

NEW YORK STATE OFFICE OF PEOPLE WITH DEVELOPMENTAL DISABILITIES



Aerial Photograph: Microsoft Bing

PERIODIC REVIEW REPORT APRIL 2013 – APRIL 2014

**Former Gowanda Day Habilitation Center
4 Industrial Place
Town of Gowanda, Cattaraugus County
Voluntary Cleanup Program Agreement V-00463-9**

Prepared for:

New York State Department of Environmental Conservation, Region 9

Bergmann Project No. 6974.78

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Table 1 – Percent Reductions in Total Groundwater VOCs

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Appendix A – Quarterly Groundwater Characterization Reports

 April 2013 Groundwater Characterization Report

 July 2013 Groundwater Characterization Report

 December 2013 Groundwater Characterization Report

 March 2014 Groundwater Characterization Report

Appendix B – IC/EC Checklist and VOC Groundwater Treatment Agreement



1.0 Background

NYSDEC Site Number V00463, the former Gowanda Day Habilitation Center facility, is located at 4 Industrial Place, Gowanda, NY. The New York State Office of People with Developmental Disabilities (OPWDD), as the volunteer, has entered into a Voluntary Cleanup Agreement (VCA) with the New York State Department of Environmental Conservation (NYSDEC) to conduct investigations and implement remedial measures in accordance with VCA Site No. V-00463, effective August 16, 2001.

The Gowanda Day Habilitation site (the Site) consists of a 5.94 acre parcel located at 4 Industrial Place. The building, previously used by several manufacturing operations, was built in stages between 1948 and 1987 and was renovated in 1987 and 1988. New York State agencies have occupied the building since 1982. New York State acquired the parcel in 1989. The building was most recently operated by the OPWDD, which at that time was known as the Western New York Developmental Disabilities Services Office, as a Day Habilitation Center for mental care clients. In April 2001 on-site operations ceased. Bergmann investigated the nature and extent of contamination resulting from historical underground chemical storage at the Gowanda Day Habilitation Center in 2003 Site Investigation and 2004 Supplemental Site Investigation reports. Trichloroethene (TCE) was the most commonly detected compound. TCE degradation products cis-1,2-Dichloroethene, (Cis-DCE) trans-1,2-Dichloroethene (Trans-DCE) and Vinyl Chloride (VC) were also detected.

Following Interim Remedial Measure (IRM) system installation, activation of the Groundwater Treatment System (GTS) and Soil Vapor Extraction (SVE) System occurred on May 10, 2005. An additional groundwater recovery well, designated G-3, was installed outside the building and adjacent to monitoring well MW-17 in November 2008. The GTS consists of seven groundwater recovery wells (four dual phase recovery wells and three groundwater-only recovery wells), an air compressor, a network of controller-less pneumatic pumps and an air stripper treatment system to treat recovered groundwater. The SVE System consists of a lobe blower and piping network which extract vapors and pass them through two 10,000 lb carbon filters. Once filtered, the vapors are discharged to the outdoor air. The attached Figure 1 depicts the site layout with regard to monitoring and recovery wells.

Recovered groundwater is pumped to an equalization tank for settling of sediment. The groundwater is discharged to the Village of Gowanda Sewage Treatment Plant (STP) via the sanitary sewer in accordance with a Gowanda Sewer Use Permit. A VOC Groundwater Treatment Agreement between OPWDD and the Village was signed in 2010. This agreement is included in Appendix B - IC/EC Checklist and VOC Groundwater Treatment Agreement. OPWDD is currently in the process of finalizing an updated VOC Groundwater Treatment Agreement with the Village. Once a fully executed a copy of the agreement is received, it will be forwarded on to NYSDEC.

In January 2008 the OPWDD decommissioned the building. Bergmann winterized the GTS with the addition of heat tape and insulation to conveyance lines and the installation of an independently operated unit heater in the treatment area for the GTS and SVE (former Machine Shop). The building remains unoccupied and in a state of disrepair for the 2013 year. Numerous roof leaks and damage relative to a flooding event in 2009 have introduced mold to interior spaces. The roof leaks and mold do not appear to be impacting the remedial system. OPWDD and/or their agents will perform periodic inspections of the building for potential structural deficiency issues and will perform limited building envelope repairs as necessary to address any significant site safety concerns.



2.0 Groundwater Sampling Overview and Methods

2.1 Well Maintenance Activities

During the April 2013, July 2013 and March 2014 sampling events, all monitoring wells were accessible. Two wells were not accessible during the December 2013 sampling event due to snow cover. The integrity of the wells was not compromised. Repairs or maintenance to the network of groundwater monitoring wells or recovery wells has not been required since June 2007. All stand pipes and flush-mount curb boxes were found to be intact and secure. Exterior monitoring wells are secured with locking stand pipes. The monitoring wells within the building are secured with flush-mount roadway covers.

Replacement to damaged flush-mount protective roadway boxes was completed on June 27, 2007. Well rehabilitation and silt removal was last conducted June 25 – 26, 2007. The recovery wells appeared to be free of significant silt sediment since the 2007 rehabilitation event.

2.2 Groundwater Treatment System and Soil Vapor Extraction System Maintenance

During an October 2013 site visit, a section of piping broke away from the SVE due to system pressure. The SVE system was shut down until a repair could be made. Bergmann assessed the GTS during a January 2014 site visit and determined that two of the seven well pumps were operational. The remaining pumps appeared to be damaged. Bergmann replaced the SVE pipe section and inspected four of the well pumps for damage. The pumps appeared to be in poor condition and were removed from the wells. The condition of the SVE and GTS was discussed with the NYSDEC representative and it was agreed that these systems would be inactivated to allow for groundwater level recovery during the preparation of an in-situ chemical oxidation (ISCO) remedial action plan (RAP) and implementation of an ISCO treatment. Bergmann will submit an ISCO RAP for groundwater treatment to the NYSDEC to address remaining contamination at the Site in lieu of costly repair of the SVE and GTS. The SVE and GTS equipment will remain on site in the event that re-activation is required in the future. As of the date of this report, the ISCO RAP is an in-house draft and will be submitted to NYSDEC in May 2014.

2.3 Groundwater Field Monitoring and Sampling Activities

Groundwater measurements and sampling activities were conducted in accordance with the October 2006 OM&M Manual. The depths to groundwater for monitoring wells are determined on a regular basis to track site-wide changes in the water table elevation and to allow for adjustment at recovery wells. Operation of the recovery wells is intended to establish hydraulic containment of the plume of impacted groundwater beneath the former Day Habilitation building and improve recovery and treatment of impacted groundwater.

Groundwater samples are collected for each sampling event from 13 of the 21 site-related groundwater monitoring wells for characterization via laboratory analysis. Depth to groundwater measurements are obtained from all 21 monitoring wells. Results are indicators of the performance of the treatment system.

Samples are collected from the monitoring wells after each well is properly gauged and purged of standing water via low-flow pumping using an electric peristaltic pump. Aquifer parameters including temperature, pH, oxygen and conductivity are monitored to ensure sufficient well development prior to sampling. Groundwater samples are also collected from all 7 recovery wells using dedicated bailers.



Sampling of the recovery wells was conducted while the GTS was actively pulling groundwater into the system for the April and July 2013 sampling events and dedicated bailers were used in sampling. For April and July 2013, the active pumping of the wells allowed for collection of groundwater samples similar to purging monitoring wells. As the system was shut down during the December 2013 and March 2014 sampling events, the wells were purged of standing water via low-flow pumping using an electric peristaltic pump prior to sampling. One duplicate sample and one field blank sample were collected and submitted for laboratory analysis. Groundwater samples were delivered via chain-of-custody protocol to a NYSDOH certified laboratory for testing using EPA Method 8260B for targeted chlorinated VOCs.

3.0 Local Groundwater Flow Characterization

Delineation of the local water table surface and groundwater flow pattern was determined for April 2013 and July 2013 using elevations measured at all 21 site-related monitoring wells and for December 2013 and March 2014 using elevations measured at the 19 accessible site-related monitoring wells. The current network of monitoring wells at the facility is shown on Figure 1. Groundwater characteristics were determined using depth to water measurements obtained on April 15-17, 2013, July 1-2, 2013, December 16-17, 2013 and March 27-28, 2014. The well gauging values and groundwater elevations are provided in Table 1 of this report and in Table 1 of each Quarterly Report included in Appendix A – Quarterly Groundwater Characterization Reports.

The quarterly groundwater contour maps show a local flow pattern similar to the water table observed historically since 2002. The local groundwater was flowing in a northerly direction. Torrance Place is hydraulically down-gradient from the Day Habilitation Center building. The following is a summary of groundwater flow for each sampling event in the reporting period:

April 2013

The April 2013 depths to groundwater range from 6.39 ft below ground surface at MW-2 adjacent to the south side of the building to 13.13 ft below ground surface at MW-6 located at the northern property line. The average depth to groundwater at the 21 monitoring wells measured was 9.64 ft below ground surface. Compared to the December 2012 sampling event the current site-wide average water table increased by approximately 0.07 ft. This slight increase in the water table is inferred as seasonal.

July 2013

The July 2013 depths to groundwater range from 6.26 ft below ground surface at MW-2 adjacent to the south side of the building to 13.08 ft below ground surface at MW-6 located at the northern property line. The average depth to groundwater at the 21 monitoring wells measured was 9.57 ft below ground surface. The July 2013 groundwater contour map indicates a site-wide average groundwater table decrease of approximately 0.07 ft from the April 2013 sampling event. This very slight decrease in the groundwater table is inferred as seasonal.

December 2013

The December 2013 depths to groundwater range from 5.63 ft below ground surface at MW-2 adjacent to the south side of the building to 16.93 ft below ground surface at MW-6 located at the northern property line. The average depth to groundwater at the 19 monitoring wells measured was 8.89 ft below ground surface. The December 2013 groundwater contour map indicates a site-wide



average groundwater table increase of approximately 0.68 ft from the July 2013 sampling event. This increase in the groundwater table is inferred as seasonal.

March 2014

The March 2014 depths to groundwater range from 4.19 ft below ground surface (bgs) at MW-3 adjacent to the south side of the building to 12.25 ft bgs at MW-17 located at the northeastern property line. The average depth to groundwater at the 19 monitoring wells measured was 7.96 ft below ground surface. The March 2014 groundwater contour map indicates a site-wide average groundwater table decrease of approximately 0.93 ft from the December 2013 sampling event. This slight decrease in the groundwater table is inferred as seasonal.

Groundwater Contour Maps indicating the depths to groundwater for each sampling event are presented as Figure 1 of each Groundwater Characterization Report for the report period. Copies of these reports are included in Appendix A.

4.0 Laboratory Analysis

4.1 Laboratory Analysis of Groundwater Samples

Laboratory analysis was completed on groundwater samples from groundwater monitoring wells and recovery wells on site. Monitoring wells that were determined in 2008 by the NYSDEC and Bergmann personnel to be outside the area of impact by the GTS were not sampled. The 8 monitoring wells no longer sampled include MW-2, MW-3, MW-5, MW-8, MW-9, MW-10, MW-13, and MW-21. Sentry groundwater monitoring wells have been established to monitor a separate occurrence of contaminated groundwater at the Gowanda Electronics site (NYSDEC Site 905025), immediately east of Industrial Place and east of the subject property. All samples were analyzed for volatile organic compounds (VOCs) via United States Environmental Protection Agency (US EPA) Method 8260B. Analysis was performed in accordance with the October 2006 OM&M Manual. The following chlorinated halogens (VOCs) were analyzed for:

- Trichloroethene (TCE)
- 1,1,1 Trichloroethane (TCA)
- Cis-1,2-Dichloroethene (Cis-DCE)
- Trans-1,2-Dichloroethene (Trans-DCE)
- Vinyl Chloride (VC)

For quality assurance/quality control (QA/QC) purposes, a duplicate groundwater sample was collected from monitoring well MW-1, designated sample "MW-X." Results from sample MW-X were consistent with the sample collected from MW-1.

A trip blank was supplied by the laboratory for QA/QC and submitted for analysis with the groundwater samples. The trip blank sample was non-detect for chlorinated halogens VOCs. A field blank was also collected for QA/QC purposes to ensure proper cleaning of the sampling equipment. The field blank, designated MB, was non-detect for chlorinated halogens.



4.2 Monitoring Well Groundwater Analysis Summary

Analytical results for monitoring wells during each quarterly sampling event are summarized as follows:

April 2013

Concentrations in 3 of the 13 monitoring well groundwater samples increased when compared to the December 2012 sampling event while concentrations in 6 of the 13 monitoring well groundwater samples showed a decrease. Concentrations in 4 groundwater samples from monitoring wells had no change. The April 2013 sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 81% since activation of the GTS in May 2005.

July 2013

Concentrations in 4 of the 13 monitoring well groundwater samples increased compared to the April 2013 sampling event while concentrations in 5 of the 13 monitoring well groundwater samples showed a decrease. Concentrations in four groundwater samples from monitoring wells had no change. The July 2013 sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 82% since activation of the GTS in May 2005.

December 2013

Concentrations in 7 of the 12 monitoring well groundwater samples increased when compared to the July 2013 sampling event while concentrations in 2 of the 12 monitoring well groundwater samples decreased. Concentrations in 3 groundwater samples from monitoring wells had no change. The December 2013 sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 68% since activation of the GTS in May 2005. It should be noted that the groundwater level increased site-wide and this may be a factor that resulted in an increase of concentrations. It should also be noted that MW-18, a well with consistent non-detect results, was not sampled during this event. The GTS was also turned off for this sampling event. Contaminant concentration rebound during this event may be associated with the system shutdown and associated groundwater level recovery.

March 2014

Concentrations in 2 of the 13 monitoring well groundwater samples increased when compared to the December 2013 sampling event while concentrations in 6 of the 13 monitoring well groundwater samples decreased. Concentrations in 5 groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 80% since activation of the GTS in May 2005.

Contaminant distribution maps (Posting maps) indicating the results for each sampling event are presented as Figure 2 and Figure 3 of each Quarterly Groundwater Characterization Report. Copies of these reports are included in Appendix A.



4.3 Sentry Well Groundwater Analysis Summary

Analytical results for sentry wells during each sampling event in 2013 are summarized as follows:

April 2013

The eastern sentry wells sampled for this event were MW-19R, MW-20 and MW-4. The April 2013 results indicate non-detect for the samples from these sentry wells.

July 2013

The eastern sentry wells sampled for this event were MW-19R, MW-20 and MW-4. The July 2013 results indicate non-detect for the samples from these sentry wells.

December 2013

The eastern sentry wells sampled for this event were MW-19R, MW-20 and MW-4. The December 2013 results non-detect for the samples from these sentry wells.

March 2014

The eastern sentry wells sampled for this event were MW-19R, MW-20 and MW-4. The March 2014 results non-detect for the samples from these sentry wells

The risk of migrating groundwater from the Gowanda Electronics site onto the Day Habilitation Center property was a concern that prompted the installation of sentry wells along Industrial Place. MW-19R has been intermittently impacted from the Gowanda Electronics plume. The Gowanda Electronics plume of impacted groundwater does not appear to currently extend to the Day Habilitation Center property, based on consistent non-detect values at the eastern sentry wells. Conversely, impacted groundwater from the Day Habilitation Center subject property does not appear to extend off-site to the east to Industrial Place.

4.4 Recovery Well Groundwater Analysis Summary

Analytical results for recovery wells during each sampling event in 2013 are summarized as follows:

April 2013

TCE and Cis-DCE were present in 6 of 7 recovery wells (G-2 contained only Cis-DCE). Total VOCs at the 6 recovery wells for which past data is available have decreased since activation of the GTS in May 2005. The average reduction in VOCs for six of the recovery wells for the current sampling event is approximately 92% relative to concentrations prior to GTS activation in 2005.

July 2013

TCE and Cis-DCE were present in 6 of 7 recovery wells (G-2 contained only Cis-DCE). Total VOCs at all 6 recovery wells for which past data is available have decreased since activation of the GTS in May 2005. The average reduction in VOCs for six of the recovery wells for the current sampling event is approximately 91% relative to concentrations prior to GTS activation in 2005.



December 2013

Chlorinated VOCs were detected in samples from all of the sampled recovery wells. TCE and Cis-DCE were detected in 6 of the 7 recovery wells and VC was detected in 1 of the wells (DR-2). Total VOCs at the 6 recovery wells for which past data is available have decreased since activation of the GTS in May 2005. The average reduction in VOCs for the current sampling event is approximately 63% relative to concentrations prior to GTS activation in 2005. It should be noted that the groundwater level increased site-wide and this may be a factor that resulted in an increase of concentrations. The GTS was also turned off for this sampling event. Contaminant concentration rebound during this event may be associated with the system shutdown and associated groundwater level recovery.

March 2014

TCE, Cis-DCE, and TCA. Chlorinated VOCs were detected in samples from all of the sampled recovery wells. Total VOCs at 7 recovery wells for which past data is available have decreased since activation of the GTS in May 2005. The average reduction in VOCs for the current sampling event is approximately 73% relative to concentrations prior to GTS activation in 2005. It should be noted that the groundwater level increased site-wide and this may be a factor that resulted in an increase of concentrations. The GTS was also turned off for this sampling event. Contaminant concentration rebound during this event may be associated with the system shutdown and associated groundwater level recovery.

5.0 Remediation System Efficiency

5.1 Extent of Impacted Groundwater

The area of highest impacted groundwater is consistent with prior sampling events. The bulk of the residual contaminant plume appears to be elevated beneath the building in the source area vicinity of monitoring wells MW-1 and MW-11, extending north to recovery well G-3. Recovery well G-3 may be reducing the concentration of VOCs in groundwater in the plume near MW-17.

The GTS appears to maintain an area of hydraulic containment for all 7 recovery wells within the area of impacted groundwater plume areas. The GTS appears to be successful in hydraulically containing most of the contaminant plume on the property and minimizing further migration. It appears that the contaminant plume has not migrated since the GTS was inactivated during the January 2014 site visit.

During an October 2013 site visit, a section of piping broke away from the SVE due to system pressure. The SVE system was shut down until a repair could be made. Bergmann assessed the GTS during a January 2014 site visit and determined that two of the seven well pumps were operational. The remaining pumps appeared to be damaged. Bergmann replaced the SVE pipe section and inspected four of the well pumps for damage. The pumps appeared to be in poor condition and were removed from the wells. The condition of the SVE and GTS was discussed with the NYSDEC representative and it was agreed that these systems would be inactivated to allow for groundwater level recovery during the preparation of an in-situ chemical oxidation (ISCO) work plan and implementation of an ISCO treatment. Bergmann will submit an ISCO remedial action plan (RAP) for groundwater treatment to the NYSDEC to address remaining contamination at the Site in lieu of costly repair of the SVE and GTS. The SVE and GTS equipment will remain on site in the event that re-activation is required in the future. As of the date of this report, the ISCO RAP is an in-house draft and will be submitted to NYSDEC in May 2014.



Analytical results for each sampling event in the reporting period are summarized as follows:

April 2013

VOCs were not detected at MW-19R, an off-site monitoring well north of the facility. VOC concentrations were not detected in MW-18, also off-site to the north of the facility. These monitoring points are inferred as beyond the area of hydraulic influence of the recovery wells. Impacted groundwater at these areas was detected prior to activation of the GTS in May 2005. Implementation of the ISCO treatment will further reduce groundwater VOC concentrations and limit potential off-site migration of impacted groundwater.

July 2013

VOCs were not detected at MW-19R, an off-site monitoring well north of the facility. The total VOC concentrations at MW-18, also off-site to the north of the facility, were at the low range of historic values. These monitoring points are inferred as beyond the area of hydraulic influence of the recovery wells. Impacted groundwater at these areas was detected prior to activation of the GTS in May 2005. Implementation of the ISCO treatment will further reduce groundwater VOC concentrations and limit potential off-site migration of impacted groundwater.

December 2013

VOCs were not detected at MW-19R, an off-site monitoring well north of the facility. The total VOC concentrations at MW-18, also off-site to the north of the facility, were non-detect. These monitoring points are inferred as beyond the area of hydraulic influence of the recovery wells. Impacted groundwater at these areas was detected prior to activation of the GTS in May 2005. Implementation of the ISCO treatment will further reduce groundwater VOC concentrations and limit potential off-site migration of impacted groundwater.

March 2014

The GTS was not operating during this monitoring period and the overall results are very similar to the December 2013 results. Therefore, residual VOCs in the plume have not migrated and appear to be contained when compared to sample results with operation of the GTS during previous monitoring events.

VOCs were not detected at MW-19R and MW-18 during the March 2014 sampling event. MW-19R and MW-18 are off-site monitoring wells north of the facility. These monitoring points are inferred as beyond the area of hydraulic influence of the recovery wells. Impacted groundwater at these areas was detected prior to activation of the GTS in May 2005. Future reduction in groundwater VOC concentrations at the down-gradient locations should be expected when the ISCO groundwater remediation is implemented at the Day Habilitation Center.

5.2 Groundwater Analytical Results

During the reporting period, four quarterly sampling events were conducted. Copies of these reports are included in Appendix A. Results for each sampling event are used to evaluate and document contamination reduction. Chart 1 shows contamination reduction since activation of the GTS and SVE Systems.



Contamination levels generally trend towards a reduction as time progresses with some fluctuations that result in slight increases and decreases in contamination levels between sample events due to rising and falling groundwater elevations.

Groundwater Contour maps were also prepared for each sampling event, which allowed Bergmann to monitor the change in groundwater flow across the site. Groundwater Contour maps are included in the Groundwater Characterization Reports in Appendix A.

Overall contaminant reduction is monitored at each individual sampling point and also in three specific “groups” of points: Site-wide, original plume area only and recovery wells. These three groups allow Bergmann to more thoroughly monitor the system’s effectiveness and adjust network operation. Table 1 of this report shows the breakdown of those three groups by quarter since activation of the GTS and SVE Systems.

Overall contaminant reduction at the recovery wells decreased to 73% (March 2014) from 92% at the beginning of the reporting period. Reduction at the recovery wells has remained consistently between the 90-95% range since 2010. The GTS was turned off for the March 2014 sampling event. Contaminant concentration rebound during this event may be associated with the system shutdown and associated groundwater level recovery.

Overall contaminant reduction at the monitoring wells decreased to 80% (March 2014) from 81% at the beginning of the reporting period. Reduction at the recovery wells has remained consistently between the 70-85% range since 2010.

The remediation system at the Gowanda Day Habilitation Center has controlled and removed contaminants from the groundwater plume area. Contaminant levels have decreased more than 80% since May 2005. A planned ISCO groundwater treatment for 2014 through 2015 will attain higher contaminant reduction at the Day Habilitation Center.

5.3 Compliance

During the reporting period, the remedial system was in compliance with applicable permits and regulations. During system operation, influent levels were monitored concurrent with groundwater sampling, and even contaminant levels in untreated influent were far below the discharge limit established by the Village of Gowanda (approximately 1 part per million).

The existing wells and monitoring well network is adequate to monitor the performance of the remediation program and to allow for the collection of groundwater quality samples.

5.4 Future Activities

The condition of the SVE and GTS was discussed with the NYSDEC representative and it was agreed that these systems would be inactivated to allow for groundwater level recovery during the preparation of an ISCO work plan and implementation of an ISCO groundwater treatment. Bergmann will submit an ISCO RAP for groundwater treatment to the NYSDEC to address remaining residual contamination at the Site in lieu of costly repair of the SVE and GTS. The SVE and GTS equipment will remain on site in the event that re-activation is required in the future. As of the date of this report, this work plan is an in-house draft and will be submitted to NYSDEC in May 2014.



Activities scheduled for 2014 include:

- Quarterly groundwater sampling events in 2014.
- Submit ISCO groundwater treatment RAP to NYSDEC for approval.
- Remove drums and garbage from the building and properly dispose.
- Begin to implement the ISCO groundwater treatment.

The next site-wide groundwater sampling and laboratory analysis event is tentatively scheduled for June 2014. This sampling event will include sampling and laboratory analysis for the limited number of wells as determined by Bergmann correspondence with the NYSDEC. Future sampling and analytical events will be conducted to track the effects of the treatment system on impacted groundwater and to evaluate seasonal changes in water table elevations. In addition, the evaluation of groundwater flow pattern and movement of residual impacted groundwater at the site will be performed during future sampling events.



TABLE 1



Table 1 Percent Reductions in Total Groundwater VOCs

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

The Groundwater Treatment System was activated in May 2005

| | % Reduction 2002 to Mar 2014 | % Reduction 2002 to Dec 2013 | % Reduction 2002 to Jul 2013 | % Reduction 2002 to Apr 2013 | % Reduction 2002 to Dec 2012 | % Reduction 2002 to Jun 2012 | % Reduction 2002 to Mar 2012 | % Reduction 2002 to Sep 2011 | % Reduction 2002 to Jun 2011 | % Reduction 2002 to Mar 2011 | % Reduction 2002 to Dec 2010 | % Reduction 2002 to Sep 2010 | % Reduction 2002 to Jun 2010 | % Reduction 2002 to Jan 2010 | % Reduction 2002 to Jul 2009 | % Reduction 2002 to Feb 2009 | % Reduction 2002 to Sep 2008 | % Reduction 2002 to Jun 2008 | % Reduction 2002 to Mar 2008 | % Reduction 2002 to Nov 2005 |
|---|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Monitoring Well | | | | | | | | | | | | | | | | | | | | |
| MW-1* | -28.9% | -126.6% | -8.1% | -19.5% | -87.5% | 31.3% | -15.8% | 42.4% | -71.6% | 24.1% | 26.6% | 15.5% | -1.3% | 15.8% | -44.2% | 11.8% | -12.0% | 8.2% | -90.5% | -46.9% |
| MW-2 | Not Sampled | 99.6% |
| MW-3 | Not Sampled | 99.3% |
| MW-4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% |
| MW-5 | Not Sampled | 99.3% |
| MW-6 | 76.8% | 68.0% | 75.6% | 77.1% | 75.6% | 78.6% | 78.9% | 75.1% | 80.5% | 82.0% | 79.9% | 73.6% | 76.4% | 81.3% | 77.1% | 78.4% | 72.2% | 69.7% | 74.1% | 42.6% |
| MW-7 | 100.0% | 100.0% | 96.0% | 100.0% | 100.0% | 66.3% | 93.2% | 53.5% | 84.2% | 95.0% | 87.1% | 64.3% | 74.6% | 96.6% | 52.7% | 79.5% | 22.7% | 45.8% | 56.3% | -1.3% |
| MW-8 | Not Sampled | 92.9% |
| MW-9 | Not Sampled | 97.6% |
| MW-10 | Not Sampled | 96.2% |
| MW-11 | 84.7% | 81.1% | 89.0% | 87.7% | 83.0% | 89.3% | 86.7% | 89.1% | 84.5% | 86.6% | 87.3% | 86.4% | 83.5% | 83.3% | 86.5% | 83.0% | 86.5% | 87.8% | 78.0% | 76.3% |
| MW-12 | 98.3% | 98.6% | 98.8% | 98.5% | 98.9% | 99.3% | 98.8% | 99.3% | 98.7% | 99.3% | 99.3% | 99.2% | 98.7% | 98.1% | 99.4% | 97.8% | 99.5% | 98.7% | 98.7% | 62.2% |
| MW-13 | Not Sampled | 100.0% |
| MW-14 | 76.8% | 70.2% | 84.4% | 77.5% | 85.1% | 87.4% | 75.7% | 75.5% | 66.7% | 89.9% | 92.3% | 87.6% | 79.3% | 85.9% | 87.1% | 88.9% | 100.0% | 87.9% | 87.9% | 100.0% |
| MW-15 | 100.0% | 99.1% | 99.0% | 100.0% | 98.2% | 96.4% | 99.1% | 95.6% | 97.8% | 99.1% | 97.7% | 91.5% | 96.9% | 98.3% | 91.1% | 99.3% | 84.5% | 89.4% | 97.5% | 62.9% |
| MW-16* | 53.1% | 60.9% | 77.9% | 36.8% | 52.6% | 88.5% | 67.9% | 84.0% | 39.2% | 23.9% | 81.0% | 93.3% | 99.7% | 94.2% | 42.1% | 41.6% | 57.4% | 43.9% | 77.5% | -72.1% |
| MW-17* | 83.5% | 58.5% | 50.6% | 97.4% | 46.9% | 53.0% | 67.9% | 44.6% | 72.2% | 96.7% | 94.1% | 61.4% | 71.3% | 97.7% | 99.5% | 10.1% | 26.0% | 24.7% | -24.2% | |
| MW-18* | 100.0% | Not Sampled | 100.0% | 100.0% | 100.0% | 89.6% | 98.5% | 81.9% | 91.3% | 96.0% | 88.7% | 74.4% | 82.7% | 96.0% | -23.3% | 91.8% | -50.0% | 27.6% | 64.8% | -135.8% |
| MW-19 R* | 100.0% | 100.0% | 100.0% | 100.0% | 75.0% | 99.0% | 99.0% | 99.0% | 99.0% | 99.0% | 99.0% | 73.3% | 99.0% | 99.0% | 57.3% | 99.0% | -36.7% | -5.7% | 99.0% | -102.0% |
| MW-20** | 100.0% | 100.0% | 100.0% | 100.0% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% |
| MW-21** | Not Sampled | 67.5% | -13.7% |
| * Well installed 2003 ** Well installed 2004 | | | | | | | | | | | | | | | | | | | | |
| Site-Wide reduction: | 80.3% | 67.5% | 81.8% | 81.2% | 71.3% | 82.9% | 80.7% | 79.7% | 72.2% | 83.7% | 86.9% | 78.3% | 81.4% | 87.9% | 61.1% | 82.1% | 56.0% | 59.7% | 78.5% | 35.7% |
| Impacted Groundwater Plume Area Only: | 88.6% | 82.2% | 73.2% | 77.3% | 62.5% | 75.2% | 73.1% | 71.9% | 64.1% | 84.1% | 83.0% | 72.5% | 72.4% | 82.1% | 65.2% | 79.8% | 57.7% | 64.2% | 53.7% | 28.4% |
| Plume Area = MW-1, MW-11, MW-12, MW-14, MW-15, MW-7, MW-17, MW-6 | | | | | | | | | | | | | | | | | | | | |
| % reduction = percent reduction in total Volatile Organic Compounds (VOCs) since groundwater monitoring was initiated | | | | | | | | | | | | | | | | | | | | |
| †Negative values indicate an increase in total VOCs since monitoring commenced in 2002. The percent increase in total groundwater VOCs is shown below for MW-1. | | | | | | | | | | | | | | | | | | | | |

| | % Reduction 2002 to Mar 2014 | % Reduction 2002 to Dec 2013 | % Reduction 2002 to Jul 2013 | % Reduction 2002 to Apr 2013 | % Reduction 2002 to Dec 2012 | % Reduction 2002 to Jun 2012 | % Reduction 2002 to Mar 2012 | % Reduction 2002 to Sep 2011 | % Reduction 2002 to Jun 2011 | % Reduction 2002 to Mar 2011 | % Reduction 2002 to Dec 2010 | % Reduction 2002 to Sep 2010 | % Reduction 2002 to Jun 2010 | % Reduction 2002 to Jan 2010 | % Reduction 2002 to Jul 2009 | % Reduction 2002 to Feb 2009 | % Reduction 2002 to Sep 2008 | % Reduction 2002 to Jun 2008 | % Reduction 2002 to Mar 2008 |
|----------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Recovery Well | | | | | | | | | | | | | | | | | | | |
| DR-1 | 77.0% | 84.8% | 99.1% | 99.0% | 99.5% | 99.8% | 91.6% | 97.9% | 98.1% | 96.9% | 95.6% | 94.5% | 99.2% | 98.0% | 95.1% | 96.8% | 91.0% | 89.2% | 93.4% |
| DR-2 | 62.3% | 45.0% | 87.2% | 85.4% | 99.1% | 88.5% | 83.9% | 89.7% | 88.0% | 86.6% | 92.4% | 88.5% | 83.3% | 87.3% | 90.6% | 88.8% | 89.7% | 85.8% | 92.3% |
| DR-3 | 41.6% | 19.3% | 95.8% | 95.1% | 97.2% | 92.1% | 98.3% | 95.0% | 95.4% | 98.3% | 98.0% | 97.4% | 94.6% | 91.6% | 91.5% | 88.7% | 94.9% | 91.7% | 88.4% |
| DR-4 | 92.5% | 90.8% | 95.5% | 97.9% | 94.9% | 93.1% | 100.0% | 89.2% | 92.7% | 94.3% | 95.9% | 86.9% | 91.2% | 95.4% | 95.5% | 96.2% | 92.7% | 97.7% | 97.6% |
| G-1 | 61.3% | 65.6% | 87.3% | 89.8% | 90.3% | 87.4% | 88.0% | 87.6% | 89.8% | 87.7% | 91.0% | 94.4% | 80.1% | 76.0% | 69.9% | 76.7% | 77.9% | 68.7% | 65.8% |
| G-2 | 95.1% | 71.4% | 79.0% | 87.0% | 65.7% | 80.4% | 89.1% | 92.3% | 83.0% | 87.7% | 86.5% | 80.4% | 97.8% | 98.5% | 85.4% | 40.0% | 92.6% | 89.8% | 79.0% |
| G-3 | NA |
| Overall Reduction | 71.6% | 62.8% | 90.7% | 92.3% | 91.1% | 90.2% | 91.8% | 91.9% | 91.1% | 91.9% | 93.2% | 93.5% | 91.7% | 91.7% | 87.9% | 81.2% | 89.8% | 87.2% | 86.1% |

*Sampling of recovery wells initiated in 2005

| | % Increase 2002 to Mar 2014 | % Increase 2002 to Dec 2013 | % Increase 2002 to Jul 2013 | % Increase 2002 to Apr 2013 | % Increase 2002 to Dec 2012 | % Increase 2002 to Jun 2012 | % Increase 2002 to Mar 2012 | % Increase 2002 to Sep 2011 | % Increase 2002 to Jun 2011 | % Increase 2002 to Mar 2011 | % Increase 2002 to Dec 2010 | % Increase 2002 to Sep 2010 | % Increase 2002 to Jun 2010 | % Increase 2002 to Jan 2010 | % Increase 2002 to Jul 2009 | % Increase 2002 to Feb 2009 | % Increase 2002 to Sep 2008 | % Increase 2002 to Jun 2008 | % Increase 2002 to Mar 2008 | % Increase 2002 to Nov 2005 |
|------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Monitoring Well | | | | | | | | | | | | | | | | | | | | |
| MW-1† | 22.4% | 55.9% | 7.5% | 16.3% | 46.7% | | 13.6% | | 41.7% | | | | 100.0% | | 30.6% | | 100.0% | | 47.5% | 31.9% |

†Negative values indicate an increase in total VOCs since monitoring commenced in 2002. The percent increase in total groundwater VOCs is shown above for MW-1.

FIGURE 1





BERGMANN
associates

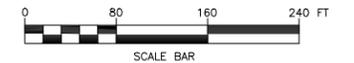
Engineers / Architects / Surveyors

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REVISIONS

| NO. | DATE | DESCRIPTION | REV. | CKD |
|-----|------|-------------|------|-----|
| | | | | |

NOTE:
Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.



MONITORING AND RECOVERY WELL LOCATIONS

Project Manager:
G. FLISNIK

Designed by:

Drawn by:
C. WOOD

Checked by:
S. DEMEO

Date Issued:
JANUARY 8, 2014

Scale:
1"=80'

Date: _____
Project Number: 6974.76 File Name: I:\DASNY\008974.76\3.0\3.0\2013 PRR\Revised 2013 PRR per DEC-March 2012\Mar2012 FIG1.dwg
Drawing Number: _____

MONITORING WELLS & BORING LOCATIONS

| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|----------|----------------------------|---------------------|
| MW-1 | 10005.75 | 9770.81 | 778.51 778.52 778.23 | ASPH. RIM PVC |
| MW-2 | 9983.26 | 9795.25 | 778.36 778.38 778.08 | ASPH. RIM PVC |
| MW-3 | 10036.20 | 9859.98 | 778.59 778.61 778.38 | ASPH. RIM PVC |
| MW-4 | 10085.20 | 9967.62 | 778.66 778.77 778.43 | GRD. RIM PVC |
| MW-5 | 10243.23 | 9880.34 | 778.80 778.85 778.61 | ASPH. RIM PVC |
| MW-6 | 10249.86 | 9795.88 | 778.93 781.35 781.10 | GRD CASE PVC |
| MW-7 | 10249.65 | 9650.24 | 778.77 781.17 780.94 | GRD CASE PVC |
| MW-8 | 10038.09 | 9649.08 | 778.49 781.75 781.33 | GRD CASE PVC |
| MW-9 | 9945.36 | 9430.13 | 780.56 782.84 782.61 | GRD CASE PVC |
| MW-10 | 9909.53 | 9724.56 | 777.46 780.10 780.02 | GRD CASE PVC |
| MW-11 | 10041.23 | 9767.54 | 778.82 778.81 778.58 | FLOOR RIM PVC |
| MW-12 | 10082.02 | 9799.74 | 778.84 778.85 778.50 | FLOOR RIM PVC |
| MW-13 | 10082.09 | 9864.35 | 778.88 778.87 778.39 | FLOOR RIM PVC |
| MW-14 | 10130.64 | 9734.67 | 778.80 778.82 778.43 | FLOOR RIM PVC |
| MW-15 | 10190.80 | 9795.30 | 778.78 778.76 778.38 | FLOOR RIM PVC |
| MW-16 | 10256.48 | 9607.09 | 778.17 781.05 780.43 | GRD CASE PVC |
| MW-17 | 10250.56 | 9734.35 | 778.67 781.10 779.85 | GRD CASE PVC |
| MW-18 | 10406.65 | 9675.18 | 776.73 776.65 776.39 | GRD RIM PVC |
| MW-19 | 10436.35 | 9912.63 | 775.04 775.10 774.82 | GRD RIM PVC |
| MW-19R | 10432.32 | 10009.16 | 774.56 774.55 774.20 | ASPH RIM PVC |
| MW-20 | 10248.05 | 9962.73 | 778.47 778.45 778.04 | ASPH RIM PVC |
| MW-21 | 10493.88 | 9609.90 | 775.47 775.45 774.76 | ASPH RIM PVC |
| B-16 | 9736.69 | 9324.99 | 782.23 | GRD. |
| B-17 | 9795.99 | 9475.17 | 780.40 | GRD. |
| B-18 | 9925.09 | 9623.75 | 777.55 | ASPH. |
| B-19 | 9988.66 | 9965.74 | 778.30 | ASPH. |
| B-20 | 10249.88 | 9964.03 | 778.36 | ASPH. |
| B-21 | 10139.46 | 9644.31 | 774.51 | GRAV. |
| B-22 | 9853.67 | 9725.31 | 776.69 | GRD. |
| B-23 | 9983.81 | 9724.83 | 778.50 | ASPH. |
| B-24 | 10249.26 | 9732.76 | 778.88 | GRD. |
| B-25 | 10079.30 | 9714.32 | 778.79 | FLOOR |
| B-26 | 10154.35 | 9821.64 | 778.84 | FLOOR |
| B-27 | 10187.79 | 9726.14 | 778.80 | FLOOR |
| B-28 | 10196.32 | 9917.18 | 778.83 | FLOOR |

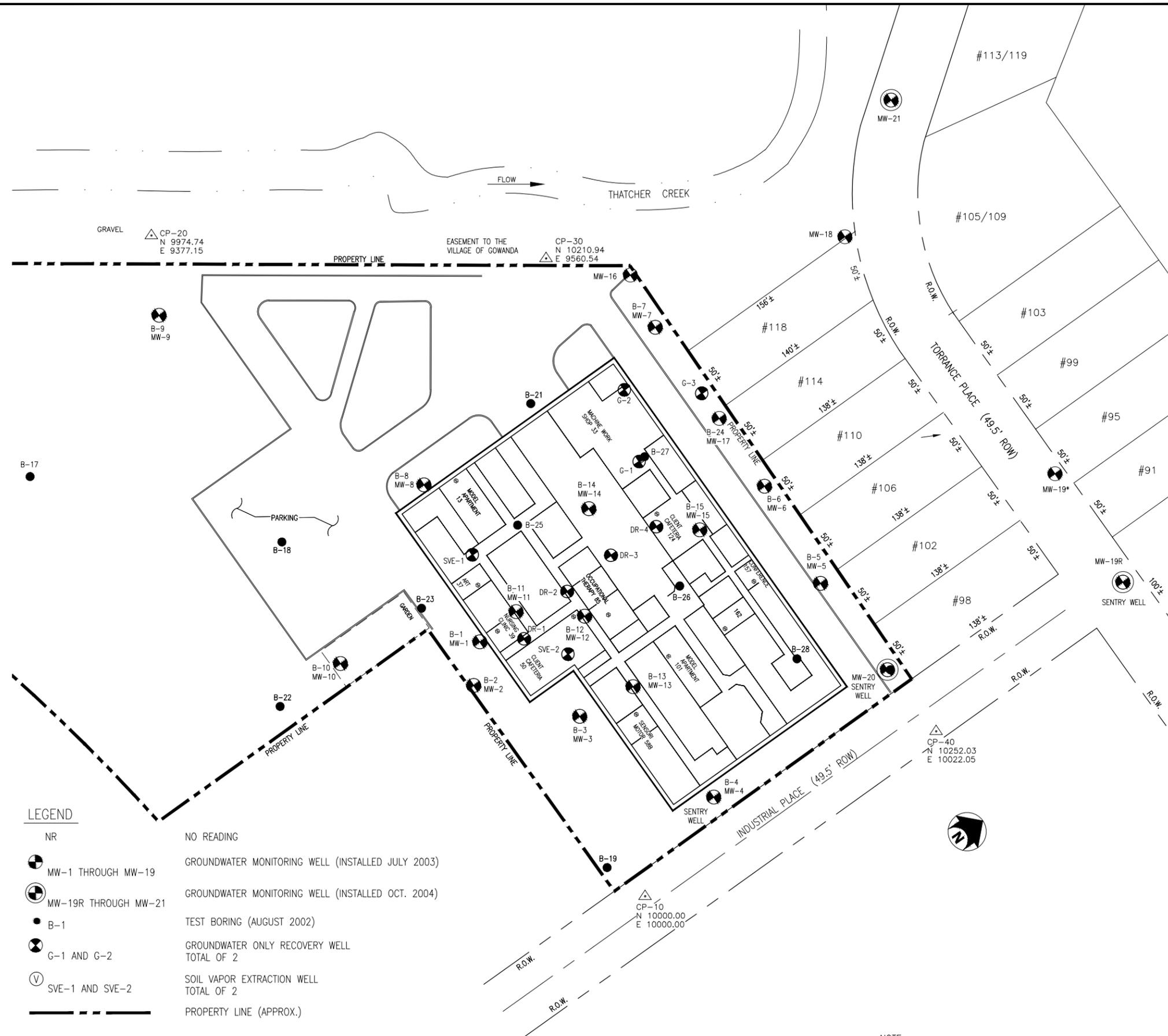
RECOVERY WELL LOCATIONS

| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|---------|----------------------------|-------------------------------|
| DR-1 | 10034.54 | 9787.80 | 778.81 779.66 779.69 | FLOOR PVC RISER PVC CAP |
| DR-2 | 10081.63 | 9776.80 | 778.87 779.93 779.96 | FLOOR PVC RISER PVC CAP |
| DR-3 | 10124.45 | 9773.02 | 778.83 779.78 779.81 | FLOOR PVC RISER PVC CAP |
| DR-4 | 10164.98 | 9774.65 | 778.80 779.64 779.67 | FLOOR PVC RISER PVC CAP |
| G-1 | 10182.25 | 9726.78 | 778.80 779.83 779.86 | FLOOR PVC RISER PVC CAP |
| G-2 | 10203.62 | 9675.79 | 778.86 779.72 779.76 | FLOOR PVC RISER PVC CAP |
| SVE-1 | 10038.31 | 9713.33 | 778.77 779.66 N/A | FLOOR PVC RISER PVC CAP |
| SVE-2 | 10055.47 | 9816.17 | 778.86 779.91 N/A | FLOOR PVC RISER PVC CAP |

LEGEND

- NR NO READING
- ⊕ MW-1 THROUGH MW-19 GROUNDWATER MONITORING WELL (INSTALLED JULY 2003)
- ⊕ MW-19R THROUGH MW-21 GROUNDWATER MONITORING WELL (INSTALLED OCT. 2004)
- B-1 TEST BORING (AUGUST 2002)
- ⊗ G-1 AND G-2 GROUNDWATER ONLY RECOVERY WELL TOTAL OF 2
- ⊕ SVE-1 AND SVE-2 SOIL VAPOR EXTRACTION WELL TOTAL OF 2
- PROPERTY LINE (APPROX.)

*: MW-19 DECOMMISSIONED & REMOVED ON JULY 23, 2003

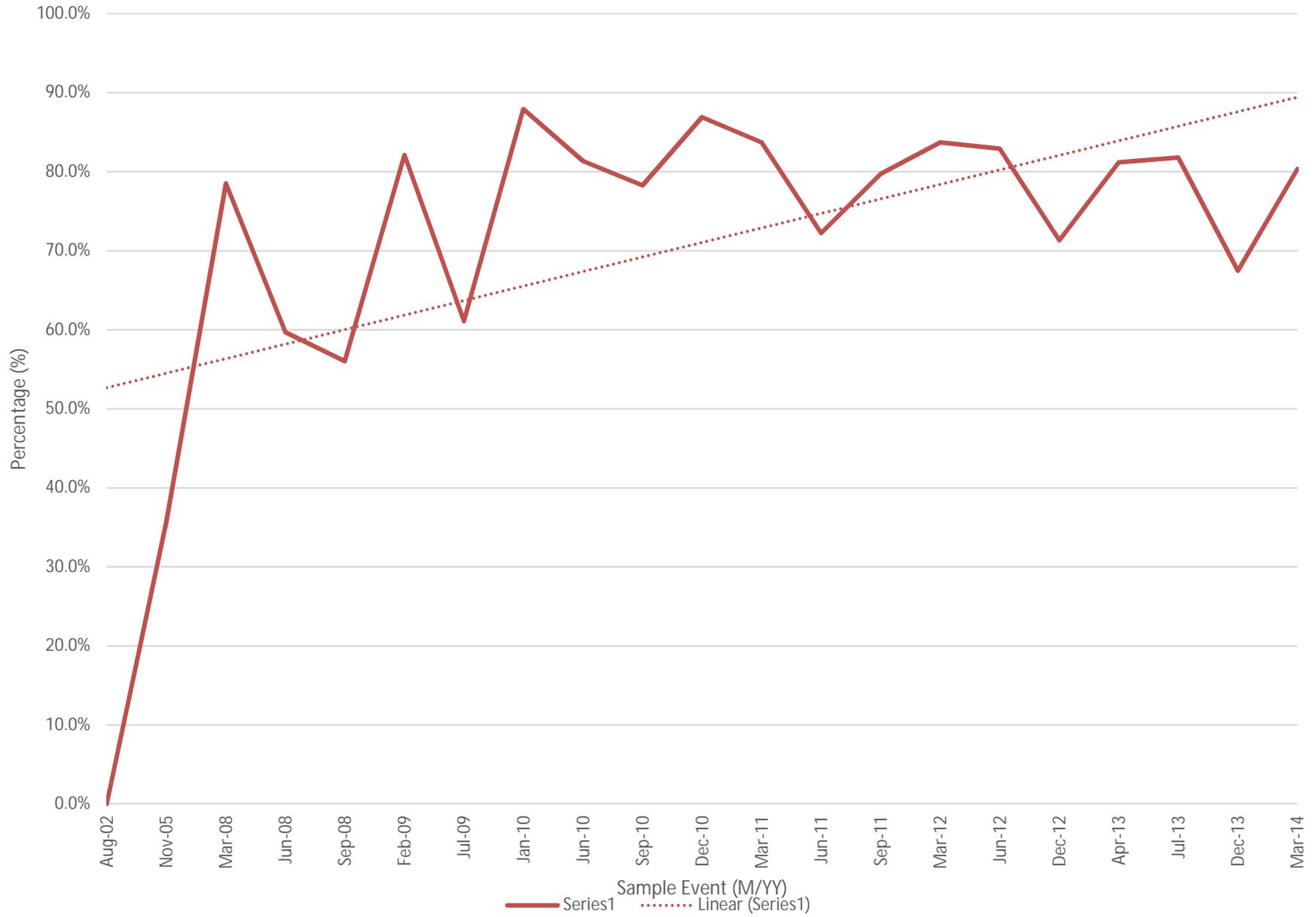


NOTE:
BASEMAP INFORMATION FROM MAP ENTITLED "SURVEY OF PART OF LOT 27, TOWNSHIP 6, RANGE 8-VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK" PREPARED BY KREHBIEL ASSOCIATES, DWG# D-2297, DATED 6-16-92

CHART 1



CHART 1 - CONTAMINANT REDUCTION, GOWANDA DAY HABILITATION CENTER



APPENDIX A
QUARTERLY GROUNDWATER CHARACTERIZATION REPORTS



APRIL 2013
GROUNDWATER CHARACTERIZATION REPORT



NEW YORK STATE OFFICE OF PEOPLE WITH DEVELOPMENTAL DISABILITIES



GROUNDWATER CHARACTERIZATION REPORT APRIL 2013 SAMPLING EVENT

**Former Gowanda Day Habilitation Center
4 Industrial Place
Town of Gowanda, Cattaraugus County
Voluntary Cleanup Program Agreement V-00463-9**

Prepared for:

**Dormitory Authority & New York State Office of People with Developmental
Disabilities**

Bergmann Project No. 6974.76

Issuance Date: June 14, 2013

Revised: April 29, 2014

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 - Chart C-8: G-3 and MW-17 Groundwater VOC Concentrations



1.0 Introduction

Bergmann Associates (Bergmann) is submitting this groundwater sampling laboratory analytical report for the April 2013 sampling event on behalf of the Dormitory Authority of the State of New York (DASNY) and the New York State Office of People with Developmental Disabilities (OPWDD) for activities conducted at the former Gowanda Day Habilitation Center facility at 4 Industrial Place, Gowanda, NY. The OPWDD, as the volunteer, has entered into a Voluntary Cleanup Agreement (VCA) with the New York State Department of Environmental Conservation (NYSDEC) to conduct investigations and implement remedial measures in accordance with VCA Site No. V-00463-9, effective August 16, 2001.

1.1 Scope of Work

This report documents the site-wide groundwater monitoring and laboratory analytical sampling event conducted on April 15-17, 2013. Field measurements, sampling procedures and laboratory analysis were conducted in accordance with the October 2006 Operations, Monitoring and Maintenance (OM&M) Manual and as modified with NYSDEC approval. During this sampling event, groundwater from 13 of 21 site-related groundwater monitoring wells and all seven groundwater recovery wells was sampled for laboratory analysis. Eight monitoring wells that were determined by the NYSDEC and Bergmann personnel to be outside the area of impact by the Groundwater Treatment System (GTS) were not sampled. These monitoring wells include MW-2, MW-3, MW-5, MW-8, MW-9, MW-10, MW-13, and MW-21.

The prior groundwater sampling event was conducted in December 2012 and included analysis of the same group of wells sampled during this reporting period. Results of the December 2012 sampling event were summarized in a report dated February 22, 2013.

1.2 Site Background

The Gowanda Day Habilitation site consists of a 5.94 acre parcel located at 4 Industrial Place. The building, previously used by several manufacturing operations, was built in stages between circa 1948 and 1987 and was renovated in 1987-1988. New York State agencies have occupied the building since 1982. New York State acquired the parcel in 1989. The building was most recently operated by the OPWDD, which at that time was known as the Western New York Developmental Disabilities Services Office, as a Day Habilitation Center for mental care clients. In April 2001, on-site operations ceased. The nature and extent of contamination at the Gowanda Day Habilitation Center was detailed as part of the 2003 Site Investigation and 2004 Supplemental Site Investigation reports. Trichloroethene was the most commonly detected compound. Trichloroethene degradation products cis-1,2-Dichloroethene, trans-1,2-Dichloroethene and Vinyl Chloride were also detected.

Following Interim Remedial Measures (IRM) system installation, the Groundwater Treatment System (GTS) and the Soil Vapor Extraction System (SVES) were activated on May 10, 2005, recovering 2-5 GPM of groundwater. An additional groundwater recovery well, designated G-3, was installed outside the building and adjacent to MW-17 in November 2008. The GTS portion consists of seven groundwater recovery wells (four dual phase recovery wells and three groundwater-only recovery wells), an air compressor, a network of controller-less pneumatic pumps and an air stripper treatment system to process recovered groundwater. Recovered groundwater is pumped to the equalization tank for settling of the sediment and transferred to the air stripper using a consistent flow rate. The air discharged from the air stripper is tied into the SVE carbon vessels for treatment prior to atmospheric discharge. After treatment by the air



stripper, the groundwater is discharged to the Village of Gowanda Sewage Treatment Plant (STP) via the sanitary sewer in accordance with a Gowanda Sewer Use Permit. The Village of Gowanda requires that an annual discharge report be submitted, detailing the volume of water collected, treated and discharged to the sewer.

In January 2008 the building was decommissioned. The GTS was winterized with the addition of heat tape and insulation to conveyance lines and the installation of an independently operated suspended heater in the treatment area for the GTS and SVES (former Machine Shop).

2.0 Groundwater Sampling Overview and Methods

2.1 Well Maintenance Activities

As of April 2013, all monitoring wells were accessible and the integrity of the wells was not compromised. No repairs or maintenance to the network of groundwater monitoring wells or recovery wells has been required since June 2007. All stand pipes and flush-mount curb boxes were found to be intact and secure. Exterior monitoring wells are secured with locking stand pipes. The monitoring wells within the building are secured with flush-mount roadway covers.

Replacement to damaged flush-mount protective roadway boxes was completed in June 2007. Well rehabilitation and silt removal was last conducted June 25 – 26, 2007. The recovery wells have appeared to be free of significant silt intake since the 2007 rehabilitation event.

2.2 Groundwater Field Monitoring and Sampling Activities

Groundwater measurements and sampling activities were conducted in accordance with the October 2006 OM&M Manual. The depths to groundwater for groundwater monitoring wells are determined on a regular basis to track site-wide changes in the water table elevation and to allow for adjustment at recovery wells. Operation of the recovery wells is intended to establish hydraulic containment of the plume of impacted groundwater beneath the former Day Habilitation building and improve recovery and treatment of impacted groundwater.

Groundwater samples were collected from 13 of the 21 site-related groundwater monitoring wells for laboratory analysis on April 15-17, 2013. Depth to groundwater measurements were obtained from all 21 monitoring wells. Depths to water measurements for the recovery wells were not obtained since the wells were in active production.

Groundwater samples were collected from the monitoring wells after each well was properly gauged and purged of standing water via low-flow pumping using an electric peristaltic pump (Solonist). Aquifer parameters including turbidity, temperature, pH, oxygen and conductivity were monitored using a Horiba U-22 to ensure sufficient well development prior to sampling. Groundwater samples were also collected from all seven recovery wells using dedicated bailers. A single duplicate sample and one method blank sample were also collected and submitted for laboratory analysis. The method blank was collected after sampling MW-1, the well with the highest concentration of contamination for the previous April 2013 sampling event.

Sampling of the recovery wells was conducted while the GTS was actively pulling groundwater into the system. The active pumping of the wells ensured that the groundwater sampled wasn't stagnant, much like purging does for monitoring wells. Groundwater samples were delivered via chain-of-custody protocol to Paradigm Environmental Services located in Rochester, NY, a NYSDOH certified laboratory for testing using EPA Method 8260B for targeted chlorinated



VOCs of concern. Analytical results for each individual monitoring well have been posted for comparative purposes from sampling events completed 2002 – 2012.

3.0 Local Groundwater Flow Characterization

Delineation of the local water table surface and groundwater flow pattern was determined for April 2013 using elevations measured at all 21 site-related monitoring wells. Groundwater characteristics were determined using depth to water values obtained on April 15-17, 2013. The well gauging values and groundwater elevations are provided in Table 1 – Groundwater Elevations and Field Measurements, April 2013. Groundwater Contours are presented on Figure 1 – April 2013 Groundwater Contour Map.

The April 2013 water table mapping shows a local flow pattern similar to the water table observed historically since 2002. The local groundwater was flowing in a northerly direction. Torrance Place is hydraulically down-gradient from the Day Habilitation Center building. The April 2013 depths to groundwater range from 6.39 ft below ground surface (top of PVC casing adjusted to grade) at MW-2 adjacent to the south side of the building to 13.13 ft below ground surface at MW-6 located at the northern property line (adjusted to account for 2.17 ft of well riser pipe extended above grade). The average depth to groundwater at the 21 monitoring wells measured was 9.64 ft below ground surface.

Compared to the April 2013 sampling event the current site-wide average water table increased by approximately 0.07 ft. This increase in the water table is inferred as seasonal.

4.0 Laboratory Analysis

4.1 Laboratory Analysis on Groundwater Samples, April 2013

Laboratory analysis was completed on the groundwater samples from 13 monitoring wells and the 7 recovery wells collected on April 15-17, 2013. Samples were analyzed for volatile organic compounds via EPA Method 8260B. Analysis was performed in accordance with the October 2006 OM&M Manual. The following halogenated VOCs were analyzed for:

- Trichloroethene (TCE)
- 1,1,1 Trichloroethane (TCA)
- Cis-1,2-Dichloroethene (Cis-DCE)
- Trans-1,2-Dichloroethene (Trans-DCE)
- Vinyl Chloride (VC)

4.2 Monitoring Well Groundwater Analysis Summary

The April 2013 analytical results detected three chlorinated VOCs in monitoring well samples: TCE, Cis-DCE, and VC. Chlorinated VOCs were detected in samples from 7 of the 13 sampled monitoring wells. Analytical results are summarized in Table 2 – April 2013 Analytical Results Summary, which shows detected VOCs and applicable NYSDEC Class GA Standards for each analyte. The complete laboratory analytical reporting package is provided in Appendix A – Laboratory Analytical Results Report April 2013 Sampling Event.



Table 3 – Historic Groundwater Analysis Results Summary summarizes the historical total VOC concentrations at each well since sampling of the monitoring wells began in 2002.

No VOCs were detected in samples from four of the sampled monitoring wells (MW-4, MW-7, MW-15, MW-18, MW-19R, and MW-20). These wells have historically demonstrated low to no detectable VOCs.

Groundwater samples from seven monitoring wells had detectable chlorinated VOCs at concentrations above applicable Class GA Standards. The monitoring well with the highest total VOCs, MW-1, is located in the area of the historically greatest impacted groundwater.

Detected concentrations in 3 of the 13 monitoring well groundwater samples were increased compared to the prior December 2012 sampling event while concentrations in 6 of the 13 monitoring well groundwater samples showed a decrease. Concentrations in four groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 81% since activation of the GTS in May 2005.

Due to the concentrations of TCE and Cis-DCE in samples from monitoring wells MW-1, MW-11, and MW-17, diluted analysis and correspondingly elevated detection limits were required. At these locations it is possible that related chlorinated VOCs Trans-1,2 DCE and Vinyl Chloride may be present at concentrations below the diluted detection limits.

The area of highest impacted groundwater exists at the area centered between monitoring wells MW-1 and MW-11, which has historically demonstrated the highest levels of VOCs and is inferred as the major area of impacted groundwater. In the area where the plume of impacted groundwater has been inferred (monitoring wells MW-1, MW-6, MW-7, MW-11, MW-12, MW-14, MW-15, and MW-17) the current laboratory analysis shows a decrease in VOC concentrations by an average of approximately 77.3% since groundwater sampling of these wells began in 2002.

The current total targeted halogenated VOCs detected at monitoring well MW-1 (918.1 PPB) are higher than the December 2012 value (1,440 PPB). Since activation of the GTS, detected VOCs at MW-1 have generally remained high due to the GTS concentrating impacted groundwater in this area.

Monitoring well MW-11 exhibited an increase in targeted chlorinated VOCs relative to the prior sampling event. The total detected VOCs at MW-11 for the April 2013 sample event were 790 PPB, a decrease from the April 2013 value of 498 PPB. Monitoring well MW-11 is near recovery well DR-1 and further reflects the trend of contaminants being pulled towards DR-1. Since activation of the GTS, detected VOCs at MW-11 have decreased by approximately 83%.

At MW-12 the current total detected VOC concentration (186.6 PPB) was higher than the previous December 2012 sample event (142 PPB). MW-12 is nearest to recovery well DR-2, in close proximity to the center of the building. Since activation of the GTS in May 2005, detected VOCs at MW-12 have decreased by approximately 99%.

At MW-14 the current total detected VOC concentration (71 PPB) was higher than the previous December 2012 value of 47 PPB. MW-14 is nearest to recovery well DR-3. Since activation of the GTS in May 2005 detected VOCs at MW-14 have decreased by approximately 78%.



At MW-15 the current total VOC concentration (non-detect) was lower than the previous December 2012 value (12.9 PPB). MW-15 is nearest to recovery well DR-4. Since activation of the GTS the detected VOCs at MW-15 have decreased by approximately 100%.

Five groundwater monitoring wells have been established along the subject property's north perimeter, down-gradient from the area of impacted groundwater. The north perimeter monitoring wells consist of wells MW-5, MW-6, MW-7, MW-16 and MW-17. The current analytical results detected a decrease in targeted VOCs at one of these monitoring wells (MW-16). One monitoring well along the north perimeter, MW-5, was not sampled during this event. The current average total VOCs for these wells is 34.6 PPB; a decrease from the December 2012 average total VOCs (136.8 PPB).

Monitoring wells MW-18, MW-19R and MW-21 are located off-site along Torrance Place. These three wells are considered to be beyond the radius of influence for the Day Habilitation groundwater treatment system. Groundwater from MW-21 was not sampled during the April 2013 sampling event. At MW-18 and MW-19R the current total detected VOC concentrations were non-detect.

Laboratory analytical results are included in Appendix A. Monitoring well locations and distribution of analytical results are shown on Figure 2 – April 2013 Distribution of Groundwater Analytical Results in Monitoring Wells.

4.3 Sentry Well Groundwater Analysis Summary

Sentry groundwater monitoring wells have been established to monitor a separate occurrence of contaminated groundwater at the Gowanda Electronics site (NYSDEC Site 905025), immediately east of Industrial Place and east of the subject property. The eastern sentry wells sampled for this event were MW-19R, MW-20 and MW-4. The current results indicate non-detect for all three of the samples from the eastern sentry wells.

The Gowanda Electronics area of impacted groundwater may be migrating to an area near Industrial Place and has intermittently impacted MW-19R. The Gowanda Electronics plume of impacted groundwater does not appear to extend to the Day Habilitation Center property, based on consistent non-detect values at the eastern sentry wells. Conversely, impacted groundwater from the Day Habilitation Center subject property does not appear to extend off-site to the east to Industrial Place.

4.4 Recovery Well Groundwater Analysis Summary

All recovery wells were sampled for VOCs. Results indicated that TCE and Cis-DCE were present in six of seven recovery wells (G-2 contained only Cis-DCE). Total VOCs at all six recovery wells for which past data is available have decreased since activation of the GTS in May 2005. The average reduction in VOCs for six of the recovery wells for the current sampling event is approximately 92% relative to concentrations prior to GTS activation in 2005. Relative percent reductions in total VOCs for all monitoring wells and recovery wells are shown on Table 4 – Percent Reductions in Total Groundwater VOCs.

Recovery Well DR-1 has shown a significant decrease in VOCs since GTS activation in May 2005. The current total VOC concentration at DR-1 (82 PPB) represents an approximately 99% decrease since activation of the GTS.



The VOC concentration for recovery well DR-2 was 293 PPB, compared to 19 PPB in December 2012. Recovery well DR-1 is located closest to MW-1 in the area of historically highest concentrations.

The current total VOCs detected at recovery well DR-3 (73 PPB) was higher than the prior December 2012 sampling event (42 PPB). The current sampling event indicates a decrease in VOCs at DR-3 of approximately 95% since activation of the GTS.

The current total VOCs detected at recovery well DR-4 (37 PPB) was lower than the December 2012 sampling event (90 PPB). The current sampling event indicates a decrease in VOCs at DR-4 of approximately 98% since activation of the GTS.

The current total VOCs detected at recovery well G-1 (55.8 PPB) was higher than the prior December 2012 sampling event (52.6 PPB). The current sampling event indicates a decrease in VOCs of approximately 90% at G-1 since activation of the GTS.

The current total VOCs detected at recovery well G-2 (50 PPB) was lower than the prior December 2012 sampling event (132.2 PPB). Since activation of the GTS, total VOCs detected at G-2 have decreased by approximately 87% based on the current sampling results.

The current total VOCs detected at recovery well G-3 (25 PPB) was lower than the previous December 2012 sampling event (41.6 PPB).

Laboratory analytical results are included in Appendix A. Recovery well locations and analytical results are shown on Figure 3 – April 2013 Distribution of Groundwater Analytical Results in Recovery Wells.

4.5 Quality Assurance and Quality Control Samples

For quality assurance purposes a duplicate groundwater sample was collected from monitoring well MW-1, designated sample “MW-X.” Results from sample MW-X were consistent with the sample collected from MW-1.

A trip blank was supplied by the laboratory and submitted for analysis along with the groundwater samples. The trip blank sample was non-detect for chlorinated halogens. A method blank was also collected to ensure proper cleaning of the sampling equipment. The method blank, designated MB, was non-detect for chlorinated halogens.

5.0 Remediation System Efficiency

5.1 Impact of the GTS Recovery Wells, April 2013

Appendix B – Control Charts, Groundwater VOC Concentrations contains groundwater control charts for six of the seven recovery wells and the nearest relative monitoring well. Chart C-1 presents a summary of six groundwater recovery wells. Since activation of the GTS in May 2005 six groundwater recovery wells have demonstrated decreased concentrations of VOCs. Recovery well G-3 has only been sampled 13 times and hasn't provided enough data for comparison. The current sampling event indicated decreased VOCs in 4 of the 7 recovery wells compared to the prior December 2012 sampling event.

The current sampling event results are consistent with a trend of decreasing total VOCs at recovery wells. The increase in detected VOCs at DR-1, DR-2, DR-3, and G-1 may be



attributed to system efficiency in concentrating the greatest impacted groundwater in the relative radius of influence for each recovery well.

Chart series C-2 displays the relationship between monitoring wells MW-1, MW-11 and Recovery Well DR-1. Monitoring wells MW-1 and MW-11 are located at the approximate original contamination source area and in the area of greatest impacted groundwater. DR-1 is the recovery well located in this area. The current detected VOCs at MW-1 (918.1 PPB) were lower than those from the previous December 2012 sample event (1,440 PPB). At MW-11, total VOCs (570 PPB) showed a decrease from the previous December 2012 sample event (790 PPB). At recovery well DR-1 the current total detected VOCs were 82 PPB.

Chart series C-3 compares laboratory results between Recovery Well DR-2 and MW-12. These wells are located north of the wells outlined in Chart series C-1 and represent the northern limit of the highest concentration within the impacted area. The detected VOCs at MW-12 increased from 142 PPB (December 2012) to 186.6 PPB (April 2013). VOCs detected at recovery well DR-2 increased from 19 PPB in December 2012 to 293 PPB in April 2013.

Chart series C-4 compares the relationship between wells DR-3 and MW-14 which are located in the central portion of the Gowanda Day Habilitation building. The current total VOCs at MW-14 increased from 47 PPB in December 2012 to 71 PPB in April 2013. The values detected at recovery well DR-3 increased to 73 PPB.

Chart series C-5 compares laboratory results between Recovery Well DR-4 and MW-15. These wells are located at the center-north portion of the building. The current values showed a decrease in VOCs for DR-4 (90 PPB in December 2012 and 37 PPB for this sample event) and for MW-15 (26.26 PPB in December 2012 and non-detect for the current sample event).

Chart series C-6 compares VOC concentrations between Recovery Well G-1 and Monitoring Well MW-17. The recovery well is located in the northern portion of the building. MW-17 showed a decrease in total VOCs for the current sampling event (21.3 PPB) relative to the December 2012 sampling event (430 PPB). Recovery Well G-1 showed an increase (55.8 PPB in April 2013 and 52.6 PPB in the prior December 2012 sample event).

Chart series C-7 compares VOC concentrations between Recovery Well G-2 and MW-7 which are also located at the northeastern portion of the building. This area is at the apparent western perimeter of the area of impacted groundwater. The groundwater sample from Recovery Well G-2 showed a decrease in VOCs from 132.2 PPB in December 2012 to 50 PPB in April 2013. Monitoring Well MW-7 remained non-detect relative to the prior December 2012 sample event (also non-detect).

Chart series C-8 compares VOC concentrations between Recovery Well G-3 and MW-17 which are also located at the northeastern portion of the building. This area is at the apparent western perimeter of the area of impacted groundwater. Recovery well G-3 showed a decrease in VOCs (25 PPB) relative to the prior December 2012 sample event (41.6 PPB). Monitoring Well MW-17 showed a decrease in VOCs (21.3 PPB) since the December 2012 sampling event (430 PPB).

Monitoring wells along the western and eastern perimeters have consistently yielded results in which no VOCs were detected.



5.2 Extent of Impacted Groundwater, April 2013

The area of highest impacted groundwater is consistent with prior sampling events. The bulk of the contaminant mass appears to be concentrated beneath the building in the vicinity of monitoring well MW-1 and MW-11, extending north to recovery well G-2.

The GTS appears to maintain an area of hydraulic containment for all seven recovery wells within the area of impacted groundwater. The GTS appears to be successful in hydraulically containing most of the contaminant plume on the property and minimizing further migration. Operation of G-3 will continue to increase the impact of the GTS on the contaminant plume along the north property line.

No VOCs were detected at MW-19R and MW-18, off-site monitoring wells north of the facility. These monitoring points are inferred as beyond the area of hydraulic influence of the recovery wells. Impacted groundwater at these areas was detected prior to activation of the GTS in May 2005. Future reduction in groundwater VOC concentrations at the down-gradient locations should be expected as operation of the treatment system continues to remove VOCs and limits potential off-site migration of impacted groundwater. In addition, operation of G-3 increases the area of influence of the GTS at the northern property line.

5.3 Future Groundwater Monitoring and Analysis Activities

The remedial systems at the Gowanda Day Habilitation Center (Groundwater Treatment System and the Soil Vapor Extraction System) will continue to operate and be monitored as needed to maintain system efficiencies. At the current stage in the remediation of this site, Bergmann is investigating options for injecting a chemical oxidizer into the subsurface to further reduce contaminant levels. An injection of chemical oxidizers could be expected to decrease concentrations significantly, and improve the likelihood that the site can reach an acceptable cleanup level.

Bergmann will also correspond with the NYSDEC to discuss a reduction of the site-wide sampling events from quarterly to semi-annual. Monthly O&M would still take place. The next site-wide groundwater sampling and laboratory analysis event is tentatively scheduled for June 2013. This sampling event will include sampling and laboratory analysis for the limited number of wells as determined by Bergmann correspondence with the NYSDEC. Future sampling and analytical events will be conducted to track the effects of the treatment system on impacted groundwater and to evaluate seasonal changes in water table elevations. In addition, the evaluation of groundwater flow pattern and movement of residual impacted groundwater at the subject property will also be performed during future sampling events.



TABLES



Table 1 Groundwater Elevations and Field Measurements April 2013

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

| April 15-17, 2013 | | | | | | | | | | |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|
| | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-8 | MW-9 | MW-10 |
| Casing Elevation* | 778.23 | 778.08 | 778.38 | 778.43 | 778.61 | 781.10 | 780.94 | 781.33 | 782.61 | 780.02 |
| Depth to Groundwater (btoc) | 6.46 | 6.39 | 6.51 | 7.45 | 10.44 | 13.13 | 13.04 | 9.82 | 9.70 | 7.81 |
| Groundwater Elevation | 771.77 | 771.69 | 771.87 | 770.98 | 768.17 | 767.97 | 767.90 | 771.51 | 772.91 | 772.21 |
| Well Diameter | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| Product Thickness | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Well Depth (btoc) | 16.02 | 17.15 | 16.30 | 15.78 | 13.95 | 22.88 | 21.80 | 17.65 | 20.96 | 19.42 |
| Bottom of Well Elevation | 762.21 | 760.93 | 762.08 | 762.65 | 764.66 | 758.22 | 759.14 | 763.68 | 761.65 | 760.60 |
| Thickness of Water Column | 9.56 | 10.76 | 9.79 | 8.33 | 3.51 | 9.75 | 8.76 | 7.83 | 11.26 | 11.61 |
| Minimum Purge Volume (gal) | 1.6 | 1.8 | 1.6 | 1.4 | 0.6 | 1.6 | 1.4 | 1.3 | 1.8 | 1.9 |
| 3 Volumes | 4.7 | 5.3 | 4.8 | 4.1 | 1.7 | 4.8 | 4.3 | 3.8 | 5.5 | 5.7 |
| Actual volume purged | 4.7 | NS | NS | 4.1 | NS | 4.8 | 4.3 | NS | NS | NS |
| Comments | Flush = -0.29' | Flush = -0.30' | Flush = -0.23' | Flush = -0.34' | Flush = -0.24' | Stickup=2.17' | stickup=2.17' | stickup=2.84' | stickup=2.05' | stickup=2.56' |

| April 15-17, 2013 | | | | | | | | | | | |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|
| | MW-11 | MW-12 | MW-13 | MW-14 | MW-15 | MW-16 | MW-17 | MW-18 | MW-19R | MW-20 | MW-21 |
| Casing Elevation | 778.58 | 778.50 | 778.39 | 778.43 | 778.38 | 780.43 | 779.85 | 776.39 | 774.2 | 778.04 | 774.76 |
| Depth to Groundwater (btoc) | 6.85 | 7.25 | 7.29 | 9.98 | 10.35 | 12.31 | 11.92 | 9.02 | 9.30 | 9.77 | 7.85 |
| Groundwater Elevation | 771.73 | 771.25 | 771.10 | 768.45 | 768.03 | 768.12 | 767.93 | 767.37 | 764.90 | 768.27 | 766.91 |
| Well Diameter | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| Product Thickness | nd | nd | nd |
| Well Depth (btoc) | 15.48 | 17.38 | 17.40 | 18.15 | 19.80 | 23.26 | 25.18 | 25.0 | 17.67 | 14.75 | 15.82 |
| Bottom of Well Elevation | 763.10 | 761.12 | 760.99 | 760.28 | 758.58 | 757.17 | 754.67 | 751.39 | 756.53 | 763.29 | 758.94 |
| Thickness of Water Column | 8.63 | 10.13 | 10.11 | 8.17 | 9.45 | 10.95 | 13.26 | 15.98 | 8.37 | 4.98 | NA |
| Minimum Purge Volume (gal) | 1.4 | 1.7 | 1.6 | 1.3 | 1.5 | 1.8 | 2.2 | 2.6 | 1.4 | 0.8 | NA |
| 3 Volumes | 4.2 | 5.0 | 4.9 | 4.0 | 4.6 | 5.4 | 6.5 | 7.8 | 4.1 | 2.4 | NA |
| Actual volume purged | 4.2 | 5.0 | NS | 4.0 | 4.6 | 5.4 | 6.5 | 7.8 | 4.1 | 2.4 | NS |
| Comments | Flush = -0.23 | Flush = -0.35 | Flush = -0.48 | Flush = -0.39 | Flush = -0.38 | Stickup=2.26' | stickup=1.18' | Flush =-0.26' | Flush =-0.36' | Flush=-0.43' | Flush =-.71' |

NOTES

btoc = Below top of casing (inner riser) All measurements are in feet, referenced to Mean Sea Level

nd = No floating product encountered

Minimum purge volume = 3 X well volume, 0.163 gallon per foot in a 2" diameter well. 0.653 gallon per foot in a 4" diameter well.

Monitoring well MW-19 was removed and the area restored on July 23, 2003 immediately after the well was developed, purged of 3 volumes and sampled.

The borehole for MW-19 was backfilled with a cement-bentonite grout after the PVC screening and casing was successfully removed.

Wells MW-19R, MW-20 and MW-21 were installed in October 2004.

TOTAL VOLUME to PURGE, 3X ALL WELLS:

61.8 Gallons

Table 2 April 2013 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-1 Sample Date: 4/17/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------------|--------------------|
| TCE | | 770 | 5.0 |
| CIS | | 140 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 910.0 | |

Monitoring Well MW-4 Sample Date: 4/16/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | ND | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | ND | |

Monitoring Well MW-2 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-5 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-3 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-6 Sample Date: 4/17/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-------------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | 93.0 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 93 | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 April 2013 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-7 Sample Date: 4/17/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | ND | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | ND | |

Monitoring Well MW-10 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-8 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-11 Sample Date: 4/17/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|--------------|--------------------|
| TCE | | 240.0 | 5.0 |
| CIS | | 330 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 570.0 | |

Monitoring Well MW-9 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-12 Sample Date: 4/17/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-------------|--------------------|
| TCE | | 9.70 | 5.0 |
| CIS | | 170 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | 6.9 | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 186.60 | |

NS = Not Sampled. No analysis performed during this sampling event.

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 April 2013 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-13 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-16 Sample Date: 4/17/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|--------------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | 24.00 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 24 | |

Monitoring Well MW-14 Sample Date: 4/17/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | 26 | 5.0 |
| CIS | | 45 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 71 | |

Monitoring Well MW-17 Sample Date: 4/17/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------------|--------------------|
| TCE | | 13 | 5.0 |
| CIS | | 8.3 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 21.3 | |

Monitoring Well MW-15 Sample Date: 4/17/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | ND | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | ND | |

Monitoring Well MW-18 Sample Date: 4/17/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | ND | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | ND | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 April 2013 Analytical Results Summary

Gowanda Day Habilitation Center
4 Industrial Place, Gowanda, New York
VCA # V-00463-9

Monitoring Well MW-19R Sample Date: 4/16/2013
Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | ND | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | ND | |

Monitoring Well MW-20 Sample Date: 4/16/2013
Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | ND | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | ND | |

Monitoring Well MW-21 Sample Date: NS
Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 April 2013 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Recovery Well DR-1 Sample Date: 4/15/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|--------------|--------------------|
| TCE | | 61 | 5.0 |
| CIS | | 21.00 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 82 | |

Recovery Well DR-4 Sample Date: 4/15/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-------------|--------------------|
| TCE | | 27.0 | 5.0 |
| CIS | | 10 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 37.00 | |

Recovery Well DR-2 Sample Date: 4/15/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------------|--------------------|
| TCE | | 56 | 5.0 |
| CIS | | 220 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | 17 | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 293 | |

Recovery Well G-1 Sample Date: 4/15/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------------|--------------------|
| TCE | | 6.8 | 5.0 |
| CIS | | 49 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 55.8 | |

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Recovery Well DR-3 Sample Date: 4/15/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-------------|--------------------|
| TCE | | 38 | 5.0 |
| CIS | | 35.0 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 73.00 | |

Recovery Well G-2 Sample Date: 4/15/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-----------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | 50 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 50 | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

ND results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 April 2013 Analytical Results Summary

Gowanda Day Habilitation Center
4 Industrial Place, Gowanda, New York
VCA # V-00463-9

Recovery Well G-3
Sampling Events

Sample Date: 4/15/2013

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-----------|--------------------|
| TCE | | 12 | 5.0 |
| CIS | | 13 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 25 | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 3 Historic Groundwater Analysis Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

| Well Number | Sampling Order Dec-12 | Sampling Order Dec-12 | Sampling Order Jun-12 | Sampling Order Mar-12 | Sampling Order Sep-11 | Jun-11 Total PPB | Mar-11 Total PPB | Dec-10 Total PPB | Sep-10 Total PPB | Jun-10 Total PPB | Jul-09 Total VOCs PPB | Feb-09 Total VOCs PPB | Sep-08 Total VOCs PPB | Jun-08 Total VOCs PPB | Mar-08 Total VOCs PPB | Sep-07 Total VOCs PPB | May-07 Total VOCs PPB |
|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| MONITORING WELLS | | | | | | | | | | | | | | | | | |
| MW-1 | 12 | 13 | 13 | 13 | 13 | 1,318.1 | 583 | 564 | 649 | 778 | 1107.16 | 677 | 860 | 705 | 1,463 | 1,481 | 2,046 |
| MW-17 | 13 | 11 | 10 | 7 | 11 | 225.2 | 26.7 | 48.1 | 312.3 | 232.1 | 228.8 | 4.41 | 728 | 599 | 610 | 903.0 | 777 |
| MW-18 | 6 | 6 | 6 | 4 | 4 | 13.9 | 6.43 | 17.9 | 40.77 | 27.5 | 196 | 13.07 | 238.6 | 115.2 | 56.0 | 719 | 442 |
| MW-7 | 7 | 7 | 8 | 5 | 7 | 70.9 | 22.3 | 58.2 | 160.5 | 114.46 | 213 | 92.34 | 347.8 | 244 | 196.7 | 360 | 330.5 |
| MW-11 | 11 | 12 | 12 | 12 | 12 | 722 | 623 | 588 | 630.7 | 765 | 625.9 | 790 | 437.3 | 564.9 | 1,023 | 398.6 | 1,189 |
| MW-12 | 10 | 10 | 11 | 11 | 10 | 162.9 | 90.82 | 90.4 | 100 | 159.8 | 82 | 279.01 | 65.8 | 159 | 165.6 | 196.9 | 429 |
| MW-14 | 5 | 5 | 5 | 9 | 9 | 104.98 | 31.9 | 24.33 | 38.93 | 65.22 | 40.72 | 34.9 | 17.8 | 38.15 | 29.3 | 103.2 | 106.8 |
| MW-2 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | NS | NS | ND | ND |
| MW-15 | 4 | 4 | 4 | 8 | 5 | 16.18 | 6.92 | 16.85 | 62 | 22.93 | 64.8 | 4.9 | 113.3 | 77.3 | 18.2 | 149.6 | 60.4 |
| MW-20 | 2 | 2 | 2 | 2 | 2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MW-6 | 9 | 9 | 9 | 10 | 8 | 79 | 73.2 | 81.8 | 107 | 96 | 92.8 | 87.8 | 113 | 123 | 105 | 171 | 151 |
| MW-16 | 8 | 8 | 7 | 6 | 6 | 23.1 | 28.9 | 7.21 | 2.53 | ND | 22 | 22.2 | 16.2 | 21.3 | 8.56 | 24.7 | 60.0 |
| MW-19R | 3 | 3 | 3 | 3 | 3 | ND | ND | ND | 2.67 | ND | 4.27 | ND | 13.7 | 10.57 | ND | 22.1 | 2.64 |
| MW-21 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | 141.8 | NS | 14.3 | 533 | 318 |
| MW-5 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | 3.41 | ND |
| MW-3 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | 2.4 | ND |
| MW-13 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | NS | ND | 2.02 | ND |
| MW-4 | 0 | 1 | 1 | 1 | 1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | ND | ND |
| MW-8 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | NS |
| MW-9 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | NS |
| MW-10 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | NS |
| RECOVERY WELLS | | | | | | | | | | | | | | | | | |
| Recovery Well No. | Sampling Order Apr-13 | Sampling Order Dec-12 | Sampling Order Jun-12 | Sampling Order Mar-12 | Sampling Order Sep-11 | Sampling Order Jun-11 | Mar-11 Total VOCs | Dec-10 Total VOCs | Sep-10 Total VOCs | Jun-10 Total VOCs | Jul-09 Total VOCs | Feb-09 Total VOCs | Sept-08 Total VOCs | Jun-08 Total VOCs | Mar-08 Total VOCs | Sept-07 Total VOCs | May-07 Total VOCs |
| G-3 | 20 | 20 | 20 | 20 | 20 | 224.7 | 209.8 | 159.3 | 233.2 | 277.8 | 344 | 403 | NA | NA | NA | NA | NA |
| G-2 | 19 | 19 | 19 | 19 | 19 | 65.6 | 47.2 | 51.8 | 6.02 | 8.37 | 56.2 | 231 | 28.3 | 39.1 | 80.92 | 59.3 | 174.92 |
| G-1 | 18 | 18 | 18 | 18 | 18 | 55.81 | 67.02 | 48.8 | 30.5 | 108.3 | 164 | 126.6 | 120.4 | 170.5 | 186 | 225.0 | 153.3 |
| DR-4 | 17 | 17 | 17 | 17 | 17 | 128.4 | 101.4 | 71.7 | 230.58 | 155.04 | 80.3 | 66.3 | 129.1 | 40.2 | 42.1 | 217.0 | 15.21 |
| DR-3 | 16 | 16 | 16 | 16 | 16 | 67.7 | 25.3 | 30.1 | 38.1 | 79.7 | 125.96 | 167.34 | 75.4 | 123.2 | 171.7 | 387.5 | 183 |
| DR-1 | 15 | 15 | 15 | 15 | 14 | 154.5 | 250.1 | 355.5 | 442.5 | 60.3 | 392.28 | 260 | 724 | 864 | 530 | 2,043.5 | 1,106 |
| DR-2 | 14 | 14 | 14 | 14 | 15 | 240.93 | 267.75 | 152.3 | 213.52 | 255.2 | 198.24 | 223.79 | 206.6 | 284.3 | 154.4 | 288.1 | 350.1 |

NA: Not Applicable. This well not included in this sampling event.
 ND = Not Detected, results less than Method Detection Limit.
 Impacted north property line wells: MW-5, MW-6, MW-7, MW-16, MW-17.

Table 4 Percent Reductions in Total Groundwater VOCs
 Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

The Groundwater Treatment System was activated in May 2005

| Monitoring Well | % Reduction 2002 to April 2013 | % Reduction 2002 to December 2012 | % Reduction 2002 to June 2012 | % Reduction 2002 to Mar 2012 | % Reduction 2002 to Sept 2011 | % Reduction 2002 to June 2011 | % Reduction 2002 to March 2011 | % Reduction 2002 to Dec 2010 | % Reduction 2002 to Sept 2010 | % Reduction 2002 to June 2010 | % Reduction 2002 to January 2010 | % Reduction 2002 to July 2009 | % Reduction 2002 to Feb 2009 | % Reduction 2002 to Sept 2008 | % Reduction 2002 to June 2008 | % Reduction 2002 to March 2008 | % Reduction 2002 to Sept 2007 | % Reduction 2002 to May 2007 | % Reduction 2002 to Oct 2006 | % Reduction 2002 to Nov 2005 |
|---|--------------------------------|-----------------------------------|-------------------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|------------------------------|-------------------------------|-------------------------------|----------------------------------|-------------------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-------------------------------|------------------------------|------------------------------|------------------------------|
| MW-1 | -19.5% | -87.5% | 31.3% | -15.8% | 42.4% | -71.6% | 24.1% | 26.6% | 15.5% | -1.3% | 15.8% | -44.2% | 11.8% | -12.0% | 8.2% | -90.5% | -92.8% | -166.4% | -130.3% | -46.9% |
| MW-2 | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 99.6% | 99.6% | 99.6% | 99.6% | 99.6% |
| MW-3 | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 99.3% | 99.3% | 99.3% | 99.3% | 99.3% |
| MW-4 | 100.0% | 1 | 100.0% | 100.0% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% |
| MW-5 | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 99.3% | 75.6% | 99.3% | 99.3% | 63.4% |
| MW-6 | 77.1% | 75.6% | 78.6% | 78.9% | 75.1% | 80.5% | 82.0% | 79.9% | 73.6% | 76.4% | 81.3% | 77.1% | 78.4% | 72.2% | 69.7% | 74.1% | 57.9% | 62.8% | 57.4% | 42.6% |
| MW-7 | 100.0% | 100.0% | 66.3% | 93.2% | 53.5% | 84.2% | 95.0% | 87.1% | 64.3% | 74.6% | 96.6% | 52.7% | 79.5% | 22.7% | 45.8% | 56.3% | 20.0% | 26.7% | 6.7% | -1.3% |
| MW-8 | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 92.9% | 92.9% | Not Sampled | 92.9% | 92.9% |
| MW-9 | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 97.6% | 97.6% | Not Sampled | 97.6% | 97.6% |
| MW-10 | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 96.2% | 96.2% | Not Sampled | 96.2% | 96.2% |
| MW-11 | 87.7% | 83.0% | 89.3% | 86.7% | 89.1% | 84.5% | 86.6% | 87.3% | 86.4% | 83.5% | 83.3% | 86.5% | 83.0% | 90.6% | 87.8% | 78.0% | 91.4% | 74.4% | 44.0% | 76.3% |
| MW-12 | 98.5% | 98.9% | 99.3% | 98.8% | 99.3% | 98.7% | 99.3% | 99.3% | 99.2% | 98.7% | 98.1% | 99.4% | 97.8% | 99.5% | 98.7% | 98.7% | 98.4% | 96.6% | 91.4% | 62.2% |
| MW-13 | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 100.0% | Not Sampled | 100.0% | 99.4% | 100.0% | 100.0% | 100.0% |
| MW-14 | 77.5% | 85.1% | 87.4% | 75.7% | 75.5% | 66.7% | 89.9% | 92.3% | 87.6% | 79.3% | 85.9% | 87.1% | 88.9% | 94.3% | 87.9% | 90.7% | 67.2% | 66.1% | 6.7% | 55.6% |
| MW-15 | 100.0% | 98.2% | 96.4% | 99.1% | 95.6% | 97.8% | 99.1% | 97.7% | 91.5% | 96.9% | 98.3% | 91.1% | 99.3% | 84.5% | 89.4% | 97.5% | 78.5% | 91.7% | 79.5% | 62.9% |
| MW-16* | 36.8% | 52.6% | 88.5% | 67.9% | 84.0% | 39.2% | 23.9% | 81.0% | 93.3% | 99.7% | 94.2% | 42.1% | 41.6% | 57.4% | 43.9% | 77.5% | 35.0% | -57.9% | -34.7% | -72.1% |
| MW-17* | 97.4% | 46.9% | 53.0% | 67.9% | 44.6% | 72.2% | 96.7% | 94.1% | 61.4% | 71.3% | 97.7% | 71.8% | 99.5% | 10.1% | 26.0% | 24.7% | -11.5% | 4.1% | -24.8% | -24.2% |
| MW-18* | 100.0% | 100.0% | 89.6% | 98.5% | 91.3% | 96.0% | 88.7% | 88.7% | 74.4% | 82.7% | 96.0% | -23.3% | 91.8% | -50.0% | 27.6% | 64.8% | -352.2% | -178.0% | -146.5% | -135.8% |
| MW-19 R* | 100.0% | 75.0% | 99.0% | 99.0% | 99.0% | 99.0% | 99.0% | 99.0% | 73.3% | 99.0% | 99.0% | 57.3% | 99.0% | -36.7% | -5.7% | 99.0% | -120.8% | 73.6% | -14.0% | -102.0% |
| MW-20** | 100.0% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% |
| MW-21** | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 67.5% | Not Sampled | 96.7% | -22.2% | 27.1% | 94.0% | -13.7% |
| * Well installed 2003 | | | | | | | | | | | | | | | | | | | | |
| ** Well Installed 2004 | | | | | | | | | | | | | | | | | | | | |
| Site-Wide reduction: | 81.2% | 71.3% | 82.9% | 80.7% | 79.7% | 72.2% | 83.7% | 86.9% | 78.3% | 81.4% | 87.9% | 61.1% | 82.1% | 56.0% | 59.7% | 78.5% | 32.9% | 39.8% | 43.4% | 35.7% |
| Impacted Groundwater Plume Area Only: | 77.3% | 62.5% | 75.2% | 73.1% | 71.9% | 64.1% | 84.1% | 83.0% | 72.5% | 72.4% | 82.1% | 65.2% | 79.8% | 57.7% | 64.2% | 53.7% | 38.8% | 32.0% | 16.3% | 28.4% |
| Plume Area = MW-1, MW-11, MW-12, MW-14, MW-15, MW-7, MW-17, MW-6 | | | | | | | | | | | | | | | | | | | | |
| Negative values indicate an increase in total VOCs since monitoring commenced in 2002 | | | | | | | | | | | | | | | | | | | | |
| % reduction = percent reduction in total Volatile Organic Compounds (VOCs) since groundwater monitoring was initiated | | | | | | | | | | | | | | | | | | | | |

| Recovery Well | % Reduction 2002 to April 2013 | % Reduction 2002 to December 2012 | % Reduction 2002 to June 2012 | % Reduction 2002 to Mar 2012 | % Reduction 2002 to Sept 2011 | % Reduction 2002 to June 2011 | % Reduction 2002 to March 2011 | % Reduction 2002 to Dec 2010 | % Reduction 2002 to Sept 2010 | % Reduction 2002 to June 2010 | % Reduction 2002 to January 2010 | % Reduction 2002 to July 2009 | % Reduction 2002 to February 2009 | % Reduction 2002 to September 2008 | % Reduction 2002 to June 2008 | % Reduction 2002 to March 2008 | % Reduction Feb 2005 to Sept 2007 | % Reduction Feb 2005 to May 2007 | % Reduction Feb 2005 to Oct 2006 | |
|---|--------------------------------|-----------------------------------|-------------------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|------------------------------|-------------------------------|-------------------------------|----------------------------------|-------------------------------|-----------------------------------|------------------------------------|-------------------------------|--------------------------------|-----------------------------------|----------------------------------|----------------------------------|--|
| DR-1 | 99.0% | 99.5% | 99.8% | 91.6% | 97.9% | 98.1% | 96.9% | 95.6% | 94.5% | 99.2% | 98.0% | 95.1% | 96.8% | 91.0% | 89.2% | 93.4% | 74.5% | 86.2% | 92.8% | |
| DR-2 | 85.4% | 99.1% | 88.5% | 83.9% | 89.7% | 88.0% | 86.6% | 82.4% | 89.3% | 87.3% | 90.6% | 90.1% | 88.8% | 89.7% | 85.8% | 92.3% | 85.6% | 82.5% | 72.6% | |
| DR-3 | 95.1% | 97.2% | 92.1% | 98.3% | 95.0% | 95.4% | 98.3% | 98.0% | 97.4% | 94.6% | 91.6% | 91.5% | 88.7% | 94.9% | 91.7% | 88.4% | 73.8% | 87.6% | 89.7% | |
| DR-4 | 97.9% | 94.9% | 93.1% | 100.0% | 89.2% | 92.7% | 94.3% | 95.9% | 92.7% | 91.2% | 95.4% | 95.5% | 96.2% | 92.7% | 97.7% | 97.6% | 87.7% | 99.1% | 51.4% | |
| G-1 | 89.8% | 90.3% | 87.4% | 88.0% | 87.6% | 89.8% | 87.7% | 91.0% | 80.1% | 76.0% | 80.1% | 69.9% | 76.7% | 77.9% | 68.7% | 65.8% | 58.7% | 71.8% | 63.1% | |
| G-2 | 87.0% | 65.7% | 80.4% | 89.1% | 92.3% | 83.0% | 87.7% | 96.5% | 98.4% | 97.8% | 98.5% | 85.4% | 40.0% | 92.6% | 89.8% | 79.0% | 84.6% | 54.5% | 26.4% | |
| G-3 | | | | | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| Overall Reduction | 92.3% | 91.1% | 90.2% | 91.8% | 91.9% | 91.1% | 91.9% | 93.2% | 93.5% | 91.7% | 91.7% | 87.9% | 81.2% | 88.8% | 87.2% | 86.1% | 77.5% | 80.3% | 66.0% | |
| *Sampling of recovery wells initiated in 2005 | | | | | | | | | | | | | | | | | | | | |

FIGURES



MONITORING WELLS & BORING LOCATIONS

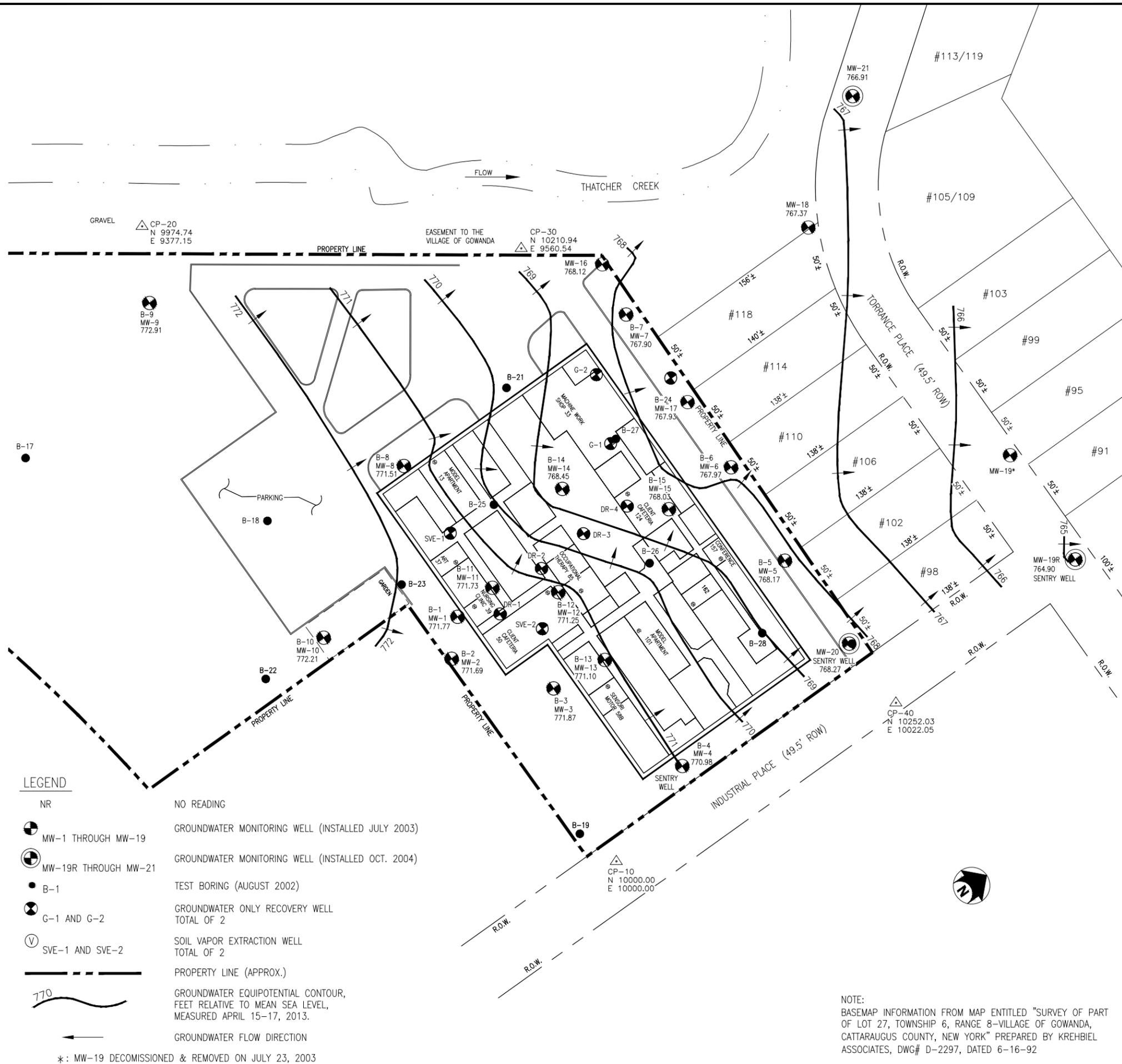
| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|----------|----------------------------|---------------------|
| MW-1 | 10005.75 | 9770.81 | 778.51 778.52 778.23 | ASPH. RIM PVC |
| MW-2 | 9983.26 | 9795.25 | 778.36 778.38 778.08 | ASPH. RIM PVC |
| MW-3 | 10036.20 | 9859.98 | 778.59 778.61 778.38 | ASPH. RIM PVC |
| MW-4 | 10085.20 | 9967.62 | 778.66 778.77 778.43 | GRD. RIM PVC |
| MW-5 | 10243.23 | 9880.34 | 778.80 778.85 778.61 | ASPH. RIM PVC |
| MW-6 | 10249.86 | 9795.88 | 778.93 781.35 781.10 | GRD. CASE PVC |
| MW-7 | 10249.65 | 9650.24 | 778.77 781.17 780.94 | GRD. CASE PVC |
| MW-8 | 10038.09 | 9649.08 | 778.49 781.75 781.33 | GRD. CASE PVC |
| MW-9 | 9945.36 | 9430.13 | 780.56 782.84 782.61 | GRD. CASE PVC |
| MW-10 | 9909.53 | 9724.56 | 777.46 780.10 780.02 | GRD. CASE PVC |
| MW-11 | 10041.23 | 9767.54 | 778.82 778.81 778.58 | FLOOR RIM PVC |
| MW-12 | 10082.02 | 9799.74 | 778.84 778.85 778.50 | FLOOR RIM PVC |
| MW-13 | 10082.09 | 9864.35 | 778.88 778.87 778.39 | FLOOR RIM PVC |
| MW-14 | 10130.64 | 9734.67 | 778.80 778.82 778.43 | FLOOR RIM PVC |
| MW-15 | 10190.80 | 9795.30 | 778.78 778.76 778.38 | FLOOR RIM PVC |
| MW-16 | 10256.48 | 9607.09 | 778.17 781.05 780.43 | GRD. CASE PVC |
| MW-17 | 10250.56 | 9734.35 | 778.67 781.10 779.85 | GRD. CASE PVC |
| MW-18 | 10406.65 | 9675.18 | 776.73 776.65 776.39 | GRD. RIM PVC |
| MW-19 | 10436.35 | 9912.63 | 775.04 775.10 774.82 | GRD. RIM PVC |
| MW-19R | 10432.32 | 10009.16 | 774.56 774.55 774.20 | ASPH. RIM PVC |
| MW-20 | 10248.05 | 9962.73 | 778.47 778.45 778.04 | ASPH. RIM PVC |
| MW-21 | 10493.88 | 9609.90 | 775.47 775.45 774.76 | ASPH. RIM PVC |
| B-16 | 9736.69 | 9324.99 | 782.23 | GRD. |
| B-17 | 9795.99 | 9475.17 | 780.40 | GRD. |
| B-18 | 9925.09 | 9623.75 | 777.55 | ASPH. |
| B-19 | 9988.66 | 9965.74 | 778.30 | ASPH. |
| B-20 | 10249.88 | 9964.03 | 778.36 | ASPH. |
| B-21 | 10139.46 | 9644.31 | 774.51 | GRAV. |
| B-22 | 9853.67 | 9725.31 | 776.69 | GRD. |
| B-23 | 9983.81 | 9724.83 | 778.50 | ASPH. |
| B-24 | 10249.26 | 9732.76 | 778.88 | GRD. |
| B-25 | 10079.30 | 9714.32 | 778.79 | FLOOR |
| B-26 | 10154.35 | 9821.64 | 778.84 | FLOOR |
| B-27 | 10187.79 | 9726.14 | 778.80 | FLOOR |
| B-28 | 10196.32 | 9917.18 | 778.83 | FLOOR |

RECOVERY WELL LOCATIONS

| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|---------|----------------------------|-------------------------------|
| DR-1 | 10034.54 | 9787.80 | 778.81 779.66 779.69 | FLOOR PVC RISER PVC CAP |
| DR-2 | 10081.63 | 9776.80 | 778.87 779.93 779.96 | FLOOR PVC RISER PVC CAP |
| DR-3 | 10124.45 | 9773.02 | 778.83 779.78 779.81 | FLOOR PVC RISER PVC CAP |
| DR-4 | 10164.98 | 9774.65 | 778.80 779.64 779.67 | FLOOR PVC RISER PVC CAP |
| G-1 | 10182.25 | 9726.78 | 778.80 779.83 779.86 | FLOOR PVC RISER PVC CAP |
| G-2 | 10203.62 | 9675.79 | 778.86 779.72 779.76 | FLOOR PVC RISER PVC CAP |
| SVE-1 | 10038.31 | 9713.33 | 778.77 779.66 N/A | FLOOR PVC RISER PVC CAP |
| SVE-2 | 10055.47 | 9816.17 | 778.86 779.91 N/A | FLOOR PVC RISER PVC CAP |

LEGEND

- NR NO READING
- ⊕ MW-1 THROUGH MW-19 GROUNDWATER MONITORING WELL (INSTALLED JULY 2003)
- ⊕ MW-19R THROUGH MW-21 GROUNDWATER MONITORING WELL (INSTALLED OCT. 2004)
- B-1 TEST BORING (AUGUST 2002)
- ⊗ G-1 AND G-2 GROUNDWATER ONLY RECOVERY WELL TOTAL OF 2
- ⊕ SVE-1 AND SVE-2 SOIL VAPOR EXTRACTION WELL TOTAL OF 2
- PROPERTY LINE (APPROX.)
- ~ GROUNDWATER EQUIPOTENTIAL CONTOUR, FEET RELATIVE TO MEAN SEA LEVEL, MEASURED APRIL 15-17, 2013.
- GROUNDWATER FLOW DIRECTION
- *: MW-19 DECOMMISSIONED & REMOVED ON JULY 23, 2003





**BERGMANN
associates**

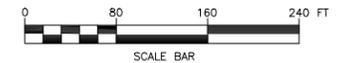
Engineers / Architects / Surveyors

200 First Federal Plaza
28 East Main Street, Rochester, New York 14614
585.232.5235 / 585.232.4652 fax

REVISIONS

| NO. | DATE | DESCRIPTION | REV. | CKD |
|-----|------|-------------|------|-----|
| | | | | |

NOTE:
Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.



**APRIL 2013
DISTRIBUTION OF
GROUNDWATER
ANALYTICAL RESULTS
IN MONITORING WELLS**

Project Manager:

G. FLISNIK

Designed by:

C. WOOD

Checked by:

S. DEMEO

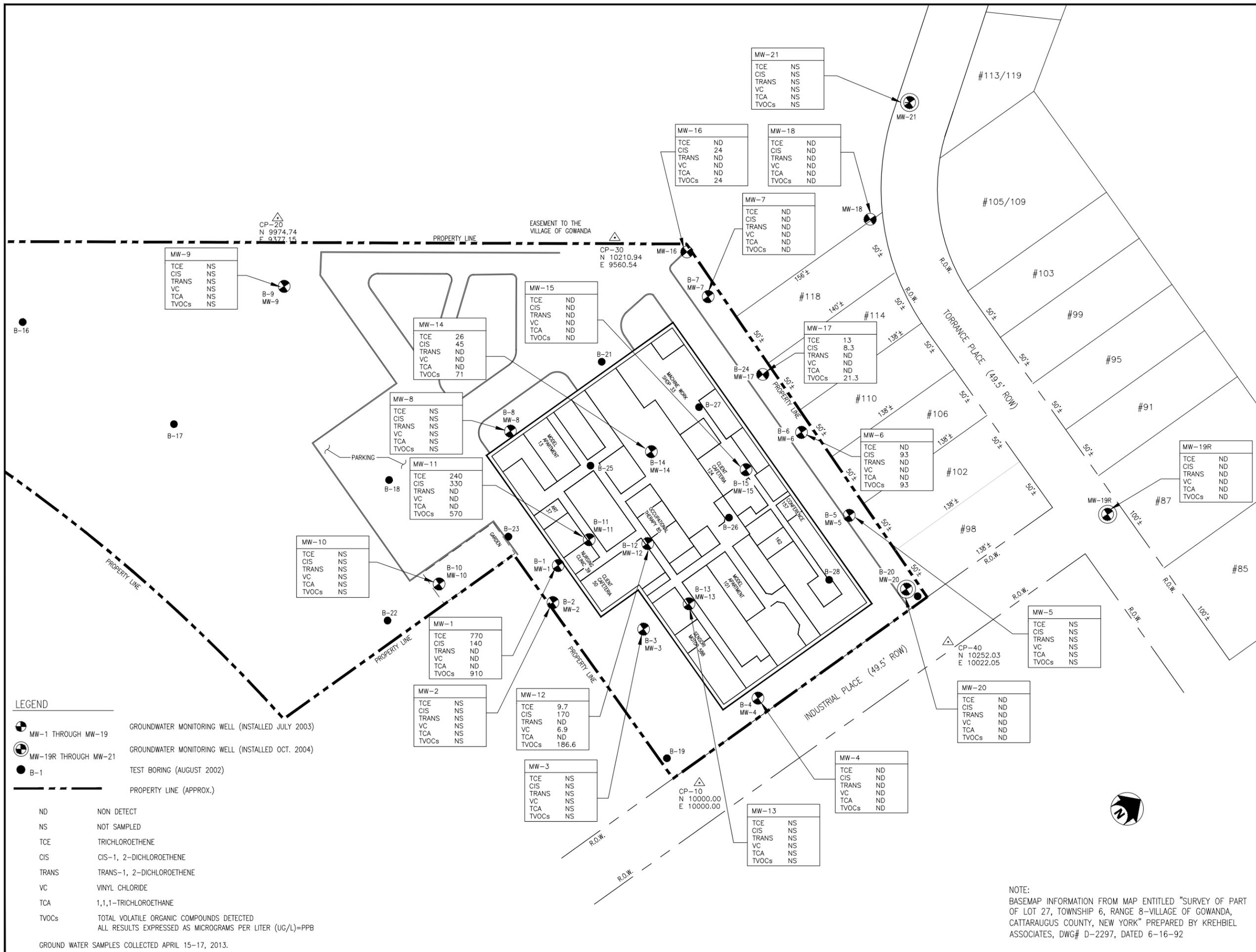
Date Issued:

MARCH 2014

Scale:

1"=80'

Date: _____
Project Number: 6974.76
File Name: I:\DASNY\006974.76\3.03.8\2013 Sampling Events\ April 2013\April 2013 April 2013 FIG2.dwg
Drawing Number: _____



NOTE:
BASEMAP INFORMATION FROM MAP ENTITLED "SURVEY OF PART OF LOT 27, TOWNSHIP 6, RANGE 8-VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK" PREPARED BY KREHBIEL ASSOCIATES, DWG# D-2297, DATED 6-16-92

MONITORING WELLS & BORING LOCATIONS

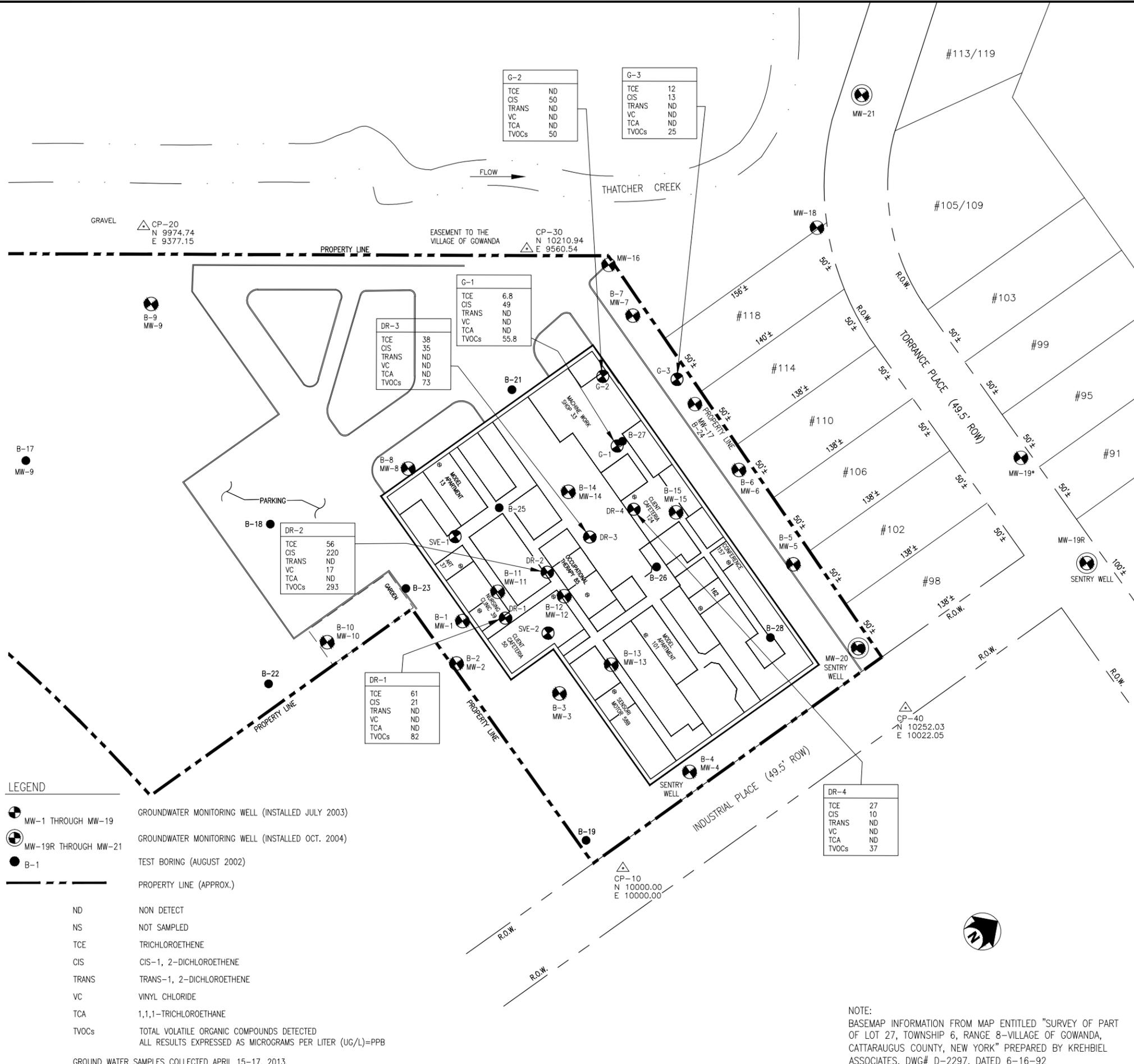
| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|----------|----------------------------|---------------------|
| MW-1 | 10005.75 | 9770.81 | 778.51 778.52 778.23 | ASPH. RIM PVC |
| MW-2 | 9983.26 | 9795.25 | 778.36 778.38 778.08 | ASPH. RIM PVC |
| MW-3 | 10036.20 | 9859.98 | 778.59 778.61 778.38 | ASPH. RIM PVC |
| MW-4 | 10085.20 | 9967.62 | 778.66 778.77 778.43 | GRD. RIM PVC |
| MW-5 | 10243.23 | 9880.34 | 778.80 778.85 778.61 | ASPH. RIM PVC |
| MW-6 | 10249.86 | 9795.88 | 778.93 781.35 781.10 | GRD. CASE PVC |
| MW-7 | 10249.65 | 9650.24 | 778.77 781.17 780.94 | GRD. CASE PVC |
| MW-8 | 10038.09 | 9649.08 | 778.49 781.75 781.33 | GRD. CASE PVC |
| MW-9 | 9945.36 | 9430.13 | 780.56 782.84 782.61 | GRD. CASE PVC |
| MW-10 | 9909.53 | 9724.56 | 777.46 780.10 780.02 | GRD. CASE PVC |
| MW-11 | 10041.23 | 9767.54 | 778.82 778.81 778.58 | FLOOR RIM PVC |
| MW-12 | 10082.02 | 9799.74 | 778.84 778.85 778.50 | FLOOR RIM PVC |
| MW-13 | 10082.09 | 9864.35 | 778.88 778.87 778.39 | FLOOR RIM PVC |
| MW-14 | 10130.64 | 9734.67 | 778.80 778.82 778.43 | FLOOR RIM PVC |
| MW-15 | 10190.80 | 9795.30 | 778.78 778.76 778.38 | FLOOR RIM PVC |
| MW-16 | 10256.48 | 9607.09 | 778.17 781.05 780.43 | GRD. CASE PVC |
| MW-17 | 10250.56 | 9734.35 | 778.67 781.10 779.85 | GRD. CASE PVC |
| MW-18 | 10406.65 | 9675.18 | 776.73 776.65 776.39 | GRD. RIM PVC |
| MW-19 | 10436.35 | 9912.63 | 775.04 775.10 774.82 | GRD. RIM PVC |
| MW-19R | 10432.32 | 10009.16 | 774.56 774.55 774.20 | ASPH. RIM PVC |
| MW-20 | 10248.05 | 9962.73 | 778.47 778.45 778.04 | ASPH. RIM PVC |
| MW-21 | 10493.88 | 9609.90 | 775.47 775.45 774.76 | ASPH. RIM PVC |
| B-16 | 9736.69 | 9324.99 | 782.23 | GRD. |
| B-17 | 9795.99 | 9475.17 | 780.40 | GRD. |
| B-18 | 9925.09 | 9623.75 | 777.55 | ASPH. |
| B-19 | 9988.66 | 9965.74 | 778.30 | ASPH. |
| B-20 | 10249.88 | 9964.03 | 778.36 | ASPH. |
| B-21 | 10139.46 | 9644.31 | 774.51 | GRAV. |
| B-22 | 9853.67 | 9725.31 | 776.69 | GRD. |
| B-23 | 9983.81 | 9724.83 | 778.50 | ASPH. |
| B-24 | 10249.26 | 9732.76 | 778.88 | GRD. |
| B-25 | 10079.30 | 9714.32 | 778.79 | FLOOR |
| B-26 | 10154.35 | 9821.64 | 778.84 | FLOOR |
| B-27 | 10187.79 | 9726.14 | 778.80 | FLOOR |
| B-28 | 10196.32 | 9917.18 | 778.83 | FLOOR |

RECOVERY WELL LOCATIONS

| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|---------|----------------------------|-------------------------------|
| DR-1 | 10034.54 | 9787.80 | 778.81 779.66 779.69 | FLOOR PVC RISER PVC CAP |
| DR-2 | 10081.63 | 9776.80 | 778.87 779.93 779.96 | FLOOR PVC RISER PVC CAP |
| DR-3 | 10124.45 | 9773.02 | 778.83 779.78 779.81 | FLOOR PVC RISER PVC CAP |
| DR-4 | 10164.98 | 9774.65 | 778.80 779.64 779.67 | FLOOR PVC RISER PVC CAP |
| G-1 | 10182.25 | 9726.78 | 778.80 779.83 779.86 | FLOOR PVC RISER PVC CAP |
| G-2 | 10203.62 | 9675.79 | 778.86 779.72 779.76 | FLOOR PVC RISER PVC CAP |
| SVE-1 | 10038.31 | 9713.33 | 778.77 779.66 N/A | FLOOR PVC RISER PVC CAP |
| SVE-2 | 10055.47 | 9816.17 | 778.86 779.91 N/A | FLOOR PVC RISER PVC CAP |

LEGEND

- MW-1 THROUGH MW-19 GROUNDWATER MONITORING WELL (INSTALLED JULY 2003)
 - MW-19R THROUGH MW-21 GROUNDWATER MONITORING WELL (INSTALLED OCT. 2004)
 - B-1 TEST BORING (AUGUST 2002)
 - PROPERTY LINE (APPROX.)
 - ND NON DETECT
 - NS NOT SAMPLED
 - TCE TRICHLOROETHENE
 - CIS CIS-1, 2-DICHLOROETHENE
 - TRANS TRANS-1, 2-DICHLOROETHENE
 - VC VINYL CHLORIDE
 - TCA 1,1,1-TRICHLOROETHANE
 - TVOCs TOTAL VOLATILE ORGANIC COMPOUNDS DETECTED
- ALL RESULTS EXPRESSED AS MICROGRAMS PER LITER (UG/L)=PPB
- GROUND WATER SAMPLES COLLECTED APRIL 15-17, 2013.



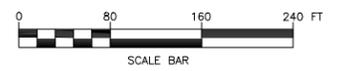
DASNY
GOWANDA DAY HABILITATION CENTER
 4 INDUSTRIAL PLACE
 GOWANDA, NY

BERGMANN associates
 Engineers / Architects / Surveyors
 200 First Federal Plaza
 28 East Main Street, Rochester, New York 14614
 585.232.5235 / 585.232.4652 fax

REVISIONS

| NO. | DATE | DESCRIPTION | REV. | CKD |
|-----|------|-------------|------|-----|
| | | | | |

NOTE:
 Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.



APRIL 2013 DISTRIBUTION OF GROUNDWATER ANALYTICAL RESULTS IN RECOVERY WELLS

Project Manager: G. FLISNIK
 Designed by: _____
 Drawn by: C. WOOD
 Checked by: S. DEMEO
 Date Issued: MARCH 2014
 Scale: 1"=80'

Project Number: 6974.76
 File Name: I:\DASNY\006974.76\3.0\3.8\2013 Sampling Events\ April 2013\April 2013 April 2013 FIG3.dwg
 Drawing Number: _____

NOTE:
 BASEMAP INFORMATION FROM MAP ENTITLED "SURVEY OF PART OF LOT 27, TOWNSHIP 6, RANGE 8-VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK" PREPARED BY KREHBIEL ASSOCIATES, DWG# D-2297, DATED 6-16-92

FIG-3

APPENDICES



APPENDIX A
LABORATORY ANALYTICAL RESULTS REPORT
APRIL 2013 SAMPLING EVENT





May 03, 2013

Service Request No: R1302659

Mr. Michael Carpenter
Bergmann Associates, Incorporated
200 First Federal Plaza
28 East Main St.
Rochester, NY 14614

Laboratory Results for: Gowanda Day Hab/ 6974.70

Dear Mr. Carpenter:

Enclosed are the results of the sample(s) submitted to our laboratory on April 18, 2013. For your reference, these analyses have been assigned our service request number **R1302659**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Karen.Bunker@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Karen Bunker
Project Manager

Page 1 of 38

Client: Bergmann Associates
Project: Gowanda Day – Hab 6974.70
Sample Matrix: Water

Service Request No.: R1302659
Date Received: 4/18/13

All analyses were performed consistent with the quality assurance program of ALS Environmental (ALS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Twenty-four (24) samples were collected by the client on 4/15-17/13 and received for analysis at ALS on 4/18/13 via client drop off.

Volatile Organics

Twenty-four (24) water samples were analyzed for a client specific list of Volatile Organic compounds by GC/MS method 8260C.

The Initial and Continuing Calibration criteria were met for all samples.

Batch QC is included in the report. All Laboratory Control Sample (LCS) and LCS Duplicate (LCSD) recoveries for target compounds were within QC limits. No data was affected. All Relative Percent Difference (RPD) calculations were acceptable.

All Surrogate recoveries are within acceptance limits.

Hits above the calibration range of the standards are flagged as "E", estimated. The sample is then repeated at the appropriate dilution for the hits. Both sets of data are included in the report. The subsequent hits on the diluted sample are flagged as "D".

The Laboratory Method Blanks were free from contamination.

No other problems were encountered during the analysis of these samples.

Approved by Karen Bunker Date 5/3/13

CASE NARRATIVE

This report contains analytical results for the following samples:

Service Request Number: R1302659

| <u>Lab ID</u> | <u>Client ID</u> |
|---------------|------------------|
| R1302659-001 | MW-4 |
| R1302659-002 | MW-20 |
| R1302659-003 | MW-19R |
| R1302659-004 | MW-18 |
| R1302659-005 | MW-16 |
| R1302659-006 | MW-17 |
| R1302659-007 | MW-6 |
| R1302659-008 | MW-15 |
| R1302659-009 | MW-14 |
| R1302659-010 | MW-12 |
| R1302659-011 | MW-7 |
| R1302659-012 | MW-11 |
| R1302659-013 | MW-1 |
| R1302659-014 | MB |
| R1302659-015 | TRIP BLANK |
| R1302659-016 | MW-X |
| R1302659-017 | DR-1 |
| R1302659-018 | DR-2 |
| R1302659-019 | DR-3 |
| R1302659-020 | DR-4 |
| R1302659-021 | G-1 |
| R1302659-022 | G-2 |
| R1302659-023 | G-3 |
| R1302659-024 | GTS-INF |

REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
- X See Case Narrative for discussion.



Rochester Lab ID # for State Certifications¹

| | | |
|-------------------------|-----------------------|-------------------------|
| NELAP Accredited | Maine ID #NY0032 | New Hampshire ID # |
| Connecticut ID # PH0556 | Nebraska Accredited | 294100 A/B |
| Delaware Accredited | Nevada ID # NY-00032 | North Carolina #676 |
| DoD ELAP #65817 | New Jersey ID # NY004 | Pennsylvania ID# 68-786 |
| Florida ID # E87674 | New York ID # 10145 | Rhode Island ID # 158 |
| Illinois ID #200047 | | Virginia #460167 |

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://alsglobal.com/environmental/laboratories/rochester-environmental-lab.aspx>

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Collected: 4/16/13 1015
 Date Received: 4/18/13
 Date Analyzed: 4/23/13 13:14

Sample Name: MW-4
 Lab Code: R1302659-001

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\Z6740.D\

Analysis Lot: 337536
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 98 | 85-122 | 4/23/13 13:14 | |
| Dibromofluoromethane | 98 | 89-119 | 4/23/13 13:14 | |
| Toluene-d8 | 97 | 87-121 | 4/23/13 13:14 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Collected: 4/16/13 1140
 Date Received: 4/18/13
 Date Analyzed: 4/23/13 13:44

Sample Name: MW-20
 Lab Code: R1302659-002

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\Z6741.D\

Analysis Lot: 337536
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 97 | 85-122 | 4/23/13 13:44 | |
| Dibromofluoromethane | 99 | 89-119 | 4/23/13 13:44 | |
| Toluene-d8 | 99 | 87-121 | 4/23/13 13:44 | |



ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/16/13 1340
Date Received: 4/18/13
Date Analyzed: 4/23/13 14:14

Sample Name: MW-19R
Lab Code: R1302659-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA6\DATA\042313\Z6742.D\

Analysis Lot: 337536
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 99 | 85-122 | 4/23/13 14:14 | |
| Dibromofluoromethane | 95 | 89-119 | 4/23/13 14:14 | |
| Toluene-d8 | 98 | 87-121 | 4/23/13 14:14 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/17/13 0930
Date Received: 4/18/13
Date Analyzed: 4/23/13 14:44

Sample Name: MW-18
Lab Code: R1302659-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA6\DATA\042313\Z6743.D\

Analysis Lot: 337536
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/23/13 14:44 | |
| Dibromofluoromethane | 98 | 89-119 | 4/23/13 14:44 | |
| Toluene-d8 | 99 | 87-121 | 4/23/13 14:44 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Collected: 4/17/13 1020
 Date Received: 4/18/13
 Date Analyzed: 4/23/13 15:14

Sample Name: MW-16
 Lab Code: R1302659-005

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\Z6744.D\

Analysis Lot: 337536
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 24 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed Q |
|----------------------|------|----------------|-----------------|
| 4-Bromofluorobenzene | 99 | 85-122 | 4/23/13 15:14 |
| Dibromofluoromethane | 97 | 89-119 | 4/23/13 15:14 |
| Toluene-d8 | 100 | 87-121 | 4/23/13 15:14 |



ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/17/13 1105
Date Received: 4/18/13
Date Analyzed: 4/23/13 16:15

Sample Name: MW-17
Lab Code: R1302659-006

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA6\DATA\042313\Z6746.D\

Analysis Lot: 337536
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 8.3 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 13 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 95 | 85-122 | 4/23/13 16:15 | |
| Dibromofluoromethane | 97 | 89-119 | 4/23/13 16:15 | |
| Toluene-d8 | 99 | 87-121 | 4/23/13 16:15 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Collected: 4/17/13 12:15
 Date Received: 4/18/13
 Date Analyzed: 4/23/13 16:46

Sample Name: MW-6
 Lab Code: R1302659-007

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\MSVOA6\DATA\042313\Z6747.D\

Analysis Lot: 337536
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 93 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 98 | 85-122 | 4/23/13 16:46 | |
| Dibromofluoromethane | 100 | 89-119 | 4/23/13 16:46 | |
| Toluene-d8 | 102 | 87-121 | 4/23/13 16:46 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Collected: 4/17/13 1310
 Date Received: 4/18/13
 Date Analyzed: 4/23/13 17:25

Sample Name: MW-15
 Lab Code: R1302659-008

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\MSVOA6\DATA\042313\Z6748.D\

Analysis Lot: 337536
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/23/13 17:25 | |
| Dibromofluoromethane | 101 | 89-119 | 4/23/13 17:25 | |
| Toluene-d8 | 97 | 87-121 | 4/23/13 17:25 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/17/13 1415
Date Received: 4/18/13
Date Analyzed: 4/23/13 18:52

Sample Name: MW-14
Lab Code: R1302659-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA6\DATA\042313\Z6751.D\

Analysis Lot: 337536
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 45 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 26 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 98 | 85-122 | 4/23/13 18:52 | |
| Dibromofluoromethane | 99 | 89-119 | 4/23/13 18:52 | |
| Toluene-d8 | 97 | 87-121 | 4/23/13 18:52 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/17/13 1530
Date Received: 4/18/13
Date Analyzed: 4/23/13 18:22

Sample Name: MW-12
Lab Code: R1302659-010

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\VZ6750.D\

Analysis Lot: 337536
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 170 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 9.7 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 6.9 | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 100 | 85-122 | 4/23/13 18:22 | |
| Dibromofluoromethane | 98 | 89-119 | 4/23/13 18:22 | |
| Toluene-d8 | 101 | 87-121 | 4/23/13 18:22 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Collected: 4/17/13 1700
 Date Received: 4/18/13
 Date Analyzed: 4/23/13 19:23

Sample Name: MW-7
 Lab Code: R1302659-011

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\Z6752.D\

Analysis Lot: 337536
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 101 | 85-122 | 4/23/13 19:23 | |
| Dibromofluoromethane | 98 | 89-119 | 4/23/13 19:23 | |
| Toluene-d8 | 100 | 87-121 | 4/23/13 19:23 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/17/13 1800
Date Received: 4/18/13
Date Analyzed: 4/23/13 19:53

Sample Name: MW-11
Lab Code: R1302659-012

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA6\DATA\042313\Z6753.D\

Analysis Lot: 337536
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 340 E | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.6 | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 300 E | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 100 | 85-122 | 4/23/13 19:53 | |
| Dibromofluoromethane | 100 | 89-119 | 4/23/13 19:53 | |
| Toluene-d8 | 99 | 87-121 | 4/23/13 19:53 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/17/13 1800
Date Received: 4/18/13
Date Analyzed: 4/24/13 08:44

Sample Name: MW-11
Lab Code: R1302659-012
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA6\DATA\042313\Z6778.D\

Analysis Lot: 337628
Instrument Name: R-MS-06
Dilution Factor: 2.5

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 330 D | 13 | |
| 156-60-5 | trans-1,2-Dichloroethene | 13 U | 13 | |
| 127-18-4 | Tetrachloroethene (PCE) | 13 U | 13 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 13 U | 13 | |
| 79-01-6 | Trichloroethene (TCE) | 240 D | 13 | |
| 75-01-4 | Vinyl Chloride | 13 U | 13 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 98 | 85-122 | 4/24/13 08:44 | |
| Dibromofluoromethane | 101 | 89-119 | 4/24/13 08:44 | |
| Toluene-d8 | 100 | 87-121 | 4/24/13 08:44 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Collected: 4/17/13 1905
 Date Received: 4/18/13
 Date Analyzed: 4/23/13 20:23

Sample Name: MW-1
 Lab Code: R1302659-013

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUATA\MSVOA6\DATA\042313\Z6754.D\

Analysis Lot: 337536
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 150 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 8.1 | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 750 E | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 98 | 85-122 | 4/23/13 20:23 | |
| Dibromofluoromethane | 102 | 89-119 | 4/23/13 20:23 | |
| Toluene-d8 | 104 | 87-121 | 4/23/13 20:23 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/17/13 1905
Date Received: 4/18/13
Date Analyzed: 4/24/13 09:14

Sample Name: MW-1
Lab Code: R1302659-013
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\Z6779.D\

Analysis Lot: 337628
Instrument Name: R-MS-06
Dilution Factor: 5

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 140 D | 25 | |
| 156-60-5 | trans-1,2-Dichloroethene | 25 U | 25 | |
| 127-18-4 | Tetrachloroethene (PCE) | 25 U | 25 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 25 U | 25 | |
| 79-01-6 | Trichloroethene (TCE) | 770 D | 25 | |
| 75-01-4 | Vinyl Chloride | 25 U | 25 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/24/13 09:14 | |
| Dibromofluoromethane | 101 | 89-119 | 4/24/13 09:14 | |
| Toluene-d8 | 97 | 87-121 | 4/24/13 09:14 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/17/13 1910
Date Received: 4/18/13
Date Analyzed: 4/23/13 20:53

Sample Name: MB
Lab Code: R1302659-014

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\Z6755.D\

Analysis Lot: 337536
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 100 | 85-122 | 4/23/13 20:53 | |
| Dibromofluoromethane | 99 | 89-119 | 4/23/13 20:53 | |
| Toluene-d8 | 101 | 87-121 | 4/23/13 20:53 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/17/13
Date Received: 4/18/13
Date Analyzed: 4/23/13 21:24

Sample Name: TRIP BLANK
Lab Code: R1302659-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\Z6756.D\

Analysis Lot: 337536
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 100 | 85-122 | 4/23/13 21:24 | |
| Dibromofluoromethane | 102 | 89-119 | 4/23/13 21:24 | |
| Toluene-d8 | 98 | 87-121 | 4/23/13 21:24 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/17/13
Date Received: 4/18/13
Date Analyzed: 4/24/13 02:56

Sample Name: MW-X
Lab Code: R1302659-016

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\Z6767.D\

Analysis Lot: 337628
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 170 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 9.9 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 6.9 | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 95 | 85-122 | 4/24/13 02:56 | |
| Dibromofluoromethane | 102 | 89-119 | 4/24/13 02:56 | |
| Toluene-d8 | 99 | 87-121 | 4/24/13 02:56 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Collected: 4/15/13 1400
 Date Received: 4/18/13
 Date Analyzed: 4/24/13 03:26

Sample Name: DR-1
 Lab Code: R1302659-017

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\MSVOA6\DATA\042313\Z6768.D\

Analysis Lot: 337628
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 21 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 61 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 98 | 85-122 | 4/24/13 03:26 | |
| Dibromofluoromethane | 96 | 89-119 | 4/24/13 03:26 | |
| Toluene-d8 | 98 | 87-121 | 4/24/13 03:26 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/15/13 1405
Date Received: 4/18/13
Date Analyzed: 4/24/13 03:56

Sample Name: DR-2
Lab Code: R1302659-018

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA6\DATA\042313\Z6769.D\

Analysis Lot: 337628
Instrument Name: R-MS-06
Dilution Factor: 2

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 220 | 10 | |
| 156-60-5 | trans-1,2-Dichloroethene | 10 U | 10 | |
| 127-18-4 | Tetrachloroethene (PCE) | 10 U | 10 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 10 U | 10 | |
| 79-01-6 | Trichloroethene (TCE) | 56 | 10 | |
| 75-01-4 | Vinyl Chloride | 17 | 10 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 101 | 85-122 | 4/24/13 03:56 | |
| Dibromofluoromethane | 102 | 89-119 | 4/24/13 03:56 | |
| Toluene-d8 | 99 | 87-121 | 4/24/13 03:56 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/15/13 1415
Date Received: 4/18/13
Date Analyzed: 4/24/13 04:26

Sample Name: DR-3
Lab Code: R1302659-019

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA6\DATA\042313\Z6770.D\

Analysis Lot: 337628
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 35 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 38 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 95 | 85-122 | 4/24/13 04:26 | |
| Dibromofluoromethane | 101 | 89-119 | 4/24/13 04:26 | |
| Toluene-d8 | 100 | 87-121 | 4/24/13 04:26 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Collected: 4/15/13 1425
 Date Received: 4/18/13
 Date Analyzed: 4/24/13 04:57

Sample Name: DR-4
 Lab Code: R1302659-020

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\MSVOA6\DATA\042313\Z6771.D\

Analysis Lot: 337628
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 10 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 27 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 93 | 85-122 | 4/24/13 04:57 | |
| Dibromofluoromethane | 101 | 89-119 | 4/24/13 04:57 | |
| Toluene-d8 | 100 | 87-121 | 4/24/13 04:57 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/15/13 1450
Date Received: 4/18/13
Date Analyzed: 4/24/13 05:27

Sample Name: G-1
Lab Code: R1302659-021

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA6\DATA\042313\Z6772.D\

Analysis Lot: 337628
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 49 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 6.8 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/24/13 05:27 | |
| Dibromofluoromethane | 98 | 89-119 | 4/24/13 05:27 | |
| Toluene-d8 | 105 | 87-121 | 4/24/13 05:27 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Collected: 4/15/13 1455
 Date Received: 4/18/13
 Date Analyzed: 4/24/13 05:57

Sample Name: G-2
 Lab Code: R1302659-022

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\MSVOA6\DATA\042313\Z6773.D\

Analysis Lot: 337628
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 50 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 95 | 85-122 | 4/24/13 05:57 | |
| Dibromofluoromethane | 99 | 89-119 | 4/24/13 05:57 | |
| Toluene-d8 | 98 | 87-121 | 4/24/13 05:57 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: 4/15/13 1505
Date Received: 4/18/13
Date Analyzed: 4/24/13 06:27

Sample Name: G-3
Lab Code: R1302659-023

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\Z6774.D\

Analysis Lot: 337628
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 13 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 12 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 97 | 85-122 | 4/24/13 06:27 | |
| Dibromofluoromethane | 99 | 89-119 | 4/24/13 06:27 | |
| Toluene-d8 | 103 | 87-121 | 4/24/13 06:27 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Collected: 4/15/13
 Date Received: 4/18/13
 Date Analyzed: 4/24/13 06:58

Sample Name: GTS-INF
 Lab Code: R1302659-024

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\Z6775.D\

Analysis Lot: 337628
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 160 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 39 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 6.1 | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 98 | 85-122 | 4/24/13 06:58 | |
| Dibromofluoromethane | 101 | 89-119 | 4/24/13 06:58 | |
| Toluene-d8 | 99 | 87-121 | 4/24/13 06:58 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Day Hab/ 6974.70
Sample Matrix: Water

Service Request: R1302659
Date Collected: NA
Date Received: NA
Date Analyzed: 4/23/13 12:46

Sample Name: Method Blank
Lab Code: RQ1304121-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\Z6739.D\

Analysis Lot: 337536
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 98 | 85-122 | 4/23/13 12:46 | |
| Dibromofluoromethane | 97 | 89-119 | 4/23/13 12:46 | |
| Toluene-d8 | 97 | 87-121 | 4/23/13 12:46 | |

ALS ENVIRONMENTAL

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/24/13 02:26

Sample Name: Method Blank
 Lab Code: RQ1304124-05

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\042313\Z6766.D\

Analysis Lot: 337628
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 98 | 85-122 | 4/24/13 02:26 | |
| Dibromofluoromethane | 98 | 89-119 | 4/24/13 02:26 | |
| Toluene-d8 | 94 | 87-121 | 4/24/13 02:26 | |

ALS ENVIRONMENTAL

QA/QC Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Analyzed: 4/23/13

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 337536

Lab Control Sample
 RQ1304121-03

| Analyte Name | Result | Spike Amount | % Rec | % Rec Limits |
|-----------------------------|--------|--------------|-------|--------------|
| cis-1,2-Dichloroethene | 19.3 | 20.0 | 97 | 77 - 123 |
| trans-1,2-Dichloroethene | 19.2 | 20.0 | 96 | 72 - 120 |
| Tetrachloroethene (PCE) | 20.4 | 20.0 | 102 | 71 - 127 |
| 1,1,1-Trichloroethane (TCA) | 17.8 | 20.0 | 89 | 67 - 121 |
| Trichloroethene (TCE) | 19.4 | 20.0 | 97 | 75 - 122 |
| Vinyl Chloride | 20.8 | 20.0 | 104 | 68 - 139 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS ENVIRONMENTAL

QA/QC Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda Day Hab/ 6974.70
 Sample Matrix: Water

Service Request: R1302659
 Date Analyzed: 4/24/13

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

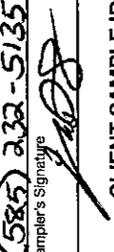
Units: µg/L
 Basis: NA

Analysis Lot: 337628

| Analyte Name | Lab Control Sample RQ1304124-03 | | | Duplicate Lab Control Sample RQ1304124-04 | | | % Rec Limits | RPD | RPD Limit |
|-----------------------------|------------------------------------|-----------------|-------|--|-----------------|-------|-----------------|-----|--------------|
| | Result | Spike Amount | % Rec | Result | Spike Amount | % Rec | | | |
| cis-1,2-Dichloroethene | 17.8 | 20.0 | 89 | 20.0 | 20.0 | 100 | 77 - 123 | 11 | 30 |
| trans-1,2-Dichloroethene | 18.2 | 20.0 | 91 | 20.4 | 20.0 | 102 | 72 - 120 | 11 | 30 |
| Tetrachloroethene (PCE) | 18.9 | 20.0 | 95 | 21.2 | 20.0 | 106 | 71 - 127 | 12 | 30 |
| 1,1,1-Trichloroethane (TCA) | 16.7 | 20.0 | 83 | 18.6 | 20.0 | 93 | 67 - 121 | 11 | 30 |
| Trichloroethene (TCE) | 20.0 | 20.0 | 100 | 22.7 | 20.0 | 113 | 75 - 122 | 12 | 30 |
| Vinyl Chloride | 18.1 | 20.0 | 90 | 20.7 | 20.0 | 104 | 68 - 139 | 14 | 30 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

| | | | | | | | | | |
|--|--|---|--|---|---|--|--|--|--|
| Project Name <i>Gowanda Day-Hab</i> | | Project Number 6974.70 | | ANALYSIS REQUESTED (Include Method Number and Container Preservative) PRESERVATIVE <u>I</u> | | METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below) PCBs ° 8082 ° 608 PESTICIDES ° 8081 ° 608 ° 8021 ° 601/602 GC VOAS ° 8270 ° 825 GC/MS SVOAS ° 8260 ° 824 ° CLP | | PRESERVATIVE KEY 0. NONE 1. HCL 2. HNO ₃ 3. H ₂ SO ₄ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO ₄ 8. Other _____ | |
| Company/Address Bergmann Associates 28 East Main St, 200 First Federal Plaza Rochester, NY 14614 | | Report CC Michael Carpenter | | | | | | | |
| Phone # (585) 232-5135 | | Email mcarpenter@bergmannqc.com | | NUMBER OF CONTAINERS _____ | | REMARKS/ ALTERNATE DESCRIPTION | | INVOICE INFORMATION PO # _____ BILL TO: _____ | |
| Sampler's Signature  | | Sampler's Printed Name Michael D. Carpenter | | | | | | | |
| CLIENT SAMPLE ID MW-4 MW-20 MW-19R MW-18 MW-16 MW-17 MW-6 MW-15 MW-14 MW-12 MW-7 | | FOR OFFICE USE ONLY LAB ID -001 -002 -003 -004 -005 -006 -007 -008 -009 -010 -011 | | DATE 4/16/13 ↓ 4/17/13 | | SAMPLING TIME 10:15 11:40 13:40 09:30 10:30 11:05 12:15 13:10 14:15 15:20 17:00 | | MATRIX GW 3 ↓ ↓ | |
| SPECIAL INSTRUCTIONS/COMMENTS Metals See Quote per Karen Bunker - limited list of chlorinated hydrogens | | | | | | | | | |
| TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) _____ 1 day _____ 2 day _____ 3 day _____ 4 day _____ 5 day SEE QUOTE REQUESTED REPORT DATE _____ | | | | | REPORT REQUIREMENTS <input checked="" type="checkbox"/> I. Results Only _____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required) _____ III. Results + QC and Calibration Summaries _____ IV. Data Validation Report with Raw Data | | | | |
| RECEIVED BY Signature: <i>[Signature]</i> Printed Name: _____ Firm: _____ Date/Time: _____ | | | | | RECEIVED BY Signature: _____ Printed Name: _____ Firm: _____ Date/Time: _____ | | | | |
| RELINQUISHED BY Signature: <i>[Signature]</i> Printed Name: <i>Michael D. Carpenter</i> Firm: <i>Bergmann</i> Date/Time: <i>4/18/13 @ 09:15</i> | | | | | RELINQUISHED BY Signature: <i>[Signature]</i> Printed Name: _____ Firm: _____ Date/Time: _____ | | | | |
| STATE WHERE SAMPLES WERE COLLECTED <u>NY</u> See QAPP <input type="checkbox"/> | | | | | | | | | |
| R1302659 Bergmann Associates, Incorporated Gowanda Day-Hab  | | | | | | | | | |



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 7047

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 3

| Project Name Govarda Day-Hab | | Project Number 6974.70 | | ANALYSIS REQUESTED (Include Method Number and Container Preservative) | |
|---|---|---|---------------|---|----------------------|
| Project Manager Michael Carpenter | | Report CC | | | |
| Company/Address Bergmann Associates | | | | | |
| 28 East Main St, 200 First Federal Plaza | | | | | |
| Rochester, NY 14614 | | | | | |
| Phone # (585) 232-5135 | Email mcarpenter@bergmannpc.com | | | | |
| Sampler's Signature <i>[Signature]</i> | | Sampler's Printed Name Michael D. Carpenter | | | |
| CLIENT SAMPLE ID | FOR OFFICE USE ONLY LAB ID | DATE | SAMPLING TIME | MATRIX | NUMBER OF CONTAINERS |
| MW-11 | -012 | 4/17/13 | 18:00 | GW | 3 |
| MW-1 | -013 | ↓ | 19:05 | ↓ | |
| MB | -014 | ↓ | 19:10 | ↓ | |
| Tap Black | -015 | ↓ | ↓ | W | |
| MW-X | -016 | ↓ | ↓ | GW | |
| DR-1 | -017 | 4/15/13 | 14:00 | ↓ | |
| DR-2 | -018 | ↓ | 14:05 | ↓ | |
| DR-3 | -019 | ↓ | 14:15 | ↓ | |
| DR-4 | -020 | ↓ | 14:25 | ↓ | |
| G-1 | -021 | ↓ | 14:50 | ↓ | |
| G-2 | -022 | ↓ | 14:55 | ↓ | |

- Preservative Key
- NONE
 - HCL
 - HNO₃
 - H₂SO₄
 - NaOH
 - Zn, Acetate
 - MeOH
 - NaHSO₄
 - Other

REMARKS/
ALTERNATE DESCRIPTION

GC/MS VOAS
• 8260 • 624 • CLP
GC/MS SVAS
• 8270 • 625
GC VOAS
• 8021 • 601/602
PESTICIDES
• 8081 • 608
PCBS
• 8082 • 608
METALS, TOTAL
(List in comments below)
METALS, DISSOLVED
(List in comments below)

TURNAROUND REQUIREMENTS
RUSH (SURCHARGES APPLY)
1 day 2 day 3 day
4 day 5 day
SEE QUOTE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
 I. Results Only
 II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
 III. Results + QC and Calibration Summaries
 IV. Data Validation Report with Raw Data
Edata Yes No

INVOICE INFORMATION
PO #
BILL TO:
RECEIVED BY
R1302659

SPECIAL INSTRUCTIONS/COMMENTS
Metals
See quote per Karen Bunker - limited list of chlorinated hydrogens

STATE WHERE SAMPLES WERE COLLECTED
RELINQUISHED BY
Signature
Printed Name
Firm
Date/Time



Cooler Receipt and Preservation Check Form

Project/Client Bergmann Folder Number RV302039

Cooler received on 4/18/13 by: DW COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? ALS/ROC CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
8. Temperature of cooler(s) upon receipt: 0.9°

Is the temperature within 0° - 6° C?: N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 4/18/13 0925

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location R-002 by DW on 4/18/13 at 0925
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: UB 4/18/13

Cooler Breakdown: Date: 4/18/13 Time: 1308 by: DW

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

| pH | Reagent | | | Lot Received | Exp | Sample ID | Vol. Added | Lot Added | Final pH | Yes = All samples OK |
|-----------------------|---|-----|----|---|-------------|-----------|------------|-----------|----------|--|
| | | YES | NO | | | | | | | |
| ≥12 | NaOH | | | | | | | | | No = Samples were preserved at lab as listed |
| ≤2 | HNO ₃ | | | | | | | | | |
| ≤2 | H ₂ SO ₄ | | | | | | | | | |
| <4 | NaHSO ₄ | | | | | | | | | |
| Residual Chlorine (-) | For TCN Phenol and 522 | | | If present, contact PM to add ascorbic acid Or sodium sulfite (522) | | | | | | PM OK to Adjust: _____ |
| | Na ₂ S ₂ O ₃ | - | - | | | | | | | |
| | Zn Aceta | - | - | | | | | | | |
| | HCl | * | * | <u>411100</u> | <u>3/14</u> | | | | | |

*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet

Bottle lot numbers: 3-043-002
Other Comments:

PC Secondary Review: UB 4/18/13

*significant air bubbles: VOA > 5-6 mm ; WC > 1 in. diameter

APPENDIX B
CONTROL CHARTS, GROUNDWATER VOC CONCENTRATIONS



Chart C-1: Groundwater Recovery Wells Summary

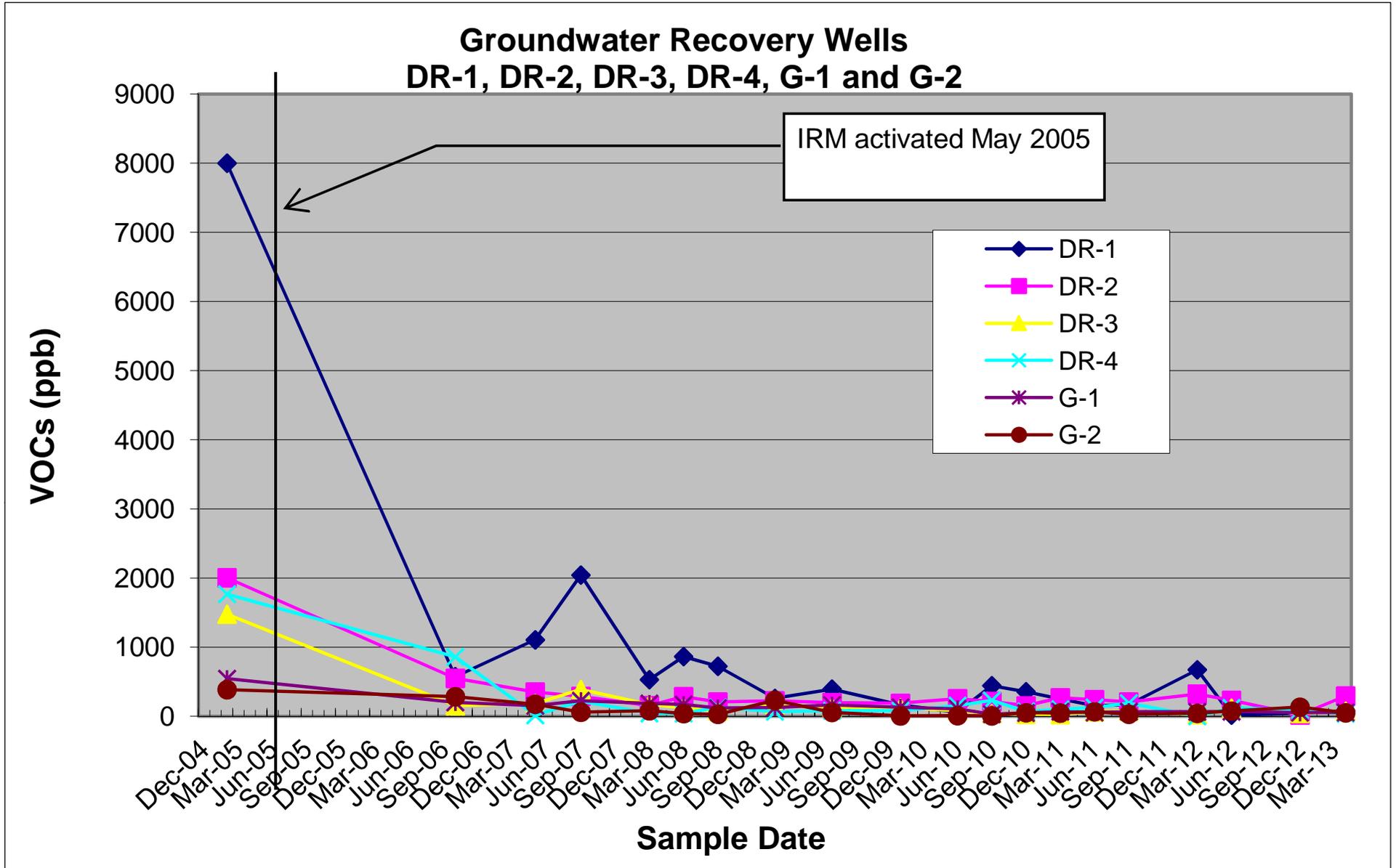


Chart C-2: DR-1 Groundwater Volatile Organic Compound Concentrations

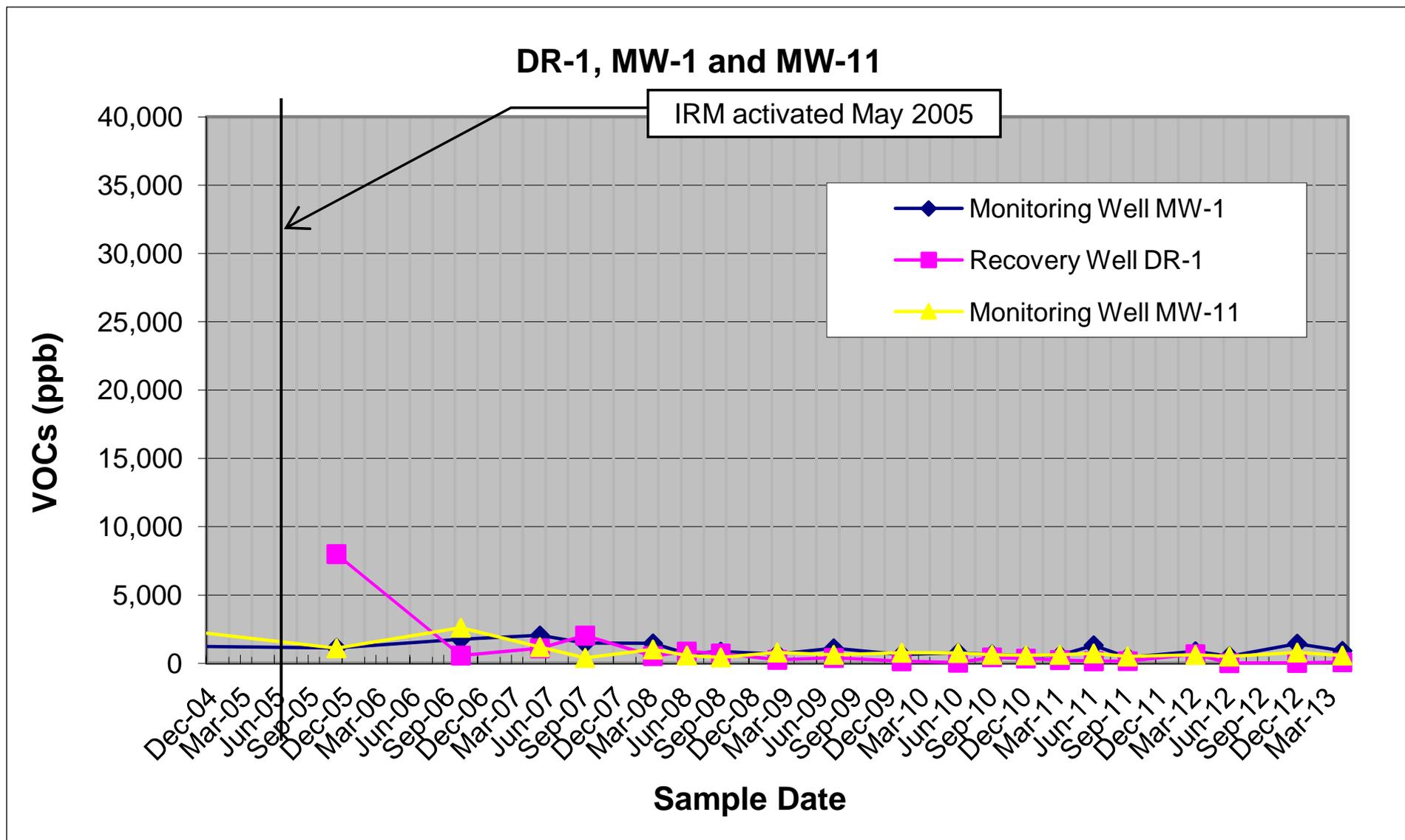


Chart C-3: DR-2 Groundwater Volatile Organic Compound Concentrations

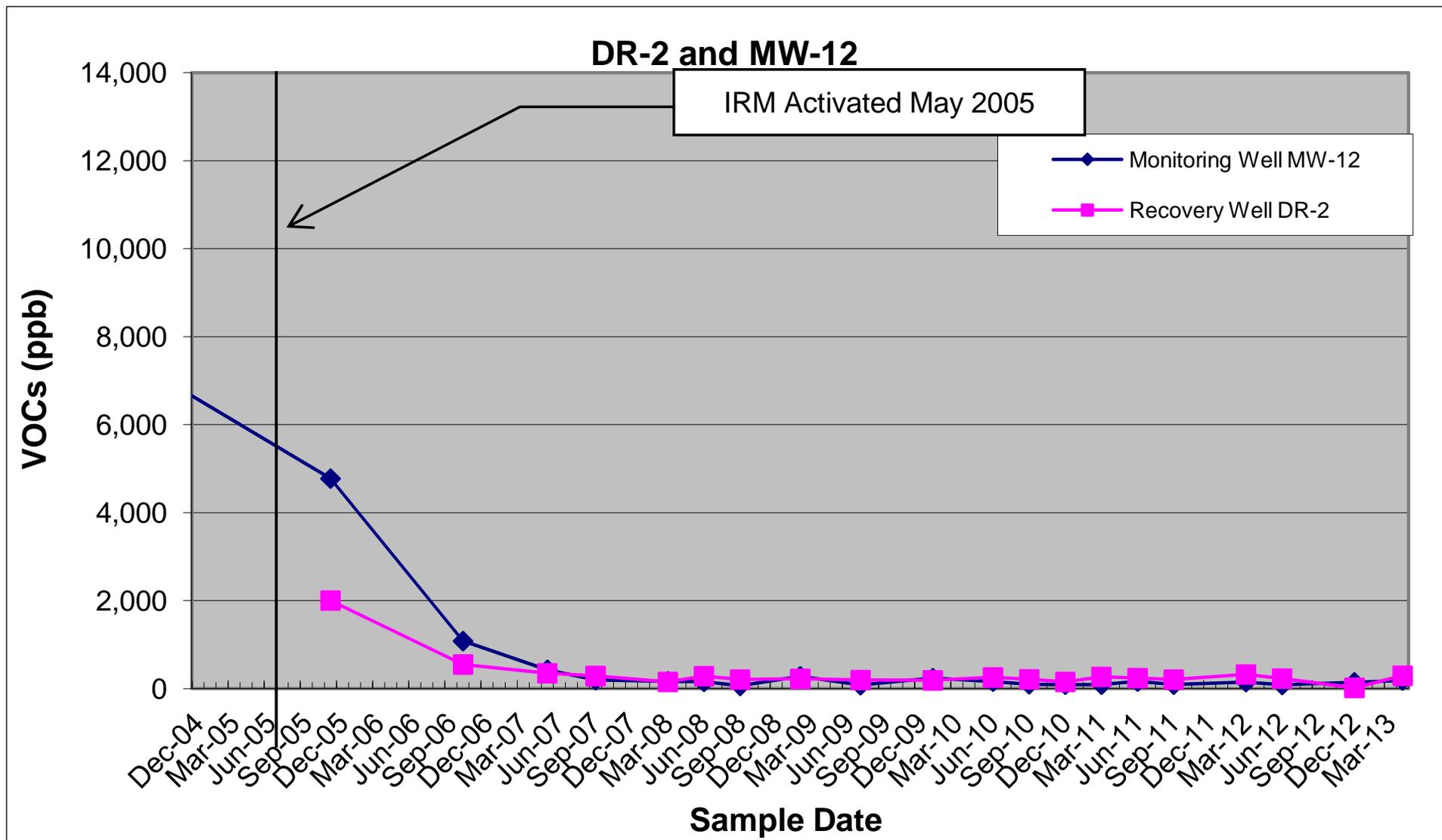


Chart C-4: DR-3 Groundwater Volatile Organic Compound Concentrations

DR-3 and MW-14

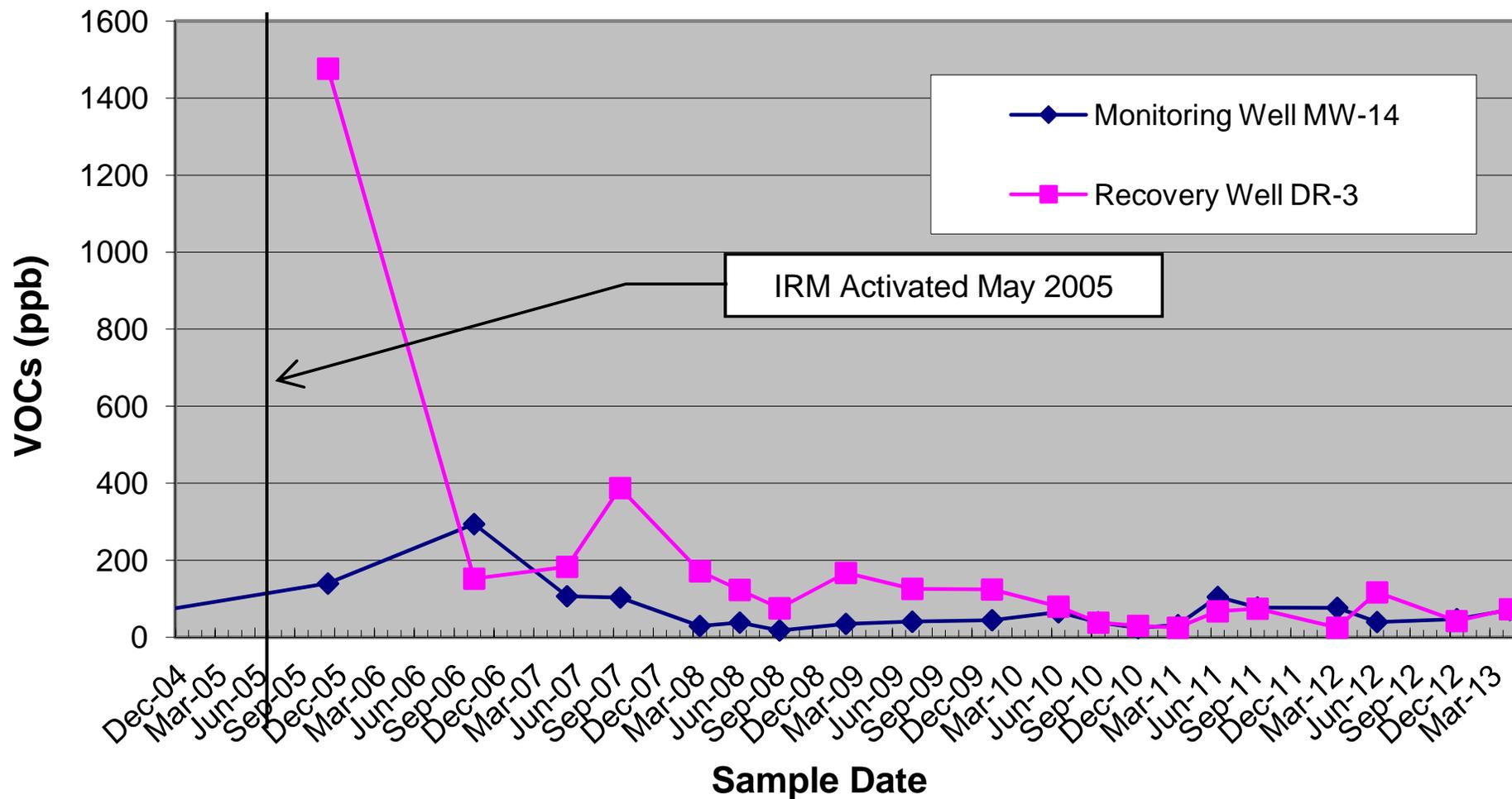


Chart C-5: DR-4 Groundwater Volatile Organic Compound Concentrations

DR-4 and MW-15

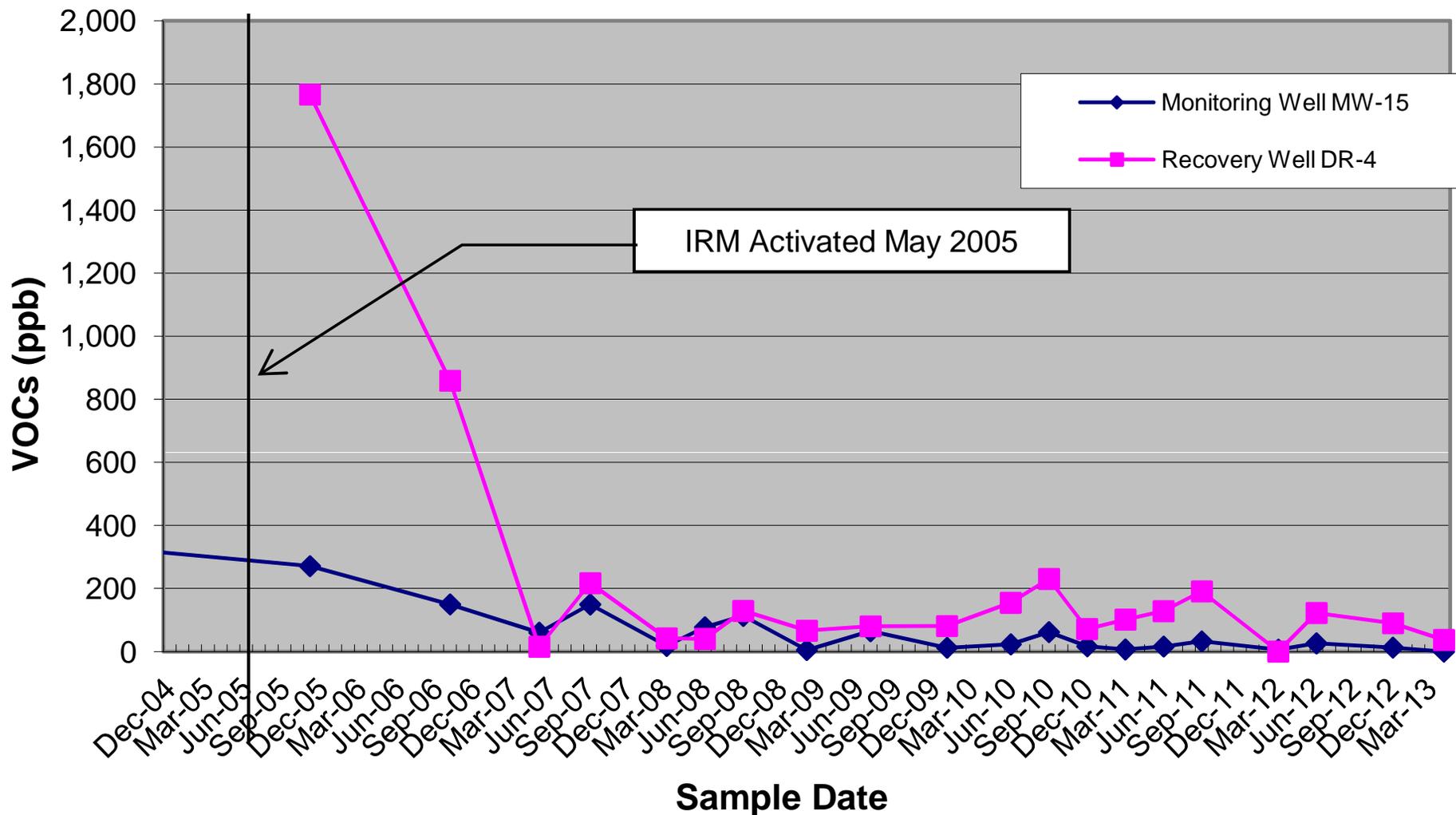


Chart C-6: G-1 Groundwater Volatile Organic Compound Concentrations

G-1 and MW-17

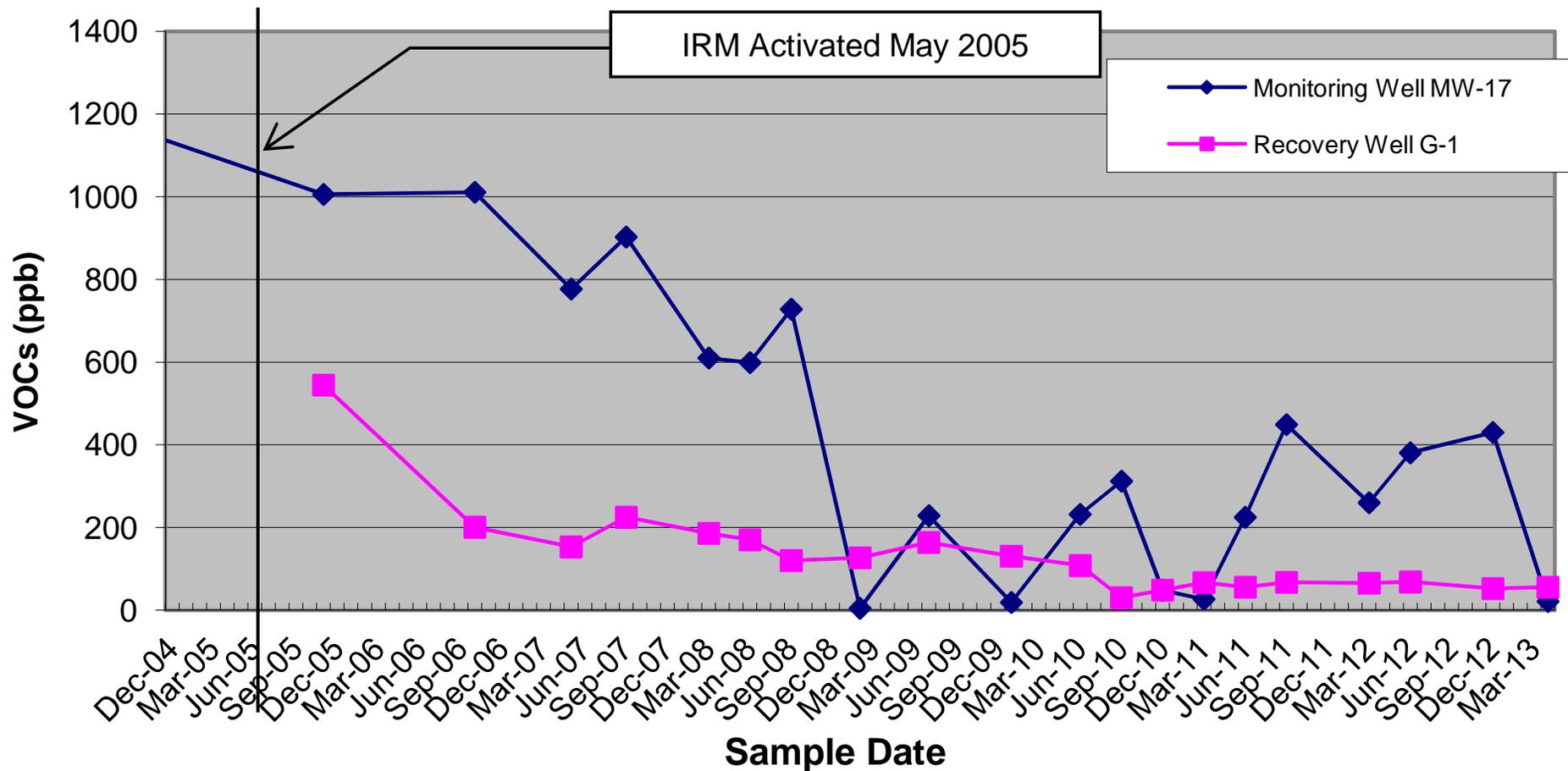


Chart C-7: G-2 Groundwater Volatile Organic Compound Concentrations

G-2 and MW-7

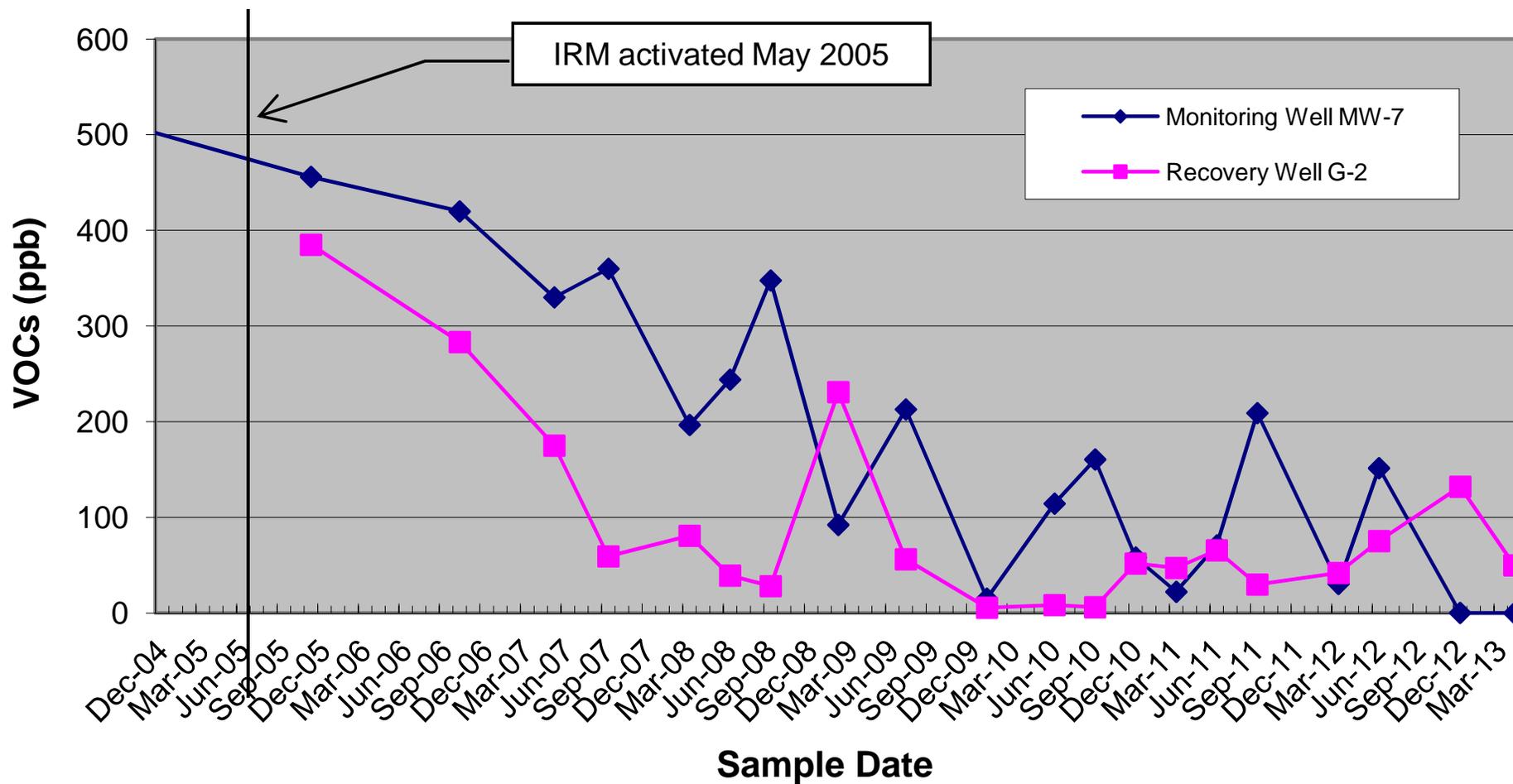
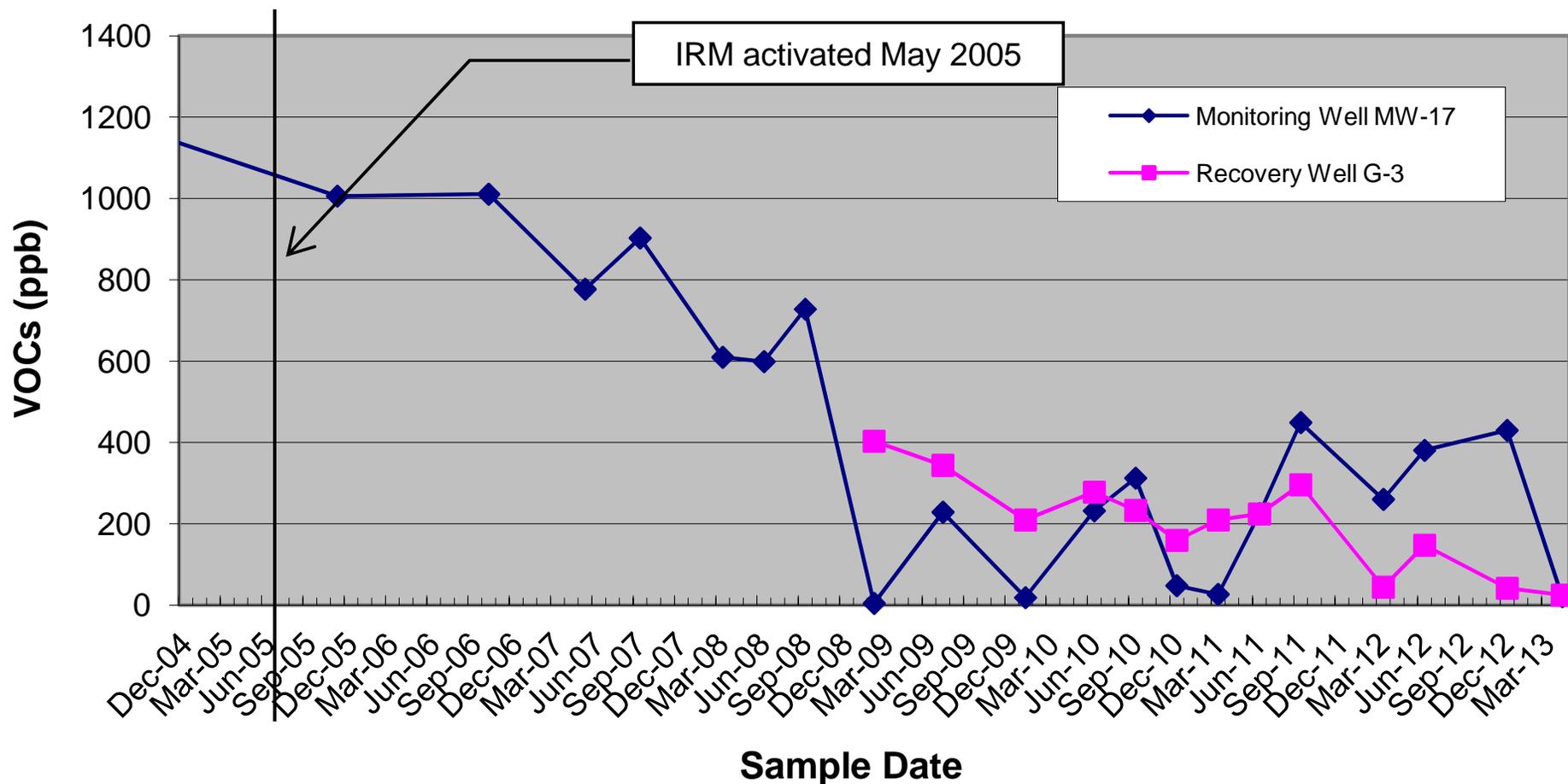


Chart C-8: G-3 Groundwater Volatile Organic Compound Concentrations

G-3 and MW-17



JULY 2013
GROUNDWATER CHARACTERIZATION REPORT



NEW YORK STATE OFFICE OF PEOPLE WITH DEVELOPMENTAL DISABILITIES



GROUNDWATER CHARACTERIZATION REPORT JULY 2013 SAMPLING EVENT

**Former Gowanda Day Habilitation Center
4 Industrial Place
Town of Gowanda, Cattaraugus County
Voluntary Cleanup Program Agreement V-00463-9**

Prepared for:

**Dormitory Authority & New York State Office of People with Developmental
Disabilities**

Bergmann Project No. 6974.76

**Issuance Date: September 13, 2013
Revised April 29, 2014**

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1.0 Introduction

Bergmann Associates (Bergmann) is submitting this groundwater sampling laboratory analytical report for the July 2013 sampling event on behalf of the Dormitory Authority of the State of New York (DASNY) and the New York State Office of People with Developmental Disabilities (OPWDD) for activities conducted at the former Gowanda Day Habilitation Center facility at 4 Industrial Place, Gowanda, NY. The OPWDD, as the volunteer, has entered into a Voluntary Cleanup Agreement (VCA) with the New York State Department of Environmental Conservation (NYSDEC) to conduct investigations and implement remedial measures in accordance with VCA Site No. V-00463-9, effective August 16, 2001.

1.1 Scope of Work

This report documents the site-wide groundwater monitoring and laboratory analytical sampling event conducted on July 1-2, 2013. Field measurements, sampling procedures and laboratory analysis were conducted in accordance with the October 2006 Operations, Monitoring and Maintenance (OM&M) Manual and as modified with NYSDEC approval. During this sampling event, groundwater from 13 of 21 site-related groundwater monitoring wells and all seven groundwater recovery wells was sampled for laboratory analysis. Eight monitoring wells that were determined by the NYSDEC and Bergmann personnel to be outside the area of impact by the Groundwater Treatment System (GTS) were not sampled. These monitoring wells include MW-2, MW-3, MW-5, MW-8, MW-9, MW-10, MW-13, and MW-21.

The prior groundwater sampling event was conducted in April 2013 and included analysis of the same group of wells sampled during this reporting period. Results of the April 2013 sampling event were summarized in a report dated February 22, 2013.

1.2 Site Background

The Gowanda Day Habilitation site consists of a 5.94 acre parcel located at 4 Industrial Place. The building, previously used by several manufacturing operations, was built in stages between circa 1948 and 1987 and was renovated in 1987-1988. New York State agencies have occupied the building since 1982. New York State acquired the parcel in 1989. The building was most recently operated by the OPWDD, which at that time was known as the Western New York Developmental Disabilities Services Office, as a Day Habilitation Center for mental care clients. In April 2001, on-site operations ceased. The nature and extent of contamination at the Gowanda Day Habilitation Center was detailed as part of the 2003 Site Investigation and 2004 Supplemental Site Investigation reports. Trichloroethene was the most commonly detected compound. Trichloroethene degradation products cis-1,2-Dichloroethene, trans-1,2-Dichloroethene and Vinyl Chloride were also detected.

Following Interim Remedial Measures (IRM) system installation, the Groundwater Treatment System (GTS) and the Soil Vapor Extraction System (SVES) were activated on May 10, 2005, recovering 2-5 GPM of groundwater. An additional groundwater recovery well, designated G-3, was installed outside the building and adjacent to MW-17 in November 2008. The GTS portion consists of seven groundwater recovery wells (four dual phase recovery wells and three groundwater-only recovery wells), an air compressor, a network of controller-less pneumatic pumps and an air stripper treatment system to process recovered groundwater. Recovered groundwater is pumped to the equalization tank for settling of the sediment and transferred to the air stripper using a consistent flow rate. The air discharged from the air stripper is tied into the SVE carbon vessels for treatment prior to atmospheric discharge. After treatment by the air



stripper, the groundwater is discharged to the Village of Gowanda Sewage Treatment Plant (STP) via the sanitary sewer in accordance with a Gowanda Sewer Use Permit. The Village of Gowanda requires that an annual discharge report be submitted, detailing the volume of water collected, treated and discharged to the sewer.

In January 2008 the building was decommissioned. The GTS was winterized with the addition of heat tape and insulation to conveyance lines and the installation of an independently operated suspended heater in the treatment area for the GTS and SVES (former Machine Shop).

2.0 Groundwater Sampling Overview and Methods

2.1 Well Maintenance Activities

As of July 2013, all monitoring wells were accessible and the integrity of the wells was not compromised. No repairs or maintenance to the network of groundwater monitoring wells or recovery wells has been required since June 2007. All stand pipes and flush-mount curb boxes were found to be intact and secure. Exterior monitoring wells are secured with locking stand pipes. The monitoring wells within the building are secured with flush-mount roadway covers.

Replacement to damaged flush-mount protective roadway boxes was completed in June 2007. Well rehabilitation and silt removal was last conducted June 25 – 26, 2007. The recovery wells have appeared to be free of significant silt intake since the 2007 rehabilitation event.

2.2 Groundwater Field Monitoring and Sampling Activities

Groundwater measurements and sampling activities were conducted in accordance with the October 2006 OM&M Manual. The depths to groundwater for groundwater monitoring wells are determined on a regular basis to track site-wide changes in the water table elevation and to allow for adjustment at recovery wells. Operation of the recovery wells is intended to establish hydraulic containment of the plume of impacted groundwater beneath the former Day Habilitation building and improve recovery and treatment of impacted groundwater.

Groundwater samples were collected from 13 of the 21 site-related groundwater monitoring wells for laboratory analysis on July 1-2, 2013. Depth to groundwater measurements were obtained from all 21 monitoring wells. Depths to water measurements for the recovery wells were not obtained since the wells were in active production.

Groundwater samples were collected from the monitoring wells after each well was properly gauged and purged of standing water via low-flow pumping using an electric peristaltic pump (Solonist). Aquifer parameters including turbidity, temperature, pH, oxygen and conductivity were monitored using a Horiba U-22 to ensure sufficient well development prior to sampling. Groundwater samples were also collected from all seven recovery wells using dedicated bailers. A single duplicate sample and one method blank sample were also collected and submitted for laboratory analysis. The method blank was collected after sampling MW-1, the well with the highest concentration of contamination for the previous April 2013 sampling event.

Sampling of the recovery wells was conducted while the GTS was actively pulling groundwater into the system. The active pumping of the wells ensured that the groundwater sampled wasn't stagnant, much like purging does for monitoring wells. Groundwater samples were delivered via chain-of-custody protocol to Paradigm Environmental Services located in Rochester, NY, a



NYSDOH certified laboratory for testing using EPA Method 8260B for targeted chlorinated VOCs of concern. Analytical results for each individual monitoring well have been posted for comparative purposes from sampling events completed 2002 – 2012.

3.0 Local Groundwater Flow Characterization

Delineation of the local water table surface and groundwater flow pattern was determined for July 2013 using elevations measured at all 21 site-related monitoring wells. Groundwater characteristics were determined using depth to water values obtained on July 1-2, 2013. The well gauging values and groundwater elevations are provided in Table 1 – Groundwater Elevations and Field Measurements, July 2013. Groundwater contours are presented on Figure 1 – July 2013 Groundwater Contour Map.

The July 2013 water table mapping shows a local flow pattern similar to the water table observed historically since 2002. The local groundwater was flowing in a northerly direction. Torrance Place is hydraulically down-gradient from the Day Habilitation Center building. The July 2013 depths to groundwater range from 6.26 ft below ground surface (top of PVC casing adjusted to grade) at MW-2 adjacent to the south side of the building to 13.08 ft below ground surface at MW-6 located at the northern property line (adjusted to account for 2.17 ft of well riser pipe extended above grade). The average depth to groundwater at the 21 monitoring wells measured was 9.57 ft below ground surface.

Compared to the July 2013 sampling event the current site-wide average water table increased by approximately 0.09 ft. This increase in the water table is inferred as seasonal.

4.0 Laboratory Analysis

4.1 Laboratory Analysis on Groundwater Samples, July 2013

Laboratory analysis was completed on the groundwater samples from 13 monitoring wells and the 7 recovery wells collected on July 1-2, 2013. Samples were analyzed for volatile organic compounds via EPA Method 8260B. Analysis was performed in accordance with the October 2006 OM&M Manual. The following halogenated VOCs were analyzed for:

- Trichloroethene (TCE)
- 1,1,1 Trichloroethane (TCA)
- Cis-1,2-Dichloroethene (Cis-DCE)
- Trans-1,2-Dichloroethene (Trans-DCE)
- Vinyl Chloride (VC)

4.2 Monitoring Well Groundwater Analysis Summary

The July 2013 analytical results detected three chlorinated VOCs in monitoring well samples: TCE, Cis-DCE, and VC. Chlorinated VOCs were detected in samples from 9 of the 13 sampled monitoring wells. The analytical results are summarized in Table 2 – July 2013 Analytical Results Summary, which shows detected VOCs and applicable NYSDEC Class GA Standards for each analyte. The complete laboratory analytical reporting package is provided in Appendix A – Laboratory Analytical Results Report July 2013 Sampling Event.



Table 3 – Historic Groundwater Analysis Results Summary summarizes the historical total VOC concentrations at each well since sampling of the monitoring wells began in 2002.

No VOCs were detected in samples from four of the sampled monitoring wells (MW-4, MW-18, MW-19R, and MW-20). These wells have historically demonstrated low to no detectable VOCs.

Groundwater samples from seven monitoring wells had detectable chlorinated VOCs at concentrations above applicable Class GA Standards. The monitoring well with the highest total VOCs, MW-1, is located in the area of the historically greatest impacted groundwater.

Detected concentrations in 4 of the 13 monitoring well groundwater samples were increased compared to the prior April 2013 sampling event while concentrations in 5 of the 13 monitoring well groundwater samples showed a decrease. Concentrations in four groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 82% since activation of the GTS in May 2005.

Due to the concentrations of TCE and Cis-DCE in samples from monitoring wells MW-1, MW-11, and MW-17, diluted analysis and correspondingly elevated detection limits were required. At these locations it is possible that related chlorinated VOCs Trans-1,2 DCE and Vinyl Chloride may be present at concentrations below the diluted detection limits.

The area of highest impacted groundwater exists at the area centered between monitoring wells MW-1 and MW-11, which has historically demonstrated the highest levels of VOCs and is inferred as the major area of impacted groundwater. In the area where the plume of impacted groundwater has been inferred (monitoring wells MW-1, MW-6, MW-7, MW-11, MW-12, MW-14, MW-15, and MW-17) the current laboratory analysis shows a decrease in VOC concentrations by an average of approximately 73% since groundwater sampling of these wells began in 2002.

The current total targeted halogenated VOCs detected at monitoring well MW-1 (830 PPB) are lower than the April 2013 value (918.1 PPB). Since activation of the GTS, detected VOCs at MW-1 have generally remained high due to the GTS concentrating impacted groundwater in this area.

Monitoring well MW-11 exhibited an increase in targeted chlorinated VOCs relative to the prior sampling event. The total detected VOCs at MW-11 for the July 2013 sample event were 510 PPB, a decrease from the July 2013 value of 570 PPB. Monitoring well MW-11 is near recovery well DR-1 and further reflects the trend of contaminants being pulled towards DR-1. Since activation of the GTS, detected VOCs at MW-11 have decreased by approximately 89%.

At MW-12 the current total detected VOC concentration (149.3 PPB) was lower than the previous April 2013 sample event (186.6 PPB). MW-12 is nearest to recovery well DR-2, in close proximity to the center of the building. Since activation of the GTS in May 2005, detected VOCs at MW-12 have decreased by approximately 99%.

At MW-14 the current total detected VOC concentration (49 PPB) was higher than the previous April 2013 value of 71 PPB. MW-14 is nearest to recovery well DR-3. Since activation of the GTS in May 2005 detected VOCs at MW-14 have decreased by approximately 84%.



At MW-15 the current total VOC concentration (7 PPB) was higher than the previous April 2013 value (non-detect). MW-15 is nearest to recovery well DR-4. Since activation of the GTS the detected VOCs at MW-15 have decreased by approximately 100%.

Five groundwater monitoring wells have been established along the subject property's north perimeter, down-gradient from the area of impacted groundwater. The north perimeter monitoring wells consist of wells MW-5, MW-6, MW-7, MW-16 and MW-17. The current analytical results detected a decrease in targeted VOCs at one of these monitoring wells (MW-16). One monitoring well along the north perimeter, MW-5, was not sampled during this event. The current average total VOCs for these wells is 131.4 PPB; an increase from the April 2013 average total VOCs (34.6 PPB).

Monitoring wells MW-18, MW-19R and MW-21 are located off-site along Torrance Place. These three wells are considered to be beyond the radius of influence for the Day Habilitation groundwater treatment system. Groundwater from MW-21 was not sampled during the July 2013 sampling event. At MW-18 and MW-19R the current total detected VOC concentrations were non-detect.

Laboratory analytical results are included in Appendix A. Monitoring well locations and distribution of analytical results are shown on Figure 2 – July 2013 Distribution of Groundwater Analytical Results in Monitoring Wells.

4.3 Sentry Well Groundwater Analysis Summary

Sentry groundwater monitoring wells have been established to monitor a separate occurrence of contaminated groundwater at the Gowanda Electronics site (NYSDEC Site 905025), immediately east of Industrial Place and east of the subject property. The eastern sentry wells sampled for this event were MW-19R, MW-20 and MW-4. The current results indicate non-detect for all three of the samples from the eastern sentry wells.

The Gowanda Electronics area of impacted groundwater may be migrating to an area near Industrial Place and has intermittently impacted MW-19R. The Gowanda Electronics plume of impacted groundwater does not appear to extend to the Day Habilitation Center property, based on consistent non-detect values at the eastern sentry wells. Conversely, impacted groundwater from the Day Habilitation Center subject property does not appear to extend off-site to the east to Industrial Place.

4.4 Recovery Well Groundwater Analysis Summary

All recovery wells were sampled for VOCs. Results indicated that TCE and Cis-DCE were present in six of seven recovery wells (G-2 contained only Cis-DCE). Total VOCs at all six recovery wells for which past data is available have decreased since activation of the GTS in May 2005. The average reduction in VOCs for six of the recovery wells for the current sampling event is approximately 91% relative to concentrations prior to GTS activation in 2005. Relative percent reductions in total VOCs for all monitoring wells and recovery wells are shown on Table 4.

Recovery Well DR-1 has shown a significant decrease in VOCs since GTS activation in May 2005. The current total VOC concentration at DR-1 (73 PPB) represents an approximately 99% decrease since activation of the GTS.



The VOC concentration for recovery well DR-2 was 256 PPB, compared to 293 PPB in April 2013. Recovery well DR-1 is located closest to MW-1 in the area of historically highest concentrations.

The current total VOCs detected at recovery well DR-3 (62 PPB) was lower than the prior April 2013 sampling event (73 PPB). The current sampling event indicates a decrease in VOCs at DR-3 of approximately 96% since activation of the GTS.

The current total VOCs detected at recovery well DR-4 (79 PPB) was higher than the April 2013 sampling event (37 PPB). The current sampling event indicates a decrease in VOCs at DR-4 of approximately 96% since activation of the GTS.

The current total VOCs detected at recovery well G-1 (69.1 PPB) was higher than the prior April 2013 sampling event (55.8 PPB). The current sampling event indicates a decrease in VOCs of approximately 87% at G-1 since activation of the GTS.

The current total VOCs detected at recovery well G-2 (81 PPB) was higher than the prior April 2013 sampling event (50 PPB). Since activation of the GTS, total VOCs detected at G-2 have decreased by approximately 79% based on the current sampling results.

The current total VOCs detected at recovery well G-3 (11 PPB) was lower than the previous April 2013 sampling event (25 PPB).

Laboratory analytical results are included in Appendix A. Recovery well locations and analytical results are shown on Figure 3 – July 2013 Distribution of Groundwater Analytical Results in Recovery Wells.

4.5 Quality Assurance and Quality Control Samples

For quality assurance purposes a duplicate groundwater sample was collected from monitoring well MW-1, designated sample “MW-X.” Results from sample MW-X were consistent with the sample collected from MW-1.

A trip blank was supplied by the laboratory and submitted for analysis along with the groundwater samples. The trip blank sample was non-detect for chlorinated halogens. A method blank was also collected to ensure proper cleaning of the sampling equipment. The method blank, designated MB, was non-detect for chlorinated halogens.

5.0 Remediation System Efficiency

5.1 Impact of the GTS Recovery Wells, July 2013

Appendix B – Control Charts, Groundwater VOC Concentrations contains groundwater control charts for six of the seven recovery wells and the nearest relative monitoring well. Chart C-1 presents a summary of six groundwater recovery wells. Since activation of the GTS in May 2005 six groundwater recovery wells have demonstrated decreased concentrations of VOCs. Recovery well G-3 has only been sampled 13 times and hasn't provided enough data for comparison. The current sampling event indicated decreased VOCs in 4 of the 7 recovery wells compared to the prior April 2013 sampling event.

The current sampling event results are consistent with a trend of decreasing total VOCs at recovery wells. The increase in detected VOCs at DR-4, G-1, and G-2 may be attributed to



system efficiency in concentrating the greatest impacted groundwater in the relative radius of influence for each recovery well.

Chart series C-2 displays the relationship between monitoring wells MW-1, MW-11 and Recovery Well DR-1. Monitoring wells MW-1 and MW-11 are located at the approximate original contamination source area and in the area of greatest impacted groundwater. DR-1 is the recovery well located in this area. The current detected VOCs at MW-1 (830 PPB) were lower than those from the previous April 2013 sample event (918.1 PPB). At MW-11, total VOCs (510 PPB) showed a decrease from the previous April 2013 sample event (570 PPB). At recovery well DR-1 the current total detected VOCs were 73 PPB.

Chart series C-3 compares laboratory results between Recovery Well DR-2 and MW-12. These wells are located north of the wells outlined in Chart series C-1 and represent the northern limit of the highest concentration within the impacted area. The detected VOCs at MW-12 decreased from 186.6 PPB (April 2013) to 149.3 PPB (July 2013). VOCs detected at recovery well DR-2 decreased from 293 PPB in April 2013 to 256 PPB in July 2013.

Chart series C-4 compares the relationship between wells DR-3 and MW-14 which are located in the central portion of the Gowanda Day Habilitation building. The current total VOCs at MW-14 decreased from 71 PPB in April 2013 to 49 PPB in July 2013. The values detected at recovery well DR-3 decreased to 62 PPB.

Chart series C-5 compares laboratory results between Recovery Well DR-4 and MW-15. These wells are located at the center-north portion of the building. The current values showed an increase in VOCs for DR-4 (37 PPB in April 2013 and 79 PPB for this sample event) and for MW-15 (non-detect in April 2013 and 7 PPB for the current sample event).

Chart series C-6 compares VOC concentrations between Recovery Well G-1 and Monitoring Well MW-17. The recovery well is located in the northern portion of the building. MW-17 showed an increase in total VOCs for the current sampling event (400 PPB) relative to the April 2013 sampling event (21.3 PPB). Recovery Well G-1 showed an increase (69.1 PPB in July 2013 and 55.8 PPB in the prior April 2013 sample event).

Chart series C-7 compares VOC concentrations between Recovery Well G-2 and MW-7 which are also located at the northeastern portion of the building. This area is at the apparent western perimeter of the area of impacted groundwater. The groundwater sample from Recovery Well G-2 showed a decrease in VOCs from 50 PPB in April 2013 to 81 PPB in July 2013. Monitoring Well MW-7 concentrations increased to 7 PPB compared to the prior April 2013 sample event (non-detect).

Chart series C-8 compares VOC concentrations between Recovery Well G-3 and MW-17 which are also located at the northeastern portion of the building. This area is at the apparent western perimeter of the area of impacted groundwater. Recovery well G-3 showed a decrease in VOCs (11 PPB) relative to the prior April 2013 sample event (25 PPB). Monitoring Well MW-17 showed an increase in VOCs (400 PPB) since the April 2013 sampling event (21.3 PPB).

Monitoring wells along the western and eastern perimeters have consistently yielded results in which no VOCs were detected.



5.2 Extent of Impacted Groundwater, July 2013

The area of highest impacted groundwater is consistent with prior sampling events. The bulk of the contaminant mass appears to be concentrated beneath the building in the vicinity of monitoring well MW-1 and MW-11, extending north to recovery well G-2.

The GTS appears to maintain an area of hydraulic containment for all seven recovery wells within the area of impacted groundwater. The GTS appears to be successful in hydraulically containing most of the contaminant plume on the property and minimizing further migration. Operation of G-3 will continue to increase the impact of the GTS on the contaminant plume along the north property line.

No VOCs were detected at MW-19R and MW-18, off-site monitoring wells north of the facility. These monitoring points are inferred as beyond the area of hydraulic influence of the recovery wells. Impacted groundwater at these areas was detected prior to activation of the GTS in May 2005. Future reduction in groundwater VOC concentrations at the down-gradient locations should be expected as operation of the treatment system continues to remove VOCs and limits potential off-site migration of impacted groundwater. In addition, operation of G-3 increases the area of influence of the GTS at the northern property line.

5.3 Future Groundwater Monitoring and Analysis Activities

The remedial systems at the Gowanda Day Habilitation Center (Groundwater Treatment System and the Soil Vapor Extraction System) will continue to operate and be monitored as needed to maintain system efficiencies. At the current stage in the remediation of this site, Bergmann is investigating options for injecting a chemical oxidizer into the subsurface to further reduce contaminant levels. An injection of chemical oxidizers could be expected to decrease concentrations significantly, and improve the likelihood that the site can reach an acceptable cleanup level.

Bergmann will also correspond with the NYSDEC to discuss a reduction of the site-wide sampling events from quarterly to semi-annual. Monthly O&M would still take place. The next site-wide groundwater sampling and laboratory analysis event is tentatively scheduled for November 2013. This sampling event will include sampling and laboratory analysis for the limited number of wells as determined by Bergmann correspondence with the NYSDEC. Future sampling and analytical events will be conducted to track the effects of the treatment system on impacted groundwater and to evaluate seasonal changes in water table elevations. In addition, the evaluation of groundwater flow pattern and movement of residual impacted groundwater at the subject property will also be performed during future sampling events.



TABLES



Table 1 Groundwater Elevations and Field Measurements July 2013

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

| July 1-2, 2013 | | | | | | | | | | |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|
| | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-8 | MW-9 | MW-10 |
| Casing Elevation* | 778.23 | 778.08 | 778.38 | 778.43 | 778.61 | 781.10 | 780.94 | 781.33 | 782.61 | 780.02 |
| Depth to Groundwater (btoc) | 6.40 | 6.26 | 6.45 | 7.41 | 10.38 | 13.08 | 12.96 | 9.77 | 9.61 | 7.84 |
| Groundwater Elevation | 771.83 | 771.82 | 771.93 | 771.02 | 768.23 | 768.02 | 767.98 | 771.56 | 773.00 | 772.18 |
| Well Diameter | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| Product Thickness | nd | nd | nd | nd | nd | nd | nd | nd | nd | nd |
| Well Depth (btoc) | 16.02 | 17.15 | 16.30 | 15.78 | 13.95 | 22.88 | 21.80 | 17.65 | 20.96 | 19.42 |
| Bottom of Well Elevation | 762.21 | 760.93 | 762.08 | 762.65 | 764.66 | 758.22 | 759.14 | 763.68 | 761.65 | 760.60 |
| Thickness of Water Column | 9.62 | 10.89 | 9.85 | 8.37 | 3.57 | 9.80 | 8.84 | 7.88 | 11.35 | 11.58 |
| Minimum Purge Volume (gal) | 1.6 | 1.8 | 1.6 | 1.4 | 0.6 | 1.6 | 1.4 | 1.3 | 1.9 | 1.9 |
| 3 Volumes | 4.7 | 5.3 | 4.8 | 4.1 | 1.7 | 4.8 | 4.3 | 3.9 | 5.6 | 5.7 |
| Actual volume purged | 4.7 | NS | NS | 4.1 | NS | 4.8 | 4.3 | NS | NS | NS |
| Comments | Flush = -0.29' | Flush = -0.30' | Flush = -0.23' | Flush = -0.34' | Flush = -0.24' | Stickup=2.17' | stickup=2.17' | stickup=2.84' | stickup=2.05' | stickup=2.56' |

| July 1-2, 2013 | | | | | | | | | | | |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|
| | MW-11 | MW-12 | MW-13 | MW-14 | MW-15 | MW-16 | MW-17 | MW-18 | MW-19R | MW-20 | MW-21 |
| Casing Elevation | 778.58 | 778.50 | 778.39 | 778.43 | 778.38 | 780.43 | 779.85 | 776.39 | 774.2 | 778.04 | 774.76 |
| Depth to Groundwater (btoc) | 6.78 | 7.19 | 7.20 | 9.90 | 10.26 | 12.23 | 11.85 | 8.97 | 9.22 | 9.68 | 7.77 |
| Groundwater Elevation | 771.80 | 771.31 | 771.19 | 768.53 | 768.12 | 768.20 | 768.00 | 767.42 | 764.98 | 768.36 | 766.99 |
| Well Diameter | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| Product Thickness | nd | nd | nd | nd |
| Well Depth (btoc) | 15.48 | 17.38 | 17.40 | 18.15 | 19.80 | 23.26 | 25.18 | 25.0 | 17.67 | 14.75 | 15.82 |
| Bottom of Well Elevation | 763.10 | 761.12 | 760.99 | 760.28 | 758.58 | 757.17 | 754.67 | 751.39 | 756.53 | 763.29 | 758.94 |
| Thickness of Water Column | 8.70 | 10.19 | 10.20 | 8.25 | 9.54 | 11.03 | 13.33 | 16.03 | 8.45 | 5.07 | NA |
| Minimum Purge Volume (gal) | 1.4 | 1.7 | 1.7 | 1.3 | 1.6 | 1.8 | 2.2 | 2.6 | 1.4 | 0.8 | NA |
| 3 Volumes | 4.3 | 5.0 | 5.0 | 4.0 | 4.7 | 5.4 | 6.5 | 7.8 | 4.1 | 2.5 | NA |
| Actual volume purged | 4.3 | 5.0 | NS | 4.0 | 4.7 | 5.4 | 6.5 | 7.8 | 4.1 | 2.5 | NS |
| Comments | Flush = -0.23 | Flush = -0.35 | Flush = -0.48 | Flush = -0.39 | Flush = -0.38 | Stickup=2.26' | stickup=1.18' | Flush =-0.26' | Flush =0.36' | Flush=-0.43' | Flush =-.71' |

NOTES

btoc = Below top of casing (inner riser) All measurements are in feet, referenced to Mean Sea Level

nd = No floating product encountered

Minimum purge volume = 3 X well volume, 0.163 gallon per foot in a 2" diameter well. 0.653 gallon per foot in a 4" diameter well.

Monitoring well MW-19 was removed and the area restored on July 23, 2003 immediately after the well was developed, purged of 3 volumes and sampled.

The borehole for MW-19 was backfilled with a cement-bentonite grout after the PVC screening and casing was successfully removed.

Wells MW-19R, MW-20 and MW-21 were installed in October 2004.

TOTAL VOLUME to PURGE, 3X ALL WELLS:

62.2 Gallons

Table 2 July 2013 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-1 Sample Date: 7/2/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------------|--------------------|
| TCE | | 680 | 5.0 |
| CIS | | 150 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 830.0 | |

Monitoring Well MW-4 Sample Date: 7/1/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | ND | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | ND | |

Monitoring Well MW-2 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-5 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-3 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-6 Sample Date: 7/2/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-------------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | 99.0 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 99 | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 July 2013 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-7 Sample Date: 7/1/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-----------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | 18 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 18 | |

Monitoring Well MW-10 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-8 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-11 Sample Date: 7/2/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|--------------|--------------------|
| TCE | | 140.0 | 5.0 |
| CIS | | 370 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 510.0 | |

Monitoring Well MW-9 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-12 Sample Date: 7/2/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-------------|--------------------|
| TCE | | 9.30 | 5.0 |
| CIS | | 140 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 149.30 | |

NS = Not Sampled. No analysis performed during this sampling event.

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 July 2013 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-13 Sample Date: NS
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

Monitoring Well MW-16 Sample Date: 7/1/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-------------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | 8.40 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 8.4 | |

Monitoring Well MW-14 Sample Date: 7/1/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | 29 | 5.0 |
| CIS | | 20 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 49 | |

Monitoring Well MW-17 Sample Date: 7/2/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------------|--------------------|
| TCE | | 110 | 5.0 |
| CIS | | 290 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 400.0 | |

Monitoring Well MW-15 Sample Date: 7/1/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-------------|--------------------|
| TCE | | 7.00 | 5.0 |
| CIS | | ND | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 7.00 | |

Monitoring Well MW-18 Sample Date: 7/1/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | ND | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | ND | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 July 2013 Analytical Results Summary

Gowanda Day Habilitation Center
4 Industrial Place, Gowanda, New York
VCA # V-00463-9

Monitoring Well MW-19R Sample Date: 7/1/2013
Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | ND | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | ND | |

Monitoring Well MW-20 Sample Date: 7/1/2013
Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | ND | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | ND | |

Monitoring Well MW-21 Sample Date: NS
Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------|--------------------|
| TCE | | NS | 5.0 |
| CIS | | NS | 5.0 |
| TRANS | | NS | 5.0 |
| VC | | NS | 2.0 |
| TCA | | NS | 5.0 |
| Total VOCs | | NS | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 July 2013 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Recovery Well DR-1 Sample Date: 7/2/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-------------|--------------------|
| TCE | | 50 | 5.0 |
| CIS | | 23.0 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 73 | |

Recovery Well DR-4 Sample Date: 7/2/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-------------|--------------------|
| TCE | | 56.0 | 5.0 |
| CIS | | 23 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 79.00 | |

Recovery Well DR-2 Sample Date: 7/2/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------------|--------------------|
| TCE | | 56 | 5.0 |
| CIS | | 200 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 256 | |

Recovery Well G-1 Sample Date: 7/2/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|------------|--------------------|
| TCE | | 6.1 | 5.0 |
| CIS | | 63 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 69.1 | |

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Recovery Well DR-3 Sample Date: 7/2/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-------------|--------------------|
| TCE | | 35 | 5.0 |
| CIS | | 27.0 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 62.00 | |

Recovery Well G-2 Sample Date: 7/2/2013
 Sampling Events

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-----------|--------------------|
| TCE | | ND | 5.0 |
| CIS | | 81 | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 81 | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

ND results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 July 2013 Analytical Results Summary

Gowanda Day Habilitation Center
4 Industrial Place, Gowanda, New York
VCA # V-00463-9

Recovery Well G-3
Sampling Events

Sample Date: 7/2/2013

| Analyte | in µg/L | 2012 | NYS Guidance Value |
|------------|---------|-----------|--------------------|
| TCE | | 11 | 5.0 |
| CIS | | ND | 5.0 |
| TRANS | | ND | 5.0 |
| VC | | ND | 2.0 |
| TCA | | ND | 5.0 |
| Total VOCs | | 11 | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 3 Historic Groundwater Analysis Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

| Well Number | Sampling Order Dec-12 | Sampling Order Dec-12 | Sampling Order Dec-12 | Sampling Order Jun-12 | Sampling Order Mar-12 | Sampling Order Sep-11 | Jun-11 Total PPB | Mar-11 Total PPB | Dec-10 Total PPB | Sep-10 Total PPB | Jun-10 Total PPB | Jul-09 Total VOCs PPB | Feb-09 Total VOCs PPB | Sep-08 Total VOCs PPB | Jun-08 Total VOCs PPB | Mar-08 Total VOCs PPB | Sep-07 Total VOCs PPB | May-07 Total VOCs PPB | |
|-------------------------|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|
| MONITORING WELLS | | | | | | | | | | | | | | | | | | | |
| MW-1 | 12 | 12 | 13 | 13 | 13 | 13 | 1,318.1 | 583 | 564 | 649 | 778 | 1107.16 | 677 | 860 | 705 | 1,463 | 1,481 | 2,046 | |
| MW-17 | 13 | 13 | 11 | 10 | 7 | 11 | 225.2 | 26.7 | 48.1 | 312.3 | 232.1 | 228.8 | 4.41 | 728 | 599 | 610 | 903.0 | 777 | |
| MW-18 | 6 | 6 | 6 | 6 | 4 | 4 | 13.9 | 6.43 | 17.9 | 40.77 | 27.5 | 196 | 13.07 | 238.6 | 115.2 | 56.0 | 719 | 442 | |
| MW-7 | 7 | 7 | 7 | 8 | 5 | 7 | 70.9 | 22.3 | 58.2 | 160.5 | 114.46 | 213 | 92.34 | 347.8 | 244 | 196.7 | 360 | 330.5 | |
| MW-11 | 11 | 11 | 12 | 12 | 12 | 12 | 722 | 623 | 588 | 630.7 | 765 | 625.9 | 790 | 437.3 | 564.9 | 1,023 | 398.6 | 1,189 | |
| MW-12 | 10 | 10 | 10 | 11 | 11 | 10 | 162.9 | 90.82 | 90.4 | 100 | 159.8 | 82 | 279.01 | 65.8 | 159 | 165.6 | 196.9 | 429 | |
| MW-14 | 5 | 5 | 5 | 5 | 9 | 9 | 104.98 | 31.9 | 24.33 | 38.93 | 65.22 | 40.72 | 34.9 | 17.8 | 38.15 | 29.3 | 103.2 | 106.8 | |
| MW-2 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | NS | NS | ND | ND | |
| MW-15 | 4 | 4 | 4 | 4 | 8 | 5 | 16.18 | 6.92 | 16.85 | 62 | 22.93 | 64.8 | 4.9 | 113.3 | 77.3 | 18.2 | 149.6 | 60.4 | |
| MW-20 | 2 | 2 | 2 | 2 | 2 | 2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| MW-6 | 9 | 9 | 9 | 9 | 10 | 8 | 79 | 73.2 | 81.8 | 107 | 96 | 92.8 | 87.8 | 113 | 123 | 105 | 171 | 151 | |
| MW-16 | 8 | 8 | 8 | 7 | 6 | 6 | 23.1 | 28.9 | 7.21 | 2.53 | ND | 22 | 22.2 | 16.2 | 21.3 | 8.56 | 24.7 | 60.0 | |
| MW-19R | 3 | 3 | 3 | 3 | 3 | 3 | ND | ND | ND | 2.67 | ND | 4.27 | ND | 13.7 | 10.57 | ND | 22.1 | 2.64 | |
| MW-21 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | 141.8 | NS | 14.3 | 533 | 318 | |
| MW-5 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | 3.41 | ND | |
| MW-3 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | 2.4 | ND | |
| MW-13 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | NS | ND | 2.02 | ND | |
| MW-4 | 0 | 0 | 1 | 1 | 1 | 1 | ND | ND | ND | ND | ND | ND | ND | ND | NS | ND | ND | ND | |
| MW-8 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | NS | |
| MW-9 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | NS | |
| MW-10 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | NS | |
| RECOVERY WELLS | | | | | | | | | | | | | | | | | | | |
| Recovery Well No. | Sampling Order July-13 | Sampling Order Apr-13 | Sampling Order Dec-12 | Sampling Order Jun-12 | Sampling Order Mar-12 | Sampling Order Sep-11 | Sampling Order Jun-11 | Mar-11 Total VOCs | Dec-10 Total VOCs | Sep-10 Total VOCs | Jun-10 Total VOCs | Jul-09 Total VOCs | Feb-09 Total VOCs | Sept-08 Total VOCs | Jun-08 Total VOCs | Mar-08 Total VOCs | Sept-07 Total VOCs | May-07 Total VOCs | |
| G-3 | 20 | 20 | 20 | 20 | 20 | 20 | 224.7 | 209.8 | 159.3 | 233.2 | 277.8 | 344 | 403 | NA | NA | NA | NA | NA | |
| G-2 | 19 | 19 | 19 | 19 | 19 | 19 | 65.6 | 47.2 | 51.8 | 6.02 | 8.37 | 56.2 | 231 | 28.3 | 39.1 | 80.92 | 59.3 | 174.92 | |
| G-1 | 18 | 18 | 18 | 18 | 18 | 18 | 55.81 | 67.02 | 48.8 | 30.5 | 108.3 | 164 | 126.6 | 120.4 | 170.5 | 186 | 225.0 | 153.3 | |
| DR-4 | 17 | 17 | 17 | 17 | 17 | 17 | 128.4 | 101.4 | 71.7 | 230.58 | 155.04 | 80.3 | 66.3 | 129.1 | 40.2 | 42.1 | 217.0 | 15.21 | |
| DR-3 | 16 | 16 | 16 | 16 | 16 | 16 | 67.7 | 25.3 | 30.1 | 38.1 | 79.7 | 125.96 | 167.34 | 75.4 | 123.2 | 171.7 | 387.5 | 183 | |
| DR-1 | 15 | 15 | 15 | 15 | 15 | 14 | 154.5 | 250.1 | 355.5 | 442.5 | 60.3 | 392.28 | 260 | 724 | 864 | 530 | 2,043.5 | 1,106 | |
| DR-2 | 14 | 14 | 14 | 14 | 14 | 15 | 240.93 | 267.75 | 152.3 | 213.52 | 255.2 | 198.24 | 223.79 | 206.6 | 284.3 | 154.4 | 288.1 | 350.1 | |

NA: Not Applicable. This well not included in this sampling event.
 ND = Not Detected, results less than Method Detection Limit.
 Impacted north property line wells: MW-5, MW-6, MW-7, MW-16, MW-17.

Table 4 Percent Reductions in Total Groundwater VOCs
 Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

The Groundwater Treatment System was activated in May 2005

| Monitoring Well | % Reduction 2002 to July 2013 | % Reduction 2002 to April 2013 | % Reduction 2002 to December 2012 | % Reduction 2002 to June 2012 | % Reduction 2002 to Mar 2012 | % Reduction 2002 to Sept 2011 | % Reduction 2002 to June 2011 | % Reduction 2002 to March 2011 | % Reduction 2002 to Dec 2010 | % Reduction 2002 to Sept 2010 | % Reduction 2002 to June 2010 | % Reduction 2002 to January 2010 | % Reduction 2002 to July 2009 | % Reduction 2002 to Feb 2009 | % Reduction 2002 to Sept 2008 | % Reduction 2002 to June 2008 | % Reduction 2002 to March 2008 |
|--|-------------------------------------|--------------------------------------|--|-------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|--|-------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|
| MW-1 | -8.1% | -19.5% | -87.5% | 31.3% | -15.8% | 42.4% | -71.6% | 24.1% | 26.6% | 15.5% | -1.3% | 15.8% | -44.2% | 11.8% | -12.0% | 8.2% | -90.5% |
| MW-2 | | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 99.6% |
| MW-3 | | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 99.3% |
| MW-4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% |
| MW-5 | | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 99.3% |
| MW-6 | 75.6% | 77.1% | 75.6% | 78.6% | 78.9% | 75.1% | 80.5% | 82.0% | 79.9% | 73.6% | 81.3% | 77.1% | 78.4% | 78.4% | 72.2% | 69.7% | 74.1% |
| MW-7 | 96.0% | 100.0% | 100.0% | 66.3% | 93.2% | 53.5% | 84.2% | 90.0% | 87.1% | 64.3% | 74.6% | 96.6% | 52.7% | 79.5% | 22.7% | 45.8% | 56.3% |
| MW-8 | | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 92.9% |
| MW-9 | | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 97.6% |
| MW-10 | | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 96.2% |
| MW-11 | 89.0% | 87.7% | 83.0% | 89.3% | 86.7% | 89.1% | 84.5% | 86.6% | 87.3% | 86.4% | 83.5% | 83.3% | 86.5% | 83.0% | 90.6% | 87.8% | 78.0% |
| MW-12 | 98.8% | 98.5% | 99.3% | 99.3% | 98.8% | 99.3% | 98.7% | 99.3% | 99.3% | 99.2% | 98.7% | 98.1% | 99.4% | 97.8% | 99.5% | 98.7% | 98.7% |
| MW-13 | | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 100.0% |
| MW-14 | 84.4% | 77.5% | 85.1% | 87.4% | 75.7% | 75.5% | 66.7% | 89.9% | 92.3% | 87.6% | 79.3% | 85.9% | 87.1% | 88.9% | 100.0% | 87.9% | 100.0% |
| MW-15 | 99.0% | 100.0% | 98.2% | 96.4% | 99.1% | 95.6% | 97.8% | 99.1% | 97.7% | 91.5% | 96.9% | 98.3% | 91.1% | 99.3% | 84.5% | 89.4% | 97.5% |
| MW-16* | 77.9% | 36.8% | 52.6% | 88.5% | 67.9% | 84.0% | 39.2% | 23.9% | 81.0% | 93.3% | 99.7% | 94.2% | 42.1% | 41.6% | 57.4% | 43.9% | 77.5% |
| MW-17* | 50.6% | 97.4% | 46.9% | 53.0% | 67.9% | 44.6% | 72.2% | 96.7% | 94.1% | 61.4% | 71.3% | 97.7% | 71.8% | 99.5% | 10.1% | 26.0% | 24.7% |
| MW-18* | 100.0% | 100.0% | 100.0% | 89.6% | 98.5% | 81.9% | 91.3% | 96.0% | 88.7% | 74.4% | 82.7% | 96.0% | -23.3% | 91.8% | -50.0% | 27.6% | 64.8% |
| MW-19 R* | 100.0% | 100.0% | 75.0% | 99.0% | 99.0% | 99.0% | 99.0% | 99.0% | 99.0% | 73.3% | 99.0% | 99.0% | 57.3% | 99.0% | -36.7% | -5.7% | 99.0% |
| MW-20** | 100.0% | 100.0% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% |
| MW-21** | | | | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | Not Sampled | 96.7% |
| * Well installed 2003 | | | | | | | | | | | | | | | | | |
| ** Well Installed 2004 | | | | | | | | | | | | | | | | | |
| Site-Wide reduction: | 81.8% | 81.2% | 71.3% | 82.9% | 80.7% | 79.7% | 72.2% | 83.7% | 86.9% | 78.3% | 81.4% | 87.9% | 61.1% | 82.1% | 56.0% | 59.7% | 78.5% |
| Impacted Groundwater Plume Area Only: | 73.2% | 77.3% | 62.5% | 75.2% | 73.1% | 71.9% | 64.1% | 84.1% | 83.0% | 72.5% | 72.4% | 82.1% | 65.2% | 79.8% | 57.7% | 64.2% | 53.7% |

Plume Area = MW-1, MW-11, MW-12, MW-14, MW-15, MW-7, MW-17, MW-6

Negative values indicate an increase in total VOCs since monitoring commenced in 2002

% reduction = percent reduction in total Volatile Organic Compounds (VOCs) since groundwater monitoring was initiated

| Recovery Well | % Reduction 2002 to July 2013 | % Reduction 2002 to April 2013 | % Reduction 2002 to December 2012 | % Reduction 2002 to June 2012 | % Reduction 2002 to Mar 2012 | % Reduction 2002 to Sept 2011 | % Reduction 2002 to June 2011 | % Reduction 2002 to March 2011 | % Reduction 2002 to Dec 2010 | % Reduction 2002 to Sept 2010 | % Reduction 2002 to June 2010 | % Reduction 2002 to January 2010 | % Reduction 2002 to July 2009 | % Reduction 2002 to Feb 2009 | % Reduction 2002 to September 2008 | % Reduction 2002 to June 2008 | % Reduction 2002 to March 2008 |
|-------------------|-------------------------------------|--------------------------------------|--|-------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|--------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|--|-------------------------------------|------------------------------------|---|-------------------------------------|--------------------------------------|
| DR-1 | 0.990875 | 99.0% | 99.5% | 99.8% | 91.6% | 97.9% | 98.1% | 96.9% | 95.6% | 94.5% | 99.2% | 98.0% | 95.1% | 96.8% | 91.0% | 89.2% | 93.4% |
| DR-2 | 0.872191712 | 85.4% | 99.1% | 88.5% | 83.9% | 89.7% | 88.0% | 86.6% | 92.4% | 89.3% | 87.3% | 90.6% | 90.1% | 88.8% | 89.7% | 85.8% | 92.3% |
| DR-3 | 0.958011648 | 95.1% | 97.2% | 92.1% | 98.3% | 95.0% | 95.4% | 98.3% | 98.0% | 97.4% | 94.6% | 91.6% | 91.5% | 88.7% | 94.9% | 91.7% | 88.4% |
| DR-4 | 0.955281331 | 97.9% | 94.9% | 93.1% | 100.0% | 89.2% | 92.7% | 94.3% | 95.9% | 96.9% | 91.2% | 91.2% | 95.4% | 95.2% | 92.7% | 97.7% | 97.6% |
| G-1 | 0.873094582 | 89.8% | 90.3% | 87.4% | 88.0% | 87.6% | 89.8% | 87.7% | 91.0% | 94.4% | 80.1% | 78.0% | 69.9% | 76.7% | 77.9% | 68.7% | 65.8% |
| G-2 | 0.78961039 | 87.0% | 65.7% | 80.4% | 89.1% | 92.3% | 83.0% | 87.7% | 86.5% | 98.4% | 97.8% | 98.5% | 85.4% | 40.0% | 92.6% | 89.8% | 79.0% |
| G-3 | | | | | | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Overall Reduction | 90.7% | 92.3% | 91.1% | 90.2% | 91.8% | 91.9% | 91.1% | 91.9% | 93.2% | 93.5% | 91.7% | 91.7% | 87.9% | 81.2% | 89.8% | 87.2% | 86.1% |

*Sampling of recovery wells initiated in 2005

FIGURES



MONITORING WELLS & BORING LOCATIONS

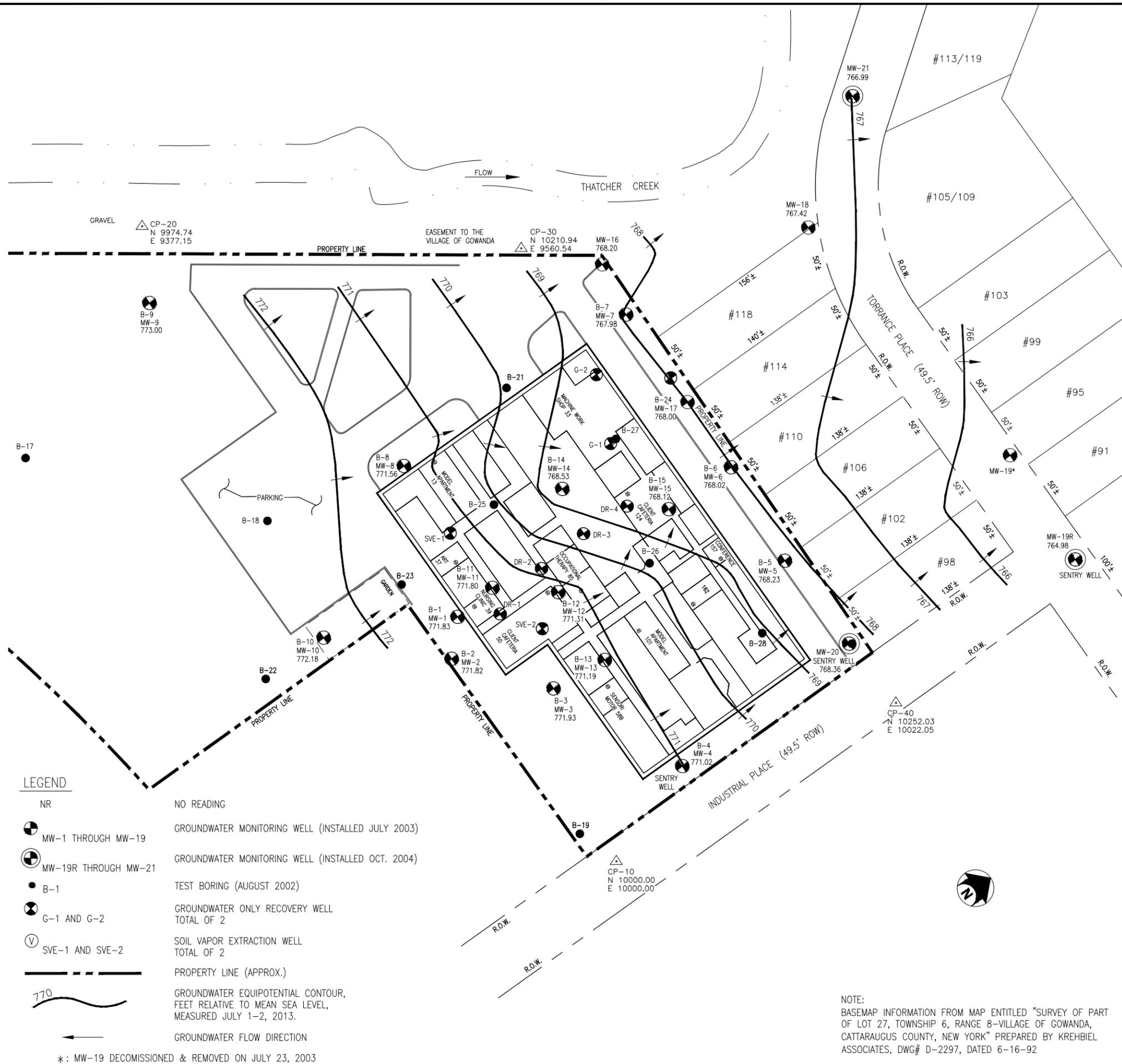
| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|----------|----------------------------|---------------------|
| MW-1 | 10005.75 | 9770.81 | 778.51 778.52 778.23 | ASPH. RIM PVC |
| MW-2 | 9983.26 | 9795.25 | 778.36 778.38 778.08 | ASPH. RIM PVC |
| MW-3 | 10036.20 | 9859.98 | 778.59 778.61 778.38 | ASPH. RIM PVC |
| MW-4 | 10085.20 | 9967.62 | 778.66 778.77 778.43 | GRD. RIM PVC |
| MW-5 | 10243.23 | 9880.34 | 778.80 778.85 778.61 | ASPH. RIM PVC |
| MW-6 | 10249.86 | 9795.88 | 778.93 781.35 781.10 | GRD. CASE PVC |
| MW-7 | 10249.65 | 9650.24 | 778.77 781.17 780.94 | GRD. CASE PVC |
| MW-8 | 10038.09 | 9649.08 | 778.49 781.75 781.33 | GRD. CASE PVC |
| MW-9 | 9945.36 | 9430.13 | 780.56 782.84 782.61 | GRD. CASE PVC |
| MW-10 | 9909.53 | 9724.56 | 777.46 780.10 780.02 | GRD. CASE PVC |
| MW-11 | 10041.23 | 9767.54 | 778.82 778.81 778.58 | FLOOR RIM PVC |
| MW-12 | 10082.02 | 9799.74 | 778.84 778.85 778.50 | FLOOR RIM PVC |
| MW-13 | 10082.09 | 9864.35 | 778.88 778.87 778.39 | FLOOR RIM PVC |
| MW-14 | 10130.64 | 9734.67 | 778.80 778.82 778.43 | FLOOR RIM PVC |
| MW-15 | 10190.80 | 9795.30 | 778.78 778.76 778.38 | FLOOR RIM PVC |
| MW-16 | 10256.48 | 9607.09 | 778.17 781.05 780.43 | GRD. CASE PVC |
| MW-17 | 10250.56 | 9734.35 | 778.67 781.10 779.85 | GRD. CASE PVC |
| MW-18 | 10406.65 | 9675.18 | 776.73 776.65 776.39 | GRD. RIM PVC |
| MW-19 | 10436.35 | 9912.63 | 775.04 775.10 774.82 | GRD. RIM PVC |
| MW-19R | 10432.32 | 10009.16 | 774.56 774.55 774.20 | ASPH. RIM PVC |
| MW-20 | 10248.05 | 9962.73 | 778.47 778.45 778.04 | ASPH. RIM PVC |
| MW-21 | 10493.88 | 9609.90 | 775.47 775.45 774.76 | ASPH. RIM PVC |
| B-16 | 9736.69 | 9324.99 | 782.23 | GRD. |
| B-17 | 9795.99 | 9475.17 | 780.40 | GRD. |
| B-18 | 9925.09 | 9623.75 | 777.55 | ASPH. |
| B-19 | 9988.66 | 9965.74 | 778.30 | ASPH. |
| B-20 | 10249.88 | 9964.03 | 778.36 | ASPH. |
| B-21 | 10139.46 | 9644.31 | 774.51 | GRAV. |
| B-22 | 9853.67 | 9725.31 | 776.69 | GRD. |
| B-23 | 9983.81 | 9724.83 | 778.50 | ASPH. |
| B-24 | 10249.26 | 9732.76 | 778.88 | GRD. |
| B-25 | 10079.30 | 9714.32 | 778.79 | FLOOR |
| B-26 | 10154.35 | 9821.64 | 778.84 | FLOOR |
| B-27 | 10187.79 | 9726.14 | 778.80 | FLOOR |
| B-28 | 10196.32 | 9917.18 | 778.83 | FLOOR |

RECOVERY WELL LOCATIONS

| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|---------|----------------------------|-------------------------------|
| DR-1 | 10034.54 | 9787.80 | 778.81 779.66 779.69 | FLOOR PVC RISER PVC CAP |
| DR-2 | 10081.63 | 9776.80 | 778.87 779.93 779.96 | FLOOR PVC RISER PVC CAP |
| DR-3 | 10124.45 | 9773.02 | 778.83 779.78 779.81 | FLOOR PVC RISER PVC CAP |
| DR-4 | 10164.98 | 9774.65 | 778.80 779.64 779.67 | FLOOR PVC RISER PVC CAP |
| G-1 | 10182.25 | 9726.78 | 778.80 779.83 779.86 | FLOOR PVC RISER PVC CAP |
| G-2 | 10203.62 | 9675.79 | 778.86 779.72 779.76 | FLOOR PVC RISER PVC CAP |
| SVE-1 | 10038.31 | 9713.33 | 778.77 779.66 N/A | FLOOR PVC RISER PVC CAP |
| SVE-2 | 10055.47 | 9816.17 | 778.86 779.91 N/A | FLOOR PVC RISER PVC CAP |

LEGEND

- NR NO READING
- MW-1 THROUGH MW-19 GROUNDWATER MONITORING WELL (INSTALLED JULY 2003)
- MW-19R THROUGH MW-21 GROUNDWATER MONITORING WELL (INSTALLED OCT. 2004)
- B-1 TEST BORING (AUGUST 2002)
- G-1 AND G-2 GROUNDWATER ONLY RECOVERY WELL TOTAL OF 2
- SVE-1 AND SVE-2 SOIL VAPOR EXTRACTION WELL TOTAL OF 2
- PROPERTY LINE (APPROX.)
- GROUNDWATER EQUIPOTENTIAL CONTOUR, FEET RELATIVE TO MEAN SEA LEVEL, MEASURED JULY 1-2, 2013.
- GROUNDWATER FLOW DIRECTION
- *: MW-19 DECOMMISSIONED & REMOVED ON JULY 23, 2003



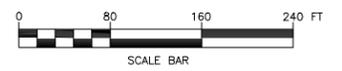
DASNY
GOWANDA DAY HABILITATION CENTER
 4 INDUSTRIAL PLACE
 GOWANDA, NY

BERGMANN associates
 Engineers / Architects / Surveyors

200 First Federal Plaza
 28 East Main Street, Rochester, New York 14614
 585.232.5235 / 585.232.4652 fax

| REVISIONS | | | | |
|-----------|------|-------------|------|-----|
| NO. | DATE | DESCRIPTION | REV. | CKD |
| | | | | |

NOTE:
 Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.



JULY 2013 GROUNDWATER CONTOUR MAP

Project Manager: G. FLISNIK
 Designed by: _____
 Drawn by: C. WOOD
 Checked by: S. DEMEO
 Date Issued: MARCH 2014
 Scale: 1"=80'

Project Number: 6974.76
 File Name: I:\DASNY\006974.76\3.03.8\2013 Sampling Events\ July 2013\Figures\July2013 FIG1.dwg
 Drawing Number: _____

NOTE:
 BASEMAP INFORMATION FROM MAP ENTITLED "SURVEY OF PART OF LOT 27, TOWNSHIP 6, RANGE 8-VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK" PREPARED BY KREHBIEL ASSOCIATES, DWG# D-2297, DATED 6-16-92

FIG-1



**BERGMANN
associates**

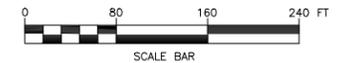
Engineers / Architects / Surveyors

200 First Federal Plaza
28 East Main Street, Rochester, New York 14614
585.232.5235 / 585.232.4652 Fax

REVISIONS

| NO. | DATE | DESCRIPTION | REV. | CKD |
|-----|------|-------------|------|-----|
| | | | | |

NOTE:
Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.



**JULY 2013
DISTRIBUTION OF
GROUNDWATER
ANALYTICAL RESULTS
IN MONITORING WELLS**

Project Manager:
G. FLISNIK

Designed by:

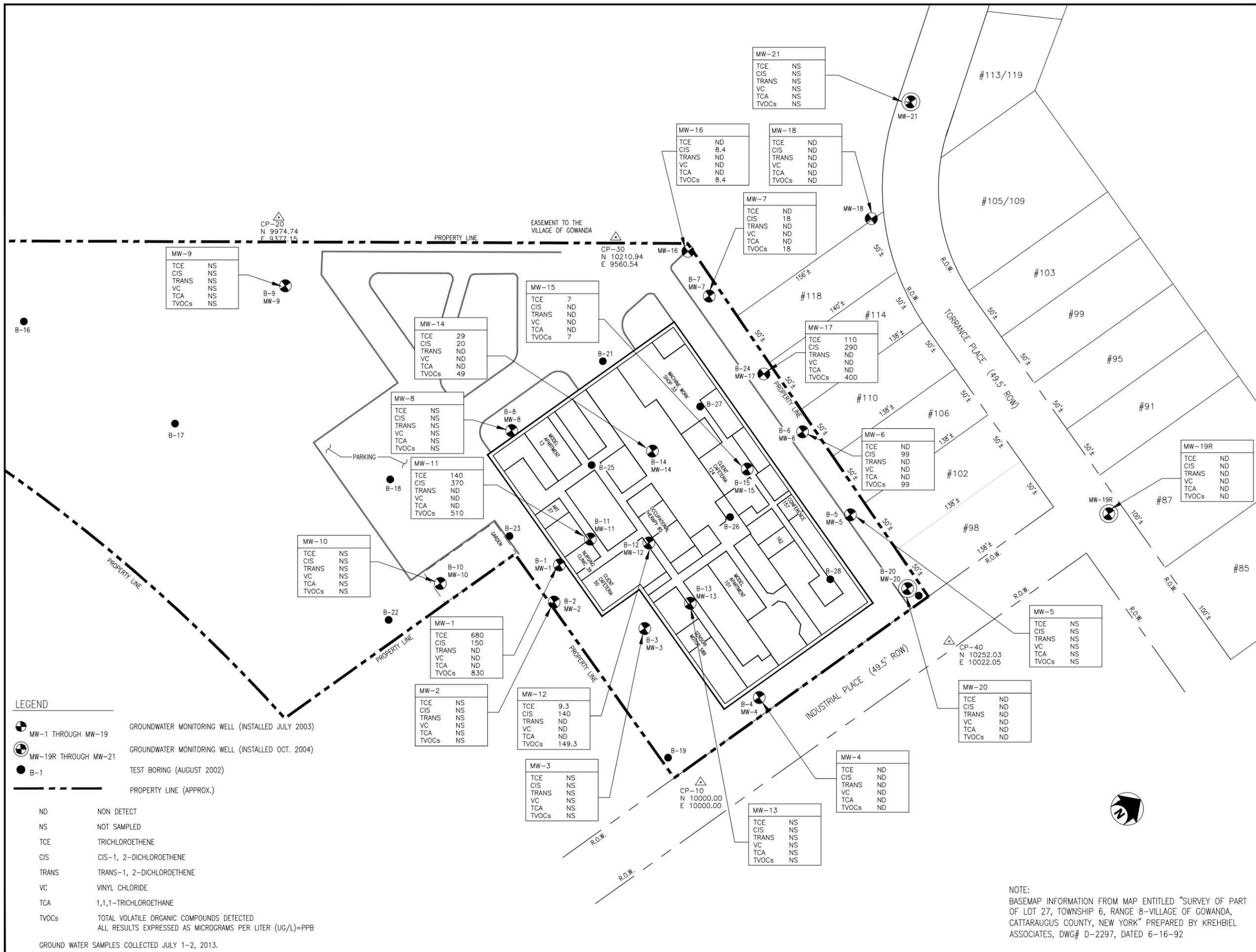
Drawn by:
C. WOOD

Checked by:
S. DEMEO

Date Issued:
MARCH 2014

Scale:
1"=80'

Date: _____
Project Number: 6974.76 File Name: I:\DASNY\006974.76\3.03.8\2013 Sampling Events\ July 2013\Figures\July2013 FIG2.dwg
Drawing Number: _____



NOTE:
BASEMAP INFORMATION FROM MAP ENTITLED "SURVEY OF PART OF LOT 27, TOWNSHIP 6, RANGE 8-VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK" PREPARED BY KREHBIEL ASSOCIATES, DWG# D-2297, DATED 6-16-92



Engineers / Architects / Surveyors

200 First Federal Plaza
28 East Main Street, Rochester, New York 14614
585.232.5235 / 585.232.4652 fax

| REVISIONS | | | |
|-----------|------|-------------|----------|
| NO. | DATE | DESCRIPTION | REV. CKD |
| | | | |

NOTE:
Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.



**JULY 2013
DISTRIBUTION OF
GROUNDWATER
ANALYTICAL RESULTS
IN RECOVERY WELLS**

Project Manager:

G. FLISNIK

Designed by:

C. WOOD

Checked by:

S. DEMEO

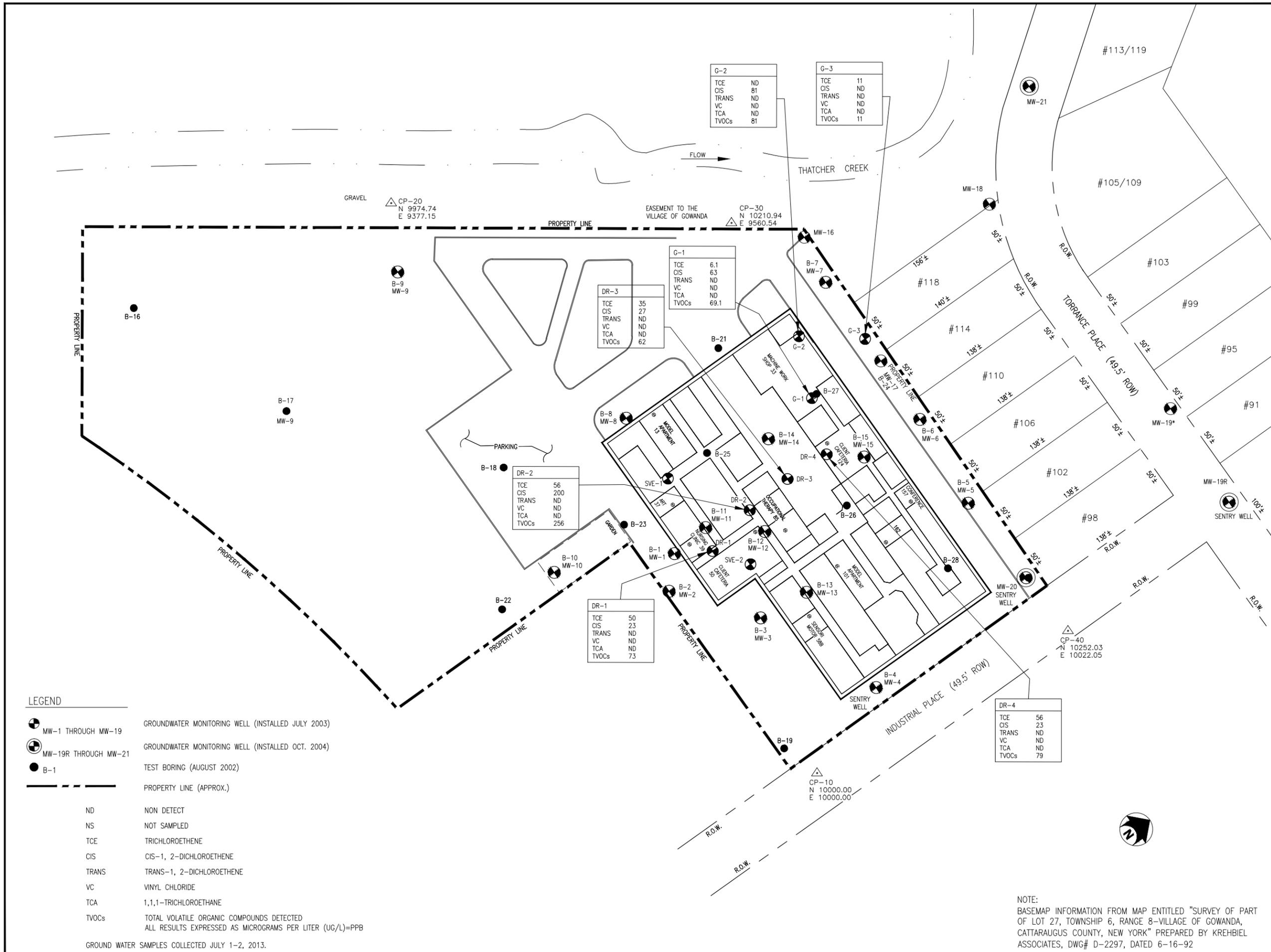
Date Issued:

MARCH 2014

Scale:

1"=80'

Date: _____
Project Number: 6974.76
File Name: I:\DASNY\006974.76\3.03.8\2013 Sampling Events\ July 2013\Figures\July2013 FIG3.dwg
Drawing Number: _____



LEGEND

- MW-1 THROUGH MW-19 GROUNDWATER MONITORING WELL (INSTALLED JULY 2003)
- MW-19R THROUGH MW-21 GROUNDWATER MONITORING WELL (INSTALLED OCT. 2004)
- B-1 TEST BORING (AUGUST 2002)
- PROPERTY LINE (APPROX.)
- ND NON DETECT
- NS NOT SAMPLED
- TCE TRICHLOROETHENE
- CIS CIS-1, 2-DICHLOROETHENE
- TRANS TRANS-1, 2-DICHLOROETHENE
- VC VINYL CHLORIDE
- TCA 1,1,1-TRICHLOROETHANE
- TVOCs TOTAL VOLATILE ORGANIC COMPOUNDS DETECTED
ALL RESULTS EXPRESSED AS MICROGRAMS PER LITER (UG/L)=PPB
- GROUND WATER SAMPLES COLLECTED JULY 1-2, 2013.

NOTE:
BASEMAP INFORMATION FROM MAP ENTITLED "SURVEY OF PART OF LOT 27, TOWNSHIP 6, RANGE 8-VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK" PREPARED BY KREHBIEL ASSOCIATES, DWG# D-2297, DATED 6-16-92

APPENDICES



APPENDIX A
LABORATORY ANALYTICAL RESULTS REPORT
JULY 2013 SAMPLING EVENT





July 19, 2013

Service Request No: R1304873

Mr. Michael Carpenter
Bergmann Associates, Incorporated
200 First Federal Plaza
28 East Main St.
Rochester, NY 14614

Laboratory Results for: Gowanda/ 6974.76

Dear Mr. Carpenter:

Enclosed are the results of the sample(s) submitted to our laboratory on July 3, 2013. For your reference, these analyses have been assigned our service request number **R1304873**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Karen.Bunker@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Karen Bunker
Project Manager

Page 1 of 41

Client: Bergmann Associates
Project: Gowanda Day – 6974.76
Sample Matrix: Water

Service Request No.: R1304873
Date Received: 7/3/13

All analyses were performed consistent with the quality assurance program of ALS Environmental (ALS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Twenty-four (24) samples were collected by the client on 7/1-2/13 and received for analysis at ALS on 7/3/13 via client drop off. All samples were received within the proper temperature guidelines of 0-6 degrees C.

Volatile Organics

Twenty-four (24) water samples were analyzed for a client specific list of Volatile Organic compounds by GC/MS method 8260C.

The Initial and Continuing Calibration criteria were met for all samples.

Batch QC is included in the report. All Laboratory Control Sample (LCS) and LCS Duplicate (LCSD) recoveries for target compounds were within QC limits. No data was affected. All Relative Percent Difference (RPD) calculations were acceptable.

All Surrogate recoveries are within acceptance limits.

Hits above the calibration range of the standards are flagged as "E", estimated. The sample is then repeated at the appropriate dilution for the hits. Both sets of data are included in the report. The subsequent hits on the diluted sample are flagged as "D".

The Laboratory Method Blanks were free from contamination.

No other problems were encountered during the analysis of these samples.

Approved by *Karen Berber* Date 7/22/13

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1304873

| <u>Lab ID</u> | <u>Client ID</u> |
|---------------|------------------|
| R1304873-001 | MW-4 |
| R1304873-002 | MW-20 |
| R1304873-003 | MW-19R |
| R1304873-004 | MW-18 |
| R1304873-005 | MW-16 |
| R1304873-006 | MW-15 |
| R1304873-007 | MW-14 |
| R1304873-008 | MW-7 |
| R1304873-009 | MW-6 |
| R1304873-010 | MW-17 |
| R1304873-011 | MW-12 |
| R1304873-012 | MW-11 |
| R1304873-013 | MW-1 |
| R1304873-014 | MW-X |
| R1304873-015 | MB |
| R1304873-016 | GTS-INF |
| R1304873-017 | Trip Blank |
| R1304873-018 | DR-1 |
| R1304873-019 | DR-2 |
| R1304873-020 | DR-3 |
| R1304873-021 | DR-4 |
| R1304873-022 | G-1 |
| R1304873-023 | G-2 |
| R1304873-024 | G-3 |

REPORT QUALIFIERS AND DEFINITIONS

- | | |
|---|--|
| <p>U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p>J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p>* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p> | <p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% (25% for CLP) difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



Rochester Lab ID # for State Certifications¹

| | | |
|-------------------------|-----------------------|-------------------------------|
| NELAP Accredited | Maine ID #NY0032 | New Hampshire ID # 294100 A/B |
| Connecticut ID # PH0556 | Nebraska Accredited | |
| Delaware Accredited | Nevada ID # NY-00032 | North Carolina #676 |
| DoD ELAP #65817 | New Jersey ID # NY004 | Pennsylvania ID# 68-786 |
| Florida ID # E87674 | New York ID # 10145 | Rhode Island ID # 158 |
| Illinois ID #200047 | | Virginia #460167 |

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

| Analytical Method | Preparation Method |
|-------------------------------|--------------------|
| 200.7 | 3010A |
| 200.8 | ILM05.3 |
| 6010C | 3010A |
| 6020A | ILM05.3 |
| 9014 Cyanide Reactivity | SW846 Ch7, 7.3.4.2 |
| 9034 Sulfide Reactivity | SW846 Ch7, 7.3.4.2 |
| 9034 Sulfide Acid Soluble | 9030B |
| 9056A Bomb (Halogens) | 5050A |
| 9066 Manual Distillation | 9065 |
| SM 4500-CN-E Residual Cyanide | SM 4500-CN-G |
| SM 4500-CN-E WAD Cyanide | SM 4500-CN-I |

Solid/Soil/Non-Aqueous Matrix

| Analytical Method | Preparation Method |
|--|--------------------|
| 6010C | 3050B |
| 6020A | 3050B |
| 6010C TCLP (1311) extract | 3010A |
| 6010 SPLP (1312) extract | 3010A |
| 7196A | 3060A |
| 7199 | 3060A |
| 9056A Halogens/Halides | 5050 |
| 300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions | DI extraction |

For analytical methods not listed, the preparation method is the same as the analytical method reference.

RIGHT SOLUTIONS | RIGHT PARTNER

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 1/13 0930
Date Received: 7/ 3/13
Date Analyzed: 7/10/13 19:20

Sample Name: MW-4
Lab Code: R1304873-001

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\071013\A8049.D\

Analysis Lot: 348431
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed Q |
|----------------------|------|----------------|-----------------|
| 4-Bromofluorobenzene | 94 | 85-122 | 7/10/13 19:20 |
| Dibromofluoromethane | 102 | 89-119 | 7/10/13 19:20 |
| Toluene-d8 | 95 | 87-121 | 7/10/13 19:20 |



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 1/13 1040
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 00:25

Sample Name: MW-20
Lab Code: R1304873-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA8\DATA\071013\A8060.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed Q |
|----------------------|------|----------------|-----------------|
| 4-Bromofluorobenzene | 93 | 85-122 | 7/11/13 00:25 |
| Dibromofluoromethane | 99 | 89-119 | 7/11/13 00:25 |
| Toluene-d8 | 95 | 87-121 | 7/11/13 00:25 |



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 1/13 1210
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 00:53

Sample Name: MW-19R
Lab Code: R1304873-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\071013\A8061.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 97 | 85-122 | 7/11/13 00:53 | |
| Dibromofluoromethane | 101 | 89-119 | 7/11/13 00:53 | |
| Toluene-d8 | 97 | 87-121 | 7/11/13 00:53 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 1/13 1330
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 01:20

Sample Name: MW-18
Lab Code: R1304873-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\MSVOA8\DATA\071013\A8062.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 97 | 85-122 | 7/11/13 01:20 | |
| Dibromofluoromethane | 102 | 89-119 | 7/11/13 01:20 | |
| Toluene-d8 | 97 | 87-121 | 7/11/13 01:20 | |



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 1/13 1445
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 01:48

Sample Name: MW-16
Lab Code: R1304873-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA8\DATA\071013\A8063.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 8.4 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed Q |
|----------------------|------|----------------|-----------------|
| 4-Bromofluorobenzene | 99 | 85-122 | 7/11/13 01:48 |
| Dibromofluoromethane | 104 | 89-119 | 7/11/13 01:48 |
| Toluene-d8 | 100 | 87-121 | 7/11/13 01:48 |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 1/13 1535
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 02:16

Sample Name: MW-15
Lab Code: R1304873-006

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA8\DATA\071013\A8064.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 7.0 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 7/11/13 02:16 | |
| Dibromofluoromethane | 103 | 89-119 | 7/11/13 02:16 | |
| Toluene-d8 | 97 | 87-121 | 7/11/13 02:16 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda/ 6974.76
 Sample Matrix: Water

Service Request: R1304873
 Date Collected: 7/ 1/13 1620
 Date Received: 7/ 3/13
 Date Analyzed: 7/11/13 02:43

Sample Name: MW-14
 Lab Code: R1304873-007

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQDATA\MSVOA8\DATA\071013\A8065.D\

Analysis Lot: 348433
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 20 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 29 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 95 | 85-122 | 7/11/13 02:43 | |
| Dibromofluoromethane | 103 | 89-119 | 7/11/13 02:43 | |
| Toluene-d8 | 97 | 87-121 | 7/11/13 02:43 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 1/13 1710
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 03:11

Sample Name: MW-7
Lab Code: R1304873-008

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\MSVOA8\DATA\071013\A8066.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 18 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 7/11/13 03:11 | |
| Dibromofluoromethane | 102 | 89-119 | 7/11/13 03:11 | |
| Toluene-d8 | 96 | 87-121 | 7/11/13 03:11 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 0940
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 03:38

Sample Name: MW-6
Lab Code: R1304873-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\MSVOA8\DATA\071013\A8067.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 99 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 95 | 85-122 | 7/11/13 03:38 | |
| Dibromofluoromethane | 102 | 89-119 | 7/11/13 03:38 | |
| Toluene-d8 | 97 | 87-121 | 7/11/13 03:38 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda/ 6974.76
 Sample Matrix: Water

Service Request: R1304873
 Date Collected: 7/ 2/13 1035
 Date Received: 7/ 3/13
 Date Analyzed: 7/11/13 04:06

Sample Name: MW-17
 Lab Code: R1304873-010

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUATA\MSVOA8\DATA\071013\A8068.D\

Analysis Lot: 348433
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 290 E | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 120 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 91 | 85-122 | 7/11/13 04:06 | |
| Dibromofluoromethane | 98 | 89-119 | 7/11/13 04:06 | |
| Toluene-d8 | 94 | 87-121 | 7/11/13 04:06 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1035
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 14:53

Sample Name: MW-17
Lab Code: R1304873-010
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA8\DATA\071113\A8090.D\

Analysis Lot: 348611
Instrument Name: R-MS-08
Dilution Factor: 2

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 290 D | 10 | |
| 156-60-5 | trans-1,2-Dichloroethene | 10 U | 10 | |
| 127-18-4 | Tetrachloroethene (PCE) | 10 U | 10 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 10 U | 10 | |
| 79-01-6 | Trichloroethene (TCE) | 110 D | 10 | |
| 75-01-4 | Vinyl Chloride | 10 U | 10 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 7/11/13 14:53 | |
| Dibromofluoromethane | 102 | 89-119 | 7/11/13 14:53 | |
| Toluene-d8 | 96 | 87-121 | 7/11/13 14:53 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1150
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 04:34

Sample Name: MW-12
Lab Code: R1304873-011

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\MSVOA8\DATA\071013\A8069.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 140 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 9.3 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed Q |
|----------------------|------|----------------|-----------------|
| 4-Bromofluorobenzene | 97 | 85-122 | 7/11/13 04:34 |
| Dibromofluoromethane | 105 | 89-119 | 7/11/13 04:34 |
| Toluene-d8 | 98 | 87-121 | 7/11/13 04:34 |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1300
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 05:01

Sample Name: MW-11
Lab Code: R1304873-012

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\MSVOA8\DATA\071013\A8070.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 2.5

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 370 | 13 | |
| 156-60-5 | trans-1,2-Dichloroethene | 13 U | 13 | |
| 127-18-4 | Tetrachloroethene (PCE) | 13 U | 13 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 13 U | 13 | |
| 79-01-6 | Trichloroethene (TCE) | 140 | 13 | |
| 75-01-4 | Vinyl Chloride | 13 U | 13 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 7/11/13 05:01 | |
| Dibromofluoromethane | 99 | 89-119 | 7/11/13 05:01 | |
| Toluene-d8 | 95 | 87-121 | 7/11/13 05:01 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1405
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 05:29

Sample Name: MW-1
Lab Code: R1304873-013

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA8\DATA\071013\A8071.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 5

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 150 | 25 | |
| 156-60-5 | trans-1,2-Dichloroethene | 25 U | 25 | |
| 127-18-4 | Tetrachloroethene (PCE) | 25 U | 25 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 25 U | 25 | |
| 79-01-6 | Trichloroethene (TCE) | 680 | 25 | |
| 75-01-4 | Vinyl Chloride | 25 U | 25 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 7/11/13 05:29 | |
| Dibromofluoromethane | 105 | 89-119 | 7/11/13 05:29 | |
| Toluene-d8 | 99 | 87-121 | 7/11/13 05:29 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 05:56

Sample Name: MW-X
Lab Code: R1304873-014

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA8\DATA\071013\A8072.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 370 E | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 150 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 7/11/13 05:56 | |
| Dibromofluoromethane | 101 | 89-119 | 7/11/13 05:56 | |
| Toluene-d8 | 95 | 87-121 | 7/11/13 05:56 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 15:21

Sample Name: MW-X
Lab Code: R1304873-014
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\071113\A8091.D\

Analysis Lot: 348611
Instrument Name: R-MS-08
Dilution Factor: 2.5

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 390 D | 13 | |
| 156-60-5 | trans-1,2-Dichloroethene | 13 U | 13 | |
| 127-18-4 | Tetrachloroethene (PCE) | 13 U | 13 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 13 U | 13 | |
| 79-01-6 | Trichloroethene (TCE) | 150 D | 13 | |
| 75-01-4 | Vinyl Chloride | 13 U | 13 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 97 | 85-122 | 7/11/13 15:21 | |
| Dibromofluoromethane | 105 | 89-119 | 7/11/13 15:21 | |
| Toluene-d8 | 99 | 87-121 | 7/11/13 15:21 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1415
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 06:24

Sample Name: MB
Lab Code: R1304873-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA8\DATA\071013\A8073.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 7/11/13 06:24 | |
| Dibromofluoromethane | 104 | 89-119 | 7/11/13 06:24 | |
| Toluene-d8 | 96 | 87-121 | 7/11/13 06:24 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1425
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 06:52

Sample Name: GTS-INF
Lab Code: R1304873-016

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA8\DATA\071013\A8074.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 85 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 18 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 98 | 85-122 | 7/11/13 06:52 | |
| Dibromofluoromethane | 104 | 89-119 | 7/11/13 06:52 | |
| Toluene-d8 | 99 | 87-121 | 7/11/13 06:52 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 15:49

Sample Name: Trip Blank
Lab Code: R1304873-017

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA8\DATA\071113\A8092.D\

Analysis Lot: 348611
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed Q |
|----------------------|------|----------------|-----------------|
| 4-Bromofluorobenzene | 97 | 85-122 | 7/11/13 15:49 |
| Dibromofluoromethane | 105 | 89-119 | 7/11/13 15:49 |
| Toluene-d8 | 99 | 87-121 | 7/11/13 15:49 |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1500
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 16:17

Sample Name: DR-1
Lab Code: R1304873-018

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA8\DATA\071113\A8093.D\

Analysis Lot: 348611
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 23 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 50 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 7/11/13 16:17 | |
| Dibromofluoromethane | 106 | 89-119 | 7/11/13 16:17 | |
| Toluene-d8 | 98 | 87-121 | 7/11/13 16:17 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1505
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 07:19

Sample Name: DR-2
Lab Code: R1304873-019

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\071013\A8075.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 2

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 200 | 10 | |
| 156-60-5 | trans-1,2-Dichloroethene | 10 U | 10 | |
| 127-18-4 | Tetrachloroethene (PCE) | 10 U | 10 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 10 U | 10 | |
| 79-01-6 | Trichloroethene (TCE) | 56 | 10 | |
| 75-01-4 | Vinyl Chloride | 10 U | 10 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed Q |
|----------------------|------|----------------|-----------------|
| 4-Bromofluorobenzene | 94 | 85-122 | 7/11/13 07:19 |
| Dibromofluoromethane | 99 | 89-119 | 7/11/13 07:19 |
| Toluene-d8 | 94 | 87-121 | 7/11/13 07:19 |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1515
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 16:45

Sample Name: DR-3
Lab Code: R1304873-020

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\MSVOA8\DATA\071113\A8094.D\

Analysis Lot: 348611
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 27 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 35 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 7/11/13 16:45 | |
| Dibromofluoromethane | 102 | 89-119 | 7/11/13 16:45 | |
| Toluene-d8 | 96 | 87-121 | 7/11/13 16:45 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1520
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 17:13

Sample Name: DR-4
Lab Code: R1304873-021

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\071113\A8095.D\

Analysis Lot: 348611
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 23 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 56 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 92 | 85-122 | 7/11/13 17:13 | |
| Dibromofluoromethane | 100 | 89-119 | 7/11/13 17:13 | |
| Toluene-d8 | 93 | 87-121 | 7/11/13 17:13 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1535
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 17:42

Sample Name: G-1
Lab Code: R1304873-022

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\071113\A8096.D\

Analysis Lot: 348611
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 63 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 6.1 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 92 | 85-122 | 7/11/13 17:42 | |
| Dibromofluoromethane | 98 | 89-119 | 7/11/13 17:42 | |
| Toluene-d8 | 93 | 87-121 | 7/11/13 17:42 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1540
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 18:10

Sample Name: G-2
Lab Code: R1304873-023

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\071113\A8097.D\

Analysis Lot: 348611
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 81 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 95 | 85-122 | 7/11/13 18:10 | |
| Dibromofluoromethane | 102 | 89-119 | 7/11/13 18:10 | |
| Toluene-d8 | 96 | 87-121 | 7/11/13 18:10 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: 7/ 2/13 1550
Date Received: 7/ 3/13
Date Analyzed: 7/11/13 18:38

Sample Name: G-3
Lab Code: R1304873-024

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\071113\A8098.D\

Analysis Lot: 348611
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 11 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 92 | 85-122 | 7/11/13 18:38 | |
| Dibromofluoromethane | 99 | 89-119 | 7/11/13 18:38 | |
| Toluene-d8 | 94 | 87-121 | 7/11/13 18:38 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: NA
Date Received: NA
Date Analyzed: 7/10/13 11:41

Sample Name: Method Blank
Lab Code: RQ1307934-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\MSVOA8\DATA\071013\A8033.D\

Analysis Lot: 348431
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 7/10/13 11:41 | |
| Dibromofluoromethane | 100 | 89-119 | 7/10/13 11:41 | |
| Toluene-d8 | 97 | 87-121 | 7/10/13 11:41 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda/ 6974.76
Sample Matrix: Water

Service Request: R1304873
Date Collected: NA
Date Received: NA
Date Analyzed: 7/10/13 23:58

Sample Name: Method Blank
Lab Code: RQ1307935-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\071013\A8059.D\

Analysis Lot: 348433
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 7/10/13 23:58 | |
| Dibromofluoromethane | 100 | 89-119 | 7/10/13 23:58 | |
| Toluene-d8 | 96 | 87-121 | 7/10/13 23:58 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda/ 6974.76
 Sample Matrix: Water

Service Request: R1304873
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 7/11/13 11:36

Sample Name: Method Blank
 Lab Code: RQ1307981-03

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\071113\A8083.D\

Analysis Lot: 348611
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 7/11/13 11:36 | |
| Dibromofluoromethane | 101 | 89-119 | 7/11/13 11:36 | |
| Toluene-d8 | 98 | 87-121 | 7/11/13 11:36 | |

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda/ 6974.76
 Sample Matrix: Water

Service Request: R1304873
 Date Analyzed: 7/10/13

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 348431

Lab Control Sample
 RQ1307934-04

| Analyte Name | Result | Spike Amount | % Rec | % Rec Limits |
|-----------------------------|--------|--------------|-------|--------------|
| cis-1,2-Dichloroethene | 19.1 | 20.0 | 95 | 77 - 123 |
| trans-1,2-Dichloroethene | 18.7 | 20.0 | 94 | 72 - 120 |
| Tetrachloroethene (PCE) | 19.9 | 20.0 | 100 | 71 - 127 |
| 1,1,1-Trichloroethane (TCA) | 18.2 | 20.0 | 91 | 67 - 121 |
| Trichloroethene (TCE) | 19.7 | 20.0 | 98 | 75 - 122 |
| Vinyl Chloride | 20.1 | 20.0 | 100 | 68 - 139 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda/ 6974.76
 Sample Matrix: Water

Service Request: R1304873
 Date Analyzed: 7/10/13

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 348433

Lab Control Sample
 RQ1307935-04

| Analyte Name | Result | Spike Amount | % Rec | % Rec Limits |
|-----------------------------|--------|--------------|-------|--------------|
| cis-1,2-Dichloroethene | 20.2 | 20.0 | 101 | 77 - 123 |
| trans-1,2-Dichloroethene | 19.9 | 20.0 | 99 | 72 - 120 |
| Tetrachloroethene (PCE) | 20.1 | 20.0 | 100 | 71 - 127 |
| 1,1,1-Trichloroethane (TCA) | 19.4 | 20.0 | 97 | 67 - 121 |
| Trichloroethene (TCE) | 19.9 | 20.0 | 100 | 75 - 122 |
| Vinyl Chloride | 21.6 | 20.0 | 108 | 68 - 139 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda/ 6974.76
 Sample Matrix: Water

Service Request: R1304873
 Date Analyzed: 7/11/13

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 348611

Lab Control Sample
 RQ1307981-04

| Analyte Name | Result | Spike Amount | % Rec | % Rec Limits |
|-----------------------------|--------|--------------|-------|--------------|
| cis-1,2-Dichloroethene | 20.0 | 20.0 | 100 | 77 - 123 |
| trans-1,2-Dichloroethene | 19.8 | 20.0 | 99 | 72 - 120 |
| Tetrachloroethene (PCE) | 20.2 | 20.0 | 101 | 71 - 127 |
| 1,1,1-Trichloroethane (TCA) | 19.8 | 20.0 | 99 | 67 - 121 |
| Trichloroethene (TCE) | 19.8 | 20.0 | 99 | 75 - 122 |
| Vinyl Chloride | 21.9 | 20.0 | 109 | 68 - 139 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 09370

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 3

| | | | | | |
|---|--------|---|--------|---|--------------|
| Project Name Gowanda Day-Hub | | Project Number 6974.76 | | ANALYSIS REQUESTED (Include Method Number and Container Preservative) | |
| Project Manager Michael Carpenter | | Report CC | | PRESERVATIVE 1 | |
| Company/Address Bergmann Associates | | | | METALS, TOTAL (List in comments below) | |
| 28 East Main St, 200 First Federal Plaza | | | | METALS, DISSOLVED (List in comments below) | |
| Rochester, NY 14614 | | | | PCBS (List in comments below) | |
| Phone # | | | | PESTICIDES (List in comments below) | |
| 585-232-5135 | | | | GC VOAS (List in comments below) | |
| Sampler's Signature <i>[Signature]</i> | | Sampler's Printed Name Michael P. Carpenter | | GCMS VOAS (List in comments below) | |
| Email mcarpenter@bergmannpc.com | | FOR OFFICE USE ONLY | | GCMS VOAS (List in comments below) | |
| | | LABORATORY USE ONLY | | GCMS VOAS (List in comments below) | |
| CLIENT SAMPLE ID | DATE | SAMPLING TIME | MATRIX | NUMBER OF CONTAINERS | PRESERVATIVE |
| MW-11 | 7/2/03 | 13:00 | GW | 3 | 1 |
| MW-1 | ↓ | 14:05 | | | |
| MW-X | ↓ | | | | |
| MB | 7/2/03 | 14:15 | | | |
| GTS-INF | ↓ | 14:25 | | | |
| Top Blank | ↓ | | | | |
| DR-1 | 7/2/03 | 15:00 | | | |
| DR-2 | ↓ | 15:05 | | | |
| DR-3 | ↓ | 15:15 | | | |
| DR-4 | ↓ | 15:20 | | | |
| GB-1 | ↓ | 15:35 | | | |

- Preservative Key
- NONE
 - HCL
 - HNO3
 - H2SO4
 - NaOH
 - Zn Acetate
 - MeOH
 - NaHSO4
 - Other _____

REMARKS/
ALTERNATE DESCRIPTION

TURNAROUND REQUIREMENTS
RUSH (SURCHARGES APPLY)
1 day 2 day 3 day
4 day 5 day **X 10 Day**

REPORT REQUIREMENTS
 I. Results Only
 II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
 III. Results + QC and Calibration Summaries
 IV. Data Validation Report with Raw Data

INVOICE INFORMATION
PO #
BILL TO:

RECEIVED BY
R1304873

RECEIVED BY
Michael P. Carpenter

Signature
Michael P. Carpenter

Printed Name
Michael P. Carpenter

Firm
Bergmann

Date/Time
7/2/03 12:30

RECEIVED BY
Michael P. Carpenter

Signature
Michael P. Carpenter

Printed Name
Michael P. Carpenter

Firm
Bergmann

Date/Time
7/2/03 12:30

RECEIVED BY
Michael P. Carpenter

Signature
Michael P. Carpenter

Printed Name
Michael P. Carpenter

Firm
Bergmann

Date/Time
7/2/03 12:30



Cooler Receipt and Preservation Check Form

Project/Client Belgmann Assoc. Folder Number R1304873

Cooler received on 7/3/13 by: du COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
5. Were ~~ice~~ or Ice packs present? YES NO
6. Where did the bottles originate? ALS/ROC, CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
8. Temperature of cooler(s) upon receipt: 29°

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N Y N
If No, Explain Below Date/Time Temperatures Taken: 7/3/13 / 1240

Thermometer ID: IR GUN#3 / IR ~~GUN#4~~ Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location Room by du on 7/3/13 at 1240
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: CB 7/3/13

Cooler Breakdown: Date : _____ Time: _____ by: _____

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

| pH | Reagent | YES | NO | Lot Received | Exp | Sample ID | Vol. Added | Lot Added | Final pH | Yes = All samples OK No = Samples were preserved at lab as listed PM OK to Adjust: _____ |
|-----------------------|---|-----|----|---|-----|---|------------|-----------|----------|--|
| ≥12 | NaOH | | | | | | | | | |
| ≤2 | HNO ₃ | | | | | | | | | |
| ≤2 | H ₂ SO ₄ | | | | | | | | | |
| <4 | NaHSO ₄ | | | | | | | | | |
| Residual Chlorine (-) | For TCN Phenol and 522 | | | If present, contact PM to add ascorbic acid Or sodium sulfite (522) | | | | | | |
| | Na ₂ S ₂ O ₃ | - | - | | | *Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet | | | | |
| | Zn Aceta | - | - | | | | | | | |
| | HCl | * | * | | | | | | | |

Bottle lot numbers: _____

Other Comments: _____

PC Secondary Review: CB 7/22/13

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

APPENDIX B
CONTROL CHARTS, GROUNDWATER VOC CONCENTRATIONS



Chart C-1: Groundwater Recovery Wells Summary

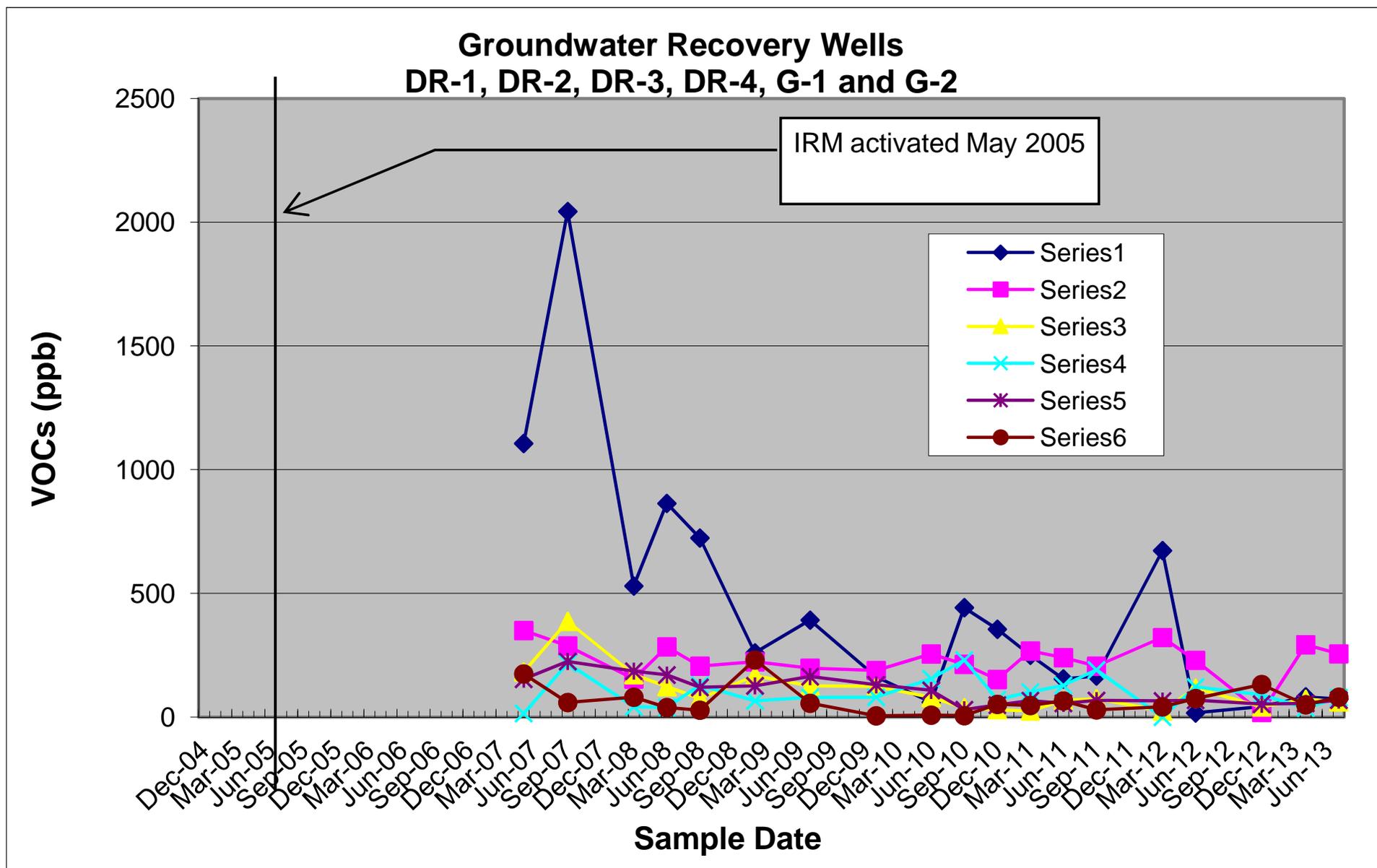


Chart C-2: DR-1 Groundwater Volatile Organic Compound Concentrations

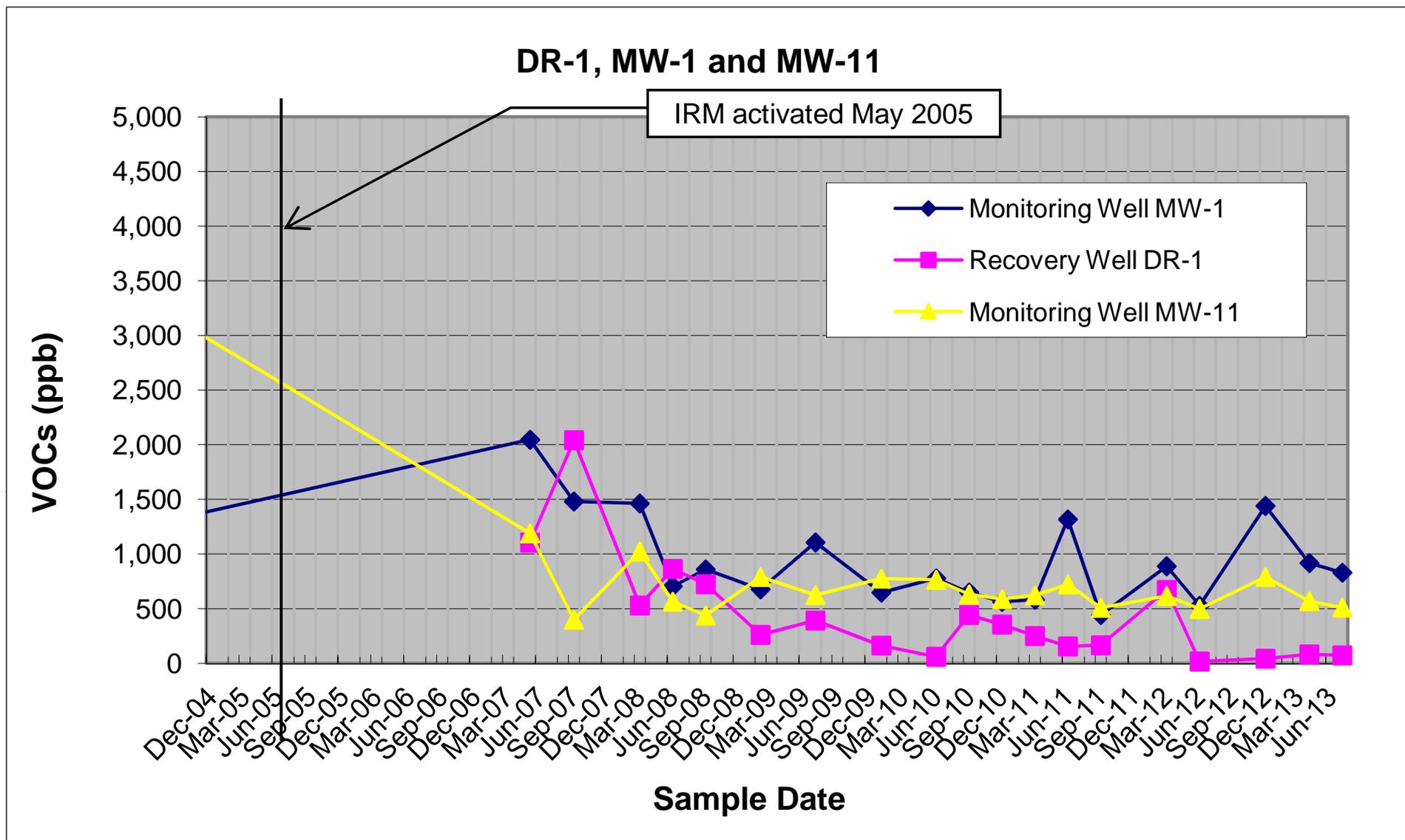


Chart C-3: DR-2 Groundwater Volatile Organic Compound Concentrations

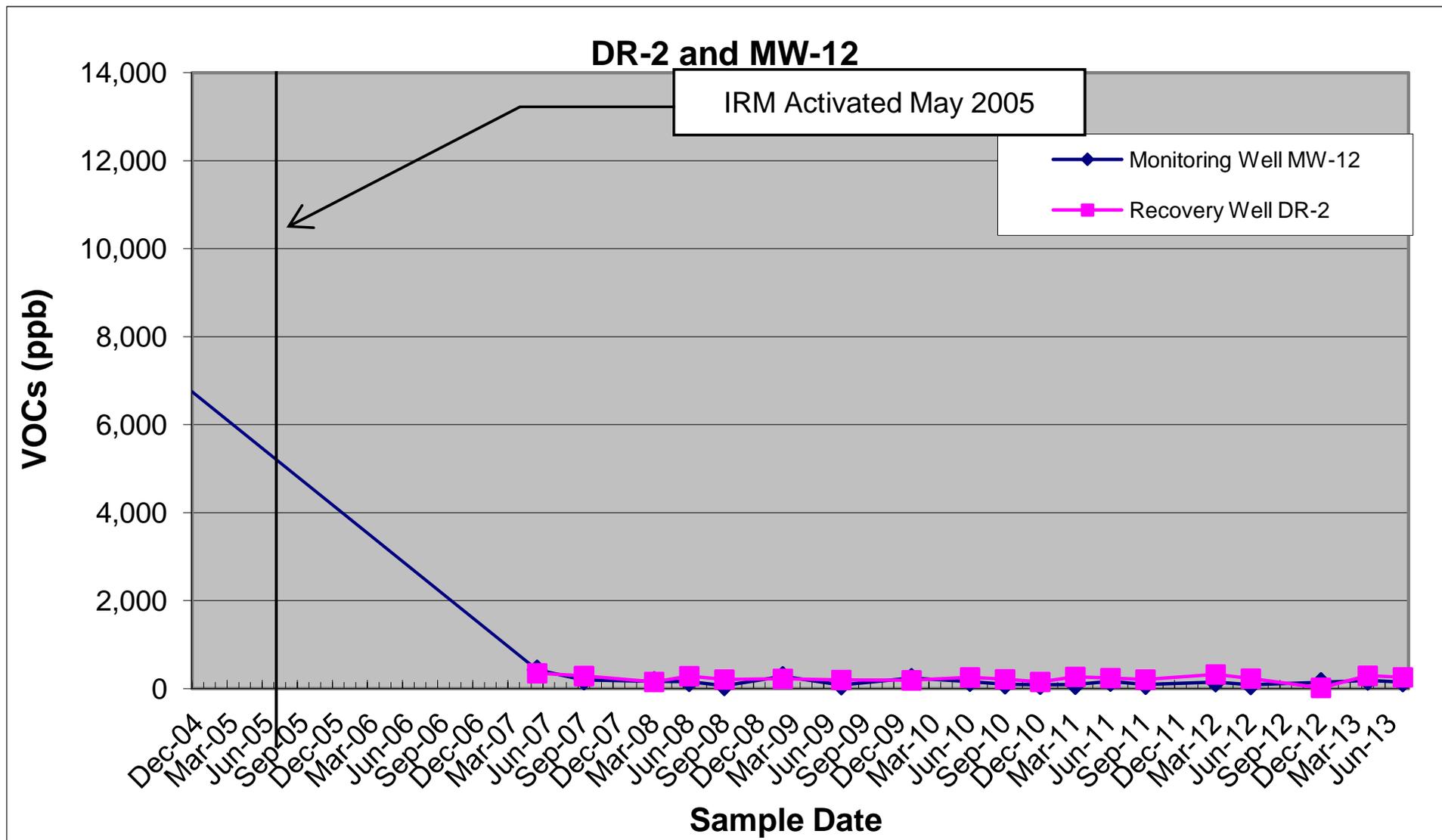


Chart C-4: DR-3 Groundwater Volatile Organic Compound Concentrations

DR-3 and MW-14

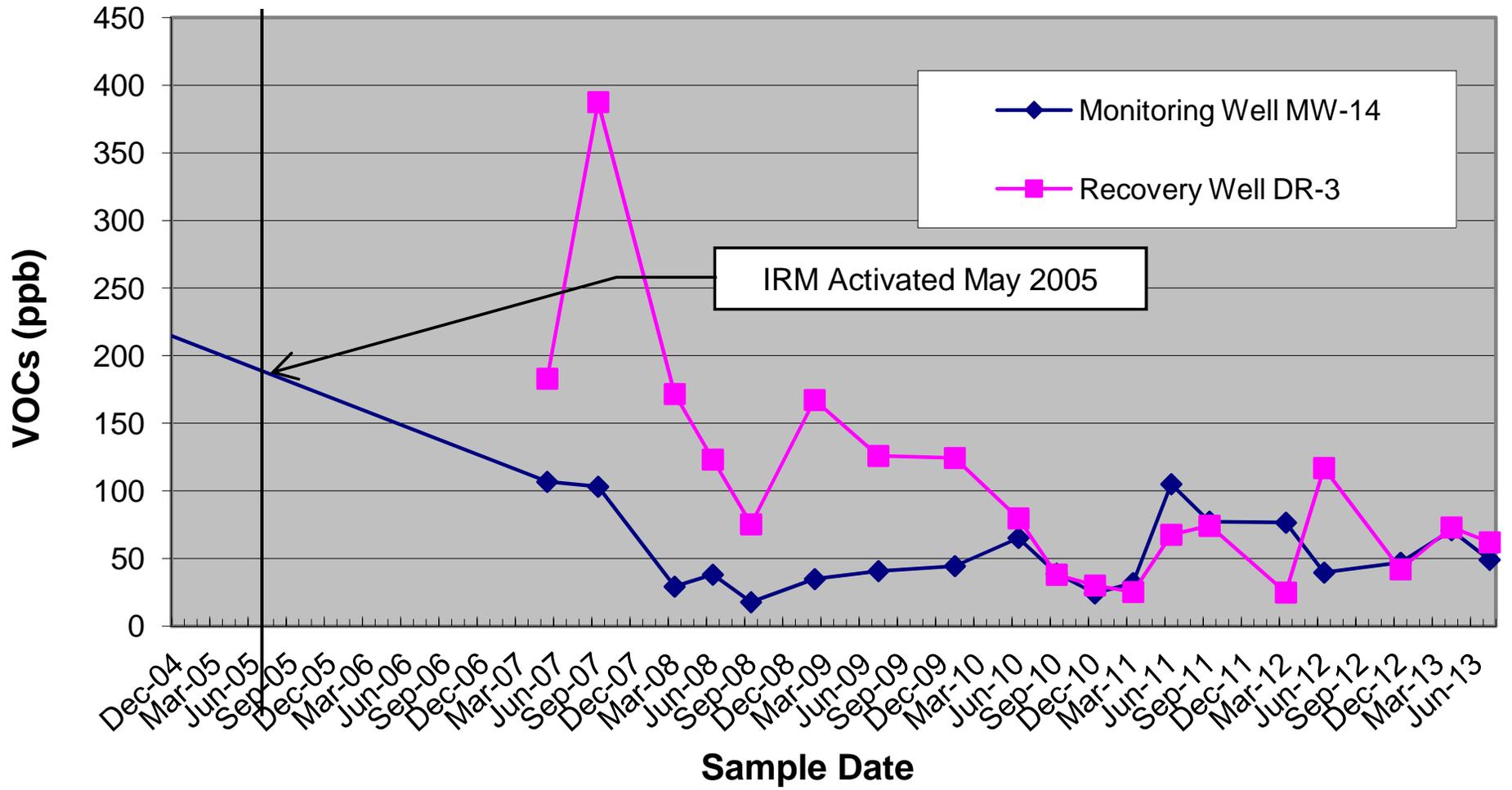


Chart C-5: DR-4 Groundwater Volatile Organic Compound Concentrations

DR-4 and MW-15

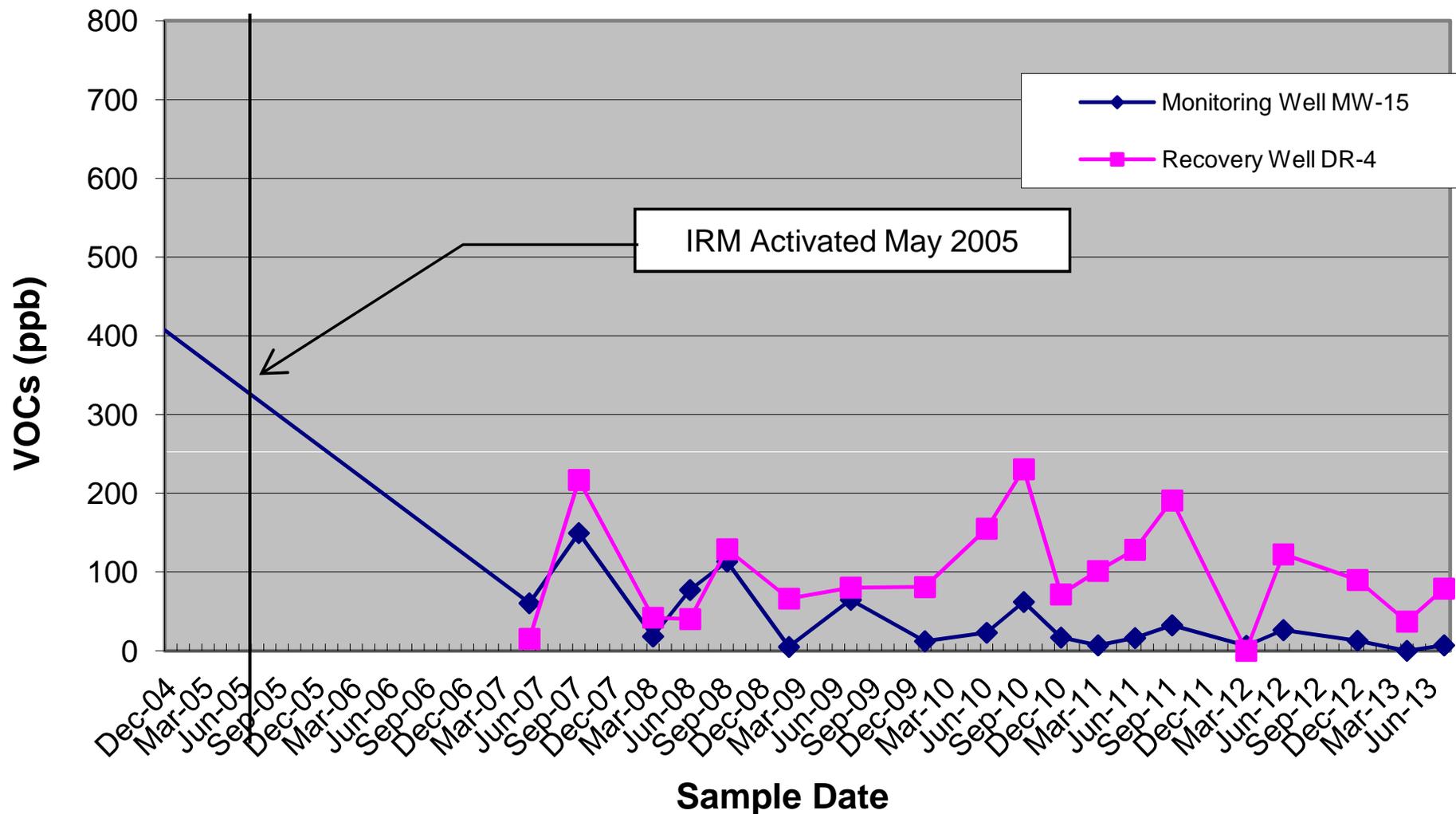


Chart C-6: G-1 Groundwater Volatile Organic Compound Concentrations

G-1 and MW-17

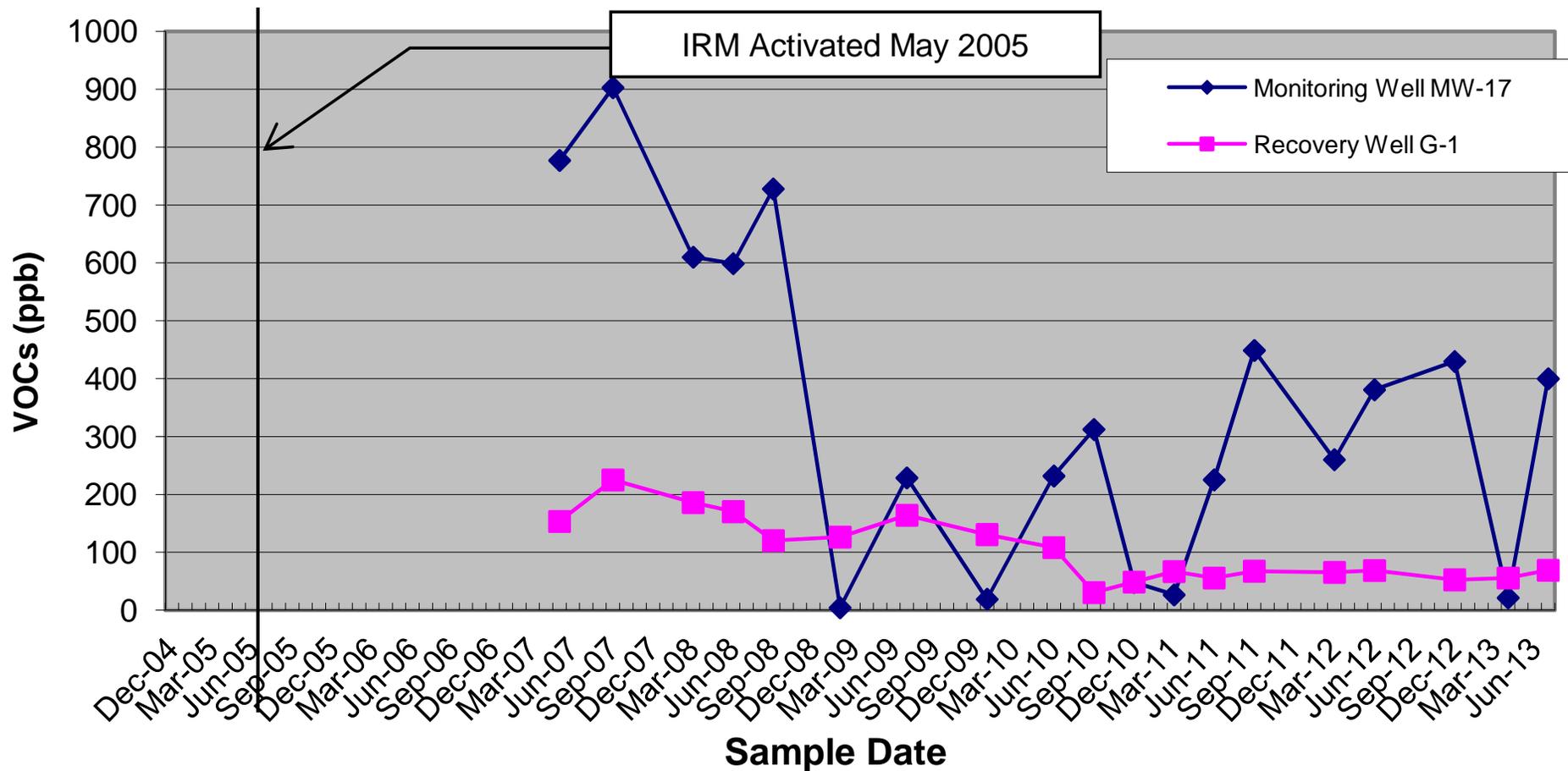


Chart C-7: G-2 Groundwater Volatile Organic Compound Concentrations

G-2 and MW-7

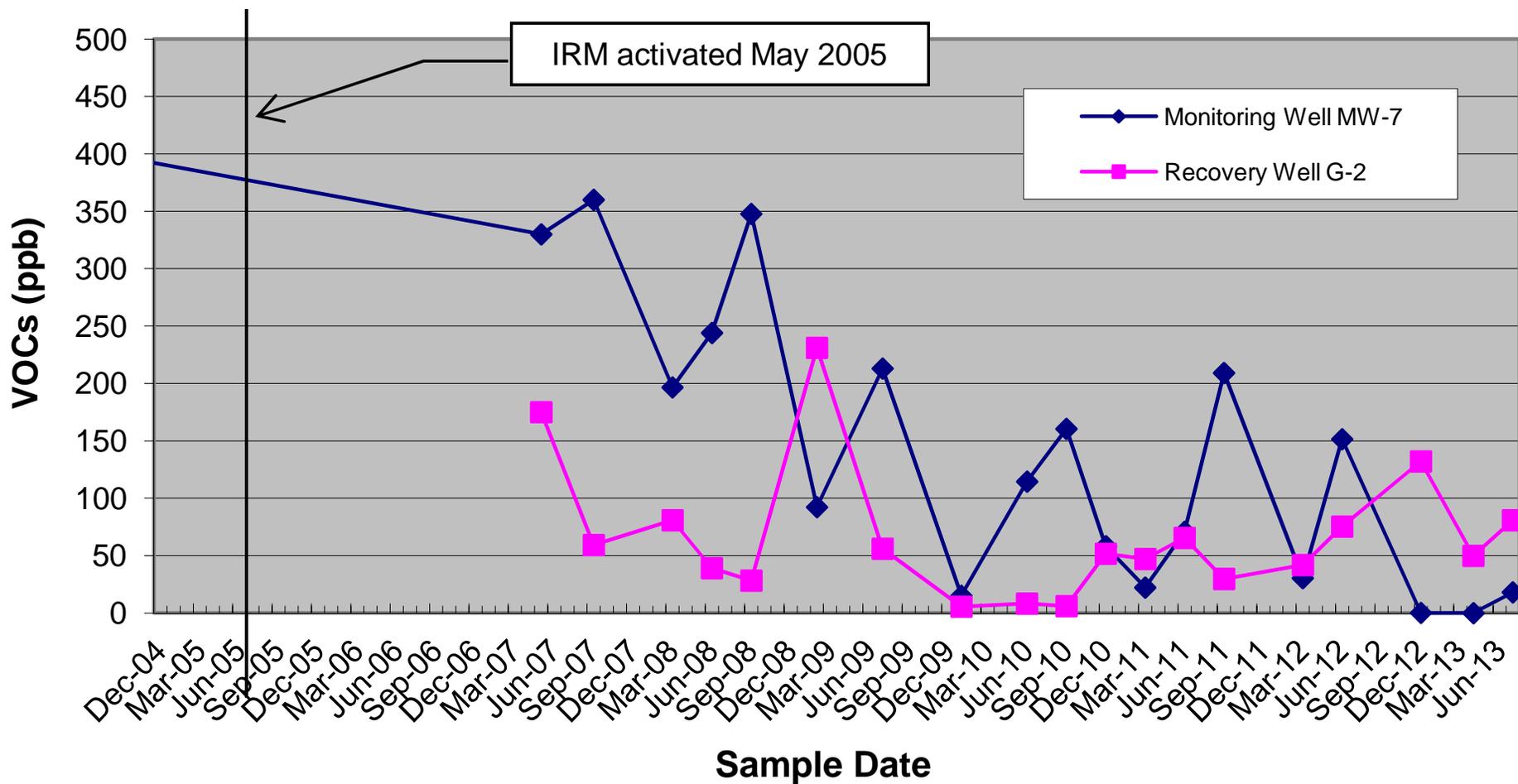
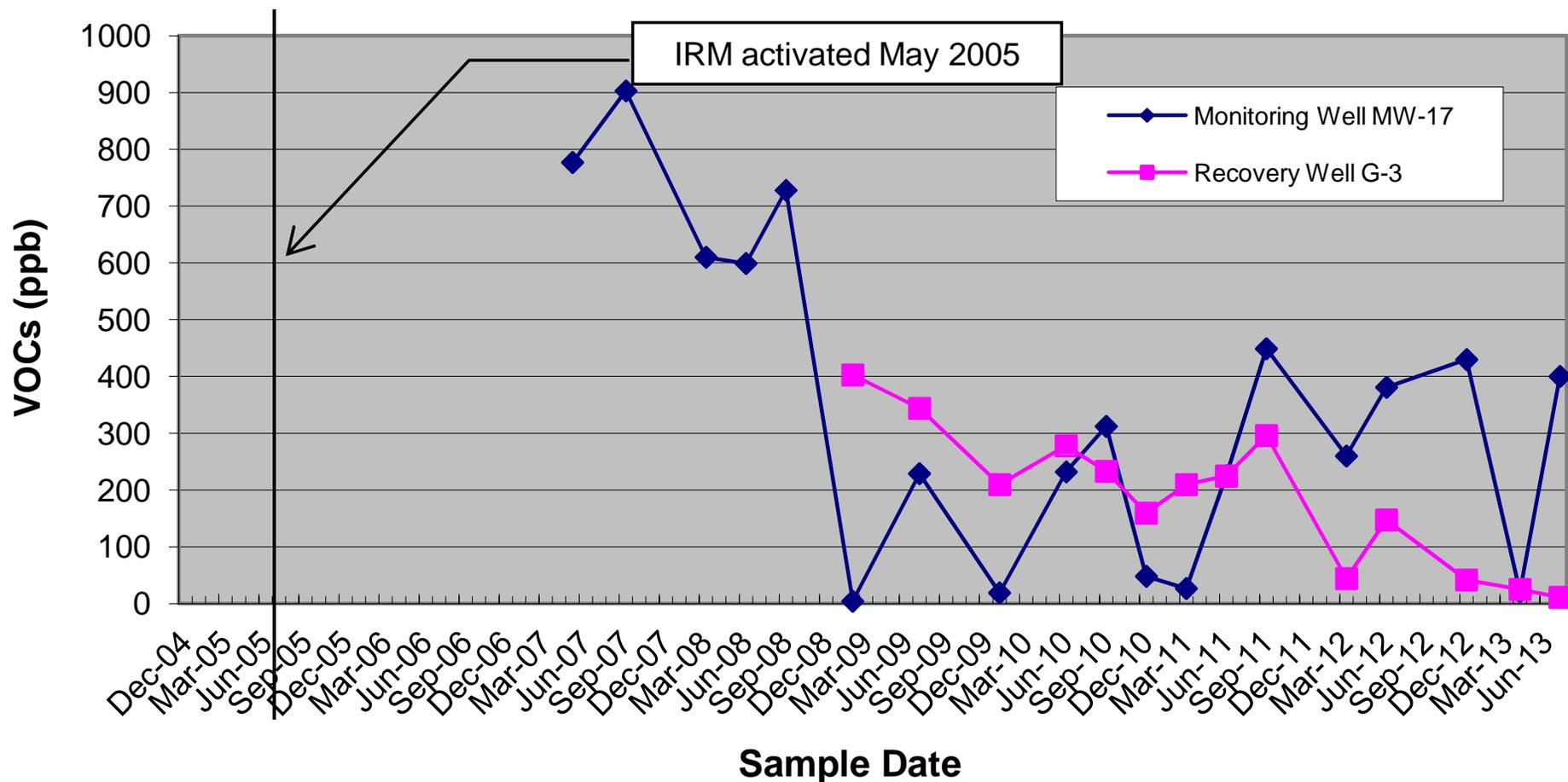


Chart C-8: G-3 Groundwater Volatile Organic Compound Concentrations

G-3 and MW-17



DECEMBER 2013
GROUNDWATER CHARACTERIZATION REPORT



**NEW YORK STATE OFFICE OF PEOPLE WITH DEVELOPMENTAL
DISABILITIES**



**GROUNDWATER CHARACTERIZATION REPORT
DECEMBER 2013 SAMPLING EVENT**

**Former Gowanda Day Habilitation Center
4 Industrial Place
Town of Gowanda, Cattaraugus County
Voluntary Cleanup Program Agreement V-00463-9**

Prepared for:

**Dormitory Authority & New York State Office of People with Developmental
Disabilities**

Bergmann Project No. 6974.76

Issuance Date: March 27, 2014

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1.0 Introduction

Bergmann Associates (Bergmann) is submitting this groundwater sampling laboratory analytical report for the December 2013 sampling event on behalf of the Dormitory Authority of the State of New York (DASNY) and the New York State Office of People with Developmental Disabilities (OPWDD) for activities conducted at the former Gowanda Day Habilitation Center facility at 4 Industrial Place, Gowanda, NY. The OPWDD, as the volunteer, has entered into a Voluntary Cleanup Agreement (VCA) with the New York State Department of Environmental Conservation (NYSDEC) to conduct investigations and implement remedial measures in accordance with VCA Site No. V-00463-9, effective August 16, 2001.

1.1 Scope of Work

This report documents the site-wide groundwater monitoring and laboratory analytical sampling event conducted on December 16-17, 2013. Field measurements, sampling procedures and laboratory analysis were conducted in accordance with the October 2006 Operations, Monitoring and Maintenance (OM&M) Manual and as modified with NYSDEC approval. During this sampling event, groundwater from 12 of 21 site-related groundwater monitoring wells and 6 of 7 groundwater recovery wells were sampled for laboratory analysis. One monitoring well, MW-18 and one recovery well, G-3 could not be located in the field due to snow cover. These wells were not sampled. Eight monitoring wells that were determined by the NYSDEC and Bergmann personnel in 2008 to be outside the area of impact by the Groundwater Treatment System (GTS) were not sampled. These monitoring wells include MW-2, MW-3, MW-5, MW-8, MW-9, MW-10, MW-13, and MW-21.

The prior groundwater sampling event was conducted in July 2013 and included analysis of groundwater from 13 of 21 site-related groundwater monitoring wells and 6 of 7 groundwater recovery wells. Results of the July 2013 sampling event were summarized in a report dated September 13, 2013.

1.2 Site Background

The Gowanda Day Habilitation site consists of a 5.94 acre parcel located at 4 Industrial Place. The building, previously used by several manufacturing operations, was built in stages between circa 1948 and 1987 and was renovated in 1987-1988. New York State agencies have occupied the building since 1982. New York State acquired the parcel in 1989. The building was most recently operated by the OPWDD, which at that time was known as the Western New York Developmental Disabilities Services Office, as a Day Habilitation Center for mental care clients. In April 2001, on-site operations ceased. The nature and extent of contamination at the Gowanda Day Habilitation Center was detailed as part of the 2003 Site Investigation and 2004 Supplemental Site Investigation reports. Trichloroethene (TCE) was the most commonly detected compound. TCE degradation products cis-1,2-Dichloroethene (Cis-1,2-DCE), trans-1,2-Dichloroethene (Trans-1,2-DEC) and Vinyl Chloride (VC) were also detected.

Following Interim Remedial Measures (IRM) system installation, the Groundwater Treatment System (GTS) and the Soil Vapor Extraction System (SVES) were activated on May 10, 2005, recovering 2-5 GPM of groundwater. An additional groundwater recovery well, designated G-3, was installed outside the building and adjacent to MW-17 in November 2008. The GTS portion consists of 7 groundwater recovery wells (4 dual phase recovery wells and 3 groundwater-only recovery wells), an air compressor, a network of controller-less pneumatic pumps and an air stripper treatment system to process recovered groundwater. Recovered groundwater is

pumped to the equalization tank for settling of the sediment and transferred to the air stripper using a consistent flow rate.

The air discharged from the air stripper is tied into the SVE carbon vessels for treatment prior to atmospheric discharge. After treatment by the air stripper, the groundwater is discharged to the Village of Gowanda Sewage Treatment Plant (STP) via the sanitary sewer in accordance with a Gowanda Sewer Use Permit. The Village of Gowanda requires that an annual discharge report be submitted, detailing the volume of water collected, treated and discharged to the sewer.

In January 2008 the building was decommissioned. The GTS was winterized with the addition of heat tape and insulation to conveyance lines and the installation of an independently operated suspended heater in the treatment area for the GTS and SVES (former Machine Shop). Quarterly groundwater sampling with Operation and Maintenance of the remediation system has been ongoing since 2002. The following sections document the December 2013 sampling event.

2.0 Groundwater Sampling Overview and Methods

2.1 Well Maintenance Activities

Replacement to damaged flush-mount protective roadway boxes was completed in June 2007. Well rehabilitation and silt removal was last conducted June 25 – 26, 2007. The recovery wells have appeared to be free of significant silt intake since the 2007 rehabilitation event.

As of December 2013, all but 2 monitoring wells were accessible and the integrity of the accessible wells was not compromised. Repairs or maintenance to the network of groundwater monitoring wells or recovery wells has not been required since June 2007. All stand pipes and flush-mount curb boxes were found to be intact and secure. Exterior monitoring wells are secured with locking stand pipes. The monitoring wells within the building are secured with flush-mount roadway covers. Well maintenance was not performed during the December 2013 sampling event.

2.2 Groundwater Field Monitoring and Sampling Activities

Groundwater measurements and sampling activities were conducted in accordance with the October 2006 OM&M Manual. The depths to groundwater for groundwater monitoring wells are determined on a regular basis to track site-wide changes in the water table elevation and to allow for adjustment at recovery wells. Operation of the recovery wells is intended to establish hydraulic containment of the plume of impacted groundwater beneath the former Day Habilitation building and improve recovery and treatment of impacted groundwater. Groundwater samples were collected from 12 of the 21 site-related groundwater monitoring wells for laboratory analysis on December 16-17, 2013. Depth to groundwater measurements were obtained from 20 monitoring wells. Depths to water measurements for the recovery wells were not obtained since the wells were pumping.

Groundwater samples were collected from monitoring wells after each well was gauged and purged of standing water via low-flow pumping using a Solinst electric peristaltic pump. Sample parameters including turbidity, temperature, pH, oxygen and conductivity were monitored using a Horiba U-22 to ensure sufficient well purging prior to sampling. Groundwater samples were collected from recovery wells using dedicated bailers. A single duplicate sample and a method blank sample were also collected and submitted for laboratory analysis. The method blank was

collected after sampling MW-1, the well with the highest concentration of contamination for the previous (July 2013) sampling event.

Sampling of the recovery wells was conducted while the GTS was actively pumping groundwater into the system. The active pumping of the wells ensured that the groundwater sampled wasn't stagnant, much like purging does for monitoring wells.

Groundwater samples were delivered via chain-of-custody protocol to Paradigm Environmental Services located in Rochester, NY, a NYSDOH certified laboratory, for testing using EPA Method 8260B for targeted chlorinated volatile organic compounds (VOCs) of concern. Analytical results for each individual monitoring well have been posted for comparative purposes from sampling events completed 2002 – 2013.

3.0 Local Groundwater Flow Characterization

The Site water table potentiometric surface pattern and groundwater flow direction was determined for December 2013 using elevations measured at 20 site-related monitoring wells. Groundwater elevations and well reference elevations were calculated using depth to water values obtained December 16-17, 2013. The well gauging values and groundwater elevations are provided in Table 1 – Groundwater Elevations and Field Measurements December 2013.

The December 2013 groundwater contour map shows a flow pattern similar to groundwater contours observed historically since 2002. Groundwater at the Site is flowing in a northerly direction. Torrance Place is hydraulically down-gradient from the Day Habilitation Center building. The December 2013 depths to groundwater range from 5.63 ft below ground surface (top of PVC casing adjusted to grade) at MW-2 adjacent to the south side of the building to 16.93 ft below ground surface at MW-7 located at the northwestern property line. The average depth to groundwater at the 20 monitoring wells measured was 8.89 ft below ground surface.

Compared to the July 2013 sampling event the current site-wide average depth to water table decreased by approximately 0.68 ft. This decrease in the water table is inferred as seasonal.

Measured depth to water at all gauged monitoring and recovery wells is presented Table 1 – Groundwater Elevations and Field Measurements December 2013 and December 2013 Groundwater Contours are presented on Figure 1 – December 2013 Groundwater Contour Map.

4.0 Laboratory Analysis

4.1 Laboratory Analysis on Groundwater Samples, December 2013

Laboratory analysis was completed on the groundwater samples from 12 monitoring wells and 6 recovery wells collected December 16-17, 2013. Samples were analyzed for volatile organic compounds via EPA Method 8260B. Analysis was performed in accordance with the October 2006 OM&M Manual. The following halogenated VOCs were analyzed for:

- Trichloroethene (TCE)
- 1,1,1 Trichloroethane (TCA)
- Cis-1,2-Dichloroethene (Cis-DCE)

- Trans-1,2-Dichloroethene (Trans-DCE)
- Vinyl Chloride (VC)

4.2 Monitoring Well Groundwater Analysis Summary

The December 2013 analytical results detected 2 chlorinated VOCs in monitoring well samples: TCE and Cis-DCE. Chlorinated VOCs were detected in samples from 8 of the 12 sampled monitoring wells. Analytical results are summarized in Table 2 – December 2013 Analytical Results Summary, which compares detected VOCs and applicable NYSDEC Class GA Standards for each analyte. The complete laboratory analytical reporting package is provided in Appendix A – Laboratory Analytical Results Report December 2013 Sampling Event.

Table 3 – Historic Groundwater Analysis Results Summary includes the historical total VOC concentrations at each well since sampling of the monitoring wells began in 2002.

VOCs were not detected in samples from four of the sampled monitoring wells (MW-4, MW-7, MW-19R, and MW-20). Sample results from these wells have historically indicated low to non-detect levels of VOCs.

Groundwater samples from eight monitoring wells had detectable chlorinated VOCs at concentrations above applicable Class GA Standards. The monitoring well with the highest total VOCs, MW-1, is located in the area of the historically greatest impacted groundwater.

Concentrations in 7 of the 12 monitoring well groundwater samples increased when compared to the July 2013 sampling event while concentrations in 2 of the 12 monitoring well groundwater samples decreased. Concentrations in 3 groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 66% since activation of the GTS in May 2005.

Due to the concentrations of TCE and Cis-DCE in samples from monitoring wells MW-1, MW-11, and MW-17, diluted analysis and correspondingly elevated detection limits were required. At these locations it is possible that related chlorinated VOCs Trans-1,2 DCE and Vinyl Chloride may be present at concentrations below the diluted detection limits.

The area of highest impacted groundwater exists at the area centered between monitoring wells MW-1 and MW-11, which has historically indicated the highest levels of VOCs and is inferred as the source area of impacted groundwater. In the area where the plume of impacted groundwater is inferred (monitoring wells MW-1, MW-6, MW-7, MW-11, MW-12, MW-14, MW-15, and MW-17) the current laboratory analysis shows a decrease in VOC concentrations by an average of approximately 55% since groundwater monitoring of these wells began in 2002.

Monitoring well MW-1 exhibits an increase in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at monitoring well MW-1 for the December 2013 sampling event is 1,740 parts per billion (ppb), an increase from the July 2013 value of 830 ppb. Monitoring well MW-11 exhibits an increase in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-11 for the December 2013 sampling event is 880 ppb, an increase from the July 2013 value of 510 ppb. Since activation of the GTS, detected VOCs at MW-11 have decreased by approximately 81%.

Monitoring well MW-12 exhibits an increase in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-12 for the December 2013 sampling event is 173 ppb, an increase from the July 2013 value of 149 ppb. MW-12 is nearest to recovery well DR-2, in close proximity to the center of the building. Since activation of the GTS in May 2005, detected VOCs at MW-12 have decreased by approximately 99%.

Monitoring well MW-14 exhibits an increase in targeted chlorinated VOCs relative to the prior sampling event. The current total VOC concentration at MW-14 for the December 2013 sampling event is 94 ppb, an increase from the July 2013 value of 49 ppb. MW-14 is nearest to recovery well DR-3. Since activation of the GTS in May 2005 detected VOCs at MW-14 have decreased by approximately 70%.

Monitoring well MW-15 exhibits a slight decrease in targeted chlorinated VOCs relative to the prior sampling event. The current total VOC concentration is 6.8 ppb, lower than the July 2013 value of 7 ppb. MW-15 is nearest to recovery well DR-4. Since activation of the GTS the detected VOCs at MW-15 have decreased by approximately 99%.

Five groundwater monitoring wells are located along the subject property's north perimeter, down-gradient from the area of impacted groundwater. The north perimeter monitoring wells consist of wells MW-5, MW-6, MW-7, MW-16 and MW-17. The current analytical results exhibit a decrease in targeted VOCs at one of these monitoring wells (MW-7). One monitoring well along the north perimeter, MW-5, was not sampled during this event. The current average total VOCs for these wells is 570 ppb; a decrease from the July 2013 average total of 525.4 ppb.

Monitoring wells MW-18, MW-19R and MW-21 are located off-site along Torrance Place. These three wells are considered to be beyond the radius of influence for the Day Habilitation groundwater treatment system. Monitoring wells MW-18 and MW-21 were not sampled during the December 2013 sampling event. At MW-19R the total detected VOC concentration was non-detect.

Laboratory analytical results are included in Appendix A - Laboratory Analytical Results Report December 2013 Sampling Event. Monitoring well locations and distribution of analytical results are shown on Figure 2 – December 2013 Distribution of Groundwater Analytical Results in Monitoring Wells.

4.3 Sentry Well Groundwater Analysis Summary

Sentry groundwater monitoring wells monitor a separate occurrence of contaminated groundwater at the Gowanda Electronics site (NYSDEC Site 905025), immediately east of Industrial Place and east of the Day Habilitation Center property. The eastern sentry wells sampled for this event included MW-19R, MW-20 and MW-4. The current results indicate non-detect for all three of the samples from the eastern sentry wells.

The Gowanda Electronics impacted groundwater plume may be migrating to an area near Industrial Place and has intermittently impacted MW-19R. The Gowanda Electronics impacted groundwater plume does not appear to extend to the Day Habilitation Center property, based on consistent non-detect values at the eastern sentry wells. Conversely, impacted groundwater from the Day Habilitation Center does not appear to extend off-site to the east toward Industrial Place.

Laboratory analytical results are included in Appendix A - Laboratory Analytical Results Report December 2013 Sampling Event. Sentry well locations and analytical results are shown on Figure 2.

4.4 Recovery Well Groundwater Analysis Summary

Six of the seven recovery wells were sampled during the December 2013 sampling event. The December 2013 analytical results indicate 3 chlorinated VOCs in recovery well samples: TCE, Cis-DCE, and VC. Chlorinated VOCs were detected in samples from all of the sampled recovery wells. Total VOCs at the 6 recovery wells for which past data is available have decreased since activation of the GTS in May 2005. The average reduction in VOCs for the current sampling event is approximately 89% relative to concentrations prior to GTS activation in 2005. Relative percent reductions in total VOCs for all monitoring wells and recovery wells are shown on Table 4 – Percent Reductions in Total Groundwater VOCs.

Recovery well DR-1 exhibits an increase in targeted chlorinated VOCs relative to the prior sampling event. The current total VOC concentration at DR-1 for the December 2013 sampling event is 87 ppb, an approximately 99% decrease since activation of the GTS. Recovery well DR-1 is located closest to MW-1 in the area of historically highest concentrations.

Recovery well DR-2 exhibits an increase in targeted chlorinated VOCs relative to the prior sampling event. The current total VOC concentration at DR-2 for the December 2013 sampling event is 302 ppb, an increase from the July 2013 value of 256 ppb. The current sampling event indicates a decrease in VOCs at DR-2 of approximately 85% since activation of the GTS.

Recovery well DR-3 exhibits an increase in targeted chlorinated VOCs relative to the prior sampling event. The current total VOC concentration at DR-3 for the December 2013 sampling event is 123 ppb, an increase from the July 2013 value of 62 ppb. The current sampling event indicates a decrease in VOCs at DR-3 of approximately 92% since activation of the GTS.

Recovery well DR-4 exhibits a decrease in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-4 for the December 2013 sampling event is 68 ppb, a decrease from the July 2013 value of 79 ppb. The current sampling event indicates a decrease in VOCs at DR-4 of approximately 96% since activation of the GTS.

Recovery well G-1 exhibits an increase in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at G-1 for the December 2013 sampling event is 96.2 ppb, an increase from the July 2013 value of 69.1 ppb. The current sampling event indicates a decrease in VOCs at G-1 of approximately 82% since activation of the GTS.

Recovery well G-2 exhibits a decrease in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at G-2 for the December 2013 sampling event is 68 ppb, a decrease from the July 2013 value of 81 ppb. The current sampling event indicates a decrease in VOCs at G-2 of approximately 82% since activation of the GTS.

Laboratory analytical results are included in Appendix A - Laboratory Analytical Results Report December 2013 Sampling Event. Recovery well locations and analytical results are shown on Figure 3 – December 2013 Distribution of Groundwater Analytical Results in Recovery Wells.

4.5 Quality Assurance and Quality Control Samples

For quality assurance purposes a duplicate groundwater sample was collected from monitoring well MW-1, designated sample "MW-X." Results from sample MW-X were consistent with the sample collected from MW-1.

A trip blank was supplied by the laboratory and submitted for analysis along with the groundwater samples. The trip blank sample was non-detect for chlorinated halogens. A method blank was also collected to ensure proper cleaning of the sampling equipment. The method blank, designated MB, was non-detect for chlorinated halogens.

Laboratory analytical results are included in Appendix A - Laboratory Analytical Results Report December 2013 Sampling Event.

5.0 Remediation System Efficiency

5.1 Impact of the GTS Recovery Wells, December 2013

Groundwater control charts for 6 of the 7 recovery wells and the nearest relative monitoring well were created to illustrate the impact of the GTS on recovery wells at the Day Habilitation Center. Chart C-1 presents a summary of 6 groundwater recovery wells. Since activation of the GTS in May 2005 6 groundwater recovery wells have demonstrated decreased concentrations of VOCs. The current sampling event indicated decreased VOCs in 2 of the 6 recovery wells sampled compared to the July 2013 sampling event.

The current sampling event results are consistent with a trend of decreasing total VOCs at recovery wells. The increase in detected VOCs at DR-1, DR-2, DR-3, and G-1 may be attributed to system efficiency in concentrating the greatest impacted groundwater in the relative radius of influence for each recovery well.

Chart series C-2 displays the relationship between monitoring wells MW-1, MW-11 and recovery well DR-1. Monitoring wells MW-1 and MW-11 are located at the approximate original contamination source area and in the area of greatest impacted groundwater. DR-1 is the recovery well located in this area. The current total VOCs at MW-1 (1,740 ppb) show an increase from the July 2013 sampling event (830 ppb). At MW-11, total VOCs (880 ppb) showed an increase from the July 2013 sampling event (510 ppb). The current total VOCs at recovery well DR-1 (87) show an increase from the July 2013 sampling event (73 ppb).

Chart series C-3 compares laboratory results between recovery well DR-2 and MW-12. These wells are located north of the wells outlined in Chart series C-1 and represent the northern limit of the highest concentration within the impacted area. The current total VOCs at MW-12 (173 ppb) show an increase from the July 2013 sampling event (149.3 ppb). The current total VOCs at recovery well DR-2 (302 ppb) show an increase from the July 2013 sampling event (256 ppb).

Chart series C-4 compares the relationship between wells DR-3 and MW-14 which are located in the central portion of the Gowanda Day Habilitation building. The current total VOCs at MW-14 (94 ppb) show an increase from the July 2013 sampling event (49 ppb). The current total VOCs at recovery well DR-3 (123 ppb) show an increase from the July 2013 sampling event (62 ppb).

Chart series C-5 compares laboratory results between recovery well DR-4 and MW-15. These wells are located at the center-north portion of the building. The current total VOCs at MW-15 (6.8 ppb) show a slight decrease from the July 2013 sampling event (7 ppb). The current total VOCs at recovery well DR-4 (68 ppb) show an increase from the July 2013 sampling event (79 ppb).

Chart series C-6 compares VOC concentrations between recovery well G-1 and Monitoring Well MW-17. The recovery well is located in the northern portion of the building. The current total VOCs at MW-17 (420 ppb) show an increase from the July 2013 sampling event (400 ppb). The current total VOCs at recovery well G-1 (96.2 ppb) show an increase from the July 2013 sampling event (69.1 ppb).

Chart series C-7 compares VOC concentrations between recovery well G-2 and MW-7 which are also located at the northeastern portion of the building. This area is at the apparent western perimeter of the area of impacted groundwater. The current total VOCs at MW-7 were non-detect, an increase from the July 2013 sampling event (18 ppb). The current total VOCs at recovery well G-2 (68 ppb) show a decrease from the July 2013 sampling event (81 ppb).

Chart series C-8 compares VOC concentrations between recovery well G-3 and MW-17 which are also located at the northeastern portion of the building. This area is at the western perimeter of the apparent area of impacted groundwater. The current total VOCs at MW-17 (420 ppb) show an increase from the July 2013 sampling event (400 ppb). Recovery well G-3 was not sampled during the December 2013 sampling event.

Monitoring wells along the western and eastern perimeters have consistently yielded non-detect results.

Groundwater control charts are included in Appendix B – Control Charts, Groundwater VOC Concentrations.

5.2 Extent of Impacted Groundwater, December 2013

The area of highest impacted groundwater is consistent with prior sampling events. The bulk of the contaminant mass appears to be concentrated beneath the building in the source area, in the vicinity of monitoring well MW-1 and MW-11, extending north to recovery well DR-2.

The GTS appears to maintain an area of hydraulic containment for recovery wells within the source area of impacted groundwater. The GTS appears to be successful in hydraulically containing most of the contaminant plume on the property and minimizing further migration. Operation of G-3 will continue to increase the impact of the GTS on the contaminant plume along the north property line.

No VOCs were detected at MW-19R, and MW-18 was not sampled during the December 2013 sampling event. MW-19R and MW-18 are off-site monitoring wells north of the facility. These monitoring points are inferred as beyond the area of hydraulic influence of the recovery wells. Impacted groundwater at these areas was detected prior to activation of the GTS in May 2005. Future reduction in groundwater VOC concentrations at the down-gradient locations should be expected as operation of the treatment system continues to remove VOCs and limits potential off-site migration of impacted groundwater. In addition, operation of G-3 increases the area of influence of the GTS at the northern property line.

5.3 Future Groundwater Monitoring and Analysis Activities

The remedial systems at the Gowanda Day Habilitation Center (Groundwater Treatment System and the Soil Vapor Extraction System) will continue to operate and be monitored as needed to maintain system efficiencies. At the current stage in the remediation of this site, Bergmann is evaluating options for injecting a chemical oxidizer into the subsurface to further reduce contaminant levels. An injection of chemical oxidizers could be expected to decrease concentrations significantly, and improve the likelihood that the groundwater can reach an acceptable cleanup level.

Bergmann will also correspond with the NYSDEC to discuss a reduction of the site-wide sampling events from quarterly to semi-annual. Monthly O&M would still take place. The next site-wide groundwater sampling and laboratory analysis event is tentatively scheduled for March 2013. This sampling event will include sampling and laboratory analysis for the limited number of wells as determined by Bergmann correspondence with the NYSDEC. Future sampling and analytical events will be conducted to track the effects of the treatment system on impacted groundwater and to evaluate seasonal changes in water table elevations. In addition, the evaluation of groundwater flow pattern and movement of residual impacted groundwater at the site will be performed during future sampling events.

TABLES



Table 1 Groundwater Elevations and Field Measurements December 2013

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

| December 16-17, 2013 | | | | | | | | | | |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|
| | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-8 | MW-9 | MW-10 |
| Casing Elevation* | 778.23 | 778.08 | 778.38 | 778.43 | 778.61 | 781.10 | 780.94 | 781.33 | 782.61 | 780.02 |
| Depth to Groundwater (btoc) | 5.82 | 5.63 | 5.87 | 6.99 | 9.19 | 13.00 | 16.93 | 9.28 | 8.99 | 7.46 |
| Groundwater Elevation | 772.41 | 772.45 | 772.51 | 771.44 | 769.42 | 768.10 | 764.01 | 772.05 | 773.62 | 772.56 |
| Well Diameter | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| Product Thickness | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Well Depth (btoc) | 16.02 | 17.15 | 16.30 | 15.78 | 13.95 | 22.88 | 21.80 | 17.65 | 20.96 | 19.42 |
| Bottom of Well Elevation | 762.21 | 760.93 | 762.08 | 762.65 | 764.66 | 758.22 | 759.14 | 763.68 | 761.65 | 760.60 |
| Thickness of Water Column | 10.20 | 11.52 | 10.43 | 8.79 | 4.76 | 9.88 | 4.87 | 8.37 | 11.97 | 11.96 |
| Minimum Purge Volume (gal) | 1.7 | 1.9 | 1.7 | 1.4 | 0.8 | 1.6 | 0.8 | 1.4 | 2.0 | 1.9 |
| 3 Volumes | 5.0 | 5.6 | 5.1 | 4.3 | 2.3 | 4.8 | 2.4 | 4.1 | 5.9 | 5.8 |
| Actual volume purged | 5.0 | NS | NS | 4.3 | NS | 4.8 | 2.4 | NS | NS | NS |
| Comments | Flush = -0.29' | Flush = -0.30' | Flush = -0.23' | Flush = -0.34' | Flush = -0.24' | Stickup=2.17' | Stickup=2.17' | Stickup=2.84' | Stickup=2.05' | Stickup=2.56' |

| December 16-17, 2013 | | | | | | | | | | | |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|
| | MW-11 | MW-12 | MW-13 | MW-14 | MW-15 | MW-16 | MW-17 | MW-18 | MW-19R | MW-20 | MW-21 |
| Casing Elevation | 778.58 | 778.50 | 778.39 | 778.43 | 778.38 | 780.43 | 779.85 | 776.39 | 774.2 | 778.04 | 774.76 |
| Depth to Groundwater (btoc) | 6.16 | 6.71 | 6.79 | 9.97 | 10.21 | 12.32 | 11.98 | Not gauged | 8.10 | 9.02 | 7.36 |
| Groundwater Elevation | 772.42 | 771.79 | 771.60 | 768.46 | 768.17 | 768.11 | 767.87 | NA | 766.10 | 769.02 | 767.40 |
| Well Diameter | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| Product Thickness | ND | ND | ND | ND |
| Well Depth (btoc) | 15.48 | 17.38 | 17.40 | 18.15 | 19.80 | 23.26 | 25.18 | 25.0 | 17.67 | 14.75 | 15.82 |
| Bottom of Well Elevation | 763.10 | 761.12 | 760.99 | 760.28 | 758.58 | 757.17 | 754.67 | 751.39 | 756.53 | 763.29 | 758.94 |
| Thickness of Water Column | 9.32 | 10.67 | 10.61 | 8.18 | 9.59 | 10.94 | 13.20 | | 9.57 | 5.73 | NA |
| Minimum Purge Volume (gal) | 1.5 | 1.7 | 1.7 | 1.3 | 1.6 | 1.8 | 2.2 | | 1.6 | 0.9 | NA |
| 3 Volumes | 4.6 | 5.2 | 5.2 | 4.0 | 4.7 | 5.3 | 6.5 | | 4.7 | 2.8 | NA |
| Actual volume purged | 4.6 | 5.2 | NS | 4.0 | 4.7 | 5.3 | 6.5 | | 4.7 | 2.8 | NS |
| Comments | Flush = -0.23 | Flush = -0.35 | Flush = -0.48 | Flush = -0.39 | Flush = -0.38 | Stickup=2.26' | Stickup=1.18' | Flush =-0.26' | Flush =0.36' | Flush=-0.43' | Flush =-.71' |

NOTES

btoc = Below top of casing (inner riser) All measurements are in feet, referenced to Mean Sea Level

nd = No floating product encountered

Minimum purge volume = 3 X well volume, 0.163 gallon per foot in a 2" diameter well. 0.653 gallon per foot in a 4" diameter well.

Monitoring well MW-19 was removed and the area restored on July 23, 2003 immediately after the well was developed, purged of 3 volumes and sampled.

The borehole for MW-19 was backfilled with a cement-bentonite grout after the PVC screening and casing was successfully removed.

Wells MW-19R, MW-20 and MW-21 were installed in October 2004.

TOTAL VOLUME to PURGE, 3X ALL WELLS:

54.2 Gallons

Table 2 December 2013 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-1
 Sampling Events

Sample Date: 12/16/2013

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|--------------|------------|--------------------|
| TCE | | 1,400 | 680 | 5.0 |
| CIS | | 340 | 150 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 1,740 | 830 | |

Monitoring Well MW-4
 Sampling Events

Sample Date: 12/16/2013

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | ND | ND | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | ND | ND | |

Monitoring Well MW-2
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-5
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-3
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-6
 Sampling Events

Sample Date: 12/16/2013

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|------------|-----------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | 130 | 99 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 130 | 99 | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 December 2013 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-7
 Sampling Events

Sample Date: 12/16/2013

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|-----------|--------------------|
| TCE | | ND | | 5.0 |
| CIS | | ND | 18 | 5.0 |
| TRANS | | ND | | 5.0 |
| VC | | ND | | 2.0 |
| TCA | | ND | | 5.0 |
| Total VOCs | | ND | 18 | |

Monitoring Well MW-8
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-9
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-10
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-11
 Sampling Events

Sample Date: 12/17/2013

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|------------|------------|--------------------|
| TCE | | 650 | 140 | 5.0 |
| CIS | | 230 | 370 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 880 | 510 | |

Monitoring Well MW-12
 Sampling Events

Sample Date: 12/17/2013

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|------------|------------|--------------------|
| TCE | | 13 | 9.3 | 5.0 |
| CIS | | 160 | 140 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 173 | 149.3 | |

NS = Not Sampled. No analysis performed during this sampling event.
 Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 December 2013 Analytical Results Summary

Gowanda Day Habilitation Center
4 Industrial Place, Gowanda, New York
VCA # V-00463-9

Monitoring Well MW-13

Sample Date: NS

Sampling Events

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-16

Sample Date: 12/16/2013

Sampling Events

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|-----------|------------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | 20 | 8.4 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 20 | 8.4 | |

Monitoring Well MW-14

Sample Date: 12/17/2013

Sampling Events

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|-----------|-----------|--------------------|
| TCE | | 48 | 29 | 5.0 |
| CIS | | 46 | 20 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 94 | 49 | |

Monitoring Well MW-17

Sample Date: 12/16/2013

Sampling Events

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|------------|------------|--------------------|
| TCE | | 110 | 110 | 5.0 |
| CIS | | 310 | 290 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 420 | 400 | |

Monitoring Well MW-15

Sample Date: 12/17/2013

Sampling Events

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|------------|----------|--------------------|
| TCE | | 6.8 | 7 | 5.0 |
| CIS | | ND | ND | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 6.8 | 7.0 | |

Monitoring Well MW-18

Sample Date: NS

Sampling Events

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 December 2013 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-19R

Sample Date: 12/16/2013

Sampling Events

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | ND | ND | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | ND | ND | |

Monitoring Well MW-20

Sample Date: 12/16/2013

Sampling Events

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | ND | ND | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | ND | ND | |

Monitoring Well MW-21

Sample Date: NS

Sampling Events

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 December 2013 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Recovery Well DR-1
 Sampling Events

Sample Date: 12/17/2013

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|-----------|-----------|--------------------|
| TCE | | 63 | 50 | 5.0 |
| CIS | | 24 | 23 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 87 | 73 | |

Recovery Well DR-4
 Sampling Events

Sample Date: 12/17/2013

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|-----------|-----------|--------------------|
| TCE | | 50 | 56 | 5.0 |
| CIS | | 18 | 23 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 68 | 79 | |

Recovery Well DR-2
 Sampling Events

Sample Date: 12/17/2013

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|------------|------------|--------------------|
| TCE | | 29 | 56 | 5.0 |
| CIS | | 260 | 200 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | 13 | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 302 | 256 | |

Recovery Well G-1
 Sampling Events

Sample Date: 12/17/2013

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|------------|------------|--------------------|
| TCE | | 7.2 | 6.1 | 5.0 |
| CIS | | 89 | 63 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 96.2 | 69.1 | |

Recovery Well DR-3
 Sampling Events

Sample Date: 12/17/2013

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|-----------|-----------|--------------------|
| TCE | | 41 | 35 | 5.0 |
| CIS | | 82 | 27 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 123 | 62 | |

Recovery Well G-2
 Sampling Events

Sample Date: 12/17/2013

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|-----------|-----------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | 68 | 81 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 68 | 81.0 | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 December 2013 Analytical Results Summary

Gowanda Day Habilitation Center
4 Industrial Place, Gowanda, New York
VCA # V-00463-9

Recovery Well G-3
Sampling Events

Sample Date: NS

| Analyte | in µg/L | Dec 2013 | Jul 2013 | NYS Guidance Value |
|------------|---------|----------|-----------|--------------------|
| TCE | | NS | 11 | 5.0 |
| CIS | | NS | ND | 5.0 |
| TRANS | | NS | ND | 5.0 |
| VC | | NS | ND | 2.0 |
| TCA | | NS | ND | 5.0 |
| Total VOCs | | NS | 11 | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 3 Historic Groundwater Analysis Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

| Well Number | Sampling Order Dec 2013 | Sampling Order Jul 2013 | Sampling Order Apr 2013 | Sampling Order Dec 2012 | Sampling Order Jun 2012 | Sampling Order Mar 2012 | Sampling Order Sep 2011 | Total PPB Jun 2011 | Total PPB Mar 2011 | Total PPB Dec 2010 | Total PPB Sep 2010 | Total PPB Jun 2010 | Total PPB Jul 2009 | Total PPB Feb 2009 | Total PPB Sep 2008 | Total PPB Jun 2008 | Total PPB Mar 2008 | Total PPB Sep 2007 | Total PPB May 2007 | |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----|
| MONITORING WELLS | | | | | | | | | | | | | | | | | | | | |
| MW-1 | 8 | 12 | 12 | 13 | 13 | 13 | 13 | 1,318.1 | 583 | 564 | 649 | 778 | 1107.16 | 677 | 860 | 705 | 1,463 | 1,481 | 2,046 | |
| MW-17 | 7 | 13 | 13 | 11 | 10 | 7 | 11 | 225.2 | 26.7 | 48.1 | 312.3 | 232.1 | 228.8 | 4.41 | 728 | 599 | 610 | 903.0 | 777 | |
| MW-18 | NS | 6 | 6 | 6 | 6 | 4 | 4 | 13.9 | 6.43 | 17.9 | 40.77 | 27.5 | 196 | 13.07 | 238.6 | 115.2 | 56.0 | 719 | 442 | |
| MW-7 | 5 | 7 | 7 | 7 | 8 | 5 | 7 | 70.9 | 22.3 | 58.2 | 160.5 | 114.46 | 213 | 92.34 | 347.8 | 244 | 196.7 | 360 | 330.5 | |
| MW-11 | 12 | 11 | 11 | 12 | 12 | 12 | 12 | 722 | 623 | 588 | 630.7 | 765 | 625.9 | 790 | 437.3 | 564.9 | 1,023 | 398.6 | 1,189 | |
| MW-12 | 11 | 10 | 10 | 10 | 11 | 11 | 10 | 162.9 | 90.82 | 90.4 | 100 | 159.8 | 82 | 279.01 | 65.8 | 159 | 165.6 | 196.9 | 429 | |
| MW-14 | 10 | 5 | 5 | 5 | 5 | 9 | 9 | 104.98 | 31.9 | 24.33 | 38.93 | 65.22 | 40.72 | 34.9 | 17.8 | 38.15 | 29.3 | 103.2 | 106.8 | |
| MW-2 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | |
| MW-15 | 9 | 4 | 4 | 4 | 4 | 8 | 5 | 16.18 | 6.92 | 16.85 | 62 | 22.93 | 64.8 | 4.9 | 113.3 | 77.3 | 18.2 | 149.6 | 60.4 | |
| MW-20 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| MW-6 | 6 | 9 | 9 | 9 | 9 | 10 | 8 | 79 | 73.2 | 81.8 | 107 | 96 | 92.8 | 87.8 | 113 | 123 | 105 | 171 | 151 | |
| MW-16 | 4 | 8 | 8 | 8 | 7 | 6 | 6 | 23.1 | 28.9 | 7.21 | 2.53 | ND | 22 | 22.2 | 16.2 | 21.3 | 8.56 | 24.7 | 60.0 | |
| MW-19R | 3 | 3 | 3 | 3 | 3 | 3 | 3 | ND | ND | ND | 2.67 | ND | 4.27 | ND | 13.7 | 10.57 | ND | 22.1 | 2.64 | |
| MW-21 | NS | NS | NS | NS | NS | NS | NS | 141.8 | NS | 14.3 | 533 | 318 | |
| MW-5 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | 3.41 | ND |
| MW-3 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | 2.4 | ND |
| MW-13 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | 2.02 | ND |
| MW-4 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | NS | ND | ND | |
| MW-8 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | |
| MW-9 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | |
| MW-10 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | |
| RECOVERY WELLS | | | | | | | | | | | | | | | | | | | | |
| Recovery Well No. | Sampling Order Dec 2013 | Sampling Order Jul 2013 | Sampling Order Apr 2013 | Sampling Order Dec 2012 | Sampling Order Jun 2012 | Sampling Order Mar 2012 | Sampling Order Sep 2011 | Sampling Order Jun 2011 | Total VOCs Mar 2011 | Total VOCs Dec 2010 | Total VOCs Sep 2010 | Total VOCs Jun 2010 | Total VOCs Jul 2009 | Total VOCs Feb 2009 | Total VOCs Sep 2008 | Total VOCs Jun 2008 | Total VOCs Mar 2008 | Total VOCs Sep 2007 | Total VOCs May 2007 | |
| G-3 | NS | 20 | 20 | 20 | 20 | 20 | 20 | 224.7 | 209.8 | 159.3 | 233.2 | 277.8 | 344 | 403 | NA | NA | NA | NA | NA | |
| G-2 | 18 | 19 | 19 | 19 | 19 | 19 | 19 | 65.6 | 47.2 | 51.8 | 6.02 | 8.37 | 56.2 | 231 | 28.3 | 39.1 | 80.92 | 59.3 | 174.92 | |
| G-1 | 17 | 18 | 18 | 18 | 18 | 18 | 18 | 55.81 | 67.02 | 48.8 | 30.5 | 108.3 | 164 | 126.6 | 120.4 | 170.5 | 186 | 225.0 | 153.3 | |
| DR-4 | 16 | 17 | 17 | 17 | 17 | 17 | 17 | 128.4 | 101.4 | 71.7 | 230.58 | 155.04 | 80.3 | 66.3 | 129.1 | 40.2 | 42.1 | 217.0 | 15.21 | |
| DR-3 | 15 | 16 | 16 | 16 | 16 | 16 | 16 | 67.7 | 25.3 | 30.1 | 38.1 | 79.7 | 125.96 | 167.34 | 75.4 | 123.2 | 171.7 | 387.5 | 183 | |
| DR-1 | 13 | 15 | 15 | 15 | 15 | 15 | 14 | 154.5 | 250.1 | 355.5 | 442.5 | 60.3 | 392.28 | 260 | 724 | 864 | 530 | 2,043.5 | 1,106 | |
| DR-2 | 14 | 14 | 14 | 14 | 14 | 14 | 15 | 240.93 | 267.75 | 152.3 | 213.52 | 255.2 | 198.24 | 223.79 | 206.6 | 284.3 | 154.4 | 288.1 | 350.1 | |

NS: This well not included in this sampling event.

ND = Not Detected, results less than Method Detection Limit.

Impacted north property line wells: MW-5, MW-6, MW-7, MW-16, MW-17,

Table 1 Percent Reductions in Total Groundwater VOCs

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

The Groundwater Treatment System was activated in May 2005

| Monitoring Well | % Reduction 2002 to Dec 2013 | % Reduction 2002 to Jul 2013 | % Reduction 2002 to Apr 2013 | % Reduction 2002 to Dec 2012 | % Reduction 2002 to Jun 2012 | % Reduction 2002 to Mar 2012 | % Reduction 2002 to Sep 2011 | % Reduction 2002 to Jun 2011 | % Reduction 2002 to Mar 2011 | % Reduction 2002 to Dec 2010 | % Reduction 2002 to Sep 2010 | % Reduction 2002 to Jun 2010 | % Reduction 2002 to Jan 2010 | % Reduction 2002 to Jul 2009 | % Reduction 2002 to Feb 2009 | % Reduction 2002 to Sep 2008 | % Reduction 2002 to Jun 2008 | % Reduction 2002 to Mar 2008 | % Reduction 2002 to Nov 2005 | |
|---------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|---------|
| MW-1* | -126.6% | -8.1% | -19.5% | -87.5% | 31.3% | -15.8% | 42.4% | -71.6% | 24.1% | 26.6% | 15.5% | -1.3% | 15.8% | -44.2% | 11.8% | -12.0% | 8.2% | -90.5% | -46.9% | |
| MW-2 | Not Sampled | 99.6% | 99.6% |
| MW-3 | Not Sampled | 99.3% | 99.3% |
| MW-4 | 100.0% | 100.0% | 100.0% | 100.00% | 100.00% | 100.00% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% |
| MW-5 | Not Sampled | 99.3% | 63.4% |
| MW-6 | 68.0% | 75.6% | 77.1% | 75.6% | 78.6% | 78.9% | 75.1% | 80.5% | 82.0% | 79.9% | 73.6% | 76.4% | 81.3% | 77.1% | 78.4% | 72.2% | 69.7% | 74.1% | 42.6% | 42.6% |
| MW-7 | 100.0% | 96.0% | 100.0% | 100.0% | 66.3% | 93.2% | 53.5% | 84.2% | 95.0% | 87.1% | 64.3% | 74.6% | 96.6% | 52.7% | 79.5% | 22.7% | 45.8% | 56.3% | -1.3% | 92.9% |
| MW-8 | Not Sampled | 92.9% | 92.9% |
| MW-9 | Not Sampled | 97.6% | 97.6% |
| MW-10 | Not Sampled | 96.2% | 96.2% |
| MW-11 | 81.1% | 89.0% | 87.7% | 83.0% | 89.3% | 86.7% | 89.1% | 84.5% | 86.6% | 87.3% | 86.4% | 83.5% | 83.3% | 86.5% | 83.0% | 90.6% | 87.8% | 78.0% | 76.3% | 76.3% |
| MW-12 | 98.6% | 98.8% | 98.5% | 98.9% | 99.3% | 98.8% | 99.3% | 98.7% | 99.3% | 99.3% | 99.2% | 98.7% | 98.1% | 99.4% | 97.8% | 99.5% | 98.7% | 98.7% | 62.2% | 62.2% |
| MW-13 | Not Sampled | 100.0% | 100.0% |
| MW-14 | 70.2% | 84.4% | 77.5% | 85.1% | 87.4% | 75.7% | 75.5% | 66.7% | 89.9% | 92.3% | 87.6% | 79.3% | 85.9% | 88.9% | 94.3% | 94.3% | 88.9% | 87.9% | 90.7% | 55.6% |
| MW-15 | 99.1% | 99.0% | 100.0% | 98.2% | 96.4% | 99.1% | 95.6% | 97.8% | 99.1% | 97.7% | 91.5% | 96.9% | 98.3% | 91.1% | 99.3% | 84.5% | 89.4% | 97.5% | 62.9% | 62.9% |
| MW-16* | 60.9% | 77.9% | 36.8% | 52.6% | 88.5% | 67.9% | 84.0% | 39.2% | 81.0% | 93.3% | 99.7% | 99.7% | 94.2% | 42.1% | 41.6% | 59.3% | 43.9% | 77.5% | -72.1% | -72.1% |
| MW-17* | 58.5% | 50.6% | 97.4% | 46.9% | 53.0% | 67.9% | 44.6% | 72.2% | 96.7% | 94.1% | 61.4% | 71.3% | 97.7% | 71.8% | 99.5% | 10.1% | 26.0% | 24.7% | -24.2% | -24.2% |
| MW-18* | Not Sampled | 100.0% | 100.0% | 100.0% | 89.6% | 98.5% | 81.9% | 91.3% | 96.0% | 88.7% | 74.4% | 82.7% | 96.0% | -23.3% | 91.8% | -50.0% | 27.6% | 64.8% | -135.8% | -135.8% |
| MW-19 R* | 100.0% | 100.0% | 100.0% | 75.0% | 99.0% | 99.0% | 99.0% | 99.0% | 99.0% | 99.0% | 73.3% | 99.0% | 99.0% | 57.3% | 99.0% | -36.7% | -5.7% | 99.0% | -102.0% | -102.0% |
| MW-20** | 100.0% | 100.0% | 100.0% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% |
| MW-21** | Not Sampled | 67.5% | Not Sampled | 96.7% | -13.7% | -13.7% |
| * Well installed 2003 | | | | | | | | | | | | | | | | | | | | |
| ** Well Installed 2004 | | | | | | | | | | | | | | | | | | | | |
| Site-Wide reduction: | 67.5% | 81.8% | 81.2% | 71.3% | 82.9% | 80.7% | 79.7% | 72.2% | 83.7% | 86.9% | 78.3% | 81.4% | 87.9% | 61.1% | 82.1% | 56.0% | 59.7% | 78.5% | 35.7% | 35.7% |
| Impacted Groundwater Plume Area Only: | 56.1% | 73.2% | 77.3% | 62.5% | 75.2% | 73.1% | 71.9% | 64.1% | 84.1% | 83.0% | 72.5% | 72.4% | 82.1% | 65.2% | 79.8% | 57.7% | 64.2% | 53.7% | 28.4% | 28.4% |

Plume Area = MW-1, MW-11, MW-12, MW-14, MW-15, MW-7, MW-17, MW-6

% reduction = percent reduction in total Volatile Organic Compounds (VOCs) since groundwater monitoring was initiated

†Negative values indicate an increase in total VOCs since monitoring commenced in 2002. The percent increase in total groundwater VOCs is shown below for MW-1.

| Recovery Well | % Reduction 2002 to Dec 2013 | % Reduction 2002 to Jul 2013 | % Reduction 2002 to Apr 2013 | % Reduction 2002 to Dec 2012 | % Reduction 2002 to Jun 2012 | % Reduction 2002 to Mar 2012 | % Reduction 2002 to Sep 2011 | % Reduction 2002 to Jun 2011 | % Reduction 2002 to Mar 2011 | % Reduction 2002 to Dec 2010 | % Reduction 2002 to Sep 2010 | % Reduction 2002 to Jun 2010 | % Reduction 2002 to Jan 2010 | % Reduction 2002 to Jul 2009 | % Reduction 2002 to Feb 2009 | % Reduction 2002 to Sep 2008 | % Reduction 2002 to Jun 2008 | % Reduction 2002 to Mar 2008 |
|-------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| DR-1 | 84.8% | 99.1% | 99.0% | 99.5% | 99.8% | 91.6% | 97.9% | 98.1% | 96.9% | 95.6% | 94.5% | 99.2% | 98.0% | 95.1% | 96.8% | 91.0% | 89.2% | 93.4% |
| DR-2 | 45.0% | 87.2% | 85.4% | 99.1% | 88.5% | 83.9% | 89.7% | 88.0% | 86.6% | 92.4% | 89.3% | 87.3% | 90.6% | 90.1% | 88.8% | 89.7% | 85.8% | 92.3% |
| DR-3 | 19.3% | 95.8% | 95.1% | 97.2% | 92.1% | 98.3% | 95.0% | 95.4% | 98.0% | 97.4% | 94.6% | 91.6% | 91.5% | 88.7% | 94.9% | 91.7% | 88.4% | 88.4% |
| DR-4 | 90.8% | 95.5% | 97.9% | 94.9% | 93.1% | 100.0% | 89.2% | 92.7% | 94.3% | 95.9% | 86.9% | 91.2% | 95.4% | 95.5% | 96.2% | 92.7% | 97.7% | 97.6% |
| G-1 | 65.6% | 87.3% | 89.8% | 90.3% | 87.4% | 88.0% | 87.6% | 89.8% | 87.7% | 91.0% | 94.4% | 80.1% | 76.0% | 69.9% | 76.7% | 77.9% | 68.7% | 65.8% |
| G-2 | 71.4% | 79.0% | 87.0% | 65.7% | 80.4% | 89.1% | 92.3% | 83.0% | 87.7% | 86.5% | 98.4% | 97.8% | 98.5% | 85.4% | 40.0% | 92.6% | 89.8% | 79.0% |
| G-3 | Not Sampled |
| Overall Reduction | 62.8% | 90.7% | 92.3% | 91.1% | 90.2% | 91.8% | 91.9% | 91.1% | 91.9% | 93.2% | 93.5% | 91.7% | 91.7% | 87.9% | 81.2% | 89.8% | 87.2% | 86.1% |

*Sampling of recovery wells initiated in 2005

| Monitoring Well | % Increase 2002 to Dec 2013 | % Increase 2002 to Jul 2013 | % Increase 2002 to Apr 2013 | % Increase 2002 to Dec 2012 | % Increase 2002 to Mar 2012 | % Increase 2002 to Jun 2011 | % Increase 2002 to Jun 2010 | % Increase 2002 to Jul 2009 | % Increase 2002 to Sep 2008 | % Increase 2002 to Mar 2008 | % Increase 2002 to Nov 2005 |
|-----------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| MW-1* | 55.9% | 7.5% | 16.3% | 46.7% | 13.6% | 41.7% | 100.0% | 30.6% | 100.0% | 47.5% | 31.9% |

†Negative values indicate an increase in total VOCs since monitoring commenced in 2002. The percent increase in total groundwater VOCs is shown above for MW-1.

FIGURES



MONITORING WELLS & BORING LOCATIONS

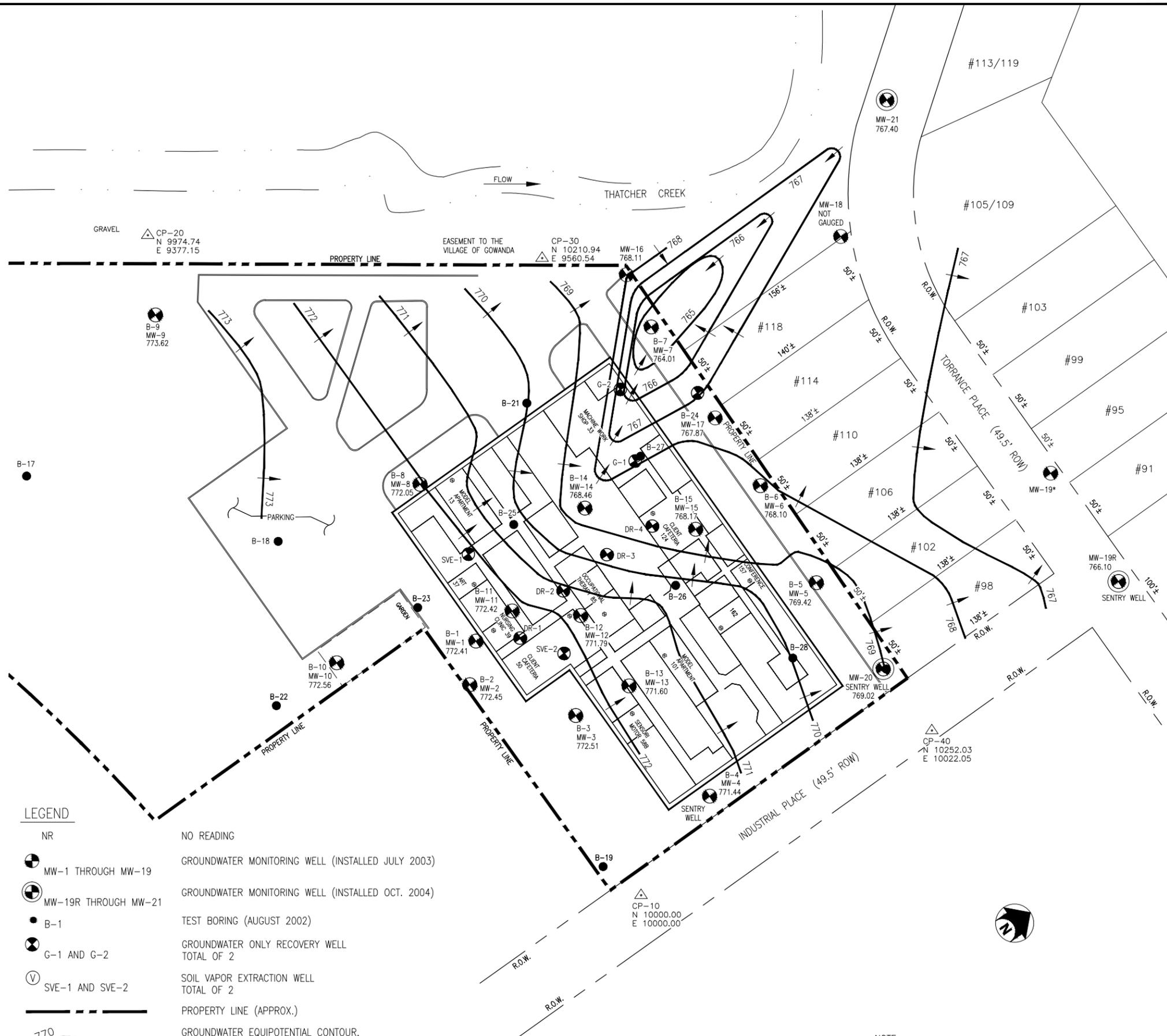
| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|----------|----------------------------|---------------------|
| MW-1 | 10005.75 | 9770.81 | 778.51 778.52 778.23 | ASPH. RIM PVC |
| MW-2 | 9983.26 | 9795.25 | 778.36 778.38 778.08 | ASPH. RIM PVC |
| MW-3 | 10036.20 | 9859.98 | 778.59 778.61 778.38 | ASPH. RIM PVC |
| MW-4 | 10085.20 | 9967.62 | 778.66 778.77 778.43 | GRD. RIM PVC |
| MW-5 | 10243.23 | 9880.34 | 778.80 778.85 778.61 | ASPH. RIM PVC |
| MW-6 | 10249.86 | 9795.88 | 778.93 781.35 781.10 | GRD. CASE PVC |
| MW-7 | 10249.65 | 9650.24 | 778.77 781.17 780.94 | GRD. CASE PVC |
| MW-8 | 10038.09 | 9649.08 | 778.49 781.75 781.33 | GRD. CASE PVC |
| MW-9 | 9945.36 | 9430.13 | 780.56 782.84 782.61 | GRD. CASE PVC |
| MW-10 | 9909.53 | 9724.56 | 777.46 780.10 780.02 | GRD. CASE PVC |
| MW-11 | 10041.23 | 9767.54 | 778.82 778.81 778.58 | FLOOR RIM PVC |
| MW-12 | 10082.02 | 9799.74 | 778.84 778.85 778.50 | FLOOR RIM PVC |
| MW-13 | 10082.09 | 9864.35 | 778.88 778.87 778.39 | FLOOR RIM PVC |
| MW-14 | 10130.64 | 9734.67 | 778.80 778.82 778.43 | FLOOR RIM PVC |
| MW-15 | 10190.80 | 9795.30 | 778.78 778.76 778.38 | FLOOR RIM PVC |
| MW-16 | 10256.48 | 9607.09 | 778.17 781.05 780.43 | GRD. CASE PVC |
| MW-17 | 10250.56 | 9734.35 | 778.67 781.10 779.85 | GRD. CASE PVC |
| MW-18 | 10406.65 | 9675.18 | 776.73 776.65 776.39 | GRD. RIM PVC |
| MW-19 | 10436.35 | 9912.63 | 775.04 775.10 774.82 | GRD. RIM PVC |
| MW-19R | 10432.32 | 10009.16 | 774.56 774.55 774.20 | ASPH. RIM PVC |
| MW-20 | 10248.05 | 9962.73 | 778.47 778.45 778.04 | ASPH. RIM PVC |
| MW-21 | 10493.88 | 9609.90 | 775.47 775.45 774.76 | ASPH. RIM PVC |
| B-16 | 9736.69 | 9324.99 | 782.23 | GRD. |
| B-17 | 9795.99 | 9475.17 | 780.40 | GRD. |
| B-18 | 9925.09 | 9623.75 | 777.55 | ASPH. |
| B-19 | 9988.66 | 9965.74 | 778.30 | ASPH. |
| B-20 | 10249.88 | 9964.03 | 778.36 | ASPH. |
| B-21 | 10139.46 | 9644.31 | 774.51 | GRAV. |
| B-22 | 9853.67 | 9725.31 | 776.69 | GRD. |
| B-23 | 9983.81 | 9724.83 | 778.50 | ASPH. |
| B-24 | 10249.26 | 9732.76 | 778.88 | GRD. |
| B-25 | 10079.30 | 9714.32 | 778.79 | FLOOR |
| B-26 | 10154.35 | 9821.64 | 778.84 | FLOOR |
| B-27 | 10187.79 | 9726.14 | 778.80 | FLOOR |
| B-28 | 10196.32 | 9917.18 | 778.83 | FLOOR |

RECOVERY WELL LOCATIONS

| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|---------|----------------------------|-------------------------------|
| DR-1 | 10034.54 | 9787.80 | 778.81 779.66 779.69 | FLOOR PVC RISER PVC CAP |
| DR-2 | 10081.63 | 9776.80 | 778.87 779.93 779.96 | FLOOR PVC RISER PVC CAP |
| DR-3 | 10124.45 | 9773.02 | 778.83 779.78 779.81 | FLOOR PVC RISER PVC CAP |
| DR-4 | 10164.98 | 9774.65 | 778.80 779.64 779.67 | FLOOR PVC RISER PVC CAP |
| G-1 | 10182.25 | 9726.78 | 778.80 779.83 779.86 | FLOOR PVC RISER PVC CAP |
| G-2 | 10203.62 | 9675.79 | 778.86 779.72 779.76 | FLOOR PVC RISER PVC CAP |
| SVE-1 | 10038.31 | 9713.33 | 778.77 779.66 N/A | FLOOR PVC RISER PVC CAP |
| SVE-2 | 10055.47 | 9816.17 | 778.86 779.91 N/A | FLOOR PVC RISER PVC CAP |

LEGEND

- NR NO READING
- MW-1 THROUGH MW-19 GROUNDWATER MONITORING WELL (INSTALLED JULY 2003)
- MW-19R THROUGH MW-21 GROUNDWATER MONITORING WELL (INSTALLED OCT. 2004)
- B-1 TEST BORING (AUGUST 2002)
- G-1 AND G-2 GROUNDWATER ONLY RECOVERY WELL TOTAL OF 2
- SVE-1 AND SVE-2 SOIL VAPOR EXTRACTION WELL TOTAL OF 2
- PROPERTY LINE (APPROX.)
- GROUNDWATER EQUIPOTENTIAL CONTOUR, FEET RELATIVE TO MEAN SEA LEVEL, MEASURED DECEMBER 16-17, 2013.
- GROUNDWATER FLOW DIRECTION
- *: MW-19 DECOMMISSIONED & REMOVED ON JULY 23, 2003





**BERGMANN
associates**

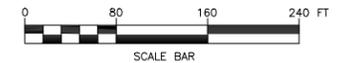
Engineers / Architects / Surveyors

200 First Federal Plaza
28 East Main Street, Rochester, New York 14614
585.232.5235 / 585.232.4652 fax

REVISIONS

| NO. | DATE | DESCRIPTION | REV. | CKD |
|-----|------|-------------|------|-----|
| | | | | |

NOTE:
Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.



**DECEMBER 2013
DISTRIBUTION OF
GROUNDWATER
ANALYTICAL RESULTS
IN MONITORING WELLS**

Project Manager:

G. FLISNIK

Designed by:

C. WOOD

Checked by:

S. DEMEO

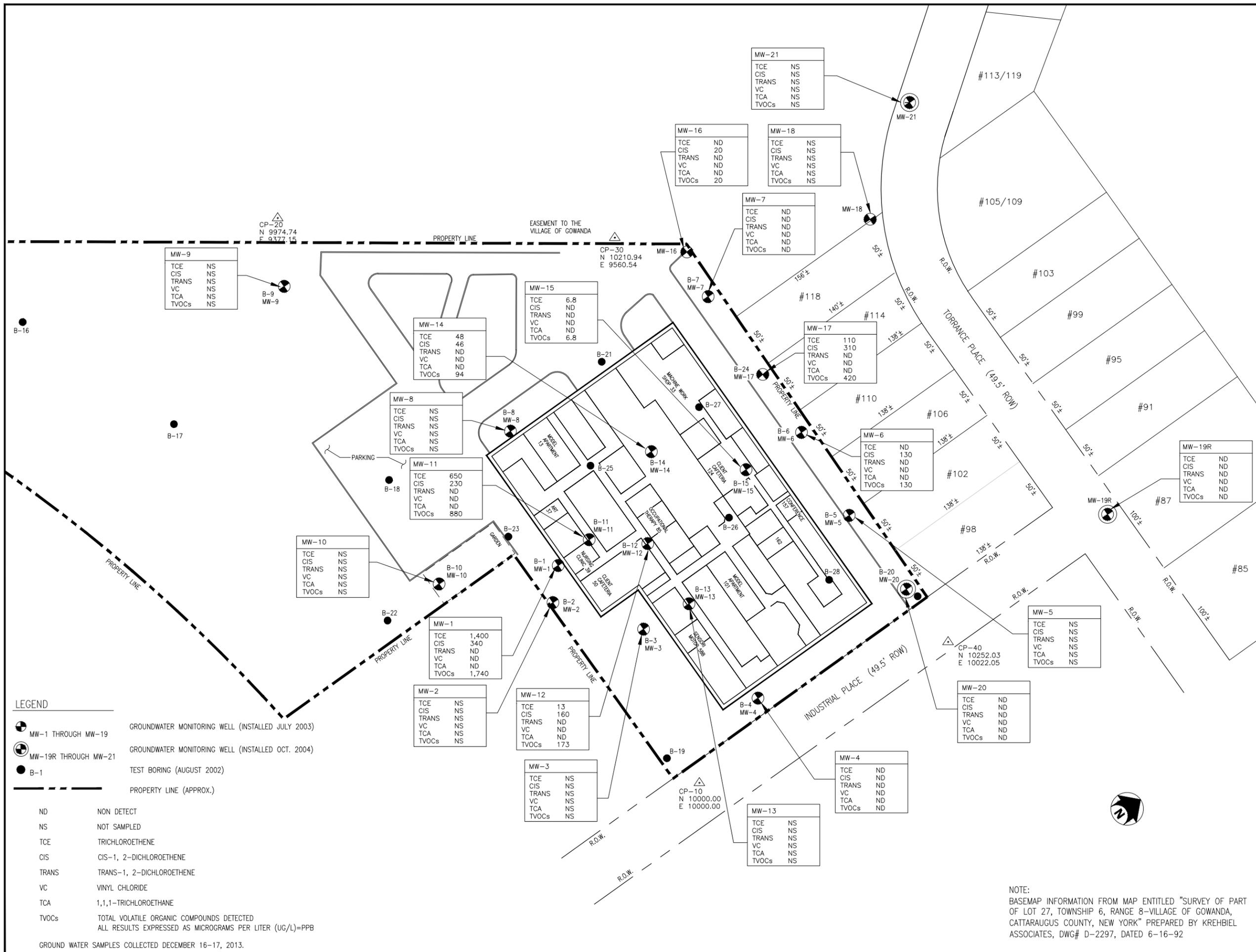
Date Issued:

MARCH 2014

Scale:

1"=80'

Project Number: 6974.76
File Name: I:\DASNY\006974.76\3.03.8\2013 Sampling Event\ December 2013\December 2013\Dec2013 FIG2.dwg
Drawing Number:



NOTE:
BASEMAP INFORMATION FROM MAP ENTITLED "SURVEY OF PART OF LOT 27, TOWNSHIP 6, RANGE 8-VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK" PREPARED BY KREHBIEL ASSOCIATES, DWG# D-2297, DATED 6-16-92

MONITORING WELLS & BORING LOCATIONS

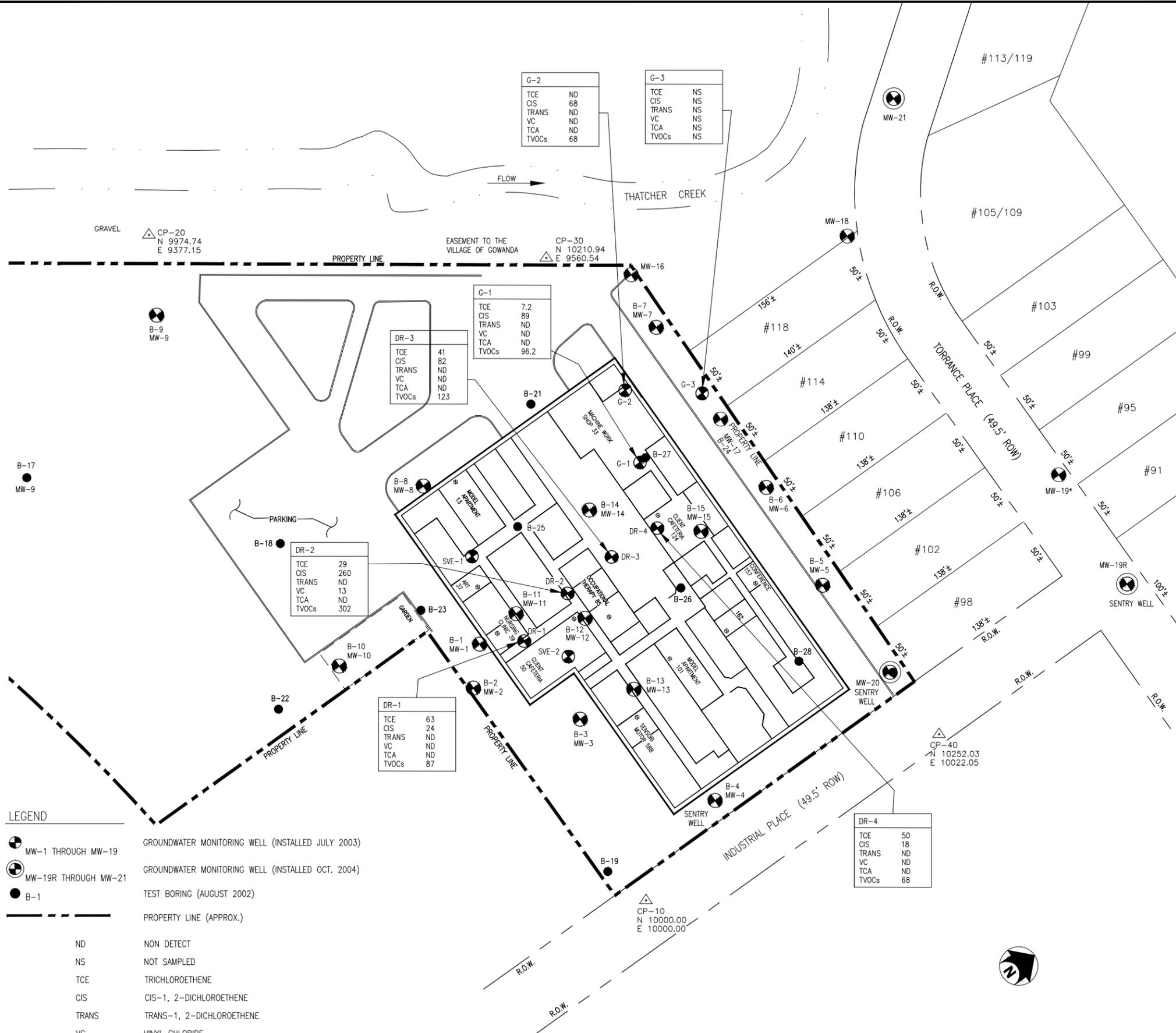
| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|----------|----------------------------|---------------------|
| MW-1 | 10005.75 | 9770.81 | 778.51 778.52 778.23 | ASPH. RIM PVC |
| MW-2 | 9983.26 | 9795.25 | 778.36 778.38 778.08 | ASPH. RIM PVC |
| MW-3 | 10036.20 | 9859.98 | 778.59 778.61 778.38 | ASPH. RIM PVC |
| MW-4 | 10085.20 | 9967.62 | 778.66 778.77 778.43 | GRD. RIM PVC |
| MW-5 | 10243.23 | 9880.34 | 778.80 778.85 778.61 | ASPH. RIM PVC |
| MW-6 | 10249.86 | 9795.88 | 778.93 781.35 781.10 | GRD CASE PVC |
| MW-7 | 10249.65 | 9650.24 | 778.77 781.17 780.94 | GRD CASE PVC |
| MW-8 | 10038.09 | 9649.08 | 778.49 781.75 781.33 | GRD CASE PVC |
| MW-9 | 9945.36 | 9430.13 | 780.56 782.84 782.61 | GRD CASE PVC |
| MW-10 | 9909.53 | 9724.56 | 777.46 780.10 780.02 | GRD CASE PVC |
| MW-11 | 10041.23 | 9767.54 | 778.82 778.81 778.58 | FLOOR RIM PVC |
| MW-12 | 10082.02 | 9799.74 | 778.84 778.85 778.50 | FLOOR RIM PVC |
| MW-13 | 10082.09 | 9864.35 | 778.88 778.87 778.39 | FLOOR RIM PVC |
| MW-14 | 10130.64 | 9734.67 | 778.80 778.82 778.43 | FLOOR RIM PVC |
| MW-15 | 10190.80 | 9795.30 | 778.78 778.76 778.38 | FLOOR RIM PVC |
| MW-16 | 10256.48 | 9607.09 | 778.17 781.05 780.43 | GRD CASE PVC |
| MW-17 | 10250.56 | 9734.35 | 778.67 781.10 779.85 | GRD CASE PVC |
| MW-18 | 10406.65 | 9675.18 | 776.73 776.65 776.39 | GRD RIM PVC |
| MW-19 | 10436.35 | 9912.63 | 775.04 775.10 774.82 | GRD RIM PVC |
| MW-19R | 10432.32 | 10009.16 | 774.56 774.55 774.20 | ASPH RIM PVC |
| MW-20 | 10248.05 | 9962.73 | 778.47 778.45 778.04 | ASPH RIM PVC |
| MW-21 | 10493.88 | 9609.90 | 775.47 775.45 774.76 | ASPH RIM PVC |
| B-16 | 9736.69 | 9324.99 | 782.23 | GRD. |
| B-17 | 9795.99 | 9475.17 | 780.40 | GRD. |
| B-18 | 9925.09 | 9623.75 | 777.55 | ASPH. |
| B-19 | 9988.66 | 9965.74 | 778.30 | ASPH. |
| B-20 | 10249.88 | 9964.03 | 778.36 | ASPH. |
| B-21 | 10139.46 | 9644.31 | 774.51 | GRAV. |
| B-22 | 9853.67 | 9725.31 | 776.69 | GRD. |
| B-23 | 9983.81 | 9724.83 | 778.50 | ASPH. |
| B-24 | 10249.26 | 9732.76 | 778.88 | GRD. |
| B-25 | 10079.30 | 9714.32 | 778.79 | FLOOR |
| B-26 | 10154.35 | 9821.64 | 778.84 | FLOOR |
| B-27 | 10187.79 | 9726.14 | 778.80 | FLOOR |
| B-28 | 10196.32 | 9917.18 | 778.83 | FLOOR |

RECOVERY WELL LOCATIONS

| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|---------|----------------------------|-------------------------------|
| DR-1 | 10034.54 | 9787.80 | 778.81 779.66 779.69 | FLOOR PVC RISER PVC CAP |
| DR-2 | 10081.63 | 9776.80 | 778.87 779.93 779.96 | FLOOR PVC RISER PVC CAP |
| DR-3 | 10124.45 | 9773.02 | 778.83 779.78 779.81 | FLOOR PVC RISER PVC CAP |
| DR-4 | 10164.98 | 9774.65 | 778.80 779.64 779.67 | FLOOR PVC RISER PVC CAP |
| G-1 | 10182.25 | 9726.78 | 778.80 779.83 779.86 | FLOOR PVC RISER PVC CAP |
| G-2 | 10203.62 | 9675.79 | 778.86 779.72 779.76 | FLOOR PVC RISER PVC CAP |
| SVE-1 | 10038.31 | 9713.33 | 778.77 779.66 N/A | FLOOR PVC RISER PVC CAP |
| SVE-2 | 10055.47 | 9816.17 | 778.86 779.91 N/A | FLOOR PVC RISER PVC CAP |

LEGEND

- MW-1 THROUGH MW-19 GROUNDWATER MONITORING WELL (INSTALLED JULY 2003)
 - MW-19R THROUGH MW-21 GROUNDWATER MONITORING WELL (INSTALLED OCT. 2004)
 - B-1 TEST BORING (AUGUST 2002)
 - PROPERTY LINE (APPROX.)
 - ND NON DETECT
 - NS NOT SAMPLED
 - TCE TRICHLOROETHENE
 - CIS CIS-1, 2-DICHLOROETHENE
 - TRANS TRANS-1, 2-DICHLOROETHENE
 - VC VINYL CHLORIDE
 - TCA 1,1,1-TRICHLOROETHANE
 - TVOCs TOTAL VOLATILE ORGANIC COMPOUNDS DETECTED
- ALL RESULTS EXPRESSED AS MICROGRAMS PER LITER (UG/L)=PPB
- GROUND WATER SAMPLES COLLECTED DECEMBER 16-17, 2013.

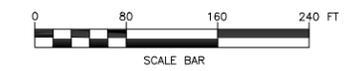


DASNY
GOWANDA DAY
HABILITATION CENTER
 4 INDUSTRIAL PLACE
 GOWANDA, NY



| REVISIONS | | | |
|-----------|------|-------------|----------|
| NO. | DATE | DESCRIPTION | REV. CKD |
| | | | |

NOTE:
 Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.



DECEMBER 2013
DISTRIBUTION OF
GROUNDWATER
ANALYTICAL RESULTS
IN RECOVERY WELLS

Project Manager: G. FLISNIK
 Designed by: _____
 Drawn by: C. WOOD
 Checked by: S. DEMEO
 Date Issued: MARCH 2014
 Scale: 1"=80'

Project Number: 6974.76
 File Name: I:\DASNY\006974.76\3.03.8\2013 Sampling Event\ December 2013\December 2013\Dec2013 FIG3.dwg
 Drawing Number: _____

NOTE:
 BASEMAP INFORMATION FROM MAP ENTITLED "SURVEY OF PART OF LOT 27, TOWNSHIP 6, RANGE 8-VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK" PREPARED BY KREHBIEL ASSOCIATES, DWG# D-2297, DATED 6-16-92

FIG-3

APPENDICES



APPENDIX A
LABORATORY ANALYTICAL RESULTS REPORT
DECEMBER 2013 SAMPLING EVENT





January 07, 2014

Service Request No: R1309517

Mr. Jim Marschner
Bergmann Associates, Incorporated
200 First Federal Plaza
28 East Main St.
Rochester, NY 14614

Laboratory Results for: Gowanda 6974.76

Dear Mr. Marschner:

Enclosed are the results of the sample(s) submitted to our laboratory on December 17, 2013. For your reference, these analyses have been assigned our service request number **R1309517**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Karen.Bunker@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Karen Bunker
Project Manager

Page 1 of 40

Client: Bergmann Associates
Project: Gowanda 6974.76
Sample Matrix: Water

Service Request No.: R1309517
Date Received: 12/17/13

All analyses were performed consistent with the quality assurance program of ALS Environmental (ALS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Twenty-two (22) samples were collected by the client on 12/16-17/13 and received for analysis at ALS on 12/17/13 via client drop off.

Volatile Organics

Twenty-two (22) water samples were analyzed for a client specific list of Volatile Organic compounds by GC/MS method 8260C.

The Initial and Continuing Calibration criteria were met for all samples except for 1,1,1-Trichloroethane which was outside the $\pm 20\%$ Difference (21.7%D) on the 12/30/13 run. Any hits for this compound associated with this CCV should be considered as estimated.

Site QC is included in the report for locations MW-1 (ALS \$# R1309517-008) and W-11 (ALS# R1309517-013). All Matrix Spike (MS) and MS Duplicate (MSD) recoveries were acceptable except for trans-1,2-Dichloroethene and 1,1,1-Trichloroethane on sample -013. The exceedences have been flagged as “*”. Trichloroethene could not be accurately measured for location -008 since the sample was spiked too low compared to the concentration in the sample (less than 5X the level in the sample). The recoveries are flagged as “#”. Batch QC is included in the report. All Laboratory Control Sample (LCS) recoveries for target compounds were within QC limits. All Relative Percent Difference (RPD) calculations were acceptable.

All Surrogate recoveries are within acceptance limits.

Hits above the calibration range of the standards are flagged as “E”, estimated. The sample is then repeated at the appropriate dilution for the hits. Both sets of data are included in the report. The subsequent hits on the diluted sample are flagged as “D”.

The Laboratory Method Blanks were free from contamination.

No other problems were encountered during the analysis of these samples.

Approved by Karen Burker Date 1/7/14

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1309517

| <u>Lab ID</u> | <u>Client ID</u> |
|---------------|------------------|
| R1309517-001 | MW-4 |
| R1309517-002 | MW-20 |
| R1309517-003 | MW-19R |
| R1309517-004 | MW-16 |
| R1309517-005 | MW-7 |
| R1309517-006 | MW-6 |
| R1309517-007 | MW-17 |
| R1309517-008 | MW-1 |
| R1309517-009 | MW-X |
| R1309517-010 | MW-15 |
| R1309517-011 | MW-14 |
| R1309517-012 | MW-12 |
| R1309517-013 | MW-11 |
| R1309517-014 | DR-1 |
| R1309517-015 | DR-2 |
| R1309517-016 | DR-3 |
| R1309517-017 | DR-4 |
| R1309517-018 | G-1 |
| R1309517-019 | G-2 |
| R1309517-020 | EQUIP BLANK |
| R1309517-021 | GTS-INF |
| R1309517-022 | TRIP BLANK |

00003rev

REPORT QUALIFIERS AND DEFINITIONS

- | | |
|---|--|
| <p>U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.</p> <p>J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).</p> <p>B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.</p> <p>E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.</p> <p>E Organics- Concentration has exceeded the calibration range for that specific analysis.</p> <p>D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.</p> <p>* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.</p> <p>H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.</p> <p># Spike was diluted out.</p> | <p>+ Correlation coefficient for MSA is <0.995.</p> <p>N Inorganics- Matrix spike recovery was outside laboratory limits.</p> <p>N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.</p> <p>S Concentration has been determined using Method of Standard Additions (MSA).</p> <p>W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.</p> <p>P Concentration >40% (25% for CLP) difference between the two GC columns.</p> <p>C Confirmed by GC/MS</p> <p>Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).</p> <p>X See Case Narrative for discussion.</p> <p>MRL Method Reporting Limit. Also known as:</p> <p>LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.</p> <p>MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).</p> <p>LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.</p> <p>ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.</p> |
|---|--|



Rochester Lab ID # for State Certifications¹

| | | |
|-------------------------|-----------------------|-------------------------------|
| NELAP Accredited | Maine ID #NY0032 | New Hampshire ID # 294100 A/B |
| Connecticut ID # PH0556 | Nebraska Accredited | |
| Delaware Accredited | Nevada ID # NY-00032 | North Carolina #676 |
| DoD ELAP #65817 | New Jersey ID # NY004 | Pennsylvania ID# 68-786 |
| Florida ID # E87674 | New York ID # 10145 | Rhode Island ID # 158 |
| Illinois ID #200047 | | Virginia #460167 |

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/16/13 1130
 Date Received: 12/17/13
 Date Analyzed: 12/26/13 17:24

Sample Name: MW-4
 Lab Code: R1309517-001

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122613\C3715.D\

Analysis Lot: 374263
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 104 | 85-122 | 12/26/13 17:24 | |
| Dibromofluoromethane | 105 | 89-119 | 12/26/13 17:24 | |
| Toluene-d8 | 101 | 87-121 | 12/26/13 17:24 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/16/13 1230
 Date Received: 12/17/13
 Date Analyzed: 12/26/13 17:51

Sample Name: MW-20
 Lab Code: R1309517-002

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122613\C3716.D\

Analysis Lot: 374263
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 103 | 85-122 | 12/26/13 17:51 | |
| Dibromofluoromethane | 105 | 89-119 | 12/26/13 17:51 | |
| Toluene-d8 | 99 | 87-121 | 12/26/13 17:51 | |



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/16/13 1350
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 13:21

Sample Name: MW-19R
 Lab Code: R1309517-003

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQU\DATA\MSVOA8\DATA\122713\C3733.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 109 | 85-122 | 12/27/13 13:21 | |
| Dibromofluoromethane | 103 | 89-119 | 12/27/13 13:21 | |
| Toluene-d8 | 108 | 87-121 | 12/27/13 13:21 | |



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/16/13 1500
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 13:48

Sample Name: MW-16
 Lab Code: R1309517-004

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3734.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 20 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 98 | 85-122 | 12/27/13 13:48 | |
| Dibromofluoromethane | 101 | 89-119 | 12/27/13 13:48 | |
| Toluene-d8 | 100 | 87-121 | 12/27/13 13:48 | |



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/16/13 1555
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 14:15

Sample Name: MW-7
 Lab Code: R1309517-005

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3735.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 108 | 85-122 | 12/27/13 14:15 | |
| Dibromofluoromethane | 104 | 89-119 | 12/27/13 14:15 | |
| Toluene-d8 | 98 | 87-121 | 12/27/13 14:15 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/16/13 1645
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 14:43

Sample Name: MW-6
 Lab Code: R1309517-006

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQDATA\MSVOA8\DATA\122713\C3736.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 130 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 102 | 85-122 | 12/27/13 14:43 | |
| Dibromofluoromethane | 107 | 89-119 | 12/27/13 14:43 | |
| Toluene-d8 | 102 | 87-121 | 12/27/13 14:43 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/16/13 1735
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 15:10

Sample Name: MW-17
 Lab Code: R1309517-007

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\MSVOA8\DATA\122713\C3737.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 2

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 310 | 10 | |
| 156-60-5 | trans-1,2-Dichloroethene | 10 U | 10 | |
| 127-18-4 | Tetrachloroethene (PCE) | 10 U | 10 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 10 U | 10 | |
| 79-01-6 | Trichloroethene (TCE) | 110 | 10 | |
| 75-01-4 | Vinyl Chloride | 10 U | 10 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 101 | 85-122 | 12/27/13 15:10 | |
| Dibromofluoromethane | 100 | 89-119 | 12/27/13 15:10 | |
| Toluene-d8 | 96 | 87-121 | 12/27/13 15:10 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/16/13 1815
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 15:37

Sample Name: MW-1
 Lab Code: R1309517-008

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3738.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 5

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 340 | 25 | |
| 156-60-5 | trans-1,2-Dichloroethene | 25 U | 25 | |
| 127-18-4 | Tetrachloroethene (PCE) | 25 U | 25 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 25 U | 25 | |
| 79-01-6 | Trichloroethene (TCE) | 1400 E | 25 | |
| 75-01-4 | Vinyl Chloride | 25 U | 25 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 100 | 85-122 | 12/27/13 15:37 | |
| Dibromofluoromethane | 101 | 89-119 | 12/27/13 15:37 | |
| Toluene-d8 | 101 | 87-121 | 12/27/13 15:37 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/16/13 18:15
 Date Received: 12/17/13
 Date Analyzed: 12/30/13 14:11

Sample Name: MW-1
 Lab Code: R1309517-008
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUADATA\MSVOA8\DATA\123013\C3765.D\

Analysis Lot: 374737
 Instrument Name: R-MS-08
 Dilution Factor: 10

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 340 | D | 50 | |
| 156-60-5 | trans-1,2-Dichloroethene | 50 | U | 50 | |
| 127-18-4 | Tetrachloroethene (PCE) | 50 | U | 50 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 50 | U | 50 | |
| 79-01-6 | Trichloroethene (TCE) | 1400 | D | 50 | |
| 75-01-4 | Vinyl Chloride | 50 | U | 50 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 99 | 85-122 | 12/30/13 14:11 | |
| Dibromofluoromethane | 105 | 89-119 | 12/30/13 14:11 | |
| Toluene-d8 | 97 | 87-121 | 12/30/13 14:11 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/16/13
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 16:04

Sample Name: MW-X
 Lab Code: R1309517-009

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3739.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 330 | E | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 19 | | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 1000 | E | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 100 | 85-122 | 12/27/13 16:04 | |
| Dibromofluoromethane | 98 | 89-119 | 12/27/13 16:04 | |
| Toluene-d8 | 100 | 87-121 | 12/27/13 16:04 | |

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 6974.76
Sample Matrix: Water

Service Request: R1309517
Date Collected: 12/16/13
Date Received: 12/17/13
Date Analyzed: 12/30/13 14:38

Sample Name: MW-X
Lab Code: R1309517-009
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\123013\C3766.D\

Analysis Lot: 374737
Instrument Name: R-MS-08
Dilution Factor: 10

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 350 D | 50 | |
| 156-60-5 | trans-1,2-Dichloroethene | 50 U | 50 | |
| 127-18-4 | Tetrachloroethene (PCE) | 50 U | 50 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 50 U | 50 | |
| 79-01-6 | Trichloroethene (TCE) | 1500 D | 50 | |
| 75-01-4 | Vinyl Chloride | 50 U | 50 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed Q |
|----------------------|------|----------------|-----------------|
| 4-Bromofluorobenzene | 97 | 85-122 | 12/30/13 14:38 |
| Dibromofluoromethane | 106 | 89-119 | 12/30/13 14:38 |
| Toluene-d8 | 100 | 87-121 | 12/30/13 14:38 |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/17/13 0845
 Date Received: 12/17/13
 Date Analyzed: 12/30/13 13:44

Sample Name: MW-15
 Lab Code: R1309517-010

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\123013\C3764.D\

Analysis Lot: 374737
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 6.8 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 100 | 85-122 | 12/30/13 13:44 | |
| Dibromofluoromethane | 104 | 89-119 | 12/30/13 13:44 | |
| Toluene-d8 | 98 | 87-121 | 12/30/13 13:44 | |

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/17/13 1000
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 16:59

Sample Name: MW-14
 Lab Code: R1309517-011

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3741.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 46 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 48 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 105 | 85-122 | 12/27/13 16:59 | |
| Dibromofluoromethane | 102 | 89-119 | 12/27/13 16:59 | |
| Toluene-d8 | 100 | 87-121 | 12/27/13 16:59 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/17/13 1110
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 17:26

Sample Name: MW-12
 Lab Code: R1309517-012

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3742.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 160 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 13 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 95 | 85-122 | 12/27/13 17:26 | |
| Dibromofluoromethane | 104 | 89-119 | 12/27/13 17:26 | |
| Toluene-d8 | 100 | 87-121 | 12/27/13 17:26 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/17/13 1215
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 17:53

Sample Name: MW-11
 Lab Code: R1309517-013

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3743.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 2.5

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 230 | 13 | |
| 156-60-5 | trans-1,2-Dichloroethene | 13 U | 13 | |
| 127-18-4 | Tetrachloroethene (PCE) | 13 U | 13 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 13 U | 13 | |
| 79-01-6 | Trichloroethene (TCE) | 650 E | 13 | |
| 75-01-4 | Vinyl Chloride | 13 U | 13 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed Q |
|----------------------|------|----------------|-----------------|
| 4-Bromofluorobenzene | 103 | 85-122 | 12/27/13 17:53 |
| Dibromofluoromethane | 102 | 89-119 | 12/27/13 17:53 |
| Toluene-d8 | 98 | 87-121 | 12/27/13 17:53 |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/17/13 12:15
 Date Received: 12/17/13
 Date Analyzed: 12/30/13 15:05

Sample Name: MW-11
 Lab Code: R1309517-013
 Run Type: Dilution

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\123013\C3767.D\

Analysis Lot: 374737
 Instrument Name: R-MS-08
 Dilution Factor: 5

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 230 D | 25 | |
| 156-60-5 | trans-1,2-Dichloroethene | 25 U | 25 | |
| 127-18-4 | Tetrachloroethene (PCE) | 25 U | 25 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 25 U | 25 | |
| 79-01-6 | Trichloroethene (TCE) | 620 D | 25 | |
| 75-01-4 | Vinyl Chloride | 25 U | 25 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 108 | 85-122 | 12/30/13 15:05 | |
| Dibromofluoromethane | 102 | 89-119 | 12/30/13 15:05 | |
| Toluene-d8 | 98 | 87-121 | 12/30/13 15:05 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/17/13 1335
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 18:20

Sample Name: DR-1
 Lab Code: R1309517-014

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3744.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 24 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 63 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed Q |
|----------------------|------|----------------|-----------------|
| 4-Bromofluorobenzene | 95 | 85-122 | 12/27/13 18:20 |
| Dibromofluoromethane | 99 | 89-119 | 12/27/13 18:20 |
| Toluene-d8 | 100 | 87-121 | 12/27/13 18:20 |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/17/13 1345
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 18:48

Sample Name: DR-2
 Lab Code: R1309517-015

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3745.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 2

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 260 | | 10 | |
| 156-60-5 | trans-1,2-Dichloroethene | 10 | U | 10 | |
| 127-18-4 | Tetrachloroethene (PCE) | 10 | U | 10 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 10 | U | 10 | |
| 79-01-6 | Trichloroethene (TCE) | 29 | | 10 | |
| 75-01-4 | Vinyl Chloride | 13 | | 10 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 101 | 85-122 | 12/27/13 18:48 | |
| Dibromofluoromethane | 111 | 89-119 | 12/27/13 18:48 | |
| Toluene-d8 | 103 | 87-121 | 12/27/13 18:48 | |

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/17/13 1355
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 19:15

Sample Name: DR-3
 Lab Code: R1309517-016

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3746.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 82 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 41 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 100 | 85-122 | 12/27/13 19:15 | |
| Dibromofluoromethane | 101 | 89-119 | 12/27/13 19:15 | |
| Toluene-d8 | 100 | 87-121 | 12/27/13 19:15 | |

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/17/13 1400
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 19:42

Sample Name: DR-4
 Lab Code: R1309517-017

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3747.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 18 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 50 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 107 | 85-122 | 12/27/13 19:42 | |
| Dibromofluoromethane | 109 | 89-119 | 12/27/13 19:42 | |
| Toluene-d8 | 103 | 87-121 | 12/27/13 19:42 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/17/13 1415
 Date Received: 12/17/13
 Date Analyzed: 12/27/13 20:09

Sample Name: G-1
 Lab Code: R1309517-018

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3748.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 89 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 7.2 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 102 | 85-122 | 12/27/13 20:09 | |
| Dibromofluoromethane | 101 | 89-119 | 12/27/13 20:09 | |
| Toluene-d8 | 99 | 87-121 | 12/27/13 20:09 | |

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 6974.76
Sample Matrix: Water

Service Request: R1309517
Date Collected: 12/17/13 1420
Date Received: 12/17/13
Date Analyzed: 12/30/13 11:55

Sample Name: G-2
Lab Code: R1309517-019

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\123013\C3760.D\

Analysis Lot: 374737
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 68 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 105 | 85-122 | 12/30/13 11:55 | |
| Dibromofluoromethane | 103 | 89-119 | 12/30/13 11:55 | |
| Toluene-d8 | 96 | 87-121 | 12/30/13 11:55 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 6974.76
Sample Matrix: Water

Service Request: R1309517
Date Collected: 12/17/13 1015
Date Received: 12/17/13
Date Analyzed: 12/30/13 12:22

Sample Name: EQUIP BLANK
Lab Code: R1309517-020

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\123013\C3761.D\

Analysis Lot: 374737
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 110 | 85-122 | 12/30/13 12:22 | |
| Dibromofluoromethane | 109 | 89-119 | 12/30/13 12:22 | |
| Toluene-d8 | 103 | 87-121 | 12/30/13 12:22 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 6974.76
Sample Matrix: Water

Service Request: R1309517
Date Collected: 12/17/13 1450
Date Received: 12/17/13
Date Analyzed: 12/30/13 12:49

Sample Name: GTS-INF
Lab Code: R1309517-021

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\123013\C3762.D\

Analysis Lot: 374737
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 180 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 13 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.7 | | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 102 | 85-122 | 12/30/13 12:49 | |
| Dibromofluoromethane | 104 | 89-119 | 12/30/13 12:49 | |
| Toluene-d8 | 106 | 87-121 | 12/30/13 12:49 | |

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 6974.76
Sample Matrix: Water

Service Request: R1309517
Date Collected: 12/16/13
Date Received: 12/17/13
Date Analyzed: 12/30/13 13:17

Sample Name: TRIP BLANK
Lab Code: R1309517-022

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\123013\C3763.D\

Analysis Lot: 374737
Instrument Name: R-MS-08
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 102 | 85-122 | 12/30/13 13:17 | |
| Dibromofluoromethane | 103 | 89-119 | 12/30/13 13:17 | |
| Toluene-d8 | 98 | 87-121 | 12/30/13 13:17 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 12/26/13 10:31

Sample Name: Method Blank
 Lab Code: RQ1316414-04

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122613\C3700.D\

Analysis Lot: 374263
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 100 | 85-122 | 12/26/13 10:31 | |
| Dibromofluoromethane | 101 | 89-119 | 12/26/13 10:31 | |
| Toluene-d8 | 98 | 87-121 | 12/26/13 10:31 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 12/27/13 12:54

Sample Name: Method Blank
 Lab Code: RQ1316500-03

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\122713\C3732.D\

Analysis Lot: 374540
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed Q |
|----------------------|------|----------------|-----------------|
| 4-Bromofluorobenzene | 103 | 85-122 | 12/27/13 12:54 |
| Dibromofluoromethane | 105 | 89-119 | 12/27/13 12:54 |
| Toluene-d8 | 100 | 87-121 | 12/27/13 12:54 |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 12/30/13 11:28

Sample Name: Method Blank
 Lab Code: RQ1316586-03

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA8\DATA\123013\C3759.D\

Analysis Lot: 374737
 Instrument Name: R-MS-08
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|----------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 12/30/13 11:28 | |
| Dibromofluoromethane | 104 | 89-119 | 12/30/13 11:28 | |
| Toluene-d8 | 100 | 87-121 | 12/30/13 11:28 | |

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/16/13
 Date Received: 12/17/13
 Date Analyzed: 12/27/13

Matrix Spike Summary
 Volatile Organic Compounds by GC/MS

Sample Name: MW-1
 Lab Code: R1309517-008

Units: µg/L
 Basis: NA

Analytical Method: 8260C

| Analyte Name | Sample Result | MW-1MS Matrix Spike RQ1316500-05 | | | MW-1DMS Duplicate Matrix Spike RQ1316500-06 | | | % Rec Limits | RPD | RPD Limit |
|-----------------------------|---------------|--|--------------|-------|---|--------------|-------|--------------|-----|-----------|
| | | Result | Spike Amount | % Rec | Result | Spike Amount | % Rec | | | |
| cis-1,2-Dichloroethene | 340 | 589 | 250 | 100 | 586 | 250 | 99 | 72 - 133 | <1 | 30 |
| trans-1,2-Dichloroethene | ND | 264 | 250 | 105 | 289 | 250 | 115 | 77 - 125 | 9 | 30 |
| Tetrachloroethene (PCE) | ND | 224 | 250 | 90 | 234 | 250 | 93 | 78 - 130 | 4 | 30 |
| 1,1,1-Trichloroethane (TCA) | ND | 262 | 250 | 105 | 251 | 250 | 101 | 74 - 127 | 4 | 30 |
| Trichloroethene (TCE) | 1400 | 1490 | 250 | 20 # | 1470 | 250 | 14 # | 68 - 135 | 1 | 30 |
| Vinyl Chloride | ND | 247 | 250 | 99 | 274 | 250 | 109 | 72 - 148 | 10 | 30 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Collected: 12/17/13
 Date Received: 12/17/13
 Date Analyzed: 12/30/13

Matrix Spike Summary
 Volatile Organic Compounds by GC/MS

Sample Name: W-11
 Lab Code: R1309517-013

Units: µg/L
 Basis: NA

Analytical Method: 8260C

| Analyte Name | Sample Result | W-11MS Matrix Spike RQ1316586-09 | | | W-11DMS Duplicate Matrix Spike RQ1316586-10 | | | % Rec Limits | RPD | RPD Limit |
|-----------------------------|---------------|--|--------------|-------|---|--------------|-------|--------------|-----|-----------|
| | | Result | Spike Amount | % Rec | Result | Spike Amount | % Rec | | | |
| cis-1,2-Dichloroethene | 230 | 536 | 250 | 122 | 515 | 250 | 114 | 72 - 133 | 4 | 30 |
| trans-1,2-Dichloroethene | ND | 323 | 250 | 129 * | 320 | 250 | 128 * | 77 - 125 | 1 | 30 |
| Tetrachloroethene (PCE) | ND | 287 | 250 | 115 | 281 | 250 | 112 | 78 - 130 | 2 | 30 |
| 1,1,1-Trichloroethane (TCA) | ND | 336 | 250 | 134 * | 335 | 250 | 134 * | 74 - 127 | <1 | 30 |
| Trichloroethene (TCE) | 620 | 924 | 250 | 121 | 907 | 250 | 114 | 68 - 135 | 2 | 30 |
| Vinyl Chloride | ND | 268 | 250 | 107 | 271 | 250 | 108 | 72 - 148 | <1 | 30 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Bergmann Associates, Incorporated
Project: Gowanda 6974.76
Sample Matrix: Water

Service Request: R1309517
Date Analyzed: 12/26/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 374263

Lab Control Sample
 RQ1316414-03

| Analyte Name | Result | Spike Amount | % Rec | % Rec Limits |
|-----------------------------|--------|--------------|-------|--------------|
| cis-1,2-Dichloroethene | 21.3 | 20.0 | 106 | 77 - 123 |
| trans-1,2-Dichloroethene | 21.4 | 20.0 | 107 | 72 - 120 |
| Tetrachloroethene (PCE) | 19.6 | 20.0 | 98 | 71 - 127 |
| 1,1,1-Trichloroethane (TCA) | 22.4 | 20.0 | 112 | 67 - 121 |
| Trichloroethene (TCE) | 21.0 | 20.0 | 105 | 75 - 122 |
| Vinyl Chloride | 22.1 | 20.0 | 111 | 68 - 139 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Analyzed: 12/27/13

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 374540

Lab Control Sample
 RQ1316500-04

| Analyte Name | Result | Spike Amount | % Rec | % Rec Limits |
|-----------------------------|--------|--------------|-------|--------------|
| cis-1,2-Dichloroethene | 20.8 | 20.0 | 104 | 77 - 123 |
| trans-1,2-Dichloroethene | 21.4 | 20.0 | 107 | 72 - 120 |
| Tetrachloroethene (PCE) | 20.7 | 20.0 | 104 | 71 - 127 |
| 1,1,1-Trichloroethane (TCA) | 22.6 | 20.0 | 113 | 67 - 121 |
| Trichloroethene (TCE) | 21.0 | 20.0 | 105 | 75 - 122 |
| Vinyl Chloride | 21.1 | 20.0 | 105 | 68 - 139 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 6974.76
 Sample Matrix: Water

Service Request: R1309517
 Date Analyzed: 12/30/13

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 374737

Lab Control Sample
 RQ1316586-04

| Analyte Name | Result | Spike Amount | % Rec | % Rec Limits |
|-----------------------------|--------|--------------|-------|--------------|
| cis-1,2-Dichloroethene | 22.1 | 20.0 | 111 | 77 - 123 |
| trans-1,2-Dichloroethene | 21.9 | 20.0 | 110 | 72 - 120 |
| Tetrachloroethene (PCE) | 17.6 | 20.0 | 88 | 71 - 127 |
| 1,1,1-Trichloroethane (TCA) | 19.6 | 20.0 | 98 | 67 - 121 |
| Trichloroethene (TCE) | 20.1 | 20.0 | 101 | 75 - 122 |
| Vinyl Chloride | 18.2 | 20.0 | 91 | 68 - 139 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



Cooler Receipt and Preservation Check Form

Project/Client Befaymann Assc. Folder Number R1309517

Cooler received on 12/17/13 by: dlw COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
5. Were ~~Ice~~ or Ice packs present? YES NO
6. Where did the bottles originate? ALS/ROC, CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
8. Temperature of cooler(s) upon receipt: 2.0

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 12/17/13/16.04

Thermometer ID: IR ~~GUN~~#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location R-002 by dlw on 12/17/13 at 16.04
 5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: KB 12/18/13

Cooler Breakdown: Date: 12/18/13 Time: 1043 by: J/S

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

| pH | Reagent | Lot Received | | Exp | Sample ID | Vol. Added | Lot Added | Final pH | Yes = All samples OK |
|-----------------------|---|--------------|----|---|--------------|------------|-----------|---|--|
| | | YES | NO | | | | | | |
| ≥12 | NaOH | | | | | | | | No = Samples were preserved at lab as listed |
| ≤2 | HNO ₃ | | | | | | | | |
| ≤2 | H ₂ SO ₄ | | | | | | | | |
| <4 | NaHSO ₄ | | | | | | | | |
| Residual Chlorine (-) | For TCN Phenol and 522 | | | If present, contact PM to add ascorbic acid Or sodium sulfite (522) | | | | | PM OK to Adjust: _____ |
| | Na ₂ S ₂ O ₃ | - | - | | | | | *Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet | |
| | Zn Aceta | - | - | | | | | | |
| | HCl | * | * | <u>4112070</u> | <u>12/14</u> | | | | |

Bottle lot numbers: 3-294-003

Other Comments:

PC Secondary Review: 1/7/14 KB

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

APPENDIX B
CONTROL CHARTS, GROUNDWATER VOC CONCENTRATIONS



Chart C-1: Groundwater Recovery Wells Summary

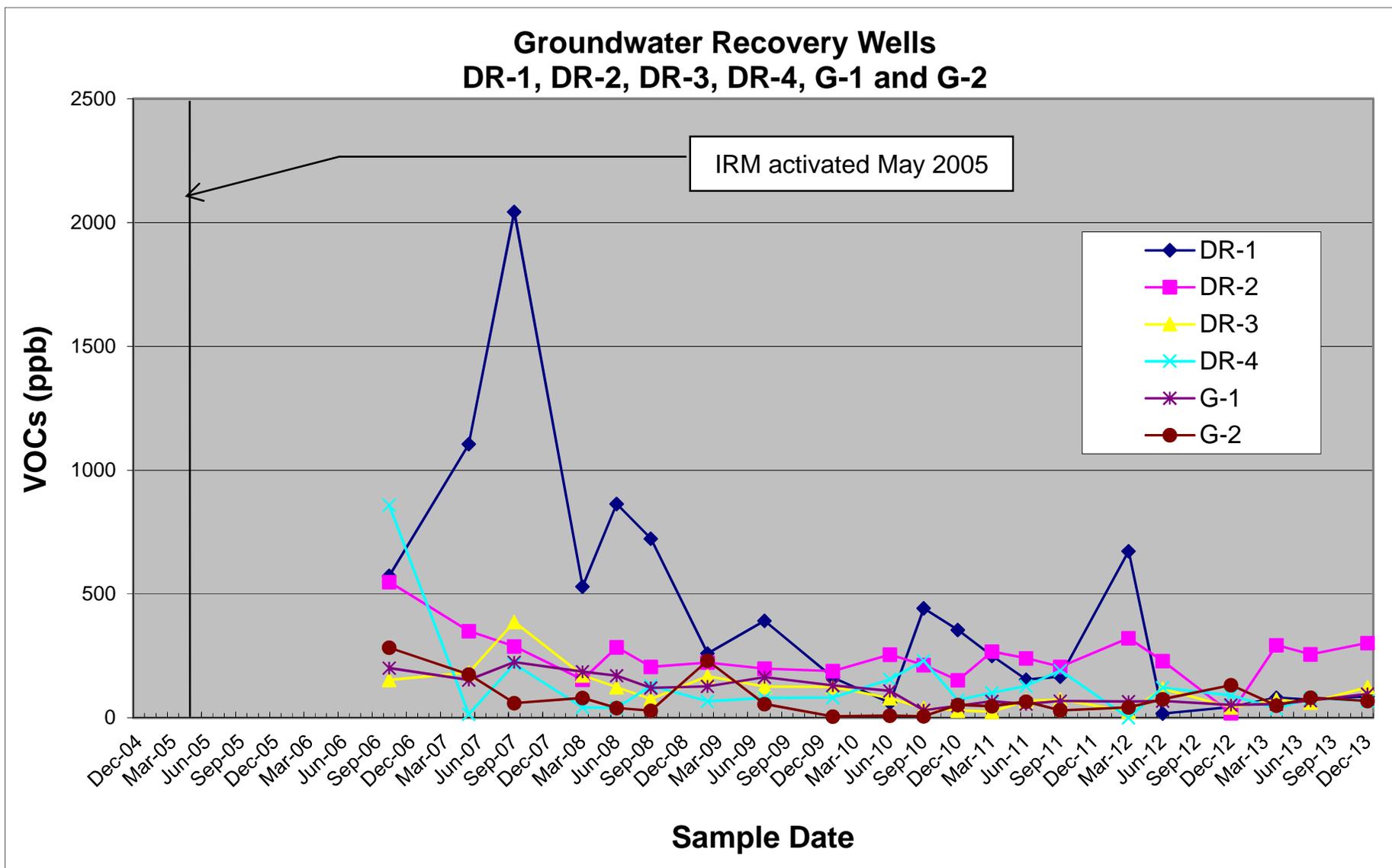


Chart C-2: DR-1 Groundwater Volatile Organic Compound Concentrations

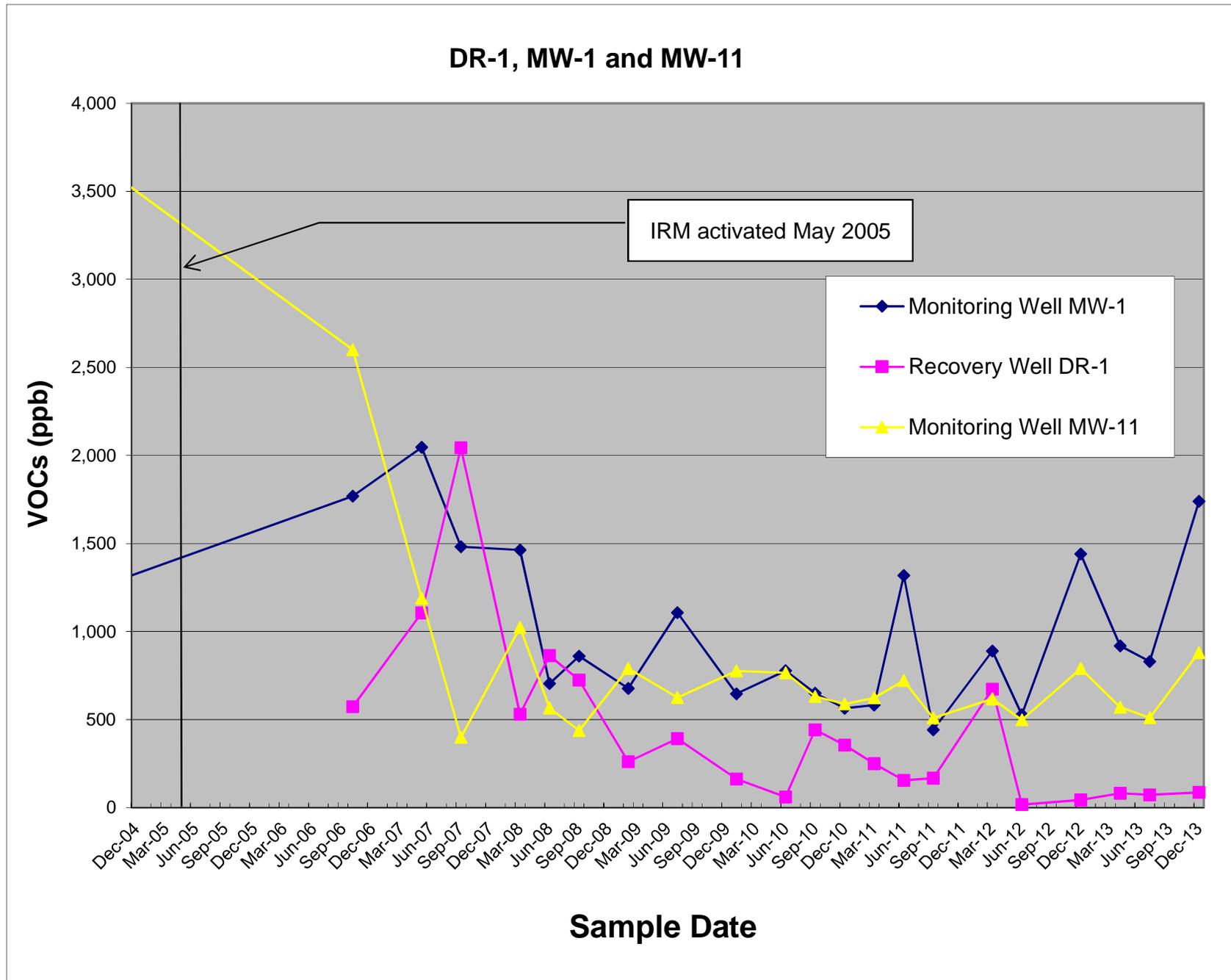


Chart C-3: DR-2 Groundwater Volatile Organic Compound Concentrations

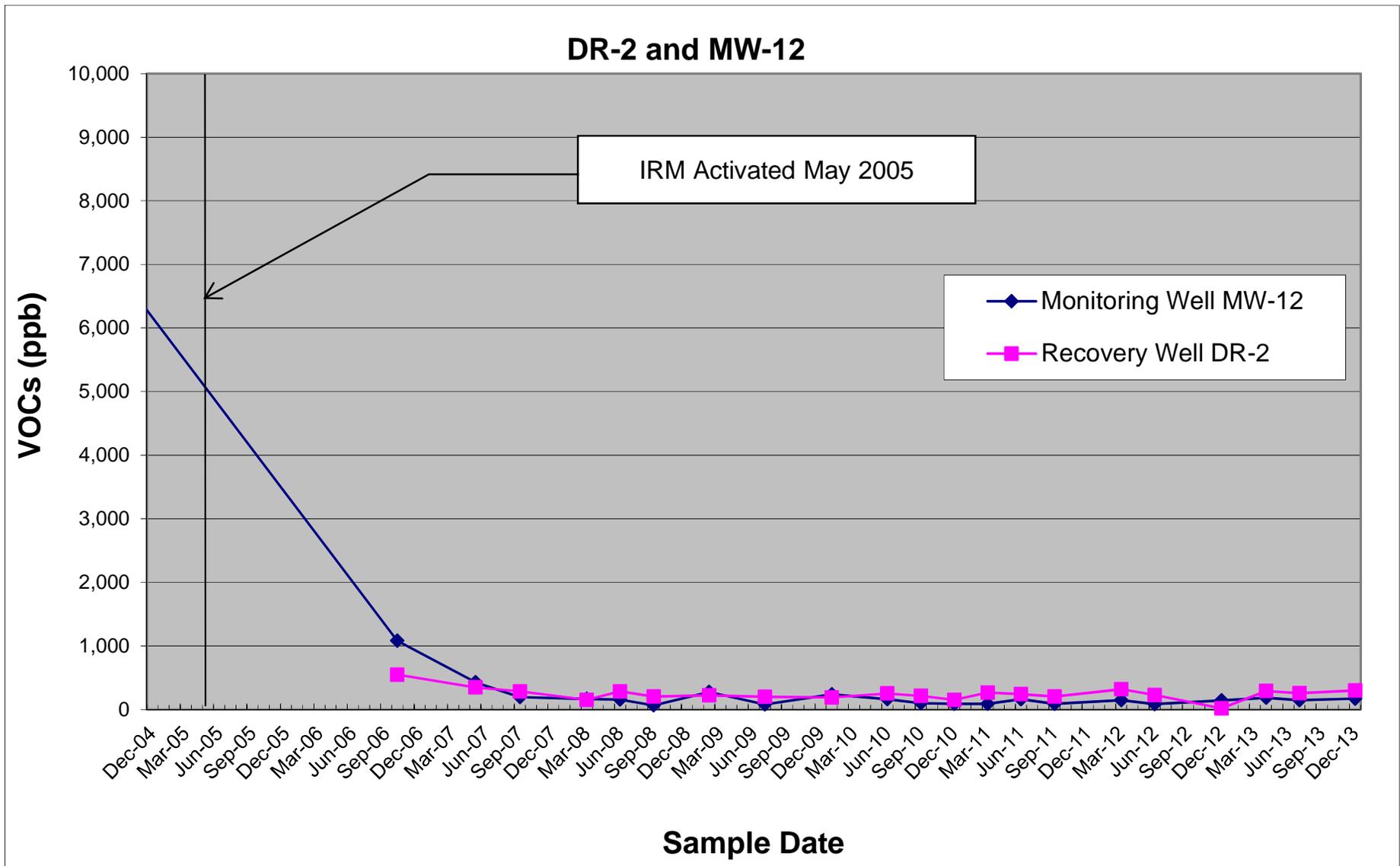


Chart C-4: DR-3 Groundwater Volatile Organic Compound Concentrations

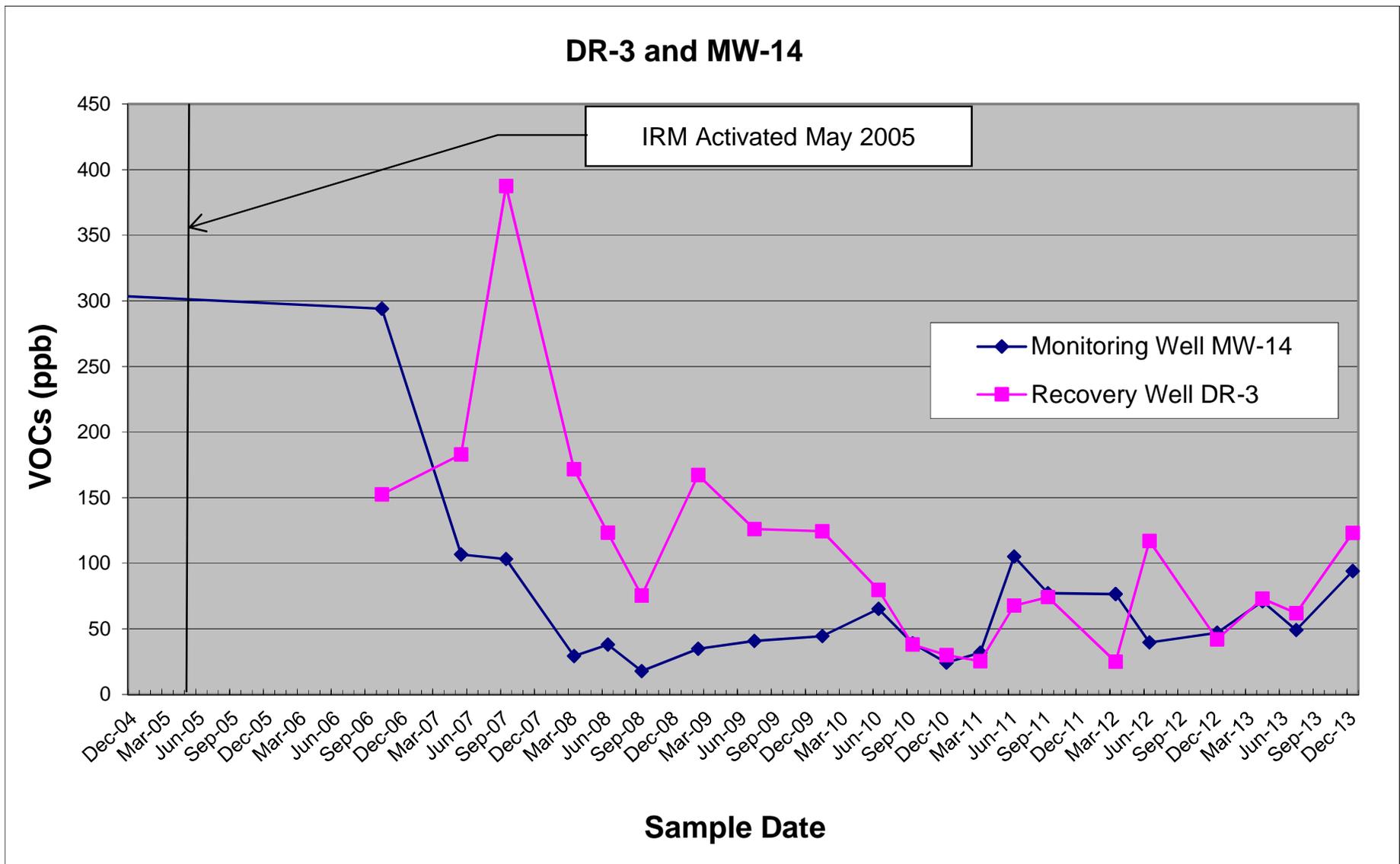


Chart C-5: DR-4 Groundwater Volatile Organic Compound Concentrations

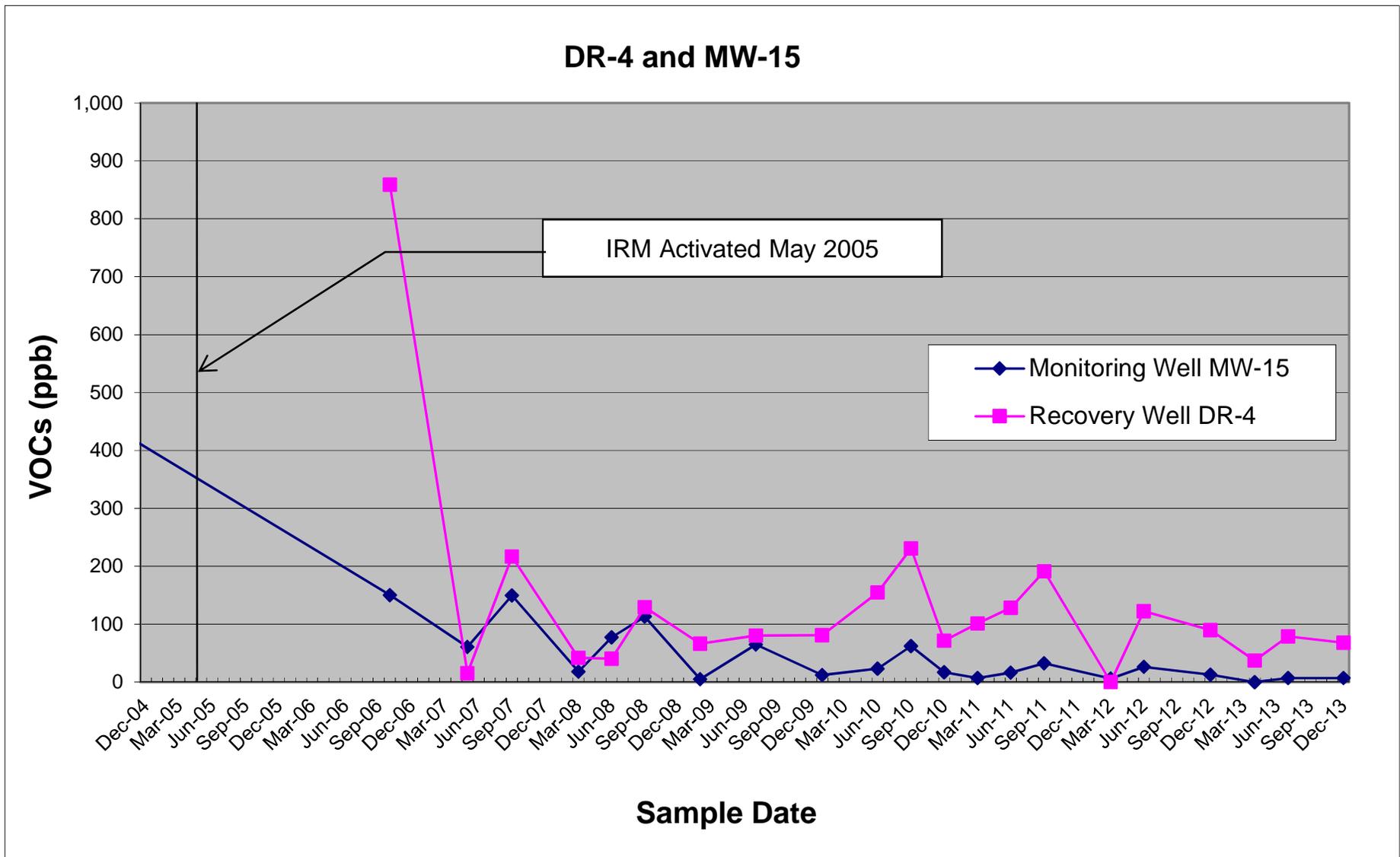


Chart C-6: G-1 Groundwater Volatile Organic Compound Concentrations

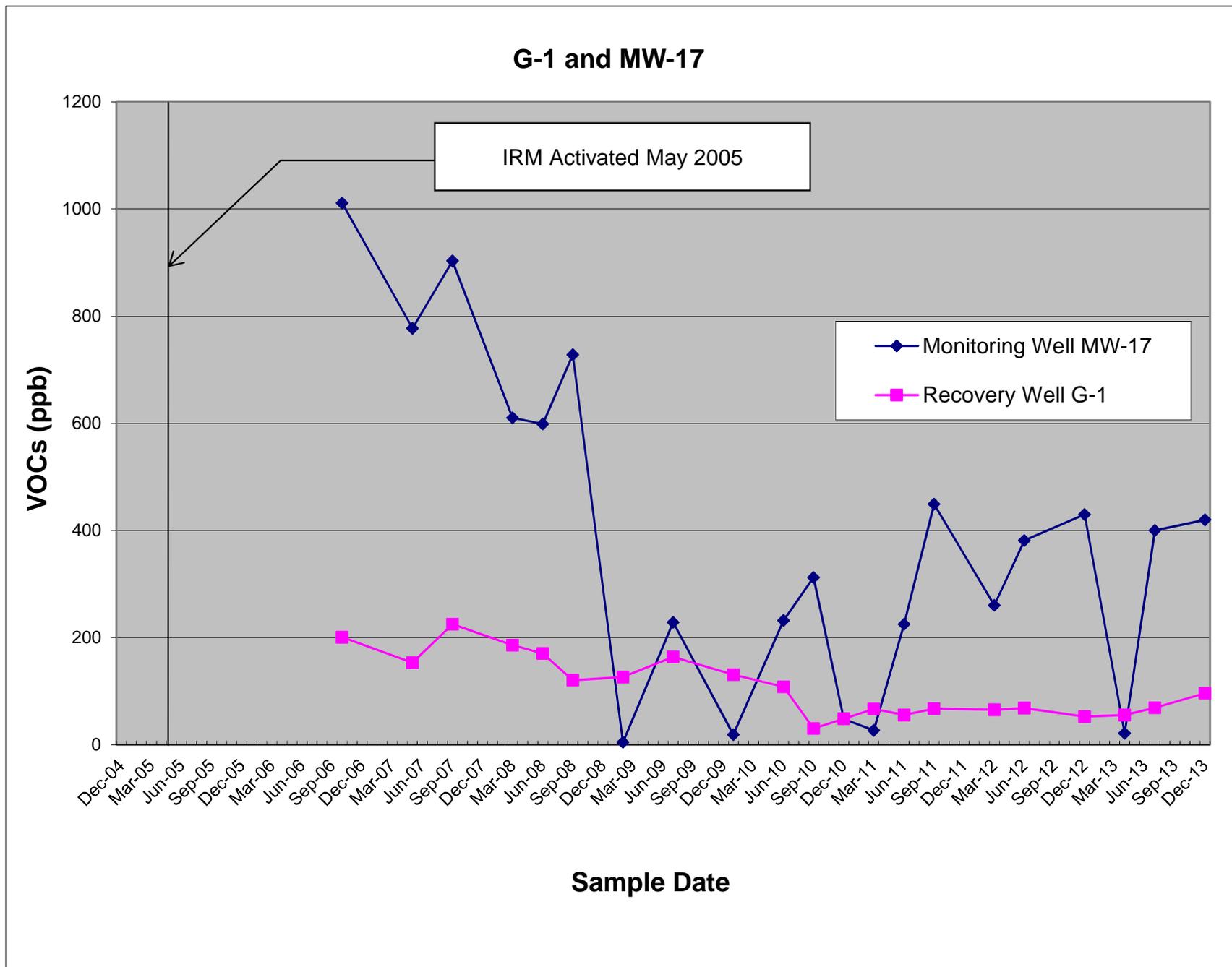


Chart C-7: G-2 Groundwater Volatile Organic Compound Concentrations

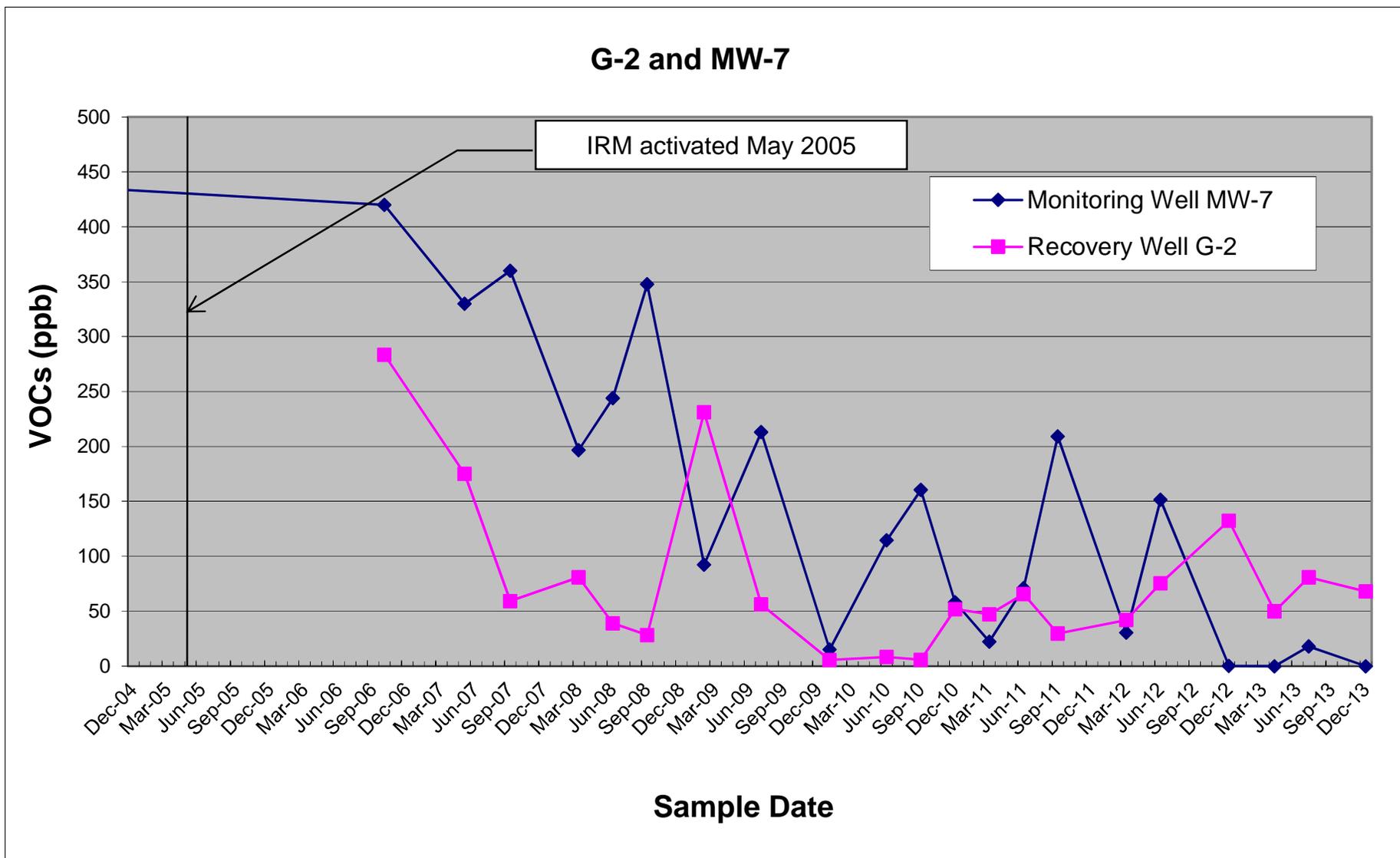
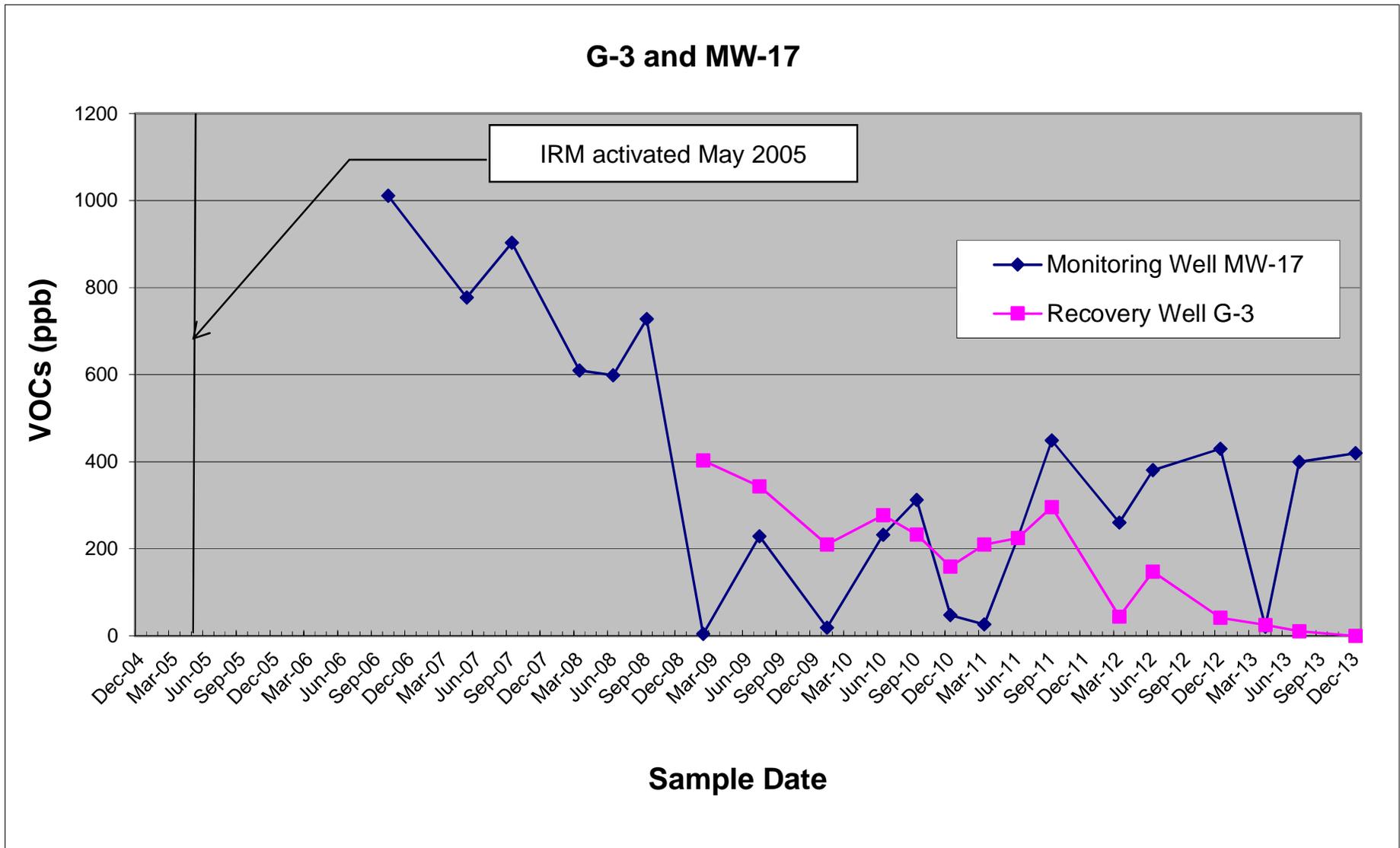


Chart C-8: G-3 Groundwater Volatile Organic Compound Concentrations



MARCH 2014
GROUNDWATER CHARACTERIZATION REPORT



NEW YORK STATE OFFICE OF PEOPLE WITH DEVELOPMENTAL DISABILITIES



GROUNDWATER CHARACTERIZATION REPORT MARCH 2014 SAMPLING EVENT

**Former Gowanda Day Habilitation Center
4 Industrial Place
Town of Gowanda, Cattaraugus County
Voluntary Cleanup Program Agreement V-00463-9**

Prepared for:

**Dormitory Authority & New York State Office of People with Developmental
Disabilities**

Bergmann Project No. 6974.78

Issuance Date: May 12, 2014

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APPENDICES

- Appendix A Laboratory Analytical Results Report March 2014 Sampling Event



1.0 Introduction

Bergmann Associates (Bergmann) is submitting this groundwater characterization report for the March 2014 sampling event on behalf of the Dormitory Authority of the State of New York (DASNY) and the New York State Office of People with Developmental Disabilities (OPWDD) for activities conducted at the former Gowanda Day Habilitation Center facility at 4 Industrial Place, Gowanda, NY. The OPWDD, as the volunteer, has entered into a Voluntary Cleanup Agreement (VCA) with the New York State Department of Environmental Conservation (NYSDEC) to conduct investigations and implement remedial measures in accordance with VCA Site No. V-00463-9, effective August 16, 2001.

1.1 Scope of Work

This report documents the site-wide groundwater monitoring and laboratory analytical sampling event conducted on March 27-28, 2014. Field measurements, sampling procedures and laboratory analysis were conducted in accordance with the October 2006 Operations, Monitoring and Maintenance (OM&M) Manual and as modified with NYSDEC approval. During this sampling event, groundwater from 13 of 21 site-related groundwater monitoring wells and 7 of 7 groundwater recovery wells were sampled for laboratory analysis. The 8 monitoring wells determined by the NYSDEC and Bergmann personnel in 2008 to be outside the area of impact by the Groundwater Treatment System (GTS) were not sampled. These monitoring wells include MW-2, MW-3, MW-5, MW-8, MW-9, MW-10, MW-13, and MW-21.

The prior groundwater sampling event was conducted in December 2013 and included analysis of groundwater samples from 12 of 21 site-related groundwater monitoring wells and 6 of 7 groundwater recovery wells. Results of the December 2013 sampling event were summarized in a report dated March 27, 2014.

1.2 Site Background

The Gowanda Day Habilitation site consists of a 5.94 acre parcel located at 4 Industrial Place. The building, previously used by several manufacturing operations, was built in stages between circa 1948 and 1987 and was renovated in 1987-1988. New York State agencies have occupied the building since 1982. New York State acquired the parcel in 1989. The building was most recently operated by the OPWDD, which at that time was known as the Western New York Developmental Disabilities Services Office, as a Day Habilitation Center for mental care clients. In April 2001, on-site operations ceased. The nature and extent of contamination at the Gowanda Day Habilitation Center was detailed as part of the 2003 Site Investigation and 2004 Supplemental Site Investigation reports. Trichloroethene (TCE) was the most commonly detected compound. TCE degradation products cis-1,2-Dichloroethene (Cis-1,2-DCE), trans-1,2-Dichloroethene (Trans-1,2-DCE) and Vinyl Chloride (VC) were also detected.

Following Interim Remedial Measure (IRM) system installation, the Groundwater Treatment System (GTS) and the Soil Vapor Extraction System (SVES) were activated on May 10, 2005, recovering 2-5 gallons per minute (gpm) of groundwater. An additional groundwater recovery well, designated G-3, was installed outside the building and adjacent to MW-17 in November 2008. The GTS portion consists of 7 groundwater recovery wells (4 dual phase recovery wells and 3 groundwater-only recovery wells), an air compressor, a network of controller-less pneumatic pumps and an air stripper treatment system to process recovered groundwater. Recovered groundwater is pumped to the equalization tank for settling of the sediment and transferred to the air stripper using a consistent flow rate.

The air discharged from the air stripper is tied into the SVE carbon vessels for treatment prior to atmospheric discharge. After treatment by the air stripper, the groundwater is discharged to the Village of Gowanda Sewage Treatment Plant (STP) via the sanitary sewer in accordance with a Gowanda Sewer Use Permit. The Village of Gowanda requires that an annual discharge report be submitted, detailing the volume of water collected, treated and discharged to the sewer.

In January 2008 the building was decommissioned. The GTS was winterized with the addition of heat tape and insulation to conveyance lines and the installation of an independently operated suspended heater in the treatment area for the GTS and SVES (former Machine Shop). Quarterly groundwater sampling with Operation and Maintenance of the remediation system has been ongoing since 2002.

During an October 2013 site visit, a section of piping broke away from the SVE due to system pressure. The SVE system was shut down until a repair could be made. Bergmann assessed the GTS during a January 2014 site visit and determined that two of the seven well pumps were operational. The remaining pumps appeared to be damaged. Bergmann replaced the SVE pipe section and inspected four of the well pumps for damage. The pumps appeared to be in poor condition and were removed from the wells. The condition of the SVE and GTS was discussed with the NYSDEC representative and it was agreed that these systems would be inactivated to allow for groundwater level recovery during the preparation of an in-situ chemical oxidation (ISCO) remedial action plan (RAP) and implementation of an ISCO treatment. Bergmann will submit an ISCO RAP for groundwater treatment to the NYSDEC to address remaining contamination at the Site in lieu of costly repair of the SVE and GTS. The SVE and GTS equipment will remain on site in the event that re-activation is required in the future. As of the date of this report, the ISCO RAP is an in-house draft and will be submitted to NYSDEC in May 2014.

2.0 Groundwater Sampling Overview and Methods

2.1 Well Maintenance Activities

Replacement to damaged flush-mount protective roadway boxes was completed in June 2007. Well rehabilitation and silt removal was last conducted June 25 – 26, 2007. The recovery wells have appeared to be free of significant silt intake since the 2007 rehabilitation event.

As of March 2014, 2 monitoring wells (MW-2 and MW-21) were inaccessible. At MW-2, a cover bolt was bent, prohibiting lifting of the cover. At MW-21, a dedicated bailer and rope were frozen in place, blocking the inner casing. The remaining monitoring wells were accessible and the integrity of the wells was not compromised. Repairs or maintenance to the network of groundwater monitoring wells or recovery wells has not been required since June 2007. All other stand pipes and flush-mount curb boxes were found to be intact and secure. Exterior monitoring wells are secured with locking stand pipes. The monitoring wells within the building are secured with flush-mount roadway covers. Well maintenance was not performed during the March 2014 sampling event.

2.2 Groundwater Field Monitoring and Sampling Activities

Groundwater measurements and sampling activities were conducted in accordance with the October 2006 OM&M Manual. The depths to groundwater for groundwater monitoring wells are determined on a regular basis to track site-wide changes in the water table elevation and to

allow for adjustment at recovery wells. Operation of the recovery wells is intended to establish hydraulic containment of the plume of impacted groundwater beneath the former Day Habilitation building and improve recovery and treatment of impacted groundwater. Groundwater samples were collected from 13 of the 21 site-related groundwater monitoring wells for laboratory analysis on March 27-28, 2014. Depth to groundwater measurements were obtained from 19 monitoring wells. Depths to water measurements for the recovery wells were also obtained since the wells were not pumping during this sampling event.

Groundwater samples were collected from monitoring wells after each well was gauged and purged of standing water via low-flow pumping using a Geo-pump electric peristaltic pump. Sample parameters including turbidity, temperature, pH, oxygen, salinity and conductivity were monitored using a Horiba U-53 to ensure sufficient well purging prior to sampling. During past sampling events, groundwater samples were collected from 7 recovery wells using dedicated bailers, as the GTS was actively pulling groundwater into the system, allowing for collection of groundwater samples similar to purging monitoring wells. As the system was shut down during the March 2014 sampling event, the wells were purged and sampled using the same method as the monitoring well sampling. A single duplicate sample and a field blank sample were collected and submitted for laboratory analysis. The duplicate sample was collected after sampling MW-1, the well with the highest concentration of contamination for the previous (December 2013) sampling event.

Groundwater samples were delivered via chain-of-custody protocol to ALS Environmental Services located in Rochester, NY, a NYSDOH certified laboratory, for testing using EPA Method 8260B for targeted chlorinated volatile organic compounds (VOCs) of concern. Analytical results for each individual monitoring well have been posted for comparative purposes from sampling events completed 2002 – 2014.

3.0 Local Groundwater Flow Characterization

The Site water table potentiometric surface pattern and groundwater flow direction was determined for March 2014 using elevations measured at 19 site-related monitoring wells. Groundwater elevations and well reference elevations were calculated using depth to water values obtained in March 2014. The well gauging values and groundwater elevations are provided in Table 1 – Groundwater Elevations and Field Measurements March 2014.

The March 2014 groundwater contour map shows a flow pattern similar to groundwater contours observed historically since 2002. Groundwater at the Site is flowing in a northerly direction. Torrance Place is hydraulically down-gradient from the Day Habilitation Center building. The March 2014 depths to groundwater range from 4.19 ft below ground surface (bgs) at MW-3 adjacent to the south side of the building to 12.25 ft bgs at MW-17 located at the northeastern property line. The average depth to groundwater at the 19 monitoring wells measured was 7.96 ft below ground surface.

Compared to the December 2013 sampling event the current site-wide average depth to water table decreased by approximately 0.93 ft. This slight decrease in the water table is inferred as seasonal.

Measured depth to water at all gauged monitoring and recovery wells is presented Table 1 and March 2014 Groundwater Contours are presented on Figure 1 – March 2014 Groundwater Contour Map.

4.0 Laboratory Analysis

4.1 Laboratory Analysis on Groundwater Samples

Laboratory analysis was completed on the groundwater samples from 13 monitoring wells and 7 recovery wells collected March 27-28, 2014. Samples were analyzed for VOCs via EPA Method 8260B. Analysis was performed in accordance with the October 2006 OM&M Manual. The following halogenated VOCs were analyzed for:

- Trichloroethene (TCE)
- 1,1,1 Trichloroethane (TCA)
- Cis-1,2-Dichloroethene (Cis-DCE)
- Trans-1,2-Dichloroethene (Trans-DCE)
- Vinyl Chloride (VC)

4.2 Monitoring Well Groundwater Analysis Summary

The March 2014 analytical results detected 2 chlorinated VOCs in monitoring well samples: TCE and Cis-DCE. Chlorinated VOCs were detected in groundwater from 7 of the 13 sampled monitoring wells. Analytical results are summarized in Table 2 – March 2014 Analytical Results Summary, which compares detected VOCs and applicable NYSDEC Class GA Standards for each analyte. The complete laboratory analytical reporting package is provided in Appendix A – Laboratory Analytical Results Report March 2014 Sampling Event.

Table 3 – Historic Groundwater Analysis Results Summary includes the historical total VOC concentrations at each well since sampling of the monitoring wells began in 2002.

VOCs were not detected in groundwater from 6 of the sampled monitoring wells (MW-4, MW-7, MW-15, MW-18, MW-19R, and MW-20). Sample results from these wells have historically indicated low to non-detect levels of VOCs.

Groundwater samples from 7 monitoring wells had detectable chlorinated VOCs at concentrations above applicable Class GA Standards. The monitoring well with the highest total VOCs, MW-1, is located in the area of the historically greatest impacted groundwater.

Concentrations in 2 of the 13 monitoring well groundwater samples increased when compared to the December 2013 sampling event while concentrations in 6 of the 13 monitoring well groundwater samples decreased. Concentrations in 5 groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 80% since activation of the GTS in May 2005.

Due to the concentrations of TCE and Cis-DCE in samples from monitoring wells MW-11, and MW-12, diluted analysis and correspondingly elevated detection limits were required. In these samples it is possible that related chlorinated VOCs Trans-1,2 DCE and Vinyl Chloride may be present at concentrations below the elevated detection limits.

The area of highest impacted groundwater exists at the area centered between monitoring wells MW-1 and MW-11, which has historically indicated the highest levels of VOCs and is inferred as the source area of impacted groundwater. In the area where the plume of impacted

groundwater is inferred (monitoring wells MW-1, MW-6, MW-7, MW-11, MW-12, MW-14, MW-15, and MW-17) the current laboratory analysis shows a contaminant reduction in VOC concentrations by an average of approximately 74% since groundwater monitoring of these wells began in 2002.

Monitoring well MW-1 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at monitoring well MW-1 for the March 2014 sampling event is 990 parts per billion (ppb), a decrease from the December 2013 value of 1,740 ppb. Since activation of the GTS, detected VOCs at MW-1 have increased by approximately 22.4%.

Monitoring well MW-11 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-11 for the March 2014 sampling event is 710 ppb, a decrease from the December 2013 value of 880 ppb. Since activation of the GTS, detected VOCs at MW-11 have decreased by approximately 85%.

Monitoring well MW-12 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-12 for the March 2014 sampling event is 212 ppb, an increase from the December 2013 value of 173 ppb. MW-12 is nearest to recovery well DR-2, in close proximity to the center of the building. Since activation of the GTS in May 2005, detected VOCs at MW-12 have decreased by approximately 98%.

Monitoring well MW-14 decreased in targeted chlorinated VOCs relative to the prior sampling event. The current total VOC concentration at MW-14 for the March 2014 sampling event is 73 ppb, a decrease from the December 2013 value of 94 ppb. MW-14 is nearest to recovery well DR-3. Since activation of the GTS in May 2005 detected VOCs at MW-14 have decreased by approximately 77%.

Monitoring well MW-15 decreased in targeted chlorinated VOCs relative to the prior sampling event. The current total VOC concentration is non-detect and is lower than the December 2013 value of 6.8 ppb. MW-15 is nearest to recovery well DR-4. Since activation of the GTS the detected VOCs at MW-15 have decreased by approximately 100%

Five groundwater monitoring wells are located along the subject property's north perimeter, down-gradient from the area of impacted groundwater. The north perimeter monitoring wells consist of wells MW-5, MW-6, MW-7, MW-16 and MW-17. The current analytical results exhibit a decrease in targeted VOCs at two of these monitoring wells (MW-6 and MW-17) and an increase in targeted VOCs at one (MW-16). The current total VOCs for these wells is 95 ppb, a decrease from the December 2013 total of 570 ppb. MW-5 was not sampled during the March 2014 event, and MW-7 was non-detect, the same result as the December 2013 event.

Monitoring wells MW-18, MW-19R and MW-21 are located off-site along Torrance Place. These three wells are considered to be beyond the radius of influence for the Day Habilitation groundwater treatment system. Total VOC concentration was non-detect in MW-18 and MW-19R. Monitoring well MW-21 was not sampled during the March 2014 sampling event.

Laboratory analytical results are included in Appendix A. Monitoring well locations and distribution of analytical results are shown on Figure 2 – March 2014 Distribution of Groundwater Analytical Results in Monitoring Wells.

4.3 Sentry Well Groundwater Analysis Summary

Sentry groundwater monitoring wells monitor a separate occurrence of contaminated groundwater at the Gowanda Electronics site (NYSDEC Site 905025), immediately east of Industrial Place and east of the Day Habilitation Center property. The eastern sentry wells sampled for this event included MW-19R, MW-20 and MW-4. The current results indicate non-detect for all three of the samples from the eastern sentry wells.

The Gowanda Electronics impacted groundwater plume may be migrating to an area near Industrial Place and has intermittently impacted MW-19R. The Gowanda Electronics impacted groundwater plume does not appear to extend to the Day Habilitation Center property, based on consistent non-detect values at the eastern sentry wells. Conversely, impacted groundwater from the Day Habilitation Center does not appear to extend off-site to the east toward Industrial Place. During the March 2014 sampling event, Mr. Chris Sanson, an Environmental Scientist for Groundwater & Environmental Services, Inc. (GES) was conducting groundwater level measurements along Torrance Place. Mr. Sanson stated that an in-situ chemical oxidation (ISCO) is currently ongoing for the Gowanda Electronics site.

Laboratory analytical results are included in Appendix A. Sentry well locations and analytical results are shown on Figure 2.

4.4 Recovery Well Groundwater Analysis Summary

All 7 recovery wells were sampled during the March 2014 sampling event. The March 2014 analytical results indicate detection of 3 chlorinated VOCs in recovery well samples: TCE, Cis-DCE, and TCA. Chlorinated VOCs were detected in samples from all of the sampled recovery wells. Total VOCs at the 7 recovery wells for which past data is available have decreased since activation of the GTS in May 2005. The average reduction in VOCs for the current sampling event is approximately 73% relative to concentrations prior to GTS activation in 2005. Relative percent reductions in total VOCs for all monitoring wells and recovery wells are shown on Table 4 – Percent Reductions in Total Groundwater VOCs.

Recovery well DR-1 increased in targeted chlorinated VOCs relative to the prior sampling event. The current total VOC concentration at DR-1 for the March 2014 sampling event is 132 ppb, an increase from the December 2013 value of 87 ppb. The current sampling event indicates a decrease in VOCs at DR-1 of approximately 77% since activation of the GTS. Recovery well DR-1 is located closest to MW-1 in the area of historically highest concentrations.

Recovery well DR-2 decreased in targeted chlorinated VOCs relative to the prior sampling event. The current total VOC concentration at DR-2 for the March 2014 sampling event is 207 ppb, a decrease from the December 2013 value of 302 ppb. The current sampling event indicates a decrease in VOCs at DR-2 of approximately 62% since activation of the GTS.

Recovery well DR-3 decreased in targeted chlorinated VOCs relative to the prior sampling event. The current total VOC concentration at DR-3 for the March 2014 sampling event is 89 ppb, a decrease from the December 2013 value of 123 ppb. The current sampling event indicates a decrease in VOCs at DR-3 of approximately 42% since activation of the GTS.

Recovery well DR-4 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-4 for the March 2014 sampling event is 64 ppb, a

slight decrease from the December 2013 value of 68 ppb. The current sampling event indicates a decrease in VOCs at DR-4 of approximately 93% since activation of the GTS.

Recovery well G-1 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at G-1 for the March 2014 sampling event is 78 ppb, a decrease from the December 2013 value of 96 ppb. The current sampling event indicates a decrease in VOCs at G-1 of approximately 61% since activation of the GTS.

Recovery well G-2 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at G-2 for the March 2014 sampling event is 14 ppb, a decrease from the December 2013 value of 68 ppb. The current sampling event indicates a decrease in VOCs at G-2 of approximately 95% since activation of the GTS.

Recovery well G-3 increased in targeted chlorinated VOCs relative to the prior sampling event, which was in July 2013 as well G-3 was inaccessible during the December 2013 sampling event. The total VOC concentration at G-3 for the March 2014 sampling event is 82 ppb, an increase from the July 2013 value of 11 ppb. The current sampling event indicates a decrease in VOCs at G-3 of approximately 80% since activation of the GTS.

Laboratory analytical results are included in Appendix A. Recovery well locations and analytical results are shown on Figure 3 – March 2014 Distribution of Groundwater Analytical Results in Recovery Wells.

4.5 Quality Assurance and Quality Control Samples

For quality assurance purposes a duplicate groundwater sample was collected from monitoring well MW-1, designated sample “MW-X.” Results from sample MW-X were consistent with the sample collected from MW-1.

A trip blank was supplied by the laboratory and submitted for analysis along with the groundwater samples. The trip blank sample was non-detect for chlorinated halogens. A field blank was also collected to ensure proper cleaning of the sampling equipment. The field blank, designated as MB, was non-detect for chlorinated halogens.

Laboratory analytical results are included in Appendix A.

5.0 Remediation System Efficiency

5.1 Impact of the GTS Recovery Wells

Groundwater control charts for the 7 recovery wells and the nearest relative monitoring well were created to illustrate the impact of the GTS on recovery wells at the Day Habilitation Center. Chart 1 presents a summary of 7 groundwater recovery wells. Since activation of the GTS in May 2005 7 groundwater recovery wells have demonstrated decreased concentrations of VOCs. The current sampling event indicated decreased VOCs in 5 of the 7 recovery wells sampled compared to the December 2013 sampling event.

The current sampling event results are consistent with a trend of decreasing total VOCs at recovery wells. The increase in detected VOCs at DR-1, and G-3 may be attributed to system efficiency in concentrating the greatest impacted groundwater in the relative radius of influence for each recovery well.

Chart 2 displays the relationship between monitoring wells MW-1, MW-11 and recovery well DR-1. Monitoring wells MW-1 and MW-11 are located at the approximate original contamination source area and in the area of greatest impacted groundwater. DR-1 is the recovery well located in this area. The current total VOCs at MW-1 (990 ppb) show a decrease from the December 2013 sampling event (1,740 ppb). At MW-11, total VOCs (710 ppb) showed a decrease from the December 2013 sampling event (880 ppb). The current total VOCs at recovery well DR-1 (132 ppb) show an increase from the December 2013 sampling event (87 ppb).

Chart 3 compares laboratory results between recovery well DR-2 and MW-12. These wells are located north of the wells outlined in Chart series C-1 and represent the northern limit of the highest concentration within the impacted area. The current total VOCs at MW-12 (212 ppb) show an increase from the December 2013 sampling event (173 ppb). The current total VOCs at recovery well DR-2 (207 ppb) show a decrease from the December 2013 sampling event (302 ppb).

Chart 4 compares the relationship between wells DR-3 and MW-14 which are located in the central portion of the Gowanda Day Habilitation building. The current total VOCs at MW-14 (73 ppb) show a decrease from the December 2013 sampling event (94 ppb). The current total VOCs at recovery well DR-3 (89 ppb) show a decrease from the December 2013 sampling event (123 ppb).

Chart 5 compares laboratory results between recovery well DR-4 and MW-15. These wells are located at the center-north portion of the building. The current total VOCs at MW-15 (non-detect) show a decrease from the December 2013 sampling event (7 ppb). The current total VOCs at recovery well DR-4 (64 ppb) show a decrease from the December 2013 sampling event (68 ppb).

Chart 6 compares VOC concentrations between recovery well G-1 and Monitoring Well MW-17. The recovery well is located in the northern portion of the building. The current total VOCs at MW-17 (167 ppb) show a decrease from the December 2013 sampling event (420 ppb). The current total VOCs at recovery well G-1 (78 ppb) show a decrease from the December 2013 sampling event (96 ppb).

Chart 7 compares VOC concentrations between recovery well G-2 and MW-7 which are also located at the northeastern portion of the building. This area is at the apparent western perimeter of the area of impacted groundwater. The current total VOCs at MW-7 (non-detect), equal the December 2013 sampling event (non-detect). The current total VOCs at recovery well G-2 (14 ppb) show a decrease from the December 2013 sampling event (68 ppb).

Chart 8 compares VOC concentrations between recovery well G-3 and MW-17 which are also located at the northeastern portion of the building. This area is at the western perimeter of the apparent area of impacted groundwater. The current total VOCs at MW-17 (167 ppb) show a decrease from the December 2013 sampling event (420 ppb). The current total VOCs at recovery well G-3 (82 ppb) show an increase from the July 2013 sampling event (11 ppb).

Groundwater sampling results from monitoring wells along the western and eastern perimeters have consistently been non-detect.

5.2 Extent of Impacted Groundwater

The area of highest impacted groundwater is consistent with prior sampling events. The bulk of the contaminant mass appears to be concentrated beneath the building in the source area, in the vicinity of monitoring well MW-1 and MW-11, extending north to recovery well DR-2.

The GTS has maintained an area of hydraulic containment for recovery wells within the source area of impacted groundwater. The GTS appears to have been successful in hydraulically containing most of the contaminant plume on the property and minimizing further migration. The GTS was not operating during this monitoring period and the overall results are very similar to the December 2013 results. Therefore, residual VOCs in the plume have not migrated and appear to be contained when compared to sample results with operation of the GTS during previous monitoring events.

VOCs were not detected at MW-19R and MW-18 during the March 2014 sampling event. MW-19R and MW-18 are off-site monitoring wells north of the facility. These monitoring points are inferred as beyond the area of hydraulic influence of the recovery wells. Impacted groundwater at these areas was detected prior to activation of the GTS in May 2005. Future reduction in groundwater VOC concentrations at the down-gradient locations should be expected when the ISCO groundwater remediation is implemented at the Day Habilitation Center.

5.3 Future Groundwater Monitoring and Analysis Activities

The condition of the SVE and GTS was discussed with the NYSDEC representative and it was agreed that these systems would be inactivated to allow for groundwater level recovery during the preparation of an ISCO work plan and implementation of an ISCO groundwater treatment. Bergmann will submit an ISCO RAP for groundwater treatment to the NYSDEC to address remaining residual contamination at the Site in lieu of costly repair of the SVE and GTS. The SVE and GTS equipment will remain on site in the event that re-activation is required in the future. As of the date of this report, this work plan is an in-house draft and will be submitted to NYSDEC in May 2014.

Activities scheduled for 2014 include:

- Quarterly groundwater sampling events in 2014.
- Submit ISCO groundwater treatment RAP to NYSDEC for approval.
- Remove drums and garbage from the building and properly dispose.
- Begin to implement the ISCO groundwater treatment.

The next site-wide groundwater sampling and laboratory analysis event is tentatively scheduled for June 2014. This sampling event will include sampling and laboratory analysis for the limited number of wells as determined by Bergmann correspondence with the NYSDEC. Future sampling and analytical events will be conducted to track the effects of the treatment system on impacted groundwater and to evaluate seasonal changes in water table elevations. In addition, the evaluation of groundwater flow pattern and movement of residual impacted groundwater at the site will be performed during future sampling events.

TABLES



Table 1 Groundwater Elevations and Field Measurements March 2014

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

| March 27-28, 2014 | | | | | | | | | | |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|
| | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-8 | MW-9 | MW-10 |
| Casing Elevation* | 778.23 | 778.08 | 778.38 | 778.43 | 778.61 | 781.10 | 780.94 | 781.33 | 782.61 | 780.02 |
| Depth to Groundwater (btoc) | 4.37 | Not gauged | 4.19 | 6.12 | 8.39 | 12.20 | 12.14 | 7.89 | 7.36 | 6.32 |
| Groundwater Elevation | 773.86 | NA | 774.19 | 772.31 | 770.22 | 768.90 | 768.80 | 773.44 | 775.25 | 773.70 |
| Well Diameter | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| Product Thickness | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Well Depth (btoc) | 16.02 | 17.15 | 16.30 | 15.78 | 13.95 | 22.88 | 21.80 | 17.65 | 20.96 | 19.42 |
| Bottom of Well Elevation | 762.21 | 760.93 | 762.08 | 762.65 | 764.66 | 758.22 | 759.14 | 763.68 | 761.65 | 760.60 |
| Thickness of Water Column | 11.65 | NA | 12.11 | 9.66 | 5.56 | 10.68 | 9.66 | 9.76 | 13.60 | 13.10 |
| Minimum Purge Volume (gal) | 1.9 | NA | 2.0 | 1.6 | 0.9 | 1.7 | 1.6 | 1.6 | 2.2 | 2.1 |
| 3 Volumes | 5.7 | NA | 5.9 | 4.7 | 2.7 | 5.2 | 4.7 | 4.8 | 6.7 | 6.4 |
| Actual volume purged | 5.7 | NS | NS | 4.7 | NS | 5.2 | 4.7 | NS | NS | NS |
| Comments | Flush = -0.29' | Flush = -0.30' | Flush = -0.23' | Flush = -0.34' | Flush = -0.24' | Stickup=2.17' | Stickup=2.17' | Stickup=2.84' | Stickup=2.05' | Stickup=2.56' |

| March 27-28, 2014 | | | | | | | | | | | |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|----------------|---------------|
| | MW-11 | MW-12 | MW-13 | MW-14 | MW-15 | MW-16 | MW-17 | MW-18 | MW-19R | MW-20 | MW-21 |
| Casing Elevation | 778.58 | 778.50 | 778.39 | 778.43 | 778.38 | 780.43 | 779.85 | 776.39 | 774.2 | 778.04 | 774.76 |
| Depth to Groundwater (btoc) | 4.78 | 5.78 | 5.71 | 8.86 | 9.45 | 11.55 | 12.25 | 8.24 | 6.97 | 8.60 | Not Gauged |
| Groundwater Elevation | 773.80 | 772.72 | 772.68 | 769.57 | 768.93 | 768.88 | 767.60 | 768.15 | 767.23 | 769.44 | NA |
| Well Diameter | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" | 2" |
| Product Thickness | ND | ND | ND | ND |
| Well Depth (btoc) | 15.48 | 17.38 | 17.40 | 18.15 | 19.80 | 23.26 | 25.18 | 25.0 | 17.67 | 14.75 | 15.82 |
| Bottom of Well Elevation | 763.10 | 761.12 | 760.99 | 760.28 | 758.58 | 757.17 | 754.67 | 751.39 | 756.53 | 763.29 | 758.94 |
| Thickness of Water Column | 10.70 | 11.60 | 11.69 | 9.29 | 10.35 | 11.71 | 12.93 | 16.76 | 10.70 | 6.15 | NA |
| Minimum Purge Volume (gal) | 1.7 | 1.9 | 1.9 | 1.5 | 1.7 | 1.9 | 2.1 | 2.7 | 1.7 | 1.0 | NA |
| 3 Volumes | 5.2 | 5.7 | 5.7 | 4.5 | 5.1 | 5.7 | 6.3 | 8.2 | 5.2 | 3.0 | NA |
| Actual volume purged | 5.2 | 5.7 | 5.7 | 4.5 | 5.1 | 5.7 | 6.3 | 8.2 | 5.2 | 3.0 | NS |
| Comments | Flush = -0.23 | Flush = -0.35 | Flush = -0.48 | Flush = -0.39 | Flush = -0.38 | Stickup=2.26' | Stickup=1.18' | Flush = -0.26' | Flush = 0.36' | Flush = -0.43' | Flush = -.71' |

NOTES

btoc = Below top of casing (inner riser) All measurements are in feet, referenced to Mean Sea Level
 ND = No floating product encountered
 Minimum purge volume = 3 X well volume, 0.163 gallon per foot in a 2" diameter well. 0.653 gallon per foot in a 4" diameter well.
 Monitoring well MW-19 was removed and the area restored on July 23, 2003 immediately after the well was developed, purged of 3 volumes and sampled.
 The borehole for MW-19 was backfilled with a cement-bentonite grout after the PVC screening and casing was successfully removed.
 Wells MW-19R, MW-20 and MW-21 were installed in October 2004.

TOTAL VOLUME to PURGE, 3X ALL WELLS:
 69.4 Gallons

Table 2 March 2014 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-1
 Sampling Events

Sample Date: 3/27/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|------------|--------------|--------------------|
| TCE | | 800 | 1,400 | 5.0 |
| CIS | | 190 | 340 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 990 | 1,740 | |

Monitoring Well MW-4
 Sampling Events

Sample Date: 3/27/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | ND | ND | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | ND | ND | |

Monitoring Well MW-2
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-5
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-3
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-6
 Sampling Events

Sample Date: 3/27/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|-----------|------------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | 94 | 130 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 94 | 130 | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 March 2014 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-7
 Sampling Events

Sample Date: 3/27/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | ND | ND | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | ND | ND | |

Monitoring Well MW-8
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-9
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-10
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-11
 Sampling Events

Sample Date: 3/27/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|------------|------------|--------------------|
| TCE | | 440 | 650 | 5.0 |
| CIS | | 270 | 230 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 710 | 880 | |

Monitoring Well MW-12
 Sampling Events

Sample Date: 3/27/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|------------|-------------|--------------------|
| TCE | | 6.4 | 13.0 | 5.0 |
| CIS | | 200 | 160 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | 5.8 | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 212 | 173 | |

NS = Not Sampled. No analysis performed during this sampling event.
 Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 March 2014 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-13
 Sampling Events

Sample Date: NS

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

Monitoring Well MW-14
 Sampling Events

Sample Date: 3/27/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|-----------|-----------|--------------------|
| TCE | | 33 | 48 | 5.0 |
| CIS | | 40 | 46 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 73 | 94 | |

Monitoring Well MW-15
 Sampling Events

Sample Date: 3/27/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | ND | 7 | 5.0 |
| CIS | | ND | ND | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | ND | 7 | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Bold results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Monitoring Well MW-16
 Sampling Events

Sample Date: 3/27/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|-----------|-----------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | 24 | 20 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 24 | 20 | |

Monitoring Well MW-17
 Sampling Events

Sample Date: 3/28/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|------------|------------|--------------------|
| TCE | | 57 | 110 | 5.0 |
| CIS | | 110 | 310 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 167 | 420 | |

Monitoring Well MW-18
 Sampling Events

Sample Date: 3/27/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | ND | NS | 5.0 |
| CIS | | ND | NS | 5.0 |
| TRANS | | ND | NS | 5.0 |
| VC | | ND | NS | 2.0 |
| TCA | | ND | NS | 5.0 |
| Total VOCs | | ND | NS | |

Table 2 March 2014 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Monitoring Well MW-19R

Sample Date: 3/27/2014

Sampling Events

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | ND | ND | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | ND | ND | |

Monitoring Well MW-20

Sample Date: 3/27/2014

Sampling Events

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | ND | ND | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | ND | ND | |

Monitoring Well MW-21

Sample Date: NS

Sampling Events

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|----------|----------|--------------------|
| TCE | | NS | NS | 5.0 |
| CIS | | NS | NS | 5.0 |
| TRANS | | NS | NS | 5.0 |
| VC | | NS | NS | 2.0 |
| TCA | | NS | NS | 5.0 |
| Total VOCs | | NS | NS | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 March 2014 Analytical Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

Recovery Well DR-1
 Sampling Events

Sample Date: 3/28/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|-----------|-----------|--------------------|
| TCE | | 93 | 63 | 5.0 |
| CIS | | 39 | 24 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 132 | 87 | |

Recovery Well DR-4
 Sampling Events

Sample Date: 3/28/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|-----------|-----------|--------------------|
| TCE | | 50 | 50 | 5.0 |
| CIS | | 14 | 18 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 64 | 68 | |

Recovery Well DR-2
 Sampling Events

Sample Date: 3/28/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|------------|------------|--------------------|
| TCE | | 31 | 29 | 5.0 |
| CIS | | 170 | 260 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | 13 | 2.0 |
| TCA | | 5.9 | ND | 5.0 |
| Total VOCs | | 207 | 302 | |

Recovery Well G-1
 Sampling Events

Sample Date: 3/28/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|------------|------------|--------------------|
| TCE | | 8.7 | 7.2 | 5.0 |
| CIS | | 69 | 89 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 78 | 96 | |

Recovery Well DR-3
 Sampling Events

Sample Date: 3/28/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|-----------|-----------|--------------------|
| TCE | | 33 | 41 | 5.0 |
| CIS | | 56 | 82 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 89 | 123 | |

Recovery Well G-2
 Sampling Events

Sample Date: 3/28/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|---------|-----------|-----------|--------------------|
| TCE | | ND | ND | 5.0 |
| CIS | | 14 | 68 | 5.0 |
| TRANS | | ND | ND | 5.0 |
| VC | | ND | ND | 2.0 |
| TCA | | ND | ND | 5.0 |
| Total VOCs | | 14 | 68 | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 2 March 2014 Analytical Results Summary

Gowanda Day Habilitation Center
4 Industrial Place, Gowanda, New York
VCA # V-00463-9

Recovery Well G-3
Sampling Events

Sample Date: 3/28/2014

| Analyte | in µg/L | Mar 2014 | Dec 2013 | NYS Guidance Value |
|------------|-----------|----------|----------|--------------------|
| TCE | 27 | NS | NS | 5.0 |
| CIS | 55 | NS | NS | 5.0 |
| TRANS | ND | NS | NS | 5.0 |
| VC | ND | NS | NS | 2.0 |
| TCA | ND | NS | NS | 5.0 |
| Total VOCs | 82 | NS | NS | |

ND = Non-detect

Results expressed as micrograms per liter, ppb

Results exceed NYSDEC TOGS 1.1.1 Class GA, June 1998 re-issue (MTBE = April 2000 Addendum Guidance Value)

Table 3 Historic Groundwater Analysis Results Summary

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

| Well Number | Sampling Order Mar 2014 | Sampling Order Dec 2013 | Sampling Order Jul 2013 | Sampling Order Apr 2013 | Sampling Order Dec 2012 | Sampling Order Jun 2012 | Sampling Order Mar 2012 | Sampling Order Sep 2011 | Total PPB Jun 2011 | Total PPB Mar 2011 | Total PPB Dec 2010 | Jan-10 | Total PPB Sep 2010 | Total PPB Jun 2010 | Total PPB Jul 2009 | Total PPB Feb 2009 | Total PPB Sep 2008 | Total PPB Jun 2008 | Total PPB Mar 2008 | Total PPB Sep 2007 | Total PPB May 2007 | Oct-06 Total PPB | Nov-05 Total PPB | Oct-04 Total PPB | Jul-03 Total PPB | Aug-02 Total PPB | |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------------|---------------------|--------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----|
| MONITORING WELLS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MW-1 | 12 | 8 | 12 | 12 | 13 | 13 | 13 | 13 | 1,318.1 | 583 | 564 | 646.97 | 649 | 778 | 1107.16 | 677 | 860 | 705 | 1,463 | 1,481 | 2,046 | 1,769 | 1,128 | 1,250 | 2,879 | 768 | |
| MW-17 | 13 | 7 | 13 | 13 | 11 | 10 | 7 | 11 | 225.2 | 26.7 | 48.1 | 18.9 | 312.3 | 232.1 | 228.8 | 4.41 | 728 | 599 | 610 | 903.0 | 777 | 1,011 | 1,006 | 1,154 | 810 | NA | |
| MW-18 | 6 | NS | 6 | 6 | 6 | 6 | 4 | 4 | 13.9 | 6.43 | 17.9 | 6.3 | 40.77 | 27.5 | 196 | 13.07 | 238.6 | 115.2 | 56.0 | 719 | 442 | 392 | 375 | 460 | 159 | NA | |
| MW-7 | 7 | 5 | 7 | 7 | 7 | 9 | 5 | 7 | 70.9 | 22.3 | 58.2 | 15.2 | 160.5 | 114.46 | 213 | 92.34 | 347.8 | 244 | 196.7 | 360 | 330.5 | 420 | 455.7 | 508 | 534 | 450 | |
| MW-11 | 11 | 12 | 11 | 11 | 12 | 12 | 12 | 12 | 722 | 623 | 588 | 776 | 630.7 | 765 | 625.9 | 790 | 437.3 | 564.9 | 1,023 | 398.6 | 1,189 | 2,600 | 1,101 | 2,355 | 34,169 | 4,647 | |
| MW-12 | 10 | 11 | 10 | 10 | 10 | 11 | 11 | 10 | 162.9 | 90.82 | 90.4 | 236.53 | 100 | 159.8 | 82 | 279.01 | 65.8 | 159 | 165.6 | 196.9 | 429 | 1,082 | 4,776 | 6,900 | 12,100 | 12,643 | |
| MW-14 | 5 | 10 | 5 | 5 | 5 | 5 | 9 | 9 | 104.98 | 31.9 | 24.33 | 44.4 | 38.93 | 65.22 | 40.72 | 34.9 | 17.8 | 38.15 | 29.3 | 103.2 | 106.8 | 293.9 | 139.9 | 67 | 140 | 315 | |
| MW-2 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| MW-15 | 4 | 9 | 4 | 4 | 4 | 4 | 8 | 5 | 16.18 | 6.92 | 16.85 | 12.16 | 62 | 22.93 | 64.8 | 4.9 | 113.3 | 77.3 | 18.2 | 149.6 | 60.4 | 149.9 | 271 | 320 | 258 | 730 | |
| MW-20 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| MW-6 | 9 | 6 | 9 | 9 | 9 | 9 | 10 | 8 | 79 | 73.2 | 81.8 | 76 | 107 | 96 | 92.8 | 87.8 | 113 | 123 | 105 | 171 | 151 | 173 | 233 | 280 | 333 | 406 | |
| MW-16 | 8 | 4 | 8 | 8 | 8 | 7 | 6 | 6 | 23.1 | 28.9 | 7.21 | 2.19 | 2.53 | ND | 22 | 22.2 | 16.2 | 21.3 | 8.56 | 24.7 | 60.0 | 51.2 | 65.4 | 82 | 38 | NA | |
| MW-19R | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | ND | ND | ND | ND | 2.67 | ND | 4.27 | ND | 13.7 | 10.57 | ND | 22.1 | 2.64 | 11.4 | 20.2 | 14 | 10* | NA | |
| MW-21 | NS | NS | NS | NS | NS | NS | NS | NS | 141.8 | NS | 14.3 | 533 | 318 | 29 | 495.6 | 436 | NA | NA | |
| MW-5 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | 3.41 | ND | ND | 5.13 | 6.7 | 7.3 | 14 |
| MW-3 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | 2.4 | ND | ND | 8.42 | 5.6 | 3.1 | 15 |
| MW-13 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | ND | 2.02 | ND | ND | ND | ND | ND | 31 | 315 |
| MW-4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.8 | 3.8 |
| MW-8 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | 1.4 |
| MW-9 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | 4.2 |
| MW-10 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | 2.6 |
| RECOVERY WELLS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Recovery Well No. | Sampling Order Mar 2014 | Sampling Order Dec 2013 | Sampling Order Jul 2013 | Sampling Order Apr 2013 | Sampling Order Dec 2012 | Sampling Order Jun 2012 | Sampling Order Mar 2012 | Sampling Order Sep 2011 | Sampling Order Jun 2011 | Total VOCs Mar 2011 | Total VOCs Dec 2010 | Jul-09 | Total VOCs Sep 2010 | Total VOCs Jun 2010 | Total VOCs Jul 2009 | Total VOCs Feb 2009 | Total VOCs Sep 2008 | Total VOCs Jun 2008 | Total VOCs Mar 2008 | Total VOCs Sep 2007 | Total VOCs May 2007 | Oct-06 Total VOCs | Feb-05 Total VOCs | Oct-04 Total VOCs | Jul-03 Total VOCs | Aug-02 Total VOCs | |
| G-3 | 20 | NS | 20 | 20 | 20 | 20 | 20 | 20 | 224.7 | 209.8 | 159.3 | 209.8 | 233.2 | 277.8 | 344 | 403 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| G-2 | 19 | 18 | 19 | 19 | 19 | 19 | 19 | 19 | 65.6 | 47.2 | 51.8 | 5.61 | 6.02 | 8.37 | 56.2 | 231 | 28.3 | 39.1 | 80.92 | 59.3 | 174.92 | 283.4 | 385 | NA | NA | NA | |
| G-1 | 18 | 17 | 18 | 18 | 18 | 18 | 18 | 18 | 55.81 | 67.02 | 48.8 | 130.83 | 30.5 | 108.3 | 164 | 126.6 | 120.4 | 170.5 | 186 | 225.0 | 153.3 | 200.8 | 544 | NA | NA | NA | |
| DR-4 | 17 | 16 | 17 | 17 | 17 | 17 | 17 | 17 | 128.4 | 101.4 | 71.7 | 81 | 230.58 | 155.04 | 80.3 | 66.3 | 129.1 | 40.2 | 42.1 | 217.0 | 15.21 | 859.0 | 1,760 | NA | NA | NA | |
| DR-3 | 16 | 15 | 16 | 16 | 16 | 16 | 16 | 16 | 67.7 | 25.3 | 30.1 | 124.4 | 38.1 | 79.7 | 125.96 | 167.34 | 75.4 | 123.2 | 171.7 | 387.5 | 183 | 152.5 | 1,467 | NA | NA | NA | |
| DR-1 | 15 | 13 | 15 | 15 | 15 | 15 | 15 | 14 | 154.5 | 250.1 | 355.5 | 163 | 442.5 | 60.3 | 382.28 | 260 | 724 | 864 | 530 | 2,043.5 | 1,106 | 573.4 | 8,000 | NA | NA | NA | |
| DR-2 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 15 | 240.93 | 267.75 | 152.3 | 189.07 | 213.52 | 255.2 | 198.24 | 223.79 | 206.6 | 284.3 | 154.4 | 288.1 | 350.1 | 549.2 | 2,003 | NA | NA | NA | |

NS: This well not included in this sampling event.
 ND = Not Detected, results less than Method Detection Limit.
 Impacted north property line wells: MW-5, MW-6, MW-7, MW-16, MW-17,

Table 4 Percent Reductions in Total Groundwater VOCs

Gowanda Day Habilitation Center
 4 Industrial Place, Gowanda, New York
 VCA # V-00463-9

The Groundwater Treatment System was activated in May 2005

| Monitoring Well | % Reduction 2002 to Mar 2014 | % Reduction 2002 to Dec 2013 | % Reduction 2002 to Jul 2013 | % Reduction 2002 to Apr 2013 | % Reduction 2002 to Dec 2012 | % Reduction 2002 to Jun 2012 | % Reduction 2002 to Mar 2012 | % Reduction 2002 to Sep 2011 | % Reduction 2002 to Jun 2011 | % Reduction 2002 to Mar 2011 | % Reduction 2002 to Dec 2010 | % Reduction 2002 to Sep 2010 | % Reduction 2002 to Jun 2010 | % Reduction 2002 to Jan 2010 | % Reduction 2002 to Jul 2009 | % Reduction 2002 to Feb 2009 | % Reduction 2002 to Sep 2008 | % Reduction 2002 to Jun 2008 | % Reduction 2002 to Mar 2008 | % Reduction 2002 to Nov 2005 | |
|---------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|--------|
| MW-1† | -28.9% | -126.6% | -8.1% | -19.5% | -87.5% | 31.3% | -15.8% | 42.4% | -71.6% | 24.1% | 26.6% | 15.5% | -1.3% | 15.8% | -44.2% | 11.8% | -12.0% | 8.2% | -90.5% | -46.9% | |
| MW-2 | Not Sampled | 99.6% | Not Sampled | 99.6% |
| MW-3 | Not Sampled | 99.3% |
| MW-4 | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% | 97.4% |
| MW-5 | Not Sampled | 99.3% |
| MW-6 | 76.8% | 68.0% | 75.6% | 77.1% | 75.6% | 78.6% | 78.9% | 75.1% | 80.5% | 82.0% | 79.9% | 73.6% | 76.4% | 81.3% | 77.1% | 78.4% | 72.2% | 69.7% | 74.1% | 42.6% | |
| MW-7 | 100.0% | 100.0% | 96.0% | 100.0% | 100.0% | 66.3% | 93.2% | 53.5% | 84.2% | 95.0% | 87.1% | 64.3% | 74.6% | 96.6% | 52.7% | 79.5% | 22.7% | 45.8% | 56.3% | -1.3% | |
| MW-8 | Not Sampled | 92.9% |
| MW-9 | Not Sampled | 97.6% |
| MW-10 | Not Sampled | 96.2% |
| MW-11 | 84.7% | 81.1% | 89.0% | 87.7% | 83.0% | 89.3% | 86.7% | 89.1% | 84.5% | 86.6% | 87.3% | 86.4% | 83.5% | 83.3% | 86.5% | 83.0% | 90.6% | 87.8% | 78.0% | 76.3% | |
| MW-12 | 98.3% | 98.6% | 98.8% | 98.5% | 98.9% | 99.3% | 98.8% | 99.3% | 98.7% | 99.3% | 99.3% | 99.2% | 98.7% | 98.1% | 99.4% | 97.8% | 99.5% | 98.7% | 99.5% | 98.7% | 62.2% |
| MW-13 | Not Sampled | 100.0% |
| MW-14 | 76.8% | 70.2% | 84.4% | 77.5% | 85.1% | 87.4% | 75.7% | 75.5% | 66.7% | 89.9% | 92.3% | 87.6% | 79.3% | 85.9% | 87.1% | 88.9% | 94.3% | 87.9% | 90.7% | 55.6% | |
| MW-15 | 100.0% | 99.1% | 99.0% | 100.0% | 98.2% | 96.4% | 99.1% | 95.6% | 97.8% | 99.1% | 97.7% | 91.5% | 96.9% | 98.3% | 91.1% | 99.3% | 84.5% | 89.4% | 97.5% | 62.9% | |
| MW-16* | 53.1% | 60.9% | 77.9% | 36.8% | 52.6% | 88.5% | 67.9% | 84.0% | 39.2% | 23.9% | 81.0% | 93.3% | 99.7% | 94.2% | 42.1% | 41.6% | 57.4% | 43.9% | 77.5% | -72.1% | |
| MW-17* | 83.5% | 58.5% | 50.6% | 97.4% | 46.9% | 53.0% | 67.9% | 44.6% | 72.2% | 96.7% | 94.1% | 61.4% | 71.3% | 97.7% | 71.8% | 99.5% | 10.1% | 26.0% | 24.7% | -24.2% | |
| MW-18:* | 100.0% | Not Sampled | 100.0% | 100.0% | 100.0% | 89.6% | 98.5% | 81.9% | 91.3% | 96.0% | 88.7% | 74.4% | 82.7% | 96.0% | -23.3% | 91.8% | -50.0% | 27.6% | 64.8% | -135.8% | |
| MW-19 R* | 100.0% | 100.0% | 100.0% | 100.0% | 75.0% | 99.0% | 99.0% | 99.0% | 99.0% | 99.0% | 99.0% | 73.3% | 99.0% | 99.0% | 57.3% | 99.0% | -36.7% | -5.7% | 99.0% | -102.0% | |
| MW-20** | 100.0% | 100.0% | 100.0% | 100.0% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% | 99.4% |
| MW-21** | Not Sampled | -13.7% |
| * Well installed 2003 | | | | | | | | | | | | | | | | | | | | | |
| ** Well installed 2004 | | | | | | | | | | | | | | | | | | | | | |
| Site-Wide reduction: | 80.3% | 67.5% | 81.8% | 81.2% | 71.3% | 82.9% | 80.7% | 79.7% | 72.2% | 83.7% | 86.9% | 78.3% | 81.4% | 87.9% | 61.1% | 82.1% | 56.0% | 59.7% | 78.5% | 35.7% | |
| Impacted Groundwater Plume Area Only: | 73.9% | 82.2% | 73.2% | 77.3% | 62.5% | 75.2% | 73.1% | 71.9% | 64.1% | 84.1% | 83.0% | 72.5% | 72.4% | 82.1% | 65.2% | 79.8% | 57.7% | 64.2% | 53.7% | 28.4% | |

Plume Area = MW-1, MW-11, MW-12, MW-14, MW-15, MW-7, MW-17, MW-6
 †Negative values indicate an increase in total VOCs since monitoring commenced in 2002. The percent increase in total groundwater VOCs is shown below for MW-1.

| Recovery Well | % Reduction 2002 to Mar 2014 | % Reduction 2002 to Dec 2013 | % Reduction 2002 to Jul 2013 | % Reduction 2002 to Apr 2013 | % Reduction 2002 to Dec 2012 | % Reduction 2002 to Jun 2012 | % Reduction 2002 to Mar 2012 | % Reduction 2002 to Sep 2011 | % Reduction 2002 to Jun 2011 | % Reduction 2002 to Mar 2011 | % Reduction 2002 to Dec 2010 | % Reduction 2002 to Sep 2010 | % Reduction 2002 to Jun 2010 | % Reduction 2002 to Jan 2010 | % Reduction 2002 to Jul 2009 | % Reduction 2002 to Feb 2009 | % Reduction 2002 to Sep 2008 | % Reduction 2002 to Jun 2008 | % Reduction 2002 to Mar 2008 |
|-------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| DR-1 | 77.0% | 84.8% | 99.1% | 99.0% | 99.5% | 99.8% | 91.6% | 97.9% | 98.1% | 96.9% | 95.6% | 94.5% | 99.2% | 98.0% | 95.1% | 96.8% | 91.0% | 89.2% | 93.4% |
| DR-2 | 62.3% | 45.0% | 87.2% | 85.4% | 99.1% | 88.5% | 83.9% | 89.7% | 88.0% | 86.6% | 92.4% | 89.3% | 87.3% | 90.6% | 90.1% | 88.8% | 89.7% | 85.8% | 92.3% |
| DR-3 | 41.6% | 19.3% | 95.8% | 95.1% | 97.2% | 92.1% | 98.3% | 95.0% | 95.4% | 98.3% | 98.0% | 97.4% | 94.6% | 91.6% | 91.5% | 88.7% | 94.9% | 91.7% | 88.4% |
| DR-4 | 92.5% | 90.8% | 95.5% | 97.9% | 94.9% | 93.1% | 100.0% | 89.2% | 92.7% | 94.3% | 95.9% | 86.9% | 91.2% | 95.4% | 95.5% | 96.2% | 92.7% | 97.7% | 97.6% |
| G-1 | 61.3% | 65.6% | 87.3% | 89.8% | 90.3% | 87.4% | 88.0% | 87.6% | 89.8% | 87.7% | 91.0% | 94.4% | 80.1% | 76.0% | 69.9% | 76.7% | 77.9% | 68.7% | 65.8% |
| G-2 | 95.1% | 71.4% | 79.0% | 87.0% | 65.7% | 80.4% | 89.1% | 92.3% | 83.0% | 87.7% | 86.5% | 98.4% | 97.8% | 98.5% | 85.4% | 40.0% | 92.6% | 89.8% | 79.0% |
| G-3 | 79.7% | NA |
| Overall Reduction | 72.8% | 62.8% | 90.7% | 92.3% | 91.1% | 90.2% | 91.8% | 91.9% | 91.1% | 91.9% | 93.2% | 93.5% | 91.7% | 91.7% | 87.9% | 81.2% | 89.8% | 87.2% | 86.1% |

*Sampling of recovery wells initiated in 2005

| Monitoring Well | % Increase 2002 to Mar 2014 | % Increase 2002 to Dec 2013 | % Increase 2002 to Jul 2013 | % Increase 2002 to Apr 2013 | % Increase 2002 to Dec 2012 | % Increase 2002 to Mar 2012 | % Increase 2002 to Jun 2011 | % Increase 2002 to Nov 2005 | | | | |
|-----------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------|--------|-------|-------|
| MW-1† | 22.4% | 55.9% | 7.5% | 16.3% | 46.7% | 13.6% | 41.7% | 100.0% | 30.6% | 100.0% | 47.5% | 31.9% |

†Negative values indicate an increase in total VOCs since monitoring commenced in 2002. The percent increase in total groundwater VOCs is shown above for MW-1.

FIGURES



MONITORING WELLS & BORING LOCATIONS

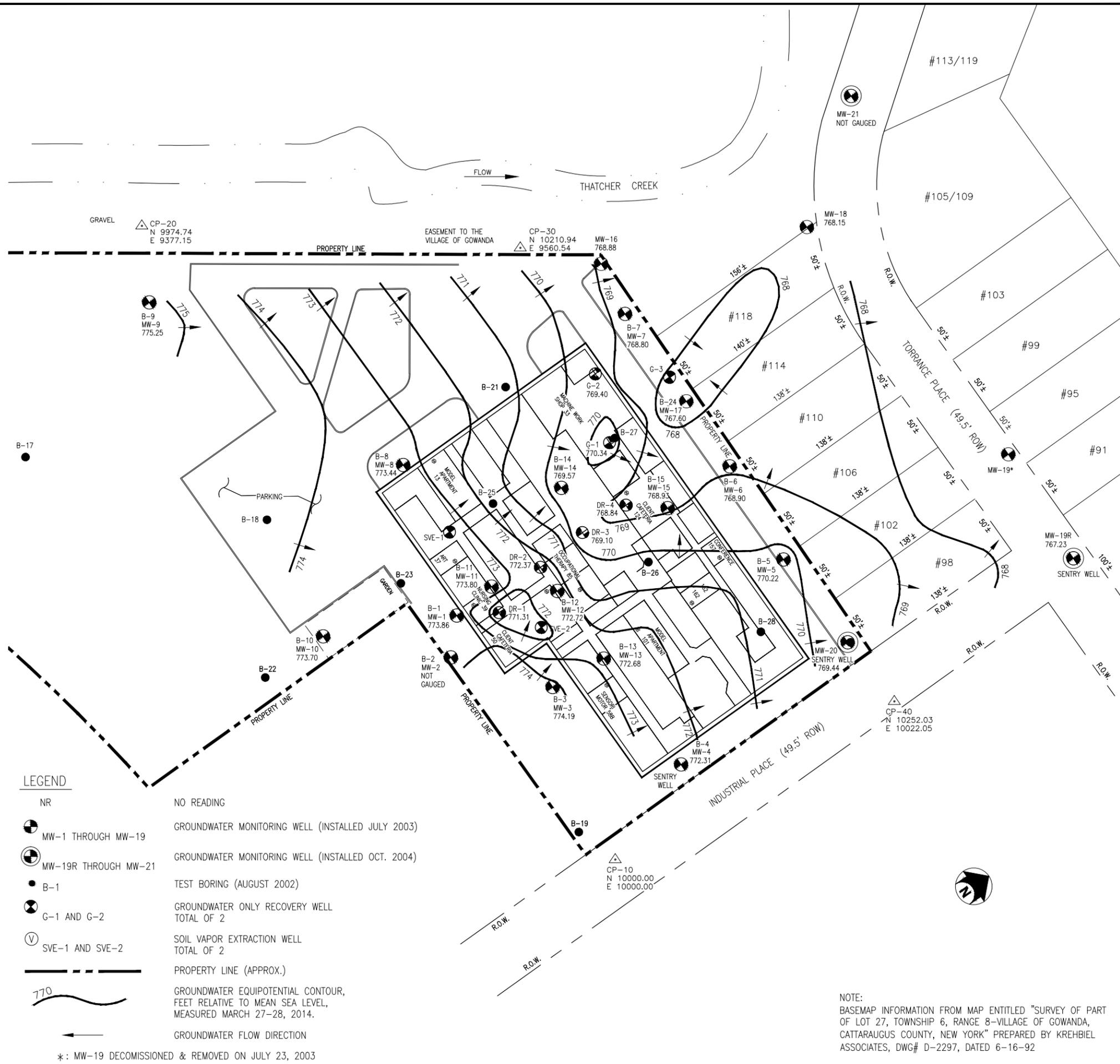
| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|----------|----------------------------|---------------------|
| MW-1 | 10005.75 | 9770.81 | 778.51 778.52 778.23 | ASPH. RIM PVC |
| MW-2 | 9983.26 | 9795.25 | 778.36 778.38 778.08 | ASPH. RIM PVC |
| MW-3 | 10036.20 | 9859.98 | 778.59 778.61 778.38 | ASPH. RIM PVC |
| MW-4 | 10085.20 | 9967.62 | 778.66 778.77 778.43 | GRD. RIM PVC |
| MW-5 | 10243.23 | 9880.34 | 778.80 778.85 778.61 | ASPH. RIM PVC |
| MW-6 | 10249.86 | 9795.88 | 778.93 781.35 781.10 | GRD. CASE PVC |
| MW-7 | 10249.65 | 9650.24 | 778.77 781.17 780.94 | GRD. CASE PVC |
| MW-8 | 10038.09 | 9649.08 | 778.49 781.75 781.33 | GRD. CASE PVC |
| MW-9 | 9945.36 | 9430.13 | 780.56 782.84 782.61 | GRD. CASE PVC |
| MW-10 | 9909.53 | 9724.56 | 777.46 780.10 780.02 | GRD. CASE PVC |
| MW-11 | 10041.23 | 9767.54 | 778.82 778.81 778.58 | FLOOR RIM PVC |
| MW-12 | 10082.02 | 9799.74 | 778.84 778.85 778.50 | FLOOR RIM PVC |
| MW-13 | 10082.09 | 9864.35 | 778.88 778.87 778.39 | FLOOR RIM PVC |
| MW-14 | 10130.64 | 9734.67 | 778.80 778.82 778.43 | FLOOR RIM PVC |
| MW-15 | 10190.80 | 9795.30 | 778.78 778.76 778.38 | FLOOR RIM PVC |
| MW-16 | 10256.48 | 9607.09 | 778.17 781.05 780.43 | GRD. CASE PVC |
| MW-17 | 10250.56 | 9734.35 | 778.67 781.10 779.85 | GRD. CASE PVC |
| MW-18 | 10406.65 | 9675.18 | 776.73 776.65 776.39 | GRD. RIM PVC |
| MW-19 | 10436.35 | 9912.63 | 775.04 775.10 774.82 | GRD. RIM PVC |
| MW-19R | 10432.32 | 10009.16 | 774.56 774.55 774.20 | ASPH. RIM PVC |
| MW-20 | 10248.05 | 9962.73 | 778.47 778.45 778.04 | ASPH. RIM PVC |
| MW-21 | 10493.88 | 9609.90 | 775.47 775.45 774.76 | ASPH. RIM PVC |
| B-16 | 9736.69 | 9324.99 | 782.23 | GRD. |
| B-17 | 9795.99 | 9475.17 | 780.40 | GRD. |
| B-18 | 9925.09 | 9623.75 | 777.55 | ASPH. |
| B-19 | 9988.66 | 9965.74 | 778.30 | ASPH. |
| B-20 | 10249.88 | 9964.03 | 778.36 | ASPH. |
| B-21 | 10139.46 | 9644.31 | 774.51 | GRAV. |
| B-22 | 9853.67 | 9725.31 | 776.69 | GRD. |
| B-23 | 9983.81 | 9724.83 | 778.50 | ASPH. |
| B-24 | 10249.26 | 9732.76 | 778.88 | GRD. |
| B-25 | 10079.30 | 9714.32 | 778.79 | FLOOR |
| B-26 | 10154.35 | 9821.64 | 778.84 | FLOOR |
| B-27 | 10187.79 | 9726.14 | 778.80 | FLOOR |
| B-28 | 10196.32 | 9917.18 | 778.83 | FLOOR |

RECOVERY WELL LOCATIONS

| SAMPLE | NORTH | EAST | ELEVATION | DESCRIPTION |
|--------|----------|---------|----------------------------|-------------------------------|
| DR-1 | 10034.54 | 9787.80 | 778.81 779.66 779.69 | FLOOR PVC RISER PVC CAP |
| DR-2 | 10081.63 | 9776.80 | 778.87 779.93 779.96 | FLOOR PVC RISER PVC CAP |
| DR-3 | 10124.45 | 9773.02 | 778.83 779.78 779.81 | FLOOR PVC RISER PVC CAP |
| DR-4 | 10164.98 | 9774.65 | 778.80 779.64 779.67 | FLOOR PVC RISER PVC CAP |
| G-1 | 10182.25 | 9726.78 | 778.80 779.83 779.86 | FLOOR PVC RISER PVC CAP |
| G-2 | 10203.62 | 9675.79 | 778.86 779.72 779.76 | FLOOR PVC RISER PVC CAP |
| SVE-1 | 10038.31 | 9713.33 | 778.77 779.66 N/A | FLOOR PVC RISER PVC CAP |
| SVE-2 | 10055.47 | 9816.17 | 778.86 779.91 N/A | FLOOR PVC RISER PVC CAP |

LEGEND

- NR NO READING
- ⊕ MW-1 THROUGH MW-19 GROUNDWATER MONITORING WELL (INSTALLED JULY 2003)
- ⊕ MW-19R THROUGH MW-21 GROUNDWATER MONITORING WELL (INSTALLED OCT. 2004)
- B-1 TEST BORING (AUGUST 2002)
- ⊗ G-1 AND G-2 GROUNDWATER ONLY RECOVERY WELL TOTAL OF 2
- ⊕ SVE-1 AND SVE-2 SOIL VAPOR EXTRACTION WELL TOTAL OF 2
- PROPERTY LINE (APPROX.)
- 770 GROUNDWATER EQUIPOTENTIAL CONTOUR, FEET RELATIVE TO MEAN SEA LEVEL, MEASURED MARCH 27-28, 2014.
- GROUNDWATER FLOW DIRECTION
- *: MW-19 DECOMMISSIONED & REMOVED ON JULY 23, 2003



NOTE:
BASEMAP INFORMATION FROM MAP ENTITLED "SURVEY OF PART OF LOT 27, TOWNSHIP 6, RANGE 8-VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK" PREPARED BY KREHBIEL ASSOCIATES, DWG# D-2297, DATED 6-16-92

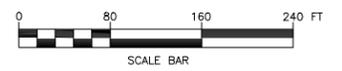
DASNY
GOWANDA DAY
HABILITATION CENTER
4 INDUSTRIAL PLACE
GOWANDA, NY

B
BERGMANN
associates
Engineers / Architects / Surveyors

200 First Federal Plaza
28 East Main Street, Rochester, New York 14614
585.232.5235 / 585.232.4652 fax

| REVISIONS | | | | |
|-----------|------|-------------|------|-----|
| NO. | DATE | DESCRIPTION | REV. | CKD |
| | | | | |

NOTE:
Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.



**MARCH 2014
GROUNDWATER
CONTOUR MAP**

Project Manager:
G. FLISNIK
Designed by:
C. WOOD
Checked by:
S. DEMEO
Date Issued:
MAY 2014
Scale:
1"=80'

Project Number: 6974.76
File Name: I:\DASNY\006974.76\3.03.8\2014 Sampling Events\ March 2014\Figures\March2014 FIG1.dwg
Drawing Number:

FIG-1



**BERGMANN
associates**

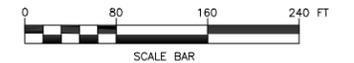
Engineers / Architects / Surveyors

200 First Federal Plaza
28 East Main Street, Rochester, New York 14614
585.232.5235 / 585.232.4652 Fax

REVISIONS

| NO. | DATE | DESCRIPTION | REV. | CKD |
|-----|------|-------------|------|-----|
| | | | | |

NOTE:
Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.



**MARCH 2014
DISTRIBUTION OF
GROUNDWATER
ANALYTICAL RESULTS
IN MONITORING WELLS**

Project Manager:

G. FLISNIK

Designed by:

C. WOOD

Checked by:

S. DEMEO

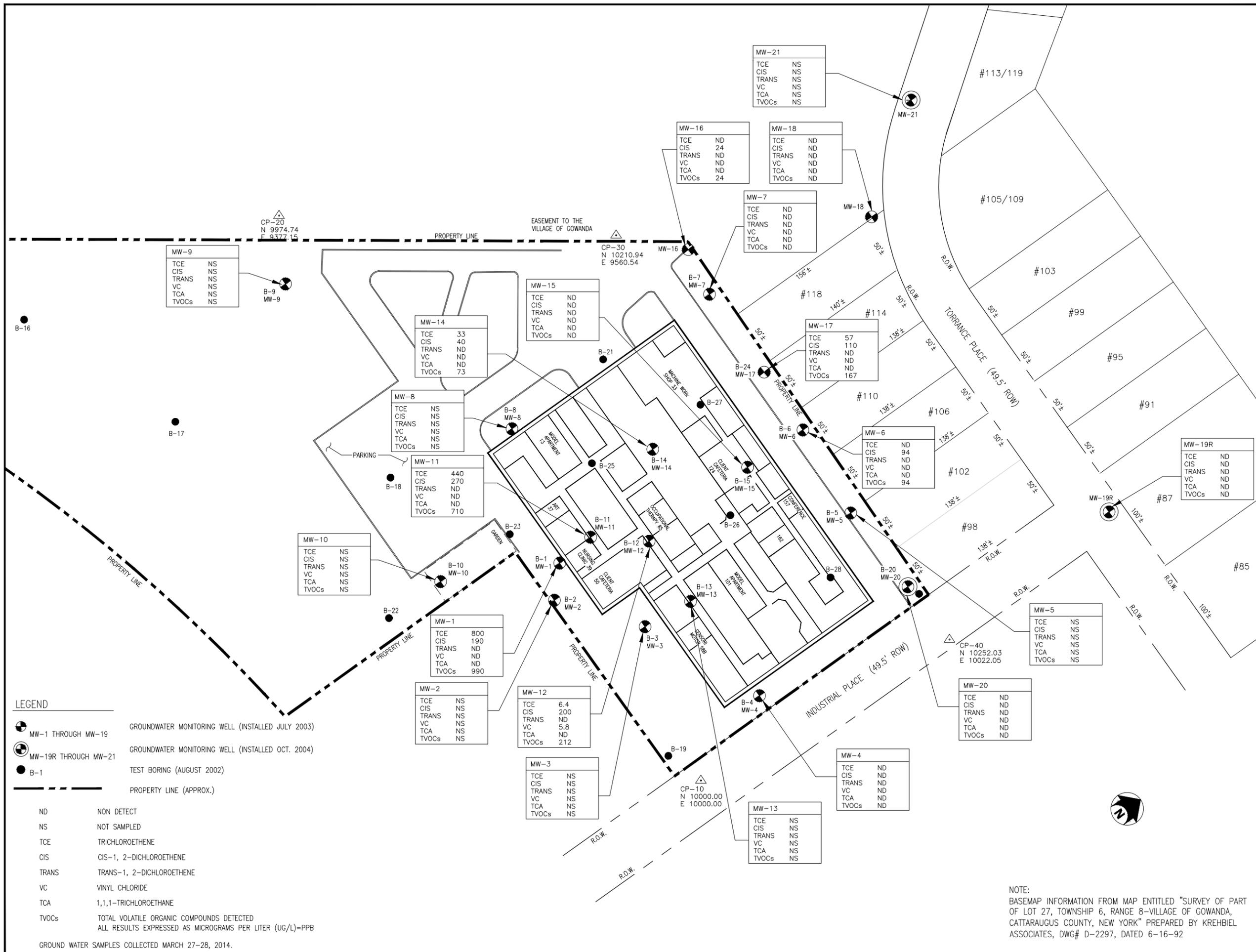
Date Issued:

MAY 2014

Scale:

1"=80'

Project Number: 6974.76
File Name: I:\DASNY\006974.76\3.03.8\2014 Sampling Events\ March 2014\Figures\March2014 FIG2.dwg
Drawing Number:

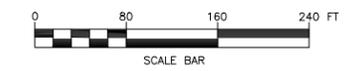


NOTE:
BASEMAP INFORMATION FROM MAP ENTITLED "SURVEY OF PART OF LOT 27, TOWNSHIP 6, RANGE 8-VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK" PREPARED BY KREHBIEL ASSOCIATES, DWG# D-2297, DATED 6-16-92



| REVISIONS | | | |
|-----------|------|-------------|----------|
| NO. | DATE | DESCRIPTION | REV. CKD |
| | | | |

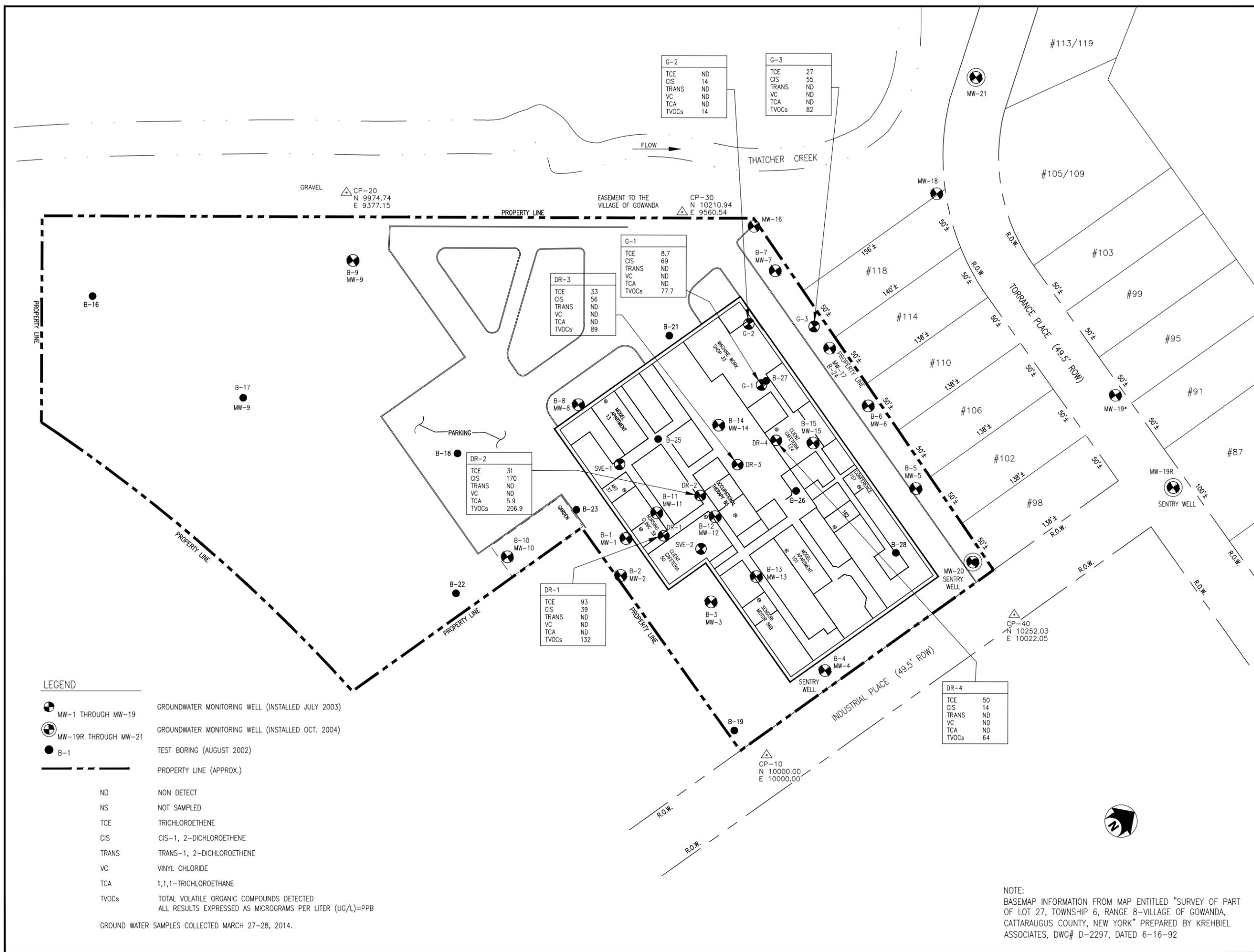
NOTE:
Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.



**MARCH 2014
DISTRIBUTION OF
GROUNDWATER
ANALYTICAL RESULTS
IN RECOVERY WELLS**

Project Manager:
G. FLISNIK
Designed by:
C. WOOD
Checked by:
S. DEMEO
Date Issued:
MAY 2014
Scale:
1"=80'

Project Number: 6974.76
File Name: I:\DASNY\00974.76\3.03.8\2014 Sampling Events\ March 2014\Figures\March2014 FIG3.dwg
Drawing Number:



LEGEND

MW-1 THROUGH MW-19 GROUNDWATER MONITORING WELL (INSTALLED JULY 2003)

MW-19R THROUGH MW-21 GROUNDWATER MONITORING WELL (INSTALLED OCT. 2004)

B-1 TEST BORING (AUGUST 2002)

PROPERTY LINE (APPROX.)

ND NON DETECT

NS NOT SAMPLED

TCE TRICHLOROETHENE

CIS CIS-1, 2-DICHLOROETHENE

TRANS TRANS-1, 2-DICHLOROETHENE

VC VINYL CHLORIDE

TCA 1,1,1-TRICHLOROETHANE

TVOCs TOTAL VOLATILE ORGANIC COMPOUNDS DETECTED
ALL RESULTS EXPRESSED AS MICROGRAMS PER LITER (UG/L)=PPB

GROUND WATER SAMPLES COLLECTED MARCH 27-28, 2014.

NOTE:
BASEMAP INFORMATION FROM MAP ENTITLED "SURVEY OF PART OF LOT 27, TOWNSHIP 6, RANGE 8-VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK" PREPARED BY KREHBIEL ASSOCIATES, DWG# D-2297, DATED 6-16-92

CHARTS



Chart 1: Groundwater Recovery Wells Summary

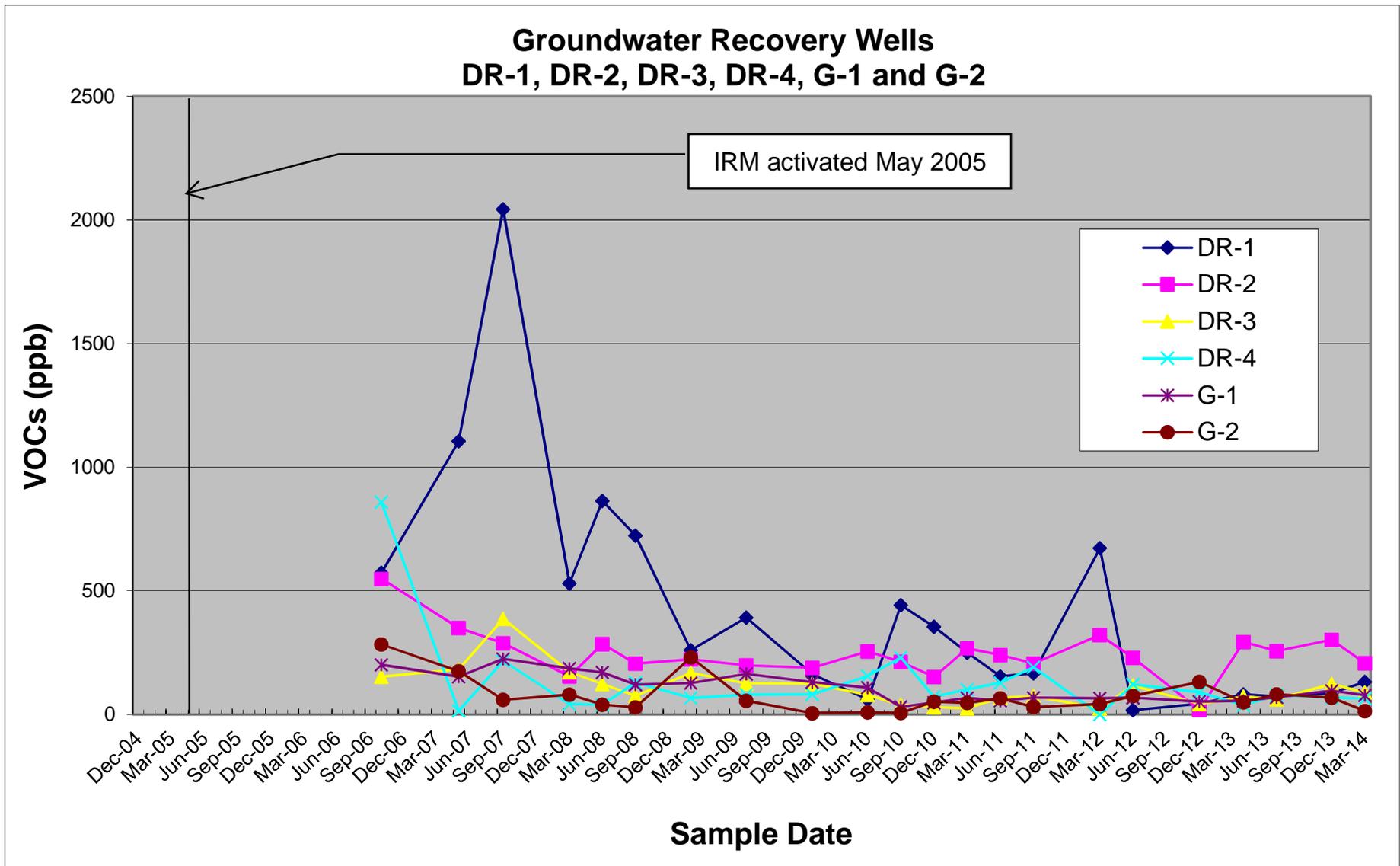


Chart 2: DR-1 Groundwater Volatile Organic Compound Concentrations

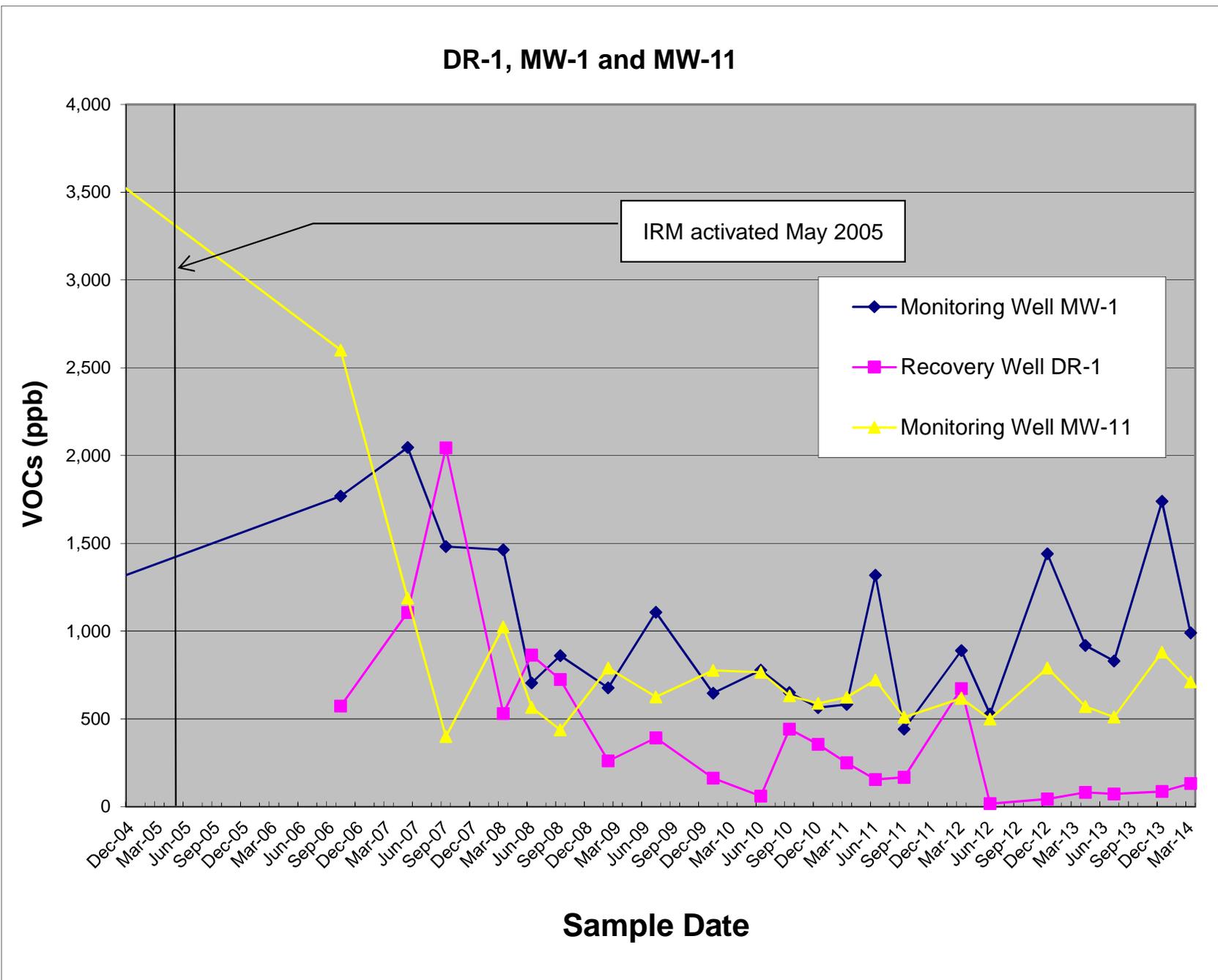


Chart 3: DR-2 Groundwater Volatile Organic Compound Concentrations

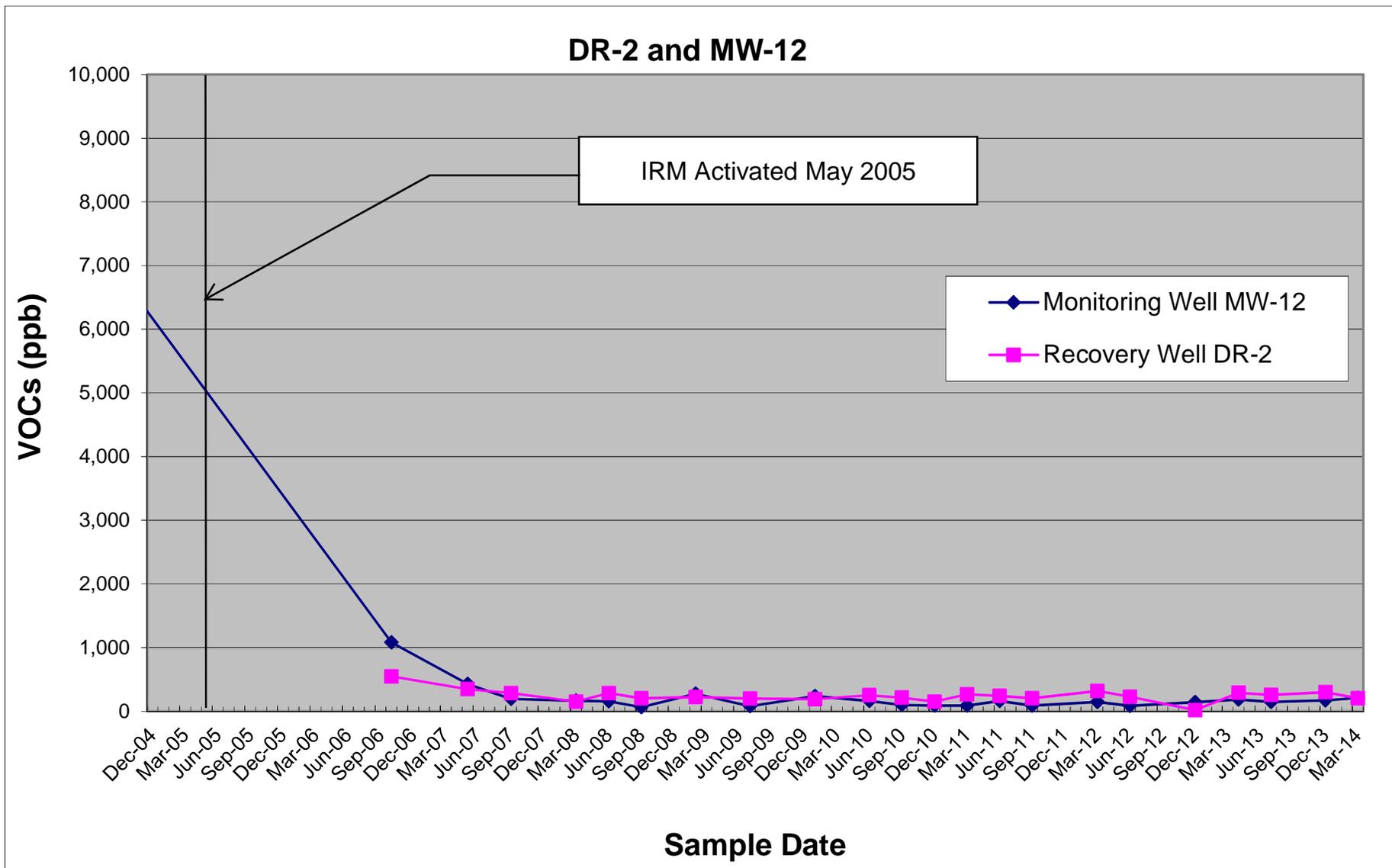


Chart 4: DR-3 Groundwater Volatile Organic Compound Concentrations

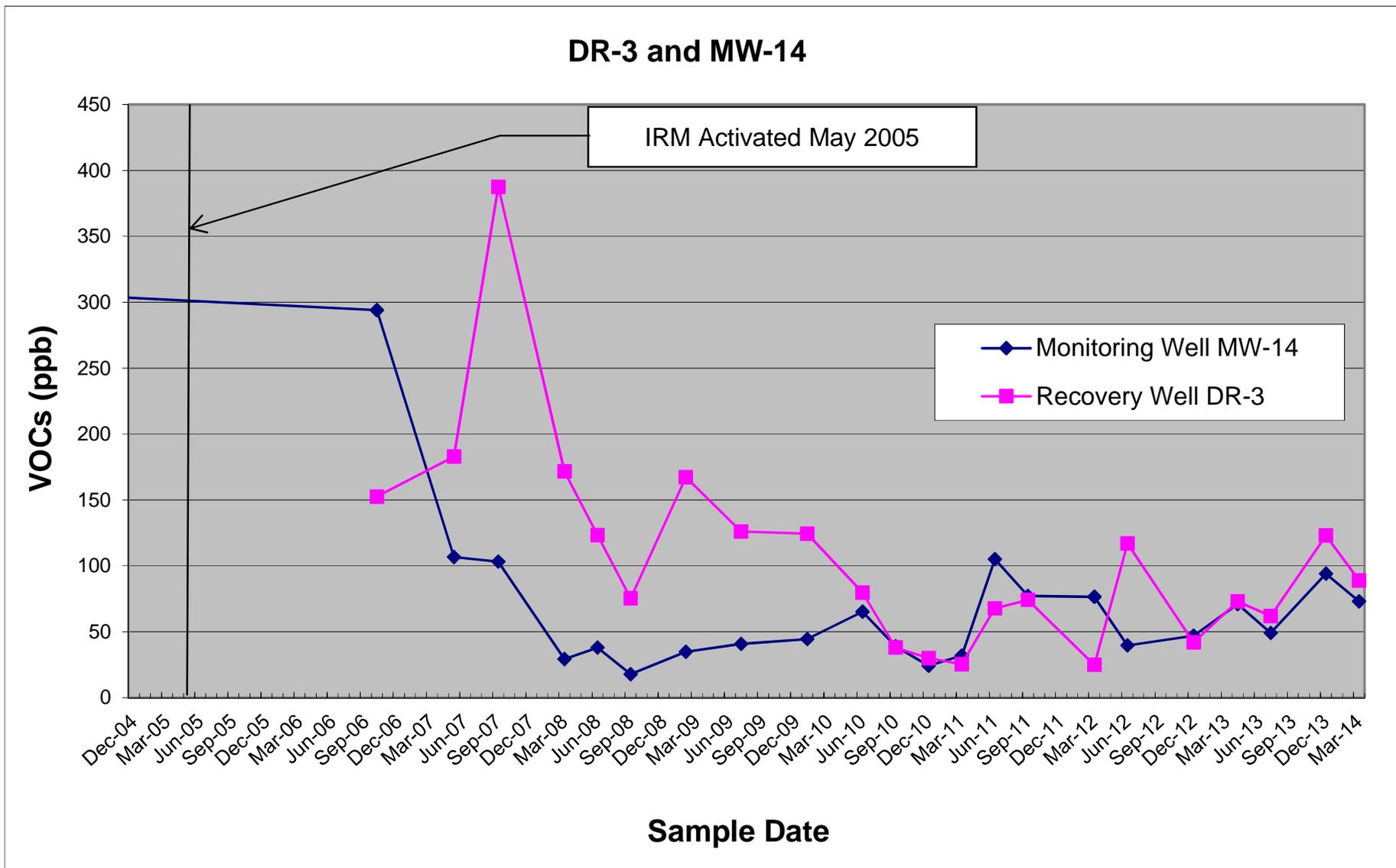


Chart 5: DR-4 Groundwater Volatile Organic Compound Concentrations

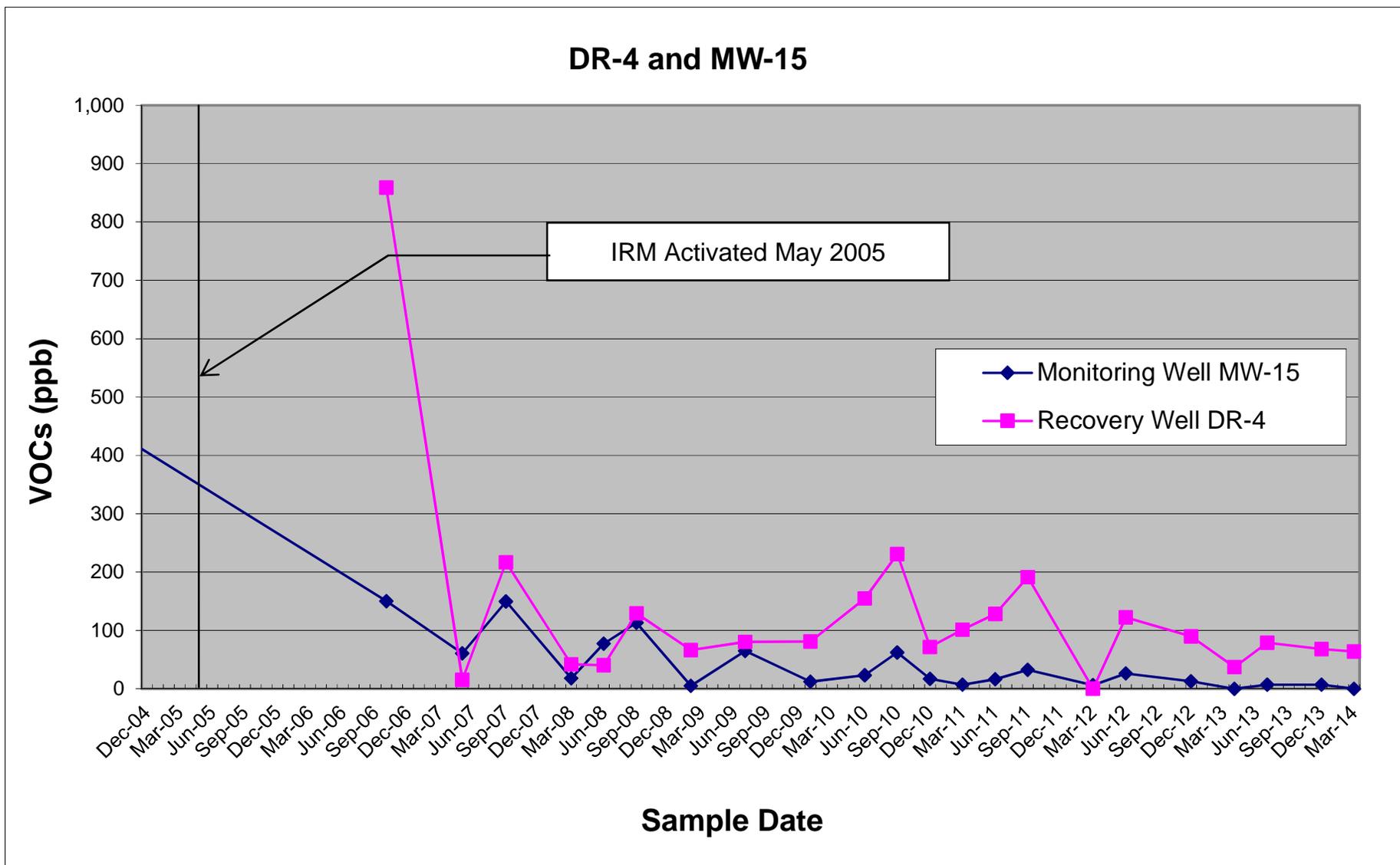


Chart 6: G-1 Groundwater Volatile Organic Compound Concentrations

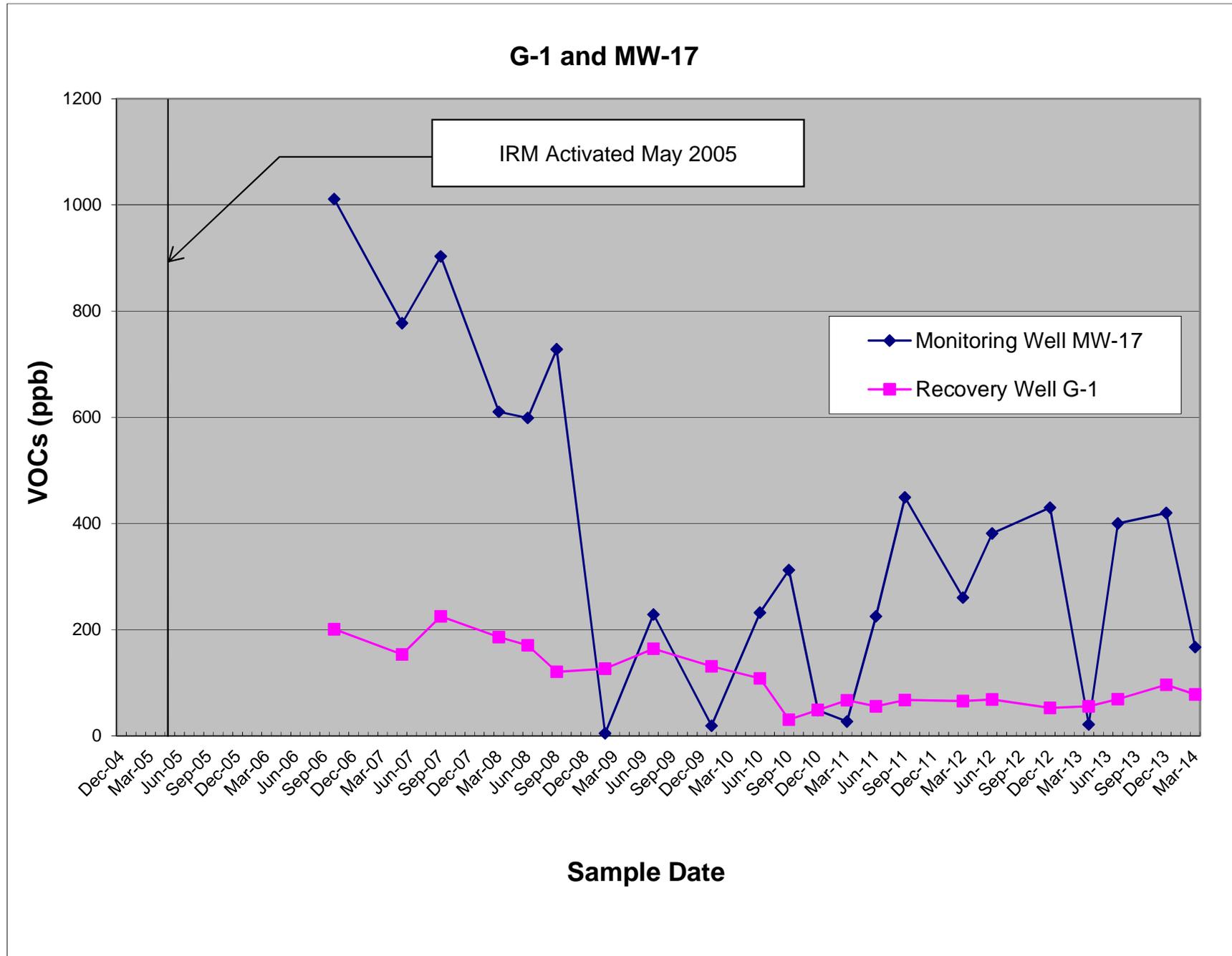


Chart 7: G-2 Groundwater Volatile Organic Compound Concentrations

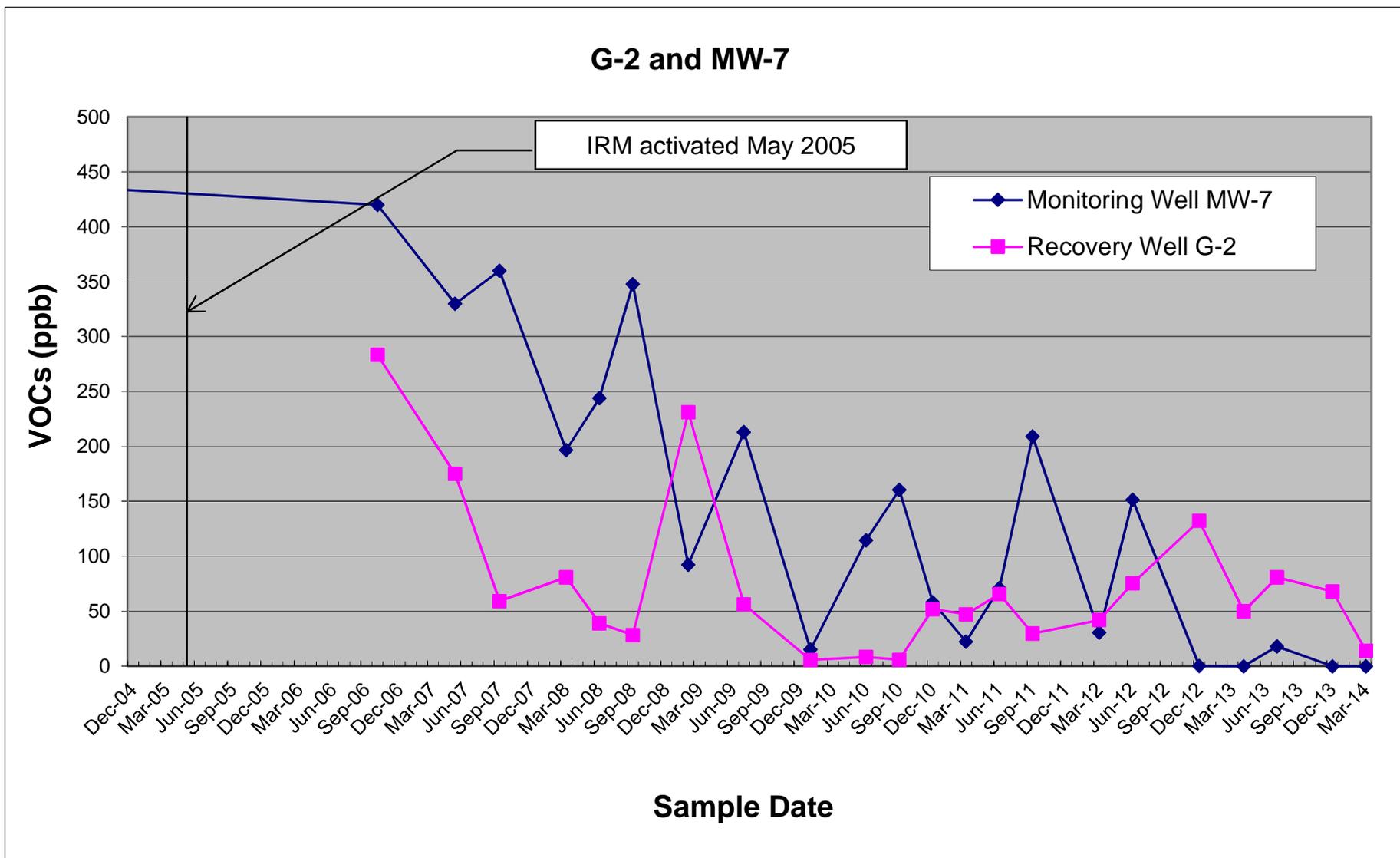
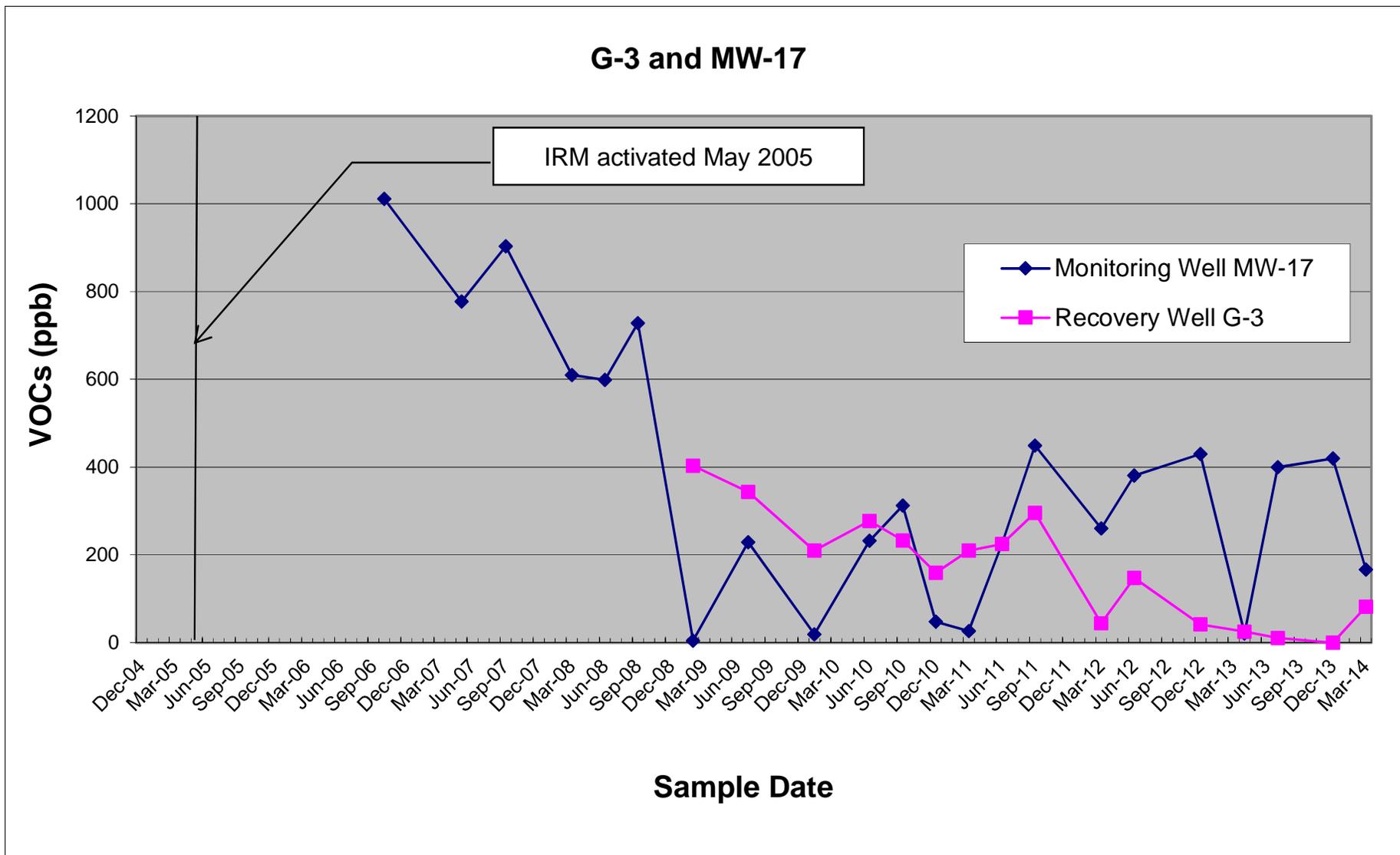


Chart 8: G-3 Groundwater Volatile Organic Compound Concentrations



APPENDIX A
LABORATORY ANALYTICAL RESULTS REPORT
MARCH 2014 SAMPLING EVENT





April 14, 2014

Service Request No: R1402200

Ms. Megan Borruso
Bergmann Associates, Incorporated
200 First Federal Plaza
28 East Main St.
Rochester, NY 14614

Laboratory Results for: Gowanda 3/2014

Dear Ms. Borruso:

Enclosed are the results of the sample(s) submitted to our laboratory on March 28, 2014. For your reference, these analyses have been assigned our service request number **R1402200**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Karen.Bunker@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Karen Bunker
Project Manager

Page 1 of 37

Client: Bergmann Associates
Project: Gowanda 3/14
Sample Matrix: Water

Service Request No.: R1402200
Date Received: 3/28/14

All analyses were performed consistent with the quality assurance program of ALS Environmental (ALS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Twenty-three (23) samples were collected by the client on 3/27-28/14 and received for analysis at ALS on 3/28/14 via client drop off.

Volatile Organics

Twenty-three (23) water samples were analyzed for a client specific list of Volatile Organic compounds by GC/MS method 8260C.

The Initial and Continuing Calibration criteria were met for all samples.

Batch QC is included in the report. All Laboratory Control Sample (LCS) recoveries for target compounds were within QC limits. All Relative Percent Difference (RPD) calculations were acceptable.

All Surrogate recoveries are within acceptance limits.

Hits above the calibration range of the standards are flagged as "E", estimated. The sample is then repeated at the appropriate dilution for the hits. Both sets of data are included in the report. The subsequent hits on the diluted sample are flagged as "D".

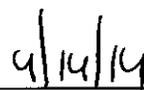
The Laboratory Method Blanks were free from contamination.

No other problems were encountered during the analysis of these samples.

Approved by



Date



00002

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1402200

| <u>Lab ID</u> | <u>Client ID</u> |
|---------------|------------------|
| R1402200-001 | MW-4 |
| R1402200-002 | MW-20 |
| R1402200-003 | MW-19R |
| R1402200-004 | MW-15 |
| R1402200-005 | MW-14 |
| R1402200-006 | MW-18 |
| R1402200-007 | MW-7 |
| R1402200-008 | MW-16 |
| R1402200-009 | MW-6 |
| R1402200-010 | MW-12 |
| R1402200-011 | MW-11 |
| R1402200-012 | MW-1 |
| R1402200-013 | MW-X |
| R1402200-014 | TRIP BLANK |
| R1402200-015 | MW-17 |
| R1402200-016 | DR-2 |
| R1402200-017 | DR-1 |
| R1402200-018 | DR-3 |
| R1402200-019 | DR-4 |
| R1402200-020 | G-1 |
| R1402200-021 | G-2 |
| R1402200-022 | G-3 |
| R1402200-023 | EB |



REPORT QUALIFIERS AND DEFINITIONS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E Organics- Concentration has exceeded the calibration range for that specific analysis.
D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
Spike was diluted out.
+ Correlation coefficient for MSA is <0.995.
N Inorganics- Matrix spike recovery was outside laboratory limits.
N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S Concentration has been determined using Method of Standard Additions (MSA).
W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P Concentration >40% (25% for CLP) difference between the two GC columns.
C Confirmed by GC/MS
Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X See Case Narrative for discussion.
MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Table with 3 columns: State ID, State Name, and State ID #. Rows include Connecticut, Delaware, Florida, Illinois, Maine, Nebraska, Nevada, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, and Virginia.

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads -

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: 3/27/14 1034
 Date Received: 3/28/14
 Date Analyzed: 4/4/14 01:38

Sample Name: MW-4
 Lab Code: R1402200-001

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040314\L3968.D\

Analysis Lot: 386670
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/4/14 01:38 | |
| Dibromofluoromethane | 98 | 89-119 | 4/4/14 01:38 | |
| Toluene-d8 | 99 | 87-121 | 4/4/14 01:38 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/27/14 1100
Date Received: 3/28/14
Date Analyzed: 4/4/14 02:08

Sample Name: MW-20
Lab Code: R1402200-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA6\DATA\040314\L3969.D\

Analysis Lot: 386670
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 95 | 85-122 | 4/4/14 02:08 | |
| Dibromofluoromethane | 98 | 89-119 | 4/4/14 02:08 | |
| Toluene-d8 | 99 | 87-121 | 4/4/14 02:08 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: 3/27/14 1122
 Date Received: 3/28/14
 Date Analyzed: 4/4/14 02:37

Sample Name: MW-19R
 Lab Code: R1402200-003

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040314\L3970.D\

Analysis Lot: 386670
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 4/4/14 02:37 | |
| Dibromofluoromethane | 98 | 89-119 | 4/4/14 02:37 | |
| Toluene-d8 | 101 | 87-121 | 4/4/14 02:37 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/27/14 12:12
Date Received: 3/28/14
Date Analyzed: 4/4/14 03:06

Sample Name: MW-15
Lab Code: R1402200-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\040314\L3971.D\

Analysis Lot: 386670
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/4/14 03:06 | |
| Dibromofluoromethane | 99 | 89-119 | 4/4/14 03:06 | |
| Toluene-d8 | 100 | 87-121 | 4/4/14 03:06 | |



ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: 3/27/14 1232
 Date Received: 3/28/14
 Date Analyzed: 4/4/14 03:35

Sample Name: MW-14
 Lab Code: R1402200-005

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040314\L3972.D\

Analysis Lot: 386670
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 40 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 33 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/4/14 03:35 | |
| Dibromofluoromethane | 100 | 89-119 | 4/4/14 03:35 | |
| Toluene-d8 | 99 | 87-121 | 4/4/14 03:35 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/27/14 1306
Date Received: 3/28/14
Date Analyzed: 4/4/14 04:03

Sample Name: MW-18
Lab Code: R1402200-006

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\040314\L3973.D\

Analysis Lot: 386670
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/4/14 04:03 | |
| Dibromofluoromethane | 102 | 89-119 | 4/4/14 04:03 | |
| Toluene-d8 | 101 | 87-121 | 4/4/14 04:03 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: 3/27/14 1332
 Date Received: 3/28/14
 Date Analyzed: 4/4/14 04:32

Sample Name: MW-7
 Lab Code: R1402200-007

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040314\L3974.D\

Analysis Lot: 386670
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 4/4/14 04:32 | |
| Dibromofluoromethane | 100 | 89-119 | 4/4/14 04:32 | |
| Toluene-d8 | 102 | 87-121 | 4/4/14 04:32 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: 3/27/14 1448
 Date Received: 3/28/14
 Date Analyzed: 4/4/14 05:01

Sample Name: MW-16
 Lab Code: R1402200-008

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040314\L3975.D\

Analysis Lot: 386670
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 24 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 4/4/14 05:01 | |
| Dibromofluoromethane | 100 | 89-119 | 4/4/14 05:01 | |
| Toluene-d8 | 99 | 87-121 | 4/4/14 05:01 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/27/14 1525
Date Received: 3/28/14
Date Analyzed: 4/4/14 05:30

Sample Name: MW-6
Lab Code: R1402200-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\040314\3976.D\

Analysis Lot: 386670
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 94 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 95 | 85-122 | 4/4/14 05:30 | |
| Dibromofluoromethane | 101 | 89-119 | 4/4/14 05:30 | |
| Toluene-d8 | 99 | 87-121 | 4/4/14 05:30 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: 3/27/14 1606
 Date Received: 3/28/14
 Date Analyzed: 4/4/14 05:59

Sample Name: MW-12
 Lab Code: R1402200-010

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040314\L3977.D\

Analysis Lot: 386670
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 210 E | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 6.4 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.8 | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 93 | 85-122 | 4/4/14 05:59 | |
| Dibromofluoromethane | 101 | 89-119 | 4/4/14 05:59 | |
| Toluene-d8 | 99 | 87-121 | 4/4/14 05:59 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/27/14 1606
Date Received: 3/28/14
Date Analyzed: 4/8/14 19:07

Sample Name: MW-12
Lab Code: R1402200-010
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQDATA\MSVOA6\DATA\040814\L4061.D\

Analysis Lot: 387247
Instrument Name: R-MS-06
Dilution Factor: 2

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 200 D | 10 | |
| 156-60-5 | trans-1,2-Dichloroethene | 10 U | 10 | |
| 127-18-4 | Tetrachloroethene (PCE) | 10 U | 10 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 10 U | 10 | |
| 79-01-6 | Trichloroethene (TCE) | 10 U | 10 | |
| 75-01-4 | Vinyl Chloride | 10 U | 10 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 4/8/14 19:07 | |
| Dibromofluoromethane | 99 | 89-119 | 4/8/14 19:07 | |
| Toluene-d8 | 99 | 87-121 | 4/8/14 19:07 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: 3/27/14 1626
 Date Received: 3/28/14
 Date Analyzed: 4/8/14 19:52

Sample Name: MW-11
 Lab Code: R1402200-011

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4062.D\

Analysis Lot: 387247
 Instrument Name: R-MS-06
 Dilution Factor: 2.5

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 300 | 13 | |
| 156-60-5 | trans-1,2-Dichloroethene | 13 U | 13 | |
| 127-18-4 | Tetrachloroethene (PCE) | 13 U | 13 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 13 U | 13 | |
| 79-01-6 | Trichloroethene (TCE) | 500 E | 13 | |
| 75-01-4 | Vinyl Chloride | 13 U | 13 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 93 | 85-122 | 4/8/14 19:52 | |
| Dibromofluoromethane | 101 | 89-119 | 4/8/14 19:52 | |
| Toluene-d8 | 99 | 87-121 | 4/8/14 19:52 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/27/14 1626
Date Received: 3/28/14
Date Analyzed: 4/8/14 17:13

Sample Name: MW-11
Lab Code: R1402200-011
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4057.D\

Analysis Lot: 387247
Instrument Name: R-MS-06
Dilution Factor: 5

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 270 D | 25 | |
| 156-60-5 | trans-1,2-Dichloroethene | 25 U | 25 | |
| 127-18-4 | Tetrachloroethene (PCE) | 25 U | 25 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 25 U | 25 | |
| 79-01-6 | Trichloroethene (TCE) | 440 D | 25 | |
| 75-01-4 | Vinyl Chloride | 25 U | 25 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 92 | 85-122 | 4/8/14 17:13 | |
| Dibromofluoromethane | 101 | 89-119 | 4/8/14 17:13 | |
| Toluene-d8 | 101 | 87-121 | 4/8/14 17:13 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: 3/27/14 1656
 Date Received: 3/28/14
 Date Analyzed: 4/9/14 02:14

Sample Name: MW-1
 Lab Code: R1402200-012

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4075.D\

Analysis Lot: 387873
 Instrument Name: R-MS-06
 Dilution Factor: 5

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 190 | 25 | |
| 156-60-5 | trans-1,2-Dichloroethene | 25 U | 25 | |
| 127-18-4 | Tetrachloroethene (PCE) | 25 U | 25 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 25 U | 25 | |
| 79-01-6 | Trichloroethene (TCE) | 800 | 25 | |
| 75-01-4 | Vinyl Chloride | 25 U | 25 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 4/9/14 02:14 | |
| Dibromofluoromethane | 104 | 89-119 | 4/9/14 02:14 | |
| Toluene-d8 | 102 | 87-121 | 4/9/14 02:14 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/27/14
Date Received: 3/28/14
Date Analyzed: 4/8/14 17:42

Sample Name: MW-X
Lab Code: R1402200-013

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4058.D\

Analysis Lot: 387247
Instrument Name: R-MS-06
Dilution Factor: 5

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 190 | 25 | |
| 156-60-5 | trans-1,2-Dichloroethene | 25 U | 25 | |
| 127-18-4 | Tetrachloroethene (PCE) | 25 U | 25 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 25 U | 25 | |
| 79-01-6 | Trichloroethene (TCE) | 800 | 25 | |
| 75-01-4 | Vinyl Chloride | 25 U | 25 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/8/14 17:42 | |
| Dibromofluoromethane | 101 | 89-119 | 4/8/14 17:42 | |
| Toluene-d8 | 100 | 87-121 | 4/8/14 17:42 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/28/14
Date Received: 3/28/14
Date Analyzed: 4/8/14 12:41

Sample Name: TRIP BLANK
Lab Code: R1402200-014

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4048.D\

Analysis Lot: 387247
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 4/8/14 12:41 | |
| Dibromofluoromethane | 97 | 89-119 | 4/8/14 12:41 | |
| Toluene-d8 | 99 | 87-121 | 4/8/14 12:41 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/28/14 0851
Date Received: 3/28/14
Date Analyzed: 4/9/14 00:44

Sample Name: MW-17
Lab Code: R1402200-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4072.D\

Analysis Lot: 387873
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 110 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 57 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 4/9/14 00:44 | |
| Dibromofluoromethane | 103 | 89-119 | 4/9/14 00:44 | |
| Toluene-d8 | 102 | 87-121 | 4/9/14 00:44 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: 3/28/14 0938
 Date Received: 3/28/14
 Date Analyzed: 4/9/14 01:13

Sample Name: DR-2
 Lab Code: R1402200-016

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4073.D\

Analysis Lot: 387873
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 170 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 31 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.9 | | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/9/14 01:13 | |
| Dibromofluoromethane | 100 | 89-119 | 4/9/14 01:13 | |
| Toluene-d8 | 99 | 87-121 | 4/9/14 01:13 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: 3/28/14 1000
 Date Received: 3/28/14
 Date Analyzed: 4/8/14 14:40

Sample Name: DR-1
 Lab Code: R1402200-017

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQU\DATA\MSVOA6\DATA\040814\L4052.D\

Analysis Lot: 387247
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 39 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 93 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 95 | 85-122 | 4/8/14 14:40 | |
| Dibromofluoromethane | 103 | 89-119 | 4/8/14 14:40 | |
| Toluene-d8 | 100 | 87-121 | 4/8/14 14:40 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/28/14 1022
Date Received: 3/28/14
Date Analyzed: 4/8/14 15:09

Sample Name: DR-3
Lab Code: R1402200-018

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4053.D\

Analysis Lot: 387247
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 56 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 33 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 4/8/14 15:09 | |
| Dibromofluoromethane | 102 | 89-119 | 4/8/14 15:09 | |
| Toluene-d8 | 100 | 87-121 | 4/8/14 15:09 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: 3/28/14 11:14
 Date Received: 3/28/14
 Date Analyzed: 4/8/14 14:07

Sample Name: DR-4
 Lab Code: R1402200-019

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4051.D\

Analysis Lot: 387247
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 14 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 50 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/8/14 14:07 | |
| Dibromofluoromethane | 100 | 89-119 | 4/8/14 14:07 | |
| Toluene-d8 | 100 | 87-121 | 4/8/14 14:07 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/28/14 1134
Date Received: 3/28/14
Date Analyzed: 4/8/14 15:37

Sample Name: G-1
Lab Code: R1402200-020

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\4054.D\

Analysis Lot: 387247
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result Q | MRL | Note |
|----------|-----------------------------|----------|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 69 | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 8.7 | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 95 | 85-122 | 4/8/14 15:37 | |
| Dibromofluoromethane | 100 | 89-119 | 4/8/14 15:37 | |
| Toluene-d8 | 101 | 87-121 | 4/8/14 15:37 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/28/14 1154
Date Received: 3/28/14
Date Analyzed: 4/8/14 16:45

Sample Name: G-2
Lab Code: R1402200-021

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4056.D\

Analysis Lot: 387247
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 14 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 94 | 85-122 | 4/8/14 16:45 | |
| Dibromofluoromethane | 102 | 89-119 | 4/8/14 16:45 | |
| Toluene-d8 | 101 | 87-121 | 4/8/14 16:45 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: 3/28/14 1234
Date Received: 3/28/14
Date Analyzed: 4/8/14 13:38

Sample Name: G-3
Lab Code: R1402200-022

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4050.D\

Analysis Lot: 387247
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 55 | | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 27 | | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/8/14 13:38 | |
| Dibromofluoromethane | 101 | 89-119 | 4/8/14 13:38 | |
| Toluene-d8 | 99 | 87-121 | 4/8/14 13:38 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: 3/28/14 1725
 Date Received: 3/28/14
 Date Analyzed: 4/8/14 13:10

Sample Name: EB
 Lab Code: R1402200-023

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4049.D\

Analysis Lot: 387247
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 93 | 85-122 | 4/8/14 13:10 | |
| Dibromofluoromethane | 101 | 89-119 | 4/8/14 13:10 | |
| Toluene-d8 | 101 | 87-121 | 4/8/14 13:10 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: NA
Date Received: NA
Date Analyzed: 4/4/14 00:39

Sample Name: Method Blank
Lab Code: RQ1403405-05

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\MSVOA6\DATA\040314\L3966.D\

Analysis Lot: 386670
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 97 | 85-122 | 4/4/14 00:39 | |
| Dibromofluoromethane | 100 | 89-119 | 4/4/14 00:39 | |
| Toluene-d8 | 100 | 87-121 | 4/4/14 00:39 | |

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Collected: NA
 Date Received: NA
 Date Analyzed: 4/8/14 12:02

Sample Name: Method Blank
 Lab Code: RQ1403500-04

Units: µg/L
 Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
 Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4047.D\

Analysis Lot: 387247
 Instrument Name: R-MS-06
 Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 92 | 85-122 | 4/8/14 12:02 | |
| Dibromofluoromethane | 101 | 89-119 | 4/8/14 12:02 | |
| Toluene-d8 | 101 | 87-121 | 4/8/14 12:02 | |

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda 3/2014
Sample Matrix: Water

Service Request: R1402200
Date Collected: NA
Date Received: NA
Date Analyzed: 4/9/14 00:14

Sample Name: Method Blank
Lab Code: RQ1403514-05

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\040814\L4071.D\

Analysis Lot: 387873
Instrument Name: R-MS-06
Dilution Factor: 1

| CAS No. | Analyte Name | Result | Q | MRL | Note |
|----------|-----------------------------|--------|---|-----|------|
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | |
| 127-18-4 | Tetrachloroethene (PCE) | 5.0 | U | 5.0 | |
| 71-55-6 | 1,1,1-Trichloroethane (TCA) | 5.0 | U | 5.0 | |
| 79-01-6 | Trichloroethene (TCE) | 5.0 | U | 5.0 | |
| 75-01-4 | Vinyl Chloride | 5.0 | U | 5.0 | |

| Surrogate Name | %Rec | Control Limits | Date Analyzed | Q |
|----------------------|------|----------------|---------------|---|
| 4-Bromofluorobenzene | 96 | 85-122 | 4/9/14 00:14 | |
| Dibromofluoromethane | 100 | 89-119 | 4/9/14 00:14 | |
| Toluene-d8 | 102 | 87-121 | 4/9/14 00:14 | |

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
 Project: Gowanda 3/2014
 Sample Matrix: Water

Service Request: R1402200
 Date Analyzed: 4/3/14

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
 Basis: NA

Analysis Lot: 386670

| Analyte Name | Lab Control Sample RQ1403405-03 | | | Duplicate Lab Control Sample RQ1403405-04 | | | % Rec Limits | RPD | RPD Limit |
|-----------------------------|------------------------------------|-----------------|-------|--|-----------------|-------|-----------------|-----|--------------|
| | Result | Spike Amount | % Rec | Result | Spike Amount | % Rec | | | |
| cis-1,2-Dichloroethene | 20.8 | 20.0 | 104 | 20.7 | 20.0 | 103 | 77 - 123 | <1 | 30 |
| trans-1,2-Dichloroethene | 20.2 | 20.0 | 101 | 20.8 | 20.0 | 104 | 72 - 120 | 3 | 30 |
| Tetrachloroethene (PCE) | 18.5 | 20.0 | 93 | 19.6 | 20.0 | 98 | 71 - 127 | 6 | 30 |
| 1,1,1-Trichloroethane (TCA) | 20.5 | 20.0 | 102 | 20.6 | 20.0 | 103 | 67 - 121 | <1 | 30 |
| Trichloroethene (TCE) | 20.6 | 20.0 | 103 | 20.9 | 20.0 | 104 | 75 - 122 | 1 | 30 |
| Vinyl Chloride | 19.7 | 20.0 | 98 | 20.0 | 20.0 | 100 | 68 - 139 | 2 | 30 |

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

| Project Name <i>Gowanda Day Hub</i> | | Project Number <i>6974.76</i> | | ANALYSIS REQUESTED (Include Method Number and Container Preservative) | | | | | | | | | | | | | | |
|---|----------------------------|---|-------------------------|--|---------------------|---------------------|--|---|--|--------------|--|---|--|-------------|--|---|--|-------------|
| Project Manager <i>Megan Borruso</i> | | Report CC | | PRESERVATIVE | | | | | | | | | | | | | | |
| Company Address <i>Bergmann Associates</i> | | NUMBER OF CONTAINERS | | <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> GC/MS VOA's • 8280 • 829 • 829 • CLP GC/MS SVOA's • 8270 • 825 GC VOA's • 8021 • 801/802 PESTICIDES • 8081 • 808 PCBs • 8082 • 808 METALS: TOTAL (List in comments below) METALS: DISSOLVED (List in comments below) </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> SITE SPECIFIC </div> </div> | | | | | | | | | | | | Preservative Key 0. NONE 1. HCL 3. HNO ₃ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO ₄ 8. Other _____ | | |
| Company Address <i>28 E. Main St 200 First Federal Plaza</i> | | | | | | | | | | | | | | | | | | |
| Company Address <i>Rochester, NY 14614</i> | | | | | | | | | | | | | | | | | | |
| Phone # <i>585 232 5137 x204</i> | | Email <i>mborruso@bergmannpc.com</i> | | REMARKS/ ALTERNATE DESCRIPTION | | | | | | | | | | | | | | |
| Sampler's Signature <i>Megan E. Borruso</i> | | Sampler's Printed Name <i>Megan E. Borruso</i> | | | | | | | | | | | | | | | | |
| CLIENT SAMPLE ID | FOR OFFICE USE ONLY LAB ID | SAMPLING DATE TIME | | MATRIX | | | | | | | | | | | | | | |
| <i>MW-1</i> | <i>-012</i> | <i>3/27/2014</i> | <i>16:56</i> | <i>AQ GW</i> | <i>3</i> | <i>X</i> | | | | | | | | | | | | |
| <i>MW-X</i> | <i>-013</i> | <i>3/27/2014</i> | <i>---</i> | <i>AQ GW</i> | <i>3</i> | <i>X</i> | | | | | | | | | | | | |
| <i>AW-3</i> | <i>-014</i> | <i>3/27/2014</i> | <i>17:15</i> | <i>AQ GW</i> | <i>3</i> | <i>X</i> | | | | | | | | | | | | |
| <i>Trip Blank</i> | <i>-014</i> | <i>3/28/2014</i> | <i>---</i> | <i>AQ GW</i> | <i>3</i> | <i>X</i> | | | | | | | | | | | | |
| <i>MW-17</i> | <i>-015</i> | <i>3/28/2014</i> | <i>08:51</i> | <i>AQ GW</i> | <i>3</i> | <i>X</i> | | | | | | | | | | | | |
| <i>DR-2</i> | <i>-016</i> | <i>3/28/2014</i> | <i>09:38</i> | <i>AQ GW</i> | <i>3</i> | <i>X</i> | | | | | | | | | | | | |
| <i>DR-1</i> | <i>-017</i> | <i>3/28/2014</i> | <i>10:00</i> | <i>AQ GW</i> | <i>3</i> | <i>X</i> | | | | | | | | | | | | |
| <i>DR-3</i> | <i>-018</i> | <i>3/28/2014</i> | <i>10:22</i> | <i>AQ GW</i> | <i>3</i> | <i>X</i> | | | | | | | | | | | | |
| <i>DR-4</i> | <i>-019</i> | <i>3/28/2014</i> | <i>11:14</i> | <i>AQ GW</i> | <i>3</i> | <i>X</i> | | | | | | | | | | | | |
| <i>G-1</i> | <i>-020</i> | <i>3/28/2014</i> | <i>11:34</i> | <i>AQ GW</i> | <i>3</i> | <i>X</i> | | | | | | | | | | | | |
| <i>G-2</i> | <i>-021</i> | <i>3/28/2014</i> | <i>11:54</i> | <i>AQ GW</i> | <i>3</i> | <i>X</i> | | | | | | | | | | | | |
| SPECIAL INSTRUCTIONS/COMMENTS <i>Metals</i> | | | | TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day 10 DAY TAT REQUESTED REPORT DATE _____ | | | | REPORT REQUIREMENTS I. Results Only II. Results + OC Summaries (LCS, DUP, MS/MSD as required) III. Results + OC and Calibration Summaries IV. Data Validation Report with Raw Data Edata Yes _____ | | | | INVOICE INFORMATION PO # _____ BILL TO: _____ | | | | | | |
| See QAPP <input type="checkbox"/> | | | | STATE WHERE SAMPLES WERE COLLECTED <i>Gowanda, NY</i> | | | | <div style="border: 2px solid black; padding: 5px; display: inline-block;"> R1402200 5 Bergmann Associates, Incorporated Gowanda 3/2014 </div> | | | | | | | | | | |
| RELINQUISHED BY <i>Megan E. Borruso</i> | | RECEIVED BY <i>Daniel W.C.</i> | | | | | | | | | | RELINQUISHED BY | | RECEIVED BY | | RELINQUISHED BY | | RECEIVED BY |
| Signature | | Signature | | Signature | | Signature | | Signature | | Signature | | | | | | | | |
| Printed Name <i>Bergmann Associates</i> | | Printed Name <i>ALS</i> | | Printed Name | | Printed Name | | Printed Name | | Printed Name | | | | | | | | |
| Firm <i>3/28/2014 16:48</i> | | Firm <i>57814/1644</i> | | Firm | | Firm | | Firm | | Firm | | | | | | | | |
| Date/Time | | Date/Time | | Date/Time | | Date/Time | | Date/Time | | Date/Time | | | | | | | | |



Cooler Receipt and Preservation Check Form

Project/Client Bergmann Folder Number R1402200

Cooler received on 3/28/14 by: oh COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
5. Were ~~Ice~~ or Ice packs present? YES NO
6. Where did the bottles originate? ALS/ROC, CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
8. Temperature of cooler(s) upon receipt: 51°

Is the temperature within 0° - 6° C?: N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 3/28/14 / 1652

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location R-002 by oh on 3/28/14 at 1652
 5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: 10B 3/31/14

Cooler Breakdown: Date: 3/31/14 Time: 1030 by: AD

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

| pH | Reagent | | | Lot Received | Exp | Sample ID | Vol. Added | Lot Added | Final pH | Yes = All samples OK No = Samples were preserved at lab as listed PM OK to Adjust: |
|-----------------------|---|-----|----|---|-------------|-----------|------------|-----------|----------|---|
| | | YES | NO | | | | | | | |
| ≥12 | NaOH | | | | | | | | | |
| ≤2 | HNO ₃ | | | | | | | | | |
| ≤2 | H ₂ SO ₄ | | | | | | | | | |
| <4 | NaHSO ₄ | | | | | | | | | |
| Residual Chlorine (-) | For TCN Phenol and 522 | | | If present, contact PM to add ascorbic acid Or sodium sulfite (522) | | | | | | *Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet |
| | Na ₂ S ₂ O ₃ | - | - | | | | | | | |
| | Zn Aceta | - | - | | | | | | | |
| | HCl | * | * | <u>4/12/2011</u> | <u>3/15</u> | | | | | |

Bottle lot numbers: 4-002-003

Other Comments:

PC Secondary Review: 10B 4/14/14

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

APPENDIX B
IC/EC CHECKLIST





Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 Site Management Periodic Review Report Notice
 Institutional and Engineering Controls Certification Form



| | Site Details | Box 1 |
|--|--------------|--|
| Site No. V00463 | | |
| Site Name Gowanda Day Habilitation Center | | |
| Site Address: 4 Industrial Place Zip Code: 14070 | | |
| City/Town: Gowanda | | |
| County: Cattaraugus | | |
| Site Acreage: 5.9 | | |
| Reporting Period: April 06, 2012 to April 06, 2014 | | |
| | | YES NO |
| 1. Is the information above correct? | | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| If NO, include handwritten above or on a separate sheet. | | |
| 2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period? | | <input type="checkbox"/> <input checked="" type="checkbox"/> |
| 3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? | | <input type="checkbox"/> <input checked="" type="checkbox"/> |
| 4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? | | <input type="checkbox"/> <input checked="" type="checkbox"/> |
| If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form. | | |
| 5. Is the site currently undergoing development? | | <input type="checkbox"/> <input checked="" type="checkbox"/> |
| | | Box 2 |
| | | YES NO |
| 6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial | | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 7. Are all ICs/ECs in place and functioning as designed? | | <input type="checkbox"/> <input checked="" type="checkbox"/> |
| IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue. | | |
| A Corrective Measures Work Plan* must be submitted along with this form to address these issues. | | |
| <u>Megan E. Borruso</u> Signature of Owner, Remedial Party or Designated Representative | | <u>4/29/2014</u> Date |
| * Work Plan submitted. Pending final NYSDEC Approval. | | |

SITE NO. V00463

Box 3

Description of Institutional Controls

Parcel

Owner

Institutional Control

16.027-2-11

NY State OPWDD

Ground Water Use Restriction
Soil Management Plan
Building Use Restriction

Site is deed restricted with an SMP (2/22/2008). There is use restriction for industrial and commercial, excluding, medical and day care services. Further restriction is that a sub-slab vapor mitigation system is required before occupancy.

Box 4

Description of Engineering Controls

Parcel

Engineering Control

16.027-2-11

Groundwater Treatment System
Vapor Mitigation

Dual phase soil vapor and groundwater pump and treat with pneumatic high vacuum pumps. Treatment is by best available technology, currently air stripping with carbon treatment of exhaust gas. Treated water is passed to the municipal treatment facility.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. V00463

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Megan E. Borruso at 28 E. Main St. Suite 200 Rochester NY
print name print business address 14614

am certifying as Owner Representative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Megan E. Borruso
Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

4/29/14
Date

IC/EC CERTIFICATIONS

Box 7

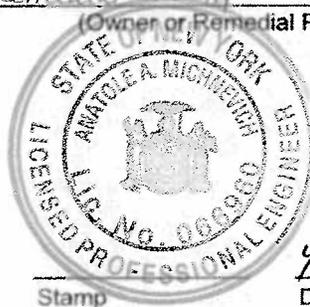
Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Alex Michnevich at 28 E. Main St Suite 200 Rochester NY, 14614
print name print business address

am certifying as a Professional Engineer for the Remedial Party
(Owner or Remedial Party)


Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification



Stamp
(Required for PE)

4/29/14
Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

- I. Executive Summary: (1/2-page or less)
 - A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
 - B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
 1. progress made during the reporting period toward meeting the remedial objectives for the site
 2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
 - C. Compliance
 1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
 2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
 - D. Recommendations
 1. recommend whether any changes to the SMP are needed
 2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
 3. recommend whether the requirements for discontinuing site management have been met.

- II. Site Overview (one page or less)
 - A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
 - B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

- III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

- IV. IC/EC Plan Compliance Report (if applicable)
 - A. IC/EC Requirements and Compliance
 1. Describe each control, its objective, and how performance of the control is evaluated.
 2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
 3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
 4. Conclusions and recommendations for changes.
 - B. IC/EC Certification
 1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

- V. Monitoring Plan Compliance Report (if applicable)
 - A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
 - B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
 - C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
 - D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
 - E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

- VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
 - A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
 - B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
 - C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as

designed/expected.

- D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.
- E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

- A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
 - 1. whether all requirements of each plan were met during the reporting period
 - 2. any requirements not met
 - 3. proposed plans and a schedule for coming into full compliance.
- B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.
- C. Future PRR Submittals
 - 1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
 - 2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

VILLAGE OF GOWANDA

"Gateway to the Southern Tier"

27 E Main Street ♦ Gowanda NY 14070

(716)532-3353 ♦ Fax (716)532-2938

"The Village of Gowanda is an Equal Opportunity Provider and Employer."

December 13, 2010

New York State OPWDD
1200 East & West Road
West Seneca, NY 14224

Attn: Fred Monaco

Re: VOC Groundwater Treatment Agreement

Dear Mr. Monaco:

Enclosed please find three copies of the VOC Groundwater Treatment Agreement which have been executed by the Village of Gowanda. Please have these documents duly executed and return one to this office for our records.

If you have any questions, do not hesitate to contact this office.

Very truly yours,

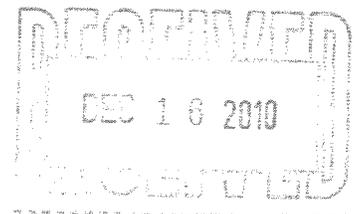


Richard L. Klancer

Mayor

Encs.

cc: Richard Buckey, NYS Dormitory Authority
Michael Carpenter, Bergmann Associates



Mayor: Richard Klancer ♦ Trustees: Heather McKeever ♦ John Certis ♦ Carol Sheibley ♦ Dale DeCarlo

Supt of Public Works: Michael Hutchinson ♦ Village Clerk: Kathleen Mohawk ♦ Treasurer: Cindy Schilling

Attorney for the Village: Deborah Chadsey ♦ Building Inspector/Code Enforcement: Gary Brecker ♦ Assessor: George Stark

Officer In Charge: Joseph Alessi ♦ Highway Supt: John Coudrey ♦ Water Supt: Carl Sternisha

VOC GROUND WATER TREATMENT AGREEMENT

This Agreement made this _____ day of _____ 2010, by and between the following parties:

VILLAGE OF GOWANDA, NEW YORK
A Municipal Corporation with its principal place
Of business located at 27 East Main Street
Gowanda, New York 14070
Hereinafter sometimes called "**Village**",
Party of the First Part

AND

New York State
Office of People With Developmental Disabilities
With Offices located at 1200 East & West Roads
West Seneca, New York 14224
Hereinafter sometimes called 'OPWDD'
Party of the Second Part

WHEREAS, the **Village** has offered to accept, manage and treat in an environmentally sound manner the VOC Ground Water Extraction effluent generated in connection with a system installed by OPWDD to recover chemicals that are underground on the property owned by OPWDD as part of a voluntary clean-up Agreement with the New York State Department of Environmental Conservation; and

WHEREAS, the Village Board of Trustees of the Village of Gowanda has authorized a municipal Agreement for the acceptance and treatment of the untreated ground water at the Gowanda Sewage Treatment Plant pursuant to a resolution passed on March 22, 2005.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. **Service.** The **Village** shall accept, treat, and dispose of in an environmentally sound manner Untreated Ground Water generated at the OPWDD Facility owned and operated at 4 Industrial Place in the Village of Gowanda, provided:
 - a) That the untreated ground water is not regular sanitary waste water from the OPWDD building;
 - b) That untreated groundwater discharge does not violate any requirements of the user permit or any type of regulations either from the NYS Department of Environmental Conservation or from the Environmental Protection Agency;
 - c) That gallons shall not exceed ten thousand (10,000) gallons per day;

- d) The discharge meets the limit set in the OPWDD User Permit dated March 24, 2007, or any future limits set by the Village or any other agency having jurisdiction.

OPWDD shall be responsible for any necessary testing. It will be the OPWDD's sole responsibility to safely deliver the untreated ground water to the point where it enters the Gowanda Sewer Treatment System. OPWDD shall deliver no untreated ground water to the Village Sewer lines which is hazardous waste, as now or hereinafter defined or listed by Federal, State or Local laws or regulations or would pose a threat to the Village employees or to the physical integrity of the Village's facility or in a way interfere with the operations of the sewage treatment plant. The Village has the right to test any discharge and reject any discharge which has any characteristics which render it untreatable at its facilities or might cause its discharge permit to be violated or which exceeds the parameters set by the Village, State or Federal Regulations. The failure of the Village to reject any such discharge shall not in any way relieve or diminish OPWDD's liabilities to the Village for any damages the Village may incur as a result of the discharge being in violation of any provisions of this paragraph.

2. **Payment** During this Agreement, the treatment rate shall be \$2.52 per thousand gallons with a minimum charge of \$2.52 per day for the discharge from underground sources, which is the source of a voluntary clean-up agreement with the New York State Department of Environmental Conservation. The rate of \$1.95 per thousand may be changed on thirty (30) days notice to OPWDD.

Payment for the untreated ground water discharge will be made by OPWDD on a quarterly billing by the Village of Gowanda. Any future rate increases will be based on increased operation and maintenance expenses incurred by the Village to treat the leachate.

3. **Term** This Agreement shall commence on _____ and shall terminate on _____ with the \$2.52 per thousand gallons rate becoming the cost of treatment of the untreated ground water per day of discharge provided the Village of Gowanda does not notify the customer, (OPWDD), that a higher rate will apply. The Village of Gowanda reserves the right to terminate this Agreement in the event that there are any violations of any Village, State or Federal regulations. This Agreement is renewable for additional five (5) year periods, as long as OPWDD is subject to a referenced voluntary clean-up agreement with the DEC.

4. **Reports/Monitoring.**

4.1 OPWDD agrees to monitor its discharge as outlined in the permit at OPWDD'S expense issued by the Village of Gowanda. All monitoring expenses are to be paid by OPWDD.

4.2 Reports shall be submitted to the Village as required in the User Permit in a form suitable for direct submittal to any Regulatory Agency requiring reports from the Village on OPWDD's ground water treatment discharge. (NYSDEC FROSI report form).

4.3 OMTFF shall monitor for all parameters required by DEC, EPA or the Village, and at the frequency requested by any of the above mentioned agencies or any other agency having jurisdiction over OPWDD'S discharge.

4.4 If, as a result of OPWDD's discharge, the Village is required to do additional monitoring or reporting on the **Village** WWTP Discharge, OPWDD shall reimburse the Village for all cost required to do so.

5. **Indemnification** DEC shall indemnify and hold harmless the **Village** from any liability, claim, demand or judgment, including the cost of defense, arising from or relating to the **Village's** treatment of the discharge generated by OPWDD as described above, except to the extent any such liability, claim, demand or judgment is arising from or relating to the **Village's** acts or omissions.

Any responsibility for indemnification arising from any events occurring during the term of this Agreement that may be subject to indemnification under this paragraph shall survive the termination of this Agreement.

6. **Statutory Compliance.** OPWDD shall obtain all necessary State and/or Federal permits for the treatment and disposal of such discharge at and from the pretreatment works at its facility and any other permits or licenses for the proper performance of this Agreement. All statutory provisions applicable to this Agreement are hereby incorporated by reference.

If OPWDD'S discharge does not meet limits set by the **Village**, EPA, DEC, or any other Regulatory Agency having jurisdiction over OPWDD'S discharge, the **Village** may initiate enforcement actions, prohibit discharge, or impose a penalty of up to One Thousand (\$1,000) Dollars per day if OPWDD is determined to be in significant Non-Compliance in accordance with 40 CFR part 403.8 as follows:

A) Chronic violations of waste-water discharge limit, when sixty-six (66%) percent or more of all measurements taken during a 6-month period exceed the permit limit. For TTO, OPWDD would have to exceed the daily maximum of 1.37 mg/l more than 120 days in a six-month period in SNC.

B) Technical Review Criteria (TRC) violations, when 33% or more of all measurements taken during a 6-month period equal or exceed the permit limit multiplied by the applicable TRC factor (vix 1.2 for TTO). For TTO OPWDD would have to exceed 1.64/mg/l (1.37 x 1.2) more than 60 days in a 6-month period to be considered in SNC.

C) Any violation that is determined to have caused POTW interference or pass through (including endangering the health of POTW's personnel or general public.)

D) Any discharge that causes imminent endangerment of human health, welfare or the environment or has resulted in the POTW's exercise of its emergency authority to halt or prevent such a discharge.

E) Failure to meet within ninety (90) days after the schedule, a compliance schedule milestone required due to events, subject to Paragraph 6.

7. **Non-Discrimination.** The **Village** will not discriminate or permit discrimination against any individual or group on the grounds of age, race, creed, color, national origin, sex, religion, disability or marital status.

8. Amendments. No waiver, modification or amendment of this Agreement or any part thereof shall be valid unless in writing and duly executed by both parties. A waiver of any breach hereof shall not prevent a forfeiture for any succeeding breach.

9. Entire Agreement: This Agreement contains the sole and entire agreement between the parties relating to the services provided hereunder and shall supersede any and all other agreements between the parties except user permits dated _____ or subsequent user permits. Any other statements or representations made by either party are void and have no force or effect.

11. Binding Agreement This Agreement shall apply to the current OPWDD operation as it is defined in the Gowanda Municipal Code Section 46.112E.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first set forth above.

VILLAGE OF GOWANDA

BY: Richard L. Klancer
Richard L. Klancer / Mayor

DATED: 12/7/10

Office of Mental Retardation Developmental Disabilities

BY: _____
Agency Representative

DATED: _____

State of New York)
County of Cattaraugus) ss:

On this 7th day of December, 2010, before me personally came RICHARD L. KLANCER, to me known who being by me duly sworn did depose and say that he resides in Gowanda, New York; that he is the Mayor of the Village of Gowanda, the corporation described in and which executed the within instrument; that he knows the seal of said corporation; that the seal affixed to said Instrument is such corporate seal; that it was so affixed by order of the Board of Trustees of said corporation and that he signed his name by like order.

Kathleen V. Mohawk
Notary Public

KATHLEEN V. MOHAWK
Notary Public, State of New York
No. 01MO0048168
Qualified in Erie County
Commission Expires Sept. 18, 2014

State of New York)
County of Cattaraugus) ss:

On this _____ day of _____, 2010, before me personally came _____ to me known who being by me duly sworn did depose and say that he resides at _____, and that he is _____ of New York State DEC, the corporation which executed the within Instrument; that he knows the seal of said corporation; that the seal affixed to said Instrument is such corporate seal; that it was so affixed by Order of the Board of Directors of said corporation; and that he signed his name hereto by like order.

Notary Public

SCHEDULE A

**Specific and General Conditions to
Draft Modified Industrial Discharge Permit #00010**

(Modified September 10, 2010)

Issued By

VILLAGE OF GOWANDA SEWER DEPARTMENT

To

**NEW YORK STATE
OFFICE OF PEOPLE WITH DEVELOPMENTAL DISABILITIES**

In accordance with the provisions in Chapter 46, Articles 4 & 5, of the Village of Gowanda Municipal Code, New York State Office of People With Developmental Disabilities, hereinafter referred to as permittee, located at, 4 Industrial Place, Village of Gowanda, New York, is hereby authorized to discharge untreated ground water from a remedial ground water treatment process at 4 Industrial Place Gowanda, New York only through the outfall(s) identified herein into the Village of Gowanda's sewer system in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Section 1 (Specific) and Section 2 (General) and Section 3 (Enforcement) attached hereto and incorporated by reference herein as part of this draft modified permit. This draft modified permit has been revised based on the substantial reduction of chemical compounds detected in the groundwater recovered by the remedial VOC ground water treatment system. This draft modified permit is pending approval from the Village of Gowanda Superintendent of Public Works.

Compliance with this permit does not relieve the permittee of its obligation to comply with all regulations, standards or requirements under local, State and Federal laws, including any such laws, regulations, standards, or requirements that may become effective during the term of this permit.

Noncompliance with the terms and conditions of this permit shall constitute a violation of the Village of Gowanda Municipal Code.

This draft modified permit shall become effective within 30 days notification of approval from the Superintendent of Public Works. The anticipated dates for the duration of the draft modified permit is June 22, 2010 and shall expire at midnight on June 23rd, 2015

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date, an application must be filed for reissue of this permit in accordance with the requirements of Chapter 46, Articles 4 & 5, of the Village of Gowanda Municipal Code, a minimum of 90 days prior to the expiration date.

ABBREVIATIONS

| | |
|----------------|--|
| BOD | Biological Oxygen Demand |
| CFR | Code of Federal Regulations |
| COD | Chemical Oxygen Demand |
| Code | Village of Ocala Code of Ordinances |
| Superintendent | Superintendent of Public Works |
| EPA | Environmental Protection Agency (Federal) |
| mg/L | milligrams per liter (equivalent to ppm, or parts per million) |
| NYSDEC | New York State Department of Environmental Conservation |
| SNC | Significant Noncompliance |
| SOP | Standard Operating Procedures |
| TRC | Technical Review Criteria |
| TSS | Total Suspended Solids |
| TTO | Total Toxic Organics |
| WDP | Wastewater Discharge Permit |
| WWF | Wastewater Facility |

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SECTION 1. SPECIFIC CONDITIONS

Part 1. Operation and effluent origins

a. Description and regulation of operation

New York State Office of People With Developmental Disabilities (OPWDD) with Offices located at 1200 East and West Roads, West Seneca, New York will operate a VOC Ground Water Extraction treatment system which will generate effluent in connection with such system installed by OPWDD to recover contaminated ground water that is underground on the property owned by OPWDD, located at 4 Industrial Place, Gowanda, New York 14070 as part of a voluntary clean-up Agreement with the New York State Department of Environmental Conservation.

Part 2. Effluent limitations

a. Outfall

1. During the permit period the permittee has been authorized to discharge treated ground water to the Village of Gowanda sewer system from the location at outfall 001 listed below. The permittee is requesting approval for discharge of untreated groundwater to the Village of Gowanda sewer system from the same outfall location.

Description of outfalls:

Outfalls

Description

Building Sewer

4 Industrial Place – Gowanda, New York

b. Effluent limitations:

During the permit period the discharge from the outfall listed above shall not exceed the following effluent limitations. Effluent from outfall 001 consists of all origins listed in Section 1 of this WDP. Effluent from this outfall will consist of untreated ground water.

Flow 20,000 GPD peak flow, 10,000 GPD Avg.
Total Organic Halogens: 1.37 mg/l

c. Modification of local limits

In accordance with the Municipal Code, the established local limits are subject to change and shall be modified as needed based on regulatory requirements and standards, WWF operation, performance and processes, the industrial user base, potable water quality and domestic wastewater characteristics. Modifications to the established local limits must be reviewed and approved prior to implementation. Implementation shall be effective 30 days from notice of acceptance of the modified limits. New local limits will be issued as an addendum to this wastewater discharge permit.

Part 3. Operation and maintenance of pollution controls

a. Proper operation and maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms of this draft Modified WDP (September 10, 2010). Proper operation and maintenance includes but is not limited to: effective

performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the draft Modified WDP.

b. Duty to halt or reduce activity

Upon reduction of efficiency of operation, or loss or failure of all or part of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with this draft Modified WDP, control its production or discharges (or both) until operation of the treatment facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance of the draft Modified WDP.

c. Bypass and Proposed Modification of treatment facilities

1. Bypass is prohibited unless it is unavoidable to prevent loss of life, personal injury or severe property damage or no feasible alternative exist.
2. Bypass not exceeding limitations. The permittee may allow bypass to occur which does not cause effluent limitations to be exceeded,
3. The permittee is requesting approval for a permit modification to allow direct untreated discharge. The permittee anticipates that the Superintendent of Public Works will approve the operation of the treatment system with inactivation of the air stripper unit and with discharge of untreated groundwater to the Village of Gowanda sewer system. The VOC Ground Water Extraction System will continue to operate with the groundwater pre-treatment filtration unit so that sediments will be removed and reduced in the effluent discharge. The other operational features that are part of the VOC Ground Water Extraction System will remain operational. Therefore, the proposed physical modification to the VOC Ground Water Extraction system will render inactive the chemical reduction capability of the treatment system by disconnecting the air stripper unit from the system.

d. Notification of bypass

1. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, at least ten days before the date of the bypass, to the Superintendent.
2. Unanticipated bypass. The permittee shall immediately notify the Superintendent and submit a written notice to the WWF within 5 days. This report shall specify:
 - (i) A description of the bypass, and its cause and duration;
 - (ii) Whether the bypass has been corrected; and
 - (iii) The steps being taken or to be taken to reduce, eliminate or prevent a recurrence of the bypass.

Part 4. Sampling and monitoring requirements

a. Sample points

During the permit period, the permittee shall collect groundwater samples and monitor the untreated ground water discharge from the following sample points:

Outfall 001 described in Section 1 in this WDP

This is the only sampling point that is approved by the Superintendent for the permittee's collection of samples.

b. Sampling and analysis; notification of sample collection

The samples collected by the permittee or its authorized representative shall be analyzed for the parameters listed in Section I. Frequency and types of samples to be taken are indicated below:

Table I: Frequency and sampling type

| Parameter | Sampling Location | Frequency | Sample Type |
|--------------------------|-------------------------|-----------|-------------|
| cis-1,2- Dichloroethene | Treatment System Disch. | Quarterly | Grab |
| Trichloroethene | Treatment System Disch. | Quarterly | Grab |
| 1,1,1- Trichloroethene | Treatment System Disch. | Quarterly | Grab |
| Vinyl Chloride | Treatment System Disch. | Quarterly | Grab |
| Trans-1,2-Dichloroethene | Treatment System Disch. | Quarterly | Grab |
| Tetrachloroethene | Treatment System Disch. | Quarterly | Grab |
| Flow | NA | NA | Continuous |
| Total Organic Halogen | Treatment System Disch. | Quarterly | Grab |

1. Any monitoring modifications will require the concurrence of the NYSDEC.

2. Types of samples collected by the permittee or its authorized representative shall be as representative as possible of the volume and nature of the permittee's discharge throughout the daily period of system operation. All handling and preservation of collected samples shall be performed in accordance with 40 CFR Part 136 and any amendments thereto. The Village reserves the right to spot check sampling procedures by the permittee or the permittee's contract laboratory at any time.

c. Permittee's analytical laboratory

The permittee shall utilize a State of New York certified laboratory of its choosing for the purposes of complying with the requirements of this WDP. Certification must be current during the performance of a required analysis for each parameter measured. The permittee is directly responsible for ensuring the validity of all analytical measurements received from its laboratory as required by this WDP.

The Village will only accept analytical results that are performed by a laboratory certified by the State of New York for environmental analysis. Analytical measurements submitted by non certified laboratories or resulting from analysis of samples during periods of non certification for the analyte will be considered null and void and the facility will be considered as not having monitored for these parameters.

d. Sampling procedures

All sampling procedures shall comply with the requirements contained in Standard Methods

If the permittee performs its own sampling, the permittee shall prepare a written description of its procedures and shall submit such document to the Village. The Village may, at its option, observe the collection of the required samples by the permittee to ensure that approved sampling methods are complied with in full. Failure to follow

sampling procedures will result in the Village's rejection of the sample and any resulting analytical results that may be submitted by the permittee.

If the permittee's chosen laboratory performs the sampling for the permittee, the Village may, at its option, observe the collection of the required samples to ensure that approved sampling methods are complied with in full by the laboratory concerned. Failure to follow sampling procedures will result in the Village's rejection of the sample and any resulting analytical results that may be submitted by the permittee or its laboratory.

PART 5. Reporting requirements

a. Periodic compliance reports (PCR)

Annual compliance reports must be submitted to the Village of Gowanda by February 1 of each year

- Annual compliance report information is to be submitted on NYSDEC FROSI report forms.
- A copy of the original contracting laboratory's analysis, including all chain of custody forms.

The due date for submission of the PCR report and attachments is thirty days after the last day of the month in which the samples are required to be taken. If a report is submitted more than 30 days after the due date, the facility will be deemed to be in significant noncompliance (SNC) and appropriate enforcement proceedings will be initiated by the Village.

A report shall be considered incomplete and in violation of reporting requirements if it does not contain the above required information and attachments. Incomplete reports will be returned to sender.

b. Extra monitoring

If the permittee monitors its discharge for any pollutant more frequently than required by this WDP, using test procedures prescribed in 40 CFR Part 136 or any New York State regulation or amendments thereto, or otherwise approved by EPA or as specified in this WPD, the results of such monitoring shall be included in the calculation and results shall be reported in the PCR reports and submitted to the Superintendent.

c. Automatic re-sampling

If the results of the permittee's discharge analysis indicate a violation has occurred, the permittee must:

1. Inform the Superintendent within 24 hours of becoming aware of the violation, as defined in Section 3 of this WDP; and
2. Repeat the sampling and pollutant analysis for the parameter in violation and submit the results of the second analysis in writing to the Village within 30 days after becoming aware of the violation.

d. Accidental discharge report

The permittee shall notify the Superintendent immediately upon the occurrence of an accidental discharge of substances prohibited by the Municipal Code or any slug loads or spills that may enter the public sewer. During normal business hours, the Superintendent should be notified by telephone at 716-532-5931. At all other times, the Superintendent should be notified by telephone at 716-913-1455 or 716-532-4077 after 4:30 p.m. Monday - Friday or weekends and holidays. The permittee shall inform the Superintendent of the location of discharge, date and time, type of waste, including concentration and volume, and corrective actions taken. The permittee's notification of accidental release in accordance with this section does not relieve it of other reporting requirements that arise under local, State, or Federal laws. Within five (5) days following an accidental discharge, the permittee shall submit to the Superintendent a detailed written report. The report shall specify:

1. Description and cause of the upset, slug or accidental discharge, the cause thereof and the impact on the

permittee's compliance status. The description should also include location of discharge, type, concentration and volume of waste.

2. Duration of noncompliance, including exact dates and times of noncompliance, and if the noncompliance continues, the time by which compliance is reasonably expected to occur.
3. All steps taken or to be taken to reduce, eliminate, and prevent recurrence of such an upset, slug, accidental discharge, or other conditions of noncompliance.

e. Report Submission

The permittee shall submit all reports required by this WDP to the Superintendent at the following address:

Village of Gowanda
27 East Main Street
Gowanda, New York 14070

PART 6. Demand monitoring costs

Any required demand monitoring, inspections and surveillance deemed to be necessary as a result of a violation will be carried out by the Village and charged directly to the permittee at the Village's cost.

SECTION 2. GENERAL REQUIREMENTS AND CONDITIONS

PART 1. Compliance with applicable pretreatment standards and requirements

Compliance with this permit does not relieve the permittee from its obligations regarding compliance with any and all applicable local, State and Federal pretreatment standards, regulations, laws, and requirements including any that become effective during the term of this permit. This WDP shall be expressly subject to all provisions of the Municipal Code, as amended, and all other applicable codes and regulations.

PART 2. Duty to reapply

The permittee shall apply for permit re-issuance at least ninety (90) days, but no more than one hundred and eighty (180) days prior to the expiration of the permittee's permit. The permittee shall be informed of any proposed changes to the permit at least thirty (30) days prior to the effective date of change. The proposed revisions in this draft Modified permit shall be in effect within 30 days of approval by the Superintendent of Public works.

PART 3. Continuation of expired WDP

An expired WDP will continue to be effective and enforceable until the WDP is reissued if:

- a. The permittee has submitted a complete WDP application at least ninety (90) days prior to the expiration date of the permittee's existing WDP.
- b. The failure to reissue the WDP, prior to expiration of the previous WDP, is not due to any act or failure to act on the part of the permittee.

PART 4. Signatory requirements

All applications, reports, or information submitted to the Village of Gowanda must contain the following certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

All reports required by this permit shall contain the name/title of a principal executive officer of the permittee, and shall be signed by the principal executive officer or his/her authorized representative. FAC 62-625.600(11)

PART 5. Right of entry

The permittee shall allow the Village or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the permittee, at all reasonable hours for the purposes of inspection, sampling, or records inspection and duplication. Reasonable hours in the context of inspection and sampling include any time the permittee is operating any process which results in a process wastewater discharge to the Village's WWF.

PART 6. Limitation on permit transfer

Discharge permits are issued to a specific permittee for a specific operation. They shall not be reassigned, or transferred, or sold to a new owner, new significant permittee, or transferred to a different premises without Village approval.

PART 7. Changed conditions

The permittee shall report to the Village prior to the introduction of new discharge any substantial change in the volume or characteristics of the wastewater being discharged into the WWF from the permittee's processes.

PART 8. Records retention

- a. The permittee shall retain and preserve for no less than three (3) years, any records, books, and documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling and chemical analyses made by or on behalf of the permittee in connection with its discharge.
- b. All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the Village shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

PART 9. Sample type and notification of sample collection

All samples shall be 24-hour (flow-proportioned or time-proportioned) composite samples where feasible, except VOC analysis. Grab samples will be collected for VOC analysis.

PART 10. Measurements for discharge limitations

- a. TTO Monthly Average:

The monthly average concentration is the sum of the concentrations of all daily discharges sampled

and/or measured during a calendar month, divided by the number of daily discharges sampled and) or measured during such month (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day.

- b. Daily Maximum: The daily maximum concentration is the highest value recorded during the reporting period.

PART 11. Recording results

For each measurement or sample taken pursuant to the requirements of this permit, the following information shall be recorded:

- a. The exact place, date and time of sampling;
- b. The dates the analysis were performed;
- c. The person responsible for performing the sampling or measurement.
- d. The analytical techniques or methods used, and
- e. The results of all required analyses.

PART 12. Violation of notification and resample requirement

If sampling performed by permittee indicates a violation of any part of this Permit or Village Code, as amended, the permittee shall notify the Superintendent within 24 hours of becoming aware of the violation. The permittee shall repeat the sampling and analysis and submit both results of the analysis to the Superintendent within 30 days after becoming aware of the violation.

PART 13. Dilution

No permittee shall increase the use of potable or process water or in any way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in the permit

PART 14. General prohibitive standards

The permittee shall not discharge wastewater to the sewer system:

- a. Any point source wastewater having a temperature greater than 65° Celsius (C) (150° Fahrenheit (F)) or which will inhibit biological activity in the treatment plant resulting in interference.
- b. Containing any gasoline, benzene, naphtha, fuel oil or other flammable or explosive liquids, solids or gases; and in no case pollutants with a closed cup flashpoint of less than 60° C (140 °F), or pollutants which cause an exceedance of 10 percent of the Lower Explosive Limit (LEL) at any point within the WWF.
- c. Any water having a pH less than 5.5 or greater than 10.5, or wastewater having any other corrosive property capable of causing damage or hazard to structures or equipment, or endangering Village personnel.
- d. Solids or viscous substances in amounts which will cause obstruction of the flow in the wastewater treatment facility resulting in interference, but in no case solids greater than one-half inch in any dimension.
- e. Any wastewater containing pollutants, including oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause interference with either the WWF, the collection system, or any wastewater treatment or sludge process, or which will constitute a hazard to humans or animals.
- f. Any wastewater in mixture which causes the temperature at the introduction into the WWF to exceed 40° C (104° F).

- g. Petroleum oil, nonbiodegradable cutting oil or products of mineral oil origin in amounts which will cause interference or pass-through.
- h. Any pollutants which result in the presence of toxic gases, vapors or fumes within the WWF in a quantity which may cause acute worker health and safety problems.
- i. Any noxious or malodorous liquids, gases, solids or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or a hazard to life, or prevent entry into the sewers for maintenance and repair.
- j. Any wastewater containing any radioactive wastes or isotopes.
- k. Stormwater, surface water, groundwater, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, non-contact cooling water, and unpolluted industrial wastewater, unless specifically authorized by the Superintendent.
- l. Any sludges, screenings or other residues from the pretreatment of industrial wastes.
- m. Any wastewater causing the treatment plant's effluent to fail Village requirements.
- n. Any wastes containing detergents, surface active agents or other substances which may cause excessive foaming in the WWF.
- o. Any discharge of chemicals used to dissolve grease.
- p. Any wastewater which imparts color which cannot be removed by the treatment process, such as but not limited to dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent thereby violating the Village's operating permit.

PART 15. Flow measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitoring discharges. The devices shall be installed, calibrated, and maintained by the permittee to insure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than +1- 10% from the true discharge rates throughout the range of expected discharge volumes.

PART 16. Suspension/termination of service and/or permit

The Village may suspend discharge treatment service and/or the WDP when such suspension is necessary to stop an actual or threatened discharge which would endanger the health or welfare of persons or the environment, cause interference with WWF operations, cause sludge quality degradation, or cause the Village to violate any conditions of its operating permit. Conditions for termination of this permit include but are not limited to the following:

- a. Falsifying self-monitoring reports
- b. Tampering with monitoring equipment
- c. Refusing to allow timely access to the permittee's premises and records
- d. Failure to meet effluent limitations
- e. Failure to pay fines
- f. Failure to pay sewer charges, and
- g. Failure to meet compliance schedules.

PART 17. Duty to comply with permit conditions, falsifying information or tampering with monitoring equipment

The permittee must comply with all conditions of this permit. Any permittee who willfully or negligently fails to comply with provisions of this permit shall be subject to the imposition of penalties and appropriate recovery of costs by the Village. Any person who knowingly makes any false statements, representation or correction in any record, report, plan or other document filed pursuant to this permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this permit shall, upon conviction, be subject to the imposition of penalties prescribed by the Code or any other applicable local, State or Federal law.

PART 18. Modification or revision of the permit

The Superintendent may modify a WDP for good cause, including, but not limited to, the following reasons:

- a. To incorporate any new or revised Federal, State or local pretreatment standards or requirements;
- b. To address significant alterations or additions to the permittee's operation, processes, or discharge volume or character since the time of the WDP issuance;
- c. A change in the WWF that requires either a temporary or permanent reduction or elimination of the authorized discharge;
- d. Information indicting that the permitted discharge poses a threat to the Village's WWF, personnel, or the receiving waters;
- e. Violation of any term or condition of the permit;
- f. Misrepresentation or failure to fully disclose all relevant facts in the wastewater discharge permit application or in any required reporting;
- g. To correct typographical or other errors in the permit; or
- h. To reflect a transfer of the facility ownership or operation to a new owner or operator.

PART 19. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

SECTION 3. ENFORCEMENT

PART 1. Notice of violation

Any violation of requirements including, but not limited to, discharge limits, sampling, analysis, meeting compliance schedules and regulatory deadlines, and reporting shall be considered as noncompliance for which the permittee is liable for enforcement, including penalties. The permittee shall respond to any notice of violation in writing within 30 days of the notice. This written notification shall include the reason for the violation(s), the actions taken to correct the violation(s) and what steps will be taken to prevent the violation(s) from occurring in the future.

PART 2. Significant noncompliance (SNC)

Violations shall be identified as those violations or patterns of violations by the permittee that are instances of Significant Noncompliance (SNC). The determination of SNC is patterned after criteria used in the EPA program (40 CFR 123.45). Instances of SNC are permittee violations which meet one or more of the following criteria:

1. Violation of wastewater discharge limits:

- a) **Chronic Violations:** If 66% or more of the measurements obtained from the testing described in this permit exceed the permit limits in a 6 month period (any magnitude of exceedance), then chronic violations will have occurred. For TTO, OPWDD would have to exceed the daily maximum of 1.37 mg/l more than one hundred twenty (120) days in a six (6) month period to be considered in SNC.
- b) **Technical Review Criteria (TRC) violations,** when thirty-three (33%) percent or more of all measurements taken during six (6) month period equal or exceed the permit limit multiplied by the applicable TRC factor (viz. 1.2 for TTO). For TTO, OPWDD would have to exceed 1.64 mg/l (1.37 x 1.2) more than sixty (60) days in a six (6) month period to be considered in SNC.
- c) Any other violation(s) of an effluent limit (average or daily maximum) that the Village believes has caused, alone, or in combination with other discharges, interference (e.g. slug

loads or pass through) or endangered the health of the WWF personnel or the public.

d) Any discharge of a pollutant that has caused imminent endangerment to human welfare, or to the environment, and has resulted in the Village's exercise of its emergency authority to halt or prevent such a discharge.

e) Failure to meet within ninety (90) days after the schedule, a compliance schedule milestone required.

2. Failure to provide reports as stipulated in this permit within thirty (30) days from the due date.
3. Failure to accurately report non-compliance.
4. Any other violation or group of violations that the Village considers to be significant.

As part of its enforcement action, the Village shall notify the permittee of each incidence of SNC, and each notice shall include an *order for* the permittee to come into compliance immediately, or to enter into a compliance agreement with the Village.

PART 3. Civil penalties

A permittee who has violated or continues to violate any provision of the Municipal Code, a WDP or other order issued, or any other pretreatment standard or requirement shall be liable to the Village for a maximum civil penalty of \$1,000.00 per violation, per day.

The Village may recover reasonable attorney's fees, court costs and other expenses associated with enforcement activities, including sampling and monitoring expenses and the cost of actual damage incurred by the Village.

In determining the amount of the civil liability, the court shall take into account all relevant circumstances including, but not limited to, the extent of harm caused by the violation, any economic benefit gained through the permittee's violation, corrective actions by the permittee, the compliance history of the permittee and any other factor as justice requires.

Filing a suit for civil penalties shall not be a bar against or a prerequisite for taking any other action against the permittee.

PART 4. Emergency actions

The Superintendent shall have authority and procedures to immediately and effectively halt any discharge to the WWF which endangers public health or welfare. The Superintendent shall also have the authority and procedures to prevent any discharge to the WWF which endangers the environment or which threatens to interfere with the operations of the WWF. Notice shall be provided to the permittee prior to such action. If public health or welfare is not endangered, the permittee shall be given an opportunity to respond to the notice.

PART 5. Duty to mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact to the public treatment plant or the environment resulting from noncompliance with this WDP, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncompliant discharge.

PART 6. Recovery of costs incurred

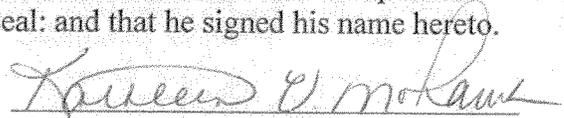
In addition to civil liability, the permittee violating *any* of the provisions of this WDP, of the Municipal Code or causing damage to or otherwise inhibiting the Village of Gowanda wastewater disposal system shall be liable to the Village of Gowanda for any expense, or damage caused by such violation or discharge. The Superintendent shall bill the permittee for the costs incurred by the Village of Gowanda for any demand monitoring, analysis, cleaning, and repair.

Date 12/17/10

Signed


(Superintendent)

On this 7th day of December, 2010, before me personally came Michael E. Hutchinson, to me known who is being by me duly sworn did depose and say that he resides in Collins, New York and that he is the Sewer Department Superintendent, the corporation described in and which executed in within instrument: that he knows the seal of said corporation: that the seal affixed to said Instrument is such corporation seal: and that he signed his name hereto.


Notary Public

KATHLEEN V. MOHAWK
Notary Public, State of New York
No. 01MO3048168
Qualified in Erie County
Commission Expires Sept. 18, 2014