                                                                                     |
| SAMPLING DEVICE                                                                                                                                                                                                                                                                                                                                                                                                    | <div style="border: 1px solid black; display: inline-block; padding: 0 5px;">E</div>                 | C - ROPS                                                                                                                             | X- _____<br><small>(SPECIFY)</small>                                                                                         | TEFLON/POLYPROPYLENE                                                                                                                            | X- _____<br><small>SAMPLING OTHER (SPECIFY)</small>                                                 |
| FILTERING DEVICES 0.15 <input type="checkbox"/> A - IN-LINE DISPOSABLE <input type="checkbox"/> B - PRESSURE <input type="checkbox"/> C - VACUUM                                                                                                                                                                                                                                                                   |                                                                                                      |                                                                                                                                      |                                                                                                                              |                                                                                                                                                 |                                                                                                     |
| FIELD MEASUREMENTS                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                      |                                                                                                                                      |                                                                                                                              |                                                                                                                                                 |                                                                                                     |
| WELL ELEVATION <span style="border: 1px solid black; padding: 0 10px;">589.02</span> (m/ft)                                                                                                                                                                                                                                                                                                                        |                                                                                                      | GROUNDWATER ELEVATION <span style="border: 1px solid black; padding: 0 10px;">584.22</span> (m/ft)                                   |                                                                                                                              |                                                                                                                                                 |                                                                                                     |
| DEPTH TO WATER <span style="border: 1px solid black; padding: 0 10px;">4.80</span> (m/ft)                                                                                                                                                                                                                                                                                                                          |                                                                                                      | WELL DEPTH <span style="border: 1px solid black; padding: 0 10px;">15.00</span> (m/ft)                                               |                                                                                                                              |                                                                                                                                                 |                                                                                                     |
| pH                                                                                                                                                                                                                                                                                                                                                                                                                 | TURBIDITY                                                                                            | CONDUCTIVITY                                                                                                                         | ORP                                                                                                                          | DO                                                                                                                                              | SAMPLE TEMPERATURE                                                                                  |
| <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (std)                                                                                                                                                                                                                                                                                                               | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (ntu) | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (µm/cm)<br>AT 25°C                    | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (mv)                          | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (mg/L)                                           | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (°C) |
| <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (std)                                                                                                                                                                                                                                                                                                               | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (ntu) | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (µm/cm)<br>AT 25°C                    | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (mv)                          | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (mg/L)                                           | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (°C) |
| <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (std)                                                                                                                                                                                                                                                                                                               | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (ntu) | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (µm/cm)<br>AT 25°C                    | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (mv)                          | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (mg/L)                                           | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (°C) |
| <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (std)                                                                                                                                                                                                                                                                                                               | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (ntu) | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (µm/cm)<br>AT 25°C                    | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (mv)                          | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (mg/L)                                           | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (°C) |
| <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (std)                                                                                                                                                                                                                                                                                                               | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (ntu) | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (µm/cm)<br>AT 25°C                    | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (mv)                          | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (mg/L)                                           | <div style="border: 1px solid black; display: inline-block; width: 40px; height: 15px;"></div> (°C) |
| FIELD COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                      |                                                                                                                                      |                                                                                                                              |                                                                                                                                                 |                                                                                                     |
| SAMPLE APPEARANCE <u>Good</u> <small>UNDER</small> <u>none</u> <small>UNDER</small> <u>Yellow-Clear</u> <small>TURBIDITY</small> <u>Cloudy-Clear</u><br>WEATHER CONDITIONS <small>WIND SPEED</small> <u>5-10</u> <small>DIRECTION</small> <u>SW</u> <small>PRECIPITATION Y/N OUTLOOK</small> <u>Sunny ~50°F</u><br>SPECIFIC COMMENTS _____<br>_____<br>_____<br>_____<br>_____                                     |                                                                                                      |                                                                                                                                      |                                                                                                                              |                                                                                                                                                 |                                                                                                     |
| I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CM PROTOCOLS<br><div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> <u>4/19/12</u><br/>DATE             </div> <div style="text-align: center;"> <u>Thomas Bohlen</u><br/>PRINT             </div> <div style="text-align: center;"> <u>Thomas Bohlen</u><br/>SIGNATURE             </div> </div> |                                                                                                      |                                                                                                                                      |                                                                                                                              |                                                                                                                                                 |                                                                                                     |

CMC MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

# MONITORING WELL RECORD FOR LOW-FLOW PURGING

## Project Data:

Project Name: Delphi Harrison Thermal Systems Site  
 Ref. No.: 56546

Date: 4/19/12  
 Personnel: T. Bohlen

## Monitoring Well Data:

Well No.: MW-14  
 Measurement Point: TOR  
 Constructed Well Depth (ft): 19.1  
 Measured Well Depth (ft): 21.36 (18.99' bgs)  
 Depth of Sediment (ft): 0.11'

Screen Length (ft): 91-19.1 = 10'  
 Depth to Pump Intake (ft)<sup>(1)</sup>: 12' / 17'  
 Well Diameter, D (in): 2"  
 Well Screen Volume, V<sub>s</sub> (ft<sup>3</sup>)<sup>(2)</sup>: 2.5 gal  
 Initial Depth to Water (ft): 6.21' (TOR)

| Time | Pumping Rate (ml/min) | Depth to Water (ft) | Drawdown from Initial Water Level <sup>(3)</sup> (ft) | pH   | Temperature °C | Conductivity (mS/cm) | ORP (mV) | DO (mg/L) | Turbidity (NTU) | Volume Purged, V <sub>p</sub> (gal) | No. of Well Screen Volumes Purged <sup>(4)</sup> |
|------|-----------------------|---------------------|-------------------------------------------------------|------|----------------|----------------------|----------|-----------|-----------------|-------------------------------------|--------------------------------------------------|
| 1043 | 186 *                 | 8.14                | 1.93                                                  | 7.45 | 11.37          | 4.60                 | 93       | 0.00      | 3.6             | 0.1                                 |                                                  |
| 1048 |                       | 8.96                | 2.75                                                  | 7.42 | 11.39          | 4.59                 | 80       | 0.00      | 0.1             | 0.3                                 |                                                  |
| 1052 |                       | 9.46                | 3.25                                                  | 7.40 | 11.39          | 4.59                 | 67       | 0.00      | 0.0             | 0.6                                 |                                                  |
| 1102 |                       | 10.16               | 3.95                                                  | 7.40 | 11.48          | 4.60                 | 47       | 0.00      | 0.0             | 1                                   |                                                  |
| 1107 |                       | 10.41               | 4.20                                                  | 7.41 | 11.55          | 4.60                 | 43       | 0.00      | 0.5             | 1.2                                 |                                                  |
| 1121 |                       | 10.84               | 4.63                                                  | 7.39 | 11.59          | 4.89                 | 19       | 0.00      | 0.0             | 1.9                                 |                                                  |
| 1132 |                       | 10.98               | 4.77                                                  | 7.38 | 11.65          | 5.27                 | 7        | 0.00      | 0.0             | 2.9                                 | 1                                                |
| 1142 |                       | 11.05               | 4.84                                                  | 7.38 | 11.65          | 5.35                 | 4        | 0.00      | 0.6             | 3.2                                 |                                                  |
| 1154 |                       | 11.16               | 4.95                                                  | 7.37 | 11.71          | 5.42                 | 3        | 0.00      | 0.0             | 4                                   |                                                  |
| 1206 |                       | 10.29               | 4.08                                                  | 7.24 | 11.71          | 6.69                 | -47      | 0.00      | 1.5             | 4.2                                 |                                                  |
| 1211 |                       | 10.77               | 4.56                                                  | 7.28 | 11.96          | 6.37                 | -44      | 0.00      | 1.2             | 4.6                                 |                                                  |
| 1217 |                       | 10.89               | 4.68                                                  | 7.31 | 12.01          | 6.12                 | -53      | 0.00      | 0.7             | 5.0                                 | 2                                                |
| 1227 |                       | 11.01               | 4.80                                                  | 7.32 | 12.27          | 5.92                 | -11      | 0.00      | 0.6             | 5.2                                 |                                                  |

## Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 5-foot screen length,  $V_s = \pi \cdot (D/2)^2 \cdot (5 \cdot 12) \cdot (2.54)$
- The drawdown from the initial water level should not exceed 0.3 ft.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

\* - calculated using a 1L bottle & stopwatch



| WELL PURGING FIELD INFORMATION FORM                                                                                                                                                                                                                                                                                                                                                                               |                                                                                      |                                                                                                                                        |                                                                                                                                       | JOB# <span style="border: 1px solid black; padding: 0 5px;">56546</span>                                                                         |                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| SITE/PROJECT NAME: <u>Delphi Thermal Systems Site</u>                                                                                                                                                                                                                                                                                                                                                             |                                                                                      |                                                                                                                                        |                                                                                                                                       | WELL# <span style="border: 1px solid black; padding: 0 5px;">MW-14</span>                                                                        |                                                                                             |
| <div style="border: 1px solid black; display: inline-block; padding: 2px;">04/19/12</div><br><small>PURGE DATE<br/>(MM/DD/YY)</small>                                                                                                                                                                                                                                                                             |                                                                                      | <div style="border: 1px solid black; display: inline-block; padding: 2px;">04/19/12</div><br><small>SAMPLE DATE<br/>(MM/DD/YY)</small> |                                                                                                                                       | <div style="border: 1px solid black; display: inline-block; padding: 2px;">2.5</div><br><small>WATER VOL. IN CASING<br/>(LITRES/GALLONS)</small> |                                                                                             |
| <div style="border: 1px solid black; display: inline-block; padding: 2px;">1100</div><br><small>ACTUAL VOLUME PURGED<br/>(LITRES/GALLONS)</small>                                                                                                                                                                                                                                                                 |                                                                                      |                                                                                                                                        |                                                                                                                                       |                                                                                                                                                  |                                                                                             |
| PURGING AND SAMPLING EQUIPMENT                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                      |                                                                                                                                        |                                                                                                                                       |                                                                                                                                                  |                                                                                             |
| PURGING EQUIPMENT <small>DEDICATED</small> <input checked="" type="radio"/> Y <input type="radio"/> N<br><small>(CIRCLE ONE)</small>                                                                                                                                                                                                                                                                              |                                                                                      |                                                                                                                                        | SAMPLING EQUIPMENT <small>DEDICATED</small> <input checked="" type="radio"/> Y <input type="radio"/> N<br><small>(CIRCLE ONE)</small> |                                                                                                                                                  |                                                                                             |
| PURGING DEVICE                                                                                                                                                                                                                                                                                                                                                                                                    | <div style="border: 1px solid black; display: inline-block; padding: 0 5px;">B</div> | A - SUBMERSIBLE PUMP                                                                                                                   | D - GAS LIFT PUMP                                                                                                                     | G - BAILEY                                                                                                                                       | X- _____<br><small>PURGING OTHER (SPECIFY)</small>                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                      | B - PERISTALTIC PUMP                                                                                                                   | E - FURGE PUMP                                                                                                                        | H - WATERBATH                                                                                                                                    |                                                                                             |
| SAMPLING DEVICE                                                                                                                                                                                                                                                                                                                                                                                                   | <div style="border: 1px solid black; display: inline-block; padding: 0 5px;">B</div> | C - BLADDER PUMP                                                                                                                       | F - DIPPER BOTTLE                                                                                                                     | X- _____<br><small>SAMPLING OTHER (SPECIFY)</small>                                                                                              |                                                                                             |
| PURGING DEVICE                                                                                                                                                                                                                                                                                                                                                                                                    | <div style="border: 1px solid black; display: inline-block; padding: 0 5px;">E</div> | A - TEFLON                                                                                                                             | D - PVC                                                                                                                               | X- _____<br><small>PURGING OTHER (SPECIFY)</small>                                                                                               |                                                                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                      | B - STAINLESS STEEL                                                                                                                    | E - POLYETHYLENE                                                                                                                      | X- _____<br><small>PURGING OTHER (SPECIFY)</small>                                                                                               |                                                                                             |
| SAMPLING DEVICE                                                                                                                                                                                                                                                                                                                                                                                                   | <div style="border: 1px solid black; display: inline-block; padding: 0 5px;">E</div> | C - POLYPROPYLENE                                                                                                                      | X- _____<br><small>SAMPLING OTHER (SPECIFY)</small>                                                                                   |                                                                                                                                                  |                                                                                             |
| PURGING DEVICE                                                                                                                                                                                                                                                                                                                                                                                                    | <div style="border: 1px solid black; display: inline-block; padding: 0 5px;">E</div> | A - TEFLON                                                                                                                             | D - POLYPROPYLENE                                                                                                                     | F - SILICONE                                                                                                                                     | X- _____<br><small>PURGING OTHER (SPECIFY)</small>                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                      | B - TITANIUM                                                                                                                           | E - POLYETHYLENE                                                                                                                      | G - COMBINATION                                                                                                                                  | X- _____<br><small>PURGING OTHER (SPECIFY)</small>                                          |
| SAMPLING DEVICE                                                                                                                                                                                                                                                                                                                                                                                                   | <div style="border: 1px solid black; display: inline-block; padding: 0 5px;">E</div> | C - KOPS                                                                                                                               | X- _____<br><small>SAMPLING OTHER (SPECIFY)</small>                                                                                   |                                                                                                                                                  |                                                                                             |
| <small>(SPECIFY)</small>                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                      |                                                                                                                                        |                                                                                                                                       |                                                                                                                                                  |                                                                                             |
| FILTERING DEVICES 0.15 <input type="checkbox"/> A - IN-LINE DISPOSABLE <input type="checkbox"/> B - PRESSURE <input type="checkbox"/> C - VACUUM                                                                                                                                                                                                                                                                  |                                                                                      |                                                                                                                                        |                                                                                                                                       |                                                                                                                                                  |                                                                                             |
| FIELD MEASUREMENTS                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                      |                                                                                                                                        |                                                                                                                                       |                                                                                                                                                  |                                                                                             |
| WELL ELEVATION <span style="border: 1px solid black; padding: 0 10px;">592.77</span> (m/ft)                                                                                                                                                                                                                                                                                                                       |                                                                                      | GROUNDWATER ELEVATION <span style="border: 1px solid black; padding: 0 10px;">586.56</span> (m/ft)                                     |                                                                                                                                       |                                                                                                                                                  |                                                                                             |
| DEPTH TO WATER <span style="border: 1px solid black; padding: 0 10px;">6.21</span> (m/ft)                                                                                                                                                                                                                                                                                                                         |                                                                                      | WELL DEPTH <span style="border: 1px solid black; padding: 0 10px;">21.36</span> (m/ft)                                                 |                                                                                                                                       |                                                                                                                                                  |                                                                                             |
| pH <span style="border: 1px solid black; padding: 0 10px;">7.0</span>                                                                                                                                                                                                                                                                                                                                             | TURBIDITY <span style="border: 1px solid black; padding: 0 10px;">0.0</span> (ntu)   | CONDUCTIVITY <span style="border: 1px solid black; padding: 0 10px;">150</span> (µm/cm) AT 25°C                                        | ORP <span style="border: 1px solid black; padding: 0 10px;">150</span> (mV)                                                           | DO <span style="border: 1px solid black; padding: 0 10px;">8.0</span> (mg/L)                                                                     | SAMPLE TEMPERATURE <span style="border: 1px solid black; padding: 0 10px;">15.0</span> (°C) |
| <span style="border: 1px solid black; padding: 0 10px;">7.0</span>                                                                                                                                                                                                                                                                                                                                                | <span style="border: 1px solid black; padding: 0 10px;">0.0</span>                   | <span style="border: 1px solid black; padding: 0 10px;">150</span>                                                                     | <span style="border: 1px solid black; padding: 0 10px;">150</span>                                                                    | <span style="border: 1px solid black; padding: 0 10px;">8.0</span>                                                                               | <span style="border: 1px solid black; padding: 0 10px;">15.0</span>                         |
| <span style="border: 1px solid black; padding: 0 10px;">7.0</span>                                                                                                                                                                                                                                                                                                                                                | <span style="border: 1px solid black; padding: 0 10px;">0.0</span>                   | <span style="border: 1px solid black; padding: 0 10px;">150</span>                                                                     | <span style="border: 1px solid black; padding: 0 10px;">150</span>                                                                    | <span style="border: 1px solid black; padding: 0 10px;">8.0</span>                                                                               | <span style="border: 1px solid black; padding: 0 10px;">15.0</span>                         |
| <span style="border: 1px solid black; padding: 0 10px;">7.0</span>                                                                                                                                                                                                                                                                                                                                                | <span style="border: 1px solid black; padding: 0 10px;">0.0</span>                   | <span style="border: 1px solid black; padding: 0 10px;">150</span>                                                                     | <span style="border: 1px solid black; padding: 0 10px;">150</span>                                                                    | <span style="border: 1px solid black; padding: 0 10px;">8.0</span>                                                                               | <span style="border: 1px solid black; padding: 0 10px;">15.0</span>                         |
| <span style="border: 1px solid black; padding: 0 10px;">7.0</span>                                                                                                                                                                                                                                                                                                                                                | <span style="border: 1px solid black; padding: 0 10px;">0.0</span>                   | <span style="border: 1px solid black; padding: 0 10px;">150</span>                                                                     | <span style="border: 1px solid black; padding: 0 10px;">150</span>                                                                    | <span style="border: 1px solid black; padding: 0 10px;">8.0</span>                                                                               | <span style="border: 1px solid black; padding: 0 10px;">15.0</span>                         |
| FIELD COMMENTS                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                      |                                                                                                                                        |                                                                                                                                       |                                                                                                                                                  |                                                                                             |
| SAMPLE APPEARANCE <u>Good</u> COLOR <u>None</u> CLARITY <u>Clear</u> TURBIDITY <u>Clear</u><br>WEATHER CONDITIONS WIND SPEED <u>5-10</u> DIRECTION <u>SW</u> PRECIPITATION Y/N <u>NO</u> OUTLOOK <u>Sunny-55°F</u><br>SPECIFIC COMMENTS _____<br>_____<br>_____<br>_____<br>_____                                                                                                                                 |                                                                                      |                                                                                                                                        |                                                                                                                                       |                                                                                                                                                  |                                                                                             |
| I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CM PROTOCOLS<br><div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <u>4/19/12</u><br/>DATE             </div> <div style="text-align: center;"> <u>Thomas Bohlen</u><br/>PRINT             </div> <div style="text-align: center;"> <u>Thomas Bohlen</u><br/>SIGNATURE             </div> </div> |                                                                                      |                                                                                                                                        |                                                                                                                                       |                                                                                                                                                  |                                                                                             |

CMC MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

# MONITORING WELL RECORD FOR LOW-FLOW PURGING

## Project Data:

Project Name: Delphi Harrison Thermal Systems Site  
 Ref. No.: 21.00 56546

Date: 4/18/12  
 Personnel: T. Bohlen

## Monitoring Well Data:

Well No.: NW-15  
 Measurement Point: TOR  
 Constructed Well Depth (ft): 17.90  
 Measured Well Depth (ft): 16.81 (14.67' bgs)  
 Depth of Sediment (ft): 3.23'

Screen Length (ft): 8-15 = 7'  
 Depth to Pump Intake (ft)<sup>(1)</sup>: 13'  
 Well Diameter, D (in): 2"  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: 1.56 gal  
 Initial Depth to Water (ft): 8.60' (TOR)

| Time | Pumping Rate (mL/min) | Depth to Water (ft) | Drawdown from Initial Water Level <sup>(3)</sup> (ft) | pH   | Temperature °C | Conductivity (mS/cm) | ORP (mV) | DO (mg/L) | Turbidity (NTU) | Volume Purged, V <sub>p</sub> (gal) | No. of Well Screen Volumes Purged <sup>(4)</sup> |
|------|-----------------------|---------------------|-------------------------------------------------------|------|----------------|----------------------|----------|-----------|-----------------|-------------------------------------|--------------------------------------------------|
| 811  |                       | 8.23                | 0.37                                                  |      |                |                      |          |           |                 |                                     |                                                  |
| 812  |                       | 8.84                | 0.24                                                  | 6.65 | 9.03           | 3.17                 | 250      | 0.00      | 6.0             | 0.2                                 |                                                  |
| 817  |                       | 9.15                | 0.55                                                  | 7.00 | 9.31           | 3.17                 | 231      | 0.00      | 6.1             | 0.5                                 |                                                  |
| 823  |                       | 9.15                | 0.55                                                  | 7.04 | 9.46           | 3.25                 | 222      | 0.00      | 5.1             | 1.0                                 |                                                  |
| 842  | 266 *                 | 9.17                | 0.57                                                  | 7.07 | 9.65           | 3.34                 | 203      | 0.00      | 0.0             | 3.0                                 | 2                                                |
| 846  | ↓                     | 9.17                |                                                       | 7.06 | 9.71           | 3.35                 | 200      | 0.00      | 0.0             | 3.2                                 |                                                  |
| 851  | ↓                     | 9.17                |                                                       | 7.06 | 9.75           | 3.34                 | 178      | 0.00      | 0.0             | 3.8                                 |                                                  |
| 904  | ↓                     | 9.17                | ↓                                                     | 7.07 | 9.84           | 3.34                 | 193      | 0.00      | 0.0             | 5.0                                 | 3.2                                              |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |

## Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi \cdot (D/2)^2 \cdot (5' \cdot 12") \cdot (2.54)^3$
- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

\* measured w/ 2L Bottle & stopwatch

| WELL PURGING FIELD INFORMATION FORM                                                                                                              |                                                                                                                                                    |                                                                                                          |                                                                                                                                       | JOB# <u>56546</u>   |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| SITE/PROJECT NAME: <u>Delphi Harrison Thermal Systems Site</u>                                                                                   |                                                                                                                                                    |                                                                                                          |                                                                                                                                       | WELL# <u>MW-15</u>  |
| WELL PURGING INFORMATION                                                                                                                         |                                                                                                                                                    |                                                                                                          |                                                                                                                                       |                     |
| <u>04/18/12</u><br>PURGE DATE<br>(MM/DD/YY)                                                                                                      | <u>04/18/12</u><br>SAMPLE DATE<br>(MM/DD/YY)                                                                                                       | <u>114</u><br>WATER VOL IN CASING<br>(LITRES/GALLONS)                                                    | <u>810</u><br>ACTUAL VOLUME PURGED<br>(LITRES/GALLONS)                                                                                |                     |
| PURGING AND SAMPLING EQUIPMENT                                                                                                                   |                                                                                                                                                    |                                                                                                          |                                                                                                                                       |                     |
| PURGING EQUIPMENT: DEDICATED <input checked="" type="radio"/> Y <input type="radio"/> N<br>(CIRCLE ONE)                                          |                                                                                                                                                    | SAMPLING EQUIPMENT: DEDICATED <input checked="" type="radio"/> Y <input type="radio"/> N<br>(CIRCLE ONE) |                                                                                                                                       |                     |
| PURGING DEVICE: <u>B</u>                                                                                                                         | A - SUBMERSIBLE PUMP<br>B - PERISTALTIC PUMP<br>C - BLADDER PUMP                                                                                   |                                                                                                          | D - GAS LIFT PUMP<br>E - PURGE PUMP<br>F - DIPPER BOTTLE<br>G - BAILEY<br>H - WATERRAD<br>X - _____<br>PURGING OTHER (SPECIFY) _____  |                     |
| SAMPLING DEVICE: <u>B</u>                                                                                                                        | D - POLYETHYLENE<br>E - POLYETHYLENE<br>F - POLYETHYLENE<br>G - COMBINATION<br>TEFLON/POLYPROPYLENE<br>X - _____<br>SAMPLING OTHER (SPECIFY) _____ |                                                                                                          | X - _____<br>SAMPLING OTHER (SPECIFY) _____                                                                                           |                     |
| PURGING DEVICE: <u>E</u>                                                                                                                         | A - TEFLON<br>B - STAINLESS STEEL<br>C - POLYPROPYLENE                                                                                             |                                                                                                          | D - PVC<br>E - POLYETHYLENE<br>F - SILICONE<br>G - COMBINATION<br>TEFLON/POLYPROPYLENE<br>X - _____<br>SAMPLING OTHER (SPECIFY) _____ |                     |
| SAMPLING DEVICE: <u>E</u>                                                                                                                        | A - TEFLON<br>B - STAINLESS STEEL<br>C - POLYPROPYLENE                                                                                             |                                                                                                          | D - PVC<br>E - POLYETHYLENE<br>F - SILICONE<br>G - COMBINATION<br>TEFLON/POLYPROPYLENE<br>X - _____<br>SAMPLING OTHER (SPECIFY) _____ |                     |
| FILTERING DEVICES 0.15 <input type="checkbox"/> A - IN-LINE DISPOSABLE <input type="checkbox"/> B - PRESSURE <input type="checkbox"/> C - VACUUM |                                                                                                                                                    |                                                                                                          |                                                                                                                                       |                     |
| FIELD MEASUREMENTS                                                                                                                               |                                                                                                                                                    |                                                                                                          |                                                                                                                                       |                     |
| WELL ELEVATION <u>594.04</u> (m/ft)                                                                                                              | GROUNDWATER ELEVATION <u>585.44</u> (m/ft)                                                                                                         |                                                                                                          | WELL DEPTH <u>117.10</u> (m/ft)                                                                                                       |                     |
| DEPTH TO WATER <u>8.60</u> (m/ft)                                                                                                                | pH <u>7.0</u>                                                                                                                                      | TURBIDITY <u>0.10</u> (ntu)                                                                              | CONDUCTIVITY <u>150</u> (µm/cm) AT 25°C                                                                                               | ORP <u>150</u> (mV) |
| DO <u>7.0</u> (mg/L)                                                                                                                             | SAMPLE TEMPERATURE <u>15.0</u> (°C)                                                                                                                |                                                                                                          |                                                                                                                                       |                     |
| FIELD COMMENTS                                                                                                                                   |                                                                                                                                                    |                                                                                                          |                                                                                                                                       |                     |
| SAMPLE APPEARANCE: <u>Good</u> COLOR: <u>None</u> CLARITY: <u>Clear</u> TURBIDITY: <u>Clear</u>                                                  |                                                                                                                                                    |                                                                                                          |                                                                                                                                       |                     |
| WEATHER CONDITIONS: WIND SPEED: <u>0-5</u> DIRECTION: <u>SW</u> PRECIPITATION: <u>Y/N</u> CLOUDS: <u>Sunny ~ 45°F</u>                            |                                                                                                                                                    |                                                                                                          |                                                                                                                                       |                     |
| SPECIFIC COMMENTS: _____                                                                                                                         |                                                                                                                                                    |                                                                                                          |                                                                                                                                       |                     |
| I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE SAMPLING PROTOCOLS                                                         |                                                                                                                                                    |                                                                                                          |                                                                                                                                       |                     |
| DATE: <u>4/18/12</u>                                                                                                                             | PRINT: <u>Thomas Bohlen</u>                                                                                                                        |                                                                                                          | SIGNATURE: <u>Thomas Bohlen</u>                                                                                                       |                     |

ANY MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

# MONITORING WELL RECORD FOR LOW-FLOW PURGING

## Project Data:

Project Name: Delphi Harrison Thermal Sys. Site  
 Ref. No.: 56546.24

Date: 5/4/12  
 Personnel: T. Bohlen

## Monitoring Well Data:

Well No.: MW-15  
 Measurement Point: TOR  
 Constructed Well Depth (ft): 17.90  
 Measured Well Depth (ft): 18.91  
 Depth of Sediment (ft):           

Screen Length (ft): 8-15' = 7'  
 Depth to Pump Intake (ft)<sup>(1)</sup>: 13'  
 Well Diameter, D (in): 2"  
 Well Screen Volume, V<sub>s</sub> (in)<sup>(2)</sup>: 3.1  
 Initial Depth to Water (ft): 7.73

| Time | Pumping Rate (ml/min) | Depth to Water (ft) | Drawdown from Initial Water Level <sup>(3)</sup> (ft) | pH   | Temperature °C | Conductivity (mS/cm) | ORP (mV) | DO (mg/L) | Turbidity (NTU) | Volume Purged, V <sub>p</sub> (ml.) | No. of Well Screen Volumes Purged <sup>(4)</sup> |
|------|-----------------------|---------------------|-------------------------------------------------------|------|----------------|----------------------|----------|-----------|-----------------|-------------------------------------|--------------------------------------------------|
| 1507 | 151                   | 8.21                | 0.48                                                  | 6.40 | 12.07          | 3.373                | 183.0    | 8.20      | 0.0             | 0                                   |                                                  |
| 1512 | ↓                     | 8.35                | 0.62                                                  | 5.96 | 11.09          | 3.314                | 273.4    | 5.43      | 0.0             | 0.2                                 |                                                  |
| 1517 | 303                   | 8.35                | 0.62                                                  | 5.80 | 11.00          | 3.372                | 301.9    | 4.93      | 0.0             | 0.6                                 |                                                  |
| 1522 | ↓                     | 8.35                |                                                       | 5.71 | 10.81          | 3.465                | 337.0    | 4.76      | 0.0             | 1.1                                 |                                                  |
| 1527 | 151                   | 8.35                |                                                       | 5.62 | 10.76          | 3.492                | 357.7    | 4.74      | 0.0             | 1.3                                 |                                                  |
| 1532 | 379                   | 8.35                |                                                       | 5.58 | 10.91          | 3.530                | 377.1    | 4.78      | 0.0             | 1.8                                 |                                                  |
| 1537 | 227                   | 8.35                |                                                       | 5.59 | 10.90          | 3.531                | 382.4    | 4.76      | 0.0             | 2.1                                 |                                                  |
| 1542 | ↓                     | 8.35                |                                                       | 5.60 | 10.93          | 3.535                | 386.2    | 4.73      | 0.0             | 2.4                                 |                                                  |
| 1547 | ↓                     | 8.35                | ↓                                                     | 5.58 | 10.95          | 3.537                | 385.1    | 4.77      | 0.0             | 2.8                                 |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |
|      |                       |                     |                                                       |      |                |                      |          |           |                 |                                     |                                                  |

## Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length.  $V_s = \pi \cdot (D/2)^2 \cdot (5'12) \cdot (2.54)^3$
- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$

|                                                     |                                      |                                 |  |  |  |
|-----------------------------------------------------|--------------------------------------|---------------------------------|--|--|--|
| Form FMG 8.0-01                                     | <b>INSTRUMENT CALIBRATION RECORD</b> |                                 |  |  |  |
| PROJECT <u>Delphi Harrison Thermal Systems Site</u> |                                      | PROJECT MANAGER <u>C. Boron</u> |  |  |  |
| LOCATION <u>Lockport, NY</u>                        |                                      | FIELD REP. <u>T. Bohlen</u>     |  |  |  |
| CLIENT <u>GMCH</u>                                  |                                      | DATE <u>April 2012</u>          |  |  |  |

| Instrument  | Date Calibrated | By | Standard Used | Decontamination, Maintenance, or Repair Performed | Remarks |
|-------------|-----------------|----|---------------|---------------------------------------------------|---------|
| Horiba U-22 | 4/18/12         | VB | Cal Solution  | Calibration                                       | OK      |
| OVM         | "               | "  | Cal Gas Tank  | "                                                 | OK      |
| Horiba U-22 | 4/19/12         | VB | Cal Solution  | Cleaning & Calibration                            | OK      |
| OVM         | "               | "  | Cal Gas Tank  | Calibration                                       | OK      |
| Horiba U-22 | 4/20/12         | VB | Cal Solution  | Cleaning & Calibration                            | OK      |
| OVM         | "               | "  | Cal Gas Tank  | Calibration                                       | OK      |
| YSI         | 5/4/12          | VB | Cal Solutions | Cleaning & Cal.                                   | OK      |
|             |                 |    |               |                                                   |         |
|             |                 |    |               |                                                   |         |
|             |                 |    |               |                                                   |         |
|             |                 |    |               |                                                   |         |

Other Remarks: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER



## INSTRUMENT CALIBRATION REPORT

Pine Environmental Services, Inc.

1900 Brewerton Road  
Mattydale, NY 13211  
Toll-free: (877) 903-PINE (7463)

### Pine Environmental Services, Inc.

Instrument ID 5781  
Description YSI 6920  
Calibrated 4/25/2012

Manufacturer YSI  
Model Number 6920  
Serial Number/ Lot 04E8620AA  
Number  
Location New York  
Department

State Certified  
Status Pass  
Temp °C 19.3  
Humidity % 41

#### Calibration Specifications

Group # 1  
Group Name PH  
Stated Accy Pct of Reading

Range Acc % 0.0000  
Reading Acc % 3.0000  
Plus/Minus 0.00

| <u>Nom In Val / In Val</u> | <u>In Type</u> | <u>Out Val</u> | <u>Out Type</u> | <u>End As</u> | <u>Lft As</u> | <u>Dev%</u> | <u>Pass/Fail</u> |
|----------------------------|----------------|----------------|-----------------|---------------|---------------|-------------|------------------|
| 7.00 / 7.00                | PH             | 7.00           | PH              | 7.00          | 7.00          | 0.00%       | Pass             |
| 4.00 / 4.00                | PH             | 4.00           | PH              | 4.00          | 4.00          | 0.00%       | Pass             |
| 10.00 / 10.00              | PH             | 10.00          | PH              | 9.94          | 9.98          | -0.20%      | Pass             |

Group # 2  
Group Name Turbidity  
Stated Accy Pct of Reading

Range Acc % 0.0000  
Reading Acc % 3.0000  
Plus/Minus 0.00

| <u>Nom In Val / In Val</u> | <u>In Type</u> | <u>Out Val</u> | <u>Out Type</u> | <u>End As</u> | <u>Lft As</u> | <u>Dev%</u> | <u>Pass/Fail</u> |
|----------------------------|----------------|----------------|-----------------|---------------|---------------|-------------|------------------|
| 0.00 / 0.00                | NTU            | 0.00           | NTU             | 0.00          | 0.00          | 0.00%       | Pass             |
| 126.00 / 126.00            | NTU            | 126.00         | NTU             | 126.00        | 126.00        | 0.00%       | Pass             |

Group # 3  
Group Name Conductivity  
Stated Accy Pct of Reading

Range Acc % 0.0000  
Reading Acc % 3.0000  
Plus/Minus 0.000

| <u>Nom In Val / In Val</u> | <u>In Type</u> | <u>Out Val</u> | <u>Out Type</u> | <u>End As</u> | <u>Lft As</u> | <u>Dev%</u> | <u>Pass/Fail</u> |
|----------------------------|----------------|----------------|-----------------|---------------|---------------|-------------|------------------|
| 1.413 / 1.413              | ms/cm          | 1.413          | ms/cm           | 1.413         | 1.413         | 0.00%       | Pass             |

Group # 4  
Group Name Redox (ORP)  
Stated Accy Pct of Reading

Range Acc % 0.0000  
Reading Acc % 3.0000  
Plus/Minus 0.00

| <u>Nom In Val / In Val</u> | <u>In Type</u> | <u>Out Val</u> | <u>Out Type</u> | <u>End As</u> | <u>Lft As</u> | <u>Dev%</u> | <u>Pass/Fail</u> |
|----------------------------|----------------|----------------|-----------------|---------------|---------------|-------------|------------------|
| 240.00 / 240.00            | mv             | 240.00         | mv              | 240.00        | 240.00        | 0.00%       | Pass             |

Group # 5  
Group Name Dissolved Oxygen Span  
Stated Accy Pct of Reading

Range Acc % 0.0000  
Reading Acc % 3.0000  
Plus/Minus 0.00

| <u>Nom In Val / In Val</u> | <u>In Type</u> | <u>Out Val</u> | <u>Out Type</u> | <u>End As</u> | <u>Lft As</u> | <u>Dev%</u> | <u>Pass/Fail</u> |
|----------------------------|----------------|----------------|-----------------|---------------|---------------|-------------|------------------|
|----------------------------|----------------|----------------|-----------------|---------------|---------------|-------------|------------------|



## INSTRUMENT CALIBRATION REPORT

**Pine Environmental Services, Inc.**

1900 Brewerton Road  
Mattydale, NY 13211  
Toll-free: (877) 903-PINE (7463)

### Pine Environmental Services, Inc.

**Instrument ID** 5781  
**Description** YSI 6920  
**Calibrated** 4/25/2012

|                                         |                |                                     |                 |                                    |               |             |                  |
|-----------------------------------------|----------------|-------------------------------------|-----------------|------------------------------------|---------------|-------------|------------------|
| <b>Group #</b> 5                        |                |                                     |                 | <b>Range Acc %</b> 0.0000          |               |             |                  |
| <b>Group Name</b> Dissolved Oxygen Span |                |                                     |                 | <b>Reading Acc %</b> 3.0000        |               |             |                  |
| <b>Stated Accy</b> Pct of Reading       |                |                                     |                 | <b>Plus/Minus</b> 0.00             |               |             |                  |
| <u>Nom In Val / In Val</u>              | <u>In Type</u> | <u>Out Val</u>                      | <u>Out Type</u> | <u>Fnd As</u>                      | <u>Lft As</u> | <u>Dev%</u> | <u>Pass/Fail</u> |
| 100.00 / 100.00                         | %              | 100.00                              | %               | 100.00                             | 100.00        | 0.00%       | Pass             |
| <hr/>                                   |                |                                     |                 |                                    |               |             |                  |
| <b>Group #</b> 6                        |                |                                     |                 |                                    |               |             |                  |
| <b>Group Name</b> Dissolved Oxygen Zero |                |                                     |                 |                                    |               |             |                  |
| <b>Test Performed:</b> No               |                | <b>As Found Result:</b> Not Entered |                 | <b>As Left Result:</b> Not Entered |               |             |                  |

#### Test Instruments Used During the Calibration

(As Of Cal Entry Date)

| <u>Test Standard ID</u> | <u>Description</u> | <u>Manufacturer</u> | <u>Model Number</u> | <u>Serial Number /<br/>Lot Number</u> | <u>Next Cal Date /<br/>Expiration Date</u> |            |
|-------------------------|--------------------|---------------------|---------------------|---------------------------------------|--------------------------------------------|------------|
|                         |                    |                     |                     |                                       | <u>Last Cal Date/<br/>Opened Date</u>      |            |
| NY COND<br>1.413 9084   | NY COND 1.413      | Aurical             | SL20014-5G          | 9084                                  |                                            | 7/12/2012  |
| NY ORP 240<br>MV 2981   | NY ORP 240 mV      | Hanna               | SL50005-500         | 2981                                  |                                            | 1/31/2016  |
| NY PH 10<br>2101326     | NY PH 10           | VWR                 | SL10010-5G          | 2101326                               |                                            | 7/31/2012  |
| NY PH 4                 | NY PH 4            | VWR                 | SL10004-5G          | 2010169                               |                                            | 9/30/2012  |
| NY PH 7                 | NY PH 7            | VWR                 | SL1007-5G           | 2011038                               |                                            | 10/31/2012 |

#### Notes about this calibration

**Calibration Result** Calibration Successful

**Who Calibrated** Joe Filippi

All instruments are calibrated by Pine Environmental Services, Inc. according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

**Notify Pine Environmental Services, Inc. of any defect within 24 hours of receipt of equipment**  
**Please call 866-960-7463 for Technical Assistance**



## INSTRUMENT CALIBRATION REPORT

**Pine Environmental Services, Inc.**

2225 Tomlynn Street  
Richmond, Va. 23230  
Toll-free: (866) 801-PINE (7463)

### Pine Environmental Services, Inc.

**Instrument ID** 15020  
**Description** MiniRae 3000  
**Calibrated** 4/23/2012

**Manufacturer** Rae Systems  
**Model Number** PGM-7320  
**Serial Number/ Lot Number** 592-902204  
**Location** Virginia  
**Department**

**State Certified**  
**Status** Pass  
**Temp °C** 18  
**Humidity %** 34

#### Calibration Specifications

**Group #** 1  
**Group Name** Isobutylene  
**Stated Accy** Pct of Reading

**Range Acc %** 0.0000  
**Reading Acc %** 3.0000  
**Plus/Minus** 0.00

| <u>Nom In Val / In Val</u> | <u>In Type</u> | <u>Out Val</u> | <u>Out Type</u> | <u>Fnd As</u> | <u>Lft As</u> | <u>Dev%</u> | <u>Pass/Fail</u> |
|----------------------------|----------------|----------------|-----------------|---------------|---------------|-------------|------------------|
| 100.00 / 100.00            | PPM            | 100.00         | PPM             | 100.00        | 100.00        | 0.00%       | Pass             |

#### Test Instruments Used During the Calibration

(As Of Cal Entry Date)

| <u>Test Standard ID</u>        | <u>Description</u> | <u>Manufacturer</u>   | <u>Model Number</u> | <u>Serial Number / Lot Number</u> | <u>Next Cal Date / Last Cal Date/ Expiration Date</u> |
|--------------------------------|--------------------|-----------------------|---------------------|-----------------------------------|-------------------------------------------------------|
| NY ISO 100<br>LOT#<br>0319FD12 | NY ISO 100         | American Gas<br>Group | GP11015             | 0319FD12                          | 4/30/2016                                             |

#### Notes about this calibration

**Calibration Result** Calibration Successful  
**Who Calibrated** Timothy Walsh

All instruments are calibrated by Pine Environmental Services, Inc. according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

**Notify Pine Environmental Services, Inc. of any defect within 24 hours of receipt of equipment**  
**Please call 866-960-7463 for Technical Assistance**

## **APPENDIX B**

### **GRAPHS OF MONITORING WELL ANALYTICAL DATA FOR THE COCs**

MW-4 Groundwater Data  
Delphi Harrison Thermal Systems Site  
GM Components Holdings, LLC  
Lockport, New York

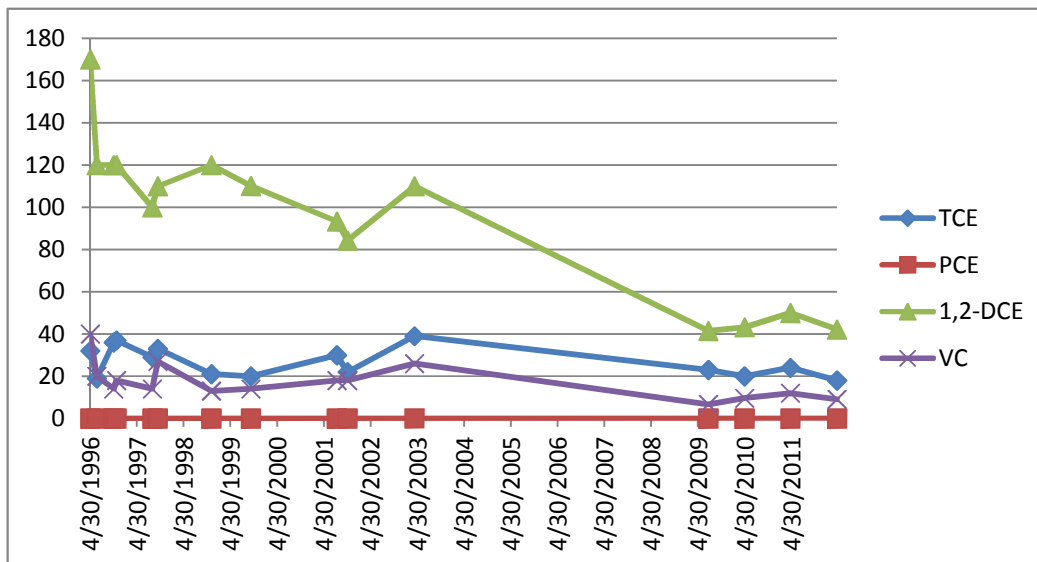
| Date       | TCE | PCE    | 1,2-DCE | VC  |
|------------|-----|--------|---------|-----|
| 4/30/1996  | 32  | <0.5   | 170     | 40  |
| 6/20/1996  | 19  | <0.5   | 120     | 20  |
| 10/30/1996 | 36  | <0.5   | 120     | 14  |
| 11/21/1996 | 37  | <0.5   | 120     | 18  |
| 8/28/1997  | 29  | <0.5   | 100     | 14  |
| 10/10/1997 | 33  | <0.2   | 110     | 27  |
| 12/2/1998  | 21  | <0.2   | 120     | 13  |
| 10/7/1999  | 20  | <0.05  | 110.14  | 14  |
| 8/9/2001   | 30  | 0.003  | 93.28   | 18  |
| 10/31/2001 | 22  | <0.002 | 84.25   | 18  |
| 4/7/2003   | 39  | 0.08   | 110     | 26  |
| 7/20/2009  | 23  | <0.05  | 41.5    | 6.7 |
| 4/29/2010  | 20  | 0.0012 | 43.2    | 9.6 |
| 4/22/2011  | 24  | 0.0018 | 50      | 12  |
| 4/20/2012  | 18  | 0.0014 | 42.16   | 9.1 |

Notes:

Results are provided in parts per million (ppm)

Duplicate samples were collected from this location on 6/20/96, 10/30/96 and 12/2/98.

The higher of the two concentrations were recorded in this graph.

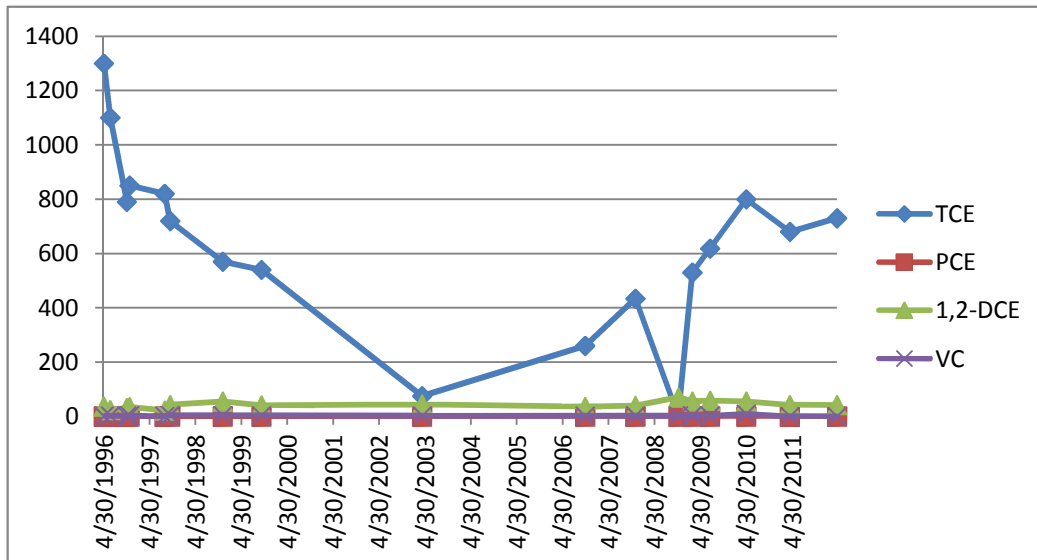


MW-7 Groundwater Data  
Delphi Harrison Thermal Systems Site  
GM Components Holdings, LLC  
Lockport, New York

| Date       | TCE  | PCE   | 1,2-DCE | VC   |
|------------|------|-------|---------|------|
| 4/30/1996  | 1300 | <0.5  | 37      | 1.8  |
| 6/20/1996  | 1100 | <0.5  | 24      | 2.4  |
| 10/30/1996 | 790  | <0.5  | 32      | 2.3  |
| 11/21/1996 | 850  | <0.5  | 35      | 3.1  |
| 8/28/1997  | 820  | <0.2  | 22      | 1.1  |
| 10/10/1997 | 720  | <0.2  | 43      | 4.8  |
| 12/3/1998  | 570  | <0.2  | 55      | 4.2  |
| 10/7/1999  | 540  | <0.5  | 41      | 3.5  |
| 4/7/2003   | 75   | <0.2  | 45      | 3    |
| 10/25/2006 | 260  | 0.077 | 36      | 1.7  |
| 11/29/2007 | 434  | 0.049 | 40      | 3.2  |
| 11/5/2008  | 1.1  | <0.2  | 70      | 2.6  |
| 2/24/2009  | 530  | 0.071 | 56      | 3.6  |
| 7/15/2009  | 618  | 0.112 | 58.3    | 2.5  |
| 4/29/2010  | 800  | 0.14  | 55.2    | 9    |
| 4/11/2011  | 680  | <1.8  | 42      | <4.5 |
| 4/20/2012  | 730  | <1.8  | 43      | <4.5 |

Notes:

Results are provided in parts per million (ppm)

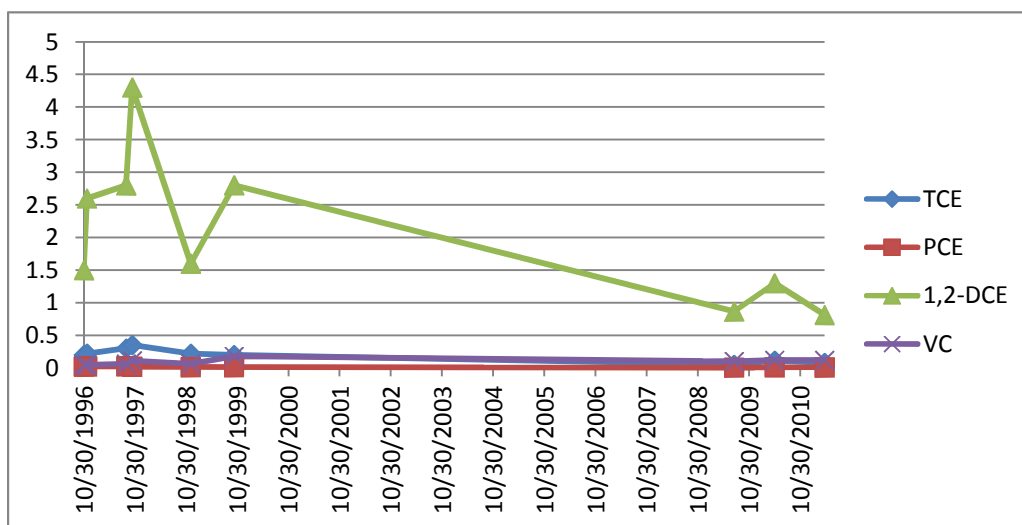


MW-8 Groundwater Data  
Delphi Harrison Thermal Systems Site  
GM Components Holdings, LLC  
Lockport, New York

| Date       | TCE   | PCE   | 1,2-DCE | VC    |
|------------|-------|-------|---------|-------|
| 10/30/1996 | 0.2   | 0.024 | 1.5     | 0.047 |
| 11/21/1996 | 0.22  | 0.022 | 2.6     | 0.049 |
| 8/28/1997  | 0.3   | 0.028 | 2.8     | 0.062 |
| 10/10/1997 | 0.35  | 0.018 | 4.3     | 0.11  |
| 12/2/1998  | 0.22  | 0.012 | 1.6     | 0.062 |
| 10/7/1999  | 0.2   | 0.011 | 2.802   | 0.18  |
| 7/15/2009  | 0.05  | 0.005 | 0.865   | 0.1   |
| 4/30/2010  | 0.11  | 0.013 | 1.3     | 0.12  |
| 4/22/2011  | 0.078 | 0.008 | 0.813   | 0.12  |

Notes:

Results are provided in parts per million (ppm)



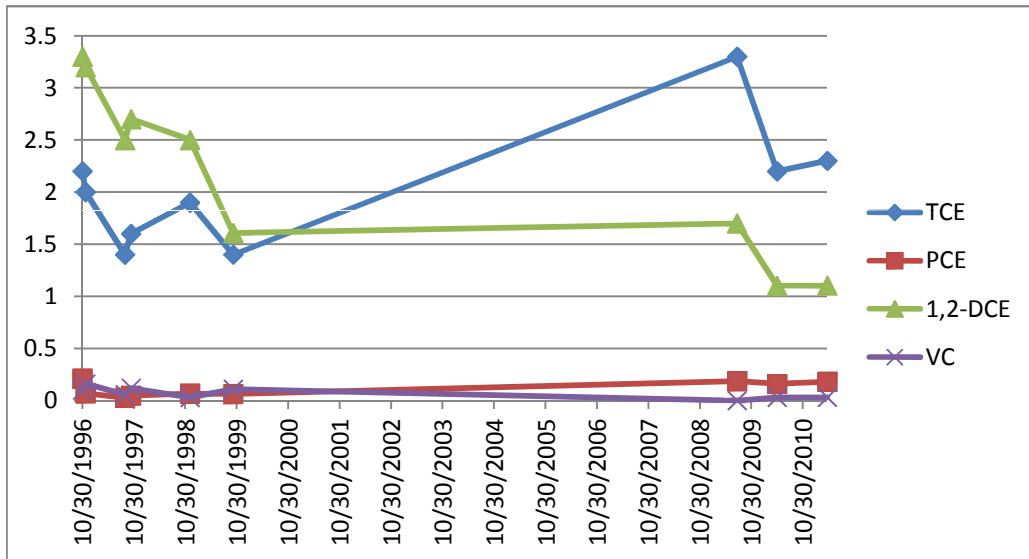
MW-9 Groundwater Data  
Delphi Harrison Thermal Systems Site  
GM Components Holdings, LLC  
Lockport, New York

| Date       | TCE | PCE   | 1,2-DCE | VC    |
|------------|-----|-------|---------|-------|
| 10/30/1996 | 2.2 | 0.21  | 3.3     | 0.1   |
| 11/21/1996 | 2   | 0.07  | 3.2     | 0.16  |
| 8/28/1997  | 1.4 | 0.027 | 2.5     | 0.056 |
| 10/10/1997 | 1.6 | 0.047 | 2.7     | 0.12  |
| 12/2/1998  | 1.9 | 0.066 | 2.5     | 0.03  |
| 10/5/1999  | 1.4 | 0.062 | 1.608   | 0.11  |
| 7/20/2009  | 3.3 | 0.186 | 1.7     | <0.05 |
| 4/30/2010  | 2.2 | 0.16  | 1.1     | 0.031 |
| 4/22/2011  | 2.3 | 0.18  | 1.105   | 0.032 |

Notes:

Results are provided in parts per million (ppm)

Duplicate samples were collected from this location on 11/21/96 and 10/5/99. The higher of the two concentrations were recorded in this graph.

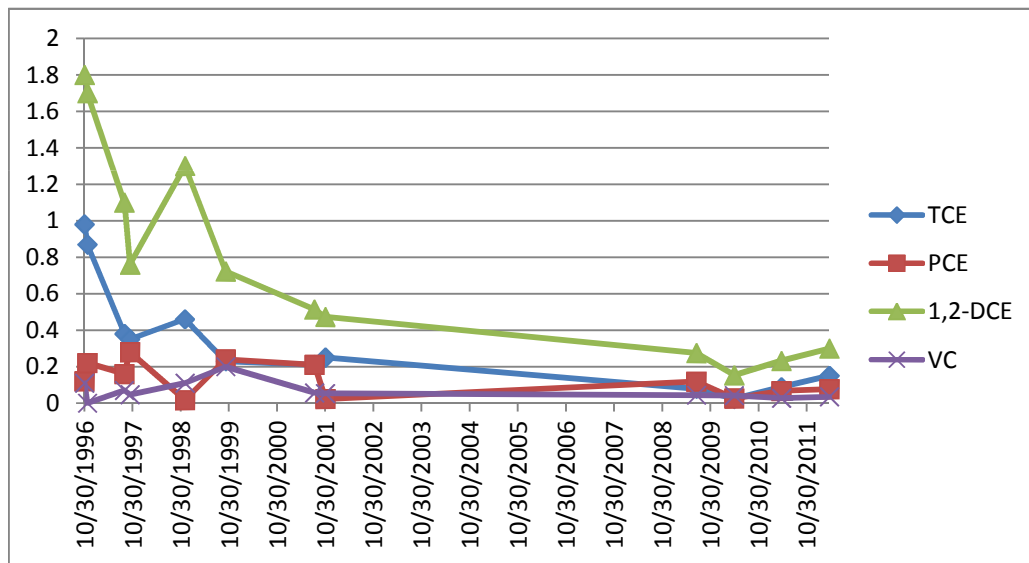


MW-10 Groundwater Data  
Delphi Harrison Thermal Systems Site  
GM Components Holdings, LLC  
Lockport, New York

| Date       | TCE   | PCE   | 1,2-DCE | VC    |
|------------|-------|-------|---------|-------|
| 10/30/1996 | 0.98  | 0.12  | 1.8     | 0.11  |
| 11/21/1996 | 0.87  | 0.22  | 1.7     | <0.1  |
| 8/28/1997  | 0.38  | 0.16  | 1.1     | 0.07  |
| 10/10/1997 | 0.35  | 0.28  | 0.76    | 0.047 |
| 12/1/1998  | 0.46  | 0.016 | 1.3     | 0.11  |
| 10/6/1999  | 0.23  | 0.24  | 0.722   | 0.2   |
| 8/9/2001   | 0.21  | 0.21  | 0.514   | 0.057 |
| 10/31/2001 | 0.25  | 0.023 | 0.473   | 0.053 |
| 7/15/2009  | 0.079 | 0.118 | 0.275   | 0.044 |
| 4/28/2010  | 0.024 | 0.026 | 0.153   | 0.042 |
| 4/21/2011  | 0.088 | 0.067 | 0.232   | 0.027 |
| 4/19/2012  | 0.15  | 0.077 | 0.3     | 0.035 |

Notes:

Results are provided in parts per million (ppm)



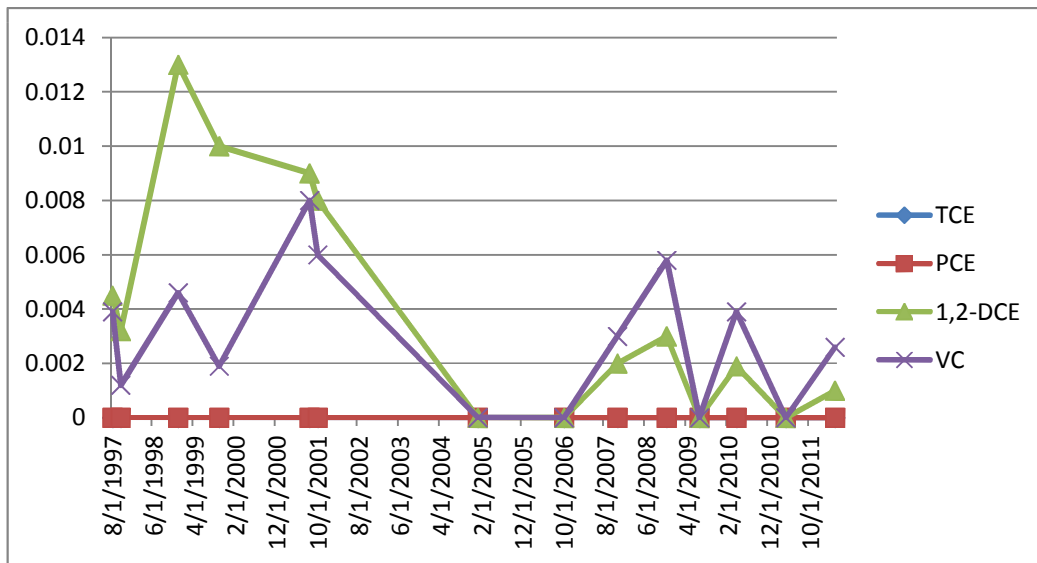
MW-11 Groundwater Data  
Delphi Harrison Thermal Systems Site  
GM Components Holdings, LLC  
Lockport, New York

| Date       | TCE     | PCE     | 1,2-DCE | VC      |
|------------|---------|---------|---------|---------|
| 8/28/1997  | <0.0005 | <0.0005 | 0.0045  | 0.0039  |
| 10/10/1997 | <0.0005 | <0.0005 | 0.0032  | 0.0012  |
| 12/1/1998  | <0.0005 | <0.0005 | 0.013   | 0.0046  |
| 10/5/1999  | <0.0005 | <0.0005 | 0.01    | 0.0019  |
| 8/8/2001   | <0.002  | <0.002  | 0.009   | 0.008   |
| 10/30/2001 | <0.002  | <0.002  | 0.008   | 0.006   |
| 1/12/2005  | <0.002  | <0.002  | <0.002  | <0.002  |
| 10/24/2006 | <0.002  | <0.002  | <0.002  | <0.002  |
| 11/28/2007 | <0.002  | <0.002  | 0.002   | 0.003   |
| 11/4/2008  | <0.002  | <0.002  | 0.003   | 0.0058  |
| 7/16/2009  | <0.005  | <0.005  | <0.005  | <0.005  |
| 4/28/2010  | <0.0005 | <0.0004 | 0.0019  | 0.0039  |
| 4/21/2011  | <0.0005 | <0.0004 | <0.0008 | <0.0009 |
| 4/19/2012  | <0.0005 | <0.0004 | 0.001   | 0.0026  |

Notes:

Results are provided in parts per million (ppm)

Duplicate samples were collected from this location on 10/10/97. The higher of the two concentrations were recorded in this graph.



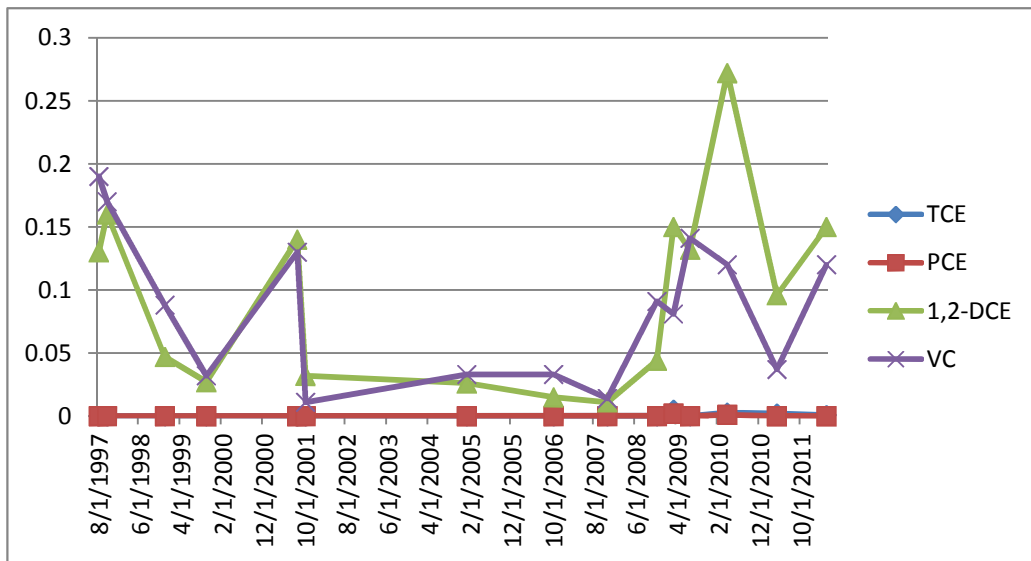
MW-12 Groundwater Data  
Delphi Harrison Thermal Systems Site  
GM Components Holdings, LLC  
Lockport, New York

| Date       | TCE     | PCE     | 1,2-DCE | VC    |
|------------|---------|---------|---------|-------|
| 8/28/1997  | <0.0005 | <0.0005 | 0.13    | 0.19  |
| 10/10/1997 | <0.0005 | <0.0005 | 0.16    | 0.17  |
| 12/1/1998  | <0.0005 | <0.0005 | 0.047   | 0.088 |
| 10/6/1999  | <0.0005 | <0.0005 | 0.027   | 0.032 |
| 8/8/2001   | <0.002  | <0.002  | 0.14    | 0.13  |
| 10/30/2001 | <0.002  | <0.002  | 0.032   | 0.011 |
| 1/12/2005  | <0.002  | <0.002  | 0.026   | 0.033 |
| 10/25/2006 | <0.002  | <0.002  | 0.015   | 0.033 |
| 11/28/2007 | <0.002  | <0.002  | 0.011   | 0.014 |
| 11/14/2008 | <0.002  | <0.002  | 0.044   | 0.091 |
| 3/16/2009  | 0.005   | 0.002   | 0.15    | 0.081 |
| 7/16/2009  | <0.005  | <0.005  | 0.132   | 0.141 |
| 4/28/2010  | 0.0028  | 0.0011  | 0.272   | 0.12  |
| 4/20/2011  | 0.0021  | <0.0004 | 0.096   | 0.037 |
| 4/18/2012  | 0.00083 | <0.0004 | 0.15    | 0.12  |

Notes:

Results are provided in parts per million (ppm)

Duplicate samples were collected from this location on 8/28/97 and 8/8/01. The higher of the two concentrations were recorded in this graph.



MW-13 Groundwater Data  
Delphi Harrison Thermal Systems Site  
GM Components Holdings, LLC  
Lockport, New York

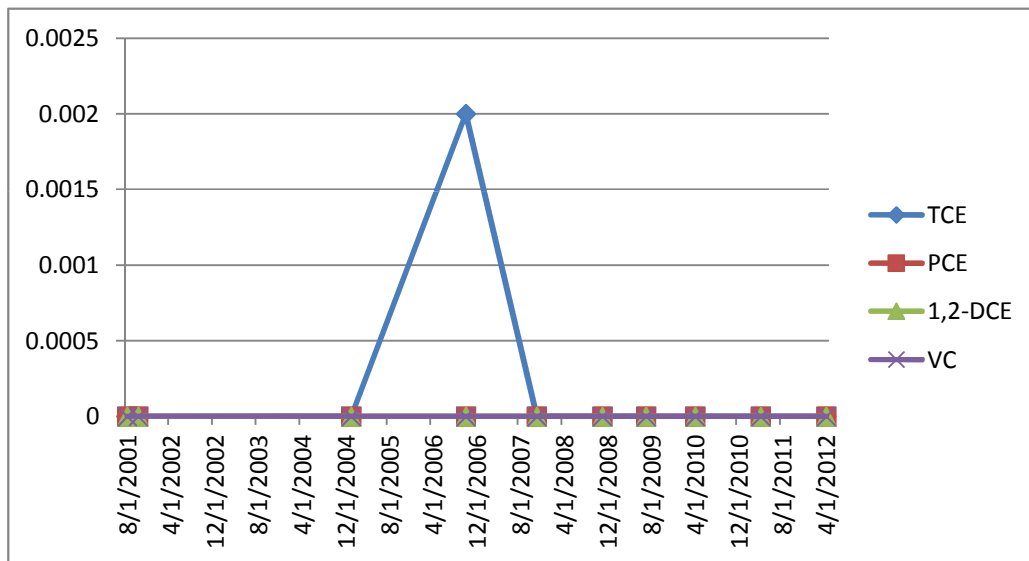
| Date       | TCE     | PCE     | 1,2-DCE | VC      |
|------------|---------|---------|---------|---------|
| 8/8/2001   | <0.002  | <0.002  | <0.002  | <0.002  |
| 10/29/2001 | <0.002  | <0.002  | <0.002  | <0.002  |
| 1/12/2005  | <0.002  | <0.002  | <0.002  | <0.002  |
| 10/24/2006 | 0.002   | <0.002  | <0.002  | <0.002  |
| 11/28/2007 | <0.002  | <0.002  | <0.002  | <0.002  |
| 11/5/2008  | <0.002  | <0.002  | <0.002  | <0.002  |
| 7/16/2009  | <0.005  | <0.005  | <0.005  | <0.005  |
| 4/28/2010  | <0.0005 | <0.0004 | <0.0008 | <0.0009 |
| 4/21/2011  | <0.0005 | <0.0004 | <0.0008 | <0.0009 |
| 4/19/2012  | <0.0005 | <0.0004 | <0.0008 | <0.0009 |

Notes:

Results are provided in parts per million (ppm)

A duplicate sample was collected from this location on 4/19/2012.

The higher of the two concentrations were recorded in this graph.

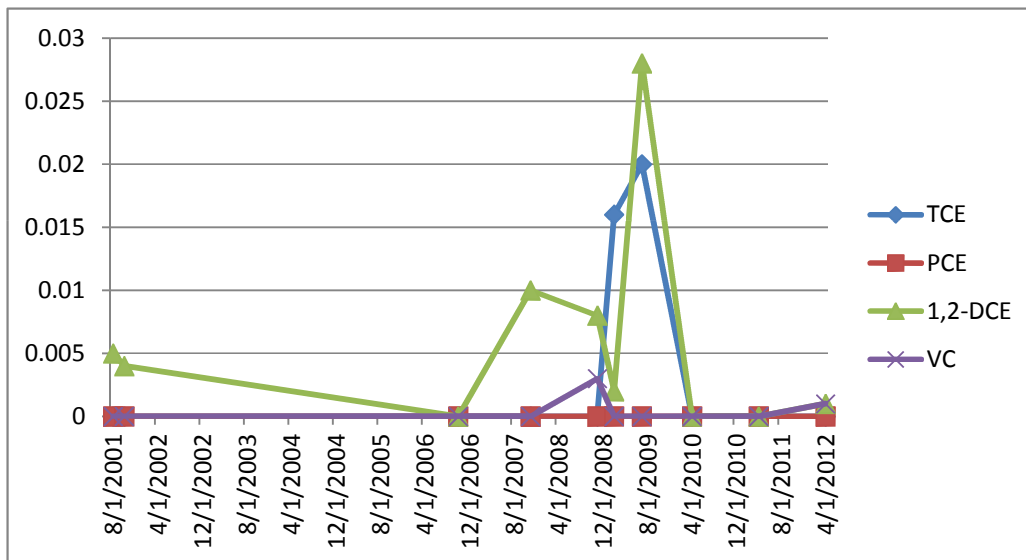


MW-14 Groundwater Data  
Delphi Harrison Thermal Systems Site  
GM Components Holdings, LLC  
Lockport, New York

| Date       | TCE    | PCE     | 1,2-DCE | VC      |
|------------|--------|---------|---------|---------|
| 8/10/2001  | <0.002 | <0.002  | 0.005   | <0.002  |
| 10/30/2001 | <0.002 | <0.002  | 0.004   | <0.002  |
| 10/24/2006 | <0.002 | <0.002  | <0.002  | <0.002  |
| 11/29/2007 | <0.002 | <0.002  | 0.01    | <0.002  |
| 11/4/2008  | <0.002 | <0.002  | 0.008   | 0.003   |
| 2/24/2009  | 0.016  | <0.002  | 0.002   | <0.002  |
| 7/19/2009  | 0.02   | <0.005  | 0.028   | <0.005  |
| 4/27/2010  | <0.005 | <0.0004 | <0.0008 | <0.0009 |
| 4/21/2011  | <0.005 | <0.0004 | <0.0008 | <0.0009 |
| 4/19/2012  | <0.005 | <0.0004 | 0.001   | 0.001   |

Notes:

Results are provided in parts per million (ppm)



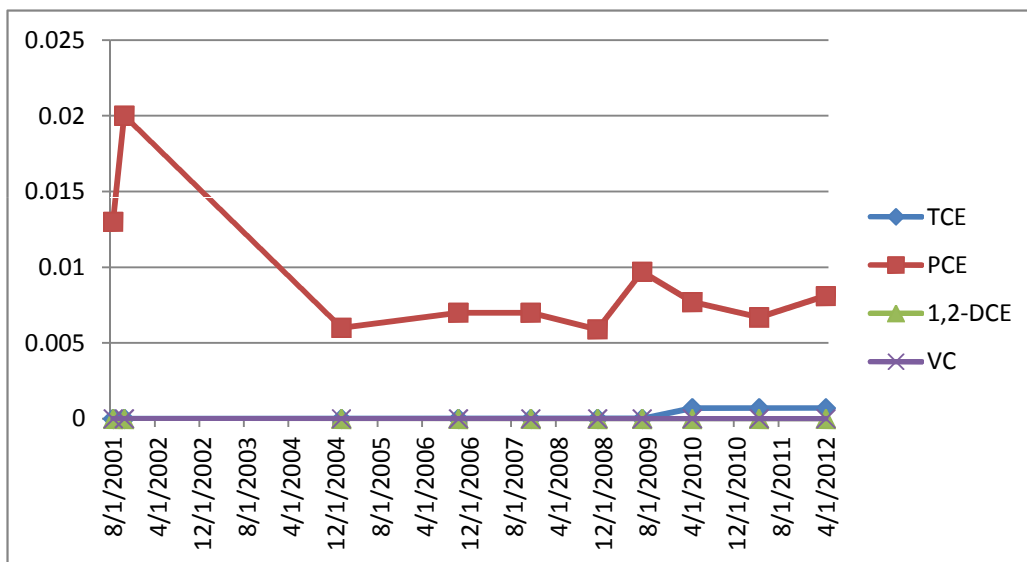
MW-15 Groundwater Data  
Delphi Harrison Thermal Systems Site  
GM Components Holdings, LLC  
Lockport, New York

| Date       | TCE    | PCE    | 1,2-DCE | VC      |
|------------|--------|--------|---------|---------|
| 8/8/2001   | <0.002 | 0.013  | <0.002  | <0.002  |
| 10/30/2001 | <0.002 | 0.02   | <0.002  | <0.002  |
| 1/12/2005  | <0.002 | 0.006  | <0.002  | <0.002  |
| 10/24/2006 | <0.002 | 0.007  | <0.002  | <0.002  |
| 11/28/2007 | <0.002 | 0.007  | <0.002  | <0.002  |
| 11/4/2008  | <0.002 | 0.0059 | <0.002  | <0.002  |
| 7/16/2009  | <0.005 | 0.0097 | <0.005  | <0.005  |
| 4/28/2010  | 0.0007 | 0.0077 | <0.0008 | <0.0009 |
| 4/21/2011  | 0.0007 | 0.0067 | <0.0008 | <0.0009 |
| 4/18/2012  | 0.0007 | 0.0081 | <0.0008 | <0.0009 |

Notes:

Results are provided in parts per million (ppm)

Duplicate samples were collected from this location on 10/30/01. The higher of the two concentrations were recorded in this graph.



## **APPENDIX C**

### **TEST AMERICA ANALYTICAL LABORATORY REPORT**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-18764-1

Client Project/Site: 058507, GM-Lockport Groundwater  
Sampling

Revision: 1

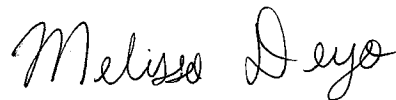
For:

Conestoga-Rovers & Associates, Inc.

2055 Niagara Falls Blvd., Suite 3

Niagara Falls, New York 14304

Attn: Kathleen Willy



Authorized for release by:

5/16/2012 1:57:31 PM

Melissa Deyo

Project Manager I

[melissa.deyo@testamericainc.com](mailto:melissa.deyo@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

Results relate only to the items tested and the sample(s) as received by the laboratory.

# Table of Contents

|                                  |    |
|----------------------------------|----|
| Cover Page . . . . .             | 1  |
| Table of Contents . . . . .      | 2  |
| Definitions/Glossary . . . . .   | 3  |
| Case Narrative . . . . .         | 4  |
| Detection Summary . . . . .      | 7  |
| Client Sample Results . . . . .  | 11 |
| Surrogate Summary . . . . .      | 21 |
| QC Sample Results . . . . .      | 22 |
| QC Association Summary . . . . . | 40 |
| Lab Chronicle . . . . .          | 48 |
| Certification Summary . . . . .  | 53 |
| Method Summary . . . . .         | 54 |
| Sample Summary . . . . .         | 55 |
| Subcontract Data . . . . .       | 56 |
| Chain of Custody . . . . .       | 81 |
| Receipt Checklists . . . . .     | 84 |



## Definitions/Glossary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

### Qualifiers

#### GC/MS VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| E         | Result exceeded calibration range.                                                                             |
| B         | Compound was found in the blank and sample.                                                                    |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### GC VOA

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| B         | Compound was found in the blank and sample.                                                                    |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| B         | Compound was found in the blank and sample.                                                                    |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| B         | Compound was found in the blank and sample.                                                                    |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

#### Metals

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4         | MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable. |
| B         | Compound was found in the blank and sample.                                                                                                               |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

#### General Chemistry

| Qualifier | Qualifier Description                                                                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |
| B         | Compound was found in the blank and sample.                                                                                                               |
| F         | MS or MSD exceeds the control limits                                                                                                                      |
| B         | Compound was found in the blank and sample.                                                                                                               |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |
| B         | Compound was found in the blank and sample.                                                                                                               |
| 4         | MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable. |
| F         | MS or MSD exceeds the control limits                                                                                                                      |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.                                            |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                |
|----------------|------------------------------------------------------------------------------------------------------------|
| ☼              | Listed under the "D" column to designate that the result is reported on a dry weight basis                 |
| %R             | Percent Recovery                                                                                           |
| CNF            | Contains no Free Liquid                                                                                    |
| DL, RA, RE, IN | Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| EDL            | Estimated Detection Limit                                                                                  |
| EPA            | United States Environmental Protection Agency                                                              |
| MDL            | Method Detection Limit                                                                                     |
| ML             | Minimum Level (Dioxin)                                                                                     |
| ND             | Not detected at the reporting limit (or MDL or EDL if shown)                                               |
| PQL            | Practical Quantitation Limit                                                                               |
| QC             | Quality Control                                                                                            |
| RL             | Reporting Limit                                                                                            |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                       |
| TEF            | Toxicity Equivalent Factor (Dioxin)                                                                        |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)                                                                      |

## Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Job ID: 480-18764-1**

**Laboratory: TestAmerica Buffalo**

### Narrative

#### Job Narrative 480-18764-1

#### Receipt

The samples were received on 4/18/2012 5:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

#### GC/MS VOA

Method 8260B: The following sample was diluted due to the abundance of target analytes: MW-12-048112-1530 (480-18764-3 DL). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### IC

No analytical or quality issues were noted.

#### GC VOA

Method RSK-175: The following samples were diluted due to the abundance of target analytes: MW-12-048112-1530 (480-18764-3). Elevated reporting limits (RLs) are provided.

Method RSK-175: The method blank for batch 60876 contained Ethane, Ethene and Methane above the method detection limit. These target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

#### Metals

No analytical or quality issues were noted.

#### General Chemistry

Method 9038: The method blank for batch 61992 contained Sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-analysis of samples was not performed.

Method SM 4500 S2 D: The matrix spike (MS) recovery for batch 60531 was outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. (480-18764-3 MS)

No other analytical or quality issues were noted.

#### Job Narrative 480-18852-1

#### Receipt

The samples were received on 4/19/2012 4:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.7° C.

#### GC/MS VOA

Method 8260B: The following samples was diluted due to the abundance of target analytes: MW-10-041912-1520 (480-18852-3). Elevated reporting limits (RLs) are provided.

Method 8260B: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: DUP-041912-0001 (480-18852-4). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

#### IC

## Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

### Job ID: 480-18764-1 (Continued)

#### Laboratory: TestAmerica Buffalo (Continued)

No analytical or quality issues were noted.

#### GC VOA

Method RSK-175: The following samples were diluted due to the abundance of target analytes: MW-13-041912-0845 (480-18852-1), MW-14-041912-1315 (480-18852-2), MW-10-041912-1520 (480-18852-3) and DUP-041912-0001 (480-18852-4). Elevated reporting limits (RLs) are provided.

Method RSK-175: The method blank for batch 60876 contained Ethane, Ethene and Methane above the method detection limit. These target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

#### Metals

No analytical or quality issues were noted.

#### General Chemistry

Method 9038: The method blanks for batch 61648 contained Sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method SM 4500 Cl- E: The method blanks for batch 61649 contained Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

### Job Narrative 480-18943-1

#### Receipt

The samples were received on 4/20/2012 5:27 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.6° C.

#### GC/MS VOA

Method 8260B: The analyte trans-1,2-Dichloroethene was detected in the following sample at a concentration above the linear range of the initial calibration curve: MW-4-042012-1300 (480-18943-1). Due to the high dilution dictated by other target compounds, this analyte was diluted out in the re-analysis of the sample. Therefore, the value being reported is from the original analysis and is qualified with an "E" qualifier.

Method 8260B: The following samples were diluted due to the abundance of target analytes: MW-4-042012-1300 (480-18943-1 DL) and MW-7-042012-1630 (480-18943-2). Elevated reporting limits (RLs) are provided.

Method 8260B: The method blank for batch 61974 contained Trichloroethene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

#### IC

No analytical or quality issues were noted.

#### GC VOA

Method RSK-175: The following sample was diluted due to the abundance of target analytes: MW-4-042012-1300 (480-18943-1). Elevated reporting limits (RLs) are provided.

Method RSK-175: The method blank for batch 60876 contained Ethane, Ethene and Methane above the method detection limit. These target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

## Case Narrative

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

---

### Job ID: 480-18764-1 (Continued)

---

#### Laboratory: TestAmerica Buffalo (Continued)

performed.

No other analytical or quality issues were noted.

#### Metals

Method 6010B: The method blank for preparation batch 60930 contained Manganese above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

#### General Chemistry

Method 9038: The matrix spike (MS) recoveries for batch 61946 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. (480-18943-1 MS)

Method 9038: The method blanks for batch 61946 contained Sulfate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

## Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-15-041812-0900**

**Lab Sample ID: 480-18764-1**

| Analyte              | Result | Qualifier | RL     |         | Unit | Dil Fac | D | Method        | Prep Type |
|----------------------|--------|-----------|--------|---------|------|---------|---|---------------|-----------|
| Hydrogen             | 0.82   |           | 0.60   |         | nm   | 1       |   | AM20GAX       | Total/NA  |
| Analyte              | Result | Qualifier | RL     | MDL     | Unit | Dil Fac | D | Method        | Prep Type |
| Tetrachloroethene    | 8.1    |           | 1.0    | 0.36    | ug/L | 1       |   | 8260B         | Total/NA  |
| Trichloroethene      | 0.65   | J         | 1.0    | 0.46    | ug/L | 1       |   | 8260B         | Total/NA  |
| Ethane               | 0.78   | J B       | 1.5    | 0.49    | ug/L | 1       |   | RSK-175       | Total/NA  |
| Ethene               | 0.64   | J B       | 1.5    | 0.52    | ug/L | 1       |   | RSK-175       | Total/NA  |
| Methane              | 0.47   | J B       | 1.0    | 0.22    | ug/L | 1       |   | RSK-175       | Total/NA  |
| Magnesium            | 54.4   |           | 0.20   | 0.043   | mg/L | 1       |   | 6010B         | Total/NA  |
| Manganese            | 0.24   |           | 0.0030 | 0.00040 | mg/L | 1       |   | 6010B         | Total/NA  |
| Potassium            | 3.3    |           | 0.50   | 0.10    | mg/L | 1       |   | 6010B         | Total/NA  |
| Sodium               | 424    |           | 1.0    | 0.32    | mg/L | 1       |   | 6010B         | Total/NA  |
| Nitrate              | 0.73   |           | 0.050  | 0.011   | mg/L | 1       |   | 353.2         | Total/NA  |
| Sulfate              | 111    |           | 20.0   | 6.0     | mg/L | 4       |   | 9038          | Total/NA  |
| Total Organic Carbon | 2.0    |           | 1.0    | 0.43    | mg/L | 1       |   | 9060          | Total/NA  |
| Total Alkalinity     | 384    |           | 5.0    | 0.79    | mg/L | 1       |   | SM 2320B      | Total/NA  |
| Chloride             | 962    |           | 25.0   | 11.5    | mg/L | 25      |   | SM 4500 Cl- E | Total/NA  |
| Analyte              | Result | Qualifier | RL     | RL      | Unit | Dil Fac | D | Method        | Prep Type |
| Carbon dioxide       | 11000  |           | 2000   | 2000    | ug/L | 2       |   | RSK-175       | Total/NA  |

**Client Sample ID: MW-11-041812-1245**

**Lab Sample ID: 480-18764-2**

| Analyte                | Result | Qualifier | RL     |         | Unit | Dil Fac | D | Method        | Prep Type |
|------------------------|--------|-----------|--------|---------|------|---------|---|---------------|-----------|
| Hydrogen               | 12     |           | 0.60   |         | nm   | 1       |   | AM20GAX       | Total/NA  |
| Analyte                | Result | Qualifier | RL     | MDL     | Unit | Dil Fac | D | Method        | Prep Type |
| cis-1,2-Dichloroethene | 1.4    |           | 1.0    | 0.81    | ug/L | 1       |   | 8260B         | Total/NA  |
| Vinyl chloride         | 2.6    |           | 1.0    | 0.90    | ug/L | 1       |   | 8260B         | Total/NA  |
| Ethane                 | 0.99   | J B       | 1.5    | 0.49    | ug/L | 1       |   | RSK-175       | Total/NA  |
| Ethene                 | 1.3    | J B       | 1.5    | 0.52    | ug/L | 1       |   | RSK-175       | Total/NA  |
| Methane                | 14     | B         | 1.0    | 0.22    | ug/L | 1       |   | RSK-175       | Total/NA  |
| Iron                   | 0.20   |           | 0.050  | 0.019   | mg/L | 1       |   | 6010B         | Total/NA  |
| Magnesium              | 48.5   |           | 0.20   | 0.043   | mg/L | 1       |   | 6010B         | Total/NA  |
| Manganese              | 0.14   |           | 0.0030 | 0.00040 | mg/L | 1       |   | 6010B         | Total/NA  |
| Potassium              | 8.3    |           | 0.50   | 0.10    | mg/L | 1       |   | 6010B         | Total/NA  |
| Sodium                 | 143    |           | 1.0    | 0.32    | mg/L | 1       |   | 6010B         | Total/NA  |
| Ammonia                | 0.27   |           | 0.020  | 0.0090  | mg/L | 1       |   | 350.1         | Total/NA  |
| Nitrate                | 0.095  |           | 0.050  | 0.011   | mg/L | 1       |   | 353.2         | Total/NA  |
| Sulfate                | 98.9   | B         | 25.0   | 7.5     | mg/L | 5       |   | 9038          | Total/NA  |
| Total Organic Carbon   | 1.3    |           | 1.0    | 0.43    | mg/L | 1       |   | 9060          | Total/NA  |
| Total Alkalinity       | 248    |           | 5.0    | 0.79    | mg/L | 1       |   | SM 2320B      | Total/NA  |
| Chloride               | 360    |           | 10.0   | 4.6     | mg/L | 10      |   | SM 4500 Cl- E | Total/NA  |
| Sulfide                | 0.053  | J         | 0.10   | 0.052   | mg/L | 1       |   | SM 4500 S2 D  | Total/NA  |
| Analyte                | Result | Qualifier | RL     | RL      | Unit | Dil Fac | D | Method        | Prep Type |
| Carbon dioxide         | 2100   |           | 1000   | 1000    | ug/L | 1       |   | RSK-175       | Total/NA  |

**Client Sample ID: MW-12-048112-1530**

**Lab Sample ID: 480-18764-3**

| Analyte                     | Result | Qualifier | RL   |      | Unit | Dil Fac | D | Method  | Prep Type |
|-----------------------------|--------|-----------|------|------|------|---------|---|---------|-----------|
| Hydrogen                    | 0.76   |           | 0.60 |      | nm   | 1       |   | AM20GAX | Total/NA  |
| Analyte                     | Result | Qualifier | RL   | MDL  | Unit | Dil Fac | D | Method  | Prep Type |
| Trichloroethene             | 0.83   | J         | 1.0  | 0.46 | ug/L | 1       |   | 8260B   | Total/NA  |
| cis-1,2-Dichloroethene - DL | 150    |           | 2.0  | 1.6  | ug/L | 2       |   | 8260B   | Total/NA  |
| Vinyl chloride - DL         | 120    |           | 2.0  | 1.8  | ug/L | 2       |   | 8260B   | Total/NA  |

## Detection Summary

Client: Conestoga-Rovers & Associates, Inc.

TestAmerica Job ID: 480-18764-1

Project/Site: 058507, GM-Lockport Groundwater Sampling

**Client Sample ID: MW-12-048112-1530 (Continued)**

**Lab Sample ID: 480-18764-3**

| Analyte              | Result | Qualifier | RL     | MDL     | Unit | Dil | Fac | D | Method        | Prep Type |
|----------------------|--------|-----------|--------|---------|------|-----|-----|---|---------------|-----------|
| Ethane               | 11     | J B       | 15     | 4.9     | ug/L | 10  |     |   | RSK-175       | Total/NA  |
| Ethene               | 11     | J B       | 15     | 5.2     | ug/L | 10  |     |   | RSK-175       | Total/NA  |
| Methane              | 300    | B         | 10     | 2.2     | ug/L | 10  |     |   | RSK-175       | Total/NA  |
| Iron                 | 12.7   |           | 0.050  | 0.019   | mg/L | 1   |     |   | 6010B         | Total/NA  |
| Magnesium            | 84.3   |           | 0.20   | 0.043   | mg/L | 1   |     |   | 6010B         | Total/NA  |
| Manganese            | 9.1    |           | 0.0030 | 0.00040 | mg/L | 1   |     |   | 6010B         | Total/NA  |
| Potassium            | 3.7    |           | 0.50   | 0.10    | mg/L | 1   |     |   | 6010B         | Total/NA  |
| Sodium               | 1250   |           | 1.0    | 0.32    | mg/L | 1   |     |   | 6010B         | Total/NA  |
| Ammonia              | 1.8    |           | 0.020  | 0.0090  | mg/L | 1   |     |   | 350.1         | Total/NA  |
| Sulfate              | 133    |           | 50.0   | 15.0    | mg/L | 10  |     |   | 9038          | Total/NA  |
| Total Organic Carbon | 3.7    |           | 1.0    | 0.43    | mg/L | 1   |     |   | 9060          | Total/NA  |
| Total Alkalinity     | 280    |           | 5.0    | 0.79    | mg/L | 1   |     |   | SM 2320B      | Total/NA  |
| Chloride             | 2900   |           | 100    | 46.0    | mg/L | 100 |     |   | SM 4500 Cl- E | Total/NA  |
| Analyte              | Result | Qualifier | RL     | RL      | Unit | Dil | Fac | D | Method        | Prep Type |
| Carbon dioxide       | 15000  |           | 2000   | 2000    | ug/L | 2   |     |   | RSK-175       | Total/NA  |

**Client Sample ID: MW-13-041912-0845**

**Lab Sample ID: 480-18852-1**

| Analyte              | Result | Qualifier | RL     | Unit    | Dil  | Fac | D   | Method  | Prep Type     |           |
|----------------------|--------|-----------|--------|---------|------|-----|-----|---------|---------------|-----------|
| Hydrogen             | 0.50   |           | 0.60   | 0.25    | nm   | 1   |     | AM20GAX | Total/NA      |           |
| Analyte              | Result | Qualifier | RL     | MDL     | Unit | Dil | Fac | D       | Method        | Prep Type |
| Ethane               | 8.2    | J B       | 15     | 4.9     | ug/L | 10  |     |         | RSK-175       | Total/NA  |
| Ethene               | 6.9    | J B       | 15     | 5.2     | ug/L | 10  |     |         | RSK-175       | Total/NA  |
| Methane              | 93     | B         | 10     | 2.2     | ug/L | 10  |     |         | RSK-175       | Total/NA  |
| Iron                 | 5.8    |           | 0.050  | 0.019   | mg/L | 1   |     |         | 6010B         | Total/NA  |
| Magnesium            | 38.5   |           | 0.20   | 0.043   | mg/L | 1   |     |         | 6010B         | Total/NA  |
| Manganese            | 4.4    |           | 0.0030 | 0.00040 | mg/L | 1   |     |         | 6010B         | Total/NA  |
| Potassium            | 5.3    |           | 0.50   | 0.10    | mg/L | 1   |     |         | 6010B         | Total/NA  |
| Sodium               | 940    |           | 1.0    | 0.32    | mg/L | 1   |     |         | 6010B         | Total/NA  |
| Ammonia              | 0.96   |           | 0.020  | 0.0090  | mg/L | 1   |     |         | 350.1         | Total/NA  |
| Nitrate              | 0.081  |           | 0.050  | 0.011   | mg/L | 1   |     |         | 353.2         | Total/NA  |
| Sulfate              | 71.3   | B         | 25.0   | 7.5     | mg/L | 5   |     |         | 9038          | Total/NA  |
| Total Organic Carbon | 4.0    |           | 1.0    | 0.43    | mg/L | 1   |     |         | 9060          | Total/NA  |
| Total Alkalinity     | 360    |           | 5.0    | 0.79    | mg/L | 1   |     |         | SM 2320B      | Total/NA  |
| Chloride             | 1490   | B         | 30.0   | 13.8    | mg/L | 30  |     |         | SM 4500 Cl- E | Total/NA  |
| Analyte              | Result | Qualifier | RL     | RL      | Unit | Dil | Fac | D       | Method        | Prep Type |
| Carbon dioxide       | 3700   |           | 1000   | 1000    | ug/L | 1   |     |         | RSK-175       | Total/NA  |

**Client Sample ID: MW-14-041912-1315**

**Lab Sample ID: 480-18852-2**

| Analyte                | Result | Qualifier | RL     | Unit    | Dil  | Fac | D   | Method  | Prep Type |           |
|------------------------|--------|-----------|--------|---------|------|-----|-----|---------|-----------|-----------|
| Hydrogen               | 6.7    |           | 0.60   | 0.25    | nm   | 1   |     | AM20GAX | Total/NA  |           |
| Analyte                | Result | Qualifier | RL     | MDL     | Unit | Dil | Fac | D       | Method    | Prep Type |
| cis-1,2-Dichloroethene | 1.2    |           | 1.0    | 0.81    | ug/L | 1   |     |         | 8260B     | Total/NA  |
| Vinyl chloride         | 1.1    |           | 1.0    | 0.90    | ug/L | 1   |     |         | 8260B     | Total/NA  |
| Ethane                 | 8.6    | J B       | 15     | 4.9     | ug/L | 10  |     |         | RSK-175   | Total/NA  |
| Ethene                 | 8.3    | J B       | 15     | 5.2     | ug/L | 10  |     |         | RSK-175   | Total/NA  |
| Methane                | 71     | B         | 10     | 2.2     | ug/L | 10  |     |         | RSK-175   | Total/NA  |
| Iron                   | 0.14   |           | 0.050  | 0.019   | mg/L | 1   |     |         | 6010B     | Total/NA  |
| Magnesium              | 86.7   |           | 0.20   | 0.043   | mg/L | 1   |     |         | 6010B     | Total/NA  |
| Manganese              | 0.29   |           | 0.0030 | 0.00040 | mg/L | 1   |     |         | 6010B     | Total/NA  |
| Potassium              | 6.2    |           | 0.50   | 0.10    | mg/L | 1   |     |         | 6010B     | Total/NA  |

## Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

### Client Sample ID: MW-14-041912-1315 (Continued)

### Lab Sample ID: 480-18852-2

| Analyte              | Result | Qualifier | RL    | MDL    | Unit | Dil Fac | D | Method        | Prep Type |
|----------------------|--------|-----------|-------|--------|------|---------|---|---------------|-----------|
| Sodium               | 916    |           | 1.0   | 0.32   | mg/L | 1       |   | 6010B         | Total/NA  |
| Ammonia              | 0.25   |           | 0.020 | 0.0090 | mg/L | 1       |   | 350.1         | Total/NA  |
| Sulfate              | 88.2   | B         | 25.0  | 7.5    | mg/L | 5       |   | 9038          | Total/NA  |
| Total Organic Carbon | 1.5    |           | 1.0   | 0.43   | mg/L | 1       |   | 9060          | Total/NA  |
| Total Alkalinity     | 328    |           | 5.0   | 0.79   | mg/L | 1       |   | SM 2320B      | Total/NA  |
| Chloride             | 1720   | B         | 50.0  | 23.0   | mg/L | 50      |   | SM 4500 Cl- E | Total/NA  |
| Analyte              | Result | Qualifier | RL    | RL     | Unit | Dil Fac | D | Method        | Prep Type |
| Carbon dioxide       | 2900   |           | 1000  | 1000   | ug/L | 1       |   | RSK-175       | Total/NA  |

### Client Sample ID: MW-10-041912-1520

### Lab Sample ID: 480-18852-3

| Analyte                | Result | Qualifier | RL     | MDL     | Unit | Dil Fac | D | Method        | Prep Type |
|------------------------|--------|-----------|--------|---------|------|---------|---|---------------|-----------|
| Hydrogen               | 1.0    |           | 0.60   | 0.25    | nm   | 1       |   | AM20GAX       | Total/NA  |
| Analyte                | Result | Qualifier | RL     | MDL     | Unit | Dil Fac | D | Method        | Prep Type |
| cis-1,2-Dichloroethene | 300    |           | 4.0    | 3.2     | ug/L | 4       |   | 8260B         | Total/NA  |
| Tetrachloroethene      | 77     |           | 4.0    | 1.4     | ug/L | 4       |   | 8260B         | Total/NA  |
| Trichloroethene        | 150    |           | 4.0    | 1.8     | ug/L | 4       |   | 8260B         | Total/NA  |
| Vinyl chloride         | 35     |           | 4.0    | 3.6     | ug/L | 4       |   | 8260B         | Total/NA  |
| Ethane                 | 9.1    | J B       | 15     | 4.9     | ug/L | 10      |   | RSK-175       | Total/NA  |
| Ethene                 | 9.2    | J B       | 15     | 5.2     | ug/L | 10      |   | RSK-175       | Total/NA  |
| Methane                | 170    | B         | 10     | 2.2     | ug/L | 10      |   | RSK-175       | Total/NA  |
| Iron                   | 0.32   |           | 0.050  | 0.019   | mg/L | 1       |   | 6010B         | Total/NA  |
| Magnesium              | 95.5   |           | 0.20   | 0.043   | mg/L | 1       |   | 6010B         | Total/NA  |
| Manganese              | 2.4    |           | 0.0030 | 0.00040 | mg/L | 1       |   | 6010B         | Total/NA  |
| Potassium              | 7.0    |           | 0.50   | 0.10    | mg/L | 1       |   | 6010B         | Total/NA  |
| Sodium                 | 2110   |           | 1.0    | 0.32    | mg/L | 1       |   | 6010B         | Total/NA  |
| Ammonia                | 0.11   |           | 0.020  | 0.0090  | mg/L | 1       |   | 350.1         | Total/NA  |
| Sulfate                | 210    | B         | 75.0   | 22.5    | mg/L | 15      |   | 9038          | Total/NA  |
| Total Organic Carbon   | 2.3    |           | 1.0    | 0.43    | mg/L | 1       |   | 9060          | Total/NA  |
| Total Alkalinity       | 280    |           | 5.0    | 0.79    | mg/L | 1       |   | SM 2320B      | Total/NA  |
| Chloride               | 3790   | B         | 100    | 46.0    | mg/L | 100     |   | SM 4500 Cl- E | Total/NA  |
| Analyte                | Result | Qualifier | RL     | RL      | Unit | Dil Fac | D | Method        | Prep Type |
| Carbon dioxide         | 5600   |           | 1000   | 1000    | ug/L | 1       |   | RSK-175       | Total/NA  |

### Client Sample ID: DUP-041912-0001

### Lab Sample ID: 480-18852-4

| Analyte              | Result | Qualifier | RL     | MDL     | Unit | Dil Fac | D | Method   | Prep Type |
|----------------------|--------|-----------|--------|---------|------|---------|---|----------|-----------|
| Hydrogen             | 0.79   |           | 0.60   | 0.25    | nm   | 1       |   | AM20GAX  | Total/NA  |
| Analyte              | Result | Qualifier | RL     | MDL     | Unit | Dil Fac | D | Method   | Prep Type |
| Ethane               | 8.6    | J B       | 15     | 4.9     | ug/L | 10      |   | RSK-175  | Total/NA  |
| Ethene               | 8.0    | J B       | 15     | 5.2     | ug/L | 10      |   | RSK-175  | Total/NA  |
| Methane              | 89     | B         | 10     | 2.2     | ug/L | 10      |   | RSK-175  | Total/NA  |
| Iron                 | 5.7    |           | 0.050  | 0.019   | mg/L | 1       |   | 6010B    | Total/NA  |
| Magnesium            | 36.3   |           | 0.20   | 0.043   | mg/L | 1       |   | 6010B    | Total/NA  |
| Manganese            | 4.1    |           | 0.0030 | 0.00040 | mg/L | 1       |   | 6010B    | Total/NA  |
| Potassium            | 5.4    |           | 0.50   | 0.10    | mg/L | 1       |   | 6010B    | Total/NA  |
| Sodium               | 925    |           | 1.0    | 0.32    | mg/L | 1       |   | 6010B    | Total/NA  |
| Ammonia              | 0.90   |           | 0.020  | 0.0090  | mg/L | 1       |   | 350.1    | Total/NA  |
| Nitrate              | 0.068  |           | 0.050  | 0.011   | mg/L | 1       |   | 353.2    | Total/NA  |
| Sulfate              | 66.3   | B         | 25.0   | 7.5     | mg/L | 5       |   | 9038     | Total/NA  |
| Total Organic Carbon | 4.0    |           | 1.0    | 0.43    | mg/L | 1       |   | 9060     | Total/NA  |
| Total Alkalinity     | 352    |           | 5.0    | 0.79    | mg/L | 1       |   | SM 2320B | Total/NA  |

## Detection Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

### Client Sample ID: DUP-041912-0001 (Continued)

### Lab Sample ID: 480-18852-4

| Analyte        | Result | Qualifier | RL   | MDL  | Unit | Dil Fac | D | Method        | Prep Type |
|----------------|--------|-----------|------|------|------|---------|---|---------------|-----------|
| Chloride       | 1490   | B         | 30.0 | 13.8 | mg/L | 30      |   | SM 4500 Cl- E | Total/NA  |
| Analyte        | Result | Qualifier | RL   | RL   | Unit | Dil Fac | D | Method        | Prep Type |
| Carbon dioxide | 4500   |           | 1000 | 1000 | ug/L | 1       |   | RSK-175       | Total/NA  |

### Client Sample ID: MW-4-042012-1300

### Lab Sample ID: 480-18943-1

| Analyte                     | Result | Qualifier | RL     | MDL     | Unit | Dil Fac | D | Method        | Prep Type |
|-----------------------------|--------|-----------|--------|---------|------|---------|---|---------------|-----------|
| Hydrogen                    | 28     |           | 0.60   | 0.25    | nm   | 1       |   | AM20GAX       | Total/NA  |
| Analyte                     | Result | Qualifier | RL     | MDL     | Unit | Dil Fac | D | Method        | Prep Type |
| Tetrachloroethene           | 1.4    |           | 1.0    | 0.36    | ug/L | 1       |   | 8260B         | Total/NA  |
| trans-1,2-Dichloroethene    | 160    | E         | 1.0    | 0.90    | ug/L | 1       |   | 8260B         | Total/NA  |
| cis-1,2-Dichloroethene - DL | 42000  |           | 500    | 410     | ug/L | 500     |   | 8260B         | Total/NA  |
| Trichloroethene - DL        | 18000  |           | 500    | 230     | ug/L | 500     |   | 8260B         | Total/NA  |
| Vinyl chloride - DL         | 9100   |           | 500    | 450     | ug/L | 500     |   | 8260B         | Total/NA  |
| Ethane                      | 650    | J B       | 750    | 250     | ug/L | 500     |   | RSK-175       | Total/NA  |
| Ethene                      | 2300   | B         | 750    | 260     | ug/L | 500     |   | RSK-175       | Total/NA  |
| Methane                     | 3800   | B         | 500    | 110     | ug/L | 500     |   | RSK-175       | Total/NA  |
| Iron                        | 2.7    |           | 0.050  | 0.019   | mg/L | 1       |   | 6010B         | Total/NA  |
| Magnesium                   | 138    |           | 0.20   | 0.043   | mg/L | 1       |   | 6010B         | Total/NA  |
| Manganese                   | 1.5    | B         | 0.0030 | 0.00040 | mg/L | 1       |   | 6010B         | Total/NA  |
| Potassium                   | 15.6   |           | 0.50   | 0.10    | mg/L | 1       |   | 6010B         | Total/NA  |
| Sodium                      | 1400   |           | 1.0    | 0.32    | mg/L | 1       |   | 6010B         | Total/NA  |
| Ammonia                     | 2.6    |           | 0.040  | 0.018   | mg/L | 2       |   | 350.1         | Total/NA  |
| Sulfate                     | 282    | B         | 150    | 45.0    | mg/L | 30      |   | 9038          | Total/NA  |
| Total Organic Carbon        | 3.1    |           | 1.0    | 0.43    | mg/L | 1       |   | 9060          | Total/NA  |
| Total Alkalinity            | 320    |           | 5.0    | 0.79    | mg/L | 1       |   | SM 2320B      | Total/NA  |
| Chloride                    | 3580   |           | 121    | 55.7    | mg/L | 121     |   | SM 4500 Cl- E | Total/NA  |
| Analyte                     | Result | Qualifier | RL     | RL      | Unit | Dil Fac | D | Method        | Prep Type |
| Carbon dioxide              | 9500   |           | 2000   | 2000    | ug/L | 2       |   | RSK-175       | Total/NA  |

### Client Sample ID: MW-7-042012-1630

### Lab Sample ID: 480-18943-2

| Analyte                | Result | Qualifier | RL     | MDL     | Unit | Dil Fac | D | Method        | Prep Type |
|------------------------|--------|-----------|--------|---------|------|---------|---|---------------|-----------|
| cis-1,2-Dichloroethene | 43000  |           | 10000  | 8100    | ug/L | 10000   |   | 8260B         | Total/NA  |
| Trichloroethene        | 730000 | B         | 10000  | 4600    | ug/L | 10000   |   | 8260B         | Total/NA  |
| Ethane                 | 17     |           | 1.5    | 0.49    | ug/L | 1       |   | RSK-175       | Total/NA  |
| Ethene                 | 98     |           | 1.5    | 0.52    | ug/L | 1       |   | RSK-175       | Total/NA  |
| Methane                | 46     |           | 1.0    | 0.22    | ug/L | 1       |   | RSK-175       | Total/NA  |
| Iron                   | 0.061  |           | 0.050  | 0.019   | mg/L | 1       |   | 6010B         | Total/NA  |
| Magnesium              | 67.1   |           | 0.20   | 0.043   | mg/L | 1       |   | 6010B         | Total/NA  |
| Manganese              | 0.024  | B         | 0.0030 | 0.00040 | mg/L | 1       |   | 6010B         | Total/NA  |
| Potassium              | 13.2   |           | 0.50   | 0.10    | mg/L | 1       |   | 6010B         | Total/NA  |
| Sodium                 | 193    |           | 1.0    | 0.32    | mg/L | 1       |   | 6010B         | Total/NA  |
| Ammonia                | 0.77   |           | 0.020  | 0.0090  | mg/L | 1       |   | 350.1         | Total/NA  |
| Sulfate                | 332    | B         | 100    | 30.0    | mg/L | 20      |   | 9038          | Total/NA  |
| Total Organic Carbon   | 8.7    |           | 1.0    | 0.43    | mg/L | 1       |   | 9060          | Total/NA  |
| Total Alkalinity       | 240    |           | 5.0    | 0.79    | mg/L | 1       |   | SM 2320B      | Total/NA  |
| Chloride               | 416    |           | 20.0   | 9.2     | mg/L | 20      |   | SM 4500 Cl- E | Total/NA  |
| Acetic acid            | 4.2    |           | 1.0    | 0.15    | mg/L | 1       |   | VFA-IC        | Total/NA  |
| n-Butyric Acid         | 0.62   | J         | 1.0    | 0.16    | mg/L | 1       |   | VFA-IC        | Total/NA  |
| Analyte                | Result | Qualifier | RL     | RL      | Unit | Dil Fac | D | Method        | Prep Type |
| Carbon dioxide         | 1600   |           | 1000   | 1000    | ug/L | 1       |   | RSK-175       | Total/NA  |

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-15-041812-0900**

**Lab Sample ID: 480-18764-1**

**Date Collected: 04/18/12 09:00**

**Matrix: Water**

**Date Received: 04/18/12 17:15**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result      | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-------------|-----------|----------|------|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene       | ND          |           | 1.0      | 0.81 | ug/L |   |          | 04/23/12 14:39 | 1       |
| <b>Tetrachloroethene</b>     | <b>8.1</b>  |           | 1.0      | 0.36 | ug/L |   |          | 04/23/12 14:39 | 1       |
| trans-1,2-Dichloroethene     | ND          |           | 1.0      | 0.90 | ug/L |   |          | 04/23/12 14:39 | 1       |
| <b>Trichloroethene</b>       | <b>0.65</b> | <b>J</b>  | 1.0      | 0.46 | ug/L |   |          | 04/23/12 14:39 | 1       |
| Vinyl chloride               | ND          |           | 1.0      | 0.90 | ug/L |   |          | 04/23/12 14:39 | 1       |
| Surrogate                    | %Recovery   | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 110         |           | 66 - 137 |      |      |   |          | 04/23/12 14:39 | 1       |
| 4-Bromofluorobenzene (Surr)  | 116         |           | 73 - 120 |      |      |   |          | 04/23/12 14:39 | 1       |
| Toluene-d8 (Surr)            | 120         |           | 71 - 126 |      |      |   |          | 04/23/12 14:39 | 1       |

## Method: AM20GAX - Dissolved Gases (GC)

| Analyte         | Result      | Qualifier | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------|-------------|-----------|------|------|---|----------|----------------|---------|
| <b>Hydrogen</b> | <b>0.82</b> |           | 0.60 | nm   |   |          | 04/22/12 16:41 | 1       |

## Method: RSK-175 - Dissolved Gases (GC)

| Analyte               | Result       | Qualifier  | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------|--------------|------------|------|------|------|---|----------|----------------|---------|
| <b>Ethane</b>         | <b>0.78</b>  | <b>J B</b> | 1.5  | 0.49 | ug/L |   |          | 04/22/12 10:36 | 1       |
| <b>Ethene</b>         | <b>0.64</b>  | <b>J B</b> | 1.5  | 0.52 | ug/L |   |          | 04/22/12 10:36 | 1       |
| <b>Methane</b>        | <b>0.47</b>  | <b>J B</b> | 1.0  | 0.22 | ug/L |   |          | 04/22/12 10:36 | 1       |
| Analyte               | Result       | Qualifier  | RL   | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
| <b>Carbon dioxide</b> | <b>11000</b> |            | 2000 | 2000 | ug/L |   |          | 04/25/12 12:50 | 2       |

## Method: 6010B - Metals (ICP)

| Analyte          | Result      | Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|-------------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Iron             | ND          |           | 0.050  | 0.019   | mg/L |   | 04/19/12 12:00 | 04/19/12 22:37 | 1       |
| <b>Magnesium</b> | <b>54.4</b> |           | 0.20   | 0.043   | mg/L |   | 04/19/12 12:00 | 04/19/12 22:37 | 1       |
| <b>Manganese</b> | <b>0.24</b> |           | 0.0030 | 0.00040 | mg/L |   | 04/19/12 12:00 | 04/19/12 22:37 | 1       |
| <b>Potassium</b> | <b>3.3</b>  |           | 0.50   | 0.10    | mg/L |   | 04/19/12 12:00 | 04/19/12 22:37 | 1       |
| <b>Sodium</b>    | <b>424</b>  |           | 1.0    | 0.32    | mg/L |   | 04/19/12 12:00 | 04/19/12 22:37 | 1       |

## General Chemistry

| Analyte                     | Result      | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|-------------|-----------|-------|--------|------|---|----------|----------------|---------|
| Ammonia                     | ND          |           | 0.020 | 0.0090 | mg/L |   |          | 04/19/12 15:41 | 1       |
| <b>Nitrate</b>              | <b>0.73</b> |           | 0.050 | 0.011  | mg/L |   |          | 04/19/12 02:26 | 1       |
| Nitrite                     | ND          |           | 0.050 | 0.020  | mg/L |   |          | 04/19/12 02:26 | 1       |
| <b>Sulfate</b>              | <b>111</b>  |           | 20.0  | 6.0    | mg/L |   |          | 04/24/12 13:26 | 4       |
| <b>Total Organic Carbon</b> | <b>2.0</b>  |           | 1.0   | 0.43   | mg/L |   |          | 04/24/12 09:07 | 1       |
| <b>Total Alkalinity</b>     | <b>384</b>  |           | 5.0   | 0.79   | mg/L |   |          | 04/20/12 11:15 | 1       |
| <b>Chloride</b>             | <b>962</b>  |           | 25.0  | 11.5   | mg/L |   |          | 04/24/12 14:41 | 25      |
| Sulfide                     | ND          |           | 0.10  | 0.052  | mg/L |   |          | 04/19/12 13:10 | 1       |
| Acetic acid                 | ND          |           | 1.0   | 0.15   | mg/L |   |          | 04/20/12 02:21 | 1       |
| Formic-acid                 | ND          |           | 1.0   | 0.11   | mg/L |   |          | 04/20/12 02:21 | 1       |
| Lactic acid                 | ND          |           | 1.0   | 0.14   | mg/L |   |          | 04/20/12 02:21 | 1       |
| n-Butyric Acid              | ND          |           | 1.0   | 0.16   | mg/L |   |          | 04/20/12 02:21 | 1       |
| Propionic acid              | ND          |           | 1.0   | 0.17   | mg/L |   |          | 04/20/12 02:21 | 1       |
| Pyruvic Acid                | ND          |           | 1.0   | 0.080  | mg/L |   |          | 04/20/12 02:21 | 1       |

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-11-041812-1245**

**Lab Sample ID: 480-18764-2**

**Date Collected: 04/18/12 12:45**

**Matrix: Water**

**Date Received: 04/18/12 17:15**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                       | Result     | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------------|------------|-----------|----------|------|------|---|----------|----------------|---------|
| <b>cis-1,2-Dichloroethene</b> | <b>1.4</b> |           | 1.0      | 0.81 | ug/L |   |          | 04/23/12 15:01 | 1       |
| Tetrachloroethene             | ND         |           | 1.0      | 0.36 | ug/L |   |          | 04/23/12 15:01 | 1       |
| trans-1,2-Dichloroethene      | ND         |           | 1.0      | 0.90 | ug/L |   |          | 04/23/12 15:01 | 1       |
| Trichloroethene               | ND         |           | 1.0      | 0.46 | ug/L |   |          | 04/23/12 15:01 | 1       |
| <b>Vinyl chloride</b>         | <b>2.6</b> |           | 1.0      | 0.90 | ug/L |   |          | 04/23/12 15:01 | 1       |
| Surrogate                     | %Recovery  | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr)  | 110        |           | 66 - 137 |      |      |   |          | 04/23/12 15:01 | 1       |
| 4-Bromofluorobenzene (Surr)   | 116        |           | 73 - 120 |      |      |   |          | 04/23/12 15:01 | 1       |
| Toluene-d8 (Surr)             | 120        |           | 71 - 126 |      |      |   |          | 04/23/12 15:01 | 1       |

## Method: AM20GAX - Dissolved Gases (GC)

| Analyte         | Result    | Qualifier | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------|-----------|-----------|------|------|---|----------|----------------|---------|
| <b>Hydrogen</b> | <b>12</b> |           | 0.60 | nm   |   |          | 04/22/12 16:41 | 1       |

## Method: RSK-175 - Dissolved Gases (GC)

| Analyte               | Result      | Qualifier  | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------|-------------|------------|------|------|------|---|----------|----------------|---------|
| <b>Ethane</b>         | <b>0.99</b> | <b>J B</b> | 1.5  | 0.49 | ug/L |   |          | 04/22/12 10:53 | 1       |
| <b>Ethene</b>         | <b>1.3</b>  | <b>J B</b> | 1.5  | 0.52 | ug/L |   |          | 04/22/12 10:53 | 1       |
| <b>Methane</b>        | <b>14</b>   | <b>B</b>   | 1.0  | 0.22 | ug/L |   |          | 04/22/12 10:53 | 1       |
| Analyte               | Result      | Qualifier  | RL   | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
| <b>Carbon dioxide</b> | <b>2100</b> |            | 1000 | 1000 | ug/L |   |          | 04/25/12 11:41 | 1       |

## Method: 6010B - Metals (ICP)

| Analyte          | Result      | Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------|-------------|-----------|--------|---------|------|---|----------------|----------------|---------|
| <b>Iron</b>      | <b>0.20</b> |           | 0.050  | 0.019   | mg/L |   | 04/19/12 12:00 | 04/19/12 22:39 | 1       |
| <b>Magnesium</b> | <b>48.5</b> |           | 0.20   | 0.043   | mg/L |   | 04/19/12 12:00 | 04/19/12 22:39 | 1       |
| <b>Manganese</b> | <b>0.14</b> |           | 0.0030 | 0.00040 | mg/L |   | 04/19/12 12:00 | 04/19/12 22:39 | 1       |
| <b>Potassium</b> | <b>8.3</b>  |           | 0.50   | 0.10    | mg/L |   | 04/19/12 12:00 | 04/19/12 22:39 | 1       |
| <b>Sodium</b>    | <b>143</b>  |           | 1.0    | 0.32    | mg/L |   | 04/19/12 12:00 | 04/19/12 22:39 | 1       |

## General Chemistry

| Analyte                     | Result       | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------------|-----------|-------|--------|------|---|----------|----------------|---------|
| <b>Ammonia</b>              | <b>0.27</b>  |           | 0.020 | 0.0090 | mg/L |   |          | 04/19/12 15:42 | 1       |
| <b>Nitrate</b>              | <b>0.095</b> |           | 0.050 | 0.011  | mg/L |   |          | 04/19/12 02:31 | 1       |
| Nitrite                     | ND           |           | 0.050 | 0.020  | mg/L |   |          | 04/19/12 02:31 | 1       |
| <b>Sulfate</b>              | <b>98.9</b>  | <b>B</b>  | 25.0  | 7.5    | mg/L |   |          | 04/27/12 15:36 | 5       |
| <b>Total Organic Carbon</b> | <b>1.3</b>   |           | 1.0   | 0.43   | mg/L |   |          | 04/24/12 09:37 | 1       |
| <b>Total Alkalinity</b>     | <b>248</b>   |           | 5.0   | 0.79   | mg/L |   |          | 04/20/12 11:15 | 1       |
| <b>Chloride</b>             | <b>360</b>   |           | 10.0  | 4.6    | mg/L |   |          | 04/24/12 14:41 | 10      |
| <b>Sulfide</b>              | <b>0.053</b> | <b>J</b>  | 0.10  | 0.052  | mg/L |   |          | 04/19/12 13:10 | 1       |
| Acetic acid                 | ND           |           | 1.0   | 0.15   | mg/L |   |          | 04/20/12 02:50 | 1       |
| Formic-acid                 | ND           |           | 1.0   | 0.11   | mg/L |   |          | 04/20/12 02:50 | 1       |
| Lactic acid                 | ND           |           | 1.0   | 0.14   | mg/L |   |          | 04/20/12 02:50 | 1       |
| n-Butyric Acid              | ND           |           | 1.0   | 0.16   | mg/L |   |          | 04/20/12 02:50 | 1       |
| Propionic acid              | ND           |           | 1.0   | 0.17   | mg/L |   |          | 04/20/12 02:50 | 1       |
| Pyruvic Acid                | ND           |           | 1.0   | 0.080  | mg/L |   |          | 04/20/12 02:50 | 1       |

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-12-048112-1530**

**Lab Sample ID: 480-18764-3**

**Date Collected: 04/18/12 15:30**

**Matrix: Water**

**Date Received: 04/18/12 17:15**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Tetrachloroethene            | ND        |           | 1.0      | 0.36 | ug/L |   |          | 04/23/12 15:22 | 1       |
| trans-1,2-Dichloroethene     | ND        |           | 1.0      | 0.90 | ug/L |   |          | 04/23/12 15:22 | 1       |
| Trichloroethene              | 0.83      | J         | 1.0      | 0.46 | ug/L |   |          | 04/23/12 15:22 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 112       |           | 66 - 137 |      |      |   |          | 04/23/12 15:22 | 1       |
| 4-Bromofluorobenzene (Surr)  | 118       |           | 73 - 120 |      |      |   |          | 04/23/12 15:22 | 1       |
| Toluene-d8 (Surr)            | 120       |           | 71 - 126 |      |      |   |          | 04/23/12 15:22 | 1       |

## Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene       | 150       |           | 2.0      | 1.6 | ug/L |   |          | 04/24/12 13:36 | 2       |
| Vinyl chloride               | 120       |           | 2.0      | 1.8 | ug/L |   |          | 04/24/12 13:36 | 2       |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 106       |           | 66 - 137 |     |      |   |          | 04/24/12 13:36 | 2       |
| 4-Bromofluorobenzene (Surr)  | 116       |           | 73 - 120 |     |      |   |          | 04/24/12 13:36 | 2       |
| Toluene-d8 (Surr)            | 117       |           | 71 - 126 |     |      |   |          | 04/24/12 13:36 | 2       |

## Method: AM20GAX - Dissolved Gases (GC)

| Analyte  | Result | Qualifier | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|------|---|----------|----------------|---------|
| Hydrogen | 0.76   |           | 0.60 | nm   |   |          | 04/22/12 16:41 | 1       |

## Method: RSK-175 - Dissolved Gases (GC)

| Analyte        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Ethane         | 11     | J B       | 15   | 4.9  | ug/L |   |          | 04/22/12 11:10 | 10      |
| Ethene         | 11     | J B       | 15   | 5.2  | ug/L |   |          | 04/22/12 11:10 | 10      |
| Methane        | 300    | B         | 10   | 2.2  | ug/L |   |          | 04/22/12 11:10 | 10      |
| Analyte        | Result | Qualifier | RL   | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
| Carbon dioxide | 15000  |           | 2000 | 2000 | ug/L |   |          | 04/25/12 12:55 | 2       |

## Method: 6010B - Metals (ICP)

| Analyte   | Result | Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Iron      | 12.7   |           | 0.050  | 0.019   | mg/L |   | 04/19/12 12:00 | 04/19/12 22:42 | 1       |
| Magnesium | 84.3   |           | 0.20   | 0.043   | mg/L |   | 04/19/12 12:00 | 04/19/12 22:42 | 1       |
| Manganese | 9.1    |           | 0.0030 | 0.00040 | mg/L |   | 04/19/12 12:00 | 04/19/12 22:42 | 1       |
| Potassium | 3.7    |           | 0.50   | 0.10    | mg/L |   | 04/19/12 12:00 | 04/19/12 22:42 | 1       |
| Sodium    | 1250   |           | 1.0    | 0.32    | mg/L |   | 04/19/12 12:00 | 04/19/12 22:42 | 1       |

## General Chemistry

| Analyte              | Result | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-------|--------|------|---|----------|----------------|---------|
| Ammonia              | 1.8    |           | 0.020 | 0.0090 | mg/L |   |          | 04/19/12 15:43 | 1       |
| Nitrate              | ND     |           | 0.050 | 0.011  | mg/L |   |          | 04/19/12 01:08 | 1       |
| Nitrite              | ND     |           | 0.050 | 0.020  | mg/L |   |          | 04/19/12 01:08 | 1       |
| Sulfate              | 133    |           | 50.0  | 15.0   | mg/L |   |          | 04/24/12 13:26 | 10      |
| Total Organic Carbon | 3.7    |           | 1.0   | 0.43   | mg/L |   |          | 04/24/12 10:37 | 1       |
| Total Alkalinity     | 280    |           | 5.0   | 0.79   | mg/L |   |          | 04/20/12 11:15 | 1       |
| Chloride             | 2900   |           | 100   | 46.0   | mg/L |   |          | 04/24/12 14:50 | 100     |
| Sulfide              | ND     |           | 0.10  | 0.052  | mg/L |   |          | 04/19/12 13:10 | 1       |
| Acetic acid          | ND     |           | 1.0   | 0.15   | mg/L |   |          | 04/20/12 03:19 | 1       |
| Formic acid          | ND     |           | 1.0   | 0.11   | mg/L |   |          | 04/20/12 03:19 | 1       |
| Lactic acid          | ND     |           | 1.0   | 0.14   | mg/L |   |          | 04/20/12 03:19 | 1       |

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-12-048112-1530**

**Lab Sample ID: 480-18764-3**

**Date Collected: 04/18/12 15:30**

**Matrix: Water**

**Date Received: 04/18/12 17:15**

## General Chemistry (Continued)

| Analyte        | Result | Qualifier | RL  | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------|-----------|-----|-------|------|---|----------|----------------|---------|
| n-Butyric Acid | ND     |           | 1.0 | 0.16  | mg/L |   |          | 04/20/12 03:19 | 1       |
| Propionic acid | ND     |           | 1.0 | 0.17  | mg/L |   |          | 04/20/12 03:19 | 1       |
| Pyruvic Acid   | ND     |           | 1.0 | 0.080 | mg/L |   |          | 04/20/12 03:19 | 1       |

**Client Sample ID: MW-13-041912-0845**

**Lab Sample ID: 480-18852-1**

**Date Collected: 04/19/12 08:45**

**Matrix: Water**

**Date Received: 04/19/12 16:45**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene   | ND     |           | 1.0 | 0.81 | ug/L |   |          | 04/25/12 12:35 | 1       |
| Tetrachloroethene        | ND     |           | 1.0 | 0.36 | ug/L |   |          | 04/25/12 12:35 | 1       |
| trans-1,2-Dichloroethene | ND     |           | 1.0 | 0.90 | ug/L |   |          | 04/25/12 12:35 | 1       |
| Trichloroethene          | ND     |           | 1.0 | 0.46 | ug/L |   |          | 04/25/12 12:35 | 1       |
| Vinyl chloride           | ND     |           | 1.0 | 0.90 | ug/L |   |          | 04/25/12 12:35 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 118       |           | 66 - 137 |          | 04/25/12 12:35 | 1       |
| 4-Bromofluorobenzene (Surr)  | 119       |           | 73 - 120 |          | 04/25/12 12:35 | 1       |
| Toluene-d8 (Surr)            | 121       |           | 71 - 126 |          | 04/25/12 12:35 | 1       |

## Method: AM20GAX - Dissolved Gases (GC)

| Analyte  | Result | Qualifier | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|------|---|----------|----------------|---------|
| Hydrogen | 0.50   |           | 0.60 | nm   |   |          | 04/22/12 17:18 | 1       |

## Method: RSK-175 - Dissolved Gases (GC)

| Analyte        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Ethane         | 8.2    | J B       | 15   | 4.9  | ug/L |   |          | 04/22/12 12:43 | 10      |
| Ethene         | 6.9    | J B       | 15   | 5.2  | ug/L |   |          | 04/22/12 12:43 | 10      |
| Methane        | 93     | B         | 10   | 2.2  | ug/L |   |          | 04/22/12 12:43 | 10      |
| Analyte        | Result | Qualifier | RL   | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
| Carbon dioxide | 3700   |           | 1000 | 1000 | ug/L |   |          | 04/27/12 07:41 | 1       |

## Method: 6010B - Metals (ICP)

| Analyte   | Result | Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Iron      | 5.8    |           | 0.050  | 0.019   | mg/L |   | 04/23/12 08:15 | 04/23/12 16:27 | 1       |
| Magnesium | 38.5   |           | 0.20   | 0.043   | mg/L |   | 04/23/12 08:15 | 04/23/12 16:27 | 1       |
| Manganese | 4.4    |           | 0.0030 | 0.00040 | mg/L |   | 04/23/12 08:15 | 04/23/12 16:27 | 1       |
| Potassium | 5.3    |           | 0.50   | 0.10    | mg/L |   | 04/23/12 08:15 | 04/23/12 16:27 | 1       |
| Sodium    | 940    |           | 1.0    | 0.32    | mg/L |   | 04/23/12 08:15 | 04/23/12 16:27 | 1       |

## General Chemistry

| Analyte              | Result | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-------|--------|------|---|----------|----------------|---------|
| Ammonia              | 0.96   |           | 0.020 | 0.0090 | mg/L |   |          | 04/21/12 13:14 | 1       |
| Nitrate              | 0.081  |           | 0.050 | 0.011  | mg/L |   |          | 04/20/12 10:14 | 1       |
| Nitrite              | ND     |           | 0.050 | 0.020  | mg/L |   |          | 04/20/12 12:07 | 1       |
| Sulfate              | 71.3   | B         | 25.0  | 7.5    | mg/L |   |          | 04/25/12 18:01 | 5       |
| Total Organic Carbon | 4.0    |           | 1.0   | 0.43   | mg/L |   |          | 04/24/12 16:32 | 1       |
| Total Alkalinity     | 360    |           | 5.0   | 0.79   | mg/L |   |          | 04/23/12 12:09 | 1       |
| Chloride             | 1490   | B         | 30.0  | 13.8   | mg/L |   |          | 04/25/12 20:01 | 30      |
| Sulfide              | ND     |           | 0.10  | 0.052  | mg/L |   |          | 04/24/12 13:00 | 1       |
| Acetic acid          | ND     |           | 1.0   | 0.15   | mg/L |   |          | 04/29/12 11:52 | 1       |

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-13-041912-0845**

**Lab Sample ID: 480-18852-1**

**Date Collected: 04/19/12 08:45**

**Matrix: Water**

**Date Received: 04/19/12 16:45**

## General Chemistry (Continued)

| Analyte        | Result | Qualifier | RL  | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------|-----------|-----|-------|------|---|----------|----------------|---------|
| Formic-acid    | ND     |           | 1.0 | 0.11  | mg/L |   |          | 04/29/12 11:52 | 1       |
| Lactic acid    | ND     |           | 1.0 | 0.14  | mg/L |   |          | 04/29/12 11:52 | 1       |
| n-Butyric Acid | ND     |           | 1.0 | 0.16  | mg/L |   |          | 04/29/12 11:52 | 1       |
| Propionic acid | ND     |           | 1.0 | 0.17  | mg/L |   |          | 04/29/12 11:52 | 1       |
| Pyruvic Acid   | ND     |           | 1.0 | 0.080 | mg/L |   |          | 04/29/12 11:52 | 1       |

**Client Sample ID: MW-14-041912-1315**

**Lab Sample ID: 480-18852-2**

**Date Collected: 04/19/12 13:15**

**Matrix: Water**

**Date Received: 04/19/12 16:45**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                  | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene   | 1.2    |           | 1.0 | 0.81 | ug/L |   |          | 04/25/12 12:57 | 1       |
| Tetrachloroethene        | ND     |           | 1.0 | 0.36 | ug/L |   |          | 04/25/12 12:57 | 1       |
| trans-1,2-Dichloroethene | ND     |           | 1.0 | 0.90 | ug/L |   |          | 04/25/12 12:57 | 1       |
| Trichloroethene          | ND     |           | 1.0 | 0.46 | ug/L |   |          | 04/25/12 12:57 | 1       |
| Vinyl chloride           | 1.1    |           | 1.0 | 0.90 | ug/L |   |          | 04/25/12 12:57 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114       |           | 66 - 137 |          | 04/25/12 12:57 | 1       |
| 4-Bromofluorobenzene (Surr)  | 114       |           | 73 - 120 |          | 04/25/12 12:57 | 1       |
| Toluene-d8 (Surr)            | 117       |           | 71 - 126 |          | 04/25/12 12:57 | 1       |

## Method: AM20GAX - Dissolved Gases (GC)

| Analyte  | Result | Qualifier | RL   | Unit | D  | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|------|----|----------|----------------|---------|
| Hydrogen | 6.7    |           | 0.60 | 0.25 | nm |          | 04/22/12 17:18 | 1       |

## Method: RSK-175 - Dissolved Gases (GC)

| Analyte        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Ethane         | 8.6    | J B       | 15   | 4.9  | ug/L |   |          | 04/22/12 13:00 | 10      |
| Ethane         | 8.3    | J B       | 15   | 5.2  | ug/L |   |          | 04/22/12 13:00 | 10      |
| Methane        | 71     | B         | 10   | 2.2  | ug/L |   |          | 04/22/12 13:00 | 10      |
| Analyte        | Result | Qualifier | RL   | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
| Carbon dioxide | 2900   |           | 1000 | 1000 | ug/L |   |          | 04/27/12 07:47 | 1       |

## Method: 6010B - Metals (ICP)

| Analyte   | Result | Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Iron      | 0.14   |           | 0.050  | 0.019   | mg/L |   | 04/23/12 08:15 | 04/23/12 16:29 | 1       |
| Magnesium | 86.7   |           | 0.20   | 0.043   | mg/L |   | 04/23/12 08:15 | 04/23/12 16:29 | 1       |
| Manganese | 0.29   |           | 0.0030 | 0.00040 | mg/L |   | 04/23/12 08:15 | 04/23/12 16:29 | 1       |
| Potassium | 6.2    |           | 0.50   | 0.10    | mg/L |   | 04/23/12 08:15 | 04/23/12 16:29 | 1       |
| Sodium    | 916    |           | 1.0    | 0.32    | mg/L |   | 04/23/12 08:15 | 04/23/12 16:29 | 1       |

## General Chemistry

| Analyte              | Result | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-------|--------|------|---|----------|----------------|---------|
| Ammonia              | 0.25   |           | 0.020 | 0.0090 | mg/L |   |          | 04/21/12 13:15 | 1       |
| Nitrate              | ND     |           | 0.050 | 0.011  | mg/L |   |          | 04/20/12 10:15 | 1       |
| Nitrite              | ND     |           | 0.050 | 0.020  | mg/L |   |          | 04/20/12 10:15 | 1       |
| Sulfate              | 88.2   | B         | 25.0  | 7.5    | mg/L |   |          | 04/25/12 18:01 | 5       |
| Total Organic Carbon | 1.5    |           | 1.0   | 0.43   | mg/L |   |          | 04/25/12 16:37 | 1       |
| Total Alkalinity     | 328    |           | 5.0   | 0.79   | mg/L |   |          | 04/23/12 12:09 | 1       |
| Chloride             | 1720   | B         | 50.0  | 23.0   | mg/L |   |          | 04/25/12 20:18 | 50      |

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-14-041912-1315**

**Lab Sample ID: 480-18852-2**

**Date Collected: 04/19/12 13:15**

**Matrix: Water**

**Date Received: 04/19/12 16:45**

## General Chemistry (Continued)

| Analyte        | Result | Qualifier | RL   | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Sulfide        | ND     |           | 0.10 | 0.052 | mg/L |   |          | 04/24/12 13:00 | 1       |
| Acetic acid    | ND     |           | 1.0  | 0.15  | mg/L |   |          | 04/29/12 12:21 | 1       |
| Formic-acid    | ND     |           | 1.0  | 0.11  | mg/L |   |          | 04/29/12 12:21 | 1       |
| Lactic acid    | ND     |           | 1.0  | 0.14  | mg/L |   |          | 04/29/12 12:21 | 1       |
| n-Butyric Acid | ND     |           | 1.0  | 0.16  | mg/L |   |          | 04/29/12 12:21 | 1       |
| Propionic acid | ND     |           | 1.0  | 0.17  | mg/L |   |          | 04/29/12 12:21 | 1       |
| Pyruvic Acid   | ND     |           | 1.0  | 0.080 | mg/L |   |          | 04/29/12 12:21 | 1       |

**Client Sample ID: MW-10-041912-1520**

**Lab Sample ID: 480-18852-3**

**Date Collected: 04/19/12 15:20**

**Matrix: Water**

**Date Received: 04/19/12 16:45**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                  | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene   | 300    |           | 4.0 | 3.2 | ug/L |   |          | 04/25/12 13:18 | 4       |
| Tetrachloroethene        | 77     |           | 4.0 | 1.4 | ug/L |   |          | 04/25/12 13:18 | 4       |
| trans-1,2-Dichloroethene | ND     |           | 4.0 | 3.6 | ug/L |   |          | 04/25/12 13:18 | 4       |
| Trichloroethene          | 150    |           | 4.0 | 1.8 | ug/L |   |          | 04/25/12 13:18 | 4       |
| Vinyl chloride           | 35     |           | 4.0 | 3.6 | ug/L |   |          | 04/25/12 13:18 | 4       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 116       |           | 66 - 137 |          | 04/25/12 13:18 | 4       |
| 4-Bromofluorobenzene (Surr)  | 116       |           | 73 - 120 |          | 04/25/12 13:18 | 4       |
| Toluene-d8 (Surr)            | 120       |           | 71 - 126 |          | 04/25/12 13:18 | 4       |

## Method: AM20GAX - Dissolved Gases (GC)

| Analyte  | Result | Qualifier | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|------|---|----------|----------------|---------|
| Hydrogen | 1.0    |           | 0.60 | nm   |   |          | 04/22/12 17:18 | 1       |

## Method: RSK-175 - Dissolved Gases (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|------|---|----------|----------------|---------|
| Ethane  | 9.1    | J B       | 15 | 4.9 | ug/L |   |          | 04/22/12 13:17 | 10      |
| Ethene  | 9.2    | J B       | 15 | 5.2 | ug/L |   |          | 04/22/12 13:17 | 10      |
| Methane | 170    | B         | 10 | 2.2 | ug/L |   |          | 04/22/12 13:17 | 10      |

| Analyte        | Result | Qualifier | RL   | Unit | D    | Prepared | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|------|------|----------|----------------|---------|
| Carbon dioxide | 5600   |           | 1000 | 1000 | ug/L |          | 04/27/12 07:53 | 1       |

## Method: 6010B - Metals (ICP)

| Analyte   | Result | Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Iron      | 0.32   |           | 0.050  | 0.019   | mg/L |   | 04/23/12 08:15 | 04/23/12 16:36 | 1       |
| Magnesium | 95.5   |           | 0.20   | 0.043   | mg/L |   | 04/23/12 08:15 | 04/23/12 16:36 | 1       |
| Manganese | 2.4    |           | 0.0030 | 0.00040 | mg/L |   | 04/23/12 08:15 | 04/23/12 16:36 | 1       |
| Potassium | 7.0    |           | 0.50   | 0.10    | mg/L |   | 04/23/12 08:15 | 04/23/12 16:36 | 1       |
| Sodium    | 2110   |           | 1.0    | 0.32    | mg/L |   | 04/23/12 08:15 | 04/23/12 16:36 | 1       |

## General Chemistry

| Analyte              | Result | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-------|--------|------|---|----------|----------------|---------|
| Ammonia              | 0.11   |           | 0.020 | 0.0090 | mg/L |   |          | 04/21/12 13:16 | 1       |
| Nitrate              | ND     |           | 0.050 | 0.011  | mg/L |   |          | 04/20/12 10:16 | 1       |
| Nitrite              | ND     |           | 0.050 | 0.020  | mg/L |   |          | 04/20/12 10:16 | 1       |
| Sulfate              | 210    | B         | 75.0  | 22.5   | mg/L |   |          | 04/25/12 19:51 | 15      |
| Total Organic Carbon | 2.3    |           | 1.0   | 0.43   | mg/L |   |          | 04/24/12 19:31 | 1       |

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-10-041912-1520**

**Lab Sample ID: 480-18852-3**

**Date Collected: 04/19/12 15:20**

**Matrix: Water**

**Date Received: 04/19/12 16:45**

## General Chemistry (Continued)

| Analyte          | Result | Qualifier | RL   | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Total Alkalinity | 280    |           | 5.0  | 0.79  | mg/L |   |          | 04/23/12 12:09 | 1       |
| Chloride         | 3790   | B         | 100  | 46.0  | mg/L |   |          | 04/25/12 20:24 | 100     |
| Sulfide          | ND     |           | 0.10 | 0.052 | mg/L |   |          | 04/24/12 13:00 | 1       |
| Acetic acid      | ND     |           | 1.0  | 0.15  | mg/L |   |          | 04/29/12 12:50 | 1       |
| Formic-acid      | ND     |           | 1.0  | 0.11  | mg/L |   |          | 04/29/12 12:50 | 1       |
| Lactic acid      | ND     |           | 1.0  | 0.14  | mg/L |   |          | 04/29/12 12:50 | 1       |
| n-Butyric Acid   | ND     |           | 1.0  | 0.16  | mg/L |   |          | 04/29/12 12:50 | 1       |
| Propionic acid   | ND     |           | 1.0  | 0.17  | mg/L |   |          | 04/29/12 12:50 | 1       |
| Pyruvic Acid     | ND     |           | 1.0  | 0.080 | mg/L |   |          | 04/29/12 12:50 | 1       |

**Client Sample ID: DUP-041912-0001**

**Lab Sample ID: 480-18852-4**

**Date Collected: 04/19/12 00:00**

**Matrix: Water**

**Date Received: 04/19/12 16:45**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene       | ND        |           | 4.0      | 3.2 | ug/L |   |          | 04/25/12 13:40 | 4       |
| Tetrachloroethene            | ND        |           | 4.0      | 1.4 | ug/L |   |          | 04/25/12 13:40 | 4       |
| trans-1,2-Dichloroethene     | ND        |           | 4.0      | 3.6 | ug/L |   |          | 04/25/12 13:40 | 4       |
| Trichloroethene              | ND        |           | 4.0      | 1.8 | ug/L |   |          | 04/25/12 13:40 | 4       |
| Vinyl chloride               | ND        |           | 4.0      | 3.6 | ug/L |   |          | 04/25/12 13:40 | 4       |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 116       |           | 66 - 137 |     |      |   |          | 04/25/12 13:40 | 4       |
| 4-Bromofluorobenzene (Surr)  | 116       |           | 73 - 120 |     |      |   |          | 04/25/12 13:40 | 4       |
| Toluene-d8 (Surr)            | 119       |           | 71 - 126 |     |      |   |          | 04/25/12 13:40 | 4       |

## Method: AM20GAX - Dissolved Gases (GC)

| Analyte  | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Hydrogen | 0.79   |           | 0.60 | 0.25 | nm   |   |          | 04/22/12 17:18 | 1       |

## Method: RSK-175 - Dissolved Gases (GC)

| Analyte        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Ethane         | 8.6    | J B       | 15   | 4.9  | ug/L |   |          | 04/22/12 14:17 | 10      |
| Ethene         | 8.0    | J B       | 15   | 5.2  | ug/L |   |          | 04/22/12 14:17 | 10      |
| Methane        | 89     | B         | 10   | 2.2  | ug/L |   |          | 04/22/12 14:17 | 10      |
| Analyte        | Result | Qualifier | RL   | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
| Carbon dioxide | 4500   |           | 1000 | 1000 | ug/L |   |          | 04/27/12 08:03 | 1       |

## Method: 6010B - Metals (ICP)

| Analyte   | Result | Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Iron      | 5.7    |           | 0.050  | 0.019   | mg/L |   | 04/23/12 08:15 | 04/23/12 16:49 | 1       |
| Magnesium | 36.3   |           | 0.20   | 0.043   | mg/L |   | 04/23/12 08:15 | 04/23/12 16:49 | 1       |
| Manganese | 4.1    |           | 0.0030 | 0.00040 | mg/L |   | 04/23/12 08:15 | 04/23/12 16:49 | 1       |
| Potassium | 5.4    |           | 0.50   | 0.10    | mg/L |   | 04/23/12 08:15 | 04/23/12 16:49 | 1       |
| Sodium    | 925    |           | 1.0    | 0.32    | mg/L |   | 04/23/12 08:15 | 04/23/12 16:49 | 1       |

## General Chemistry

| Analyte | Result | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|--------|------|---|----------|----------------|---------|
| Ammonia | 0.90   |           | 0.020 | 0.0090 | mg/L |   |          | 04/21/12 13:17 | 1       |
| Nitrate | 0.068  |           | 0.050 | 0.011  | mg/L |   |          | 04/20/12 10:12 | 1       |
| Nitrite | ND     |           | 0.050 | 0.020  | mg/L |   |          | 04/20/12 12:08 | 1       |

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: DUP-041912-0001**

**Lab Sample ID: 480-18852-4**

**Date Collected: 04/19/12 00:00**

**Matrix: Water**

**Date Received: 04/19/12 16:45**

## General Chemistry (Continued)

| Analyte              | Result | Qualifier | RL   | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Sulfate              | 66.3   | B         | 25.0 | 7.5   | mg/L |   |          | 04/25/12 18:01 | 5       |
| Total Organic Carbon | 4.0    |           | 1.0  | 0.43  | mg/L |   |          | 04/24/12 20:01 | 1       |
| Total Alkalinity     | 352    |           | 5.0  | 0.79  | mg/L |   |          | 04/23/12 12:09 | 1       |
| Chloride             | 1490   | B         | 30.0 | 13.8  | mg/L |   |          | 04/25/12 19:55 | 30      |
| Sulfide              | ND     |           | 0.10 | 0.052 | mg/L |   |          | 04/24/12 13:00 | 1       |
| Acetic acid          | ND     |           | 1.0  | 0.15  | mg/L |   |          | 04/29/12 13:20 | 1       |
| Formic-acid          | ND     |           | 1.0  | 0.11  | mg/L |   |          | 04/29/12 13:20 | 1       |
| Lactic acid          | ND     |           | 1.0  | 0.14  | mg/L |   |          | 04/29/12 13:20 | 1       |
| n-Butyric Acid       | ND     |           | 1.0  | 0.16  | mg/L |   |          | 04/29/12 13:20 | 1       |
| Propionic acid       | ND     |           | 1.0  | 0.17  | mg/L |   |          | 04/29/12 13:20 | 1       |
| Pyruvic Acid         | ND     |           | 1.0  | 0.080 | mg/L |   |          | 04/29/12 13:20 | 1       |

**Client Sample ID: MW-4-042012-1300**

**Lab Sample ID: 480-18943-1**

**Date Collected: 04/20/12 13:00**

**Matrix: Water**

**Date Received: 04/20/12 17:27**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Tetrachloroethene            | 1.4       |           | 1.0      | 0.36 | ug/L |   |          | 04/27/12 13:57 | 1       |
| trans-1,2-Dichloroethene     | 160       | E         | 1.0      | 0.90 | ug/L |   |          | 04/27/12 13:57 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 66 - 137 |      |      |   |          | 04/27/12 13:57 | 1       |
| 4-Bromofluorobenzene (Surr)  | 100       |           | 73 - 120 |      |      |   |          | 04/27/12 13:57 | 1       |
| Toluene-d8 (Surr)            | 106       |           | 71 - 126 |      |      |   |          | 04/27/12 13:57 | 1       |

## Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene       | 42000     |           | 500      | 410 | ug/L |   |          | 04/28/12 14:18 | 500     |
| Trichloroethene              | 18000     |           | 500      | 230 | ug/L |   |          | 04/28/12 14:18 | 500     |
| Vinyl chloride               | 9100      |           | 500      | 450 | ug/L |   |          | 04/28/12 14:18 | 500     |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 102       |           | 66 - 137 |     |      |   |          | 04/28/12 14:18 | 500     |
| 4-Bromofluorobenzene (Surr)  | 104       |           | 73 - 120 |     |      |   |          | 04/28/12 14:18 | 500     |
| Toluene-d8 (Surr)            | 100       |           | 71 - 126 |     |      |   |          | 04/28/12 14:18 | 500     |

## Method: AM20GAX - Dissolved Gases (GC)

| Analyte  | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Hydrogen | 28     |           | 0.60 | 0.25 | nm   |   |          | 05/04/12 09:36 | 1       |

## Method: RSK-175 - Dissolved Gases (GC)

| Analyte        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Ethane         | 650    | J B       | 750  | 250  | ug/L |   |          | 04/22/12 11:37 | 500     |
| Ethene         | 2300   | B         | 750  | 260  | ug/L |   |          | 04/22/12 11:37 | 500     |
| Methane        | 3800   | B         | 500  | 110  | ug/L |   |          | 04/22/12 11:37 | 500     |
| Analyte        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
| Carbon dioxide | 9500   |           | 2000 | 2000 | ug/L |   |          | 04/27/12 09:13 | 2       |

## Method: 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL    | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|-------|-------|------|---|----------------|----------------|---------|
| Iron    | 2.7    |           | 0.050 | 0.019 | mg/L |   | 04/23/12 08:15 | 04/23/12 14:23 | 1       |

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-4-042012-1300**

**Lab Sample ID: 480-18943-1**

**Date Collected: 04/20/12 13:00**

**Matrix: Water**

**Date Received: 04/20/12 17:27**

## Method: 6010B - Metals (ICP) (Continued)

| Analyte   | Result | Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Magnesium | 138    |           | 0.20   | 0.043   | mg/L |   | 04/23/12 08:15 | 04/23/12 14:23 | 1       |
| Manganese | 1.5    | B         | 0.0030 | 0.00040 | mg/L |   | 04/23/12 08:15 | 04/23/12 14:23 | 1       |
| Potassium | 15.6   |           | 0.50   | 0.10    | mg/L |   | 04/23/12 08:15 | 04/23/12 14:23 | 1       |
| Sodium    | 1400   |           | 1.0    | 0.32    | mg/L |   | 04/23/12 08:15 | 04/23/12 14:23 | 1       |

## General Chemistry

| Analyte              | Result | Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-------|-------|------|---|----------|----------------|---------|
| Ammonia              | 2.6    |           | 0.040 | 0.018 | mg/L |   |          | 04/24/12 16:00 | 2       |
| Nitrate              | ND     |           | 0.050 | 0.011 | mg/L |   |          | 04/20/12 21:01 | 1       |
| Nitrite              | ND     |           | 0.050 | 0.020 | mg/L |   |          | 04/20/12 21:01 | 1       |
| Sulfate              | 282    | B         | 150   | 45.0  | mg/L |   |          | 04/27/12 06:05 | 30      |
| Total Organic Carbon | 3.1    |           | 1.0   | 0.43  | mg/L |   |          | 04/24/12 21:29 | 1       |
| Total Alkalinity     | 320    |           | 5.0   | 0.79  | mg/L |   |          | 04/23/12 12:09 | 1       |
| Chloride             | 3580   |           | 121   | 55.7  | mg/L |   |          | 04/27/12 15:09 | 121     |
| Sulfide              | ND     |           | 0.10  | 0.052 | mg/L |   |          | 04/24/12 13:00 | 1       |
| Acetic acid          | ND     |           | 1.0   | 0.15  | mg/L |   |          | 04/29/12 16:44 | 1       |
| Formic-acid          | ND     |           | 1.0   | 0.11  | mg/L |   |          | 04/29/12 16:44 | 1       |
| Lactic acid          | ND     |           | 1.0   | 0.14  | mg/L |   |          | 04/29/12 16:44 | 1       |
| n-Butyric Acid       | ND     |           | 1.0   | 0.16  | mg/L |   |          | 04/29/12 16:44 | 1       |
| Propionic acid       | ND     |           | 1.0   | 0.17  | mg/L |   |          | 04/29/12 16:44 | 1       |
| Pyruvic Acid         | ND     |           | 1.0   | 0.080 | mg/L |   |          | 04/29/12 16:44 | 1       |

**Client Sample ID: MW-7-042012-1630**

**Lab Sample ID: 480-18943-2**

**Date Collected: 04/20/12 16:30**

**Matrix: Water**

**Date Received: 04/20/12 17:27**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                  | Result | Qualifier | RL    | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|--------|-----------|-------|------|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene   | 43000  |           | 10000 | 8100 | ug/L |   |          | 04/28/12 01:00 | 10000   |
| Tetrachloroethene        | ND     |           | 10000 | 3600 | ug/L |   |          | 04/28/12 01:00 | 10000   |
| trans-1,2-Dichloroethene | ND     |           | 10000 | 9000 | ug/L |   |          | 04/28/12 01:00 | 10000   |
| Trichloroethene          | 730000 | B         | 10000 | 4600 | ug/L |   |          | 04/28/12 01:00 | 10000   |
| Vinyl chloride           | ND     |           | 10000 | 9000 | ug/L |   |          | 04/28/12 01:00 | 10000   |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101       |           | 66 - 137 |          | 04/28/12 01:00 | 10000   |
| 4-Bromofluorobenzene (Surr)  | 106       |           | 73 - 120 |          | 04/28/12 01:00 | 10000   |
| Toluene-d8 (Surr)            | 104       |           | 71 - 126 |          | 04/28/12 01:00 | 10000   |

## Method: RSK-175 - Dissolved Gases (GC)

| Analyte        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Ethane         | 17     |           | 1.5  | 0.49 | ug/L |   |          | 04/22/12 11:54 | 1       |
| Ethene         | 98     |           | 1.5  | 0.52 | ug/L |   |          | 04/22/12 11:54 | 1       |
| Methane        | 46     |           | 1.0  | 0.22 | ug/L |   |          | 04/22/12 11:54 | 1       |
| Analyte        | Result | Qualifier | RL   | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
| Carbon dioxide | 1600   |           | 1000 | 1000 | ug/L |   |          | 04/27/12 08:31 | 1       |

## Method: 6010B - Metals (ICP)

| Analyte   | Result | Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|--------|---------|------|---|----------------|----------------|---------|
| Iron      | 0.061  |           | 0.050  | 0.019   | mg/L |   | 04/23/12 08:15 | 04/23/12 14:26 | 1       |
| Magnesium | 67.1   |           | 0.20   | 0.043   | mg/L |   | 04/23/12 08:15 | 04/23/12 14:26 | 1       |
| Manganese | 0.024  | B         | 0.0030 | 0.00040 | mg/L |   | 04/23/12 08:15 | 04/23/12 14:26 | 1       |

# Client Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-7-042012-1630**

**Lab Sample ID: 480-18943-2**

**Date Collected: 04/20/12 16:30**

**Matrix: Water**

**Date Received: 04/20/12 17:27**

## Method: 6010B - Metals (ICP) (Continued)

| Analyte   | Result | Qualifier | RL   | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Potassium | 13.2   |           | 0.50 | 0.10 | mg/L |   | 04/23/12 08:15 | 04/23/12 14:26 | 1       |
| Sodium    | 193    |           | 1.0  | 0.32 | mg/L |   | 04/23/12 08:15 | 04/23/12 14:26 | 1       |

## General Chemistry

| Analyte              | Result | Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-------|--------|------|---|----------|----------------|---------|
| Ammonia              | 0.77   |           | 0.020 | 0.0090 | mg/L |   |          | 04/24/12 14:11 | 1       |
| Nitrate              | ND     |           | 0.050 | 0.011  | mg/L |   |          | 04/20/12 21:02 | 1       |
| Nitrite              | ND     |           | 0.050 | 0.020  | mg/L |   |          | 04/20/12 21:02 | 1       |
| Sulfate              | 332    | B         | 100   | 30.0   | mg/L |   |          | 04/27/12 13:32 | 20      |
| Total Organic Carbon | 8.7    |           | 1.0   | 0.43   | mg/L |   |          | 04/24/12 22:28 | 1       |
| Total Alkalinity     | 240    |           | 5.0   | 0.79   | mg/L |   |          | 04/23/12 12:09 | 1       |
| Chloride             | 416    |           | 20.0  | 9.2    | mg/L |   |          | 04/27/12 15:09 | 20      |
| Sulfide              | ND     |           | 0.10  | 0.052  | mg/L |   |          | 04/24/12 13:00 | 1       |
| Acetic acid          | 4.2    |           | 1.0   | 0.15   | mg/L |   |          | 04/29/12 17:13 | 1       |
| Formic-acid          | ND     |           | 1.0   | 0.11   | mg/L |   |          | 04/29/12 17:13 | 1       |
| Lactic acid          | ND     |           | 1.0   | 0.14   | mg/L |   |          | 04/29/12 17:13 | 1       |
| n-Butyric Acid       | 0.62   | J         | 1.0   | 0.16   | mg/L |   |          | 04/29/12 17:13 | 1       |
| Propionic acid       | ND     |           | 1.0   | 0.17   | mg/L |   |          | 04/29/12 17:13 | 1       |
| Pyruvic Acid         | ND     |           | 1.0   | 0.080  | mg/L |   |          | 04/29/12 17:13 | 1       |

## Surrogate Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID    | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                 |
|------------------|--------------------|------------------------------------------------|-----------------|-----------------|
|                  |                    | 12DCE<br>(66-137)                              | BFB<br>(73-120) | TOL<br>(71-126) |
| 480-18764-1      | MW-15-041812-0900  | 110                                            | 116             | 120             |
| 480-18764-2      | MW-11-041812-1245  | 110                                            | 116             | 120             |
| 480-18764-3      | MW-12-048112-1530  | 112                                            | 118             | 120             |
| 480-18764-3 - DL | MW-12-048112-1530  | 106                                            | 116             | 117             |
| 480-18852-1      | MW-13-041912-0845  | 118                                            | 119             | 121             |
| 480-18852-2      | MW-14-041912-1315  | 114                                            | 114             | 117             |
| 480-18852-3      | MW-10-041912-1520  | 116                                            | 116             | 120             |
| 480-18852-4      | DUP-041912-0001    | 116                                            | 116             | 119             |
| 480-18943-1      | MW-4-042012-1300   | 99                                             | 100             | 106             |
| 480-18943-1 - DL | MW-4-042012-1300   | 102                                            | 104             | 100             |
| 480-18943-2      | MW-7-042012-1630   | 101                                            | 106             | 104             |
| LCS 480-60999/4  | Lab Control Sample | 106                                            | 118             | 118             |
| LCS 480-61223/4  | Lab Control Sample | 108                                            | 119             | 118             |
| LCS 480-61436/4  | Lab Control Sample | 109                                            | 119             | 119             |
| LCS 480-61854/4  | Lab Control Sample | 102                                            | 108             | 106             |
| LCS 480-61974/4  | Lab Control Sample | 102                                            | 109             | 105             |
| LCS 480-62084/4  | Lab Control Sample | 107                                            | 110             | 107             |
| MB 480-60999/5   | Method Blank       | 109                                            | 116             | 118             |
| MB 480-61223/5   | Method Blank       | 111                                            | 117             | 119             |
| MB 480-61436/5   | Method Blank       | 114                                            | 116             | 119             |
| MB 480-61854/5   | Method Blank       | 104                                            | 108             | 107             |
| MB 480-61974/5   | Method Blank       | 104                                            | 109             | 104             |
| MB 480-62084/5   | Method Blank       | 105                                            | 109             | 107             |

#### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-60999/5

Matrix: Water

Analysis Batch: 60999

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                  | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene   | ND           |                 | 1.0 | 0.81 | ug/L |   |          | 04/23/12 12:15 | 1       |
| Tetrachloroethene        | ND           |                 | 1.0 | 0.36 | ug/L |   |          | 04/23/12 12:15 | 1       |
| trans-1,2-Dichloroethene | ND           |                 | 1.0 | 0.90 | ug/L |   |          | 04/23/12 12:15 | 1       |
| Trichloroethene          | ND           |                 | 1.0 | 0.46 | ug/L |   |          | 04/23/12 12:15 | 1       |
| Vinyl chloride           | ND           |                 | 1.0 | 0.90 | ug/L |   |          | 04/23/12 12:15 | 1       |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 109             |                 | 66 - 137 |          | 04/23/12 12:15 | 1       |
| 4-Bromofluorobenzene (Surr)  | 116             |                 | 73 - 120 |          | 04/23/12 12:15 | 1       |
| Toluene-d8 (Surr)            | 118             |                 | 71 - 126 |          | 04/23/12 12:15 | 1       |

Lab Sample ID: LCS 480-60999/4

Matrix: Water

Analysis Batch: 60999

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|--------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| cis-1,2-Dichloroethene   | 25.0           | 25.1          |                  | ug/L |   | 100  | 74 - 124        |
| Tetrachloroethene        | 25.0           | 28.3          |                  | ug/L |   | 113  | 74 - 122        |
| trans-1,2-Dichloroethene | 25.0           | 23.1          |                  | ug/L |   | 92   | 73 - 127        |
| Trichloroethene          | 25.0           | 26.4          |                  | ug/L |   | 106  | 74 - 123        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 106              |                  | 66 - 137 |
| 4-Bromofluorobenzene (Surr)  | 118              |                  | 73 - 120 |
| Toluene-d8 (Surr)            | 118              |                  | 71 - 126 |

Lab Sample ID: MB 480-61223/5

Matrix: Water

Analysis Batch: 61223

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                  | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene   | ND           |                 | 1.0 | 0.81 | ug/L |   |          | 04/24/12 12:22 | 1       |
| Tetrachloroethene        | ND           |                 | 1.0 | 0.36 | ug/L |   |          | 04/24/12 12:22 | 1       |
| trans-1,2-Dichloroethene | ND           |                 | 1.0 | 0.90 | ug/L |   |          | 04/24/12 12:22 | 1       |
| Trichloroethene          | ND           |                 | 1.0 | 0.46 | ug/L |   |          | 04/24/12 12:22 | 1       |
| Vinyl chloride           | ND           |                 | 1.0 | 0.90 | ug/L |   |          | 04/24/12 12:22 | 1       |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 111             |                 | 66 - 137 |          | 04/24/12 12:22 | 1       |
| 4-Bromofluorobenzene (Surr)  | 117             |                 | 73 - 120 |          | 04/24/12 12:22 | 1       |
| Toluene-d8 (Surr)            | 119             |                 | 71 - 126 |          | 04/24/12 12:22 | 1       |

Lab Sample ID: LCS 480-61223/4

Matrix: Water

Analysis Batch: 61223

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| cis-1,2-Dichloroethene | 25.0           | 25.3          |                  | ug/L |   | 101  | 74 - 124        |
| Tetrachloroethene      | 25.0           | 27.5          |                  | ug/L |   | 110  | 74 - 122        |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-61223/4

Matrix: Water

Analysis Batch: 61223

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|------|---|------|--------------|
| trans-1,2-Dichloroethene | 25.0        | 23.2       |               | ug/L |   | 93   | 73 - 127     |
| Trichloroethene          | 25.0        | 25.7       |               | ug/L |   | 103  | 74 - 123     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 108           |               | 66 - 137 |
| 4-Bromofluorobenzene (Surr)  | 119           |               | 73 - 120 |
| Toluene-d8 (Surr)            | 118           |               | 71 - 126 |

Lab Sample ID: MB 480-61436/5

Matrix: Water

Analysis Batch: 61436

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                  | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene   | ND        |              | 1.0 | 0.81 | ug/L |   |          | 04/25/12 11:44 | 1       |
| Tetrachloroethene        | ND        |              | 1.0 | 0.36 | ug/L |   |          | 04/25/12 11:44 | 1       |
| trans-1,2-Dichloroethene | ND        |              | 1.0 | 0.90 | ug/L |   |          | 04/25/12 11:44 | 1       |
| Trichloroethene          | ND        |              | 1.0 | 0.46 | ug/L |   |          | 04/25/12 11:44 | 1       |
| Vinyl chloride           | ND        |              | 1.0 | 0.90 | ug/L |   |          | 04/25/12 11:44 | 1       |

| Surrogate                    | MB %Recovery | MB Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 114          |              | 66 - 137 |          | 04/25/12 11:44 | 1       |
| 4-Bromofluorobenzene (Surr)  | 116          |              | 73 - 120 |          | 04/25/12 11:44 | 1       |
| Toluene-d8 (Surr)            | 119          |              | 71 - 126 |          | 04/25/12 11:44 | 1       |

Lab Sample ID: LCS 480-61436/4

Matrix: Water

Analysis Batch: 61436

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------------|-------------|------------|---------------|------|---|------|--------------|
| cis-1,2-Dichloroethene   | 25.0        | 24.0       |               | ug/L |   | 96   | 74 - 124     |
| Tetrachloroethene        | 25.0        | 28.3       |               | ug/L |   | 113  | 74 - 122     |
| trans-1,2-Dichloroethene | 25.0        | 22.4       |               | ug/L |   | 90   | 73 - 127     |
| Trichloroethene          | 25.0        | 25.4       |               | ug/L |   | 102  | 74 - 123     |

| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits   |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 109           |               | 66 - 137 |
| 4-Bromofluorobenzene (Surr)  | 119           |               | 73 - 120 |
| Toluene-d8 (Surr)            | 119           |               | 71 - 126 |

Lab Sample ID: MB 480-61854/5

Matrix: Water

Analysis Batch: 61854

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                  | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene   | ND        |              | 1.0 | 0.81 | ug/L |   |          | 04/27/12 13:00 | 1       |
| Tetrachloroethene        | ND        |              | 1.0 | 0.36 | ug/L |   |          | 04/27/12 13:00 | 1       |
| trans-1,2-Dichloroethene | ND        |              | 1.0 | 0.90 | ug/L |   |          | 04/27/12 13:00 | 1       |
| Trichloroethene          | ND        |              | 1.0 | 0.46 | ug/L |   |          | 04/27/12 13:00 | 1       |
| Vinyl chloride           | ND        |              | 1.0 | 0.90 | ug/L |   |          | 04/27/12 13:00 | 1       |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-61854/5

Matrix: Water

Analysis Batch: 61854

Client Sample ID: Method Blank

Prep Type: Total/NA

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104             |                 | 66 - 137 |          | 04/27/12 13:00 | 1       |
| 4-Bromofluorobenzene (Surr)  | 108             |                 | 73 - 120 |          | 04/27/12 13:00 | 1       |
| Toluene-d8 (Surr)            | 107             |                 | 71 - 126 |          | 04/27/12 13:00 | 1       |

Lab Sample ID: LCS 480-61854/4

Matrix: Water

Analysis Batch: 61854

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|--------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| cis-1,2-Dichloroethene   | 25.0           | 24.7          |                  | ug/L |   | 99   | 74 - 124        |
| Tetrachloroethene        | 25.0           | 27.8          |                  | ug/L |   | 111  | 74 - 122        |
| trans-1,2-Dichloroethene | 25.0           | 24.0          |                  | ug/L |   | 96   | 73 - 127        |
| Trichloroethene          | 25.0           | 24.3          |                  | ug/L |   | 97   | 74 - 123        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102              |                  | 66 - 137 |
| 4-Bromofluorobenzene (Surr)  | 108              |                  | 73 - 120 |
| Toluene-d8 (Surr)            | 106              |                  | 71 - 126 |

Lab Sample ID: MB 480-61974/5

Matrix: Water

Analysis Batch: 61974

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                  | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| cis-1,2-Dichloroethene   | ND           |                 | 1.0 | 0.81 | ug/L |   |          | 04/28/12 00:00 | 1       |
| Tetrachloroethene        | ND           |                 | 1.0 | 0.36 | ug/L |   |          | 04/28/12 00:00 | 1       |
| trans-1,2-Dichloroethene | ND           |                 | 1.0 | 0.90 | ug/L |   |          | 04/28/12 00:00 | 1       |
| Trichloroethene          | 0.835        | J               | 1.0 | 0.46 | ug/L |   |          | 04/28/12 00:00 | 1       |
| Vinyl chloride           | ND           |                 | 1.0 | 0.90 | ug/L |   |          | 04/28/12 00:00 | 1       |

| Surrogate                    | MB<br>%Recovery | MB<br>Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------------|-----------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 104             |                 | 66 - 137 |          | 04/28/12 00:00 | 1       |
| 4-Bromofluorobenzene (Surr)  | 109             |                 | 73 - 120 |          | 04/28/12 00:00 | 1       |
| Toluene-d8 (Surr)            | 104             |                 | 71 - 126 |          | 04/28/12 00:00 | 1       |

Lab Sample ID: LCS 480-61974/4

Matrix: Water

Analysis Batch: 61974

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|--------------------------|----------------|---------------|------------------|------|---|------|-----------------|
| cis-1,2-Dichloroethene   | 25.0           | 22.5          |                  | ug/L |   | 90   | 74 - 124        |
| Tetrachloroethene        | 25.0           | 25.1          |                  | ug/L |   | 100  | 74 - 122        |
| trans-1,2-Dichloroethene | 25.0           | 22.9          |                  | ug/L |   | 92   | 73 - 127        |
| Trichloroethene          | 25.0           | 23.9          |                  | ug/L |   | 96   | 74 - 123        |

| Surrogate                    | LCS<br>%Recovery | LCS<br>Qualifier | Limits   |
|------------------------------|------------------|------------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 102              |                  | 66 - 137 |
| 4-Bromofluorobenzene (Surr)  | 109              |                  | 73 - 120 |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-61974/4

Matrix: Water

Analysis Batch: 61974

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

|                   | LCS       | LCS       |          |
|-------------------|-----------|-----------|----------|
| Surrogate         | %Recovery | Qualifier | Limits   |
| Toluene-d8 (Surr) | 105       |           | 71 - 126 |

Lab Sample ID: MB 480-62084/5

Matrix: Water

Analysis Batch: 62084

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                  | MB        | MB | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------|-----------|----|-----|------|------|---|----------|----------------|---------|
| Result                   | Qualifier |    |     |      |      |   |          |                |         |
| cis-1,2-Dichloroethene   | ND        |    | 1.0 | 0.81 | ug/L |   |          | 04/28/12 12:39 | 1       |
| Tetrachloroethene        | ND        |    | 1.0 | 0.36 | ug/L |   |          | 04/28/12 12:39 | 1       |
| trans-1,2-Dichloroethene | ND        |    | 1.0 | 0.90 | ug/L |   |          | 04/28/12 12:39 | 1       |
| Trichloroethene          | ND        |    | 1.0 | 0.46 | ug/L |   |          | 04/28/12 12:39 | 1       |
| Vinyl chloride           | ND        |    | 1.0 | 0.90 | ug/L |   |          | 04/28/12 12:39 | 1       |

|                              | MB        | MB        |          |          |                |         |  |  |  |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|--|--|--|
| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |  |  |  |
| 1,2-Dichloroethane-d4 (Surr) | 105       |           | 66 - 137 |          | 04/28/12 12:39 | 1       |  |  |  |
| 4-Bromofluorobenzene (Surr)  | 109       |           | 73 - 120 |          | 04/28/12 12:39 | 1       |  |  |  |
| Toluene-d8 (Surr)            | 107       |           | 71 - 126 |          | 04/28/12 12:39 | 1       |  |  |  |

Lab Sample ID: LCS 480-62084/4

Matrix: Water

Analysis Batch: 62084

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                  | Spike  | LCS       | LCS | Unit | D | %Rec   | %Rec.    |
|--------------------------|--------|-----------|-----|------|---|--------|----------|
| Added                    | Result | Qualifier |     |      |   | Limits |          |
| cis-1,2-Dichloroethene   | 25.0   | 23.2      |     | ug/L |   | 93     | 74 - 124 |
| Tetrachloroethene        | 25.0   | 23.7      |     | ug/L |   | 95     | 74 - 122 |
| trans-1,2-Dichloroethene | 25.0   | 22.9      |     | ug/L |   | 92     | 73 - 127 |
| Trichloroethene          | 25.0   | 23.6      |     | ug/L |   | 94     | 74 - 123 |

|                              | LCS       | LCS       |          |
|------------------------------|-----------|-----------|----------|
| Surrogate                    | %Recovery | Qualifier | Limits   |
| 1,2-Dichloroethane-d4 (Surr) | 107       |           | 66 - 137 |
| 4-Bromofluorobenzene (Surr)  | 110       |           | 73 - 120 |
| Toluene-d8 (Surr)            | 107       |           | 71 - 126 |

## Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 200-37525/3

Matrix: Water

Analysis Batch: 37525

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte        | MB        | MB | RL   | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|-----------|----|------|------|------|---|----------|----------------|---------|
| Result         | Qualifier |    |      |      |      |   |          |                |         |
| Carbon dioxide | ND        |    | 1000 | 1000 | ug/L |   |          | 04/25/12 09:02 | 1       |

Lab Sample ID: LCS 200-37525/2

Matrix: Water

Analysis Batch: 37525

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte        | Spike  | LCS       | LCS | Unit | D | %Rec   | %Rec.    |
|----------------|--------|-----------|-----|------|---|--------|----------|
| Added          | Result | Qualifier |     |      |   | Limits |          |
| Carbon dioxide | 5010   | 4890      |     | ug/L |   | 98     | 70 - 130 |

## QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

### Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: MB 200-37685/3

Matrix: Water

Analysis Batch: 37685

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte        | MB<br>Result | MB<br>Qualifier | RL   | RL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------------|-----------------|------|------|------|---|----------|----------------|---------|
| Carbon dioxide | ND           |                 | 1000 | 1000 | ug/L |   |          | 04/27/12 07:27 | 1       |

Lab Sample ID: LCS 200-37685/2

Matrix: Water

Analysis Batch: 37685

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte        | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|----------------|----------------|---------------|------------------|------|---|------|-----------------|
| Carbon dioxide | 5010           | 5190          |                  | ug/L |   | 104  | 70 - 130        |

Lab Sample ID: MB 480-60876/12

Matrix: Water

Analysis Batch: 60876

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Ethane  | 0.792        | J               | 1.5 | 0.49 | ug/L |   |          | 04/22/12 07:52 | 1       |
| Ethene  | 0.799        | J               | 1.5 | 0.52 | ug/L |   |          | 04/22/12 07:52 | 1       |
| Methane | 0.317        | J               | 1.0 | 0.22 | ug/L |   |          | 04/22/12 07:52 | 1       |

Lab Sample ID: LCS 480-60876/13

Matrix: Water

Analysis Batch: 60876

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Ethane  | 14.4           | 16.0          |                  | ug/L |   | 111  | 71 - 147        |
| Ethene  | 13.5           | 15.2          |                  | ug/L |   | 113  | 71 - 147        |
| Methane | 7.76           | 8.73          |                  | ug/L |   | 113  | 48 - 174        |

Lab Sample ID: LCSD 480-60876/23

Matrix: Water

Analysis Batch: 60876

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|---------|----------------|----------------|-------------------|------|---|------|-----------------|-----|--------------|
| Ethane  | 14.4           | 15.0           |                   | ug/L |   | 104  | 71 - 147        | 6   | 50           |
| Ethene  | 13.5           | 14.1           |                   | ug/L |   | 105  | 71 - 147        | 8   | 50           |
| Methane | 7.76           | 8.71           |                   | ug/L |   | 112  | 48 - 174        | 0   | 50           |

### Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-60415/1-A

Matrix: Water

Analysis Batch: 60637

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60415

| Analyte   | MB<br>Result | MB<br>Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------------|-----------------|--------|---------|------|---|----------------|----------------|---------|
| Iron      | ND           |                 | 0.050  | 0.019   | mg/L |   | 04/19/12 12:00 | 04/19/12 22:30 | 1       |
| Magnesium | ND           |                 | 0.20   | 0.043   | mg/L |   | 04/19/12 12:00 | 04/19/12 22:30 | 1       |
| Manganese | ND           |                 | 0.0030 | 0.00040 | mg/L |   | 04/19/12 12:00 | 04/19/12 22:30 | 1       |
| Potassium | ND           |                 | 0.50   | 0.10    | mg/L |   | 04/19/12 12:00 | 04/19/12 22:30 | 1       |
| Sodium    | ND           |                 | 1.0    | 0.32    | mg/L |   | 04/19/12 12:00 | 04/19/12 22:30 | 1       |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-60415/2-A

Matrix: Water

Analysis Batch: 60637

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 60415

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|------|---|------|--------------|
| Iron      | 10.0        | 9.86       |               | mg/L |   | 99   | 80 - 120     |
| Magnesium | 10.0        | 10.12      |               | mg/L |   | 101  | 80 - 120     |
| Manganese | 0.200       | 0.209      |               | mg/L |   | 104  | 80 - 120     |
| Potassium | 10.0        | 10.05      |               | mg/L |   | 100  | 80 - 120     |
| Sodium    | 10.0        | 10.15      |               | mg/L |   | 101  | 80 - 120     |

Lab Sample ID: MB 480-60777/1-A

Matrix: Water

Analysis Batch: 61196

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60777

| Analyte   | MB Result | MB Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|-----------|--------------|--------|---------|------|---|----------------|----------------|---------|
| Iron      | ND        |              | 0.050  | 0.019   | mg/L |   | 04/23/12 08:15 | 04/23/12 15:56 | 1       |
| Magnesium | ND        |              | 0.20   | 0.043   | mg/L |   | 04/23/12 08:15 | 04/23/12 15:56 | 1       |
| Manganese | ND        |              | 0.0030 | 0.00040 | mg/L |   | 04/23/12 08:15 | 04/23/12 15:56 | 1       |
| Potassium | ND        |              | 0.50   | 0.10    | mg/L |   | 04/23/12 08:15 | 04/23/12 15:56 | 1       |
| Sodium    | ND        |              | 1.0    | 0.32    | mg/L |   | 04/23/12 08:15 | 04/23/12 15:56 | 1       |

Lab Sample ID: LCS 480-60777/2-A

Matrix: Water

Analysis Batch: 61196

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 60777

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|------|---|------|--------------|
| Iron      | 10.0        | 9.93       |               | mg/L |   | 99   | 80 - 120     |
| Magnesium | 10.0        | 10.05      |               | mg/L |   | 100  | 80 - 120     |
| Manganese | 0.200       | 0.204      |               | mg/L |   | 102  | 80 - 120     |
| Potassium | 10.0        | 9.60       |               | mg/L |   | 96   | 80 - 120     |
| Sodium    | 10.0        | 9.70       |               | mg/L |   | 97   | 80 - 120     |

Lab Sample ID: 480-18852-3 MS

Matrix: Water

Analysis Batch: 61196

Client Sample ID: MW-10-041912-1520

Prep Type: Total/NA

Prep Batch: 60777

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Iron      | 0.32          |                  | 10.0        | 9.99      |              | mg/L |   | 97   | 75 - 125     |
| Magnesium | 95.5          |                  | 10.0        | 105.3     | 4            | mg/L |   | 98   | 75 - 125     |
| Manganese | 2.4           |                  | 0.200       | 2.60      | 4            | mg/L |   | 92   | 75 - 125     |
| Potassium | 7.0           |                  | 10.0        | 17.64     |              | mg/L |   | 107  | 75 - 125     |
| Sodium    | 2110          |                  | 10.0        | 2160      | 4            | mg/L |   | 458  | 75 - 125     |

Lab Sample ID: 480-18852-3 MSD

Matrix: Water

Analysis Batch: 61196

Client Sample ID: MW-10-041912-1520

Prep Type: Total/NA

Prep Batch: 60777

| Analyte   | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Iron      | 0.32          |                  | 10.0        | 9.99       |               | mg/L |   | 97   | 75 - 125     | 0   | 20        |
| Magnesium | 95.5          |                  | 10.0        | 104.2      | 4             | mg/L |   | 87   | 75 - 125     | 1   | 20        |
| Manganese | 2.4           |                  | 0.200       | 2.56       | 4             | mg/L |   | 73   | 75 - 125     | 1   | 20        |
| Potassium | 7.0           |                  | 10.0        | 17.52      |               | mg/L |   | 105  | 75 - 125     | 1   | 20        |
| Sodium    | 2110          |                  | 10.0        | 2142       | 4             | mg/L |   | 279  | 75 - 125     | 1   | 20        |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 480-60930/1-A

Matrix: Water

Analysis Batch: 61178

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60930

| Analyte   | MB<br>Result | MB<br>Qualifier | RL     | MDL     | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------------|-----------------|--------|---------|------|---|----------------|----------------|---------|
| Iron      | ND           |                 | 0.050  | 0.019   | mg/L |   | 04/23/12 08:15 | 04/23/12 13:34 | 1       |
| Magnesium | ND           |                 | 0.20   | 0.043   | mg/L |   | 04/23/12 08:15 | 04/23/12 13:34 | 1       |
| Manganese | 0.000420     | J               | 0.0030 | 0.00040 | mg/L |   | 04/23/12 08:15 | 04/23/12 13:34 | 1       |
| Potassium | ND           |                 | 0.50   | 0.10    | mg/L |   | 04/23/12 08:15 | 04/23/12 13:34 | 1       |
| Sodium    | ND           |                 | 1.0    | 0.32    | mg/L |   | 04/23/12 08:15 | 04/23/12 13:34 | 1       |

Lab Sample ID: LCS 480-60930/2-A

Matrix: Water

Analysis Batch: 61178

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 60930

| Analyte   | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|-----------|----------------|---------------|------------------|------|---|------|-----------------|
| Iron      | 10.0           | 10.85         |                  | mg/L |   | 109  | 80 - 120        |
| Magnesium | 10.0           | 10.87         |                  | mg/L |   | 109  | 80 - 120        |
| Manganese | 0.200          | 0.207         |                  | mg/L |   | 103  | 80 - 120        |
| Potassium | 10.0           | 10.68         |                  | mg/L |   | 107  | 80 - 120        |
| Sodium    | 10.0           | 10.47         |                  | mg/L |   | 105  | 80 - 120        |

## Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 480-60567/147

Matrix: Water

Analysis Batch: 60567

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|--------|------|---|----------|----------------|---------|
| Ammonia | ND           |                 | 0.020 | 0.0090 | mg/L |   |          | 04/19/12 15:39 | 1       |

Lab Sample ID: LCS 480-60567/148

Matrix: Water

Analysis Batch: 60567

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Ammonia | 1.00           | 1.02          |                  | mg/L |   | 102  | 90 - 110        |

Lab Sample ID: MB 480-60915/75

Matrix: Water

Analysis Batch: 60915

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|--------|------|---|----------|----------------|---------|
| Ammonia | ND           |                 | 0.020 | 0.0090 | mg/L |   |          | 04/21/12 12:58 | 1       |

Lab Sample ID: LCS 480-60915/76

Matrix: Water

Analysis Batch: 60915

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Ammonia | 1.00           | 1.02          |                  | mg/L |   | 102  | 90 - 110        |

## QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

### Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: MB 480-61338/147

Matrix: Water

Analysis Batch: 61338

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|--------|------|---|----------|----------------|---------|
| Ammonia | ND           |                 | 0.020 | 0.0090 | mg/L |   |          | 04/24/12 13:57 | 1       |

Lab Sample ID: MB 480-61338/267

Matrix: Water

Analysis Batch: 61338

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL    | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|--------|------|---|----------|----------------|---------|
| Ammonia | ND           |                 | 0.020 | 0.0090 | mg/L |   |          | 04/24/12 15:57 | 1       |

Lab Sample ID: LCS 480-61338/148

Matrix: Water

Analysis Batch: 61338

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Ammonia | 1.00           | 1.02          |                  | mg/L |   | 102  | 90 - 110        |

Lab Sample ID: LCS 480-61338/268

Matrix: Water

Analysis Batch: 61338

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Ammonia | 1.00           | 0.971         |                  | mg/L |   | 97   | 90 - 110        |

### Method: 353.2 - Nitrogen, Nitrite

Lab Sample ID: MB 480-60344/27

Matrix: Water

Analysis Batch: 60344

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|------|---|----------|----------------|---------|
| Nitrite | ND           |                 | 0.050 | 0.020 | mg/L |   |          | 04/19/12 02:04 | 1       |

Lab Sample ID: MB 480-60344/51

Matrix: Water

Analysis Batch: 60344

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|------|---|----------|----------------|---------|
| Nitrite | ND           |                 | 0.050 | 0.020 | mg/L |   |          | 04/19/12 02:29 | 1       |

Lab Sample ID: LCS 480-60344/28

Matrix: Water

Analysis Batch: 60344

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Nitrite | 1.50           | 1.60          |                  | mg/L |   | 107  | 90 - 110        |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: 353.2 - Nitrogen, Nitrite (Continued)

Lab Sample ID: LCS 480-60344/52

Matrix: Water

Analysis Batch: 60344

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte |  |  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|--|--|----------------|---------------|------------------|------|---|------|-----------------|
| Nitrite |  |  | 1.50           | 1.60          |                  | mg/L |   | 107  | 90 - 110        |

Lab Sample ID: 480-18764-2 MS

Matrix: Water

Analysis Batch: 60344

Client Sample ID: MW-11-041812-1245

Prep Type: Total/NA

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|-----------------|
| Nitrite | ND               |                     | 1.00           | 1.10         |                 | mg/L |   | 110  | 61 - 147        |

Lab Sample ID: 480-18764-2 DU

Matrix: Water

Analysis Batch: 60344

Client Sample ID: MW-11-041812-1245

Prep Type: Total/NA

| Analyte | Sample<br>Result | Sample<br>Qualifier |  | DU<br>Result | DU<br>Qualifier | Unit | D |  | RPD | RPD<br>Limit |
|---------|------------------|---------------------|--|--------------|-----------------|------|---|--|-----|--------------|
| Nitrite | ND               |                     |  | ND           |                 | mg/L |   |  | NC  | 20           |

Lab Sample ID: MB 480-60734/34

Matrix: Water

Analysis Batch: 60734

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-------|-------|------|---|----------|----------------|---------|
| Nitrite | ND           |                 | 0.050 | 0.020 | mg/L |   |          | 04/20/12 12:00 | 1       |

Lab Sample ID: LCS 480-60734/35

Matrix: Water

Analysis Batch: 60734

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte |  |  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|--|--|----------------|---------------|------------------|------|---|------|-----------------|
| Nitrite |  |  | 1.50           | 1.60          |                  | mg/L |   | 106  | 90 - 110        |

Lab Sample ID: 480-18852-4 MS

Matrix: Water

Analysis Batch: 60734

Client Sample ID: DUP-041912-0001

Prep Type: Total/NA

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|-----------------|
| Nitrite | ND               |                     | 1.00           | 0.852        |                 | mg/L |   | 85   | 61 - 147        |

Lab Sample ID: 480-18852-4 DU

Matrix: Water

Analysis Batch: 60734

Client Sample ID: DUP-041912-0001

Prep Type: Total/NA

| Analyte | Sample<br>Result | Sample<br>Qualifier |  | DU<br>Result | DU<br>Qualifier | Unit | D |  | RPD | RPD<br>Limit |
|---------|------------------|---------------------|--|--------------|-----------------|------|---|--|-----|--------------|
| Nitrite | ND               |                     |  | ND           |                 | mg/L |   |  | NC  | 20           |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: 9038 - Sulfate, Turbidimetric

Lab Sample ID: MB 480-61361/9

Matrix: Water

Analysis Batch: 61361

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|-----|------|---|----------|----------------|---------|
| Sulfate | ND           |                 | 5.0 | 1.5 | mg/L |   |          | 04/24/12 13:23 | 1       |

Lab Sample ID: LCS 480-61361/8

Matrix: Water

Analysis Batch: 61361

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Sulfate | 30.0           | 30.89         |                  | mg/L |   | 103  | 90 - 110        |

Lab Sample ID: MB 480-61648/17

Matrix: Water

Analysis Batch: 61648

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|-----|------|---|----------|----------------|---------|
| Sulfate | 3.52         | J               | 5.0 | 1.5 | mg/L |   |          | 04/25/12 17:48 | 1       |

Lab Sample ID: MB 480-61648/41

Matrix: Water

Analysis Batch: 61648

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|-----|------|---|----------|----------------|---------|
| Sulfate | 3.42         | J               | 5.0 | 1.5 | mg/L |   |          | 04/25/12 19:51 | 1       |

Lab Sample ID: LCS 480-61648/16

Matrix: Water

Analysis Batch: 61648

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Sulfate | 30.0           | 27.15         |                  | mg/L |   | 90   | 90 - 110        |

Lab Sample ID: LCS 480-61648/40

Matrix: Water

Analysis Batch: 61648

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Sulfate | 30.0           | 27.19         |                  | mg/L |   | 91   | 90 - 110        |

Lab Sample ID: MB 480-61946/16

Matrix: Water

Analysis Batch: 61946

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|-----|------|---|----------|----------------|---------|
| Sulfate | 3.71         | J               | 5.0 | 1.5 | mg/L |   |          | 04/26/12 18:14 | 1       |

Lab Sample ID: MB 480-61946/39

Matrix: Water

Analysis Batch: 61946

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|-----|------|---|----------|----------------|---------|
| Sulfate | 3.56         | J               | 5.0 | 1.5 | mg/L |   |          | 04/27/12 04:20 | 1       |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: 9038 - Sulfate, Turbidimetric (Continued)

Lab Sample ID: MB 480-61946/54

Matrix: Water

Analysis Batch: 61946

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|-----|------|---|----------|----------------|---------|
| Sulfate | 3.53         | J               | 5.0 | 1.5 | mg/L |   |          | 04/27/12 10:55 | 1       |

Lab Sample ID: MB 480-61946/59

Matrix: Water

Analysis Batch: 61946

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|-----|------|---|----------|----------------|---------|
| Sulfate | 3.60         | J               | 5.0 | 1.5 | mg/L |   |          | 04/27/12 13:06 | 1       |

Lab Sample ID: LCS 480-61946/38

Matrix: Water

Analysis Batch: 61946

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Sulfate | 30.0           | 29.37         |                  | mg/L |   | 98   | 90 - 110        |

Lab Sample ID: LCS 480-61946/58

Matrix: Water

Analysis Batch: 61946

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Sulfate | 30.0           | 28.69         |                  | mg/L |   | 96   | 90 - 110        |

Lab Sample ID: 480-18943-1 MS

Matrix: Water

Analysis Batch: 61946

Client Sample ID: MW-4-042012-1300

Prep Type: Total/NA

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|-----------------|
| Sulfate | 282              | B                   | 600            | 290.3        | F               | mg/L |   | 1    | 60 - 128        |

Lab Sample ID: 480-18943-2 MS

Matrix: Water

Analysis Batch: 61946

Client Sample ID: MW-7-042012-1630

Prep Type: Total/NA

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|-----------------|
| Sulfate | 332              | B                   | 20.0           | 346.2        | 4               | mg/L |   | 73   | 60 - 128        |

Lab Sample ID: 480-18943-1 DU

Matrix: Water

Analysis Batch: 61946

Client Sample ID: MW-4-042012-1300

Prep Type: Total/NA

| Analyte | Sample<br>Result | Sample<br>Qualifier | DU<br>Result | DU<br>Qualifier | Unit | D | RPD | RPD<br>Limit |
|---------|------------------|---------------------|--------------|-----------------|------|---|-----|--------------|
| Sulfate | 282              | B                   | 273.2        |                 | mg/L |   | 3   | 20           |

Lab Sample ID: 480-18943-2 DU

Matrix: Water

Analysis Batch: 61946

Client Sample ID: MW-7-042012-1630

Prep Type: Total/NA

| Analyte | Sample<br>Result | Sample<br>Qualifier | DU<br>Result | DU<br>Qualifier | Unit | D | RPD | RPD<br>Limit |
|---------|------------------|---------------------|--------------|-----------------|------|---|-----|--------------|
| Sulfate | 332              | B                   | 339.5        |                 | mg/L |   | 2   | 20           |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: 9038 - Sulfate, Turbidimetric (Continued)

Lab Sample ID: MB 480-61992/7

Matrix: Water

Analysis Batch: 61992

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|-----|-----|------|---|----------|----------------|---------|
| Sulfate | 2.97         | J               | 5.0 | 1.5 | mg/L |   |          | 04/27/12 15:09 | 1       |

Lab Sample ID: LCS 480-61992/6

Matrix: Water

Analysis Batch: 61992

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Sulfate | 30.0           | 28.19         |                  | mg/L |   | 94   | 90 - 110        |

## Method: 9060 - Organic Carbon, Total (TOC)

Lab Sample ID: MB 480-61484/27

Matrix: Water

Analysis Batch: 61484

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte              | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Total Organic Carbon | ND           |                 | 1.0 | 0.43 | mg/L |   |          | 04/24/12 06:38 | 1       |

Lab Sample ID: MB 480-61484/51

Matrix: Water

Analysis Batch: 61484

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte              | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Total Organic Carbon | ND           |                 | 1.0 | 0.43 | mg/L |   |          | 04/24/12 18:31 | 1       |

Lab Sample ID: LCS 480-61484/28

Matrix: Water

Analysis Batch: 61484

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte              | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|----------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Total Organic Carbon | 60.0           | 57.46         |                  | mg/L |   | 96   | 90 - 110        |

Lab Sample ID: LCS 480-61484/52

Matrix: Water

Analysis Batch: 61484

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte              | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|----------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Total Organic Carbon | 60.0           | 58.05         |                  | mg/L |   | 97   | 90 - 110        |

Lab Sample ID: 480-18764-3 MS

Matrix: Water

Analysis Batch: 61484

Client Sample ID: MW-12-048112-1530

Prep Type: Total/NA

| Analyte              | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|----------------------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|-----------------|
| Total Organic Carbon | 3.7              |                     | 20.0           | 20.83        |                 | mg/L |   | 86   | 54 - 131        |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: 9060 - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 480-18852-1 MS

Matrix: Water

Analysis Batch: 61484

Client Sample ID: MW-13-041912-0845

Prep Type: Total/NA

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Total Organic Carbon | 4.0           |                  | 20.0        | 21.52     |              | mg/L |   | 87   | 54 - 131     |

Lab Sample ID: 480-18943-2 MS

Matrix: Water

Analysis Batch: 61484

Client Sample ID: MW-7-042012-1630

Prep Type: Total/NA

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Total Organic Carbon | 8.7           |                  | 20.0        | 25.94     |              | mg/L |   | 86   | 54 - 131     |

Lab Sample ID: 480-18764-2 DU

Matrix: Water

Analysis Batch: 61484

Client Sample ID: MW-11-041812-1245

Prep Type: Total/NA

| Analyte              | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|----------------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Total Organic Carbon | 1.3           |                  | 1.28      |              | mg/L |   | 3   | 20        |

Lab Sample ID: 480-18943-1 DU

Matrix: Water

Analysis Batch: 61484

Client Sample ID: MW-4-042012-1300

Prep Type: Total/NA

| Analyte              | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|----------------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Total Organic Carbon | 3.1           |                  | 2.57      |              | mg/L |   | 20  | 20        |

Lab Sample ID: MB 480-61892/3

Matrix: Water

Analysis Batch: 61892

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte              | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Organic Carbon | ND        |              | 1.0 | 0.43 | mg/L |   |          | 04/25/12 15:36 | 1       |

Lab Sample ID: LCS 480-61892/4

Matrix: Water

Analysis Batch: 61892

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|------|---|------|--------------|
| Total Organic Carbon | 60.0        | 59.71      |               | mg/L |   | 100  | 90 - 110     |

## Method: SM 2320B - Alkalinity

Lab Sample ID: MB 480-60794/27

Matrix: Water

Analysis Batch: 60794

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte          | MB Result | MB Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Total Alkalinity | ND        |              | 5.0 | 0.79 | mg/L |   |          | 04/20/12 11:15 | 1       |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 480-60794/3

Matrix: Water

Analysis Batch: 60794

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte          | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Total Alkalinity | ND           |                 | 5.0 | 0.79 | mg/L |   |          | 04/20/12 11:15 | 1       |

Lab Sample ID: MB 480-60794/51

Matrix: Water

Analysis Batch: 60794

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte          | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Total Alkalinity | ND           |                 | 5.0 | 0.79 | mg/L |   |          | 04/20/12 11:15 | 1       |

Lab Sample ID: LCS 480-60794/28

Matrix: Water

Analysis Batch: 60794

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte          | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Total Alkalinity | 1000           | 940.0         |                  | mg/L |   | 94   | 90 - 110        |

Lab Sample ID: LCS 480-60794/4

Matrix: Water

Analysis Batch: 60794

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte          | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Total Alkalinity | 1000           | 940.0         |                  | mg/L |   | 94   | 90 - 110        |

Lab Sample ID: LCS 480-60794/52

Matrix: Water

Analysis Batch: 60794

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte          | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Total Alkalinity | 1000           | 928.0         |                  | mg/L |   | 93   | 90 - 110        |

Lab Sample ID: MB 480-61089/27

Matrix: Water

Analysis Batch: 61089

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte          | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Total Alkalinity | ND           |                 | 5.0 | 0.79 | mg/L |   |          | 04/23/12 12:09 | 1       |

Lab Sample ID: LCS 480-61089/28

Matrix: Water

Analysis Batch: 61089

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte          | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|------------------|----------------|---------------|------------------|------|---|------|-----------------|
| Total Alkalinity | 1000           | 928.0         |                  | mg/L |   | 93   | 90 - 110        |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 480-61362/5

Matrix: Water

Analysis Batch: 61362

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte  | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Chloride | ND           |                 | 1.0 | 0.46 | mg/L |   |          | 04/24/12 14:38 | 1       |

Lab Sample ID: LCS 480-61362/4

Matrix: Water

Analysis Batch: 61362

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|----------|----------------|---------------|------------------|------|---|------|-----------------|
| Chloride | 25.0           | 26.42         |                  | mg/L |   | 106  | 90 - 110        |

Lab Sample ID: MB 480-61649/15

Matrix: Water

Analysis Batch: 61649

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte  | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Chloride | 0.905        | J               | 1.0 | 0.46 | mg/L |   |          | 04/25/12 19:53 | 1       |

Lab Sample ID: MB 480-61649/31

Matrix: Water

Analysis Batch: 61649

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte  | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Chloride | 0.858        | J               | 1.0 | 0.46 | mg/L |   |          | 04/25/12 20:16 | 1       |

Lab Sample ID: MB 480-61649/43

Matrix: Water

Analysis Batch: 61649

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte  | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Chloride | 0.641        | J               | 1.0 | 0.46 | mg/L |   |          | 04/25/12 20:19 | 1       |

Lab Sample ID: LCS 480-61649/14

Matrix: Water

Analysis Batch: 61649

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|----------|----------------|---------------|------------------|------|---|------|-----------------|
| Chloride | 25.0           | 26.21         |                  | mg/L |   | 105  | 90 - 110        |

Lab Sample ID: LCS 480-61649/30

Matrix: Water

Analysis Batch: 61649

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|----------|----------------|---------------|------------------|------|---|------|-----------------|
| Chloride | 25.0           | 25.90         |                  | mg/L |   | 104  | 90 - 110        |

Lab Sample ID: LCS 480-61649/42

Matrix: Water

Analysis Batch: 61649

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|----------|----------------|---------------|------------------|------|---|------|-----------------|
| Chloride | 25.0           | 26.34         |                  | mg/L |   | 105  | 90 - 110        |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: MB 480-61931/61

Matrix: Water

Analysis Batch: 61931

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte  | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Chloride | ND           |                 | 1.0 | 0.46 | mg/L |   |          | 04/26/12 11:05 | 1       |

Lab Sample ID: MB 480-61931/82

Matrix: Water

Analysis Batch: 61931

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte  | MB<br>Result | MB<br>Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------|--------------|-----------------|-----|------|------|---|----------|----------------|---------|
| Chloride | ND           |                 | 1.0 | 0.46 | mg/L |   |          | 04/27/12 15:09 | 1       |

Lab Sample ID: LCS 480-61931/81

Matrix: Water

Analysis Batch: 61931

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte  | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|----------|----------------|---------------|------------------|------|---|------|-----------------|
| Chloride | 25.0           | 25.43         |                  | mg/L |   | 102  | 90 - 110        |

Lab Sample ID: 480-18943-1 MS

Matrix: Water

Analysis Batch: 61931

Client Sample ID: MW-4-042012-1300

Prep Type: Total/NA

| Analyte  | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|----------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|-----------------|
| Chloride | 3580             |                     | 20.0           | 3394         | 4               | mg/L |   | -946 | 74 - 131        |

Lab Sample ID: 480-18943-2 MS

Matrix: Water

Analysis Batch: 61931

Client Sample ID: MW-7-042012-1630

Prep Type: Total/NA

| Analyte  | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|----------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|-----------------|
| Chloride | 416              |                     | 20.0           | 404.7        | 4               | mg/L |   | -54  | 74 - 131        |

Lab Sample ID: 480-18943-1 DU

Matrix: Water

Analysis Batch: 61931

Client Sample ID: MW-4-042012-1300

Prep Type: Total/NA

| Analyte  | Sample<br>Result | Sample<br>Qualifier | DU<br>Result | DU<br>Qualifier | Unit | D | RPD | RPD<br>Limit |
|----------|------------------|---------------------|--------------|-----------------|------|---|-----|--------------|
| Chloride | 3580             |                     | 3570         |                 | mg/L |   | 0.4 | 20           |

Lab Sample ID: 480-18943-2 DU

Matrix: Water

Analysis Batch: 61931

Client Sample ID: MW-7-042012-1630

Prep Type: Total/NA

| Analyte  | Sample<br>Result | Sample<br>Qualifier | DU<br>Result | DU<br>Qualifier | Unit | D | RPD | RPD<br>Limit |
|----------|------------------|---------------------|--------------|-----------------|------|---|-----|--------------|
| Chloride | 416              |                     | 411.0        |                 | mg/L |   | 1   | 20           |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 480-60531/3

Matrix: Water

Analysis Batch: 60531

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|------|-------|------|---|----------|----------------|---------|
| Sulfide | ND           |                 | 0.10 | 0.052 | mg/L |   |          | 04/19/12 13:10 | 1       |

Lab Sample ID: LCS 480-60531/4

Matrix: Water

Analysis Batch: 60531

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Sulfide | 0.750          | 0.771         |                  | mg/L |   | 103  | 90 - 110        |

Lab Sample ID: 480-18764-3 MS

Matrix: Water

Analysis Batch: 60531

Client Sample ID: MW-12-048112-1530

Prep Type: Total/NA

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|-----------------|
| Sulfide | ND               |                     | 0.500          | 0.397        | F               | mg/L |   | 79   | 90 - 110        |

Lab Sample ID: 480-18764-2 DU

Matrix: Water

Analysis Batch: 60531

Client Sample ID: MW-11-041812-1245

Prep Type: Total/NA

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | DU<br>Result | DU<br>Qualifier | Unit | D | RPD  | RPD<br>Limit |
|---------|------------------|---------------------|----------------|--------------|-----------------|------|---|------|--------------|
| Sulfide | 0.053            | J                   |                | 0.0561       | J               | mg/L |   | 6.00 | 20           |

Lab Sample ID: MB 480-61337/3

Matrix: Water

Analysis Batch: 61337

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB<br>Result | MB<br>Qualifier | RL   | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------------|-----------------|------|-------|------|---|----------|----------------|---------|
| Sulfide | ND           |                 | 0.10 | 0.052 | mg/L |   |          | 04/24/12 13:00 | 1       |

Lab Sample ID: LCS 480-61337/4

Matrix: Water

Analysis Batch: 61337

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|-----------------|
| Sulfide | 0.750          | 0.755         |                  | mg/L |   | 101  | 90 - 110        |

## Method: VFA-IC - Volatile Fatty Acids, Ion Chromatography

Lab Sample ID: MB 480-60570/4

Matrix: Water

Analysis Batch: 60570

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte        | MB<br>Result | MB<br>Qualifier | RL  | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------------|-----------------|-----|-------|------|---|----------|----------------|---------|
| Acetic acid    | ND           |                 | 1.0 | 0.15  | mg/L |   |          | 04/19/12 20:02 | 1       |
| Formic acid    | ND           |                 | 1.0 | 0.11  | mg/L |   |          | 04/19/12 20:02 | 1       |
| Lactic acid    | ND           |                 | 1.0 | 0.14  | mg/L |   |          | 04/19/12 20:02 | 1       |
| n-Butyric Acid | ND           |                 | 1.0 | 0.16  | mg/L |   |          | 04/19/12 20:02 | 1       |
| Propionic acid | ND           |                 | 1.0 | 0.17  | mg/L |   |          | 04/19/12 20:02 | 1       |
| Pyruvic Acid   | ND           |                 | 1.0 | 0.080 | mg/L |   |          | 04/19/12 20:02 | 1       |

# QC Sample Results

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Method: VFA-IC - Volatile Fatty Acids, Ion Chromatography (Continued)

Lab Sample ID: LCS 480-60570/3

Matrix: Water

Analysis Batch: 60570

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|------|---|------|--------------|
| Acetic acid    | 10.0        | 10.20      |               | mg/L |   | 102  | 80 - 120     |
| Formic acid    | 10.0        | 10.10      |               | mg/L |   | 101  | 80 - 120     |
| Lactic acid    | 10.0        | 10.20      |               | mg/L |   | 102  | 80 - 120     |
| n-Butyric Acid | 10.0        | 10.20      |               | mg/L |   | 102  | 80 - 120     |
| Propionic acid | 10.0        | 10.40      |               | mg/L |   | 104  | 80 - 120     |
| Pyruvic Acid   | 10.0        | 10.30      |               | mg/L |   | 103  | 80 - 120     |

Lab Sample ID: MB 480-61975/4

Matrix: Water

Analysis Batch: 61975

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte        | MB Result | MB Qualifier | RL  | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|-----------|--------------|-----|-------|------|---|----------|----------------|---------|
| Acetic acid    | ND        |              | 1.0 | 0.15  | mg/L |   |          | 04/29/12 11:23 | 1       |
| Formic acid    | ND        |              | 1.0 | 0.11  | mg/L |   |          | 04/29/12 11:23 | 1       |
| Lactic acid    | ND        |              | 1.0 | 0.14  | mg/L |   |          | 04/29/12 11:23 | 1       |
| n-Butyric Acid | ND        |              | 1.0 | 0.16  | mg/L |   |          | 04/29/12 11:23 | 1       |
| Propionic acid | ND        |              | 1.0 | 0.17  | mg/L |   |          | 04/29/12 11:23 | 1       |
| Pyruvic Acid   | 0.121     | J            | 1.0 | 0.080 | mg/L |   |          | 04/29/12 11:23 | 1       |

Lab Sample ID: LCS 480-61975/3

Matrix: Water

Analysis Batch: 61975

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------|-------------|------------|---------------|------|---|------|--------------|
| Acetic acid    | 10.0        | 9.43       |               | mg/L |   | 94   | 80 - 120     |
| Formic acid    | 10.0        | 9.47       |               | mg/L |   | 95   | 80 - 120     |
| Lactic acid    | 10.0        | 9.69       |               | mg/L |   | 97   | 80 - 120     |
| n-Butyric Acid | 10.0        | 9.70       |               | mg/L |   | 97   | 80 - 120     |
| Propionic acid | 10.0        | 9.67       |               | mg/L |   | 97   | 80 - 120     |
| Pyruvic Acid   | 10.0        | 10.10      |               | mg/L |   | 101  | 80 - 120     |

## QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

### GC/MS VOA

#### Analysis Batch: 60999

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 480-18764-1     | MW-15-041812-0900  | Total/NA  | Water  | 8260B  |            |
| 480-18764-2     | MW-11-041812-1245  | Total/NA  | Water  | 8260B  |            |
| 480-18764-3     | MW-12-048112-1530  | Total/NA  | Water  | 8260B  |            |
| LCS 480-60999/4 | Lab Control Sample | Total/NA  | Water  | 8260B  |            |
| MB 480-60999/5  | Method Blank       | Total/NA  | Water  | 8260B  |            |

#### Analysis Batch: 61223

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 480-18764-3 - DL | MW-12-048112-1530  | Total/NA  | Water  | 8260B  |            |
| LCS 480-61223/4  | Lab Control Sample | Total/NA  | Water  | 8260B  |            |
| MB 480-61223/5   | Method Blank       | Total/NA  | Water  | 8260B  |            |

#### Analysis Batch: 61436

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 480-18852-1     | MW-13-041912-0845  | Total/NA  | Water  | 8260B  |            |
| 480-18852-2     | MW-14-041912-1315  | Total/NA  | Water  | 8260B  |            |
| 480-18852-3     | MW-10-041912-1520  | Total/NA  | Water  | 8260B  |            |
| 480-18852-4     | DUP-041912-0001    | Total/NA  | Water  | 8260B  |            |
| LCS 480-61436/4 | Lab Control Sample | Total/NA  | Water  | 8260B  |            |
| MB 480-61436/5  | Method Blank       | Total/NA  | Water  | 8260B  |            |

#### Analysis Batch: 61854

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 480-18943-1     | MW-4-042012-1300   | Total/NA  | Water  | 8260B  |            |
| LCS 480-61854/4 | Lab Control Sample | Total/NA  | Water  | 8260B  |            |
| MB 480-61854/5  | Method Blank       | Total/NA  | Water  | 8260B  |            |

#### Analysis Batch: 61974

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 480-18943-2     | MW-7-042012-1630   | Total/NA  | Water  | 8260B  |            |
| LCS 480-61974/4 | Lab Control Sample | Total/NA  | Water  | 8260B  |            |
| MB 480-61974/5  | Method Blank       | Total/NA  | Water  | 8260B  |            |

#### Analysis Batch: 62084

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 480-18943-1 - DL | MW-4-042012-1300   | Total/NA  | Water  | 8260B  |            |
| LCS 480-62084/4  | Lab Control Sample | Total/NA  | Water  | 8260B  |            |
| MB 480-62084/5   | Method Blank       | Total/NA  | Water  | 8260B  |            |

### GC VOA

#### Analysis Batch: 37525

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method  | Prep Batch |
|-----------------|--------------------|-----------|--------|---------|------------|
| 480-18764-1     | MW-15-041812-0900  | Total/NA  | Water  | RSK-175 |            |
| 480-18764-2     | MW-11-041812-1245  | Total/NA  | Water  | RSK-175 |            |
| 480-18764-3     | MW-12-048112-1530  | Total/NA  | Water  | RSK-175 |            |
| LCS 200-37525/2 | Lab Control Sample | Total/NA  | Water  | RSK-175 |            |
| MB 200-37525/3  | Method Blank       | Total/NA  | Water  | RSK-175 |            |

#### Analysis Batch: 37685

| Lab Sample ID | Client Sample ID  | Prep Type | Matrix | Method  | Prep Batch |
|---------------|-------------------|-----------|--------|---------|------------|
| 480-18852-1   | MW-13-041912-0845 | Total/NA  | Water  | RSK-175 |            |

## QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

### GC VOA (Continued)

#### Analysis Batch: 37685 (Continued)

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method  | Prep Batch |
|-----------------|--------------------|-----------|--------|---------|------------|
| 480-18852-2     | MW-14-041912-1315  | Total/NA  | Water  | RSK-175 |            |
| 480-18852-3     | MW-10-041912-1520  | Total/NA  | Water  | RSK-175 |            |
| 480-18852-4     | DUP-041912-0001    | Total/NA  | Water  | RSK-175 |            |
| 480-18943-1     | MW-4-042012-1300   | Total/NA  | Water  | RSK-175 |            |
| 480-18943-2     | MW-7-042012-1630   | Total/NA  | Water  | RSK-175 |            |
| LCS 200-37685/2 | Lab Control Sample | Total/NA  | Water  | RSK-175 |            |
| MB 200-37685/3  | Method Blank       | Total/NA  | Water  | RSK-175 |            |

#### Analysis Batch: 60876

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method  | Prep Batch |
|-------------------|------------------------|-----------|--------|---------|------------|
| 480-18764-1       | MW-15-041812-0900      | Total/NA  | Water  | RSK-175 |            |
| 480-18764-2       | MW-11-041812-1245      | Total/NA  | Water  | RSK-175 |            |
| 480-18764-3       | MW-12-048112-1530      | Total/NA  | Water  | RSK-175 |            |
| 480-18852-1       | MW-13-041912-0845      | Total/NA  | Water  | RSK-175 |            |
| 480-18852-2       | MW-14-041912-1315      | Total/NA  | Water  | RSK-175 |            |
| 480-18852-3       | MW-10-041912-1520      | Total/NA  | Water  | RSK-175 |            |
| 480-18852-4       | DUP-041912-0001        | Total/NA  | Water  | RSK-175 |            |
| 480-18943-1       | MW-4-042012-1300       | Total/NA  | Water  | RSK-175 |            |
| 480-18943-2       | MW-7-042012-1630       | Total/NA  | Water  | RSK-175 |            |
| LCS 480-60876/13  | Lab Control Sample     | Total/NA  | Water  | RSK-175 |            |
| LCSD 480-60876/23 | Lab Control Sample Dup | Total/NA  | Water  | RSK-175 |            |
| MB 480-60876/12   | Method Blank           | Total/NA  | Water  | RSK-175 |            |

#### Analysis Batch: 62742

| Lab Sample ID | Client Sample ID  | Prep Type | Matrix | Method  | Prep Batch |
|---------------|-------------------|-----------|--------|---------|------------|
| 480-18764-1   | MW-15-041812-0900 | Total/NA  | Water  | AM20GAX |            |
| 480-18764-2   | MW-11-041812-1245 | Total/NA  | Water  | AM20GAX |            |
| 480-18764-3   | MW-12-048112-1530 | Total/NA  | Water  | AM20GAX |            |

#### Analysis Batch: 63130

| Lab Sample ID | Client Sample ID  | Prep Type | Matrix | Method  | Prep Batch |
|---------------|-------------------|-----------|--------|---------|------------|
| 480-18852-1   | MW-13-041912-0845 | Total/NA  | Water  | AM20GAX |            |
| 480-18852-2   | MW-14-041912-1315 | Total/NA  | Water  | AM20GAX |            |
| 480-18852-3   | MW-10-041912-1520 | Total/NA  | Water  | AM20GAX |            |
| 480-18852-4   | DUP-041912-0001   | Total/NA  | Water  | AM20GAX |            |

#### Analysis Batch: 64101

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method  | Prep Batch |
|---------------|------------------|-----------|--------|---------|------------|
| 480-18943-1   | MW-4-042012-1300 | Total/NA  | Water  | AM20GAX |            |

### Metals

#### Prep Batch: 60415

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 480-18764-1       | MW-15-041812-0900  | Total/NA  | Water  | 3005A  |            |
| 480-18764-2       | MW-11-041812-1245  | Total/NA  | Water  | 3005A  |            |
| 480-18764-3       | MW-12-048112-1530  | Total/NA  | Water  | 3005A  |            |
| LCS 480-60415/2-A | Lab Control Sample | Total/NA  | Water  | 3005A  |            |
| MB 480-60415/1-A  | Method Blank       | Total/NA  | Water  | 3005A  |            |

# QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## Metals (Continued)

### Analysis Batch: 60637

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 480-18764-1       | MW-15-041812-0900  | Total/NA  | Water  | 6010B  | 60415      |
| 480-18764-2       | MW-11-041812-1245  | Total/NA  | Water  | 6010B  | 60415      |
| 480-18764-3       | MW-12-048112-1530  | Total/NA  | Water  | 6010B  | 60415      |
| LCS 480-60415/2-A | Lab Control Sample | Total/NA  | Water  | 6010B  | 60415      |
| MB 480-60415/1-A  | Method Blank       | Total/NA  | Water  | 6010B  | 60415      |

### Prep Batch: 60777

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 480-18852-1       | MW-13-041912-0845  | Total/NA  | Water  | 3005A  |            |
| 480-18852-2       | MW-14-041912-1315  | Total/NA  | Water  | 3005A  |            |
| 480-18852-3       | MW-10-041912-1520  | Total/NA  | Water  | 3005A  |            |
| 480-18852-3 MS    | MW-10-041912-1520  | Total/NA  | Water  | 3005A  |            |
| 480-18852-3 MSD   | MW-10-041912-1520  | Total/NA  | Water  | 3005A  |            |
| 480-18852-4       | DUP-041912-0001    | Total/NA  | Water  | 3005A  |            |
| LCS 480-60777/2-A | Lab Control Sample | Total/NA  | Water  | 3005A  |            |
| MB 480-60777/1-A  | Method Blank       | Total/NA  | Water  | 3005A  |            |

### Prep Batch: 60930

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 480-18943-1       | MW-4-042012-1300   | Total/NA  | Water  | 3005A  |            |
| 480-18943-2       | MW-7-042012-1630   | Total/NA  | Water  | 3005A  |            |
| LCS 480-60930/2-A | Lab Control Sample | Total/NA  | Water  | 3005A  |            |
| MB 480-60930/1-A  | Method Blank       | Total/NA  | Water  | 3005A  |            |

### Analysis Batch: 61178

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 480-18943-1       | MW-4-042012-1300   | Total/NA  | Water  | 6010B  | 60930      |
| 480-18943-2       | MW-7-042012-1630   | Total/NA  | Water  | 6010B  | 60930      |
| LCS 480-60930/2-A | Lab Control Sample | Total/NA  | Water  | 6010B  | 60930      |
| MB 480-60930/1-A  | Method Blank       | Total/NA  | Water  | 6010B  | 60930      |

### Analysis Batch: 61196

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 480-18852-1       | MW-13-041912-0845  | Total/NA  | Water  | 6010B  | 60777      |
| 480-18852-2       | MW-14-041912-1315  | Total/NA  | Water  | 6010B  | 60777      |
| 480-18852-3       | MW-10-041912-1520  | Total/NA  | Water  | 6010B  | 60777      |
| 480-18852-3 MS    | MW-10-041912-1520  | Total/NA  | Water  | 6010B  | 60777      |
| 480-18852-3 MSD   | MW-10-041912-1520  | Total/NA  | Water  | 6010B  | 60777      |
| 480-18852-4       | DUP-041912-0001    | Total/NA  | Water  | 6010B  | 60777      |
| LCS 480-60777/2-A | Lab Control Sample | Total/NA  | Water  | 6010B  | 60777      |
| MB 480-60777/1-A  | Method Blank       | Total/NA  | Water  | 6010B  | 60777      |

## General Chemistry

### Analysis Batch: 60344

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 480-18764-1      | MW-15-041812-0900  | Total/NA  | Water  | 353.2  |            |
| 480-18764-2      | MW-11-041812-1245  | Total/NA  | Water  | 353.2  |            |
| 480-18764-2 DU   | MW-11-041812-1245  | Total/NA  | Water  | 353.2  |            |
| 480-18764-2 MS   | MW-11-041812-1245  | Total/NA  | Water  | 353.2  |            |
| LCS 480-60344/28 | Lab Control Sample | Total/NA  | Water  | 353.2  |            |
| LCS 480-60344/52 | Lab Control Sample | Total/NA  | Water  | 353.2  |            |

## QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

### General Chemistry (Continued)

#### Analysis Batch: 60344 (Continued)

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| MB 480-60344/27 | Method Blank     | Total/NA  | Water  | 353.2  |            |
| MB 480-60344/51 | Method Blank     | Total/NA  | Water  | 353.2  |            |

#### Analysis Batch: 60345

| Lab Sample ID | Client Sample ID  | Prep Type | Matrix | Method | Prep Batch |
|---------------|-------------------|-----------|--------|--------|------------|
| 480-18764-1   | MW-15-041812-0900 | Total/NA  | Water  | 353.2  |            |
| 480-18764-2   | MW-11-041812-1245 | Total/NA  | Water  | 353.2  |            |
| 480-18764-3   | MW-12-048112-1530 | Total/NA  | Water  | 353.2  |            |

#### Analysis Batch: 60346

| Lab Sample ID | Client Sample ID  | Prep Type | Matrix | Method | Prep Batch |
|---------------|-------------------|-----------|--------|--------|------------|
| 480-18764-3   | MW-12-048112-1530 | Total/NA  | Water  | 353.2  |            |

#### Analysis Batch: 60531

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method       | Prep Batch |
|-----------------|--------------------|-----------|--------|--------------|------------|
| 480-18764-1     | MW-15-041812-0900  | Total/NA  | Water  | SM 4500 S2 D |            |
| 480-18764-2     | MW-11-041812-1245  | Total/NA  | Water  | SM 4500 S2 D |            |
| 480-18764-2 DU  | MW-11-041812-1245  | Total/NA  | Water  | SM 4500 S2 D |            |
| 480-18764-3     | MW-12-048112-1530  | Total/NA  | Water  | SM 4500 S2 D |            |
| 480-18764-3 MS  | MW-12-048112-1530  | Total/NA  | Water  | SM 4500 S2 D |            |
| LCS 480-60531/4 | Lab Control Sample | Total/NA  | Water  | SM 4500 S2 D |            |
| MB 480-60531/3  | Method Blank       | Total/NA  | Water  | SM 4500 S2 D |            |

#### Analysis Batch: 60567

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 480-18764-1       | MW-15-041812-0900  | Total/NA  | Water  | 350.1  |            |
| 480-18764-2       | MW-11-041812-1245  | Total/NA  | Water  | 350.1  |            |
| 480-18764-3       | MW-12-048112-1530  | Total/NA  | Water  | 350.1  |            |
| LCS 480-60567/148 | Lab Control Sample | Total/NA  | Water  | 350.1  |            |
| MB 480-60567/147  | Method Blank       | Total/NA  | Water  | 350.1  |            |

#### Analysis Batch: 60570

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 480-18764-1     | MW-15-041812-0900  | Total/NA  | Water  | VFA-IC |            |
| 480-18764-2     | MW-11-041812-1245  | Total/NA  | Water  | VFA-IC |            |
| 480-18764-3     | MW-12-048112-1530  | Total/NA  | Water  | VFA-IC |            |
| LCS 480-60570/3 | Lab Control Sample | Total/NA  | Water  | VFA-IC |            |
| MB 480-60570/4  | Method Blank       | Total/NA  | Water  | VFA-IC |            |

#### Analysis Batch: 60734

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 480-18852-1      | MW-13-041912-0845  | Total/NA  | Water  | 353.2  |            |
| 480-18852-4      | DUP-041912-0001    | Total/NA  | Water  | 353.2  |            |
| 480-18852-4 DU   | DUP-041912-0001    | Total/NA  | Water  | 353.2  |            |
| 480-18852-4 MS   | DUP-041912-0001    | Total/NA  | Water  | 353.2  |            |
| LCS 480-60734/35 | Lab Control Sample | Total/NA  | Water  | 353.2  |            |
| MB 480-60734/34  | Method Blank       | Total/NA  | Water  | 353.2  |            |

#### Analysis Batch: 60751

| Lab Sample ID | Client Sample ID  | Prep Type | Matrix | Method | Prep Batch |
|---------------|-------------------|-----------|--------|--------|------------|
| 480-18852-1   | MW-13-041912-0845 | Total/NA  | Water  | 353.2  |            |
| 480-18852-2   | MW-14-041912-1315 | Total/NA  | Water  | 353.2  |            |

# QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## General Chemistry (Continued)

### Analysis Batch: 60751 (Continued)

| Lab Sample ID | Client Sample ID  | Prep Type | Matrix | Method | Prep Batch |
|---------------|-------------------|-----------|--------|--------|------------|
| 480-18852-3   | MW-10-041912-1520 | Total/NA  | Water  | 353.2  |            |
| 480-18852-4   | DUP-041912-0001   | Total/NA  | Water  | 353.2  |            |

### Analysis Batch: 60757

| Lab Sample ID | Client Sample ID  | Prep Type | Matrix | Method | Prep Batch |
|---------------|-------------------|-----------|--------|--------|------------|
| 480-18852-2   | MW-14-041912-1315 | Total/NA  | Water  | 353.2  |            |
| 480-18852-3   | MW-10-041912-1520 | Total/NA  | Water  | 353.2  |            |

### Analysis Batch: 60794

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method   | Prep Batch |
|------------------|--------------------|-----------|--------|----------|------------|
| 480-18764-1      | MW-15-041812-0900  | Total/NA  | Water  | SM 2320B |            |
| 480-18764-2      | MW-11-041812-1245  | Total/NA  | Water  | SM 2320B |            |
| 480-18764-3      | MW-12-048112-1530  | Total/NA  | Water  | SM 2320B |            |
| LCS 480-60794/28 | Lab Control Sample | Total/NA  | Water  | SM 2320B |            |
| LCS 480-60794/4  | Lab Control Sample | Total/NA  | Water  | SM 2320B |            |
| LCS 480-60794/52 | Lab Control Sample | Total/NA  | Water  | SM 2320B |            |
| MB 480-60794/27  | Method Blank       | Total/NA  | Water  | SM 2320B |            |
| MB 480-60794/3   | Method Blank       | Total/NA  | Water  | SM 2320B |            |
| MB 480-60794/51  | Method Blank       | Total/NA  | Water  | SM 2320B |            |

### Analysis Batch: 60845

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 480-18943-1   | MW-4-042012-1300 | Total/NA  | Water  | 353.2  |            |
| 480-18943-2   | MW-7-042012-1630 | Total/NA  | Water  | 353.2  |            |

### Analysis Batch: 60846

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 480-18943-1   | MW-4-042012-1300 | Total/NA  | Water  | 353.2  |            |
| 480-18943-2   | MW-7-042012-1630 | Total/NA  | Water  | 353.2  |            |

### Analysis Batch: 60915

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 480-18852-1      | MW-13-041912-0845  | Total/NA  | Water  | 350.1  |            |
| 480-18852-2      | MW-14-041912-1315  | Total/NA  | Water  | 350.1  |            |
| 480-18852-3      | MW-10-041912-1520  | Total/NA  | Water  | 350.1  |            |
| 480-18852-4      | DUP-041912-0001    | Total/NA  | Water  | 350.1  |            |
| LCS 480-60915/76 | Lab Control Sample | Total/NA  | Water  | 350.1  |            |
| MB 480-60915/75  | Method Blank       | Total/NA  | Water  | 350.1  |            |

### Analysis Batch: 61089

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method   | Prep Batch |
|------------------|--------------------|-----------|--------|----------|------------|
| 480-18852-1      | MW-13-041912-0845  | Total/NA  | Water  | SM 2320B |            |
| 480-18852-2      | MW-14-041912-1315  | Total/NA  | Water  | SM 2320B |            |
| 480-18852-3      | MW-10-041912-1520  | Total/NA  | Water  | SM 2320B |            |
| 480-18852-4      | DUP-041912-0001    | Total/NA  | Water  | SM 2320B |            |
| 480-18943-1      | MW-4-042012-1300   | Total/NA  | Water  | SM 2320B |            |
| 480-18943-2      | MW-7-042012-1630   | Total/NA  | Water  | SM 2320B |            |
| LCS 480-61089/28 | Lab Control Sample | Total/NA  | Water  | SM 2320B |            |
| MB 480-61089/27  | Method Blank       | Total/NA  | Water  | SM 2320B |            |

# QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

## General Chemistry (Continued)

### Analysis Batch: 61337

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method       | Prep Batch |
|-----------------|--------------------|-----------|--------|--------------|------------|
| 480-18852-1     | MW-13-041912-0845  | Total/NA  | Water  | SM 4500 S2 D |            |
| 480-18852-2     | MW-14-041912-1315  | Total/NA  | Water  | SM 4500 S2 D |            |
| 480-18852-3     | MW-10-041912-1520  | Total/NA  | Water  | SM 4500 S2 D |            |
| 480-18852-4     | DUP-041912-0001    | Total/NA  | Water  | SM 4500 S2 D |            |
| 480-18943-1     | MW-4-042012-1300   | Total/NA  | Water  | SM 4500 S2 D |            |
| 480-18943-2     | MW-7-042012-1630   | Total/NA  | Water  | SM 4500 S2 D |            |
| LCS 480-61337/4 | Lab Control Sample | Total/NA  | Water  | SM 4500 S2 D |            |
| MB 480-61337/3  | Method Blank       | Total/NA  | Water  | SM 4500 S2 D |            |

### Analysis Batch: 61338

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 480-18943-1       | MW-4-042012-1300   | Total/NA  | Water  | 350.1  |            |
| 480-18943-2       | MW-7-042012-1630   | Total/NA  | Water  | 350.1  |            |
| LCS 480-61338/148 | Lab Control Sample | Total/NA  | Water  | 350.1  |            |
| LCS 480-61338/268 | Lab Control Sample | Total/NA  | Water  | 350.1  |            |
| MB 480-61338/147  | Method Blank       | Total/NA  | Water  | 350.1  |            |
| MB 480-61338/267  | Method Blank       | Total/NA  | Water  | 350.1  |            |

### Analysis Batch: 61361

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 480-18764-1     | MW-15-041812-0900  | Total/NA  | Water  | 9038   |            |
| 480-18764-3     | MW-12-048112-1530  | Total/NA  | Water  | 9038   |            |
| LCS 480-61361/8 | Lab Control Sample | Total/NA  | Water  | 9038   |            |
| MB 480-61361/9  | Method Blank       | Total/NA  | Water  | 9038   |            |

### Analysis Batch: 61362

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method        | Prep Batch |
|-----------------|--------------------|-----------|--------|---------------|------------|
| 480-18764-1     | MW-15-041812-0900  | Total/NA  | Water  | SM 4500 Cl- E |            |
| 480-18764-2     | MW-11-041812-1245  | Total/NA  | Water  | SM 4500 Cl- E |            |
| 480-18764-3     | MW-12-048112-1530  | Total/NA  | Water  | SM 4500 Cl- E |            |
| LCS 480-61362/4 | Lab Control Sample | Total/NA  | Water  | SM 4500 Cl- E |            |
| MB 480-61362/5  | Method Blank       | Total/NA  | Water  | SM 4500 Cl- E |            |

### Analysis Batch: 61484

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 480-18764-1      | MW-15-041812-0900  | Total/NA  | Water  | 9060   |            |
| 480-18764-2      | MW-11-041812-1245  | Total/NA  | Water  | 9060   |            |
| 480-18764-2 DU   | MW-11-041812-1245  | Total/NA  | Water  | 9060   |            |
| 480-18764-3      | MW-12-048112-1530  | Total/NA  | Water  | 9060   |            |
| 480-18764-3 MS   | MW-12-048112-1530  | Total/NA  | Water  | 9060   |            |
| 480-18852-1      | MW-13-041912-0845  | Total/NA  | Water  | 9060   |            |
| 480-18852-1 MS   | MW-13-041912-0845  | Total/NA  | Water  | 9060   |            |
| 480-18852-3      | MW-10-041912-1520  | Total/NA  | Water  | 9060   |            |
| 480-18852-4      | DUP-041912-0001    | Total/NA  | Water  | 9060   |            |
| 480-18943-1      | MW-4-042012-1300   | Total/NA  | Water  | 9060   |            |
| 480-18943-1 DU   | MW-4-042012-1300   | Total/NA  | Water  | 9060   |            |
| 480-18943-2      | MW-7-042012-1630   | Total/NA  | Water  | 9060   |            |
| 480-18943-2 MS   | MW-7-042012-1630   | Total/NA  | Water  | 9060   |            |
| LCS 480-61484/28 | Lab Control Sample | Total/NA  | Water  | 9060   |            |
| LCS 480-61484/52 | Lab Control Sample | Total/NA  | Water  | 9060   |            |
| MB 480-61484/27  | Method Blank       | Total/NA  | Water  | 9060   |            |
| MB 480-61484/51  | Method Blank       | Total/NA  | Water  | 9060   |            |

## QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

### General Chemistry (Continued)

#### Analysis Batch: 61648

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 480-18852-1      | MW-13-041912-0845  | Total/NA  | Water  | 9038   |            |
| 480-18852-2      | MW-14-041912-1315  | Total/NA  | Water  | 9038   |            |
| 480-18852-3      | MW-10-041912-1520  | Total/NA  | Water  | 9038   |            |
| 480-18852-4      | DUP-041912-0001    | Total/NA  | Water  | 9038   |            |
| LCS 480-61648/16 | Lab Control Sample | Total/NA  | Water  | 9038   |            |
| LCS 480-61648/40 | Lab Control Sample | Total/NA  | Water  | 9038   |            |
| MB 480-61648/17  | Method Blank       | Total/NA  | Water  | 9038   |            |
| MB 480-61648/41  | Method Blank       | Total/NA  | Water  | 9038   |            |

#### Analysis Batch: 61649

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method        | Prep Batch |
|------------------|--------------------|-----------|--------|---------------|------------|
| 480-18852-1      | MW-13-041912-0845  | Total/NA  | Water  | SM 4500 Cl- E |            |
| 480-18852-2      | MW-14-041912-1315  | Total/NA  | Water  | SM 4500 Cl- E |            |
| 480-18852-3      | MW-10-041912-1520  | Total/NA  | Water  | SM 4500 Cl- E |            |
| 480-18852-4      | DUP-041912-0001    | Total/NA  | Water  | SM 4500 Cl- E |            |
| LCS 480-61649/14 | Lab Control Sample | Total/NA  | Water  | SM 4500 Cl- E |            |
| LCS 480-61649/30 | Lab Control Sample | Total/NA  | Water  | SM 4500 Cl- E |            |
| LCS 480-61649/42 | Lab Control Sample | Total/NA  | Water  | SM 4500 Cl- E |            |
| MB 480-61649/15  | Method Blank       | Total/NA  | Water  | SM 4500 Cl- E |            |
| MB 480-61649/31  | Method Blank       | Total/NA  | Water  | SM 4500 Cl- E |            |
| MB 480-61649/43  | Method Blank       | Total/NA  | Water  | SM 4500 Cl- E |            |

#### Analysis Batch: 61892

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 480-18852-2     | MW-14-041912-1315  | Total/NA  | Water  | 9060   |            |
| LCS 480-61892/4 | Lab Control Sample | Total/NA  | Water  | 9060   |            |
| MB 480-61892/3  | Method Blank       | Total/NA  | Water  | 9060   |            |

#### Analysis Batch: 61931

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method        | Prep Batch |
|------------------|--------------------|-----------|--------|---------------|------------|
| 480-18943-1      | MW-4-042012-1300   | Total/NA  | Water  | SM 4500 Cl- E |            |
| 480-18943-1 DU   | MW-4-042012-1300   | Total/NA  | Water  | SM 4500 Cl- E |            |
| 480-18943-1 MS   | MW-4-042012-1300   | Total/NA  | Water  | SM 4500 Cl- E |            |
| 480-18943-2      | MW-7-042012-1630   | Total/NA  | Water  | SM 4500 Cl- E |            |
| 480-18943-2 DU   | MW-7-042012-1630   | Total/NA  | Water  | SM 4500 Cl- E |            |
| 480-18943-2 MS   | MW-7-042012-1630   | Total/NA  | Water  | SM 4500 Cl- E |            |
| LCS 480-61931/81 | Lab Control Sample | Total/NA  | Water  | SM 4500 Cl- E |            |
| MB 480-61931/61  | Method Blank       | Total/NA  | Water  | SM 4500 Cl- E |            |
| MB 480-61931/82  | Method Blank       | Total/NA  | Water  | SM 4500 Cl- E |            |

#### Analysis Batch: 61946

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 480-18943-1      | MW-4-042012-1300   | Total/NA  | Water  | 9038   |            |
| 480-18943-1 DU   | MW-4-042012-1300   | Total/NA  | Water  | 9038   |            |
| 480-18943-1 MS   | MW-4-042012-1300   | Total/NA  | Water  | 9038   |            |
| 480-18943-2      | MW-7-042012-1630   | Total/NA  | Water  | 9038   |            |
| 480-18943-2 DU   | MW-7-042012-1630   | Total/NA  | Water  | 9038   |            |
| 480-18943-2 MS   | MW-7-042012-1630   | Total/NA  | Water  | 9038   |            |
| LCS 480-61946/38 | Lab Control Sample | Total/NA  | Water  | 9038   |            |
| LCS 480-61946/58 | Lab Control Sample | Total/NA  | Water  | 9038   |            |
| MB 480-61946/16  | Method Blank       | Total/NA  | Water  | 9038   |            |
| MB 480-61946/39  | Method Blank       | Total/NA  | Water  | 9038   |            |

## QC Association Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

### General Chemistry (Continued)

#### Analysis Batch: 61946 (Continued)

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| MB 480-61946/54 | Method Blank     | Total/NA  | Water  | 9038   |            |
| MB 480-61946/59 | Method Blank     | Total/NA  | Water  | 9038   |            |

#### Analysis Batch: 61975

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 480-18852-1     | MW-13-041912-0845  | Total/NA  | Water  | VFA-IC |            |
| 480-18852-2     | MW-14-041912-1315  | Total/NA  | Water  | VFA-IC |            |
| 480-18852-3     | MW-10-041912-1520  | Total/NA  | Water  | VFA-IC |            |
| 480-18852-4     | DUP-041912-0001    | Total/NA  | Water  | VFA-IC |            |
| 480-18943-1     | MW-4-042012-1300   | Total/NA  | Water  | VFA-IC |            |
| 480-18943-2     | MW-7-042012-1630   | Total/NA  | Water  | VFA-IC |            |
| LCS 480-61975/3 | Lab Control Sample | Total/NA  | Water  | VFA-IC |            |
| MB 480-61975/4  | Method Blank       | Total/NA  | Water  | VFA-IC |            |

#### Analysis Batch: 61992

| Lab Sample ID   | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------|------------|
| 480-18764-2     | MW-11-041812-1245  | Total/NA  | Water  | 9038   |            |
| LCS 480-61992/6 | Lab Control Sample | Total/NA  | Water  | 9038   |            |
| MB 480-61992/7  | Method Blank       | Total/NA  | Water  | 9038   |            |

# Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-15-041812-0900**

**Date Collected: 04/18/12 09:00**

**Date Received: 04/18/12 17:15**

**Lab Sample ID: 480-18764-1**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B         |     | 1               | 60999        | 04/23/12 14:39       | DC      | TAL BUF |
| Total/NA  | Analysis   | RSK-175       |     | 2               | 37525        | 04/25/12 12:50       | MRV     | TAL BUR |
| Total/NA  | Analysis   | RSK-175       |     | 1               | 60876        | 04/22/12 10:36       | JM      | TAL BUF |
| Total/NA  | Analysis   | AM20GAX       |     | 1               | 62742        | 04/22/12 16:41       | CTB     | SC0015  |
| Total/NA  | Prep       | 3005A         |     |                 | 60415        | 04/19/12 12:00       | SS      | TAL BUF |
| Total/NA  | Analysis   | 6010B         |     | 1               | 60637        | 04/19/12 22:37       | LH      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60344        | 04/19/12 02:26       | KS      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60345        | 04/19/12 02:26       | KS      | TAL BUF |
| Total/NA  | Analysis   | SM 4500 S2 D  |     | 1               | 60531        | 04/19/12 13:10       | EGN     | TAL BUF |
| Total/NA  | Analysis   | 350.1         |     | 1               | 60567        | 04/19/12 15:41       | KS      | TAL BUF |
| Total/NA  | Analysis   | VFA-IC        |     | 1               | 60570        | 04/20/12 02:21       | KAC     | TAL BUF |
| Total/NA  | Analysis   | SM 2320B      |     | 1               | 60794        | 04/20/12 11:15       | LYW     | TAL BUF |
| Total/NA  | Analysis   | 9038          |     | 4               | 61361        | 04/24/12 13:26       | JR      | TAL BUF |
| Total/NA  | Analysis   | SM 4500 CI- E |     | 25              | 61362        | 04/24/12 14:41       | JR      | TAL BUF |
| Total/NA  | Analysis   | 9060          |     | 1               | 61484        | 04/24/12 09:07       | KAC     | TAL BUF |

**Client Sample ID: MW-11-041812-1245**

**Date Collected: 04/18/12 12:45**

**Date Received: 04/18/12 17:15**

**Lab Sample ID: 480-18764-2**

**Matrix: Water**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B         |     | 1               | 60999        | 04/23/12 15:01       | DC      | TAL BUF |
| Total/NA  | Analysis   | RSK-175       |     | 1               | 37525        | 04/25/12 11:41       | MRV     | TAL BUR |
| Total/NA  | Analysis   | RSK-175       |     | 1               | 60876        | 04/22/12 10:53       | JM      | TAL BUF |
| Total/NA  | Analysis   | AM20GAX       |     | 1               | 62742        | 04/22/12 16:41       | CTB     | SC0015  |
| Total/NA  | Prep       | 3005A         |     |                 | 60415        | 04/19/12 12:00       | SS      | TAL BUF |
| Total/NA  | Analysis   | 6010B         |     | 1               | 60637        | 04/19/12 22:39       | LH      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60344        | 04/19/12 02:31       | KS      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60345        | 04/19/12 02:31       | KS      | TAL BUF |
| Total/NA  | Analysis   | SM 4500 S2 D  |     | 1               | 60531        | 04/19/12 13:10       | EGN     | TAL BUF |
| Total/NA  | Analysis   | 350.1         |     | 1               | 60567        | 04/19/12 15:42       | KS      | TAL BUF |
| Total/NA  | Analysis   | VFA-IC        |     | 1               | 60570        | 04/20/12 02:50       | KAC     | TAL BUF |
| Total/NA  | Analysis   | SM 2320B      |     | 1               | 60794        | 04/20/12 11:15       | LYW     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 CI- E |     | 10              | 61362        | 04/24/12 14:41       | JR      | TAL BUF |
| Total/NA  | Analysis   | 9060          |     | 1               | 61484        | 04/24/12 09:37       | KAC     | TAL BUF |
| Total/NA  | Analysis   | 9038          |     | 5               | 61992        | 04/27/12 15:36       | PJQ     | TAL BUF |

## Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-12-048112-1530**

**Lab Sample ID: 480-18764-3**

**Date Collected: 04/18/12 15:30**

**Matrix: Water**

**Date Received: 04/18/12 17:15**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B         |     | 1               | 60999        | 04/23/12 15:22       | DC      | TAL BUF |
| Total/NA  | Analysis   | 8260B         | DL  | 2               | 61223        | 04/24/12 13:36       | DC      | TAL BUF |
| Total/NA  | Analysis   | RSK-175       |     | 2               | 37525        | 04/25/12 12:55       | MRV     | TAL BUR |
| Total/NA  | Analysis   | RSK-175       |     | 10              | 60876        | 04/22/12 11:10       | JM      | TAL BUF |
| Total/NA  | Analysis   | AM20GAX       |     | 1               | 62742        | 04/22/12 16:41       | CTB     | SC0015  |
| Total/NA  | Prep       | 3005A         |     |                 | 60415        | 04/19/12 12:00       | SS      | TAL BUF |
| Total/NA  | Analysis   | 6010B         |     | 1               | 60637        | 04/19/12 22:42       | LH      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60345        | 04/19/12 01:08       | KS      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60346        | 04/19/12 01:08       | KS      | TAL BUF |
| Total/NA  | Analysis   | SM 4500 S2 D  |     | 1               | 60531        | 04/19/12 13:10       | EGN     | TAL BUF |
| Total/NA  | Analysis   | 350.1         |     | 1               | 60567        | 04/19/12 15:43       | KS      | TAL BUF |
| Total/NA  | Analysis   | VFA-IC        |     | 1               | 60570        | 04/20/12 03:19       | KAC     | TAL BUF |
| Total/NA  | Analysis   | SM 2320B      |     | 1               | 60794        | 04/20/12 11:15       | LYW     | TAL BUF |
| Total/NA  | Analysis   | 9038          |     | 10              | 61361        | 04/24/12 13:26       | JR      | TAL BUF |
| Total/NA  | Analysis   | SM 4500 Cl- E |     | 100             | 61362        | 04/24/12 14:50       | JR      | TAL BUF |
| Total/NA  | Analysis   | 9060          |     | 1               | 61484        | 04/24/12 10:37       | KAC     | TAL BUF |

**Client Sample ID: MW-13-041912-0845**

**Lab Sample ID: 480-18852-1**

**Date Collected: 04/19/12 08:45**

**Matrix: Water**

**Date Received: 04/19/12 16:45**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B         |     | 1               | 61436        | 04/25/12 12:35       | RL      | TAL BUF |
| Total/NA  | Analysis   | RSK-175       |     | 1               | 37685        | 04/27/12 07:41       | MRV     | TAL BUR |
| Total/NA  | Analysis   | RSK-175       |     | 10              | 60876        | 04/22/12 12:43       | JM      | TAL BUF |
| Total/NA  | Analysis   | AM20GAX       |     | 1               | 63130        | 04/22/12 17:18       | CTB     | SC0015  |
| Total/NA  | Prep       | 3005A         |     |                 | 60777        | 04/23/12 08:15       | SS      | TAL BUF |
| Total/NA  | Analysis   | 6010B         |     | 1               | 61196        | 04/23/12 16:27       | MM      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60734        | 04/20/12 12:07       | KS      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60751        | 04/20/12 10:14       | KS      | TAL BUF |
| Total/NA  | Analysis   | 350.1         |     | 1               | 60915        | 04/21/12 13:14       | KS      | TAL BUF |
| Total/NA  | Analysis   | SM 2320B      |     | 1               | 61089        | 04/23/12 12:09       | LYW     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 S2 D  |     | 1               | 61337        | 04/24/12 13:00       | EGN     | TAL BUF |
| Total/NA  | Analysis   | 9060          |     | 1               | 61484        | 04/24/12 16:32       | KAC     | TAL BUF |
| Total/NA  | Analysis   | 9038          |     | 5               | 61648        | 04/25/12 18:01       | PJQ     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 Cl- E |     | 30              | 61649        | 04/25/12 20:01       | PJQ     | TAL BUF |
| Total/NA  | Analysis   | VFA-IC        |     | 1               | 61975        | 04/29/12 11:52       | RMM     | TAL BUF |

# Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-14-041912-1315**

**Lab Sample ID: 480-18852-2**

**Date Collected: 04/19/12 13:15**

**Matrix: Water**

**Date Received: 04/19/12 16:45**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B         |     | 1               | 61436        | 04/25/12 12:57       | RL      | TAL BUF |
| Total/NA  | Analysis   | RSK-175       |     | 1               | 37685        | 04/27/12 07:47       | MRV     | TAL BUR |
| Total/NA  | Analysis   | RSK-175       |     | 10              | 60876        | 04/22/12 13:00       | JM      | TAL BUF |
| Total/NA  | Analysis   | AM20GAX       |     | 1               | 63130        | 04/22/12 17:18       | CTB     | SC0015  |
| Total/NA  | Prep       | 3005A         |     |                 | 60777        | 04/23/12 08:15       | SS      | TAL BUF |
| Total/NA  | Analysis   | 6010B         |     | 1               | 61196        | 04/23/12 16:29       | MM      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60751        | 04/20/12 10:15       | KS      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60757        | 04/20/12 10:15       | KS      | TAL BUF |
| Total/NA  | Analysis   | 350.1         |     | 1               | 60915        | 04/21/12 13:15       | KS      | TAL BUF |
| Total/NA  | Analysis   | SM 2320B      |     | 1               | 61089        | 04/23/12 12:09       | LYW     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 S2 D  |     | 1               | 61337        | 04/24/12 13:00       | EGN     | TAL BUF |
| Total/NA  | Analysis   | 9038          |     | 5               | 61648        | 04/25/12 18:01       | PJQ     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 Cl- E |     | 50              | 61649        | 04/25/12 20:18       | PJQ     | TAL BUF |
| Total/NA  | Analysis   | 9060          |     | 1               | 61892        | 04/25/12 16:37       | KAC     | TAL BUF |
| Total/NA  | Analysis   | VFA-IC        |     | 1               | 61975        | 04/29/12 12:21       | RMM     | TAL BUF |

**Client Sample ID: MW-10-041912-1520**

**Lab Sample ID: 480-18852-3**

**Date Collected: 04/19/12 15:20**

**Matrix: Water**

**Date Received: 04/19/12 16:45**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B         |     | 4               | 61436        | 04/25/12 13:18       | RL      | TAL BUF |
| Total/NA  | Analysis   | RSK-175       |     | 1               | 37685        | 04/27/12 07:53       | MRV     | TAL BUR |
| Total/NA  | Analysis   | RSK-175       |     | 10              | 60876        | 04/22/12 13:17       | JM      | TAL BUF |
| Total/NA  | Analysis   | AM20GAX       |     | 1               | 63130        | 04/22/12 17:18       | CTB     | SC0015  |
| Total/NA  | Prep       | 3005A         |     |                 | 60777        | 04/23/12 08:15       | SS      | TAL BUF |
| Total/NA  | Analysis   | 6010B         |     | 1               | 61196        | 04/23/12 16:36       | MM      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60751        | 04/20/12 10:16       | KS      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60757        | 04/20/12 10:16       | KS      | TAL BUF |
| Total/NA  | Analysis   | 350.1         |     | 1               | 60915        | 04/21/12 13:16       | KS      | TAL BUF |
| Total/NA  | Analysis   | SM 2320B      |     | 1               | 61089        | 04/23/12 12:09       | LYW     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 S2 D  |     | 1               | 61337        | 04/24/12 13:00       | EGN     | TAL BUF |
| Total/NA  | Analysis   | 9060          |     | 1               | 61484        | 04/24/12 19:31       | KAC     | TAL BUF |
| Total/NA  | Analysis   | 9038          |     | 15              | 61648        | 04/25/12 19:51       | PJQ     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 Cl- E |     | 100             | 61649        | 04/25/12 20:24       | PJQ     | TAL BUF |
| Total/NA  | Analysis   | VFA-IC        |     | 1               | 61975        | 04/29/12 12:50       | RMM     | TAL BUF |

# Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: DUP-041912-0001**

**Lab Sample ID: 480-18852-4**

**Date Collected: 04/19/12 00:00**

**Matrix: Water**

**Date Received: 04/19/12 16:45**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B         |     | 4               | 61436        | 04/25/12 13:40       | RL      | TAL BUF |
| Total/NA  | Analysis   | RSK-175       |     | 1               | 37685        | 04/27/12 08:03       | MRV     | TAL BUR |
| Total/NA  | Analysis   | RSK-175       |     | 10              | 60876        | 04/22/12 14:17       | JM      | TAL BUF |
| Total/NA  | Analysis   | AM20GAX       |     | 1               | 63130        | 04/22/12 17:18       | CTB     | SC0015  |
| Total/NA  | Prep       | 3005A         |     |                 | 60777        | 04/23/12 08:15       | SS      | TAL BUF |
| Total/NA  | Analysis   | 6010B         |     | 1               | 61196        | 04/23/12 16:49       | MM      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60734        | 04/20/12 12:08       | KS      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60751        | 04/20/12 10:12       | KS      | TAL BUF |
| Total/NA  | Analysis   | 350.1         |     | 1               | 60915        | 04/21/12 13:17       | KS      | TAL BUF |
| Total/NA  | Analysis   | SM 2320B      |     | 1               | 61089        | 04/23/12 12:09       | LYW     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 S2 D  |     | 1               | 61337        | 04/24/12 13:00       | EGN     | TAL BUF |
| Total/NA  | Analysis   | 9060          |     | 1               | 61484        | 04/24/12 20:01       | KAC     | TAL BUF |
| Total/NA  | Analysis   | 9038          |     | 5               | 61648        | 04/25/12 18:01       | PJQ     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 CI- E |     | 30              | 61649        | 04/25/12 19:55       | PJQ     | TAL BUF |
| Total/NA  | Analysis   | VFA-IC        |     | 1               | 61975        | 04/29/12 13:20       | RMM     | TAL BUF |

**Client Sample ID: MW-4-042012-1300**

**Lab Sample ID: 480-18943-1**

**Date Collected: 04/20/12 13:00**

**Matrix: Water**

**Date Received: 04/20/12 17:27**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B         |     | 1               | 61854        | 04/27/12 13:57       | RL      | TAL BUF |
| Total/NA  | Analysis   | 8260B         | DL  | 500             | 62084        | 04/28/12 14:18       | RL      | TAL BUF |
| Total/NA  | Analysis   | RSK-175       |     | 2               | 37685        | 04/27/12 09:13       | MRV     | TAL BUR |
| Total/NA  | Analysis   | RSK-175       |     | 500             | 60876        | 04/22/12 11:37       | JM      | TAL BUF |
| Total/NA  | Analysis   | AM20GAX       |     | 1               | 64101        | 05/04/12 09:36       | CTB     | SC0015  |
| Total/NA  | Prep       | 3005A         |     |                 | 60930        | 04/23/12 08:15       | SS      | TAL BUF |
| Total/NA  | Analysis   | 6010B         |     | 1               | 61178        | 04/23/12 14:23       | LH      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60845        | 04/20/12 21:01       | KS      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60846        | 04/20/12 21:01       | KS      | TAL BUF |
| Total/NA  | Analysis   | SM 2320B      |     | 1               | 61089        | 04/23/12 12:09       | LYW     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 S2 D  |     | 1               | 61337        | 04/24/12 13:00       | EGN     | TAL BUF |
| Total/NA  | Analysis   | 350.1         |     | 2               | 61338        | 04/24/12 16:00       | KS      | TAL BUF |
| Total/NA  | Analysis   | 9060          |     | 1               | 61484        | 04/24/12 21:29       | KAC     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 CI- E |     | 121             | 61931        | 04/27/12 15:09       | PJQ     | TAL BUF |
| Total/NA  | Analysis   | 9038          |     | 30              | 61946        | 04/27/12 06:05       | PJQ     | TAL BUF |
| Total/NA  | Analysis   | VFA-IC        |     | 1               | 61975        | 04/29/12 16:44       | RMM     | TAL BUF |

# Lab Chronicle

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

**Client Sample ID: MW-7-042012-1630**

**Lab Sample ID: 480-18943-2**

**Date Collected: 04/20/12 16:30**

**Matrix: Water**

**Date Received: 04/20/12 17:27**

| Prep Type | Batch Type | Batch Method  | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B         |     | 10000           | 61974        | 04/28/12 01:00       | DC      | TAL BUF |
| Total/NA  | Analysis   | RSK-175       |     | 1               | 37685        | 04/27/12 08:31       | MRV     | TAL BUR |
| Total/NA  | Analysis   | RSK-175       |     | 1               | 60876        | 04/22/12 11:54       | JM      | TAL BUF |
| Total/NA  | Prep       | 3005A         |     |                 | 60930        | 04/23/12 08:15       | SS      | TAL BUF |
| Total/NA  | Analysis   | 6010B         |     | 1               | 61178        | 04/23/12 14:26       | LH      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60845        | 04/20/12 21:02       | KS      | TAL BUF |
| Total/NA  | Analysis   | 353.2         |     | 1               | 60846        | 04/20/12 21:02       | KS      | TAL BUF |
| Total/NA  | Analysis   | SM 2320B      |     | 1               | 61089        | 04/23/12 12:09       | LYW     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 S2 D  |     | 1               | 61337        | 04/24/12 13:00       | EGN     | TAL BUF |
| Total/NA  | Analysis   | 350.1         |     | 1               | 61338        | 04/24/12 14:11       | KS      | TAL BUF |
| Total/NA  | Analysis   | 9060          |     | 1               | 61484        | 04/24/12 22:28       | KAC     | TAL BUF |
| Total/NA  | Analysis   | SM 4500 CI- E |     | 20              | 61931        | 04/27/12 15:09       | PJQ     | TAL BUF |
| Total/NA  | Analysis   | 9038          |     | 20              | 61946        | 04/27/12 13:32       | PJQ     | TAL BUF |
| Total/NA  | Analysis   | VFA-IC        |     | 1               | 61975        | 04/29/12 17:13       | RMM     | TAL BUF |

## Laboratory References:

SC0015 = Pittsburgh, PA, 220 William Pitt Way, Pittsburgh, PA 15238, TEL (412)826-5245

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

## Certification Summary

Client: Conestoga-Rovers & Associates, Inc.

TestAmerica Job ID: 480-18764-1

Project/Site: 058507, GM-Lockport Groundwater Sampling

| Laboratory             | Authority                         | Program       | EPA Region | Certification ID |
|------------------------|-----------------------------------|---------------|------------|------------------|
| TestAmerica Buffalo    | Arkansas DEQ                      | State Program | 6          | 88-0686          |
| TestAmerica Buffalo    | California                        | NELAC         | 9          | 1169CA           |
| TestAmerica Buffalo    | Connecticut                       | State Program | 1          | PH-0568          |
| TestAmerica Buffalo    | Florida                           | NELAC         | 4          | E87672           |
| TestAmerica Buffalo    | Georgia                           | State Program | 4          | 956              |
| TestAmerica Buffalo    | Georgia                           | State Program | 4          | N/A              |
| TestAmerica Buffalo    | Illinois                          | NELAC         | 5          | 100325 / 200003  |
| TestAmerica Buffalo    | Iowa                              | State Program | 7          | 374              |
| TestAmerica Buffalo    | Kansas                            | NELAC         | 7          | E-10187          |
| TestAmerica Buffalo    | Kentucky                          | State Program | 4          | 90029            |
| TestAmerica Buffalo    | Kentucky (UST)                    | State Program | 4          | 30               |
| TestAmerica Buffalo    | Louisiana                         | NELAC         | 6          | 02031            |
| TestAmerica Buffalo    | Maine                             | State Program | 1          | NY0044           |
| TestAmerica Buffalo    | Maryland                          | State Program | 3          | 294              |
| TestAmerica Buffalo    | Massachusetts                     | State Program | 1          | M-NY044          |
| TestAmerica Buffalo    | Michigan                          | State Program | 5          | 9937             |
| TestAmerica Buffalo    | Minnesota                         | NELAC         | 5          | 036-999-337      |
| TestAmerica Buffalo    | New Hampshire                     | NELAC         | 1          | 2337             |
| TestAmerica Buffalo    | New Hampshire                     | NELAC         | 1          | 68-00281         |
| TestAmerica Buffalo    | New Jersey                        | NELAC         | 2          | NY455            |
| TestAmerica Buffalo    | New York                          | NELAC         | 2          | 10026            |
| TestAmerica Buffalo    | North Dakota                      | State Program | 8          | R-176            |
| TestAmerica Buffalo    | Oklahoma                          | State Program | 6          | 9421             |
| TestAmerica Buffalo    | Oregon                            | NELAC         | 10         | NY200003         |
| TestAmerica Buffalo    | Pennsylvania                      | NELAC         | 3          | 68-00281         |
| TestAmerica Buffalo    | Tennessee                         | State Program | 4          | TN02970          |
| TestAmerica Buffalo    | Texas                             | NELAC         | 6          | T104704412-08-TX |
| TestAmerica Buffalo    | USDA                              | Federal       |            | P330-08-00242    |
| TestAmerica Buffalo    | Virginia                          | NELAC         | 3          | 460185           |
| TestAmerica Buffalo    | Virginia                          | State Program | 3          | 278              |
| TestAmerica Buffalo    | Washington                        | State Program | 10         | C1677            |
| TestAmerica Buffalo    | West Virginia DEP                 | State Program | 3          | 252              |
| TestAmerica Buffalo    | Wisconsin                         | State Program | 5          | 998310390        |
| TestAmerica Burlington | ACCLASS                           | DoD ELAP      |            | ADE-1492         |
| TestAmerica Burlington | Connecticut                       | State Program | 1          | PH-0751          |
| TestAmerica Burlington | DE Haz. Subst. Cleanup Act (HSCA) | State Program | 3          | NA               |
| TestAmerica Burlington | Florida                           | NELAC         | 4          | E87467           |
| TestAmerica Burlington | Louisiana                         | NELAC         | 6          | 176292           |
| TestAmerica Burlington | Maine                             | State Program | 1          | VT00008          |
| TestAmerica Burlington | Minnesota                         | NELAC         | 5          | 050-999-436      |
| TestAmerica Burlington | New Hampshire                     | NELAC         | 1          | 200610           |
| TestAmerica Burlington | New Jersey                        | NELAC         | 2          | VT972            |
| TestAmerica Burlington | New York                          | NELAC         | 2          | 10391            |
| TestAmerica Burlington | Pennsylvania                      | NELAC         | 3          | 68-00489         |
| TestAmerica Burlington | Rhode Island                      | State Program | 1          | LAO00298         |
| TestAmerica Burlington | USDA                              | Federal       |            | P330-11-00093    |
| TestAmerica Burlington | Vermont                           | State Program | 1          | VT-4000          |
| TestAmerica Burlington | Virginia                          | NELAC         | 3          | 460209           |

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

## Method Summary

Client: Conestoga-Rovers & Associates, Inc.  
Project/Site: 058507, GM-Lockport Groundwater Sampling

TestAmerica Job ID: 480-18764-1

| Method        | Method Description                       | Protocol        | Laboratory |
|---------------|------------------------------------------|-----------------|------------|
| 8260B         | Volatile Organic Compounds (GC/MS)       | SW846           | TAL BUF    |
| AM20GAX       | Dissolved Gases (GC)                     | NONE            | SC0015     |
| RSK-175       | Dissolved Gases (GC)                     | RSK             | TAL BUR    |
| RSK-175       | Dissolved Gases (GC)                     | RSK             | TAL BUF    |
| 6010B         | Metals (ICP)                             | SW846           | TAL BUF    |
| 350.1         | Nitrogen, Ammonia                        | MCAWW           | TAL BUF    |
| 353.2         | Nitrogen, Nitrite                        | MCAWW           | TAL BUF    |
| 353.2         | Nitrate                                  | EPA             | TAL BUF    |
| 9038          | Sulfate, Turbidimetric                   | SW846           | TAL BUF    |
| 9060          | Organic Carbon, Total (TOC)              | SW846           | TAL BUF    |
| SM 2320B      | Alkalinity                               | SM              | TAL BUF    |
| SM 4500 Cl- E | Chloride, Total                          | SM              | TAL BUF    |
| SM 4500 S2 D  | Sulfide, Total                           | SM              | TAL BUF    |
| VFA-IC        | Volatile Fatty Acids, Ion Chromatography | TestAmerica SOP | TAL BUF    |

### Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

NONE = NONE

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TestAmerica SOP = TestAmerica, Inc., Standard Operating Procedure

### Laboratory References:

SC0015 = Pittsburgh, PA, 220 William Pitt Way, Pittsburgh, PA 15238, TEL (412)826-5245

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

## Sample Summary

Client: Conestoga-Rovers & Associates, Inc.

TestAmerica Job ID: 480-18764-1

Project/Site: 058507, GM-Lockport Groundwater Sampling

| Lab Sample ID | Client Sample ID  | Matrix | Collected      | Received       |
|---------------|-------------------|--------|----------------|----------------|
| 480-18764-1   | MW-15-041812-0900 | Water  | 04/18/12 09:00 | 04/18/12 17:15 |
| 480-18764-2   | MW-11-041812-1245 | Water  | 04/18/12 12:45 | 04/18/12 17:15 |
| 480-18764-3   | MW-12-048112-1530 | Water  | 04/18/12 15:30 | 04/18/12 17:15 |
| 480-18852-1   | MW-13-041912-0845 | Water  | 04/19/12 08:45 | 04/19/12 16:45 |
| 480-18852-2   | MW-14-041912-1315 | Water  | 04/19/12 13:15 | 04/19/12 16:45 |
| 480-18852-3   | MW-10-041912-1520 | Water  | 04/19/12 15:20 | 04/19/12 16:45 |
| 480-18852-4   | DUP-041912-0001   | Water  | 04/19/12 00:00 | 04/19/12 16:45 |
| 480-18943-1   | MW-4-042012-1300  | Water  | 04/20/12 13:00 | 04/20/12 17:27 |
| 480-18943-2   | MW-7-042012-1630  | Water  | 04/20/12 16:30 | 04/20/12 17:27 |



April 30, 2012

Melissa Deyo  
Test America  
10 Hazelwood Drive  
Buffalo, NY 14228

Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

RE: **GM-LOCKPORT / 480-18764-1**

*Microseeps Workorder: 4950*

Dear Melissa Deyo:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, April 19, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne Sproull      04/30/2012  
jsproull@microseeps.com

Enclosures

As a valued client we would appreciate your comments on our service.  
Please email [info@microseeps.com](mailto:info@microseeps.com).

Total Number of Pages 8

Report ID: 4950 - 214997

Page 1 of 7

#### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## LABORATORY ACCREDITATIONS & CERTIFICATIONS

|                          |                                                                                                                                                                                                                                                            |                                               |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Accreditor:</b>       | Pennsylvania Department of Environmental Protection, Bureau of Laboratories                                                                                                                                                                                |                                               |
| <b>Accreditation ID:</b> | 02-00538                                                                                                                                                                                                                                                   |                                               |
| <b>Scope:</b>            | NELAP Non-Potable Water and Solid & Hazardous Waste                                                                                                                                                                                                        |                                               |
| <b>Accreditor:</b>       | NELAP: State of Florida, Department of Health, Bureau of Laboratories                                                                                                                                                                                      |                                               |
| <b>Accreditation ID:</b> | E87832                                                                                                                                                                                                                                                     |                                               |
| <b>Scope:</b>            | Clean Water Act (CWA)                                                                                                                                                                                                                                      | Resource Conservation and Recovery Act (RCRA) |
| <b>Accreditor:</b>       | South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification                                                                                                                                            |                                               |
| <b>Accreditation ID:</b> | 89009003                                                                                                                                                                                                                                                   |                                               |
| <b>Scope:</b>            | Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)                                                                                                                                                                                       |                                               |
| <b>Accreditor:</b>       | NELAP: State of Louisiana, Department of Environmental Quality                                                                                                                                                                                             |                                               |
| <b>Accreditation ID:</b> | 04104                                                                                                                                                                                                                                                      |                                               |
| <b>Scope:</b>            | Solid and Chemical Materials; Non-Potable Water                                                                                                                                                                                                            |                                               |
| <b>Accreditor:</b>       | NELAP: New Jersey, Department of Environmental Protection                                                                                                                                                                                                  |                                               |
| <b>Accreditation ID:</b> | PA026                                                                                                                                                                                                                                                      |                                               |
| <b>Scope:</b>            | Non-Potable Water; Solid and Chemical Materials                                                                                                                                                                                                            |                                               |
| <b>Accreditor:</b>       | NELAP: New York, Department of Health Wadsworth Center                                                                                                                                                                                                     |                                               |
| <b>Accreditation ID:</b> | 11815                                                                                                                                                                                                                                                      |                                               |
| <b>Scope:</b>            | Non-Potable Water; Solid and Hazardous Waste                                                                                                                                                                                                               |                                               |
| <b>Accreditor:</b>       | State of Connecticut, Department of Public Health, Division of Environmental Health                                                                                                                                                                        |                                               |
| <b>Accreditation ID:</b> | PH-0263                                                                                                                                                                                                                                                    |                                               |
| <b>Scope:</b>            | Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)                                                                                                                                                                                        |                                               |
| <b>Accreditor:</b>       | NELAP: Texas, Commission on Environmental Quality                                                                                                                                                                                                          |                                               |
| <b>Accreditation ID:</b> | T104704453-09-TX                                                                                                                                                                                                                                           |                                               |
| <b>Scope:</b>            | Non-Potable Water                                                                                                                                                                                                                                          |                                               |
| <b>Accreditor:</b>       | State of New Hampshire                                                                                                                                                                                                                                     |                                               |
| <b>Accreditation ID:</b> | 299409                                                                                                                                                                                                                                                     |                                               |
| <b>Scope:</b>            | Non-potable water                                                                                                                                                                                                                                          |                                               |
| <b>Accreditor:</b>       | State of Georgia                                                                                                                                                                                                                                           |                                               |
| <b>Accreditation ID:</b> | Chapter 391-3-26                                                                                                                                                                                                                                           |                                               |
| <b>Scope:</b>            | As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC). |                                               |

### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## SAMPLE SUMMARY

Workorder: 4950 GM-LOCKPORT / 480-18764-1

| Lab ID   | Sample ID          | Matrix       | Date Collected  | Date Received   |
|----------|--------------------|--------------|-----------------|-----------------|
| 49500001 | MW-15(480-18764-1) | Bubble Strip | 4/18/2012 09:00 | 4/19/2012 12:30 |
| 49500002 | MW-11(480-18764-2) | Bubble Strip | 4/18/2012 12:45 | 4/19/2012 12:30 |
| 49500003 | MW-12(480-18764-3) | Bubble Strip | 4/18/2012 15:30 | 4/19/2012 12:30 |

Report ID: 4950 - 214997

Page 3 of 7

## CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## ANALYTICAL RESULTS

Workorder: 4950 GM-LOCKPORT / 480-18764-1

Lab ID: 49500001  
Sample ID: MW-15(480-18764-1)

Date Received: 4/19/2012 12:30 Matrix: Bubble Strip  
Date Collected: 4/18/2012 09:00

| Parameters             | Results | Units                      | RDL  | MDL  | DF Prepared | By | Analyzed        | By | Qual |
|------------------------|---------|----------------------------|------|------|-------------|----|-----------------|----|------|
| <b>RISK - MICR</b>     |         |                            |      |      |             |    |                 |    |      |
| Analysis Desc: AM20GAX |         | Analytical Method: AM20GAX |      |      |             |    |                 |    |      |
| Hydrogen               | 0.82    | nM                         | 0.60 | 0.25 | 1           |    | 4/22/2012 16:41 | GT |      |

Report ID: 4950 - 214997

Page 4 of 7

### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## ANALYTICAL RESULTS

Workorder: 4950 GM-LOCKPORT / 480-18764-1

Lab ID: 49500002  
Sample ID: MW-11(480-18764-2)

Date Received: 4/19/2012 12:30 Matrix: Bubble Strip  
Date Collected: 4/18/2012 12:45

| Parameters             | Results | Units | RDL                        | MDL  | DF Prepared | By | Analyzed        | By | Qual |
|------------------------|---------|-------|----------------------------|------|-------------|----|-----------------|----|------|
| <b>RISK - MICR</b>     |         |       |                            |      |             |    |                 |    |      |
| Analysis Desc: AM20GAX |         |       | Analytical Method: AM20GAX |      |             |    |                 |    |      |
| Hydrogen               | 12      | nM    | 0.60                       | 0.25 | 1           |    | 4/22/2012 16:53 | GT |      |

### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## ANALYTICAL RESULTS

Workorder: 4950 GM-LOCKPORT / 480-18764-1

Lab ID: 49500003 Date Received: 4/19/2012 12:30 Matrix: Bubble Strip  
Sample ID: MW-12(480-18764-3) Date Collected: 4/18/2012 15:30

| Parameters             | Results | Units | RDL                        | MDL  | DF Prepared | By | Analyzed        | By | Qual |
|------------------------|---------|-------|----------------------------|------|-------------|----|-----------------|----|------|
| <b>RISK - MICR</b>     |         |       |                            |      |             |    |                 |    |      |
| Analysis Desc: AM20GAX |         |       | Analytical Method: AM20GAX |      |             |    |                 |    |      |
| Hydrogen               | 0.76    | nM    | 0.60                       | 0.25 | 1           |    | 4/22/2012 17:05 | GT |      |

Report ID: 4950 - 214997

Page 6 of 7

## CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## ANALYTICAL RESULTS QUALIFIERS

Workorder: 4950 GM-LOCKPORT / 480-18764-1

### PARAMETER QUALIFIERS

- U Indicates the compound was analyzed for, but not detected.
- J Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL).

### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.







May 1, 2012

Melissa Deyo  
Test America  
10 Hazelwood Drive  
Buffalo, NY 14228

Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

RE: **480-18852**

*Microseeps Workorder: 4956*

Dear Melissa Deyo:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, April 20, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne Sproull 05/01/2012  
jsproull@microseeps.com

Enclosures

As a valued client we would appreciate your comments on our service.  
Please email [info@microseeps.com](mailto:info@microseeps.com).

Total Number of Pages 9

Report ID: 4956 - 215005

Page 1 of 8

#### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## LABORATORY ACCREDITATIONS & CERTIFICATIONS

|                          |                                                                                                                                                                                                                                                            |                                               |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Accreditor:</b>       | Pennsylvania Department of Environmental Protection, Bureau of Laboratories                                                                                                                                                                                |                                               |
| <b>Accreditation ID:</b> | 02-00538                                                                                                                                                                                                                                                   |                                               |
| <b>Scope:</b>            | NELAP Non-Potable Water and Solid & Hazardous Waste                                                                                                                                                                                                        |                                               |
| <b>Accreditor:</b>       | NELAP: State of Florida, Department of Health, Bureau of Laboratories                                                                                                                                                                                      |                                               |
| <b>Accreditation ID:</b> | E87832                                                                                                                                                                                                                                                     |                                               |
| <b>Scope:</b>            | Clean Water Act (CWA)                                                                                                                                                                                                                                      | Resource Conservation and Recovery Act (RCRA) |
| <b>Accreditor:</b>       | South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification                                                                                                                                            |                                               |
| <b>Accreditation ID:</b> | 89009003                                                                                                                                                                                                                                                   |                                               |
| <b>Scope:</b>            | Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)                                                                                                                                                                                       |                                               |
| <b>Accreditor:</b>       | NELAP: State of Louisiana, Department of Environmental Quality                                                                                                                                                                                             |                                               |
| <b>Accreditation ID:</b> | 04104                                                                                                                                                                                                                                                      |                                               |
| <b>Scope:</b>            | Solid and Chemical Materials; Non-Potable Water                                                                                                                                                                                                            |                                               |
| <b>Accreditor:</b>       | NELAP: New Jersey, Department of Environmental Protection                                                                                                                                                                                                  |                                               |
| <b>Accreditation ID:</b> | PA026                                                                                                                                                                                                                                                      |                                               |
| <b>Scope:</b>            | Non-Potable Water; Solid and Chemical Materials                                                                                                                                                                                                            |                                               |
| <b>Accreditor:</b>       | NELAP: New York, Department of Health Wadsworth Center                                                                                                                                                                                                     |                                               |
| <b>Accreditation ID:</b> | 11815                                                                                                                                                                                                                                                      |                                               |
| <b>Scope:</b>            | Non-Potable Water; Solid and Hazardous Waste                                                                                                                                                                                                               |                                               |
| <b>Accreditor:</b>       | State of Connecticut, Department of Public Health, Division of Environmental Health                                                                                                                                                                        |                                               |
| <b>Accreditation ID:</b> | PH-0263                                                                                                                                                                                                                                                    |                                               |
| <b>Scope:</b>            | Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)                                                                                                                                                                                        |                                               |
| <b>Accreditor:</b>       | NELAP: Texas, Commission on Environmental Quality                                                                                                                                                                                                          |                                               |
| <b>Accreditation ID:</b> | T104704453-09-TX                                                                                                                                                                                                                                           |                                               |
| <b>Scope:</b>            | Non-Potable Water                                                                                                                                                                                                                                          |                                               |
| <b>Accreditor:</b>       | State of New Hampshire                                                                                                                                                                                                                                     |                                               |
| <b>Accreditation ID:</b> | 299409                                                                                                                                                                                                                                                     |                                               |
| <b>Scope:</b>            | Non-potable water                                                                                                                                                                                                                                          |                                               |
| <b>Accreditor:</b>       | State of Georgia                                                                                                                                                                                                                                           |                                               |
| <b>Accreditation ID:</b> | Chapter 391-3-26                                                                                                                                                                                                                                           |                                               |
| <b>Scope:</b>            | As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC). |                                               |

### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## SAMPLE SUMMARY

Workorder: 4956 480-18852

| Lab ID   | Sample ID          | Matrix       | Date Collected  | Date Received   |
|----------|--------------------|--------------|-----------------|-----------------|
| 49560001 | MW-13(480-18852-1) | Bubble Strip | 4/19/2012 08:45 | 4/20/2012 15:23 |
| 49560002 | MW-14(480-18852-2) | Bubble Strip | 4/19/2012 13:15 | 4/20/2012 15:23 |
| 49560003 | MW-10(480-18852-3) | Bubble Strip | 4/19/2012 15:20 | 4/20/2012 15:23 |
| 49560004 | DUP(480-18852-4)   | Bubble Strip | 4/19/2012 00:00 | 4/20/2012 15:23 |

### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## ANALYTICAL RESULTS

Workorder: 4956 480-18852

Lab ID: 49560001

Date Received: 4/20/2012 15:23 Matrix: Bubble Strip

Sample ID: MW-13(480-18852-1)

Date Collected: 4/19/2012 08:45

| Parameters             | Results | Units | RDL                        | MDL  | DF Prepared | By | Analyzed        | By | Qual |
|------------------------|---------|-------|----------------------------|------|-------------|----|-----------------|----|------|
| <b>RISK - MICR</b>     |         |       |                            |      |             |    |                 |    |      |
| Analysis Desc: AM20GAX |         |       | Analytical Method: AM20GAX |      |             |    |                 |    |      |
| Hydrogen               | 0.50J   | nM    | 0.60                       | 0.25 | 1           |    | 4/22/2012 17:18 | GT |      |

Report ID: 4956 - 215005

Page 4 of 8

## CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## ANALYTICAL RESULTS

Workorder: 4956 480-18852

Lab ID: 49560002  
Sample ID: MW-14(480-18852-2)

Date Received: 4/20/2012 15:23 Matrix: Bubble Strip  
Date Collected: 4/19/2012 13:15

| Parameters             | Results | Units                      | RDL  | MDL  | DF Prepared | By | Analyzed        | By | Qual |
|------------------------|---------|----------------------------|------|------|-------------|----|-----------------|----|------|
| <b>RISK - MICR</b>     |         |                            |      |      |             |    |                 |    |      |
| Analysis Desc: AM20GAX |         | Analytical Method: AM20GAX |      |      |             |    |                 |    |      |
| Hydrogen               | 6.7     | nM                         | 0.60 | 0.25 | 1           |    | 4/22/2012 17:30 | GT |      |

### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## ANALYTICAL RESULTS

Workorder: 4956 480-18852

Lab ID: 49560003

Date Received: 4/20/2012 15:23 Matrix: Bubble Strip

Sample ID: MW-10(480-18852-3)

Date Collected: 4/19/2012 15:20

| Parameters             | Results | Units | RDL                        | MDL  | DF Prepared | By | Analyzed        | By | Qual |
|------------------------|---------|-------|----------------------------|------|-------------|----|-----------------|----|------|
| <b>RISK - MICR</b>     |         |       |                            |      |             |    |                 |    |      |
| Analysis Desc: AM20GAX |         |       | Analytical Method: AM20GAX |      |             |    |                 |    |      |
| Hydrogen               | 1.0     | nM    | 0.60                       | 0.25 | 1           |    | 4/22/2012 17:42 | GT |      |

## CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## ANALYTICAL RESULTS

Workorder: 4956 480-18852

Lab ID: 49560004  
Sample ID: DUP(480-18852-4)

Date Received: 4/20/2012 15:23 Matrix: Bubble Strip  
Date Collected: 4/19/2012 00:00

| Parameters             | Results | Units                      | RDL  | MDL  | DF Prepared | By | Analyzed        | By | Qual |
|------------------------|---------|----------------------------|------|------|-------------|----|-----------------|----|------|
| <b>RISK - MICR</b>     |         |                            |      |      |             |    |                 |    |      |
| Analysis Desc: AM20GAX |         | Analytical Method: AM20GAX |      |      |             |    |                 |    |      |
| Hydrogen               | 0.79    | nM                         | 0.60 | 0.25 | 1           |    | 4/22/2012 17:56 | GT |      |

Report ID: 4956 - 215005

Page 7 of 8

### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## ANALYTICAL RESULTS QUALIFIERS

Workorder: 4956-480-18852

### PARAMETER QUALIFIERS

- U Indicates the compound was analyzed for, but not detected.
- J Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL).

### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.



4956

## Chain of Custody Record

|                                                                                                                                                                                                                                                                                                   |                                                         |                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Client Information (Sub Contract Lab)</b><br>Client Contact: Shipping/Receiving<br>Company: Microsleeps<br>Address: 220 William Pitt Way,<br>City: Pittsburgh<br>State/Zip: PA, 15238<br>Phone: 412-826-5245(Tel)<br>Email:<br>Project Name: 058507, GM-Lockport Groundwater Sampling<br>Site: |                                                         | Sampler: Lab PM: Deyo, Melissa L.<br>Phone: E-Mail: melissa.deyo@testamericainc.com                                                                                                                                                                                                                                                                                                                       | Carrier Tracking No(s):<br>COC No: 480-3618-1<br>Page: Page 1 of 1<br>Job #: 480-18852-1 |
| <b>Analysis Requested</b><br>Due Date Requested: 5/1/2012<br>TAT Requested (days):<br>PO #:<br>WO #:<br>Project #: 48004014<br>SSOV#:                                                                                                                                                             |                                                         | <b>Preservation Codes:</b><br>A - HCL<br>B - NaOH<br>C - Zn Acetate<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA<br>Other:<br>M - Hexane<br>N - None<br>O - AsNaO2<br>P - Na2OAS<br>Q - Na2SO3<br>R - Na2S2O3<br>S - H2SO4<br>T - TSP Dodecahydrate<br>U - Acetone<br>V - MCAA<br>W - ph 4-5<br>Z - other (specify) |                                                                                          |
| <b>Sample Identification - Client ID (Lab ID)</b><br>MW-13 (480-18852-1)<br>MW-14 (480-18852-2)<br>MW-10 (480-18852-3)<br>DUP (480-18852-4)                                                                                                                                                       | Sample Date<br>4/19/12<br>4/19/12<br>4/19/12<br>4/19/12 | Sample Time<br>08:45 Eastern<br>13:15 Eastern<br>15:20 Eastern<br>Eastern                                                                                                                                                                                                                                                                                                                                 | Sample Type (C=comp, G=grab)<br>Matrix (W=water, S=solid, O=other)<br>Preservation Code: |
| Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> X<br>Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> X<br>AM206AXI (MOD) Hydrogen <input checked="" type="checkbox"/> X                                                                                      |                                                         | Total Number of containers<br>1<br>1<br>1<br>1                                                                                                                                                                                                                                                                                                                                                            |                                                                                          |
| <b>Possible Hazard Identification</b><br>Unconfirmed<br>Deliverable Requested: I, II, III, IV, Other (specify)                                                                                                                                                                                    |                                                         | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)<br><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months<br>Special Instructions/QC Requirements:                                                                                                                                      |                                                                                          |
| Empty Kit Relinquished by: <i>[Signature]</i><br>Relinquished by: <i>[Signature]</i><br>Relinquished by: <i>[Signature]</i><br>Relinquished by:                                                                                                                                                   |                                                         | Date: 4/19/12 1700<br>Date/Time: 4/19/12 1700<br>Date/Time: 4/19/12 1700<br>Date/Time:                                                                                                                                                                                                                                                                                                                    |                                                                                          |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Custody Seal No.:                                                                                                                                                                                               |                                                         | Cooler Temperature(s) °C and Other Remarks:                                                                                                                                                                                                                                                                                                                                                               |                                                                                          |



Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

May 7, 2012

Melissa Deyo  
Test America  
10 Hazelwood Drive  
Buffalo, NY 14228

RE: **480-18943**

*Microseeps Workorder: 5021*

Dear Melissa Deyo:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, April 24, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

*Julianne C. Sproull*

Julianne Sproull 05/07/2012  
jsproull@microseeps.com

Enclosures

As a valued client we would appreciate your comments on our service.  
Please email [info@microseeps.com](mailto:info@microseeps.com).

Total Number of Pages 8

Report ID: 5021 - 221709

Page 1 of 7

#### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## LABORATORY ACCREDITATIONS & CERTIFICATIONS

|                   |                                                                                                                                                                                                                                                            |                                               |  |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--|
| Accreditor:       | Pennsylvania Department of Environmental Protection, Bureau of Laboratories                                                                                                                                                                                |                                               |  |
| Accreditation ID: | 02-00538                                                                                                                                                                                                                                                   |                                               |  |
| Scope:            | NELAP Non-Potable Water and Solid & Hazardous Waste                                                                                                                                                                                                        |                                               |  |
| Accreditor:       | NELAP: State of Florida, Department of Health, Bureau of Laboratories                                                                                                                                                                                      |                                               |  |
| Accreditation ID: | E87832                                                                                                                                                                                                                                                     |                                               |  |
| Scope:            | Clean Water Act (CWA)                                                                                                                                                                                                                                      | Resource Conservation and Recovery Act (RCRA) |  |
| Accreditor:       | South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification                                                                                                                                            |                                               |  |
| Accreditation ID: | 89009003                                                                                                                                                                                                                                                   |                                               |  |
| Scope:            | Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)                                                                                                                                                                                       |                                               |  |
| Accreditor:       | NELAP: State of Louisiana, Department of Environmental Quality                                                                                                                                                                                             |                                               |  |
| Accreditation ID: | 04104                                                                                                                                                                                                                                                      |                                               |  |
| Scope:            | Solid and Chemical Materials; Non-Potable Water                                                                                                                                                                                                            |                                               |  |
| Accreditor:       | NELAP: New Jersey, Department of Environmental Protection                                                                                                                                                                                                  |                                               |  |
| Accreditation ID: | PA026                                                                                                                                                                                                                                                      |                                               |  |
| Scope:            | Non-Potable Water; Solid and Chemical Materials                                                                                                                                                                                                            |                                               |  |
| Accreditor:       | NELAP: New York, Department of Health Wadsworth Center                                                                                                                                                                                                     |                                               |  |
| Accreditation ID: | 11815                                                                                                                                                                                                                                                      |                                               |  |
| Scope:            | Non-Potable Water; Solid and Hazardous Waste                                                                                                                                                                                                               |                                               |  |
| Accreditor:       | State of Connecticut, Department of Public Health, Division of Environmental Health                                                                                                                                                                        |                                               |  |
| Accreditation ID: | PH-0263                                                                                                                                                                                                                                                    |                                               |  |
| Scope:            | Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)                                                                                                                                                                                        |                                               |  |
| Accreditor:       | NELAP: Texas, Commission on Environmental Quality                                                                                                                                                                                                          |                                               |  |
| Accreditation ID: | T104704453-09-TX                                                                                                                                                                                                                                           |                                               |  |
| Scope:            | Non-Potable Water                                                                                                                                                                                                                                          |                                               |  |
| Accreditor:       | State of New Hampshire                                                                                                                                                                                                                                     |                                               |  |
| Accreditation ID: | 299409                                                                                                                                                                                                                                                     |                                               |  |
| Scope:            | Non-potable water                                                                                                                                                                                                                                          |                                               |  |
| Accreditor:       | State of Georgia                                                                                                                                                                                                                                           |                                               |  |
| Accreditation ID: | Chapter 391-3-26                                                                                                                                                                                                                                           |                                               |  |
| Scope:            | As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC). |                                               |  |

### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## SAMPLE SUMMARY

Workorder: 5021 480-18943

| Lab ID   | Sample ID         | Matrix       | Date Collected  | Date Received   |
|----------|-------------------|--------------|-----------------|-----------------|
| 50210001 | MW-4(480-18943-1) | Bubble Strip | 4/20/2012 13:00 | 4/24/2012 17:00 |

Report ID: 5021 - 221709

Page 3 of 7

## CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## ANALYTICAL RESULTS

Workorder: 5021 480-18943

Lab ID: 50210001  
Sample ID: MW-4(480-18943-1)

Date Received: 4/24/2012 17:00 Matrix: Bubble Strip  
Date Collected: 4/20/2012 13:00

| Parameters             | Results | Units | RDL                        | MDL  | DF Prepared | By | Analyzed       | By | Qual |
|------------------------|---------|-------|----------------------------|------|-------------|----|----------------|----|------|
| <b>RISK - MICR</b>     |         |       |                            |      |             |    |                |    |      |
| Analysis Desc: AM20GAX |         |       | Analytical Method: AM20GAX |      |             |    |                |    |      |
| Hydrogen               | 28      | nM    | 0.60                       | 0.25 | 1           |    | 5/4/2012 09:36 | GT |      |

Report ID: 5021 - 221709

Page 4 of 7

## CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## ANALYTICAL RESULTS QUALIFIERS

Workorder: 5021 480-18943

### PARAMETER QUALIFIERS

- U Indicates the compound was analyzed for, but not detected.
- J Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL).

Report ID: 5021 - 221709

Page 5 of 7

### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## QUALITY CONTROL DATA

Workorder: 5021 480-18943

QC Batch: DISG/2116 Analysis Method: AM20GAX  
QC Batch Method: AM20GAX  
Associated Lab Samples: 50210001

METHOD BLANK: 10963

| Parameter     | Units | Blank Result | Reporting Limit Qualifiers |
|---------------|-------|--------------|----------------------------|
| RISK Hydrogen | nM    | 0.60 U       | 0.60                       |

LABORATORY CONTROL SAMPLE & LCSD: 10966 10969

| Parameter     | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD Qualifiers |
|---------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|--------------------|
| RISK Hydrogen | nM    | 49          | 56         | 55          | 115       | 113        | 80-120      | 1.8 | 20                 |

Report ID: 5021 - 221709

Page 6 of 7

## CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.





Microseeps, Inc  
220 William Pitt Way  
Pittsburgh, PA 15238  
Phone: (412) 826-5245  
Fax: (412) 826-3433

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 5021 480-18943

| Lab ID   | Sample ID         | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|----------|-------------------|-------------|------------|-----------------|----------------|
| 50210001 | MW-4(480-18943-1) |             |            | AM20GAX         | DISG/2116      |

Report ID: 5021 - 221709

Page 7 of 7

### CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Microseeps, Inc.



**Client Information (Sub Contract Lab)**

Client Contact:

Shipping/Receiving

Sampler:

Phone:

Lab PM:

Deyo, Melissa L

E-Mail:

melissa.deyo@testamericainc.com

Carrier Tracking No(s):

COC No:

480-3639-1

Page:

Page 1 of 1

Job #:

480-18943-1

**Analysis Requested**

Due Date Requested:

5/2/2012

TAT Requested (days):

Address:

220 William Pitt Way,

City:

Pittsburgh

State, Zip:

PA, 15238

Phone:

412-826-5245(Tel)

Email:

Project Name:

058507, GM-Lockport Groundwater Sampling

Site:

SSOW#:

Project #:

48004014

Sample Date

4/20/12

Sample Time

13:00

Eastern

Sample Type

(C=Comp, G=grab)

Preservation Code

Water

Matrix

(W=water, S=solid, O=soil, T=tissue, A=air)

Field Filtered Sample (Yes or No)

AM20GAX (MOD) Hydrogen

Total Number of containers

Special Instructions/Note:

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:

Method of Shipment:

Received by:

Company

Date/Time:

4-24-12 1100

Company

Received by:

Company

Date/Time:

Received by:

Company

Date/Time:

Cooler Temperature(s) °C and Other Remarks:

1. 20C

Custody Seal No.:

Yes Δ No

# Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes ☐ No ☐

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

|                                                                              |                    |                                                                |                                  |                        |  |                                          |  |
|------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------|----------------------------------|------------------------|--|------------------------------------------|--|
| Client<br><b>67A Geo Environmental</b>                                       |                    | Project Manager<br><b>Chris Shaffer Boron</b>                  |                                  | Date<br><b>4/18/12</b> |  | Chain of Custody Number<br><b>229339</b> |  |
| Address<br><b>535 Washington St 11th Flr</b>                                 |                    | Telephone Number (Area Code)/Fax Number<br><b>716 844-7046</b> |                                  | Lab Number             |  | Page <b>229339</b> of <b>2</b>           |  |
| City<br><b>Buffalo</b>                                                       | State<br><b>NY</b> | Zip Code<br><b>14203</b>                                       | Site Contact<br><b>T. Bollen</b> | Lab Contact            |  |                                          |  |
| Project Name and Location (State)<br><b>Delphi Harrison Thermal Sys/GMCH</b> |                    |                                                                | Carrier/Weight Number            |                        |  |                                          |  |
| Contract/Purchase Order/Quote No.                                            |                    |                                                                |                                  |                        |  |                                          |  |

| Sample ID, No. and Description<br>(Containers for each sample may be combined on one line) | Date    | Time  | Matrix |         |      |      | Containers & Preservatives |       |      |     |      |           | Analysis (Attach list if more space is needed) | Special Instructions/<br>Conditions of Receipt |                     |
|--------------------------------------------------------------------------------------------|---------|-------|--------|---------|------|------|----------------------------|-------|------|-----|------|-----------|------------------------------------------------|------------------------------------------------|---------------------|
|                                                                                            |         |       | Air    | Aqueous | Sed. | Soil | Unpres.                    | H2SO4 | HNO3 | HCl | NaOH | ZnAc/NaOH |                                                |                                                |                     |
| MW-15-041812-0900                                                                          | 4/18/12 | 9:00  | X      |         |      |      | X                          | X     | X    | X   | X    | X         | X                                              | 6010B TAL Metals                               | 30 containers/      |
| MW-11-041812-1245                                                                          | 4/18/12 | 12:45 | X      |         |      |      | X                          | X     | X    | X   | X    | X         | X                                              | 3200B Alkalinity                               | sample - labeled    |
| MW-12-041812-1530                                                                          | 4/18/12 | 15:30 | X      |         |      |      | X                          | X     | X    | X   | X    | X         | X                                              | 3260B TCL                                      | w/ pre-precipitated |
|                                                                                            |         |       |        |         |      |      |                            |       |      |     |      |           |                                                | RSK-175.CO2                                    | Test America        |
|                                                                                            |         |       |        |         |      |      |                            |       |      |     |      |           |                                                | VFA-1C                                         | Labels              |
|                                                                                            |         |       |        |         |      |      |                            |       |      |     |      |           |                                                | SM4500-S2-D                                    |                     |
|                                                                                            |         |       |        |         |      |      |                            |       |      |     |      |           |                                                | 350.1 Ammonia                                  |                     |
|                                                                                            |         |       |        |         |      |      |                            |       |      |     |      |           |                                                | SM4500-GF 35                                   |                     |
|                                                                                            |         |       |        |         |      |      |                            |       |      |     |      |           |                                                | Nitrate                                        |                     |
|                                                                                            |         |       |        |         |      |      |                            |       |      |     |      |           |                                                | 1069 Nitrate                                   |                     |
|                                                                                            |         |       |        |         |      |      |                            |       |      |     |      |           |                                                | Calcium                                        |                     |

|                                     |                                                                                                                                                                          |                                           |                                          |                                                                     |  |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|---------------------------------------------------------------------|--|
| Possible Hazard Identification      |                                                                                                                                                                          | Sample Disposal                           |                                          | (A fee may be assessed if samples are retained longer than 1 month) |  |
| <input type="checkbox"/> Non-Hazard | <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown                             | <input type="checkbox"/> Return To Client | <input type="checkbox"/> Disposal By Lab | <input type="checkbox"/> Archive For _____ Months                   |  |
| Turn Around Time Required           |                                                                                                                                                                          | QC Requirements (Specify)                 |                                          |                                                                     |  |
| <input type="checkbox"/> 24 Hours   | <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input type="checkbox"/> Other _____ |                                           |                                          |                                                                     |  |
| 1. Relinquished By _____            |                                                                                                                                                                          | Date                                      | Time                                     | 1. Received By _____                                                |  |
| 2. Relinquished By _____            |                                                                                                                                                                          | Date                                      | Time                                     | 2. Received By _____                                                |  |
| 3. Relinquished By _____            |                                                                                                                                                                          | Date                                      | Time                                     | 3. Received By _____                                                |  |
| Comments                            |                                                                                                                                                                          |                                           |                                          |                                                                     |  |

# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes ☐ No ☐

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

|                                                                                |  |                                                                |  |                              |  |                                          |  |
|--------------------------------------------------------------------------------|--|----------------------------------------------------------------|--|------------------------------|--|------------------------------------------|--|
| Client<br><b>AZA Geo Environmental</b>                                         |  | Project Manager<br><b>Christopher Baron</b>                    |  | Date<br><b>4/19/12</b>       |  | Chain of Custody Number<br><b>229340</b> |  |
| Address<br><b>535 Washington St. 11th Fl.</b>                                  |  | Telephone Number (Area Code)/Fax Number<br><b>716 844 7046</b> |  | Lab Number<br><b>4119/12</b> |  | Page <b>1</b> of <b>1</b>                |  |
| City<br><b>Buffalo</b>                                                         |  | State<br><b>NY</b>                                             |  | Zip Code<br><b>14203</b>     |  |                                          |  |
| Project Name and Location (State)<br><b>Lehigh-Harrisburg Thermal Sys./GWH</b> |  | Site Contact<br><b>T. Bohlen</b>                               |  | Lab Contact                  |  |                                          |  |
| Contract/Purchase Order/Quote No.                                              |  | Carrier/Waybill Number                                         |  |                              |  |                                          |  |

| Sample I.D. No. and Description<br>(Containers for each sample may be combined on one line) | Date    | Time | Matrix |         |      | Containers & Preservatives |         |       |      |     |      | Analysis (Attach list if more space is needed) | Special Instructions/<br>Conditions of Receipt |                     |
|---------------------------------------------------------------------------------------------|---------|------|--------|---------|------|----------------------------|---------|-------|------|-----|------|------------------------------------------------|------------------------------------------------|---------------------|
|                                                                                             |         |      | Air    | Aqueous | Sed. | Soil                       | Unpres. | H2SO4 | HNO3 | HCl | NaOH |                                                |                                                | ZnAc/NaOH           |
| MW-13 - 041912-0845                                                                         | 4/19/12 | 8:45 | X      |         |      |                            | X       | X     | X    | X   |      |                                                | 6010B TAL Metals                               | add containers      |
| MW-14 - 041912-1315                                                                         | "       | 1315 | X      |         |      |                            | X       | X     | X    | X   |      |                                                | 2300B Alkalinity                               | per sample          |
| MW-10 - 041912-1520                                                                         | "       | 1520 | X      |         |      |                            | X       | X     | X    | X   |      |                                                | 8260 TCL                                       | labeled w/ pre-     |
| DUP - 041912-0001                                                                           | "       |      | X      |         |      |                            | X       | X     | X    | X   |      |                                                | ESK 175 (D)                                    | printed TestAmerica |
|                                                                                             |         |      |        |         |      |                            |         |       |      |     |      |                                                | VFA 1C                                         | labels              |
|                                                                                             |         |      |        |         |      |                            |         |       |      |     |      |                                                | SM4500.SD-D                                    |                     |
|                                                                                             |         |      |        |         |      |                            |         |       |      |     |      |                                                | 350.1 Ammonia                                  |                     |
|                                                                                             |         |      |        |         |      |                            |         |       |      |     |      |                                                | SM4500.CLE                                     |                     |
|                                                                                             |         |      |        |         |      |                            |         |       |      |     |      |                                                | 253.2 Nitrate                                  |                     |
|                                                                                             |         |      |        |         |      |                            |         |       |      |     |      |                                                | RSK 175                                        |                     |
|                                                                                             |         |      |        |         |      |                            |         |       |      |     |      |                                                | 9060 Tbb/Cr Carbon                             |                     |

|                                     |                                    |                                        |                                   |                                   |                                           |
|-------------------------------------|------------------------------------|----------------------------------------|-----------------------------------|-----------------------------------|-------------------------------------------|
| Possible Hazard Identification      |                                    | Sample Disposal                        |                                   | QC Requirements (Specify)         |                                           |
| <input type="checkbox"/> Non-Hazard | <input type="checkbox"/> Flammable | <input type="checkbox"/> Skin Irritant | <input type="checkbox"/> Poison B | <input type="checkbox"/> Unknown  | <input type="checkbox"/> Return To Client |
| Turn Around Time Required           |                                    | <input type="checkbox"/> 24 Hours      |                                   | <input type="checkbox"/> 48 Hours | <input type="checkbox"/> 7 Days           |
|                                     |                                    | <input type="checkbox"/> 14 Days       |                                   | <input type="checkbox"/> 21 Days  | <input type="checkbox"/> Other _____      |

|                                            |                        |                     |                                            |                        |                     |
|--------------------------------------------|------------------------|---------------------|--------------------------------------------|------------------------|---------------------|
| 1. Relinquished By<br><b>Thomas Bohlen</b> | Date<br><b>4/19/12</b> | Time<br><b>1645</b> | 1. Received By<br><b>Christopher Baron</b> | Date<br><b>4/19/12</b> | Time<br><b>1645</b> |
| 2. Relinquished By                         | Date                   | Time                | 2. Received By                             | Date                   | Time                |
| 3. Relinquished By                         | Date                   | Time                | 3. Received By                             | Date                   | Time                |

Comments

DISTRIBUTION: WHITE - Returned to Client with Report. CANARY - Stays with the Sample. PINK - Field Copy

THE LEADER IN ENVIRONMENTAL TESTING

5/16/2012

## Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-18764-1

**Login Number: 18764**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Janish, Carl**

| Question                                                                         | Answer | Comment |
|----------------------------------------------------------------------------------|--------|---------|
| Radioactivity either was not measured or, if measured, is at or below background | True   |         |
| The cooler's custody seal, if present, is intact.                                | True   |         |
| The cooler or samples do not appear to have been compromised or tampered with.   | True   |         |
| Samples were received on ice.                                                    | True   |         |
| Cooler Temperature is acceptable.                                                | True   |         |
| Cooler Temperature is recorded.                                                  | True   |         |
| COC is present.                                                                  | True   |         |
| COC is filled out in ink and legible.                                            | True   |         |
| COC is filled out with all pertinent information.                                | True   |         |
| Is the Field Sampler's name present on COC?                                      | True   |         |
| There are no discrepancies between the sample IDs on the containers and the COC. | True   |         |
| Samples are received within Holding Time.                                        | True   |         |
| Sample containers have legible labels.                                           | True   |         |
| Containers are not broken or leaking.                                            | True   |         |
| Sample collection date/times are provided.                                       | True   |         |
| Appropriate sample containers are used.                                          | True   |         |
| Sample bottles are completely filled.                                            | True   |         |
| Sample Preservation Verified                                                     | True   |         |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True   |         |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.     | True   |         |
| If necessary, staff have been informed of any short hold time or quick TAT needs | True   |         |
| Multiphasic samples are not present.                                             | True   |         |
| Samples do not require splitting or compositing.                                 | True   |         |
| Sampling Company provided.                                                       | True   | gza     |
| Samples received within 48 hours of sampling.                                    | True   |         |
| Samples requiring field filtration have been filtered in the field.              | N/A    |         |
| Chlorine Residual checked.                                                       | N/A    |         |

## Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 480-18764-1

**Login Number: 18764**

**List Number: 1**

**Creator: Kirchner, Benjamin**

**List Source: TestAmerica Burlington**

**List Creation: 04/19/12 02:09 PM**

| Question                                                                         | Answer | Comment                                     |
|----------------------------------------------------------------------------------|--------|---------------------------------------------|
| Radioactivity either was not measured or, if measured, is at or below background | N/A    | Lab does not accept radioactive samples.    |
| The cooler's custody seal, if present, is intact.                                | True   | 792597                                      |
| The cooler or samples do not appear to have been compromised or tampered with.   | True   |                                             |
| Samples were received on ice.                                                    | True   |                                             |
| Cooler Temperature is acceptable.                                                | True   |                                             |
| Cooler Temperature is recorded.                                                  | True   | 3.0°C, IR GUN ID 154, CF 0                  |
| COC is present.                                                                  | True   |                                             |
| COC is filled out in ink and legible.                                            | True   |                                             |
| COC is filled out with all pertinent information.                                | True   |                                             |
| Is the Field Sampler's name present on COC?                                      | N/A    | Received project as a subcontract.          |
| There are no discrepancies between the sample IDs on the containers and the COC. | True   |                                             |
| Samples are received within Holding Time.                                        | True   |                                             |
| Sample containers have legible labels.                                           | True   |                                             |
| Containers are not broken or leaking.                                            | True   |                                             |
| Sample collection date/times are provided.                                       | True   |                                             |
| Appropriate sample containers are used.                                          | True   |                                             |
| Sample bottles are completely filled.                                            | True   |                                             |
| Sample Preservation Verified.                                                    | True   |                                             |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True   |                                             |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.     | True   |                                             |
| Multiphasic samples are not present.                                             | True   |                                             |
| Samples do not require splitting or compositing.                                 | True   |                                             |
| Residual Chlorine Checked.                                                       | N/A    | Check done at department level as required. |

## **APPENDIX D**

### **ANAEROBIC BIODEGRADATION SCREENING TABLES**

**TABLE D-1**  
**ANAEROBIC BIODEGRADATION SCREENING**  
**MW-4 MNA Scorecard**

*Delphi Harrison Thermal Systems Site*  
*GM Component Holdings, LLC*  
*Lockport, New York*

| Analysis                                                                                                                                                                                      | Concentration in Most Contaminated Zone                                   | Value | Laboratory or Field Analysis Value (mg/L) | Score |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------|-------------------------------------------|-------|
| DO                                                                                                                                                                                            | <0.5 mg/L                                                                 | 3     | EM                                        |       |
| DO                                                                                                                                                                                            | >5 mg/l                                                                   | -3    |                                           |       |
| Nitrate                                                                                                                                                                                       | <1 mg/L                                                                   | 2     | <0.05                                     | 2     |
| Iron II                                                                                                                                                                                       | >1 mg/l                                                                   | 2     | NT                                        |       |
| Sulfate                                                                                                                                                                                       | <20 mg/L                                                                  | 2     | 282                                       |       |
| Sulfide                                                                                                                                                                                       | >1 mg/L                                                                   | 3     | <0.1                                      |       |
| Methane                                                                                                                                                                                       | <0.5 mg/L                                                                 | 0     |                                           |       |
| Methane                                                                                                                                                                                       | >0.5 mg/L                                                                 | 3     | 3.8                                       | 3     |
| ORP                                                                                                                                                                                           | <50 mV                                                                    | 1     | 40.5                                      | 1     |
| ORP                                                                                                                                                                                           | <-100 mV                                                                  | 2     |                                           |       |
| pH                                                                                                                                                                                            | 5< pH <9                                                                  | 0     | 6.1                                       | 0     |
| pH                                                                                                                                                                                            | 5> pH >9                                                                  | -2    |                                           |       |
| TOC                                                                                                                                                                                           | >20 mg/L                                                                  | 2     | 3.1                                       |       |
| Temp                                                                                                                                                                                          | > 20°C                                                                    | 1     | 14.5                                      |       |
| Carbon Dioxide                                                                                                                                                                                | >2 times background (4.5)                                                 | 1     | 9.5                                       | 1     |
| Alkalinity                                                                                                                                                                                    | >2 times background (368)                                                 | 1     | 320                                       |       |
| Chloride                                                                                                                                                                                      | >2 times background (2090)                                                | 2     | 3580                                      |       |
| Hydrogen                                                                                                                                                                                      | >1 nM                                                                     | 3     | 28                                        | 3     |
| Hydrogen                                                                                                                                                                                      | <1nM                                                                      | 0     |                                           |       |
| Volatile Fatty Acids                                                                                                                                                                          | >0.1 mg/L                                                                 | 2     | ND                                        |       |
| BTEX                                                                                                                                                                                          | >0.1 mg/L                                                                 | 2     | ND                                        |       |
| PCE                                                                                                                                                                                           |                                                                           | 0     | 0.0014                                    | 0     |
| TCE                                                                                                                                                                                           | If Daughter Product                                                       | 2     | 18                                        |       |
| DCE                                                                                                                                                                                           | If Daughter Product                                                       | 2     | 42.16                                     | 2     |
| VC                                                                                                                                                                                            | If Daughter Product                                                       | 2     | 9.1                                       | 2     |
| 1,1,1-TCA                                                                                                                                                                                     |                                                                           | 0     | ND                                        |       |
| DCA                                                                                                                                                                                           | If Daughter Product                                                       | 2     | ND                                        |       |
| Carbon Tetrachloride                                                                                                                                                                          |                                                                           | 0     | ND                                        |       |
| Chloroethane                                                                                                                                                                                  | If Daughter Product                                                       | 2     | ND                                        |       |
| Ethene/Ethane                                                                                                                                                                                 | >0.01 mg/L or                                                             | 2     |                                           |       |
|                                                                                                                                                                                               | >0.1 mg/L                                                                 | 3     | 2.95                                      | 3     |
| Chloroform                                                                                                                                                                                    | If Daughter Product                                                       | 2     | ND                                        |       |
| Dichloromethane                                                                                                                                                                               | If Daughter Product                                                       | 2     | ND                                        |       |
|                                                                                                                                                                                               |                                                                           |       | Total Score                               | 17    |
| Scoring Interpretation                                                                                                                                                                        |                                                                           |       |                                           |       |
| 0 to 5                                                                                                                                                                                        | Inadequate evidence for anaerobic biodegradation* of chlorinated organics |       |                                           |       |
| 6 to 14                                                                                                                                                                                       | Limited evidence for anaerobic biodegradation* of chlorinated organics    |       |                                           |       |
| 15 to 20                                                                                                                                                                                      | Adequate evidence for anaerobic biodegradation* of chlorinated organics   |       |                                           |       |
| >20                                                                                                                                                                                           | Strong evidence for anaerobic biodegradation* of chlorinated organics     |       |                                           |       |
| *reductive dechlorination                                                                                                                                                                     |                                                                           |       |                                           |       |
| Values Taken from EPA Document <b>EPA/600/R-98/128</b> , <i>Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water</i> , 1998, Table 2.3 and Table 2.4 |                                                                           |       |                                           |       |

Notes:

1. MW-13 is assumed to be background given COCs have generally not been detected above method detection limits.
2. ND=not detected
3. NT=not tested
4. EM=Equipment malfunction

**TABLE D-2**  
**ANAEROBIC BIODEGRADATION SCREENING**  
**MW-7 MNA Scorecard**

*Delphi Harrison Thermal Systems Site*  
*GM Component Holdings, LLC*  
*Lockport, New York*

| Analysis                                                                                                                                                                                      | Concentration in Most Contaminated Zone                                   | Value | Laboratory or Field Analysis Value (mg/L) | Score |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------|-------------------------------------------|-------|
| DO                                                                                                                                                                                            | <0.5 mg/L                                                                 | 3     | EM                                        |       |
| DO                                                                                                                                                                                            | >5 mg/l                                                                   | -3    |                                           |       |
| Nitrate                                                                                                                                                                                       | <1 mg/L                                                                   | 2     | <0.05                                     | 2     |
| Iron II                                                                                                                                                                                       | >1 mg/l                                                                   | 2     | 0.06                                      |       |
| Sulfate                                                                                                                                                                                       | <20 mg/L                                                                  | 2     | 332                                       |       |
| Sulfide                                                                                                                                                                                       | >1 mg/L                                                                   | 3     | <0.1                                      |       |
| Methane                                                                                                                                                                                       | <0.5 mg/L                                                                 | 0     | 0.046                                     | 0     |
| Methane                                                                                                                                                                                       | >0.5 mg/L                                                                 | 3     |                                           |       |
| ORP                                                                                                                                                                                           | <50 mV                                                                    | 1     | -34                                       | 1     |
| ORP                                                                                                                                                                                           | <-100 mV                                                                  | 2     |                                           |       |
| pH                                                                                                                                                                                            | 5< pH <9                                                                  | 0     | 7.49                                      | 0     |
| pH                                                                                                                                                                                            | 5> pH >9                                                                  | -2    |                                           |       |
| TOC                                                                                                                                                                                           | >20 mg/L                                                                  | 2     | 8.7                                       |       |
| Temp                                                                                                                                                                                          | > 20°C                                                                    | 1     | 15.4                                      |       |
| Carbon Dioxide                                                                                                                                                                                | >2 times background (4.5)                                                 | 1     | 1.6                                       |       |
| Alkalinity                                                                                                                                                                                    | >2 times background (368)                                                 | 1     | 240                                       |       |
| Chloride                                                                                                                                                                                      | >2 times background (2090)                                                | 2     | 416                                       |       |
| Hydrogen                                                                                                                                                                                      | >1 nM                                                                     | 3     | NT                                        |       |
| Hydrogen                                                                                                                                                                                      | <1nM                                                                      | 0     |                                           |       |
| Volatile Fatty Acids                                                                                                                                                                          | >0.1 mg/L                                                                 | 2     | 4.82                                      | 2     |
| BTEX                                                                                                                                                                                          | >0.1 mg/L                                                                 | 2     | ND                                        |       |
| PCE                                                                                                                                                                                           |                                                                           | 0     | <1.8                                      | 0     |
| TCE                                                                                                                                                                                           | If Daughter Product                                                       | 2     | 730                                       |       |
| DCE                                                                                                                                                                                           | If Daughter Product                                                       | 2     | 43                                        | 2     |
| VC                                                                                                                                                                                            | If Daughter Product                                                       | 2     | <4.5                                      | 2     |
| 1,1,1-TCA                                                                                                                                                                                     |                                                                           | 0     | ND                                        |       |
| DCA                                                                                                                                                                                           | If Daughter Product                                                       | 2     | ND                                        |       |
| Carbon Tetrachloride                                                                                                                                                                          |                                                                           | 0     | ND                                        |       |
| Chloroethane                                                                                                                                                                                  | If Daughter Product                                                       | 2     | ND                                        |       |
| Ethene/Ethane                                                                                                                                                                                 | >0.01 mg/L or                                                             | 2     |                                           |       |
|                                                                                                                                                                                               | >0.1 mg/L                                                                 | 3     | 0.115                                     | 3     |
| Chloroform                                                                                                                                                                                    | If Daughter Product                                                       | 2     | ND                                        |       |
| Dichloromethane                                                                                                                                                                               | If Daughter Product                                                       | 2     | ND                                        |       |
|                                                                                                                                                                                               |                                                                           |       | Total Score                               | 12    |
| Scoring Interpretation                                                                                                                                                                        |                                                                           |       |                                           |       |
| 0 to 5                                                                                                                                                                                        | Inadequate evidence for anaerobic biodegradation* of chlorinated organics |       |                                           |       |
| 6 to 14                                                                                                                                                                                       | Limited evidence for anaerobic biodegradation* of chlorinated organics    |       |                                           |       |
| 15 to 20                                                                                                                                                                                      | Adequate evidence for anaerobic biodegradation* of chlorinated organics   |       |                                           |       |
| >20                                                                                                                                                                                           | Strong evidence for anaerobic biodegradation* of chlorinated organics     |       |                                           |       |
| *reductive dechlorination                                                                                                                                                                     |                                                                           |       |                                           |       |
| Values Taken from EPA Document <b>EPA/600/R-98/128</b> , <i>Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water</i> , 1998, Table 2.3 and Table 2.4 |                                                                           |       |                                           |       |

Notes:

1. MW-13 is assumed to be background given COCs have generally not been detected above method detection limits.
2. ND=not detected
3. NT=not tested

**TABLE D-3**  
**ANAEROBIC BIODEGRADATION SCREENING**  
**MW-11 MNA Scorecard**

*Delphi Harrison Thermal Systems Site*  
*GM Component Holdings, LLC*  
*Lockport, New York*

| Analysis                                                                                                                                                                                      | Concentration in Most Contaminated Zone                                   | Value | Laboratory or Field Analysis Value (mg/L) | Score |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------|-------------------------------------------|-------|
| DO                                                                                                                                                                                            | <0.5 mg/L                                                                 | 3     | EM                                        |       |
| DO                                                                                                                                                                                            | >5 mg/l                                                                   | -3    |                                           |       |
| Nitrate                                                                                                                                                                                       | <1 mg/L                                                                   | 2     | 0.095                                     | 2     |
| Iron II                                                                                                                                                                                       | >1 mg/l                                                                   | 2     | 0.2                                       |       |
| Sulfate                                                                                                                                                                                       | <20 mg/L                                                                  | 2     | 98.9                                      |       |
| Sulfide                                                                                                                                                                                       | >1 mg/L                                                                   | 3     | 0.053                                     |       |
| Methane                                                                                                                                                                                       | <0.5 mg/L                                                                 | 0     | 0.014                                     | 0     |
| Methane                                                                                                                                                                                       | >0.5 mg/L                                                                 | 3     |                                           |       |
| ORP                                                                                                                                                                                           | <50 mV                                                                    | 1     |                                           |       |
| ORP                                                                                                                                                                                           | <-100 mV                                                                  | 2     | -75                                       | 2     |
| pH                                                                                                                                                                                            | 5< pH <9                                                                  | 0     | 7.6                                       | 0     |
| pH                                                                                                                                                                                            | 5> pH >10                                                                 | -2    |                                           |       |
| TOC                                                                                                                                                                                           | >20 mg/L                                                                  | 2     | 1.3                                       |       |
| Temp                                                                                                                                                                                          | > 20°C                                                                    | 1     | 10.9                                      |       |
| Carbon Dioxide                                                                                                                                                                                | >2 times background (4.5)                                                 | 1     | 2.1                                       |       |
| Alkalinity                                                                                                                                                                                    | >2 times background (368)                                                 | 1     | 248                                       |       |
| Chloride                                                                                                                                                                                      | >2 times background (2090)                                                | 2     | 360                                       |       |
| Hydrogen                                                                                                                                                                                      | >1 nM                                                                     | 3     | 12                                        | 3     |
| Hydrogen                                                                                                                                                                                      | <1nM                                                                      | 0     |                                           |       |
| Volatile Fatty Acids                                                                                                                                                                          | >0.1 mg/L                                                                 | 2     | ND                                        |       |
| BTEX                                                                                                                                                                                          | >0.1 mg/L                                                                 | 2     | ND                                        |       |
| PCE                                                                                                                                                                                           |                                                                           | 0     | <0.0004                                   | 0     |
| TCE                                                                                                                                                                                           | If Daughter Product                                                       | 2     | <0.0005                                   |       |
| DCE                                                                                                                                                                                           | If Daughter Product                                                       | 2     | 0.0014                                    | 2     |
| VC                                                                                                                                                                                            | If Daughter Product                                                       | 2     | 0.0026                                    | 2     |
| 1,1,1-TCA                                                                                                                                                                                     |                                                                           | 0     | ND                                        |       |
| DCA                                                                                                                                                                                           | If Daughter Product                                                       | 2     | ND                                        |       |
| Carbon Tetrachloride                                                                                                                                                                          |                                                                           | 0     | ND                                        |       |
| Chloroethane                                                                                                                                                                                  | If Daughter Product                                                       | 2     | ND                                        |       |
| Ethene/Ethane                                                                                                                                                                                 | >0.01 mg/L or                                                             | 2     | 0.00229                                   |       |
|                                                                                                                                                                                               | >0.1 mg/L                                                                 | 3     |                                           |       |
| Chloroform                                                                                                                                                                                    | If Daughter Product                                                       | 2     | ND                                        |       |
| Dichloromethane                                                                                                                                                                               | If Daughter Product                                                       | 2     | ND                                        |       |
|                                                                                                                                                                                               |                                                                           |       | Total Score                               | 11    |
| Scoring Interpretation                                                                                                                                                                        |                                                                           |       |                                           |       |
| 0 to 5                                                                                                                                                                                        | Inadequate evidence for anaerobic biodegradation* of chlorinated organics |       |                                           |       |
| 6 to 14                                                                                                                                                                                       | Limited evidence for anaerobic biodegradation* of chlorinated organics    |       |                                           |       |
| 15 to 20                                                                                                                                                                                      | Adequate evidence for anaerobic biodegradation* of chlorinated organics   |       |                                           |       |
| >20                                                                                                                                                                                           | Strong evidence for anaerobic biodegradation* of chlorinated organics     |       |                                           |       |
| *reductive dechlorination                                                                                                                                                                     |                                                                           |       |                                           |       |
| Values Taken from EPA Document <b>EPA/600/R-98/128</b> , <i>Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water</i> , 1998, Table 2.3 and Table 2.4 |                                                                           |       |                                           |       |

Notes:

1. MW-13 is assumed to be background given COCs have generally not been detected above method detection limits.
2. ND=not detected
3. NT=not tested
4. EM=Equipment malfunction

**TABLE D-4**  
**ANAEROBIC BIODEGRADATION SCREENING**  
**MW-12 MNA Scorecard**

*Delphi Harrison Thermal Systems Site*  
*GM Component Holdings, LLC*  
*Lockport, New York*

| Analysis                                                                                                                                                                                      | Concentration in Most Contaminated Zone                                   | Value | Laboratory or Field Analysis Value (mg/L) | Score |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------|-------------------------------------------|-------|
| DO                                                                                                                                                                                            | <0.5 mg/L                                                                 | 3     | 0.59                                      |       |
| DO                                                                                                                                                                                            | >5 mg/l                                                                   | -3    |                                           |       |
| Nitrate                                                                                                                                                                                       | <1 mg/L                                                                   | 2     | <0.05                                     | 2     |
| Iron II                                                                                                                                                                                       | >1 mg/l                                                                   | 2     | 12.7                                      | 2     |
| Sulfate                                                                                                                                                                                       | <20 mg/L                                                                  | 2     | 133                                       |       |
| Sulfide                                                                                                                                                                                       | >1 mg/L                                                                   | 3     | <1.0                                      |       |
| Methane                                                                                                                                                                                       | <0.5 mg/L                                                                 | 0     | 0.3                                       | 0     |
| Methane                                                                                                                                                                                       | >0.5 mg/L                                                                 | 3     |                                           |       |
| ORP                                                                                                                                                                                           | <50 mV                                                                    | 1     |                                           |       |
| ORP                                                                                                                                                                                           | <-100 mV                                                                  | 2     | -74                                       | 2     |
| pH                                                                                                                                                                                            | 5< pH <9                                                                  | 0     | 7.0                                       | 0     |
| pH                                                                                                                                                                                            | 5> pH >10                                                                 | -2    |                                           |       |
| TOC                                                                                                                                                                                           | >20 mg/L                                                                  | 2     | 3.7                                       |       |
| Temp                                                                                                                                                                                          | > 20°C                                                                    | 1     | 10.02                                     |       |
| Carbon Dioxide                                                                                                                                                                                | >2 times background (4.5)                                                 | 1     | 15                                        | 1     |
| Alkalinity                                                                                                                                                                                    | >2 times background (368)                                                 | 1     | 280                                       |       |
| Chloride                                                                                                                                                                                      | >2 times background (2090)                                                | 2     | 2900                                      |       |
| Hydrogen                                                                                                                                                                                      | >1 nM                                                                     | 3     |                                           |       |
| Hydrogen                                                                                                                                                                                      | <1nM                                                                      | 0     | 0.76                                      | 0     |
| Volatile Fatty Acids                                                                                                                                                                          | >0.1 mg/L                                                                 | 2     | ND                                        |       |
| BTEX                                                                                                                                                                                          | >0.1 mg/L                                                                 | 2     | ND                                        |       |
| PCE                                                                                                                                                                                           |                                                                           | 0     | <0.0004                                   | 0     |
| TCE                                                                                                                                                                                           | If Daughter Product                                                       | 2     | 0.0008                                    |       |
| DCE                                                                                                                                                                                           | If Daughter Product                                                       | 2     | 0.150                                     | 2     |
| VC                                                                                                                                                                                            | If Daughter Product                                                       | 2     | 0.120                                     | 2     |
| 1,1,1-TCA                                                                                                                                                                                     |                                                                           | 0     | ND                                        |       |
| DCA                                                                                                                                                                                           | If Daughter Product                                                       | 2     | ND                                        |       |
| Carbon Tetrachloride                                                                                                                                                                          |                                                                           | 0     | ND                                        |       |
| Chloroethane                                                                                                                                                                                  | If Daughter Product                                                       | 2     | ND                                        |       |
| Ethene/Ethane                                                                                                                                                                                 | >0.01 mg/L or                                                             | 2     |                                           |       |
|                                                                                                                                                                                               | >0.1 mg/L                                                                 | 3     | 0.022                                     |       |
| Chloroform                                                                                                                                                                                    | If Daughter Product                                                       | 2     | ND                                        |       |
| Dichloromethane                                                                                                                                                                               | If Daughter Product                                                       | 2     | ND                                        |       |
|                                                                                                                                                                                               |                                                                           |       | Total Score                               | 11    |
| Scoring Interpretation                                                                                                                                                                        |                                                                           |       |                                           |       |
| 0 to 5                                                                                                                                                                                        | Inadequate evidence for anaerobic biodegradation* of chlorinated organics |       |                                           |       |
| 6 to 14                                                                                                                                                                                       | Limited evidence for anaerobic biodegradation* of chlorinated organics    |       |                                           |       |
| 15 to 20                                                                                                                                                                                      | Adequate evidence for anaerobic biodegradation* of chlorinated organics   |       |                                           |       |
| >20                                                                                                                                                                                           | Strong evidence for anaerobic biodegradation* of chlorinated organics     |       |                                           |       |
| *reductive dechlorination                                                                                                                                                                     |                                                                           |       |                                           |       |
| Values Taken from EPA Document <b>EPA/600/R-98/128</b> , <i>Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water</i> , 1998, Table 2.3 and Table 2.4 |                                                                           |       |                                           |       |

Notes:

1. MW-13 is assumed to be background given COCs have generally not been detected above method detection limits.
2. ND=not detected
3. NT=not tested
4. EM=Equipment malfunction