



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

New York State Office of People with Developmental Disabilities

2019 PERIODIC REVIEW REPORT

FORMER GOWANDA DAY HABILITATION CENTER



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1.0 BACKGROUND

NYSDEC Site Number V00463, the former Gowanda Day Habilitation Center facility, is located at 4 Industrial Place, Gowanda, New York. The New York State Office of People with Developmental Disabilities (OPWDD), as the volunteer, 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 and 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, Dichloromethane (Cis-DCE), trans-1,2-Dichloroethene (Trans-DCE), and Vinyl Chloride (VC) were also detected.

Following Interim Remedial Measure (IRM) system installation, activation of a 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 (7) 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 passed them through two (2) 10,000 lb. carbon filters. Once filtered, the vapors were discharged to the outdoor air. The attached Figure 1 depicts the site layout with regard to monitoring and recovery wells.

Recovered groundwater was formerly pumped to an equalization tank for settling of sediment. The groundwater was discharged to the Village of Gowanda Sewage Treatment Plant (STP) via the sanitary sewer in accordance with a Gowanda Sewer Use Permit. A Volatile Organic Compound (VOC) Groundwater Treatment Agreement between OPWDD and the Village was active until the shutdown of the system, discussed below in Section 2.2. As the system is currently shut down, water was not discharged to the sewer for the 2019 calendar year, or for Q1 2020. If the system is re-activated, a new agreement will be executed between OPWDD and the Village.

In January 2008, 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 2019 year, and for Q1 of 2020. Numerous roof leaks and damage relative to two (2) flooding events have introduced excessive water infiltration and as a result 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 2019 and Q1 2020 sampling events, accessibility of the wells varied, but the integrity of the wells was not compromised. During the Q1 2019 sampling event, MW-19R and MW-21 were paved over, as first noted by Bergmann in the August 2017 Quarterly Characteristic Report. These wells were uncovered and subsequently sampled during the remaining two (2) sampling events in 2019 and Q1 2020. Repairs or maintenance to the network of groundwater monitoring wells or recovery wells has not been required since June 2007, with the exception of redevelopment activities performed on August 19, 2015 to clear sediment from wells after an in-situ chemical oxidation (ISCO) injection program. 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 conducted June 25 – 26, 2007 and August 19, 2015.

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 (2) of the seven (7) well pumps were operational. The remaining pumps appeared to be damaged. Bergmann replaced the SVE pipe section and inspected the well pumps for damage. The pumps appeared to be in poor condition and were removed from the wells. DR-1, DR-2, DR-3, DR-4 were all pulled. DR-4 was coated in a black sludge-like material and had a hole in the casing. DR-2, DR-3 and G-2 were coated in orange-brown sediment and the hose and pump effluent lines were clogged with sediment. DR-1 was also coated in orange-brown sediment.

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 Remedial Action Plan (RAP) and implementation of an ISCO treatment. Bergmann performed an ISCO remediation in May 2015 and a second round of injections in September 2015. The in-situ groundwater treatment was performed 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. No maintenance was conducted on the GTS or SVE systems during the 2019 calendar year or Q1 2020.

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 quarterly basis to track site-wide changes in the water table elevation and to allow for adjustment at recovery wells. Operation of the recovery wells was 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. Although the system was shut down and the pumps were pulled from recovery wells for the 2019 year and Q1 2020, hydraulic containment of the plume has been historically achieved since the shutdown of the system.

Groundwater samples were collected from all 21 site-related groundwater monitoring wells during the 2019 and Q1 2020 sampling events. Depth to groundwater measurements were obtained from all of the 21 monitoring



wells for the 2019 and Q1 2020 sampling events. Results are indicators of the performance of the treatment system and the continued contamination of the plume.

Groundwater samples were collected from monitoring wells after each well was gauged and purged of standing water via hand bailing. Sample parameters including turbidity, temperature, pH, oxygen, and specific conductivity were monitored using an YSI Quattro Pro to ensure sufficient well purging prior to sampling. Dedicated bailers were used to collect groundwater samples from recovery wells after the ISCO remediation occurred in May 2015. During past sampling events, groundwater samples were collected from the seven (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 2019 quarterly sampling events as well as the Q1 2020 sampling event, the wells were purged and sampled using the same method as the monitoring well sampling where possible. One (1) duplicate sample and one (1) field blank sample were collected and submitted for laboratory analysis.

Groundwater samples were delivered via chain-of-custody protocol to a New York State Department of Health (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 2019 and Q1 2020 using elevations measured from the 21 sampled, 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:

- July 25, 2019 (Q2 Sampling Event).
- August 22, 2019 (Q3 Sampling Event).
- October 23, 2019 (Q4 Sampling Event).
- February 20, 2020 (Q1 2020 Sampling Event).

The well gauging values and groundwater elevations are provided 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:

July 2019

The July 2019 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 July 2019 depths to groundwater range from 3.71 ft below top of casing (btoc) at MW-7, to 13.65 ft btoc at MW-6 located at the northern property line. The average depth to groundwater at the wells measured was 9.63 ft btoc. The site-wide average depth to water table increased by approximately 0.80 ft when compared to the November 2018 sampling event. This increase in the water table is inferred as seasonal.

August 2019

The August 2019 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 August 2019 depths to groundwater range from 6.63 ft. below top of casing (btoc) at MW-2, to 14.46 ft. btoc at MW-3. The average depth to groundwater at the wells measured was 9.98 ft btoc. The site-wide average depth to water table increased by approximately 0.854 ft. when compared to the July 2019 sampling event. This increase in the water table is inferred as seasonal.

October 2019

The October 2019 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 October 2019 depths to groundwater range from 5.82 ft. below top of casing (btoc) at MW-2, to 13.49 ft. btoc at MW-7. The average depth to groundwater at the wells measured was 9.59 ft. btoc, which is a decrease from the average depth to water of the previous sampling event in August (9.98 ft.). The site-wide average depth to water table decreased by approximately 0.58 ft. when compared to the August 2019 sampling event. This decrease in the water table is inferred as seasonal.

February 2020

The February 2020 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 February 2020 depths to groundwater range from 4.91 ft. below top of casing (btoc) at MW-2, to 12.91 ft. btoc at MW-7. The average depth to groundwater at the wells measured was 8.46 ft. btoc, which is a decrease from the average depth to water of the previous sampling event in October of 2019 (9.59). The site-wide average depth to water table decreased by approximately 1.13 ft. when compared to the October 2019 sampling event. This decrease in the water 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 include MW-2, MW-3, MW-5, MW-8, MW-9, MW-10, MW-13, and MW-21. NYSDEC added MW-21 to the sampling plan for the 2015 sampling events. Sentry groundwater monitoring wells were 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. These wells include MW-19R, MW-20, and MW-4.

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, duplicate groundwater samples were collected during each sampling event. During the Q2 2019 sampling event, this duplicate was collected from monitoring well MW-11., while during the Q3 2019 sampling event, a duplicate was collected from monitoring well DR-1. Duplicates were collected for the Q4 2019 and Q1 2020 sampling events from monitoring wells DR-1 and MW-13, respectively. All duplicates for all sampling events were labeled 'MW-X'. Results from these samples were consistent with the samples collected from their respective sampling locations.

Trip blanks were supplied by the laboratory for QA/QC and submitted with the groundwater samples. The trip blank samples were not analyzed, however, will be analyzed during future sampling events. A field blank was also collected for QA/QC purposes to ensure proper cleaning of the sampling equipment. The field blank was non-detect for chlorinated halogens for each sampling event in 2019.

4.2 MONITORING WELL GROUNDWATER ANALYSIS SUMMARY

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

July 2019

Concentrations in eleven (11) of the 19 monitoring well groundwater samples increased when compared to the November 2018 sampling event while concentrations in two (2) of the 19 monitoring well groundwater samples decreased. Concentrations in five (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 83.6% since activation of the GTS in May 2005.

August 2019

Concentrations in seven (7) of the twenty (21) monitoring well groundwater samples increased when compared to the July 2019 sampling event while concentrations in seven (7) of the twenty (21) monitoring well groundwater samples decreased. Concentrations in seven (7) groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 87.42% since activation of the GTS in May 2005.

October 2019

Concentrations in six (6) of the twenty (21) monitoring well groundwater samples increased when compared to the August 2019 sampling event while concentrations in nine (9) of the twenty (21) monitoring well groundwater samples decreased. Concentrations in six (6) groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 86.80% since activation of the GTS in May 2005.

February 2020

Concentrations in four (4) of the 21 monitoring well groundwater samples increased when compared to the October 2019 sampling event while concentrations in ten (10) of the 21 monitoring well groundwater samples decreased. Concentrations in seven (7) groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 94.61% since activation of the GTS in May 2005.

Contaminant distribution maps indicating the results for each sampling event are presented as Figures 2 and 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 2019 and Q1 2020 are summarized as follows:

July 2019

The eastern sentry well sampled for this event included MW-4. The July 2019 results indicate non-detect for this well.

August 2019

The eastern sentry well sampled for this event included MW-4. The August 2019 results indicate non-detect for this well.

October 2019

The eastern sentry well sampled for this event included MW-4. The October 2019 results indicate non-detect for this well.

February 2020

The eastern sentry wells sampled for this event were MW-4 and MW-19R. The current results indicate non-detect levels for MW-4 and 0.19 ppb for MW-19R.

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 impacted in the past 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 historic 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 2019 and Q1 2020 are summarized as follows:

July 2019

The July 2019 analytical results indicate detection of chlorinated VOCs in all seven (7) recovery well samples that include: TCE and Cis-DCE. Total VOCs detected in the seven (7) recovery wells for which past data is available have decreased overall since activation of the GTS in May 2002. The average decrease in VOCs for the current sampling event is about 23.07% relative to concentrations prior to GTS activation in 2002.

August 2019

The August 2019 analytical results indicate detection of four (4) chlorinated VOCs in recovery well samples that include: TCE, Cis-DCE, TRANS, and VC. Chlorinated VOCs were detected in samples from all seven (7) of the recovery wells. Total VOCs at the seven (7) recovery wells for which past data is available have decreased overall since activation of the GTS in May 2002. The average decrease in VOCs for the current sampling event is about 37.95% relative to concentrations prior to GTS activation in 2002.

October 2019

The October 2019 analytical results indicate detection of four (4) chlorinated VOCs in recovery well samples that include: TCE, Cis-DCE, TRANS, and VC. Chlorinated VOCs were detected in samples from all seven (7) of the recovery wells. Total VOCs at the seven (7) recovery wells for which past data is available have decreased overall



since activation of the GTS in May 2002. The average decrease in VOCs for the current sampling event is about 42.05% relative to concentrations prior to GTS activation in 2002.

February 2020

The February 2020 analytical results indicate detection of chlorinated VOCs in all seven (7) recovery well samples that include: TCE and Cis-DCE. Total VOCs detected in the seven (7) recovery wells for which past data is available have decreased overall since activation of the GTS in May 2002. The average decrease in VOCs for the current sampling event is about 39.15% relative to concentrations prior to GTS activation in 2002.

5.0 REMEDIATION SYSTEM EFFICIENCY

5.1 EXTENT OF IMPACTED GROUNDWATER

The area of highest impacted groundwater is consistent for all three (3) of the 2019 sampling events, and the Q1 2020 sampling event. 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 wells DR-1 and DR-2.

The contaminant plume appears to have stabilized due to the previous operation of the GTS for over sixteen (16) years. While in operation, the GTS was successful in hydraulically containing most of the contaminant plume on the property and minimizing further migration. The GTS was not operating during the 2019 sampling events and overall sample results are similar to previous quarterly reports. It appears that residual VOCs in the plume have not migrated and are contained when compared to sample results with operation of the GTS during previous monitoring events.

The remedial program at the Site was modified by terminating the GTS and soil vapor extraction system, believed to have achieved the extent of its practical benefits in favor of ISCO treatment of the residual concentration of VOCs in Groundwater. The SVE and GTS equipment will remain on site in the event that re-activation is required in the future.

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

July 2019

Chlorinated VOCs were detected in groundwater samples from eleven (11) of the nineteen (19) monitoring wells. Groundwater samples from eight (8) monitoring wells had detectable chlorinated VOCs at concentrations above applicable Class GA Standards. The monitoring well with the highest total VOCs, MW-1 (1,081 ppb), is located in the area of historically greatest impacted groundwater. Concentrations in eleven (11) of the 19 monitoring well groundwater samples increased when compared to the November 2018 sampling event while concentrations in two (2) of the 19 monitoring well groundwater samples decreased. Concentrations in five (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 83.6% since activation of the GTS in May 2005.

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 71.5% since groundwater monitoring of these wells began in 2002.



August 2019

Chlorinated VOCs were detected in groundwater samples from sixteen (16) of the twenty-one (21) sampled monitoring wells. Groundwater samples from sixteen (16) monitoring wells had detectable chlorinated VOCs at concentrations above applicable Class GA Standards. The monitoring well with the highest total VOCs, MW-11 (937.4 ppb), is located in the area of historically greatest impacted groundwater. Concentrations in seven (7) of the twenty (21) monitoring well groundwater samples increased when compared to the July 2019 sampling event while concentrations in seven (7) of the twenty (21) monitoring well groundwater samples decreased. Concentrations in seven (7) groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 87.42% since activation of the GTS in May 2005.

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 78.21% since groundwater monitoring of these wells began in 2002.

October 2019

Chlorinated VOCs were detected in groundwater samples from fourteen (14) of the twenty-one (21) sampled monitoring wells. Groundwater samples from fourteen (14) monitoring wells had detectable chlorinated VOCs at concentrations above applicable Class GA Standards. The monitoring well with the highest total VOCs, MW-1 (1,009 ppb), is located in the area of historically greatest impacted groundwater. Concentrations in six (6) of the twenty (21) monitoring well groundwater samples increased when compared to the August 2019 sampling event while concentrations in nine (9) of the twenty (21) monitoring well groundwater samples decreased. Concentrations in six (6) groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 86.80% since activation of the GTS in May 2005.

February 2020

Chlorinated VOCs were detected in groundwater samples from fourteen (14) of the twenty-one (21) sampled monitoring wells. Groundwater samples from eight (8) monitoring wells had detectable chlorinated VOCs at concentrations above applicable Class GA Standards. The monitoring well with the highest total VOCs, MW-1 (994 ppb), is located in the area of historically greatest impacted groundwater. Concentrations in four (4) of the twenty (21) monitoring well groundwater samples increased when compared to the October 2019 sampling event while concentrations in ten (10) of the twenty (21) monitoring well groundwater samples decreased. Concentrations in seven (7) groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 94.61% since activation of the GTS in May 2005.

5.2 GROUNDWATER ANALYTICAL RESULTS

During the reporting period, four (4) 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. Table 1 and Chart 1 show 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 and the shutdown of the GTS.



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 each of the quarterly the Groundwater Characterization Reports in Appendix A.

Overall contaminant reduction is monitored at each individual sampling point and in three specific “groups” of points: site-wide, original plume area only, and recovery wells. These three (3) 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 (3) groups by quarter since activation of the GTS and SVE Systems.

Overall contaminant reduction at the recovery wells decreased to 39.15% (February 2020) from 47.2% in November 2018. Reduction at the recovery wells remained consistently between the 90-95% range since 2010 until the shutdown of the system. The GTS was turned off for the 2019 quarterly sampling events, as well as for the Q1 2020 sampling event. Contaminant concentration rebound during these years may be associated with the system shutdown and associated groundwater level recovery, as well as residual contamination released in the capillary fringe to the dissolve phase in groundwater at the Site.

Overall contaminant reduction at the monitoring wells increased to 91.18% (February 2020) from 85.1% in November 2018. Reduction at the monitoring wells remained consistently between the 70% - 85% since 2010 until the shutdown of the system. The GTS was turned off for the 2019 quarterly sampling events, as well as for the Q1 2020 sampling event. Contaminant concentration rebound during the year may be associated with the system shutdown and associated groundwater level recovery, as well as residual contamination released in the capillary fringe to the dissolve phase in groundwater at the Site.

The remediation system at the Gowanda Day Habilitation Center previously controlled and removed contaminants from the groundwater plume area. Contaminant levels decreased by 75.61% from May 2005 to February 2020. The ISCO groundwater treatment completed in September 2015 may have released residual contamination in the capillary fringe to the dissolve phase in groundwater at the Site.

5.3 ADDITIONAL WORK DURING 2019

The next steps to eliminate remaining contamination at the Site have been discussed with OPWDD, DASNY, and NYSDEC. In pursuit of this, Bergmann performed an additional subsurface investigation in August 2019 to determine if the contamination is within the groundwater or within the soils. The primary goal of the investigation was to evaluate the soil quality for VOCs in the two (2) source areas: the MW-1 area and the MW-17 area. The investigation identified that shallow soils beneath the building in the source area were impacted depths ranging from one (1) to three (3) feet bgs. Chlorinated VOC-impacted soils at the south side of the building and within the southern portion of the building near MW-1/MW-11 continue to impact the groundwater consistent with seasonal high groundwater fluctuations. The recommendations made by Bergmann in light of this investigation included the localized removal of VOC-impacted soil in the upgradient source, in-situ chemical oxidation (ISCO) material injection into the source area, or the introduction of thermal conduction or heating element to the source area. A copy of this report, with detailed findings and recommendations, is included in Appendix C.

As a result of this investigation Bergmann prepared an Overview Analysis for Site Closure document outlining cleanup options and costs analysis to identify the most feasible and cost effective method to achieve chlorinated VOC levels closer to Site closure. Discussions with NYSDEC, OPWDD, DASNY, and Bergmann have concluded that a source area removal with the building remaining in place is the most cost effective and potentially effective remediation option for site closure. At the time of this PRR, Bergmann and DASNY are finalizing a proposal and cost estimate to perform the work, anticipated to begin late summer 2020.



5.4 COMPLIANCE

During the 2019 reporting period and Q1 2020, the remedial system was not in operation and therefore was not discharging water. 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.

Only three (3) quarters of groundwater samples were collected in 2019 due to contractual issues during the first quarter of 2019. Four full quarters of groundwater sampling are expected during the 2020 calendar year, however, this may change during the source area excavation removal project. The NYSDEC will be notified and involved with the remediation project, including any impacts to the expected groundwater sampling schedule.

The building is currently secure, vacant, and unoccupied. Notification is given to any individual(s) entering the building so appropriate precautions and PPE can be utilized for building access. The building is posted with signage identifying the potential hazard and limiting access to properly trained and equipped personnel. Notification of extensive mold growth within the building is given to any individual(s) entering the building, prior to entry, so appropriate precautions can be taken. Notification of broken glass within the building is given to any individual(s) entering the building prior to entry. Notification of the dead-end corridor and affected/unusable exits is given to any individual(s) entering the building, prior to entry, so appropriate precautions can be taken. Notification of exit and emergency lighting within the building is given to any individual(s) entering the building prior to entry. Notification of the ceiling debris should be given to any individual(s) entering the building, prior to entry, so appropriate precautions can be taken. Any individual(s) entering the building is provided with keys to open doors before working within the building to ensure safe emergency exit.

Any structural issues requiring immediate attention are currently being addressed by OPWDD, as well as other building envelope maintenance/security issues. Those issues not requiring immediate attention will be addressed if the building is re-occupied in the future.

5.5 FUTURE ACTIVITIES

Activities scheduled for 2020 include:

- Ongoing quarterly groundwater sampling events
 - January 2020 (already occurred)
 - June 2020 (already occurred)
 - August 2020 (pending source area removal/remediation project schedule)
 - November 2020
- Implementation of remediation program approved by NYSDEC at the Site including source area excavations and contaminated soil and groundwater removal.



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

Monitoring Well	% Reduction 2002 to Feb 2020	% Reduction 2002 to Oct 2019	% Reduction 2002 to Aug 2019	% Reduction 2002 to July 2019	% Reduction 2002 to Nov 2018	% Reduction 2002 to Aug 2018	% Reduction 2002 to May 2018	% Reduction 2002 to April 2018	% Reduction 2002 to Nov 2017	% Reduction 2002 to Aug 2017	% Reduction 2002 to Nov 2016	% Reduction 2002 to Sep 2016	% Reduction 2002 to Jun 2016	% Reduction 2002 to Nov 2015	% Reduction 2002 to Aug 2015	% Reduction 2002 to Jun 2015	% Reduction 2002 to Mar 2015	% Reduction 2002 to Nov 2014	% Reduction 2002 to Sep 2014	% Reduction 2002 to Jun 2014
MW-1*	-29.36%	-31.4%	9.11%	-40.76%	-40.6%	-54.9%	-44.5%	51.3%	-39.90%	-57.6%	-48.0%	-9.1%	24.5%	-99.2%	-91.4%	54.4%	44.0%	60.9%	45.3%	-28.9%
MW-2	100.00%	100%	98.78%	100%	100%	100%	100%	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
MW-3	100.00%	100%	98.13%	97.40%	100%	100%	100%	100%	100%	100.0%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-4	100.00%	100%	100.0%	100%	100%	100%	100%	100%	100%	100.0%	Not Sampled	Not Sampled	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
MW-5	97.00%	96.64%	96.29%	93.57%	100%	100%	100%	100%	100%	100.0%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-6	84.04%	75.59%	77.18%	78.66%	100%	-83.3%	15.4%	15.4%	-84.60%	15.4%	81.3%	70.4%	75.4%	70.4%	76.4%	78.8%	80.0%	72.9%	72.9%	76.4%
MW-7	99.74%	87.65%	91.33%	93.82%	80.0%	79.3%	100.0%	81.3%	98.70%	93.6%	75.6%	86.2%	81.6%	89.1%	71.1%	87.1%	100.0%	60.0%	57.8%	93.6%
MW-8	100.00%	100%	100%	100%	100%	100%	100%	100%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-9	100.00%	100%	100%	100%	100%	100%	100%	100%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-10	100.00%	100%	100%	100%	100%	100%	100%	100%	100%	100.0%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-11	86.99%	84.95%	79.83%	77.21%	89.5%	93.9%	89.5%	75.0%	89.20%	99.1%	86.1%	90.4%	88.2%	77.2%	86.4%	90.4%	89.2%	90.3%	91.9%	90.3%
MW-12	99.08%	99.57%	99.57%	99.38%	99.6%	99.8%	99.2%	99.1%	99.80%	75.0%	99.9%	99.9%	99.9%	99.8%	99.6%	99.2%	99.1%	99.0%	98.4%	98.4%
MW-13	98.92%	99.33%	99.84%	99.56%	100%	100%	100%	100%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-14	89.21%	89.52%	91.59%	91.78%	90.3%	92.9%	92.8%	91.1%	87.90%	2.3%	75.9%	68.3%	81.9%	74.3%	69.5%	83.5%	68.6%	78.4%	78.4%	82.9%
MW-15	99.80%	98.89%	98.89%	99.33%	100%	99.1%	100%	100%	100%	99.0%	98.5%	96.7%	98.5%	98.6%	98.1%	98.9%	98.7%	95.6%	95.8%	99.2%
MW-16*	98.07%	86.11%	38.42%	26.54%	19.9%	80.5%	19.9%	2.3%	2.80%	2.3%	72.7%	60.9%	27.7%	39.5%	74.6%	86.7%	100.0%	89.8%	81.6%	59.0%
MW-17*	98.40%	80.91%	66.17%	72.60%	78.4%	73.8%	88.9%	99.5%	78*	2.3%	62.9%	54.0%	58.0%	54.5%	59.4%	Not Sampled	66.8%	61.0%	59.4%	66.5%
MW-18*	99.81%	62.50%	99.21%	99.29%	100%	100%	100%	100%	100%	100.0%	97.4%	93.4%	98.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
MW-19 R*	98.84%	98.00%	95.71%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
MW-20*	100.00%	100%	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
MW-21**	94.61%	94.38%	95.80%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	34.6%	-50.0%	66.5%	23.1%	23.1%	61.5%	Not Sampled	Not Sampled	Not Sampled	Not Sampled
* Well installed 2003																				
** Well installed 2004																				
Site-Wide reduction:	91.18%	86.8%	87.42%	83.6%	85.1%	78.0%	82.2%	84.2%	67.60%	62.1%	74.1%	68.7%	78.6%	66.2%	69.1%	87.7%	88.2%	85.2%	83.2%	79.8%
Impacted Groundwater																				
Plume Area Only:	75.61%	72.11%	78.21%	71.5%	74.6%	72.1%	67.6%	76.6%	51.40%	41.1%	66.5%	69.6%	76.0%	58.1%	58.6%	84.6%	80.8%	77.3%	75.0%	72.3%

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 Feb 2020	% Reduction 2002 to Oct 2019	% Reduction 2002 to Aug 2019	% Reduction 2002 to July 2019	% Reduction 2002 to Nov 2018	% Reduction 2002 to Aug 2018	% Reduction 2002 to May 2018	% Reduction 2002 to April 2018	% Reduction 2002 to Nov 2017	% Reduction 2002 to Aug 2017	% Reduction 2002 to Nov 2016	% Reduction 2002 to Sep 2016	% Reduction 2002 to Jun 2016	% Reduction 2002 to Nov 2015	% Reduction 2002 to Aug 2015	% Reduction 2002 to Jun 2015	% Reduction 2002 to Mar 2015	% Reduction 2002 to Nov 2014	% Reduction 2002 to Sep 2014	% Reduction 2002 to Jun 2014
DR-1	-81.03%	-59.16%	-81.03%	-219.50%	-128.5%	-163.3%	-130.0%	-86.6%	-243.6%	-243.6%	-7.6%	-6.4%	-58.7%	44.4%	72.1%	Not Sampled	96.2%	89.0%	90.4%	86.9%
DR-2	65.04%	66.15%	65.04%	71.60%	60.7%	70.5%	76.7%	76%	63.8%	63.8%	75.1%	60.3%	60.9%	63.8%	66.0%	47.0%	52.8%	70.5%	59.2%	58.0%
DR-3	33.77%	34.62%	33.77%	40.33%	52.1%	43.0%	17.8%	78%	68.5%	Not Sampled	35.7%	-1.0%	59.3%	70.5%	50.2%	45.6%	63.9%	-18.7%	-37.7%	45.6%
DR-4	94.58%	95.27%	94.58%	95.34%	95.7%	94.4%	96.4%	96%	93.9%	93.9%	90.8%	88.9%	92.7%	89.1%	87.2%	91.7%	82.9%	81.8%	82.8%	88.8%
G-1	60.81%	65.14%	60.81%	74.90%	62.8%	61.7%	80.1%	80%	74.1%	74.1%	57.7%	47.4%	92.7%	60.0%	100.0%	66.1%	27.3%	49.8%	47.7%	55.0%
G-2	76.62%	68.07%	68.24%	75.65%	91.2%	76.0%	82.4%	84%	100.0%	Not Sampled	Not Sampled	100.0%	Not Sampled	Not Sampled	90.1%	Not Sampled	83.1%	88.0%	86.9%	81.7%
G-3	24.23%	24.23%	24.23%	23.19%	96.3%	20.1%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	27.3%	-0.2%	-4.2%	35.0%	8.2%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
Overall Reduction	39.15%	42.05%	37.95%	23.07%	47.2%	28.9%	37.2%	54.6%	60.4%	40.4%	46.5%	41.3%	40.4%	60.4%	67.7%	62.6%	67.7%	60.1%	54.9%	69.3%

*Sampling of recovery wells initiated in 2005



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 Sep 2007	% Reduction 2002 to May 2007	% Reduction 2002 to Oct 2006	% Reduction 2002 to Nov 2005
-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%	-92.8%	-166.4%	-130.3%	-46.9%
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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	99.6%	99.6%	99.6%	99.6%
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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	84.0%	99.3%	99.3%	99.3%
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%	97.4%	97.4%
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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	75.6%	99.3%	99.3%	63.4%
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%	57.9%	62.8%	57.4%	42.6%
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%	20.0%	26.7%	6.7%	-1.3%
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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	92.9%	Not Sampled	92.9%	92.9%
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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	97.6%	Not Sampled	97.6%	97.6%
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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	96.2%	Not Sampled	96.2%	96.2%
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%	91.4%	74.4%	44.0%	76.3%
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%	98.4%	96.6%	91.4%	62.2%
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	Not Sampled	Not Sampled	Not Sampled	100.0%	Not Sampled	99.4%	100.0%	100.0%	100.0%
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%	67.2%	66.1%	6.7%	55.6%
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%	99.3%	91.1%	99.3%	84.5%	89.4%	79.5%	91.7%	79.5%	62.9%
53.1%	60.3%	77.9%	36.8%	52.6%	88.5%	67.9%	84.0%	39.2%	23.3%	81.0%	93.3%	99.7%	94.2%	42.1%	41.6%	57.4%	43.8%	35.0%	-57.9%	-34.7%	-72.1%
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%	-11.5%	4.1%	-24.8%	-24.2%
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%	-352.2%	-178.0%	-146.5%	-135.8%
100.0%	100.0%	100.0%	100.0%	75.0%	99.0%	99.0%	99.0%	99.0%	99.0%	73.3%	99.0%	99.0%	99.0%	57.3%	99.0%	-36.7%	-5.7%	-120.8%	73.6%	-14.0%	-102.0%
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%	99.4%
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	Not Sampled	Not Sampled	Not Sampled	67.5%	Not Sampled	-22.2%	27.1%	94.0%	-13.7%
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%	32.9%	39.8%	43.4%	35.7%
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%	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

% 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 Feb 2005 to Sept 2007	% Reduction Feb 2005 to May 2007	% Reduction Feb 2005 to Oct 2006
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%	74.5%	86.2%	92.8%
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%	85.6%	82.5%	72.6%
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%	73.8%	87.6%	89.7%
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%	87.7%	99.1%	51.4%
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%	58.7%	71.8%	63.1%
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%	84.6%	54.5%	26.4%
79.7%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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%	77.5%	80.3%	66.0%

*Sampling of recovery wells initiated in 2005





FIGURE 1

DASNY

**Gowanda Day
Habilitation Center**

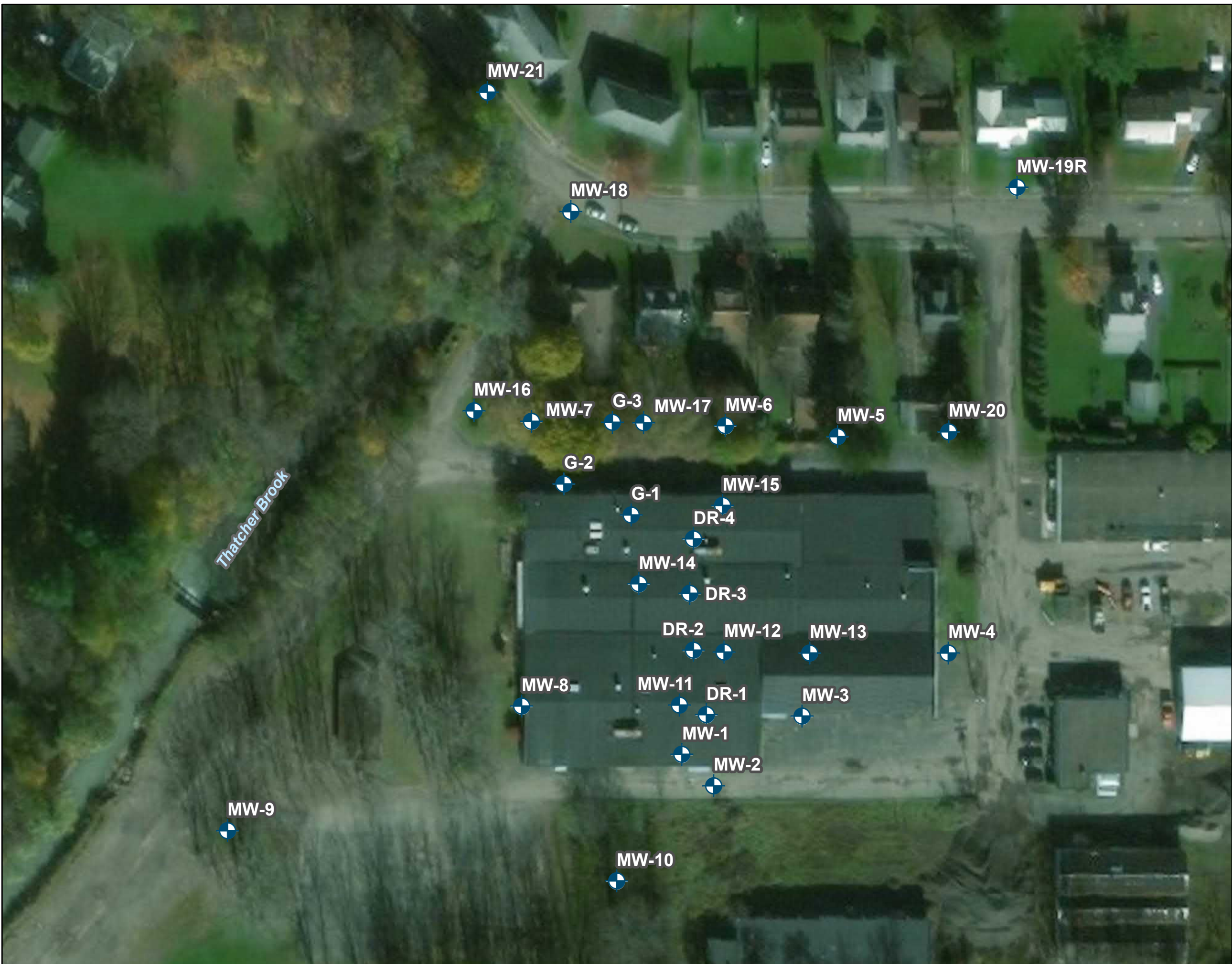
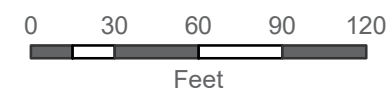
**4 Industrial Place
Gowanda, NY**



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

Figure 1

**Monitoring and
Recovery Well
Locations**

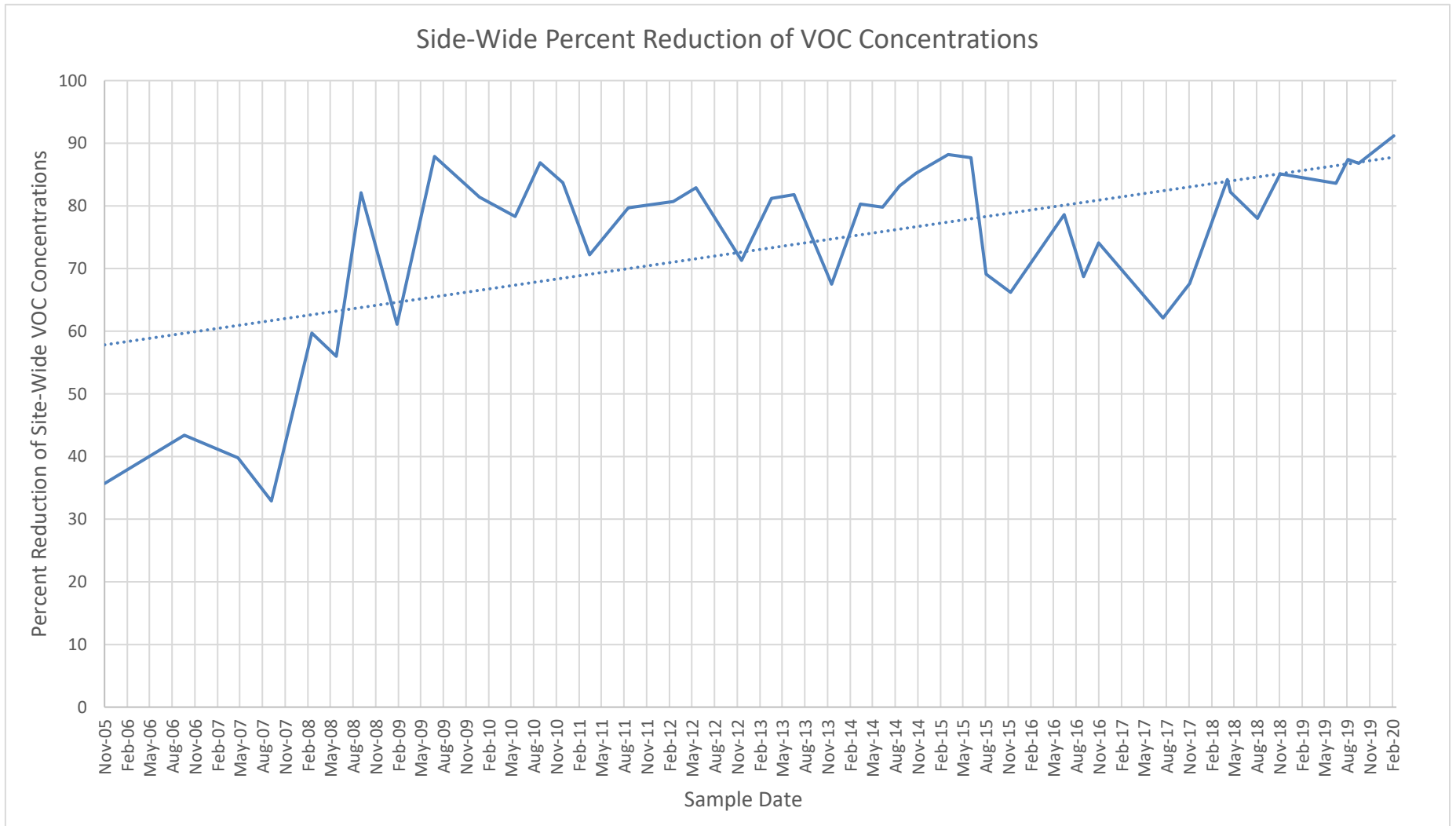




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CHART 1

Chart 1
Gowanda Site V00463





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ARCHITECTS ENGINEERS PLANNERS

APPENDIX A:

QUARTERLY GROUNDWATER CHARACTERIZATION REPORTS



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

JULY 2019
GROUNDWATER CHARACTERIZATION REPORT



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ARCHITECTS ENGINEERS PLANNERS

New York State Office of People with Developmental Disabilities – Gowanda Site

GROUNDWATER CHARACTERIZATION REPORT – JULY 2019



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Chart 3:	DR-3 and MW-14 Groundwater Volatile Organic Compound Concentrations
Chart 4:	DR-4 and MW-15 Groundwater Volatile Organic Compound Concentrations
Chart 5:	G-1 and MW-17 Groundwater Volatile Organic Compound Concentrations
Chart 6:	G-2 and MW-7 Groundwater Volatile Organic Compound Concentrations
Chart 7:	G-3 and MW-17 Groundwater Volatile Organic Compound Concentrations

Appendices

Appendix A:	Laboratory Analytical Results Report - July 2019 Sampling Event
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1.0 INTRODUCTION

Bergmann is submitting this groundwater characterization report for the July 2019 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, 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 25, 2019. 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 19 of 21 site-related groundwater monitoring wells and all seven (7) groundwater recovery wells were sampled for laboratory analysis. Of the eight (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), two (2) were not sampled. These monitoring wells are MW-19R and MW-21. Monitoring well MW-21 was added to the well sampling plan permanently by NYSDEC to monitor groundwater migration off-site. Monitoring Wells MW-19R and MW-21 have not been sampled due to the fact that they have been paved over as first reported by Bergmann in the August 2017 sampling report.

The prior groundwater sampling event was conducted in November 2018 and included analysis of groundwater samples from 19 of 21 site-related groundwater monitoring wells and all seven (7) groundwater recovery wells.

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 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 seven (7) 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 was pumped to the equalization tank for settling of the sediment and transferred to the air stripper using a consistent flow rate. Air discharge from the air stripper was routed to the



SVE for treatment prior to discharge. Groundwater was discharged to the village of Gowanda Sewage Treatment Plant (STP).

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 January 2014, 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 remedial action plan (RAP) and implementation of an ISCO treatment. Bergmann submitted 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. The ISCO was implemented in May 2015. An ISCO Report was prepared under a separate cover.

2.0 GROUNDWATER SAMPLING OVERVIEW AND METHODS

2.1 WELL MAINTENANCE ACTIVITIES

During the July 2019 site visit, all monitoring wells were accessible, and the integrity of the wells was not compromised except for MW-19R and MW-21. MW-19R and MW-21, both located on Torrance Place, were still paved over as originally reported in the August 2017 summary report. Repairs or maintenance to the network of groundwater monitoring wells or recovery wells has not been required since June 2007, with the exception of the redevelopment activities performed on August 19, 2015. All protective casings and flush-mount curb boxes were found to be intact and secure. Exterior monitoring wells are secured with locking stick-up protective casings. The monitoring wells within the building are secured with flush-mount roadway covers. Well maintenance was not performed during the July 2019 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 in groundwater monitoring wells are measured on a regular basis to track site-wide changes in the water table elevation and to allow for adjustment at recovery wells. Past operation of the recovery wells was intended to establish hydraulic containment of the impacted groundwater plume beneath the former Day Habilitation building and improve recovery and treatment of impacted groundwater. Groundwater samples were collected from 19 of the 21 site-related groundwater monitoring wells for laboratory analysis on July 25, 2019. Depth to groundwater measurements were obtained from 26 wells (including recovery wells).

Groundwater samples were collected from monitoring wells after each well was gauged and purged of standing water via bailing with dedicated bailers for each individual well. Sample parameters including turbidity, temperature, pH, oxygen, and conductivity were monitored using a YSI Quatro to ensure sufficient well purging prior to sampling. Groundwater samples were collected from recovery wells using dedicated bailers, to allow for an accurate representation of groundwater without collecting sediment from within the wells. A single duplicate sample and a field blank sample were collected and submitted for laboratory analysis.



Groundwater samples were delivered via chain-of-custody protocol to Alpha Analytical located in Rochester, NY, a NYSELAP 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 in Table 3 for comparative purposes from sampling events completed 2012 – 2019.

3.0 LOCAL GROUNDWATER FLOW CHARACTERIZATION

The Site water table potentiometric surface pattern and groundwater flow direction was determined for July 2019 using elevations measured at each well. Groundwater elevations and well reference elevations were calculated using depth to water values obtained on July 25, 2019. The well gauging values and groundwater elevations are provided in Table 1 – Groundwater Elevations and Field Measurements – July 2019.

The July 2019 groundwater table map shows a flow pattern similar to groundwater flow pattern 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 July 2019 depths to groundwater range from 3.71 ft. below top of casing (btoc) at MW-7, to 13.65 ft. btoc at MW-6. The average depth to groundwater at the wells measured was 9.63 ft. btoc, which is an increase from the average depth to water of the previous sampling event in November of 2018 (8.83).

The site-wide average depth to water table increased by approximately 0.80 ft. when compared to the previous sampling event from November 2018 sampling event. This decreased in the water table is inferred as seasonal.

Measured depth to water at all gauged monitoring and recovery wells is presented Table 1 and July 2019 Groundwater Contours are presented on Figure 1 – July 2019 Groundwater Contour Map.

4.0 LABORATORY ANALYSIS

4.1 LABORATORY ANALYSIS ON GROUNDWATER SAMPLES

Laboratory analysis was completed on the groundwater samples from 19 monitoring wells and seven (7) recovery wells collected July 25, 2019. 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 July 2019 analytical results indicate detection of four (4) chlorinated VOCs in monitoring well samples: TCE, Cis-DCE, VC and Trans-DCE. Chlorinated VOCs were detected in groundwater samples from thirteen (13) of the nineteen (19) monitoring wells. Analytical results are summarized in Table 2 – July 2019 Analytical Results Summary, which compares detected VOCs and applicable NYSDEC Class GA Standards for each analyte. The complete laboratory analytical report is provided in Appendix A – Laboratory Analytical Results Report July 2019



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 six (6) of the sampled monitoring wells.

Groundwater samples from eight (8) monitoring wells had detectable chlorinated VOCs at concentrations above applicable Class GA Standards. The monitoring well with the highest total VOCs, MW-1 (1,081 ppb), is located in the area of historically greatest impacted groundwater.

Concentrations in eleven (11) of the 19 monitoring well groundwater samples increased when compared to the November 2018 sampling event while concentrations in two (2) of the 19 monitoring well groundwater samples decreased. Concentrations in five (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 83.6% since activation of the GTS in May 2005.

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 71.5% since groundwater monitoring of these wells began in 2002.

Monitoring well MW-1 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at monitoring well MW-1 for the July 2019 sampling event was 1,081 parts per billion (ppb), an increase from the November 2018 value of 1,080 ppb. Since activation of the GTS, detected VOCs at MW-1 have increased by about 40.76%.

Monitoring well MW-11 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-11 for the July 2019 sampling event is 1,059 ppb, an increase from the November 2018 value of 489 ppb. Since activation of the GTS in May 2005, detected VOCs at MW-11 have decreased by 77.21%.

Monitoring well MW-12 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-12 for the July 2019 sampling event is 79 ppb, an increase from the November 2018 value of 53 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 about 99.38%.

Monitoring well MW-13 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at monitoring well MW-13 for the July 2019 sampling event was 1.38 parts per billion (ppb), an increase from the November 2018 sampling event, which was non-detect (ND). Since activation of the GTS, detected VOCs at MW-13 have decreased by about 99.56%.

Monitoring well MW-14 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-14 for the July 2019 sampling event is 25.9 ppb, a decrease from the November 2018 value of 30.7 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 about 91.78%.

Monitoring well MW-15 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-15 for the July 2019 sampling event was 4.9 ppb, an increase from the November 2018 sampling event, which was non-detect (ND). MW-15 is nearest to recovery well DR-4. Since activation of the GTS in May 2005, the detected VOCs at MW-15 have decreased 99.33%.

Six (6) 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, MW-17 and MW-21. The current analytical results exhibit an increase in targeted VOCs at the sampled monitoring wells along the north perimeter.

Monitoring wells MW-18, MW-19R and MW-21 are located off-site along Torrance Place. These three (3) wells are considered to be beyond the radius of influence for the Day Habilitation groundwater treatment system. The current results indicate a total VOC concentration of 2.8 ppd for MW-18. Monitoring well MW-21 was added to the sampling list at the request of the NYSDEC beginning with the June 2015 sampling event. It was first noted that during the August 2017 sampling event, wells MW-19R and MW-21 were not sampled because they were inaccessible. It was observed that the wells were likely paved over by a re-sealing the Torrance Place road surface. The wells were still inaccessible and paved over during the July 2019 sampling event. However, these wells were uncovered after the July 2019 sampling event and will be sampled during the Q3 sampling event in August 2019.

Laboratory analytical results are included in Appendix A. Monitoring well locations and distribution of analytical results are shown on Figure 2 – July 2019 Distribution of Groundwater Analytical Results: 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 well sampled for this event was only MW-4. The current results indicate non-detect levels for this eastern sentry well.

The Gowanda Electronics impacted groundwater plume may be migrating to an area near Industrial Place and has intermittently impacted MW-19R and this monitoring well is unable to be sampled because it is paved over. 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. According to Mr. Chris Sanson, an Environmental Scientist for Groundwater & Environmental Services, Inc. (GES), an ISCO injection application was implemented for the Gowanda Electronics site in March 2014.

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

During the July 2019 sampling event, all of the seven (7) recovery wells were sampled.

The July 2019 analytical results indicate detection of chlorinated VOCs in all seven (7) recovery well samples that include: TCE and Cis-DCE. Total VOCs detected in the seven (7) recovery wells for which past data is available have decreased overall since activation of the GTS in May 2002. The average decrease in VOCs for the current sampling event is about 23.07% relative to concentrations prior to GTS activation in 2002. Relative percent increase 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 total VOC concentration at DR-1 for the July 2019 sampling event is 1,832 ppb, an increase from the November 2018 value of 1,310 ppb. The current sampling event indicates an increase in VOCs at DR-1 of 219.5% since activation of the GTS. Recovery well DR-1 is located closest to MW-1 in an area of historically highest concentrations.

Recovery well DR-2 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-2 for the July 2019 sampling event is 156 ppb, a decrease from the November 2018 value



of 216 ppb. The current sampling event indicates a decrease in VOCs at DR-2 of about 71.6% since activation of the GTS.

Recovery well DR-3 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-3 for the July 2019 sampling event is 91 ppb, an increase from the November 2018 value of 73 ppb. The current sampling event indicates a decrease in VOCs at DR-3 of about 40.33% since activation of the GTS.

Recovery well DR-4 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-4 for the July 2019 sampling event is 40 ppb, an increase from the November 2018 value of 37 ppb. The current sampling event indicates a decrease in VOCs at DR-4 of about 95.34% 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 July 2019 sampling event was 50.4 ppb, a decrease from the November 2018 value of 74.4 ppb. The current sampling event indicates a decrease in VOCs at G-1 of 74.9% since activation of the GTS.

Recovery well G-2 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at G-2 for the July 2019 sampling event was 69 ppb, an increase from the November 2018 value of 25 ppb. The current sampling event indicates a decrease in VOCs at G-2 of 75.65% since activation of the GTS.

Recovery well G-3 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at G-3 for the July 2019 sampling event was 309.65 ppb, an increase from the November 2018 value of 15 ppb. The current sampling event indicates an increase in VOCs at G-2 of 23.19% since activation of the GTS.

Laboratory analytical results are included in Appendix A. Recovery well locations and analytical results are shown on Figure 3 – November 2018 Distribution of Groundwater Analytical Results: Recovery Wells.

4.5 QUALITY ASSURANCE AND QUALITY CONTROL SAMPLES

An equipment blank was collected to ensure proper cleaning of the sampling equipment. The equipment blank, designated as EB, was non-detect for chlorinated halogens. In addition, a field duplicate (labeled as MW-X) was taken from MW-11.

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 seven (7) sampled 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 the sampled groundwater recovery wells. Since activation of the GTS in May 2005, all seven (7) sampled groundwater recovery wells have demonstrated a general decrease in VOC concentration.

Chart 2 displays the relationship between monitoring wells MW-1, MW-11 and recovery well DR-1. The current total VOCs at MW-1 (1,081 ppb) show an increase from the November 2018 sampling event (1,080 ppb). The



current total VOCs at MW-11 (1,059 ppb) shows an increase from the November 2018 sampling event (489 ppb). The current total VOCs at DR-1 (1,832 ppb) show an increase from the November 2018 sampling event (1,310 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 1 and represent the northern limit of the highest concentration within the impacted area. The current total VOCs at MW-12 (79 ppb) shows an increase from the November 2018 sampling event (53 ppb). The current total VOCs at recovery well DR-2 (156 ppb) show a decrease from the November 2018 sampling event (216 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 (25.9 ppb) show a decrease from the November 2018 sampling event (30.7 ppb). The current total VOCs at recovery well DR-3 (91 ppb) show an increase from the November 2018 sampling event (73 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 (4.9 ppb) show an increase from the November 2018 sampling event (ND). The current total VOCs at recovery well DR-4 (40 ppb) show an increase from the November 2018 sampling event (37 ppb).

Chart 6 compares laboratory results between recovery well G-1 and monitoring well MW-17. The recovery well is located in the northern portion of the building and MW-17 is located along the northern property line. The current total VOCs at recovery well MW-17 (277 ppb) show an increase from the November 2018 sampling event (218 ppb). The current total VOCs at recovery well G-1 (50.4 ppb) show a decrease from the November 2018 sampling event (75 ppb).

Chart 7 compares laboratory results between recovery well G-2 and MW-7 which are 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-2 had a total VOC concentration of (69 ppb), which shows an increase from the November 2018 sampling event (25 ppb). The July 2019 total VOCs of MW-7 (27.83 ppb) showed an increase from the November 2018 sampling event (ND).

Chart 8 compares laboratory results between recovery well G-3 which is located at the northeastern portion of the building and MW-17 which is located along the northern property boundary. This area is at the western perimeter of the apparent area of impacted groundwater. The current total VOCs at monitoring well MW-17 (277 ppb) showed an increase from the November 2018 sampling event (218 ppb). The current total VOCs at recovery well G-3 was (309.65 ppb), an increase from the November 2018 sampling event (15 ppb).

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. Concentration of VOCs in the source area have been reduced as a result of cleanup activities.

When operating, the GTS maintained an area of hydraulic containment for recovery wells within the source area of impacted groundwater. The GTS was 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 overall sample results are similar to previous quarterly sampling results. Therefore, residual VOCs in the plume have not migrated and appear to be stabilized when compared to sample results with operation of the GTS during previous monitoring events.



VOCs were not sampled at MW-19R and MW-21 during the July 2019 and November 2018 sampling events due to the fact that they were both paved over and inaccessible, as first reported by Bergmann in the August 2017 Sampling Report. These two (2) monitoring wells have since been uncovered and will be sampled in the August 2019 sampling event (Q3). The full analytical results are summarized in Table 5.

The redevelopment of wells was performed in fall 2015 to remove sediment from wells at the Site after the ISCO injections. Overall reduction of contaminants in the majority of the monitoring and recovery wells has occurred due to completed remediation at the Site when compared to pre-remediation levels during the past ten (10) years of sampling.

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 upon that these remediation systems would be inactivated to allow for groundwater level recovery during the implementation of an ISCO groundwater treatment and subsequent sampling events. Bergmann performed an ISCO injection application in May (round 1) and September (round 2) 2015 to address remaining residual contamination at the Site in lieu of costly repair of the SVE and GTS. The SVE and GTS equipment remains on site in the event that re-activation is required in the future. However, system components may need repair and/or replacement prior to re-activation.

The next site-wide groundwater sampling and laboratory analysis event is scheduled for August 2019. Future sampling and analytical events will be conducted to track the effects of the ISCO injections 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 monitored and recorded during future sampling events.



TABLES

Table 1 Groundwater Elevations and Field Measurements July 2019

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

	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)	7.22	6.44	7.22	8.35	11.00	13.65	3.71	10.51	10.15	7.62
Groundwater Elevation	771.01	771.64	771.16	770.08	767.61	767.45	777.23	770.82	772.46	772.40
Well Diameter	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Product Thickness	ND	NA	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	8.80	10.71	9.08	7.43	2.95	9.23	18.09	7.14	10.81	11.80
Minimum Purge Volume (gal)	1.4	1.75	1.5	1.2	0.5	1.5	2.9	1.2	1.8	1.9
3 Volumes	4.3	5.24	4.4	3.6	1.4	4.5	8.8	3.5	5.3	5.8
Actual volume purged	4.3	5.24	NS	3.6	1.4	4.5	8.8	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'

	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	NA	778.04	NA
Depth to Groundwater (btoc)	7.25	7.41	7.95	10.80	10.91	13.10	13.48	9.75	NA	9.41	NA
Groundwater Elevation	771.33	771.09	770.44	767.63	767.47	767.33	766.37	766.64	NA	768.63	NA
Well Diameter	2"	2"	2"	2"	2"	2"	2"	2"	NA	2"	NA
Product Thickness	ND	ND	ND	ND	ND	ND	ND	ND	NA	ND	NA
Well Depth (btoc)	15.48	17.38	17.40	18.15	19.80	23.26	25.18	25.0	NA	14.75	NA
Bottom of Well Elevation	763.10	761.12	760.99	760.28	758.58	757.17	754.67	751.39	NA	763.29	NA
Thickness of Water Column	8.23	9.97	9.45	7.35	8.89	10.16	NA	15.25	NA	5.34	NA
Minimum Purge Volume (gal)	1.3	1.6	1.5	1.2	1.4	1.7	NS	2.5	NA	0.9	NA
3 Volumes	4.0	4.9	4.6	3.6	4.3	5.0	NS	7.5	NA	2.6	NA
Actual volume purged	4.0	4.9	NS	3.6	4.3	5.0	NS	7.5	NA	2.6	NA
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'	Paved Over	Flush=-0.43'	Paved Over.

	DR-1	DR-2	DR-3	DR-4	G-1	G-2	G-3
Casing Elevation	779.66	779.93	779.78	779.64	779.83	779.72	779.42
Depth to Groundwater (btoc)	8.25	7.80	11.90	11.92	12.10	12.00	10.43
Groundwater Elevation	771.41	772.13	767.88	767.72	767.73	767.72	768.99
Well Diameter	4"	4"	4"	4"	4"	4"	4"
Product Thickness	ND	ND	ND	ND	ND	ND	ND
Well Depth (btoc)	18.06	18.06	20.45	19.69	22.98	20.72	18.15
Bottom of Well Elevation	761.6	761.87	759.33	759.95	756.85	759	761.27
Thickness of Water Column	9.81	10.26	8.55	7.77	10.88	9.17	7.72
Minimum Purge Volume (gal)	6.41	6.70	5.58	5.07	7.10	5.98	5.04
3 Volumes	19.22	20.10	16.75	15.22	21.31	17.94	15.12
Actual volume purged	19.22	20.10	16.75	15.22	21.31	17.94	15.12
Comments	Stickup=0.85'	Stickup=1.06'	Stickup=0.95'	Stickup=0.84'	Stickup=1.03'	Stickup=0.86'	Vaulted well

NOTES

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

NS = Not Sampled

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, MW-19R and MW-21 have been paved over.

Table 2 July 2019 Analytical Results Summary

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

Monitoring Well MW-1

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		900	820	5.0
CIS		180	250	5.0
TRANS		ND	9.5	5.0
VC		ND	1.6	2.0
TCA		ND	ND	5.0
Total VOCs		1,080	1,081	

Monitoring Well MW-2

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	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-3

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		ND	0.39	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	0.39	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Monitoring Well MW-4

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	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-5

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		ND	0.9	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	0.9	

Monitoring Well MW-6

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		ND	ND	5.0
CIS		81	86	5.0
TRANS		ND	ND	5.0
VC		ND	0.63	2.0
TCA		ND	ND	5.0
Total VOCs		81	86.63	

Table 2 July 2019 Analytical Results Summary

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

Monitoring Well MW-7

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		ND	0.68	5.0
CIS		ND	27	5.0
TRANS		ND	ND	5.0
VC		ND	0.15	2.0
TCA		ND	ND	5.0
Total VOCs		ND	27.83	

Monitoring Well MW-8

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	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-9

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	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-10

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	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-11

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		290	850	5.0
CIS		190	190	5.0
TRANS		9.3	19.0	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		489	1,059.0	

Monitoring Well MW-12

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		18.0	13	5.0
CIS		35	66	5.0
TRANS		ND	ND	5.0
VC		ND	0.37	2.0
TCA		ND	ND	5.0
Total VOCs		53	79.37	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 July 2019 Analytical Results Summary

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

Monitoring Well MW-13

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		ND	0.38	5.0
CIS		ND	1	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	1.38	

Monitoring Well MW-14

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		21	21	5.0
CIS		9.7	4.9	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		30.7	25.9	

Monitoring Well MW-15

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		ND	3.5	5.0
CIS		ND	1.4	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	4.9	

ND = Non-detect

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

Results expressed as parts per billion (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

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		ND	0.27	5.0
CIS		41	37	5.0
TRANS		ND	ND	5.0
VC		ND	0.34	2.0
TCA		ND	ND	5.0
Total VOCs		41	37.61	

Monitoring Well MW-17

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		38	35	5.0
CIS		180	240	5.0
TRANS		ND	1.6	5.0
VC		ND	0.64	2.0
TCA		ND	ND	5.0
Total VOCs		218	277	

Monitoring Well MW-18

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		ND	1	5.0
CIS		ND	1.8	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		ND	2.8	

Table 2 July 2019 Analytical Results Summary

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

Monitoring Well MW-19R

Sample Date: NS

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	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-20

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	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 ppb	Nov 2018	July 2019	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

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

Results expressed as parts per billion (ppb).

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

Table 2 July 2019 Analytical Results Summary

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

Recovery Well DR-1

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		1100	1600	5.0
CIS		210	220	5.0
TRANS		ND	12	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		1,310	1,832	

Recovery Well DR-2

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		46	50	5.0
CIS		170	100	5.0
TRANS		ND	1.1	5.0
VC		ND	5.2	2.0
TCA		ND	ND	5.0
Total VOCs		216	156	

Recovery Well DR-3

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		31	26	5.0
CIS		42	63	5.0
TRANS		ND	0.9	5.0
VC		ND	0.9	2.0
TCA		ND	ND	5.0
Total VOCs		73	91	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Recovery Well DR-4

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		28	33	5.0
CIS		9.2	6.8	5.0
TRANS		ND	ND	5.0
VC		ND	0.16	2.0
TCA		ND	ND	5.0
Total VOCs		37	40.0	

Recovery Well G-1

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		6.6	5.4	5.0
CIS		68	44	5.0
TRANS		ND	ND	5.0
VC		ND	1.0	2.0
TCA		ND	ND	5.0
Total VOCs		75	50.4	

Recovery Well G-2

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		ND	0.72	5.0
CIS		25	67	5.0
TRANS		ND	ND	5.0
VC		ND	1.5	2.0
TCA		ND	ND	5.0
Total VOCs		25	69	

Table 2 July 2019 Analytical Results Summary

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

Recovery Well G-3

Sample Date: NS

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	NYS Guidance Value
TCE		8.8	47	5.0
CIS		6.2	260	5.0
TRANS		ND	2.2	5.0
VC		ND	0.45	2.0
TCA		ND	ND	5.0
Total VOCs		15	309.65	

Duplicate Blank (MW-11)

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	July 2019	NYS Guidance Value
TCE		890	5.0
CIS		240	5.0
TRANS		23	5.0
VC		1.6	2.0
TCA		ND	5.0
Total VOCs		914.6	

Equipment Blank

Sample Date: 07/25/2019

Sampling Events

Analyte	in ppb	Nov 2018	July 2019	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	

ND = Non-detect

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

Results expressed as parts per billion (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

MONITORING WELLS																								
Monitoring Well Number	Total VOCs July 2019 (ppb)	Total VOCs Nov 2018 (ppb)	Total VOCs August 2018 (ppb)	Total VOCs May 2018 (ppb)	Total VOCs April 2018 (ppb)	Total VOCs Nov 2017 (ppb)	Total VOCs Aug 2017 (ppb)	Total VOCs Nov 2016 (ppb)	Total VOCs Sep 2016 (ppb)	Total VOCs Jun 2016 (ppb)	Total VOCs Nov 2015 (ppb)	Total VOCs Aug 2015 (ppb)	Total VOCs Jun 2015 (ppb)	Total VOCs Mar 2015 (ppb)	Total VOCs Nov 2014 (ppb)	Total VOCs Sep 2014 (ppb)	Total VOCs Jun 2014 (ppb)	Total VOCs Mar 2014 (ppb)	Total VOCs Dec 2013 (ppb)	Total VOCs Jul 2013 (ppb)	Total VOCs Apr 2013 (ppb)	Total VOCs Dec 2012 (ppb)	Total VOCs Jun 2012 (ppb)	Total VOCs Mar 2012 (ppb)
MW-1	1.081	1.080	1.190	1.110	374	1013	1.210	1.467	838	580	1.530	1.470	350	430	300	420	990	990	1,740	830	910	1.440	528	889
MW-2	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-3	0.39	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-5	0.9	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-6	86.63	81	84	77	76	100	91	87	120	100	120	96	86	81	110	110	96	94	130	99	93	99	86.7	65.7
MW-7	27.83	ND	ND	ND	ND	5.8	29	110	82	83	49	130	58	ND	180	190	29	ND	ND	18	ND	ND	151.56	30.5
MW-8	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-9	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	1.059	489.3	282	489	1.160	470	525	646	445	550	1,060	630	444	500	451	375	450	710	880	510	570	790	498	617
MW-12	79	53	25	100	113	31	40	7.1	7.8	15.8	28.8	52	97	120	126	136	200	212	173	149.3	186.6	142	86.5	148.22
MW-13	1.38	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	25.9	30.7	22.8	22.8	28	38	22.1	76	100	57	81	96	52	99	68	68	54	73	94	49	71	47	39.7	75.6
MW-15	4.9	ND	6.5	ND	ND	ND	7.4	11	23.8	11	9.9	14	8.1	9.8	32	31	6.1	ND	6.8	7	ND	12.9	26.26	6.25
MW-16	37.61	41	10	41	43	32	36	14	20	37	31	13	6.8	ND	5.2	9.4	21	24	20	8.4	24	18	4.36	12.2
MW-17	277	218	265	112.5	5.1	222	396	375	465	425	460	410	NS	336	394	410	339	167	420	400	21.3	430	381	260.1
MW-18	2.8	ND	ND	ND	ND	6.3	ND	10	26	6.9	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	16.6	2.33
MW-19R	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND
MW-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-X (DUP)	914.6	ND	ND	434	NS	490	DWS	1,705	879	550	1,720	410	360	407	300	400	870	990	1,850	540	186.8	1,450	521	913
EB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
RECOVERY WELLS																								
Recovery Well Number	Total VOCs July 2019 (ppb)	Total VOCs Nov 2018 (ppb)	Total VOCs August 2018 (ppb)	Total VOCs May 2018 (ppb)	Total VOCs April 2018 (ppb)	Total VOCs Nov 2017 (ppb)	Total VOCs Aug 2017 (ppb)	Total VOCs Nov 2016 (ppb)	Total VOCs Sep 2016 (ppb)	Total VOCs Jun 2016 (ppb)	Total VOCs Nov 2015 (ppb)	Total VOCs Aug 2015 (ppb)	Total VOCs Jun 2015 (ppb)	Total VOCs Mar 2015 (ppb)	Total VOCs Nov 2014 (ppb)	Total VOCs Sep 2014 (ppb)	Total VOCs Jun 2014 (ppb)	Total VOCs Mar 2014 (ppb)	Total VOCs Dec 2013 (ppb)	Total VOCs Jul 2013 (ppb)	Total VOCs Apr 2013 (ppb)	Total VOCs Dec 2012 (ppb)	Total VOCs Jun 2012 (ppb)	Total VOCs Mar 2012 (ppb)
DR-1	1,832	1,310	1,510	1,319	1,070	1,540	1,970	617	610	910	319	160	NS	21.7	63	55	75	132	87	73	82	43	29.38	673
DR-2	156	216	162	128	130	181	199	137	218	215	199	187	291	259	162	224	231	207	302	256	293	19	229.9	305.3
DR-3	91	73	87	125.4	34	48	NS	98	154	62	45	76	83	55	181	210	83	89	123	62	73	42	116.96	24.9
DR-4	40	37.2	48	31.2	31.6	46	52	79	95	63	94	110	71	147	156	148	96	64	68	79	37	90	122.6	ND
G-1	50.4	74.6	77	40	22	70	73.5	85	105.6	59.7	80.3	ND	68	146	101	105	90	78	96.2	69.1	55.8	52.6	68.55	65.58
G-2	69	25	68	50	46	8.5	NS	NS	ND	NS	NS	28	NS	48	34	37	52	14	68	81	50	132.2	75.3	41.9
G-3	309.65	15	322	NS	NS	NS	NS	293	404	420	262	370	NS	NS	NS	NS	NS	82	NS	11	25	41.6	147.3	44.2

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, MW-21

All compounds are measured in parts per billion (ppb).

VOC - Volatile Organic Compounds.

DUP - Duplicate Sample

EB - Equipment/Field Blank Sample

* - Sample was broken in transit and not able to be analyzed

DWS- Different Well Sampled than previously tested.

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 2019	% Reduction 2002 to Nov 2018	% Reduction 2002 to Aug 2018	% Reduction 2002 to May 2018	% Reduction 2002 to April 2018	% Reduction 2002 to Nov 2017	% Reduction 2002 to Aug 2017	% Reduction 2002 to Nov 2016	% Reduction 2002 to Sep 2016	% Reduction 2002 to Jun 2016	% Reduction 2002 to Nov 2015	% Reduction 2002 to Aug 2015	% Reduction 2002 to Jun 2015	% Reduction 2002 to Mar 2015	% Reduction 2002 to Nov 2014	% Reduction 2002 to Sep 2014	% Reduction 2002 to Jun 2014	% 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
MW-1*	-40.76%	-40.6%	-54.9%	-44.5%	51.3%	-39.90%	-57.6%	-48.0%	-9.1%	24.5%	-99.2%	-91.4%	54.4%	44.0%	60.9%	45.3%	-28.9%	-28.9%	-126.6%	-8.1%	-19.5%	-87.5%	31.3%	-15.8%
MW-2	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-3	97.40%	100%	100%	100%	100%	100%	100.0%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
MW-5	93.57%	100%	100%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-6	78.66%	100%	-83.3%	15.4%	15.4%	-84.60%	15.4%	81.3%	70.4%	75.4%	70.4%	76.4%	78.8%	80.0%	72.9%	72.9%	76.4%	76.8%	68.0%	75.6%	77.1%	75.6%	78.6%	78.9%
MW-7	93.82%	80.0%	79.3%	100.0%	81.3%	98.70%	83.6%	75.6%	86.2%	81.6%	69.1%	71.1%	87.1%	100.0%	60.0%	57.8%	83.6%	100.0%	100.0%	96.0%	100.0%	100.0%	96.3%	83.2%
MW-8	100%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-9	100%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-10	100%	100%	100%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-11	77.21%	89.5%	93.9%	89.5%	75.0%	89.20%	99.1%	86.1%	90.4%	88.2%	77.2%	86.4%	90.4%	89.2%	90.3%	91.9%	90.3%	84.7%	81.1%	89.0%	87.7%	83.0%	89.3%	86.7%
MW-12	99.38%	99.6%	99.9%	99.2%	99.1%	99.83%	75.0%	99.9%	99.9%	99.9%	99.8%	99.6%	99.2%	99.1%	99.0%	98.4%	98.4%	98.3%	98.6%	98.8%	98.5%	98.9%	99.3%	98.8%
MW-13	99.56%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-14	91.78%	90.3%	92.9%	92.8%	91.1%	87.90%	2.3%	75.9%	68.3%	81.9%	74.3%	69.5%	83.5%	68.6%	78.4%	78.4%	82.9%	76.8%	70.2%	84.4%	77.5%	85.1%	87.4%	75.7%
MW-15	99.33%	100%	99.1%	100%	100%	100%	99.0%	98.5%	96.7%	98.5%	98.6%	98.1%	98.9%	98.7%	95.6%	95.6%	99.2%	100.0%	99.1%	99.0%	100.0%	99.2%	95.4%	99.1%
MW-16*	28.54%	19.9%	80.5%	19.9%	2.3%	2.80%	2.3%	72.7%	60.9%	27.7%	39.5%	74.6%	88.7%	100.0%	89.8%	81.6%	59.0%	53.1%	60.2%	77.6%	36.8%	52.6%	88.5%	67.9%
MW-17*	72.60%	78.4%	73.8%	88.9%	99.5%	78*	2.3%	62.9%	54.0%	58.0%	54.5%	59.4%	Not Sampled	66.8%	61.0%	59.4%	66.5%	83.5%	58.5%	50.6%	97.4%	46.9%	53.0%	67.9%
MW-18*	99.29%	100%	100%	100%	100%	100%	100%	97.4%	93.4%	98.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	Not Sampled	100.0%	100.0%	100.0%	89.6%	98.5%
MW-19 R*	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	75.0%	99.0%	99.0%
MW-20**	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.4%	99.4%	99.4%
MW-21**	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	34.6%	-50.0%	66.5%	23.1%	23.1%	61.5%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
* Well installed 2003																								
** Well installed 2004																								
Site-Wide reduction:	83.6%	85.1%	78.0%	82.2%	84.2%	67.60%	62.1%	74.1%	68.7%	78.6%	66.2%	69.1%	87.7%	88.2%	85.2%	83.2%	79.8%	80.3%	67.5%	81.8%	81.2%	71.3%	82.9%	80.7%
Impacted Groundwater																								
Plume Area Only:	71.6%	74.6%	72.1%	67.6%	76.6%	51.40%	41.1%	66.5%	69.6%	76.0%	58.1%	58.6%	84.6%	80.8%	77.3%	75.0%	72.3%	73.9%	82.2%	73.2%	77.3%	62.5%	75.2%	73.1%

% 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 July 2019	% Reduction 2002 to Nov 2018	% Reduction 2002 to Aug 2018	% Reduction 2002 to May 2018	% Reduction 2002 to April 2018	% Reduction 2002 to Nov 2017	% Reduction 2002 to Aug 2017	% Reduction 2002 to Nov 2016	% Reduction 2002 to Sep 2016	% Reduction 2002 to Jun 2016	% Reduction 2002 to Nov 2015	% Reduction 2002 to Aug 2015	% Reduction 2002 to Jun 2015	% Reduction 2002 to Mar 2015	% Reduction 2002 to Nov 2014	% Reduction 2002 to Sep 2014	% Reduction 2002 to Jun 2014	% 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
DR-1	-219.50%	-128.5%	-163.3%	-130.0%	-86.6%	-243.6%	-243.6%	-7.6%	-6.4%	-58.7%	44.4%	72.1%	Not Sampled	96.2%	89.0%	90.4%	86.9%	77.0%	84.8%	99.1%	99.0%	99.5%	99.8%	91.8%
DR-2	71.60%	60.7%	70.5%	76.7%	78%	63.8%	63.8%	75.1%	60.3%	60.9%	63.8%	66.0%	67.0%	52.8%	59.2%	58.0%	62.3%	58.0%	45.0%	87.2%	85.4%	99.1%	88.5%	83.9%
DR-3	40.33%	52.1%	43.0%	17.8%	78%	68.5%	Not Sampled	35.7%	-1.0%	59.9%	70.5%	50.2%	45.6%	63.9%	-18.7%	-37.7%	45.6%	41.6%	19.3%	95.8%	95.1%	97.2%	92.1%	98.3%
DR-4	95.34%	95.7%	94.4%	96.4%	96%	93.9%	93.9%	90.8%	88.9%	92.7%	89.1%	87.2%	91.7%	82.9%	81.8%	82.8%	88.8%	92.5%	90.8%	95.5%	97.9%	94.9%	93.1%	100.0%
G-1	74.90%	62.8%	61.7%	80.1%	80%	74.1%	74.1%	57.7%	47.4%	92.7%	60.0%	100.0%	96.1%	27.3%	49.8%	47.7%	55.0%	61.3%	65.6%	87.3%	89.8%	90.3%	87.4%	88.0%
G-2	75.65%	91.2%	76.0%	82.4%	84%	Not Sampled	Not Sampled	100.0%	100.0%	Not Sampled	Not Sampled	90.1%	Not Sampled	83.1%	88.0%	86.9%	81.7%	95.1%	71.4%	70.0%	87.0%	65.7%	80.4%	88.1%
G-3	23.19%	96.3%	20.1%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	27.3%	-0.2%	-4.2%	35.0%	8.2%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	79.7%	NA	NA	NA	NA	NA	NA
Overall Reduction	23.07%	47.2%	28.9%	37.2%	54.6%	60.4%	40.4%	46.5%	41.3%	40.4%	60.4%	67.7%	62.6%	67.7%	60.1%	54.9%	69.3%	72.8%	62.8%	90.7%	92.3%	91.1%	90.2%	91.8%

*Sampling of recovery wells initiated in 2005

Project: DASNY GOWANDA Q2
Samples Received by Alpha on 26-88-19
LOCATION
SAMPLING DATE
Lab Sample ID

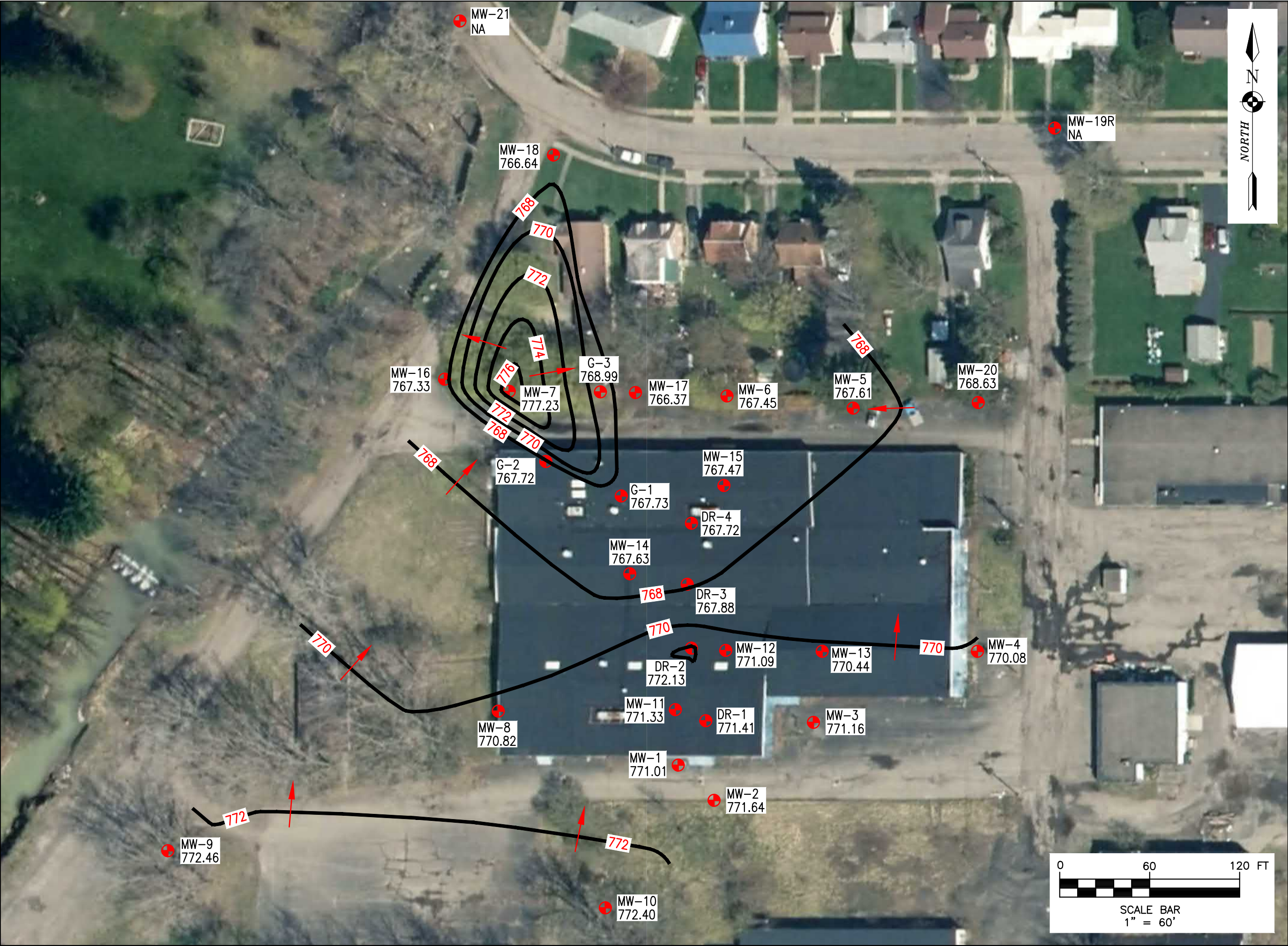
CAPACITATE										M1		M2		M3		M4		M5		M6		M7		M8		M9		M10		M11		M12		M13		M14		M15		M16		M17		M18		M19		M20		M21		M22		M23		M24		M25		M26		M27		M28		M29		M30		M31		M32		M33		M34		M35		M36		M37		M38		M39		M40		M41		M42		M43		M44		M45		M46		M47		M48		M49		M50		M51		M52		M53		M54		M55		M56		M57		M58		M59		M60		M61		M62		M63		M64		M65		M66		M67		M68		M69		M70		M71		M72		M73		M74		M75		M76		M77		M78		M79		M80		M81		M82		M83		M84		M85		M86		M87		M88		M89		M90		M91		M92		M93		M94		M95		M96		M97		M98		M99		M100	
CAPACITATE										M1		M2		M3		M4		M5		M6		M7		M8		M9		M10		M11		M12		M13		M14		M15		M16		M17		M18		M19		M20		M21		M22		M23		M24		M25		M26		M27		M28		M29		M30		M31		M32		M33		M34		M35		M36		M37		M38		M39		M40		M41		M42		M43		M44		M45		M46		M47		M48		M49		M50		M51		M52		M53		M54		M55		M56		M57		M58		M59		M60		M61		M62		M63		M64		M65		M66		M67		M68		M69		M70		M71		M72		M73		M74		M75		M76		M77		M78		M79		M80		M81		M82		M83		M84		M85		M86		M87		M88		M89		M90		M91		M92		M93		M94		M95		M96		M97		M98		M99		M100	
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CAPACITATE										M1		M2		M3		M4		M5		M6		M7		M8		M9		M10		M11		M12		M13		M14		M15		M16		M17		M18		M19		M20		M21		M22		M23		M24		M25		M26		M27		M28		M29		M30		M31		M32		M33		M34		M35		M36		M37		M38		M39		M40		M41		M42		M43		M44		M45		M46		M47		M48		M49		M50		M51		M52		M53		M54		M55		M56		M57		M58		M59		M60		M61		M62		M63		M64		M65		M66		M67		M68		M69		M70		M71		M72		M73		M74		M75		M76		M77		M78		M79		M80		M81		M82		M83		M84		M85		M86		M87		M88		M89		M90		M91		M92		M93		M94		M95		M96		M97		M98		M99		M100	
CAPACITATE										M1		M2		M3		M4		M5		M6		M7		M8		M9		M10		M11		M12		M13		M14		M15		M16		M17		M18		M19		M20		M21		M22		M23		M24		M25		M26		M27		M28		M29		M30		M31		M32		M33		M34		M35		M36		M37		M38		M39		M40		M41		M42		M43		M44		M45		M46		M47		M48		M49		M50		M51		M52		M53		M54		M55		M56		M57		M58		M59		M60		M61		M62		M63		M64		M65		M66		M67		M68		M69		M70		M71		M72		M73		M74		M75		M76		M77		M78		M79		M80		M81		M82		M83		M84		M85		M86		M87		M88		M89		M90		M91		M92		M93		M94		M95		M96		M97		M98		M99		M100	
CAPACITATE										M1		M2		M3		M4		M5		M6		M7		M8		M9		M10		M11		M12		M13		M14		M15		M16		M17		M18		M19		M20		M21		M22		M23		M24		M25		M26		M27		M28		M29		M30		M31		M32		M33		M34		M35		M36		M37		M38		M39		M40		M41		M42		M43		M44		M45		M46		M47		M48		M49		M50		M51		M52		M53		M54		M55		M56		M57		M58		M59		M60		M61		M62		M63		M64		M65		M66		M67		M68		M69		M70		M71		M72		M73		M74		M75		M76		M77		M78		M79		M80		M81		M82		M83		M84		M85		M86		M87		M88		M89		M90		M91		M92		M93		M94		M95		M96		M97		M98		M99		M100	
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CAPACITATE										M1		M2		M3		M4		M5		M6		M7		M8		M9		M10		M11		M12		M13		M14		M15		M16		M17		M18		M19		M20		M21		M22		M23		M24		M25		M26		M27		M28		M29		M30		M31		M32		M33		M34		M35		M36		M37		M38		M39		M40		M41		M42		M43		M44		M45		M46		M47		M48		M49		M50		M51		M52		M53		M54		M55		M56		M57		M58		M59		M60		M61		M62		M63		M64		M65		M66		M67		M68		M69		M70		M71		M72		M73		M74		M75		M76		M77		M78		M79		M80		M81		M82		M83		M84		M85		M86		M87		M88		M89		M90		M91		M92		M93		M94		M95		M96		M97		M98		M99		M100	
CAPACITATE										M1		M2		M3		M4		M5		M6		M7		M8		M9		M10		M11		M12		M13		M14		M15		M16																																																																																																																																																																									



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FIGURES

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REVISIONS				
NO.	DATE	DESCRIPTION	REV.	CK'D

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

Project Manager:	Checked By:
C. BLEIER	C. BLEIER
Designed By:	Drawn By:
	C. WOOD
Date Issued:	Scale:
11/15/2019	1" = 60'
Project Number:	
6974.98	

JULY 2019
WATER LEVEL
CONTOUR MAP

Drawing Number:
FIGURE 1

DASNY

Gowanda Day
Habilitation Center

4 Industrial Place
Gowanda, NY



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Figure 2

July 2019
Distribution of
Groundwater
Analytical Results:
Monitoring Wells

0 30 60 90 120
Feet



DASNY

Gowanda Day
Habilitation Center

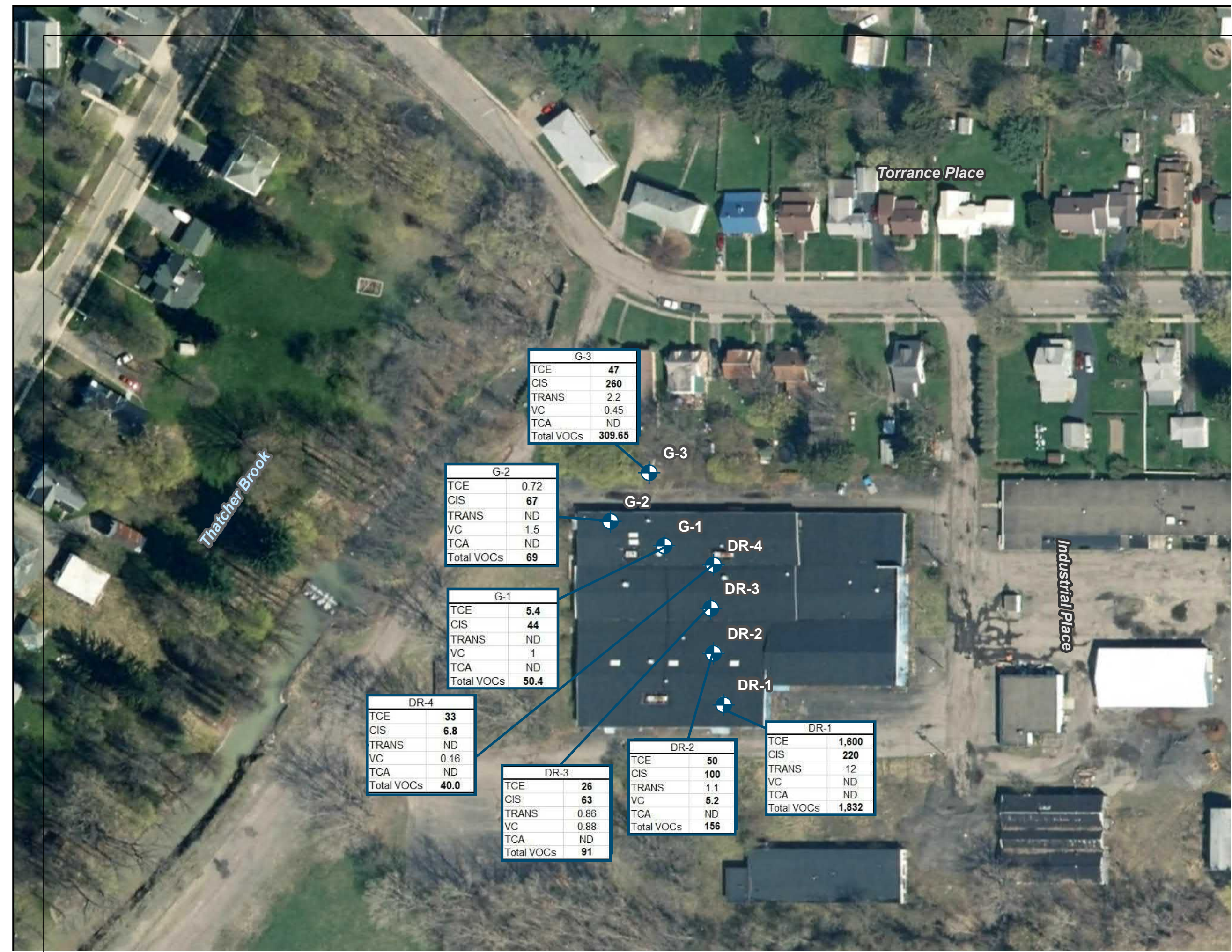
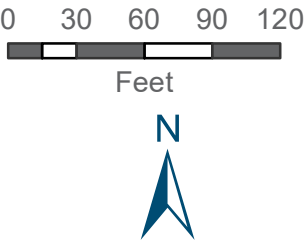
4 Industrial Place
Gowanda, NY



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Figure 3

July 2019
Distribution of
Groundwater
Analytical Results:
Recovery Wells





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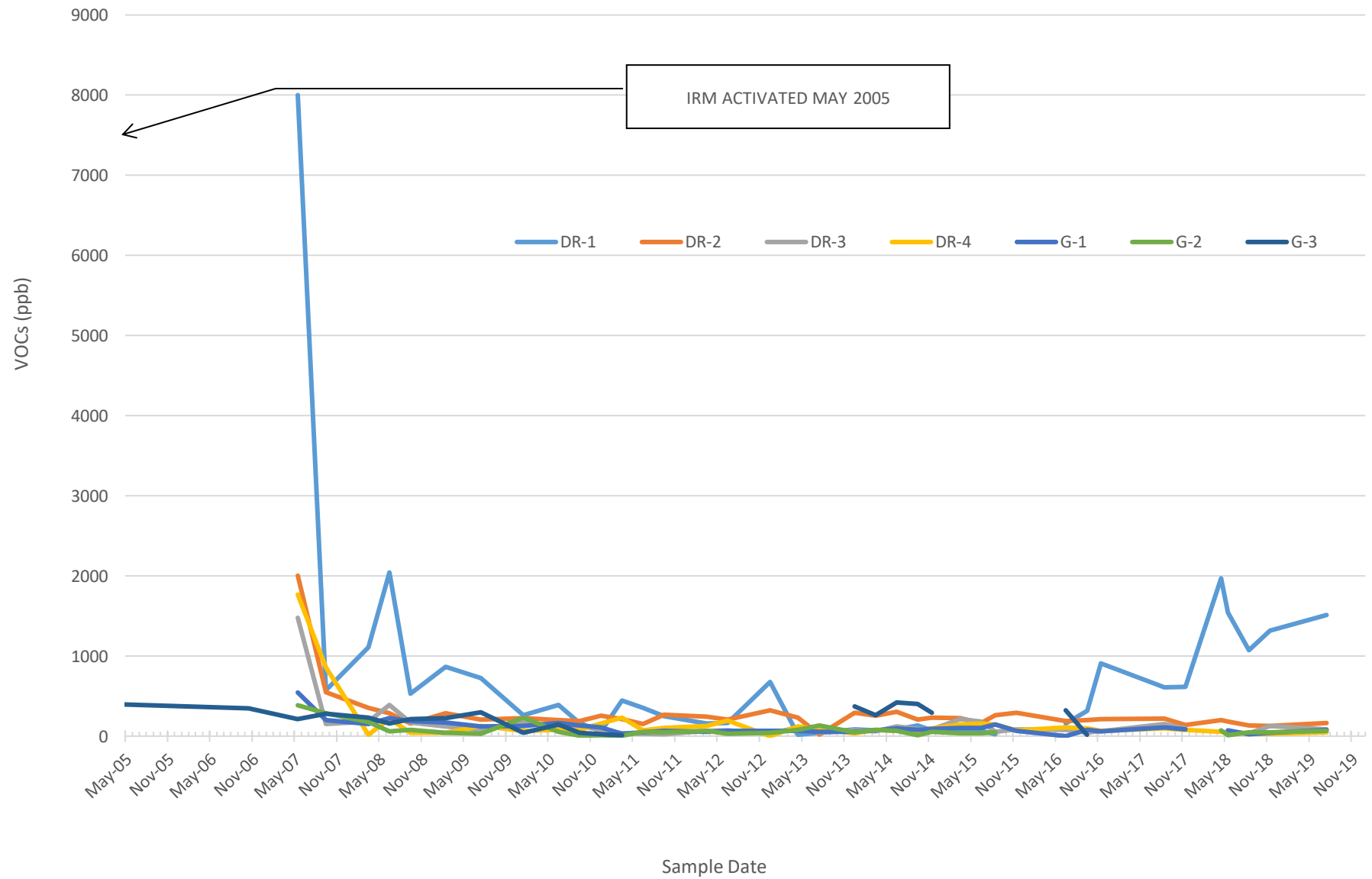
CHARTS



BERGMANN

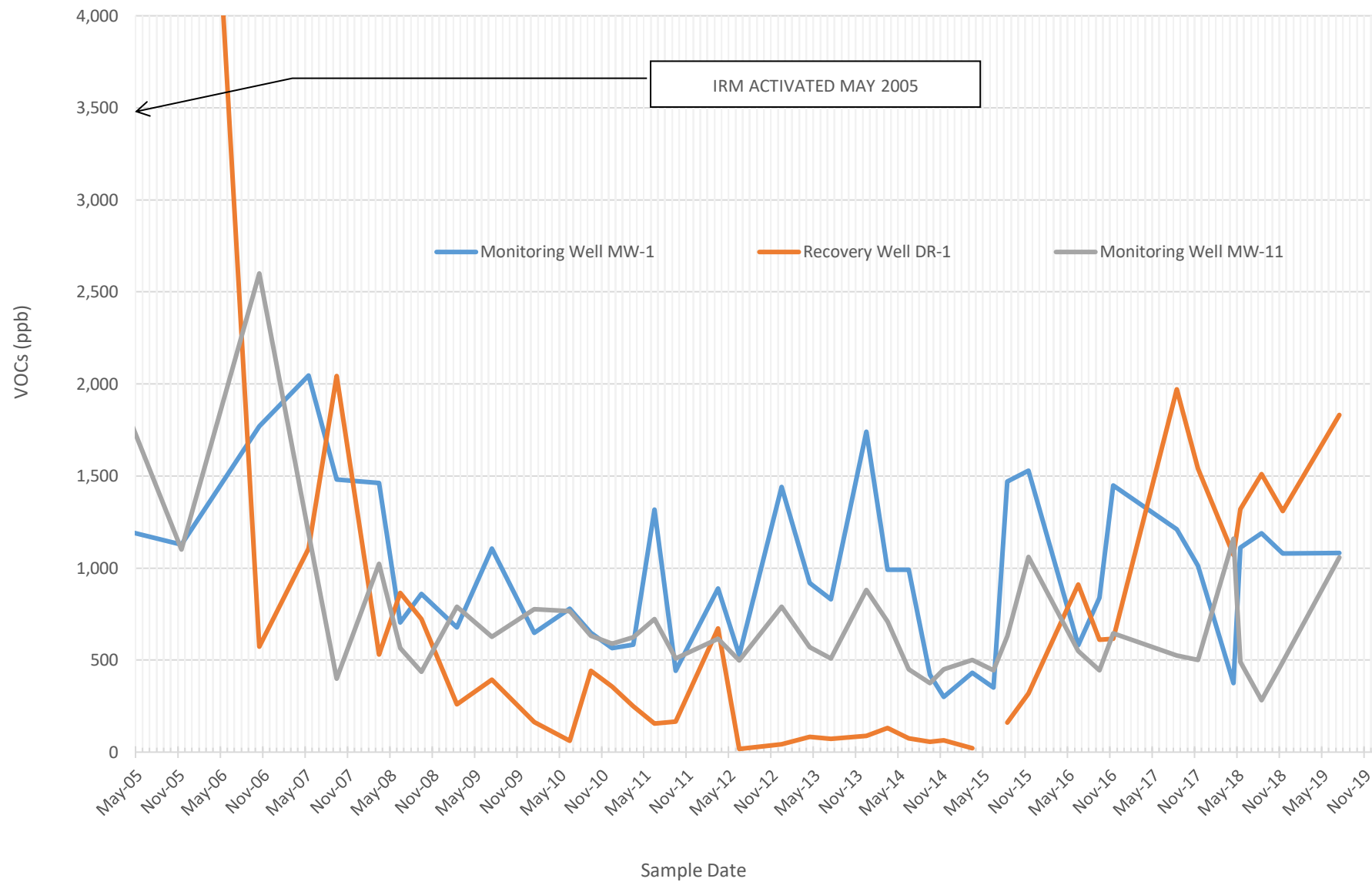
ARCHITECTS ENGINEERS PLANNERS

Groundwater Recovery Wells DR-1, DR-2, DR-3, DR-4, G-1, G-2, and G-3



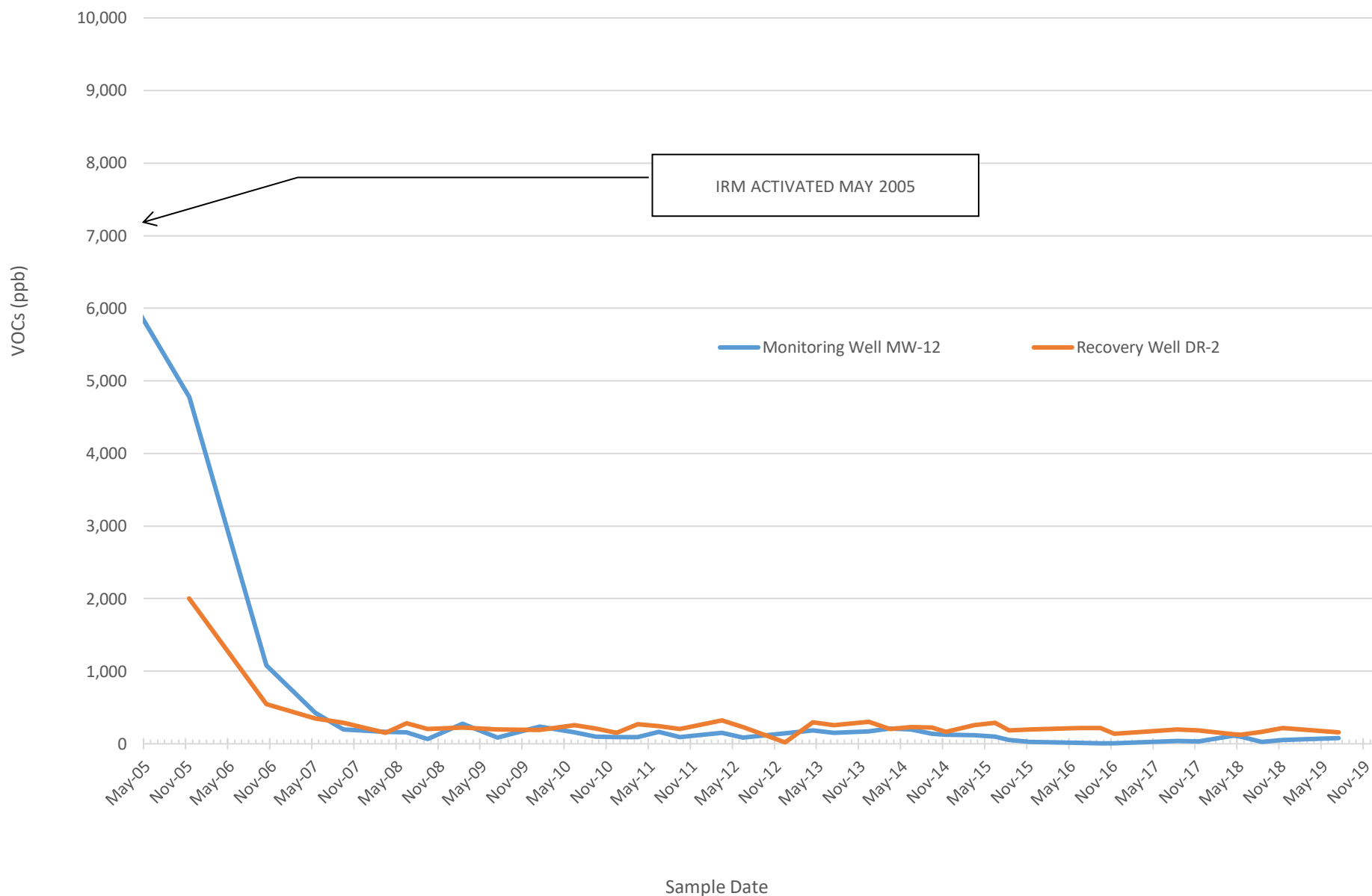


MW-1, DR-1 and MW-11



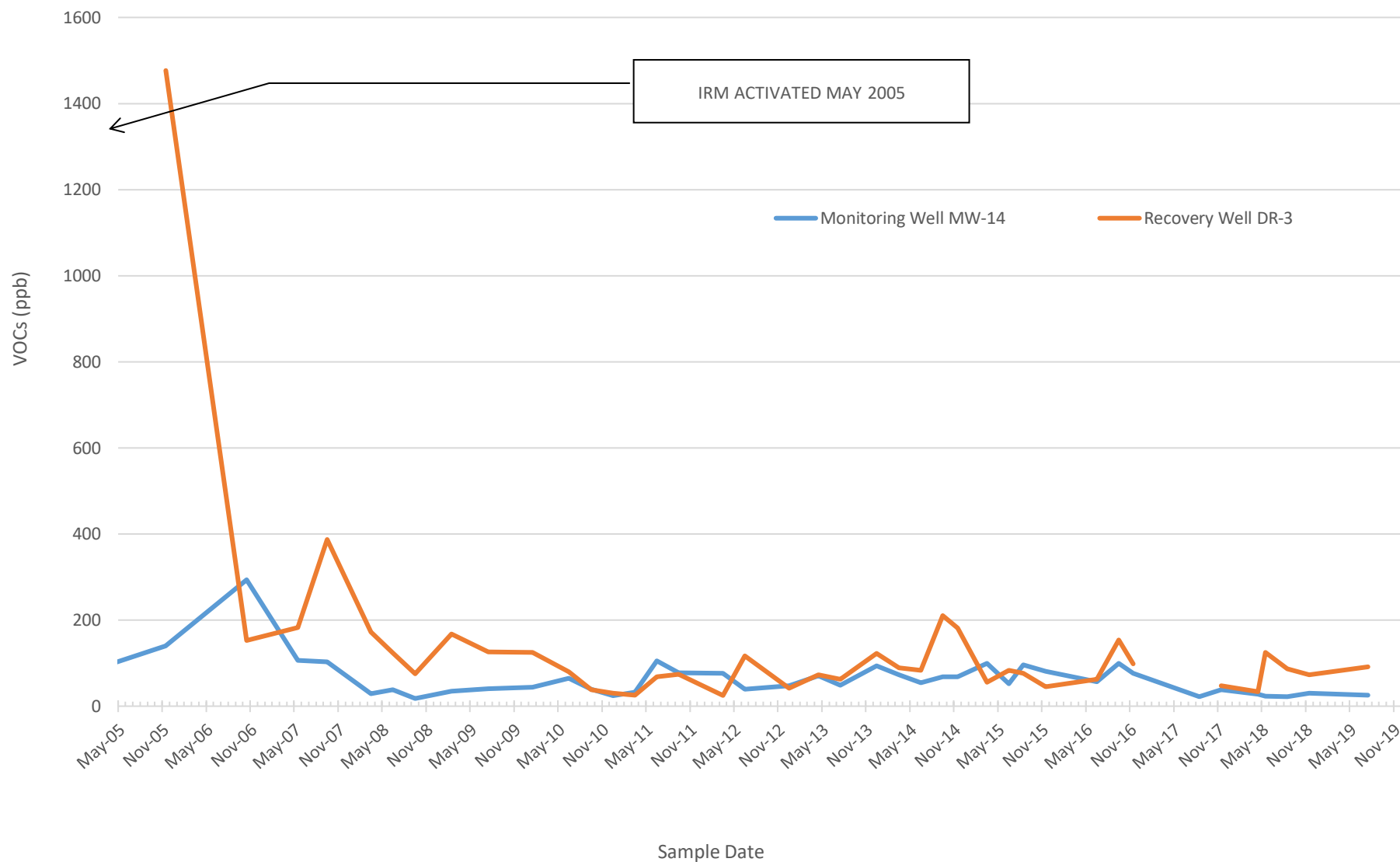


MW-12 and DR-2



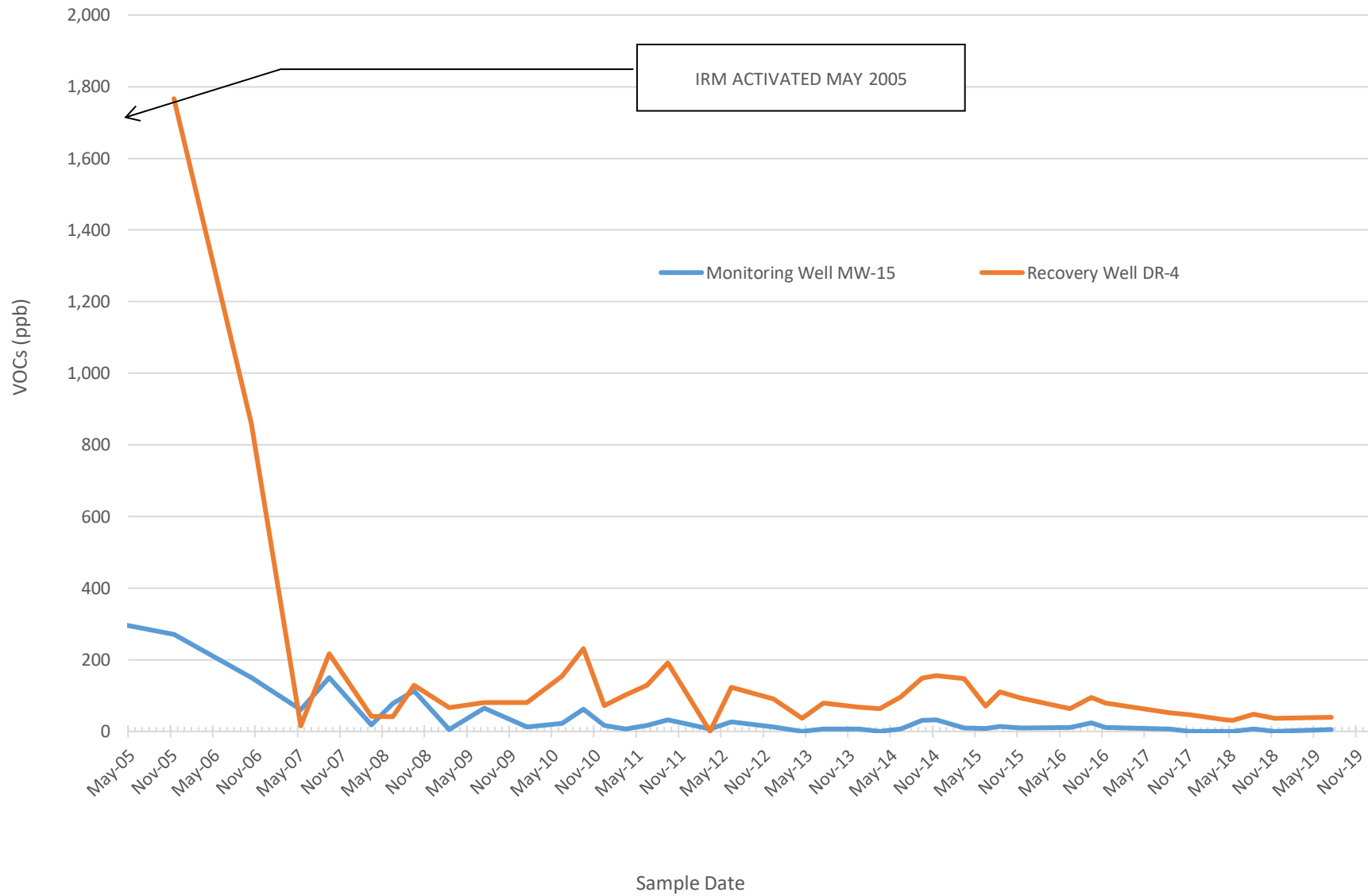


MW-14 and DR-3



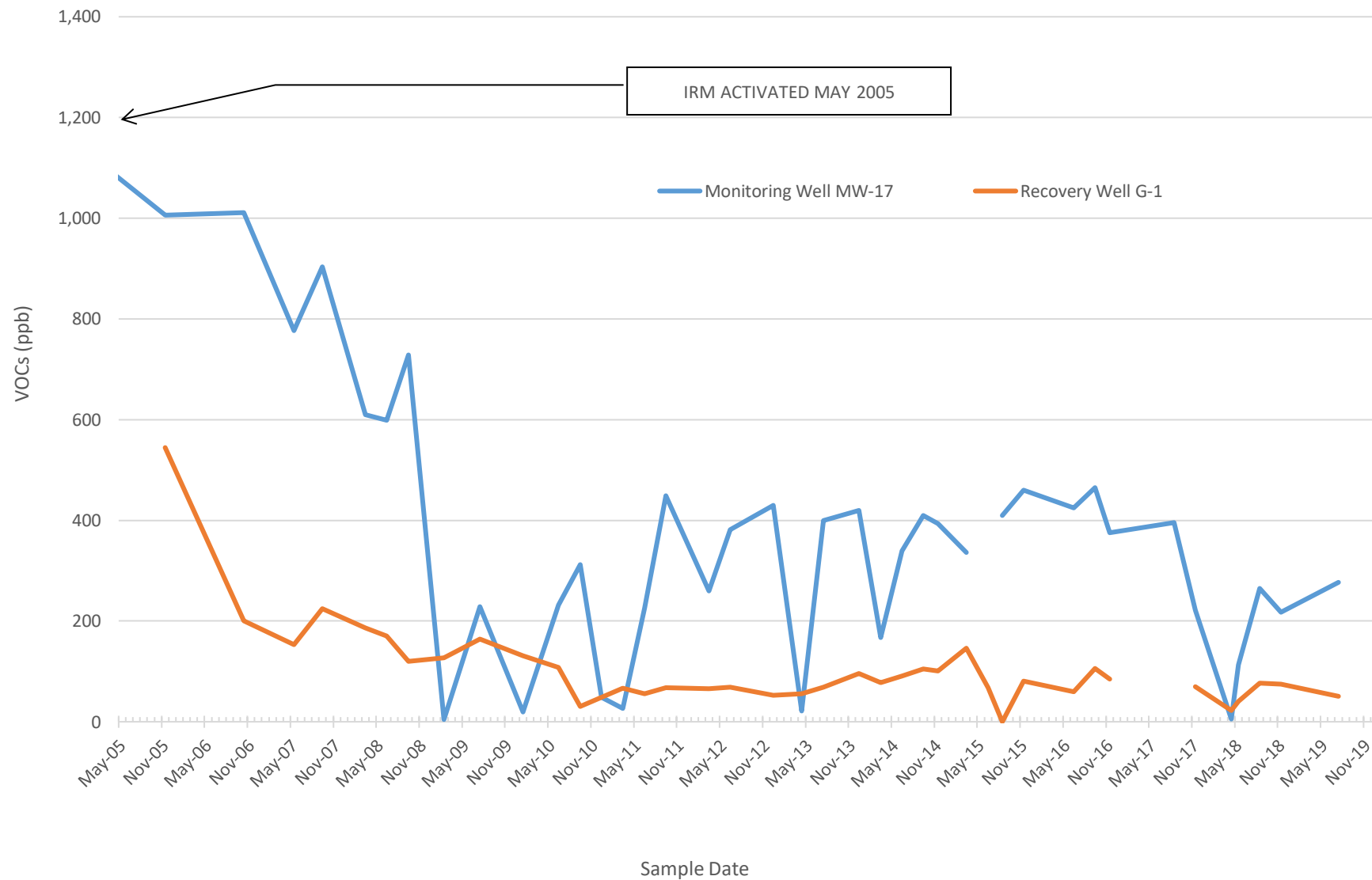


MW-15 and DR-4



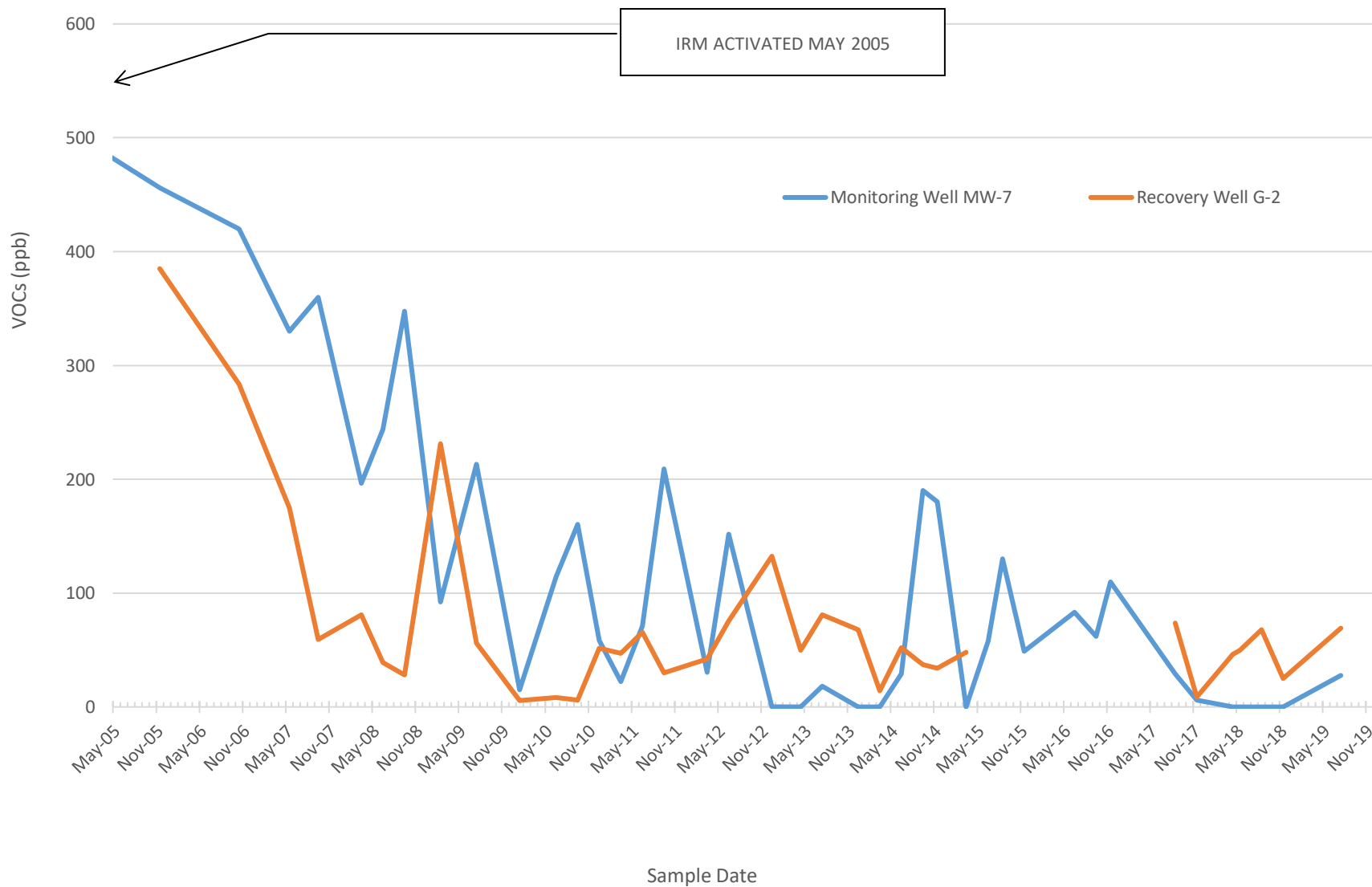


MW-17 and G-1



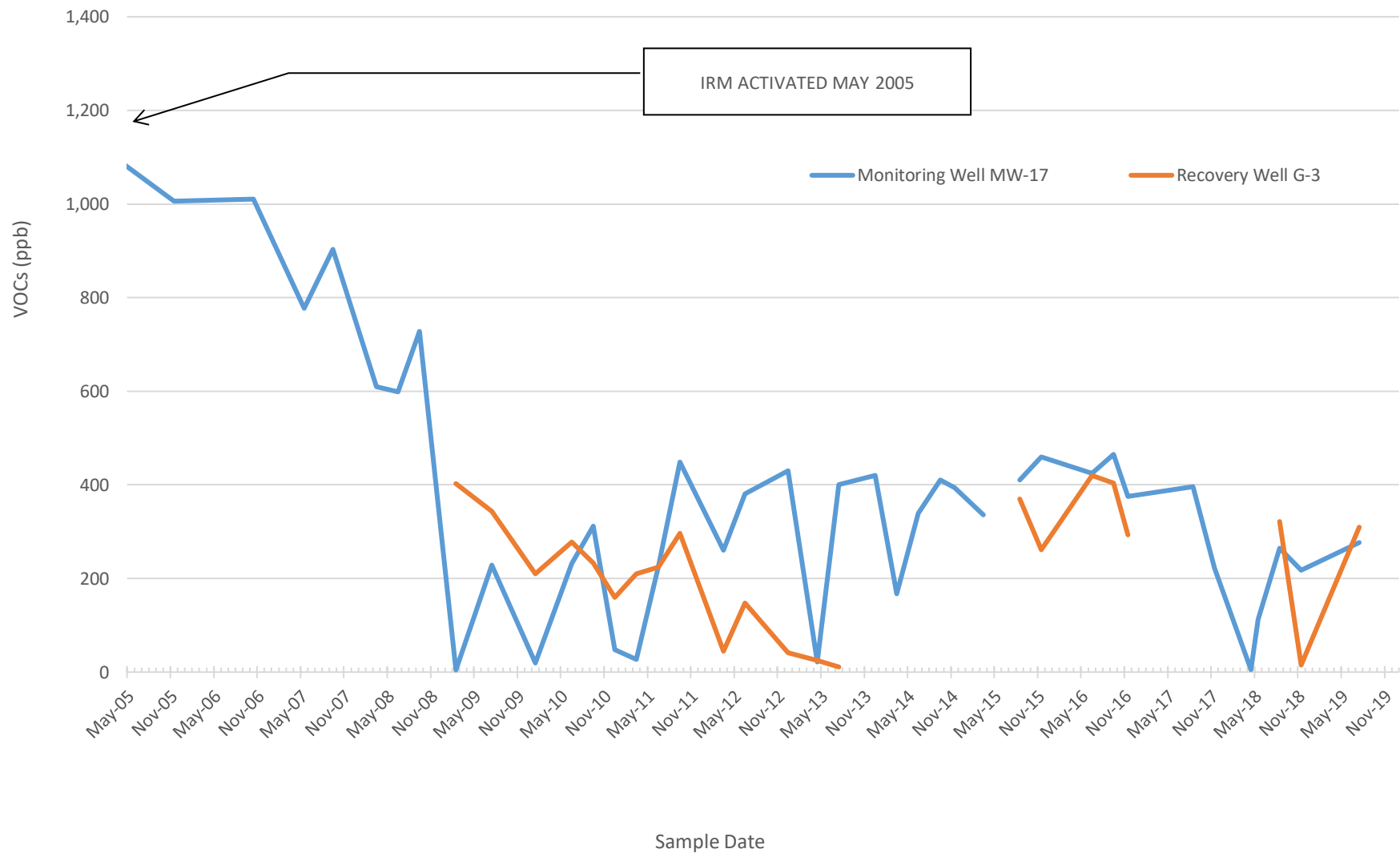


MW-7 and G-2





MW-17 and G-3





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APPENDIX A:

LABORATORY ANALYTICAL RESULTS



ANALYTICAL REPORT

Lab Number:	L1933434
Client:	Bergmann Associates 280 E Broad Street Rochester, NY 14604
ATTN:	Cash Bleier
Phone:	(585) 498-7950
Project Name:	DASNY GOWANDA
Project Number:	DASNY GOWANDA
Report Date:	08/07/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DASNY GOWANDA

Project Number: DASNY GOWANDA

Lab Number: L1933434

Report Date: 08/07/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1933434-01	MW-1	WATER	GOWANDA, NY	07/25/19 09:40	07/26/19
L1933434-02	MW-2	WATER	GOWANDA, NY	07/25/19 09:40	07/26/19
L1933434-03	MW-3	WATER	GOWANDA, NY	07/25/19 09:30	07/26/19
L1933434-04	MW-4	WATER	GOWANDA, NY	07/25/19 09:20	07/26/19
L1933434-05	MW-5	WATER	GOWANDA, NY	07/25/19 09:10	07/26/19
L1933434-06	MW-6	WATER	GOWANDA, NY	07/25/19 08:56	07/26/19
L1933434-07	MW-7	WATER	GOWANDA, NY	07/25/19 08:30	07/26/19
L1933434-08	MW-8	WATER	GOWANDA, NY	07/25/19 09:52	07/26/19
L1933434-09	MW-9	WATER	GOWANDA, NY	07/25/19 10:05	07/26/19
L1933434-10	MW-10	WATER	GOWANDA, NY	07/25/19 10:00	07/26/19
L1933434-11	MW-11	WATER	GOWANDA, NY	07/25/19 11:15	07/26/19
L1933434-12	MW-12	WATER	GOWANDA, NY	07/25/19 11:15	07/26/19
L1933434-13	MW-13	WATER	GOWANDA, NY	07/25/19 10:58	07/26/19
L1933434-14	MW-14	WATER	GOWANDA, NY	07/25/19 10:39	07/26/19
L1933434-15	MW-15	WATER	GOWANDA, NY	07/25/19 10:31	07/26/19
L1933434-16	MW-16	WATER	GOWANDA, NY	07/25/19 08:30	07/26/19
L1933434-17	MW-17	WATER	GOWANDA, NY	07/25/19 08:50	07/26/19
L1933434-18	MW-18	WATER	GOWANDA, NY	07/25/19 08:15	07/26/19
L1933434-19	MW-20	WATER	GOWANDA, NY	07/25/19 09:05	07/26/19
L1933434-20	MW-X	WATER	GOWANDA, NY	07/25/19 11:30	07/26/19
L1933434-21	G-1	WATER	GOWANDA, NY	07/25/19 10:15	07/26/19
L1933434-22	G-2	WATER	GOWANDA, NY	07/25/19 10:15	07/26/19
L1933434-23	G-3	WATER	GOWANDA, NY	07/25/19 08:45	07/26/19
L1933434-24	DR-1	WATER	GOWANDA, NY	07/25/19 11:00	07/26/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1933434-25	DR-2	WATER	GOWANDA, NY	07/25/19 11:05	07/26/19
L1933434-26	DR-3	WATER	GOWANDA, NY	07/25/19 11:19	07/26/19
L1933434-27	DR-4	WATER	GOWANDA, NY	07/25/19 10:31	07/26/19
L1933434-28	TRIP BLANK	WATER	GOWANDA, NY	07/25/19 00:00	07/26/19

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The analyses performed were specified by the client.

L1933434-28: A sample identified as "TRIP BLANK" was received but not listed on the Chain of Custody. This sample was not analyzed.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Cristin Walker

Title: Technical Director/Representative

Date: 08/07/19

ORGANICS

VOLATILES

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-01 D

Date Collected: 07/25/19 09:40

Client ID: MW-1

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/07/19 07:32

Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	1.6	J	ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	9.5	J	ug/l	12	3.5	5
Trichloroethene	820		ug/l	2.5	0.88	5

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-01 D

Date Collected: 07/25/19 09:40

Client ID: MW-1

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
Xylenes, Total	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	250		ug/l	12	3.5	5
1,2-Dichloroethene, Total	260	J	ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	ND		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	ND		ug/l	50	2.0	5

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-01 D

Date Collected: 07/25/19 09:40

Client ID: MW-1

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-02
Client ID: MW-2
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:40
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/06/19 14:06
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-02
 Client ID: MW-2
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:40
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	6.7		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-02
Client ID: MW-2
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:40
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	110		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	95		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-03
 Client ID: MW-3
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:30
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/06/19 14:34
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.39	J	ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-03
 Client ID: MW-3
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:30
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	8.1		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-03
Client ID: MW-3
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:30
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	96		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-04
 Client ID: MW-4
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:20
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/06/19 15:02
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-04
 Client ID: MW-4
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:20
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	7.0		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-04
Client ID: MW-4
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:20
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	98		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-05
 Client ID: MW-5
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:10
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/06/19 15:30
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.90		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-05

Date Collected: 07/25/19 09:10

Client ID: MW-5

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-05
Client ID: MW-5
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:10
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	96		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-06
 Client ID: MW-6
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:56
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/06/19 15:59
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.63	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-06
 Client ID: MW-6
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:56
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	86		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	86		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.4	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-06
Client ID: MW-6
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:56
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	94		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-07
 Client ID: MW-7
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:30
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/06/19 16:27
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.15	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.68		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-07
 Client ID: MW-7
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:30
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	27		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	27		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.1	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-07
Client ID: MW-7
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:30
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	95		70-130

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-08
Client ID: MW-8
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:52
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/06/19 18:04
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-08
 Client ID: MW-8
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:52
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.3		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-08
Client ID: MW-8
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:52
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	96		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-09
 Client ID: MW-9
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:05
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/06/19 22:34
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-09

Date Collected: 07/25/19 10:05

Client ID: MW-9

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.6		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-09
Client ID: MW-9
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:05
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	98		70-130

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-10
Client ID: MW-10
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:00
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/06/19 23:02
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-10
 Client ID: MW-10
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:00
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.0	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-10
 Client ID: MW-10
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:00
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-11 D

Date Collected: 07/25/19 11:15

Client ID: MW-11

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/07/19 05:39

Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	ND		ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	19		ug/l	12	3.5	5
Trichloroethene	850		ug/l	2.5	0.88	5

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-11 D

Date Collected: 07/25/19 11:15

Client ID: MW-11

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
Xylenes, Total	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	190		ug/l	12	3.5	5
1,2-Dichloroethene, Total	210		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	ND		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	ND		ug/l	50	2.0	5

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-11 D

Date Collected: 07/25/19 11:15

Client ID: MW-11

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-12
 Client ID: MW-12
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 11:15
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/06/19 23:30
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.37	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.17	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	13		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-12
 Client ID: MW-12
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 11:15
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	66		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	66		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.4	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-12
Client ID: MW-12
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 11:15
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	97		70-130

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-13
Client ID: MW-13
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:58
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/06/19 23:59
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.38	J	ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-13
 Client ID: MW-13
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:58
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.0	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.0	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.3	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-13
Client ID: MW-13
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:58
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	99		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-14
 Client ID: MW-14
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:39
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/07/19 00:27
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	21		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-14
 Client ID: MW-14
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:39
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	4.9		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	4.9		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-14
Client ID: MW-14
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:39
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	97		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-15
 Client ID: MW-15
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:31
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/07/19 00:56
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	3.5		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-15
 Client ID: MW-15
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:31
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.4	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.4	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.9	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-15
Client ID: MW-15
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:31
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	97		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-16
 Client ID: MW-16
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:30
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/07/19 01:24
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.34	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.27	J	ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-16
 Client ID: MW-16
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:30
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	37		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	37		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.6		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-16
Client ID: MW-16
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:30
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-17
 Client ID: MW-17
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:50
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/07/19 01:52
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.64	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.53		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	1.6	J	ug/l	2.5	0.70	1
Trichloroethene	35		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-17
Client ID: MW-17
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:50
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	240	E	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.2	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-17
 Client ID: MW-17
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:50
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	100		70-130

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-17 D
Client ID: MW-17
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:50
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/07/19 11:23
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
cis-1,2-Dichloroethene	200		ug/l	6.2	1.8	2.5
1,2-Dichloroethene, Total	200	J	ug/l	2.5	0.70	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	102		70-130

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-18
Client ID: MW-18
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:15
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/07/19 02:20
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	1.0		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-18

Date Collected: 07/25/19 08:15

Client ID: MW-18

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.8	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.8	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.0		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-18
 Client ID: MW-18
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 08:15
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	98		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-19
 Client ID: MW-20
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:05
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/07/19 02:49
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-19

Date Collected: 07/25/19 09:05

Client ID: MW-20

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-19
Client ID: MW-20
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 09:05
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-20 D

Date Collected: 07/25/19 11:30

Client ID: MW-X

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/07/19 06:08

Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
1,3-Dichloropropene, Total	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	1.6	J	ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	23		ug/l	12	3.5	5
Trichloroethene	890		ug/l	2.5	0.88	5

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-20 D

Date Collected: 07/25/19 11:30

Client ID: MW-X

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
Xylenes, Total	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	240		ug/l	12	3.5	5
1,2-Dichloroethene, Total	260		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
n-Butylbenzene	ND		ug/l	12	3.5	5
sec-Butylbenzene	ND		ug/l	12	3.5	5
tert-Butylbenzene	ND		ug/l	12	3.5	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
p-Isopropyltoluene	ND		ug/l	12	3.5	5
Naphthalene	ND		ug/l	12	3.5	5
n-Propylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
1,3,5-Trimethylbenzene	ND		ug/l	12	3.5	5
1,2,4-Trimethylbenzene	ND		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	ND		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	ND		ug/l	50	2.0	5

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-20 D

Date Collected: 07/25/19 11:30

Client ID: MW-X

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-21
 Client ID: G-1
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:15
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/07/19 03:17
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.0		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	5.4		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-21

Date Collected: 07/25/19 10:15

Client ID: G-1

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	44		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	44		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-21
Client ID: G-1
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:15
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-22
 Client ID: G-2
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:15
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/07/19 03:46
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.5		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.72		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-22
 Client ID: G-2
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:15
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	67		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	67		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.1	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-22
 Client ID: G-2
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:15
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	100		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-23 D

Date Collected: 07/25/19 08:45

Client ID: G-3

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/07/19 06:36

Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	ND		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	ND		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	ND		ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
1,3-Dichloropropene, Total	ND		ug/l	1.0	0.29	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	ND		ug/l	1.0	0.32	2
Toluene	ND		ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	0.45	J	ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	0.44	J	ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	2.2	J	ug/l	5.0	1.4	2
Trichloroethene	47		ug/l	1.0	0.35	2

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-23 D

Date Collected: 07/25/19 08:45

Client ID: G-3

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	ND		ug/l	5.0	1.4	2
o-Xylene	ND		ug/l	5.0	1.4	2
Xylenes, Total	ND		ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	260		ug/l	5.0	1.4	2
1,2-Dichloroethene, Total	260	J	ug/l	5.0	1.4	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	5.5	J	ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	ND		ug/l	10	3.9	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
n-Butylbenzene	ND		ug/l	5.0	1.4	2
sec-Butylbenzene	ND		ug/l	5.0	1.4	2
tert-Butylbenzene	ND		ug/l	5.0	1.4	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
p-Isopropyltoluene	ND		ug/l	5.0	1.4	2
Naphthalene	ND		ug/l	5.0	1.4	2
n-Propylbenzene	ND		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,3,5-Trimethylbenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trimethylbenzene	ND		ug/l	5.0	1.4	2
Methyl Acetate	ND		ug/l	4.0	0.47	2
Cyclohexane	ND		ug/l	20	0.54	2
1,4-Dioxane	ND		ug/l	500	120	2
Freon-113	ND		ug/l	5.0	1.4	2
Methyl cyclohexane	ND		ug/l	20	0.79	2

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-23 D

Date Collected: 07/25/19 08:45

Client ID: G-3

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	99		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-24 D

Date Collected: 07/25/19 11:00

Client ID: DR-1

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/07/19 07:04

Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	ND		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	12	J	ug/l	25	7.0	10
Trichloroethene	1600		ug/l	5.0	1.8	10

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-24 D

Date Collected: 07/25/19 11:00

Client ID: DR-1

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	220		ug/l	25	7.0	10
1,2-Dichloroethene, Total	230	J	ug/l	25	7.0	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
Methyl Acetate	ND		ug/l	20	2.3	10
Cyclohexane	ND		ug/l	100	2.7	10
1,4-Dioxane	ND		ug/l	2500	610	10
Freon-113	ND		ug/l	25	7.0	10
Methyl cyclohexane	ND		ug/l	100	4.0	10

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-24 D

Date Collected: 07/25/19 11:00

Client ID: DR-1

Date Received: 07/26/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-25
Client ID: DR-2
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 11:05
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/07/19 04:14
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	0.73	J	ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	5.2		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.24	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	1.1	J	ug/l	2.5	0.70	1
Trichloroethene	50		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-25
 Client ID: DR-2
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 11:05
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	100		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	100	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	6.0		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-25
Client ID: DR-2
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 11:05
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	99		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-26
 Client ID: DR-3
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 11:19
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/07/19 04:43
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.88	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	0.86	J	ug/l	2.5	0.70	1
Trichloroethene	26		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-26
 Client ID: DR-3
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 11:19
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	63		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	64	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.3	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-26
Client ID: DR-3
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 11:19
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-27
 Client ID: DR-4
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:31
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/07/19 05:11
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.16	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	33		ug/l	0.50	0.18	1

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**SAMPLE RESULTS**

Lab ID: L1933434-27
 Client ID: DR-4
 Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:31
 Date Received: 07/26/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	6.8		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	6.8		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.5	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

SAMPLE RESULTS

Lab ID: L1933434-27
Client ID: DR-4
Sample Location: GOWANDA, NY

Date Collected: 07/25/19 10:31
Date Received: 07/26/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/06/19 10:48
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-07 Batch: WG1269234-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/06/19 10:48
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-07 Batch: WG1269234-5					
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 08/06/19 10:48
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-07 Batch: WG1269234-5					
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	95		70-130

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 08/06/19 22:05
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,09-27 Batch: WG1269591-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 08/06/19 22:05
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,09-27 Batch: WG1269591-5					
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 08/06/19 22:05
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,09-27 Batch: WG1269591-5					
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/07/19 10:39
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 17 Batch: WG1269614-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/07/19 10:39
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 17 Batch: WG1269614-5					
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/07/19 10:39
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 17 Batch: WG1269614-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	94		70-130

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/06/19 14:39
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 08 Batch: WG1269619-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/06/19 14:39
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 08 Batch: WG1269619-5					
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 08/06/19 14:39
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 08 Batch: WG1269619-5					
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: DASNY GOWANDA

Project Number: DASNY GOWANDA

Lab Number: L1933434

Report Date: 08/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-07 Batch: WG1269234-3 WG1269234-4								
Methylene chloride	98		100		70-130	2		20
1,1-Dichloroethane	96		96		70-130	0		20
Chloroform	96		95		70-130	1		20
Carbon tetrachloride	96		92		63-132	4		20
1,2-Dichloropropane	98		96		70-130	2		20
Dibromochloromethane	98		96		63-130	2		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	94		96		70-130	2		20
Chlorobenzene	99		100		75-130	1		20
Trichlorofluoromethane	93		92		62-150	1		20
1,2-Dichloroethane	90		89		70-130	1		20
1,1,1-Trichloroethane	94		94		67-130	0		20
Bromodichloromethane	95		93		67-130	2		20
trans-1,3-Dichloropropene	110		110		70-130	0		20
cis-1,3-Dichloropropene	78		77		70-130	1		20
Bromoform	95		92		54-136	3		20
1,1,2,2-Tetrachloroethane	110		110		67-130	0		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	81		80		64-130	1		20
Bromomethane	72		73		39-139	1		20
Vinyl chloride	90		90		55-140	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DASNY GOWANDA

Project Number: DASNY GOWANDA

Lab Number: L1933434

Report Date: 08/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-07 Batch: WG1269234-3 WG1269234-4								
Chloroethane	100		100		55-138	0		20
1,1-Dichloroethene	100		99		61-145	1		20
trans-1,2-Dichloroethene	99		100		70-130	1		20
Trichloroethene	98		97		70-130	1		20
1,2-Dichlorobenzene	98		99		70-130	1		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	105		100		70-130	5		20
cis-1,2-Dichloroethene	100		98		70-130	2		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	82		81		36-147	1		20
Acetone	95		100		58-148	5		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	93		100		63-138	7		20
4-Methyl-2-pentanone	100		110		59-130	10		20
2-Hexanone	96		100		57-130	4		20
Bromochloromethane	93		94		70-130	1		20
1,2-Dibromoethane	100		100		70-130	0		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	66	Q	68	Q	70-130	3		20
tert-Butylbenzene	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DASNY GOWANDA

Project Number: DASNY GOWANDA

Lab Number: L1933434

Report Date: 08/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-07 Batch: WG1269234-3 WG1269234-4								
1,2-Dibromo-3-chloropropane	99		96		41-144	3		20
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	98		99		70-130	1		20
n-Propylbenzene	110		110		69-130	0		20
1,2,3-Trichlorobenzene	94		94		70-130	0		20
1,2,4-Trichlorobenzene	93		92		70-130	1		20
1,3,5-Trimethylbenzene	110		110		64-130	0		20
1,2,4-Trimethylbenzene	110		110		70-130	0		20
Methyl Acetate	100		110		70-130	10		20
Cyclohexane	100		99		70-130	1		20
1,4-Dioxane	180	Q	176	Q	56-162	2		20
Freon-113	99		98		70-130	1		20
Methyl cyclohexane	96		94		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		97		70-130
Toluene-d8	107		107		70-130
4-Bromofluorobenzene	105		103		70-130
Dibromofluoromethane	97		97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: DASNY GOWANDA

Lab Number: L1933434

Project Number: DASNY GOWANDA

Report Date: 08/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,09-27 Batch: WG1269591-3 WG1269591-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	110		100		70-130	10		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	95		98		63-130	3		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	99		94		70-130	5		20
Chlorobenzene	100		98		75-130	2		20
Trichlorofluoromethane	100		99		62-150	1		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	99		100		70-130	1		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Bromoform	88		87		54-136	1		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	110		100		70-130	10		20
Toluene	100		98		70-130	2		20
Ethylbenzene	100		98		70-130	2		20
Chloromethane	100		100		64-130	0		20
Bromomethane	81		83		39-139	2		20
Vinyl chloride	100		100		55-140	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DASNY GOWANDA

Project Number: DASNY GOWANDA

Lab Number: L1933434

Report Date: 08/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,09-27 Batch: WG1269591-3 WG1269591-4								
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	97		97		70-130	0		20
1,3-Dichlorobenzene	98		98		70-130	0		20
1,4-Dichlorobenzene	98		98		70-130	0		20
Methyl tert butyl ether	110		110		63-130	0		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	110		100		70-130	10		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	97		93		36-147	4		20
Acetone	110		110		58-148	0		20
Carbon disulfide	100		98		51-130	2		20
2-Butanone	110		110		63-138	0		20
4-Methyl-2-pentanone	99		99		59-130	0		20
2-Hexanone	100		100		57-130	0		20
Bromochloromethane	110		110		70-130	0		20
1,2-Dibromoethane	98		100		70-130	2		20
n-Butylbenzene	100		97		53-136	3		20
sec-Butylbenzene	100		97		70-130	3		20
tert-Butylbenzene	100		97		70-130	3		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: DASNY GOWANDA

Lab Number: L1933434

Project Number: DASNY GOWANDA

Report Date: 08/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,09-27 Batch: WG1269591-3 WG1269591-4								
1,2-Dibromo-3-chloropropane	92		98		41-144	6		20
Isopropylbenzene	100		98		70-130	2		20
p-Isopropyltoluene	100		97		70-130	3		20
Naphthalene	100		100		70-130	0		20
n-Propylbenzene	100		98		69-130	2		20
1,2,3-Trichlorobenzene	96		99		70-130	3		20
1,2,4-Trichlorobenzene	98		96		70-130	2		20
1,3,5-Trimethylbenzene	100		99		64-130	1		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
Methyl Acetate	110		110		70-130	0		20
Cyclohexane	100		100		70-130	0		20
1,4-Dioxane	162		156		56-162	4		20
Freon-113	100		100		70-130	0		20
Methyl cyclohexane	100		98		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		98		70-130
Toluene-d8	97		97		70-130
4-Bromofluorobenzene	100		101		70-130
Dibromofluoromethane	101		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: DASNY GOWANDA

Project Number: DASNY GOWANDA

Lab Number: L1933434

Report Date: 08/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 17 Batch: WG1269614-3 WG1269614-4								
Methylene chloride	92		94		70-130	2		20
1,1-Dichloroethane	100		98		70-130	2		20
Chloroform	100		97		70-130	3		20
Carbon tetrachloride	100		96		63-132	4		20
1,2-Dichloropropane	94		92		70-130	2		20
Dibromochloromethane	95		96		63-130	1		20
1,1,2-Trichloroethane	97		97		70-130	0		20
Tetrachloroethene	92		91		70-130	1		20
Chlorobenzene	98		98		75-130	0		20
Trichlorofluoromethane	88		91		62-150	3		20
1,2-Dichloroethane	100		96		70-130	4		20
1,1,1-Trichloroethane	100		96		67-130	4		20
Bromodichloromethane	94		96		67-130	2		20
trans-1,3-Dichloropropene	95		95		70-130	0		20
cis-1,3-Dichloropropene	95		94		70-130	1		20
Bromoform	97		97		54-136	0		20
1,1,2,2-Tetrachloroethane	98		97		67-130	1		20
Benzene	100		99		70-130	1		20
Toluene	96		97		70-130	1		20
Ethylbenzene	98		98		70-130	0		20
Chloromethane	93		88		64-130	6		20
Bromomethane	85		83		39-139	2		20
Vinyl chloride	90		85		55-140	6		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: DASNY GOWANDA

Project Number: DASNY GOWANDA

Lab Number: L1933434

Report Date: 08/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 17 Batch: WG1269614-3 WG1269614-4								
Chloroethane	100		98		55-138	2		20
1,1-Dichloroethene	94		84		61-145	11		20
trans-1,2-Dichloroethene	90		88		70-130	2		20
Trichloroethene	98		87		70-130	12		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		96		70-130	4		20
1,4-Dichlorobenzene	100		96		70-130	4		20
Methyl tert butyl ether	96		96		63-130	0		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	95		89		70-130	7		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	86		82		36-147	5		20
Acetone	85		91		58-148	7		20
Carbon disulfide	94		92		51-130	2		20
2-Butanone	79		82		63-138	4		20
4-Methyl-2-pentanone	89		94		59-130	5		20
2-Hexanone	82		86		57-130	5		20
Bromochloromethane	94		92		70-130	2		20
1,2-Dibromoethane	96		99		70-130	3		20
1,2-Dibromo-3-chloropropane	86		86		41-144	0		20
Isopropylbenzene	100		96		70-130	4		20
1,2,3-Trichlorobenzene	99		97		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DASNY GOWANDA

Project Number: DASNY GOWANDA

Lab Number: L1933434

Report Date: 08/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 17 Batch: WG1269614-3 WG1269614-4								
1,2,4-Trichlorobenzene	97		97		70-130	0		20
Methyl Acetate	85		84		70-130	1		20
Cyclohexane	93		89		70-130	4		20
1,4-Dioxane	96		98		56-162	2		20
Freon-113	100		98		70-130	2		20
Methyl cyclohexane	93		87		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		98		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	98		99		70-130
Dibromofluoromethane	94		100		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: DASNY GOWANDA

Lab Number: L1933434

Project Number: DASNY GOWANDA

Report Date: 08/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1269619-3 WG1269619-4								
Methylene chloride	95		94		70-130	1		20
1,1-Dichloroethane	96		93		70-130	3		20
Chloroform	96		92		70-130	4		20
Carbon tetrachloride	100		98		63-132	2		20
1,2-Dichloropropane	97		95		70-130	2		20
Dibromochloromethane	94		92		63-130	2		20
1,1,2-Trichloroethane	95		95		70-130	0		20
Tetrachloroethene	100		95		70-130	5		20
Chlorobenzene	97		94		75-130	3		20
Trichlorofluoromethane	100		97		62-150	3		20
1,2-Dichloroethane	94		93		70-130	1		20
1,1,1-Trichloroethane	96		93		67-130	3		20
Bromodichloromethane	97		95		67-130	2		20
trans-1,3-Dichloropropene	93		92		70-130	1		20
cis-1,3-Dichloropropene	96		95		70-130	1		20
Bromoform	96		94		54-136	2		20
1,1,2,2-Tetrachloroethane	94		94		67-130	0		20
Benzene	100		98		70-130	2		20
Toluene	98		94		70-130	4		20
Ethylbenzene	97		95		70-130	2		20
Chloromethane	100		100		64-130	0		20
Bromomethane	120		110		39-139	9		20
Vinyl chloride	100		97		55-140	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DASNY GOWANDA

Project Number: DASNY GOWANDA

Lab Number: L1933434

Report Date: 08/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1269619-3 WG1269619-4								
Chloroethane	98		94		55-138	4		20
1,1-Dichloroethene	97		92		61-145	5		20
trans-1,2-Dichloroethene	98		94		70-130	4		20
Trichloroethene	100		97		70-130	3		20
1,2-Dichlorobenzene	99		97		70-130	2		20
1,3-Dichlorobenzene	99		96		70-130	3		20
1,4-Dichlorobenzene	98		96		70-130	2		20
Methyl tert butyl ether	93		92		63-130	1		20
p/m-Xylene	95		95		70-130	0		20
o-Xylene	100		95		70-130	5		20
cis-1,2-Dichloroethene	97		94		70-130	3		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	100		99		36-147	1		20
Acetone	100		100		58-148	0		20
Carbon disulfide	97		93		51-130	4		20
2-Butanone	100		110		63-138	10		20
4-Methyl-2-pentanone	96		93		59-130	3		20
2-Hexanone	91		90		57-130	1		20
Bromochloromethane	100		100		70-130	0		20
1,2-Dibromoethane	96		93		70-130	3		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	100		99		70-130	1		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: DASNY GOWANDA

Lab Number: L1933434

Project Number: DASNY GOWANDA

Report Date: 08/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1269619-3 WG1269619-4								
1,2-Dibromo-3-chloropropane	89		92		41-144	3		20
Isopropylbenzene	100		99		70-130	1		20
p-Isopropyltoluene	100		99		70-130	1		20
Naphthalene	99		100		70-130	1		20
n-Propylbenzene	100		97		69-130	3		20
1,2,3-Trichlorobenzene	100		100		70-130	0		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	100		98		64-130	2		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
Methyl Acetate	94		93		70-130	1		20
Cyclohexane	96		90		70-130	6		20
1,4-Dioxane	140		130		56-162	7		20
Freon-113	100		100		70-130	0		20
Methyl cyclohexane	100		96		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		94		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	101		101		70-130
Dibromofluoromethane	98		97		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1933434-01A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-01B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-01C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-02A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-02B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-02C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-03A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-03B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-03C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-04A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-04B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-04C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-05A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-05B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-05C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-06A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-06B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-06C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-07A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-07B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-07C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-08A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-08B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1933434-08C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-09A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-09B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-09C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-10A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-10B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-10C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-11A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-11B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-11C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-12A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-12B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-12C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-13A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-13B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-13C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-14A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-14B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-14C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-15A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-15B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-15C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-16A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-16B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-16C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-17A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-17B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-17C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)

Project Name: DASNY GOWANDA**Lab Number:** L1933434**Project Number:** DASNY GOWANDA**Report Date:** 08/07/19**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1933434-18A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-18B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-18C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-19A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-19B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-19C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-20A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-20B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-20C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-21A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-21B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-21C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-22A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-22B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-22C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-23A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-23B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-23C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-24A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-24B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-24C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-25A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-25B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-25C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-26A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-26B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-26C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-27A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Serial_No:08071914:32
Lab Number: L1933434
Report Date: 08/07/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1933434-27B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-27C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260-R2(14)
L1933434-28A	Vial HCl preserved	A	NA		5.5	Y	Absent		ARCHIVE()
L1933434-28B	Vial HCl preserved	A	NA		5.5	Y	Absent		ARCHIVE()

Container Comments

L1933434-28A Vial contains headspace

Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: DASNY GOWANDA
Project Number: DASNY GOWANDA

Lab Number: L1933434
Report Date: 08/07/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 13

Published Date: 7/30/2019 3:17:52 PM

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,


3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.


Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <div style="border: 1px solid black; padding: 2px; display: inline-block;">2 of 3</div>		Date Rec'd in Lab <div style="font-size: 1.2em;">7/27/19</div>		ALPHA Job # <div style="font-size: 1.2em;">11933404</div>			
		Project Information Project Name: <u>D4 SNY Gowanda</u> Project Location: <u>Gowanda, NY</u> Project # <u>N/A</u> (Use Project name as Project #) <input checked="" type="checkbox"/> Project Manager: <u>C. Bleier</u> ALPHAQuote #: _____ Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: _____ Rush (only if pre approved) <input type="checkbox"/> # of Days: _____		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO # _____					
Client Information Client: <u>Bergmann</u> Address: <u>280 E Broad St, #200</u> <u>Rochester, NY</u> Phone: <u>585-498-7950</u> Fax: _____ Email: <u>cbleier@bergmann</u>		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other: _____							
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: _____ Please specify Metals or TAL: _____						ANALYSIS <div style="border: 1px solid black; padding: 5px; display: inline-block; transform: rotate(-90deg); transform-origin: left top;">NTCL - 8260</div>		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below) _____			
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date Time		Sample Matrix		Sampler's Initials		Sample Specific Comments	
33434-11		MW-11		7/25/19 11:15am		GW		CB			
-12		MW-12		7/25/19 11:15am		GW		CB			
-13		MW-13		7/25/19 10:58am		GW		CB			
-14		MW-14		7/25/19 10:39am		GW		CB			
-15		MW-15		7/25/19 10:31am		GW		CB			
-16		MW-16		7/25/19 8:30am		GW		CB			
-17		MW-17		7/25/19 8:50am		GW		CB			
-18		MW-18		7/25/19 8:15am		GW		CB			
-19		MW-20		7/25/19 9:05am		GW		CB			
-20		MW-X		7/25/19 11:30am		GW		CB			
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type <div style="font-size: 1.5em;">G</div>		Preservative <div style="font-size: 1.5em;">B</div>		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
Relinquished By: <u>C. Bleier</u> <u>James J. Jones AAL</u>		Date/Time <div style="font-size: 1.2em;">7/26/2019</div> <div style="font-size: 1.2em;">7/26/19 17:40</div>		Received By: <u>James J. Jones AAL</u> <div style="font-size: 1.5em;">[Signature]</div>		Date/Time <div style="font-size: 1.2em;">7/26/19 17:40</div> <div style="font-size: 1.2em;">7/27/19 13:00</div>					

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <div style="border: 1px solid black; padding: 2px; display: inline-block;">3 of 3</div>		Date Rec'd in Lab <div style="font-size: 1.5em;">7/27/19</div>		ALPHA Job # <div style="font-size: 1.5em;">119 33434</div>																																																																					
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<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr><td>33434 21</td><td>G-1</td><td>7/25/19</td><td>10:15am</td><td>GW</td><td>CB</td></tr> <tr><td>-22</td><td>G-2</td><td>7/25/19</td><td>10:15am</td><td>GW</td><td>CB</td></tr> <tr><td>-23</td><td>G-3</td><td>7/25/19</td><td>10:45am</td><td>GW</td><td>CB</td></tr> <tr><td>-24</td><td>DR-1</td><td>7/25/19</td><td>11:00am</td><td>GW</td><td>CB</td></tr> <tr><td>-25</td><td>DR-2</td><td>7/25/19</td><td>11:05am</td><td>GW</td><td>CB</td></tr> <tr><td>-26</td><td>DR-3</td><td>7/25/19</td><td>11:19am</td><td>GW</td><td>CB</td></tr> <tr><td>-27</td><td>DR-4</td><td>7/25/19</td><td>10:31am</td><td>GW</td><td>CB</td></tr> <tr><td></td><td></td><td>7/25/19</td><td></td><td>GW</td><td>CB</td></tr> <tr><td></td><td></td><td>7/25/19</td><td></td><td>GW</td><td>CB</td></tr> <tr><td></td><td></td><td>7/25/19</td><td></td><td>GW</td><td>CB</td></tr> </tbody> </table>										ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Date	Time	33434 21	G-1	7/25/19	10:15am	GW	CB	-22	G-2	7/25/19	10:15am	GW	CB	-23	G-3	7/25/19	10:45am	GW	CB	-24	DR-1	7/25/19	11:00am	GW	CB	-25	DR-2	7/25/19	11:05am	GW	CB	-26	DR-3	7/25/19	11:19am	GW	CB	-27	DR-4	7/25/19	10:31am	GW	CB			7/25/19		GW	CB			7/25/19		GW	CB			7/25/19		GW	CB
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Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other						Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015																																																																					
Container Type: <u>G</u>						Preservative: <u>B</u>		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)																																																																					
Relinquished By: <u>[Signature]</u>						Date/Time: <u>7/26/2019</u>				Received By: <u>[Signature]</u>																																																																			
Date/Time: <u>7/26/19 17:40</u>						Date/Time: <u>7/27/19 0800</u>																																																																							
Form No: 01-25 HC (rev. 30-Sept-2013)																																																																													



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APPENDIX B:

FIELD NOTES

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-1
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 8.25
Depth to bottom of the well: 18.06
Length of water column in well: 9.81

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.599
3 Well volumes (= length water column X gal/foot X 3): 4.7971
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	20.36	NTU								
Temperature	14.9	°C								
pH	7.28									
Conductivity	1.208	SPC ms/cm								
Oxygen	2.92	DO mg/L								
Salinity										

Time sample was collected: 11:00

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-2
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 7.8
Depth to bottom of the well: 18.06
Length of water column in well: 10.26

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.6724
3 Well volumes (= length water column X gal/foot X 3): 5.0171
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	9.88	NTU								
Temperature	19.1	°C								
pH	8.42									
Conductivity	0.019	SPC ms/cm								
Oxygen	9.38	DO mg/L								
Salinity										

Time sample was collected: 11:05

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-3
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 11.9
Depth to bottom of the well: 20.45
Length of water column in well: 8.55

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.3937
3 Well volumes (= length water column X gal/foot X 3): 4.181
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	9.33	NTU								
Temperature	15.1	°C								
pH	7.00									
Conductivity	0.704	SPC ms/cm								
Oxygen	3.80	DO mg/L								
Salinity										

Time sample was collected: 11:19

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-4
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 11.92
Depth to bottom of the well: 19.69
Length of water column in well: 7.77

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.2665
3 Well volumes (= length water column X gal/foot X 3): 3.7995
Actual volume purged prior to sampling: N/A
Sampling Methodology:
Sampling Equipment: Hand bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	7.92	NTU								
Temperature	15.6	°C								
pH	7.10									
Conductivity	0.944	SPC ms/cm								
Oxygen	3.08	DO mg/L								
Salinity										

Time sample was collected: 10:31

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: G-1
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 12.1
Depth to bottom of the well: 22.98
Length of water column in well: 10.88

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7734
3 Well volumes (= length water column X gal/foot X 3): 5.3203
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	6.45	NTU								
Temperature	14.5	°C								
pH	6.98									
Conductivity	0.674	SPC ms/cm								
Oxygen	2.45	DO mg/L								
Salinity										

Time sample was collected: 10:15

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: G-2
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 12
Depth to bottom of the well: 20.72
Length of water column in well: 8.72

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.4214
3 Well volumes (= length water column X gal/foot X 3): 4.2641
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	4.18	NTU								
<i>Temperature</i>	14.9	°C								
<i>pH</i>	7.11									
<i>Conductivity</i>	0.649	SPC ms/cm								
<i>Oxygen</i>	3.15	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 10:15

COMMENTS

GROUNDWATER SAMPLING WORKSHEET

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

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GROUNDWATER SAMPLE POINT

Well Number: G-3
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.43
Depth to bottom of the well: 18.15
Length of water column in well: 7.72

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.2584
3 Well volumes (= length water column X gal/foot X 3): 3.7751
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	31.02	NTU								
Temperature	16.5	°C								
pH	6.97									
Conductivity	0.64	SPC ms/cm								
Oxygen	3.05	DO mg/L								
Salinity										

Time sample was collected: 8:45

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-1
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 7.22
Depth to bottom of the well: 16.02
Length of water column in well: 8.80

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.4344
3 Well volumes (= length water column X gal/foot X 3): 4.3032
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	75.25	NTU								
Temperature	19.4	°C								
pH	6.87									
Conductivity	0.78	SPC ms/cm								
Oxygen	4.28	DO mg/L								
Salinity										

Time sample was collected: 9:40

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-2
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 6.44
Depth to bottom of the well: 17.15
Length of water column in well: 10.71

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7457
3 Well volumes (= length water column X gal/foot X 3): 5.2372
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	177.93	NTU								
Temperature	18.4	°C								
pH	7.02									
Conductivity	0.591	SPC ms/cm								
Oxygen	2.79	DO mg/L								
Salinity										

Time sample was collected: 9:40

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**

ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-3
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 7.22
Depth to bottom of the well: 16.30
Length of water column in well: 9.08

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.48
3 Well volumes (= length water column X gal/foot X 3): 4.4401
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	67.8	NTU								
Temperature	21.3	°C								
pH	6.63									
Conductivity	0.1	SPC ms/cm								
Oxygen	2.18	DO mg/L								
Salinity										

Time sample was collected: 9:30

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-4
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 8.35
Depth to bottom of the well: 15.78
Length of water column in well: 7.43

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.2111
3 Well volumes (= length water column X gal/foot X 3): 3.6333
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	190.35	NTU								
Temperature	18.8	°C								
pH	6.88									
Conductivity	0.576	SPC ms/cm								
Oxygen	2.24	DO mg/L								
Salinity										

Time sample was collected: 9:20

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-5
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 11
Depth to bottom of the well: 13.95
Length of water column in well: 2.95

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 0.4809
3 Well volumes (= length water column X gal/foot X 3): 1.4426
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	184.24	NTU								
Temperature	19.9	°C								
pH	7.04									
Conductivity	0.267	SPC ms/cm								
Oxygen	6.78	DO mg/L								
Salinity										

Time sample was collected: 9:10

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-6
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 13.65
Depth to bottom of the well: 22.88
Length of water column in well: 9.23

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5045
3 Well volumes (= length water column X gal/foot X 3): 4.5135
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	22.82	NTU								
Temperature	15.2	°C								
pH	6.98									
Conductivity	0.63	SPC ms/cm								
Oxygen	2.66	DO mg/L								
Salinity										

Time sample was collected: 8:56

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-7
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 3.71
Depth to bottom of the well: 21.8
Length of water column in well: 18.09

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 2.9487
3 Well volumes (= length water column X gal/foot X 3): 8.846
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	12.5	NTU								
Temperature	16.2	°C								
pH	6.72									
Conductivity	0.652	SPC ms/cm								
Oxygen	3.92	DO mg/L								
Salinity										

Time sample was collected: 8:30

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-8
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.51
Depth to bottom of the well: 17.65
Length of water column in well: 7.14

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.1638
3 Well volumes (= length water column X gal/foot X 3): 3.4915
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	48.2	NTU								
Temperature	17.1	°C								
pH	5.22									
Conductivity	0.501	SPC ms/cm								
Oxygen	3.02	DO mg/L								
Salinity										

Time sample was collected: 9:52

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-9
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.15
Depth to bottom of the well: 20.96
Length of water column in well: 10.81

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.762
3 Well volumes (= length water column X gal/foot X 3): 5.2861
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	65.22	NTU								
Temperature	15.6	°C								
pH	6.63									
Conductivity	1.005	SPC ms/cm								
Oxygen	2.51	DO mg/L								
Salinity										

Time sample was collected: 10:05

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-10
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 7.62
Depth to bottom of the well: 19.44
Length of water column in well: 11.82

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.927
3 Well volumes (= length water column X gal/foot X 3): 5.781
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	51.75	NTU								
<i>Temperature</i>	18.3	°C								
<i>pH</i>	6.8									
<i>Conductivity</i>	0.563	SPC ms/cm								
<i>Oxygen</i>	2.53	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 10:00

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-11
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 7.25
Depth to bottom of the well: 15.48
Length of water column in well: 8.23

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.3415
3 Well volumes (= length water column X gal/foot X 3): 4.0245
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	29.78	NTU								
<i>Temperature</i>	15.3	°C								
<i>pH</i>	8.11									
<i>Conductivity</i>	1.048	SPC ms/cm								
<i>Oxygen</i>	5.99	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 11:15

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-12
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 7.41
Depth to bottom of the well: 17.38
Length of water column in well: 9.97

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.6251
3 Well volumes (= length water column X gal/foot X 3): 4.8753
Actual volume purged prior to sampling: None
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	200.9	NTU								
<i>Temperature</i>	14.2	°C								
<i>pH</i>	6.59									
<i>Conductivity</i>	0.558	SPC ms/cm								
<i>Oxygen</i>	3.05	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 11:15

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-13
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 7.95
Depth to bottom of the well: 17.40
Length of water column in well: 9.45

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5404
3 Well volumes (= length water column X gal/foot X 3): 4.6211
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	252.1	NTU								
Temperature	15.4	°C								
pH	7.05									
Conductivity	0.49	SPC ms/cm								
Oxygen	4.65	DO mg/L								
Salinity										

Time sample was collected: 10:58

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-14
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.8
Depth to bottom of the well: 18.15
Length of water column in well: 7.35

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.1981
3 Well volumes (= length water column X gal/foot X 3): 3.5942
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	7.08	NTU								
Temperature	12.4	°C								
pH	8.12									
Conductivity	0.023	SPC ms/cm								
Oxygen	9.63	DO mg/L								
Salinity										

Time sample was collected: 10:39

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-15
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.91
Depth to bottom of the well: 19.80
Length of water column in well: 8.89

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.4491
3 Well volumes (= length water column X gal/foot X 3): 4.3472
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	80.33	NTU								
Temperature	14.9	°C								
pH	7.16									
Conductivity	0.568	SPC ms/cm								
Oxygen	6.19	DO mg/L								
Salinity										

Time sample was collected: 10:31

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-16
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 13.1
Depth to bottom of the well: 23.26
Length of water column in well: 10.16

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.6561
3 Well volumes (= length water column X gal/foot X 3): 4.9682
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	176.8	NTU								
<i>Temperature</i>	15.2	°C								
<i>pH</i>	6.88									
<i>Conductivity</i>	0.69	SPC ms/cm								
<i>Oxygen</i>	4.44	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 8:30

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-17
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 13.48
Depth to bottom of the well: 25.18
Length of water column in well: 11.7

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.9071
3 Well volumes (= length water column X gal/foot X 3): 5.7213
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	170.25	NTU								
<i>Temperature</i>	16	°C								
<i>pH</i>	7.19									
<i>Conductivity</i>	0.592	SPC ms/cm								
<i>Oxygen</i>	4.12	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 8:50

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-18
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 9.75
Depth to bottom of the well: 25.0
Length of water column in well: 15.25

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 2.4858
3 Well volumes (= length water column X gal/foot X 3): 7.4573
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	9.21	NTU								
Temperature	16	°C								
pH	7.06									
Conductivity	0.646	SPC ms/cm								
Oxygen	6.05	DO mg/L								
Salinity										

Time sample was collected: 8:15

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-20
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 9.41
Depth to bottom of the well: 14.75
Length of water column in well: 5.34

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 0.8704
3 Well volumes (= length water column X gal/foot X 3): 2.6113
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	16.15	NTU								
Temperature	17.2	°C								
pH	6.78									
Conductivity	0.906	SPC ms/cm								
Oxygen	3.53	DO mg/L								
Salinity										

Time sample was collected: 9:05

COMMENTS



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AUGUST 2019
GROUNDWATER CHARACTERIZATION REPORT



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New York State Office of People with Developmental Disabilities – Gowanda Site

GROUNDWATER CHARACTERIZATION REPORT – AUGUST 2019



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1.0 INTRODUCTION

Bergmann is submitting this groundwater characterization report for the August 2019 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, 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 August 22, 2019. 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 all twenty-one (21) of twenty-one 21 site-related groundwater monitoring wells and all seven (7) groundwater recovery wells were sampled for laboratory analysis. Of the eight (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), all were sampled.

The prior groundwater sampling event was conducted in July 2018 and included analysis of groundwater samples from nineteen (19) of twenty-one (21) site-related groundwater monitoring wells and all seven (7) groundwater recovery wells.

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 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 seven (7) 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 was pumped to the equalization tank for settling of the sediment and transferred to the air stripper using a consistent flow rate. Air discharge from the air stripper was routed to the SVE for treatment prior to discharge. Groundwater was discharged to the village of Gowanda Sewage Treatment Plant (STP).



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 January 2014, 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 remedial action plan (RAP) and implementation of an ISCO treatment. Bergmann submitted 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. The ISCO was implemented in May 2015. An ISCO Report was prepared under a separate cover.

2.0 GROUNDWATER SAMPLING OVERVIEW AND METHODS

2.1 WELL MAINTENANCE ACTIVITIES

During the August 2019 site visit, all 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, with the exception of the redevelopment activities performed on August 19, 2015. All protective casings and flush-mount curb boxes were found to be intact and secure. Exterior monitoring wells are secured with locking stick-up protective casings. The monitoring wells within the building are secured with flush-mount roadway covers. Well maintenance was not performed during the August 2019 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 in groundwater monitoring wells are measured on a regular basis to track site-wide changes in the water table elevation and to allow for adjustment at recovery wells. Past operation of the recovery wells was intended to establish hydraulic containment of the impacted groundwater plume beneath the former Day Habilitation building and improve recovery and treatment of impacted groundwater. Groundwater samples were collected from twenty-one (21) of the twenty-one (21) site-related groundwater monitoring wells for laboratory analysis on August 22, 2019. Depth to groundwater measurements were obtained from twenty-eight (28) wells (including recovery wells).

Groundwater samples were collected from monitoring wells after each well was gauged and purged of standing water via bailing with dedicated bailers for each individual well. Sample parameters including turbidity, temperature, pH, oxygen, and conductivity were monitored using a YSI Quatro to ensure sufficient well purging prior to sampling. Groundwater samples were collected from recovery wells using dedicated bailers, to allow for an accurate representation of groundwater without collecting sediment from within the wells. A single duplicate sample and a field blank sample were collected and submitted for laboratory analysis.

Groundwater samples were delivered via chain-of-custody protocol to Alpha Analytical located in Westborough, MA, a NYSELAP 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 in Table 3 for comparative purposes from sampling events completed 2012 – 2019.



3.0 LOCAL GROUNDWATER FLOW CHARACTERIZATION

The Site water table pattern and groundwater flow direction was determined for August 2019 using elevations measured at each well. Groundwater elevations and well reference elevations were calculated using depth to water values obtained on August 22, 2019. The well gauging values and groundwater elevations are provided in Table 1 – Groundwater Elevations and Field Measurements – August 2019.

The August 2019 groundwater table map shows a flow pattern similar to groundwater flow pattern 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 August 2019 depths to groundwater range from 6.63 ft. below top of casing (btoc) at MW-2, to 14.46 ft. btoc at MW-3. The average depth to groundwater at the wells measured was 9.98 ft. btoc, which is an increase from the average depth to water of the previous sampling event in July of 2019 (9.63).

The site-wide average depth to water table increased by approximately 0.854 ft. when compared to the previous sampling event from July 2019 sampling event. 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 and August 2019 Groundwater Contours are presented on Figure 1 – August 2019 Groundwater Contour Map.

4.0 LABORATORY ANALYSIS

4.1 LABORATORY ANALYSIS ON GROUNDWATER SAMPLES

Laboratory analysis was completed on the groundwater samples from twenty-one (21) monitoring wells and seven (7) recovery wells collected August 22, 2019. 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 August 2019 analytical results indicate detection of four (4) chlorinated VOCs in monitoring well samples: TCE, Cis-DCE, VC and Trans-DCE. Chlorinated VOCs were detected in groundwater samples from sixteen (16) of the twenty-one (21) sampled monitoring wells. Analytical results are summarized in Table 2 – August 2019 Analytical Results Summary, which compares detected VOCs and applicable NYSDEC Class GA Standards for each analyte. The complete laboratory analytical report is provided in Appendix A – Laboratory Analytical Results Report August 2019 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 samples from five (5) of the monitoring wells.

Groundwater samples from sixteen (16) monitoring wells had detectable chlorinated VOCs at concentrations above applicable Class GA Standards. The monitoring well with the highest total VOCs, MW-11 (937.4 ppb), is located in the area of historically greatest impacted groundwater.



Concentrations in seven (7) of the twenty (21) monitoring well groundwater samples increased when compared to the July 2019 sampling event while concentrations in seven (7) of the twenty (21) monitoring well groundwater samples decreased. Concentrations in seven (7) groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 87.42% since activation of the GTS in May 2005.

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 78.21% 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 August 2019 sampling event was 698 parts per billion (ppb), a decrease from the July 2019 value of 1,081 ppb. Since activation of the GTS, detected VOCs at MW-1 have decreased by about 9.11%.

Monitoring well MW-11 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-11 for the August 2019 sampling event is 937.4 ppb, a decrease from the July 2019 value of 1,059 ppb. Since activation of the GTS in May 2005, detected VOCs at MW-11 have decreased by 79.83%.

Monitoring well MW-12 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-12 for the August 2019 sampling event is 54.48 ppb, a decrease from the July 2019 value of 79 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 about 99.57%.

Monitoring well MW-13 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at monitoring well MW-13 for the August 2019 sampling event was 0.50 ppb, a decrease from the July 2019 sampling event, which was 1.38 ppb. Since activation of the GTS, detected VOCs at MW-13 have decreased by about 99.84%.

Monitoring well MW-14 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-14 for the August 2019 sampling event is 26.5 ppb, an increase from the July 2019 value of 25.9 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 about 91.59%.

Monitoring well MW-15 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-15 for the August 2019 sampling event was 8.1 ppb, an increase from the July 2019 sampling event, which was 4.9 ppb. MW-15 is nearest to recovery well DR-4. Since activation of the GTS in May 2005, the detected VOCs at MW-15 have decreased 98.89%.

Six (6) 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, MW-17 and MW-21. The current analytical results exhibit an increase in targeted VOCs at the sampled monitoring wells along the north perimeter.

Monitoring wells MW-18, MW-19R and MW-21 are located off-site along Torrance Place. These three (3) wells are considered to be beyond the radius of influence for the Day Habilitation groundwater treatment system. The current results indicate VOC levels of 3.1 ppb at MW-18. Monitoring well MW-21 was added to the sampling list at the request of the NYSDEC beginning with the June 2015 sampling event. It was first noted that during the August 2017 sampling event, wells MW-19R and MW-21 were not sampled because they were



inaccessible. It was observed that the wells were uncovered and samples were taken from MW-19R and MW-21 during the August 2019 sampling event. The current VOC concentrations for MW-19R were 0.6 ppb, which was an increase from the last time it was sampled (non-detect in November 2016). The current VOC concentrations for MW-21 is 18.33 ppb, which was a decrease from the last time it was sampled (19 ppb in November 2016).

Laboratory analytical results are included in Appendix A. Monitoring well locations and distribution of analytical results are shown on Figure 2 – August 2019 Distribution of Groundwater Analytical Results: 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 well sampled for this event was MW-4. The current results indicate non-detect levels for this eastern sentry well.

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. According to Mr. Chris Sanson, an Environmental Scientist for Groundwater & Environmental Services, Inc. (GES), an ISCO injection application was implemented for the Gowanda Electronics site in March 2014.

Laboratory analytical results report is included in Appendix A. Sentry well locations and analytical results are shown on Figure 2.

4.4 RECOVERY WELL GROUNDWATER ANALYSIS SUMMARY

During the August 2019 sampling event, all of the seven (7) recovery wells were sampled.

The August 2019 analytical results indicate detection of four (4) chlorinated VOCs in recovery well samples that include: TCE, Cis-DCE, TRANS, and VC. Chlorinated VOCs were detected in samples from all seven (7) of the recovery wells. Total VOCs at the seven (7) recovery wells for which past data is available have decreased overall since activation of the GTS in May 2002. The average decrease in VOCs for the current sampling event is about 37.95% relative to concentrations prior to GTS activation in 2002. Relative percent increase 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 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-1 for the August 2019 sampling event is 1,038 ppb, a decrease from the July 2019 value of 1,832 ppb. The current sampling event indicates an increase in VOCs at DR-1 of 81.0% since activation of the GTS. Recovery well DR-1 is located closest to MW-1 in an area of historically highest concentrations.

Recovery well DR-2 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-2 for the August 2019 sampling event is 192 ppb, an increase from the July 2019 value of 156 ppb. The current sampling event indicates a decrease in VOCs at DR-2 of about 65.04% since activation of the GTS.

Recovery well DR-3 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-3 for the August 2019 sampling event is 101 ppb, an increase from the July 2019 value of 91 ppb. The current sampling event indicates a decrease in VOCs at DR-3 of about 33.77% since activation of the GTS.

Recovery well DR-4 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-4 for the August 2019 sampling event is 46.6 ppb, an increase from the July 2019 value of



40.0 ppb. The current sampling event indicates a decrease in VOCs at DR-4 of about 94.58% since activation of the GTS.

Recovery well G-1 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at G-1 for the August 2019 sampling event was 78.7 ppb, an increase from the July 2019 value of 50.4 ppb. The current sampling event indicates a decrease in VOCs at G-1 of 60.81% since activation of the GTS.

Recovery well G-2 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at G-2 for the August 2019 sampling event was 90.49 ppb, an increase from the July 2019 value of 69.0 ppb. The current sampling event indicates a decrease in VOCs at G-2 of 68.24% since activation of the GTS.

Recovery well G-3 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at G-3 for the August 2019 sampling event was 305.54 ppb, a decrease from the July 2019 value of 309.65 ppb. The current sampling event indicates a decrease in VOCs at G-2 of 24.23% since activation of the GTS.

Laboratory analytical results are included in Appendix A. Recovery well locations and analytical results are shown on Figure 3 – August 2019 Distribution of Groundwater Analytical Results: Recovery Wells.

4.5 QUALITY ASSURANCE AND QUALITY CONTROL SAMPLES

An equipment blank was collected to ensure proper cleaning of the sampling equipment. The equipment blank, designated as EB, was non-detect for chlorinated halogens. In addition, a field duplicate (labeled as MW-X) was taken from DR-1.

Laboratory analytical results report is included in Appendix A.

5.0 REMEDIATION SYSTEM EFFICIENCY

5.1 IMPACT OF THE GTS RECOVERY WELLS

Groundwater control charts for the seven (7) sampled 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 the sampled groundwater recovery wells. Since activation of the GTS in May 2005, all seven (7) sampled groundwater recovery wells have demonstrated a general decrease in VOC concentration.

Chart 2 displays the relationship between monitoring wells MW-1, MW-11 and recovery well DR-1. The current total VOCs at MW-1 (698 ppb) show a decrease from the July 2019 sampling event (1,081 ppb). The current total VOCs at MW-11 (937.4 ppb) shows a decrease from the July 2019 sampling event (1,059 ppb). The current total VOCs at DR-1 (1,038 ppb) show a decrease from the July 2019 sampling event (1,832 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 1 and represent the northern limit of the highest concentration within the impacted area. The current total VOCs at MW-12 (54.48 ppb) shows a decrease from the July 2019 sampling event (79 ppb). The current total VOCs at recovery well DR-2 (192 ppb) show an increase from the July 2019 sampling event (156 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 (26.5 ppb) show an increase from the



July 2019 sampling event (25.9 ppb). The current total VOCs at recovery well DR-3 (101 ppb) show an increase from the July 2019 sampling event (91 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 (8.1 ppb) show an increase from the July 2019 sampling event (4.9). The current total VOCs at recovery well DR-4 (46.6 ppb) show an increase from the July 2019 sampling event (40 ppb).

Chart 6 compares laboratory results between recovery well G-1 and monitoring well MW-17. The recovery well is located in the northern portion of the building and MW-17 is located along the northern property line. The current total VOCs at recovery well MW-17 (341.67 ppb) show an increase from the July 2019 sampling event (277 ppb). The current total VOCs at recovery well G-1 (78.7 ppb) shows an increase from the July 2019 sampling event (50.4 ppb).

Chart 7 compares laboratory results between recovery well G-2 and MW-7 which are 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-2 had a total VOC concentration of (90.49 ppb), which shows an increase from the July 2019 sampling event (69 ppb). The August 2019 total VOCs of MW-7 (39 ppb) showed an increase from the July 2019 sampling event (27.83).

Chart 8 compares laboratory results between recovery well G-3 which is located at the northeastern portion of the building and MW-17 which is located along the northern property boundary. This area is at the western perimeter of the apparent area of impacted groundwater. The current total VOCs at monitoring well MW-17 (341.67 ppb) showed an increase from the July 2019 sampling event (277 ppb). The current total VOCs at recovery well G-3 was (305.34 ppb) show a decrease from the July 2019 sampling event (309.34 ppb).

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. Concentration of VOCs in the source area have been reduced as a result of cleanup activities.

When operating, the GTS maintained an area of hydraulic containment for recovery wells within the source area of impacted groundwater. The GTS was 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 overall sample results are similar to previous quarterly sampling results. Therefore, residual VOCs in the plume have not migrated and appear to be stabilized when compared to sample results with operation of the GTS during previous monitoring events. The full analytical results are summarized in Table 5.

The redevelopment of wells was performed in fall 2015 to remove sediment from wells at the Site after the ISCO injections. Overall, reduction of contaminants in the majority of the monitoring and recovery wells has occurred after remediation at the Site when compared to pre-remediation levels during the past ten (10) years of sampling.



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 upon that these systems would be inactivated to allow for groundwater level recovery during the implementation of an ISCO groundwater treatment and subsequent sampling events. Bergmann performed an ISCO injection application in May (round 1) and September (round 2) 2015 to address remaining residual contamination at the Site in lieu of costly repair of the SVE and GTS. The SVE and GTS equipment remains on site in the event that re-activation is required in the future. However, system components may need repair and/or replacement prior to re-activation.

The next site-wide groundwater sampling and laboratory analysis event is scheduled for October 2019. Future sampling and analytical events will be conducted to track the effects of the ISCO injections 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 monitored and recorded during future sampling events.



TABLES

Table 1 Groundwater Elevations and Field Measurements August 2019

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

	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)	6.71	6.63	14.46	7.60	10.86	13.65	13.70	10.40	10.35	7.71
Groundwater Elevation	771.52	771.45	763.92	770.83	767.75	767.45	767.24	770.93	772.26	772.31
Well Diameter	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Product Thickness	ND	NA	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	9.31	10.52	1.84	8.18	3.09	9.23	8.10	7.25	10.61	11.71
Minimum Purge Volume (gal)	1.5	1.71	0.3	1.3	0.5	1.5	1.3	1.2	1.7	1.9
3 Volumes	4.6	5.14	0.9	4.0	1.5	4.5	4.0	3.5	5.2	5.7
Actual volume purged	4.6	5.14	NS	4.0	1.4	4.5	4.0	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'

	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)	7.42	7.37	7.84	10.54	10.39	13.25	13.50	9.32	8.32	10.02	9.49
Groundwater Elevation	771.16	771.13	770.55	767.89	767.99	767.18	766.35	767.07	765.88	768.02	765.27
Well Diameter	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Product Thickness	ND	ND	ND	ND	ND	ND	ND	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	8.06	10.01	9.56	7.61	9.41	10.01	NA	15.68	9.35	4.73	6.33
Minimum Purge Volume (gal)	1.3	1.6	1.6	1.2	1.5	1.6	NS	2.6	1.52405	0.8	1.03179
3 Volumes	3.9	4.9	4.7	3.7	4.6	4.9	NS	7.7	4.57215	2.3	3.09537
Actual volume purged	3.9	4.9	NS	3.7	4.6	4.9	NS	7.7	4.57215	2.3	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'

	DR-1	DR-2	DR-3	DR-4	G-1	G-2	G-3
Casing Elevation	779.66	779.93	779.78	779.64	779.83	779.72	779.42
Depth to Groundwater (btoc)	8.30	8.03	12.00	12.08	12.13	12.10	10.52
Groundwater Elevation	771.36	771.90	767.78	767.56	767.70	767.62	768.90
Well Diameter	4"	4"	4"	4"	4"	4"	4"
Product Thickness	ND	ND	ND	ND	ND	ND	ND
Well Depth (btoc)	18.06	18.06	20.45	19.69	22.98	20.72	18.15
Bottom of Well Elevation	761.6	761.87	759.33	759.95	756.85	759	761.27
Thickness of Water Column	9.76	10.03	8.45	7.61	10.85	9.17	7.63
Minimum Purge Volume (gal)	6.37	6.55	5.52	4.97	7.09	5.98	4.98
3 Volumes	19.12	19.65	16.55	14.91	21.26	17.94	14.95
Actual volume purged	19.12	19.65	16.55	14.91	21.26	17.94	14.95
Comments	Stickup=0.85'	Stickup=1.06'	Stickup=0.95'	Stickup=0.84'	Stickup=1.03'	Stickup=0.86'	Vaulted well

NOTES

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

NS = Not Sampled

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, MW-19R and MW-21 have been paved over.

Table 2 August 2019 Analytical Results Summary

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

Monitoring Well MW-1

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		820	450	5.0
CIS		250	240	5.0
TRANS		9.5	4.6	5.0
VC		1.6	2.9	2.0
TCA		ND	ND	5.0
Total VOCs		1,081	698	

Monitoring Well MW-2

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		ND	0.28	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	0.28	

Monitoring Well MW-3

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		0.39	0.28	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		0.39	0.28	

Monitoring Well MW-4

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	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-5

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		0.9	0.52	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		0.9	0.52	

Monitoring Well MW-6

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		ND	ND	5.0
CIS		86	92	5.0
TRANS		ND	ND	5.0
VC		0.63	0.64	2.0
TCA		ND	ND	5.0
Total VOCs		86.63	92.64	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 August 2019 Analytical Results Summary

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

Monitoring Well MW-7

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		0.68	0.85	5.0
CIS		27	38	5.0
TRANS		ND	ND	5.0
VC		0.15	0.15	2.0
TCA		ND	ND	5.0
Total VOCs		27.83	39	

Monitoring Well MW-8

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	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-9

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	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-10

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	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-11

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		850	640	5.0
CIS		190	280	5.0
TRANS		19.0	15.0	5.0
VC		ND	2.4	2.0
TCA		ND	ND	5.0
Total VOCs		1,059.0	937.4	

Monitoring Well MW-12

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		13	7	5.0
CIS		66	47	5.0
TRANS		ND	ND	5.0
VC		0.37	0.18	2.0
TCA		ND	ND	5.0
Total VOCs		79	54.48	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 August 2019 Analytical Results Summary

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

Monitoring Well MW-13

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		0.38	0.50	5.0
CIS		1	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		1.38	0.50	

Monitoring Well MW-14

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		21	21	5.0
CIS		4.9	5.5	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		25.9	26.5	

Monitoring Well MW-15

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		3.5	6.1	5.0
CIS		1.4	2.0	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		4.9	8.1	

Monitoring Well MW-16

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		0.27	0.42	5.0
CIS		37	31	5.0
TRANS		ND	ND	5.0
VC		0.34	0.11	2.0
TCA		ND	ND	5.0
Total VOCs		37.61	31.53	

Monitoring Well MW-17

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		35	29	5.0
CIS		240	310	5.0
TRANS		1.6	1.8	5.0
VC		0.64	0.87	2.0
TCA		ND	ND	5.0
Total VOCs		277	341.67	

Monitoring Well MW-18

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		1.0	1	5.0
CIS		1.8	2.0	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		2.8	3.1	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 August 2019 Analytical Results Summary

Gowanda Day Habilitation Center

4 Industrial Place, Gowanda, New York

VCA # V-00463-9

Monitoring Well MW-19R

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		NS	0.6	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	0.6	

Monitoring Well MW-20

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	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: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		NS	3.1	5.0
CIS		NS	15	5.0
TRANS		NS	ND	5.0
VC		NS	0.23	2.0
TCA		NS	ND	5.0
Total VOCs		NS	18.33	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 August 2019 Analytical Results Summary

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

Recovery Well DR-1

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		1600	890	5.0
CIS		220	140	5.0
TRANS		12	7.6	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		1,832	1,038	

Recovery Well DR-4

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		33	36	5.0
CIS		6.8	10	5.0
TRANS		ND	ND	5.0
VC		0.16	0.62	2.0
TCA		ND	ND	5.0
Total VOCs		40.0	46.6	

Recovery Well DR-2

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		50	45	5.0
CIS		100	140	5.0
TRANS		1.1	1.4	5.0
VC		5.2	5.6	2.0
TCA		ND	ND	5.0
Total VOCs		156	192.0	

Recovery Well G-1

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		5.4	4.4	5.0
CIS		44	72	5.0
TRANS		ND	ND	5.0
VC		1.0	2.3	2.0
TCA		ND	ND	5.0
Total VOCs		50.4	78.7	

Recovery Well DR-3

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		26	23	5.0
CIS		63	76	5.0
TRANS		0.9	0.8	5.0
VC		0.9	1.3	2.0
TCA		ND	ND	5.0
Total VOCs		91	101	

Recovery Well G-2

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		0.72	0.89	5.0
CIS		67	88	5.0
TRANS		ND	ND	5.0
VC		1.5	1.6	2.0
TCA		ND	ND	5.0
Total VOCs		69	90.49	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 August 2019 Analytical Results Summary

Gowanda Day Habilitation Center

4 Industrial Place, Gowanda, New York

VCA # V-00463-9

Recovery Well G-3

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	NYS Guidance Value
TCE		47	45	5.0
CIS		260	260	5.0
TRANS		2.2	ND	5.0
VC		0.45	0.34	2.0
TCA		ND	ND	5.0
Total VOCs		309.65	305.34	

Duplicate Blank (DR-1)

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	Aug 2019	NYS Guidance Value
TCE		960	5.0
CIS		150	5.0
TRANS		8.9	5.0
VC		ND	2.0
TCA		ND	5.0
Total VOCs		1118.9	

Equipment Blank

Sample Date: 08/22/2019

Sampling Events

Analyte	in ppb	July 2019	Aug 2019	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	

ND = Non-detect

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

Results expressed as parts per billion (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

MONITORING WELLS																									
Monitoring Well Number	Total VOCs Aug 2019	Total VOCs July 2019	Total VOCs Nov 2018	Total VOCs August 2018	Total VOCs May 2018	Total VOCs April 2018	Total VOCs Nov 2017	Total VOCs Aug 2017	Total VOCs Nov 2016	Total VOCs Sep 2016	Total VOCs Jun 2016	Total VOCs Nov 2015	Total VOCs Aug 2015	Total VOCs Jun 2015	Total VOCs Mar 2015	Total VOCs Nov 2014	Total VOCs Sep 2014	Total VOCs Jun 2014	Total VOCs Mar 2014	Total VOCs Dec 2013	Total VOCs Jul 2013	Total VOCs Apr 2013	Total VOCs Dec 2012	Total VOCs Jun 2012	Total VOCs Mar 2012
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
MW-1	698	1,081	1,080	1,190	1,110	374	1013	1,210	1,467	838	580	1,530	1,470	350	430	300	420	990	990	1,740	830	910	1,440	528	889
MW-2	0.28	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-3	0.28	0.39	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-5	0.52	0.9	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-6	92.64	86.63	81	84	77	76	100	91	87	120	100	120	96	86	81	110	110	96	94	130	99	93	99	86.7	85.7
MW-7	39	27.83	ND	ND	ND	ND	5.8	29	110	62	83	49	130	58	ND	180	190	29	ND	ND	18	ND	ND	151.56	30.5
MW-8	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-9	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	937.4	1,059	489.3	282	489	1,160	470	525	646	445	550	1,060	630	444	500	451	375	450	710	880	510	570	790	498	617
MW-12	54.48	79	53	25	100	113	31	40	7.1	7.8	15.8	28.8	52	97	120	126	136	200	212	173	149.3	186.6	142	86.5	148.22
MW-13	0.50	1.38	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	26.5	25.9	30.7	22.3	22.8	28	38	22.1	76	100	57	81	96	52	99	68	68	54	73	94	49	71	47	39.7	76.6
MW-15	8.1	4.9	ND	6.5	ND	ND	ND	7.4	11	23.8	11	9.9	14	8.1	9.8	32	31	6.1	ND	6.8	7	ND	12.9	26.26	6.25
MW-16	31.53	37.61	41	10	41	43	32	36	14	20	37	31	13	6.8	ND	5.2	9.4	21	24	20	8.4	24	18	4.36	12.2
MW-17	342	277	218	285	112.5	5.1	222	396	375	465	425	460	410	NS	336	394	410	339	167	420	400	21.3	430	381	260.1
MW-18	3.1	2.8	ND	ND	ND	ND	6.3	ND	10	26	6.9	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	16.6	2.33
MW-19R	0.6	NS	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND
MW-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-21	18.33	NS	NS	NS	NS	NS	NS	NS	17	39	8.7	20	20	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-X (DUP)	1118.9	914.6	ND	ND	434	NS	490	DWS	1,705	879	550	1,720	410	360	407	300	400	870	990	1,850	540	186.8	1,450	521	913
EB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

RECOVERY WELLS																									
Recovery Well Number	Total VOCs Aug 2019 (ppb)	Total VOCs July 2019 (ppb)	Total VOCs Nov 2018 (ppb)	Total VOCs August 2018 (ppb)	Total VOCs May 2018 (ppb)	Total VOCs April 2018 (ppb)	Total VOCs Nov 2017 (ppb)	Total VOCs Aug 2017 (ppb)	Total VOCs Nov 2016 (ppb)	Total VOCs Sep 2016 (ppb)	Total VOCs Jun 2016 (ppb)	Total VOCs Nov 2015 (ppb)	Total VOCs Aug 2015 (ppb)	Total VOCs Jun 2015 (ppb)	Total VOCs Mar 2015 (ppb)	Total VOCs Nov 2014 (ppb)	Total VOCs Sep 2014 (ppb)	Total VOCs Jun 2014 (ppb)	Total VOCs Mar 2014 (ppb)	Total VOCs Dec 2013 (ppb)	Total VOCs Jul 2013 (ppb)	Total VOCs Apr 2013 (ppb)	Total VOCs Dec 2012 (ppb)	Total VOCs Jun 2012 (ppb)	Total VOCs Mar 2012 (ppb)
DR-1	1038	1,832	1,310	1,510	1,319	1,070	1540	1,970	617	610	910	319	160	NS	21.7	63	55	75	132	87	73	82	43	29.38	673
DR-2	192	156	216	162	128	130	181	199	137	218	215	199	187	291	259	162	224	231	207	302	256	293	19	229.9	305.3
DR-3	101	91	73	87	125.4	34	48	NS	98	154	62	45	76	83	55	181	210	83	89	123	62	73	42	116.96	24.9
DR-4	46.6	40	37.2	48	31.2	31.6	46	52	79	95	63	94	110	71	147	156	148	96	64	68	79	37	90	122.6	ND
G-1	78.7	50.4	74.6	77	40	22	70	73.5	85	105.6	59.7	80.3	ND	68	146	101	105	90	78	96.2	69.1	55.8	52.6	68.55	65.58
G-2	90	69	25	68	50	46	8.5	NS	NS	ND	NS	NS	28	NS	48	34	37	52	14	68	81	50	132.2	75.3	41.9
G-3	305.34	309.65	15	322	NS	NS	NS	NS	293	404	420	262	370	NS	NS	NS	NS	NS	82	NS	11	25	41.6	147.3	44.2

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, MW-21
All compounds are measured in parts per billion (ppb).
VOC - Volatile Organic Compounds.
DUP - Duplicate Sample
EB - Equipment/Field Blank Sample
* - Sample was broken in transit and not able to be analyzed
DWS- Different Well Sampled than previously tested

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

	% Reduction 2002 to Aug 2019	% Reduction 2002 to July 2019	% Reduction 2002 to Nov 2018	% Reduction 2002 to Aug 2018	% Reduction 2002 to May 2018	% Reduction 2002 to April 2018	% Reduction 2002 to Nov 2017	% Reduction 2002 to Aug 2017	% Reduction 2002 to Nov 2016	% Reduction 2002 to Sep 2016	% Reduction 2002 to Jun 2016	% Reduction 2002 to Nov 2015	% Reduction 2002 to Aug 2015	% Reduction 2002 to Jun 2015	% Reduction 2002 to Mar 2015	% Reduction 2002 to Nov 2014	% Reduction 2002 to Sep 2014	% Reduction 2002 to Jun 2014	% 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
Monitoring Well																									
MW-1	9.11%	-40.76%	-40.6%	-54.9%	-44.5%	51.3%	-39.90%	-57.6%	-48.0%	-9.1%	24.5%	-99.2%	-91.4%	54.4%	44.0%	80.9%	45.3%	-28.9%	-126.6%	-3.1%	-19.6%	-67.5%	31.3%	-15.6%	
MW-2	98.76%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	
MW-3	98.13%	97.40%	100%	100%	100%	100%	100%	100.0%	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	Not Sampled	Not Sampled	Not Sampled	
MW-4	100.0%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
MW-5	96.29%	93.57%	100%	100%	100%	100%	100%	100.0%	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	Not Sampled	Not Sampled	Not Sampled	
MW-6	77.18%	78.66%	100%	-83.3%	15.4%	15.4%	-84.60%	15.4%	81.3%	70.4%	75.4%	70.4%	76.4%	78.6%	80.0%	72.9%	72.9%	76.4%	76.6%	68.0%	75.6%	77.1%	75.6%	78.6%	
MW-7	91.33%	93.82%	80.0%	79.3%	100.0%	81.3%	98.70%	93.6%	75.6%	86.2%	81.6%	89.1%	71.1%	87.1%	100.0%	60.0%	57.8%	93.6%	100.0%	100.0%	100.0%	100.0%	66.3%	93.2%	
MW-8	100%	100%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	
MW-9	100%	100%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	
MW-10	100%	100%	100%	100%	100%	100%	100%	100.0%	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	Not Sampled	Not Sampled	Not Sampled	
MW-11	75.83%	77.21%	89.5%	93.9%	89.5%	75.0%	89.20%	99.1%	86.1%	90.4%	88.2%	77.2%	86.4%	90.4%	89.2%	90.3%	91.9%	90.3%	84.7%	81.1%	89.0%	87.7%	83.0%	89.3%	
MW-12	99.57%	99.38%	99.6%	99.6%	99.2%	99.1%	99.80%	75.0%	99.9%	99.9%	99.9%	99.9%	99.6%	99.2%	99.1%	99.0%	98.4%	98.4%	98.3%	98.6%	98.6%	98.5%	99.3%	98.6%	
MW-13	99.84%	99.96%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	
MW-14	91.59%	91.78%	90.3%	92.8%	92.8%	91.1%	87.90%	2.3%	75.9%	68.3%	81.9%	74.3%	69.5%	83.5%	68.6%	78.4%	78.4%	82.9%	76.8%	70.2%	84.4%	77.5%	85.1%	87.4%	
MW-15	98.89%	99.33%	100%	99.1%	100%	100%	100%	99.0%	98.5%	96.7%	98.5%	98.6%	98.1%	98.9%	96.7%	95.6%	95.8%	99.2%	100.0%	99.1%	99.0%	100.0%	98.2%	96.4%	
MW-16	38.42%	26.54%	19.9%	80.5%	19.9%	2.3%	2.80%	2.3%	72.7%	60.9%	27.7%	39.5%	74.6%	86.7%	100.0%	89.8%	81.6%	59.0%	53.1%	60.9%	77.9%	96.8%	88.5%	67.9%	
MW-17*	66.17%	72.60%	78.4%	73.8%	73.8%	88.9%	99.5%	78*	2.3%	62.9%	54.0%	58.0%	54.5%	59.4%	66.8%	61.0%	59.4%	66.5%	83.5%	58.5%	50.6%	97.4%	46.9%	53.0%	
MW-18*	99.21%	99.29%	100%	100%	100%	100%	100%	100.0%	97.4%	93.4%	98.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	89.6%	98.5%	
MW-19 R*	95.71%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	75.0%	99.0%	99.0%	
MW-20*	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.4%	99.4%	99.4%	
MW-21*	95.80%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	34.6%	-50.0%	66.5%	23.1%	23.1%	61.5%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	
* Well installed 2003																									
** Well installed 2004																									
Site-Wide reduction:	87.42%	83.6%	85.1%	78.0%	82.2%	84.2%	67.60%	62.1%	74.1%	68.7%	78.6%	66.2%	69.1%	87.7%	88.2%	85.2%	83.2%	79.8%	80.3%	67.5%	81.8%	81.2%	71.3%	82.9%	
Impacted Groundwater																									
Plume Area Only	78.21%	71.5%	74.6%	72.1%	67.6%	76.6%	51.40%	41.1%	66.5%	69.6%	76.0%	58.1%	58.6%	84.6%	80.8%	77.3%	75.0%	72.3%	73.9%	82.2%	73.2%	77.3%	62.5%	73.1%	

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 Aug 2019	% Reduction 2002 to July 2019	% Reduction 2002 to Nov 2018	% Reduction 2002 to Aug 2018	% Reduction 2002 to May 2018	% Reduction 2002 to April 2018	% Reduction 2002 to Nov 2017	% Reduction 2002 to Aug 2017	% Reduction 2002 to Nov 2016	% Reduction 2002 to Sep 2016	% Reduction 2002 to Jun 2016	% Reduction 2002 to Nov 2015	% Reduction 2002 to Aug 2015	% Reduction 2002 to Jun 2015	% Reduction 2002 to Mar 2015	% Reduction 2002 to Nov 2014	% Reduction 2002 to Sep 2014	% Reduction 2002 to Jun 2014	% 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
Recovery Well																									
DR-1	-81.03%	-219.50%	-128.5%	-163.3%	-130.0%	-86.6%	-243.6%	-243.6%	-7.6%	-6.4%	-58.7%	44.4%	72.1%	Not Sampled	96.2%	89.0%	90.4%	86.9%	77.0%	84.8%	99.1%	99.0%	99.5%	99.8%	91.6%
DR-2	65.04%	71.60%	60.7%	70.5%	76.7%	76%	63.6%	63.6%	75.1%	60.3%	63.8%	66.0%	47.0%	62.6%	70.5%	59.2%	58.0%	62.3%	45.0%	87.2%	85.4%	99.1%	88.5%	83.9%	
DR-3	33.77%	40.33%	52.1%	17.8%	78%	78%	68.5%	Not Sampled	35.7%	-1.0%	59.3%	70.5%	50.2%	45.6%	63.9%	-18.7%	-37.7%	45.6%	41.6%	19.3%	95.8%	95.1%	97.2%	92.1%	
DR-4	94.58%	95.34%	95.7%	94.4%	96.4%	96%	93.9%	93.9%	90.6%	88.9%	92.7%	89.1%	87.2%	82.9%	81.8%	82.8%	88.8%	92.5%	90.8%	95.5%	97.9%	94.9%	93.1%		
G-1	60.81%	74.90%	62.8%	61.7%	80.1%	80%	74.1%	74.1%	57.7%	47.4%	92.7%	60.0%	100.0%	66.1%	27.3%	48.8%	47.7%	55.0%	61.3%	65.6%	87.3%	89.6%	80.3%	87.4%	
G-2	68.24%	75.65%	91.2%	76.0%	82.4%	84%	100.0%	Not Sampled	Not Sampled	100.0%	Not Sampled	Not Sampled	90.1%	Not Sampled	83.1%	88.0%	86.9%	81.7%	95.1%	71.4%	73.0%	87.0%	65.7%	89.1%	
G-3	24.23%	23.19%	96.3%	20.1%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	27.3%	-0.2%	-4.2%	35.0%	8.2%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	79.7%	NA	NA	NA	NA	NA	
Overall Reduction	37.95%	23.07%	47.2%	28.9%	37.2%	54.6%	60.4%	40.4%	46.5%	41.3%	40.4%	60.4%	67.7%	62.6%	67.7%	60.1%	54.9%	69.3%	72.8%	62.8%	90.7%	92.3%	91.1%	90.2%	

† Sampling of recovery wells initiated in 2005

TABLE 5

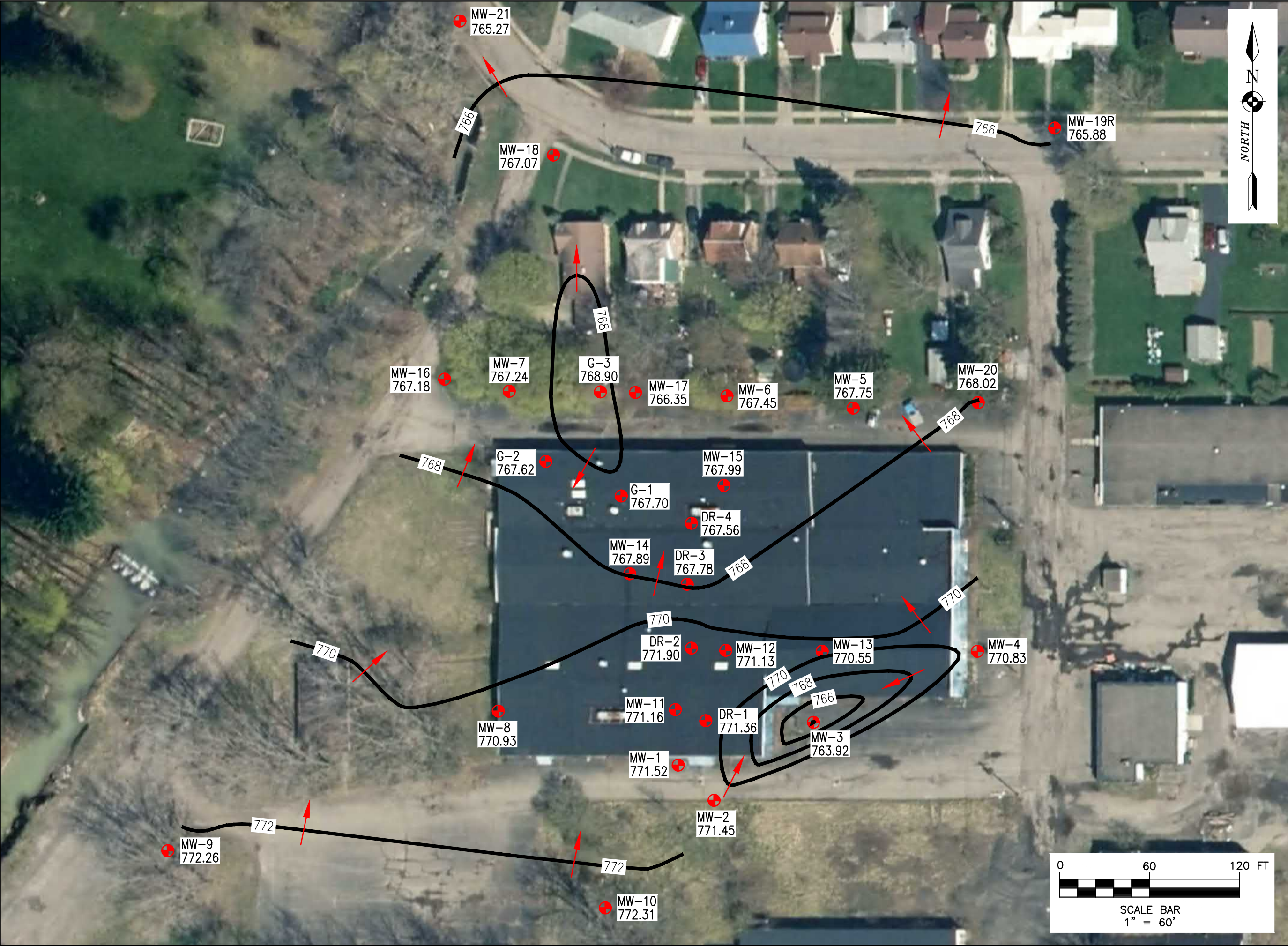
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FIGURES

I:\DASNY\006974.98 DASNY-Gowanda 2019 O&M\3.0 Design\3.8 Reports\Groundwater Contour Figures\August 2019 Figures\Figure 1 August 2019.dwg



DASNY
Gowanda Day
Habilitation Center
4 Industrial Place
Gowanda, New York

B **BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

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office: 585.232.5135
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REVISIONS				
NO.	DATE	DESCRIPTION	REV.	CK'D

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Architects & Surveyors, D.P.C.

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

Project Manager:	Checked By:
C. BLEIER	C. BLEIER
Designed By:	Drawn By:
	C. WOOD
Date Issued:	Scale:
11/15/2019	1" = 60'
Project Number:	
6974.98	

AUGUST 2019
WATER LEVEL
CONTOUR MAP

Drawing Number:

FIGURE 1

DASNY

Gowanda Day Habilitation Center

4 Industrial Place
Gowanda, NY



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Figure 2

August 2019
Distribution of
Groundwater
Analytical Results:
Monitoring Wells

0 30 60 90 120
Feet



DASNY

Gowanda Day
Habilitation Center

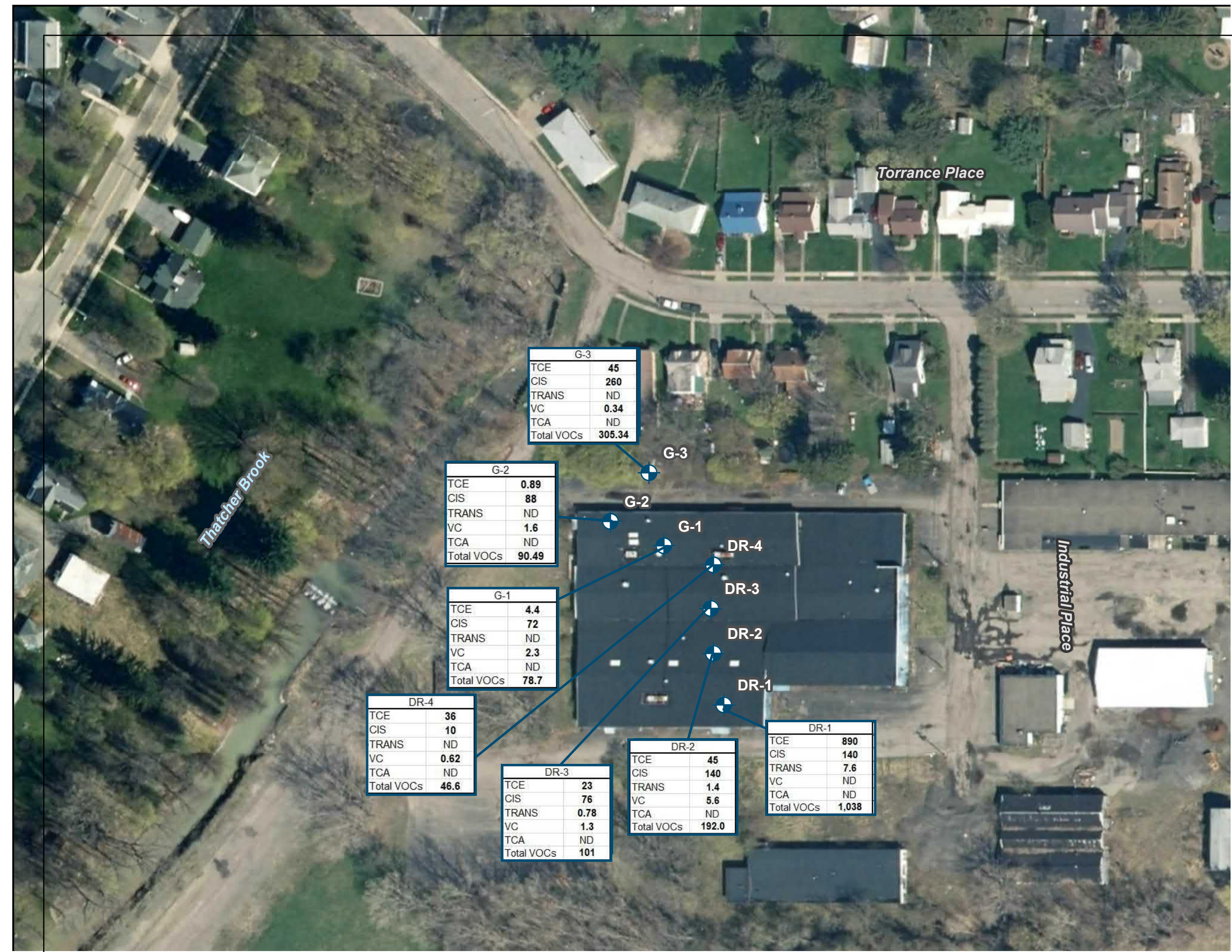
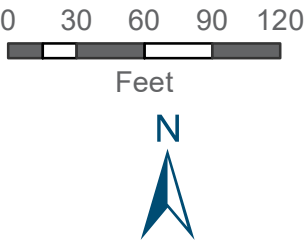
4 Industrial Place
Gowanda, NY



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Figure 3

August 2019
Distribution of
Groundwater
Analytical Results:
Recovery Wells





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CHARTS

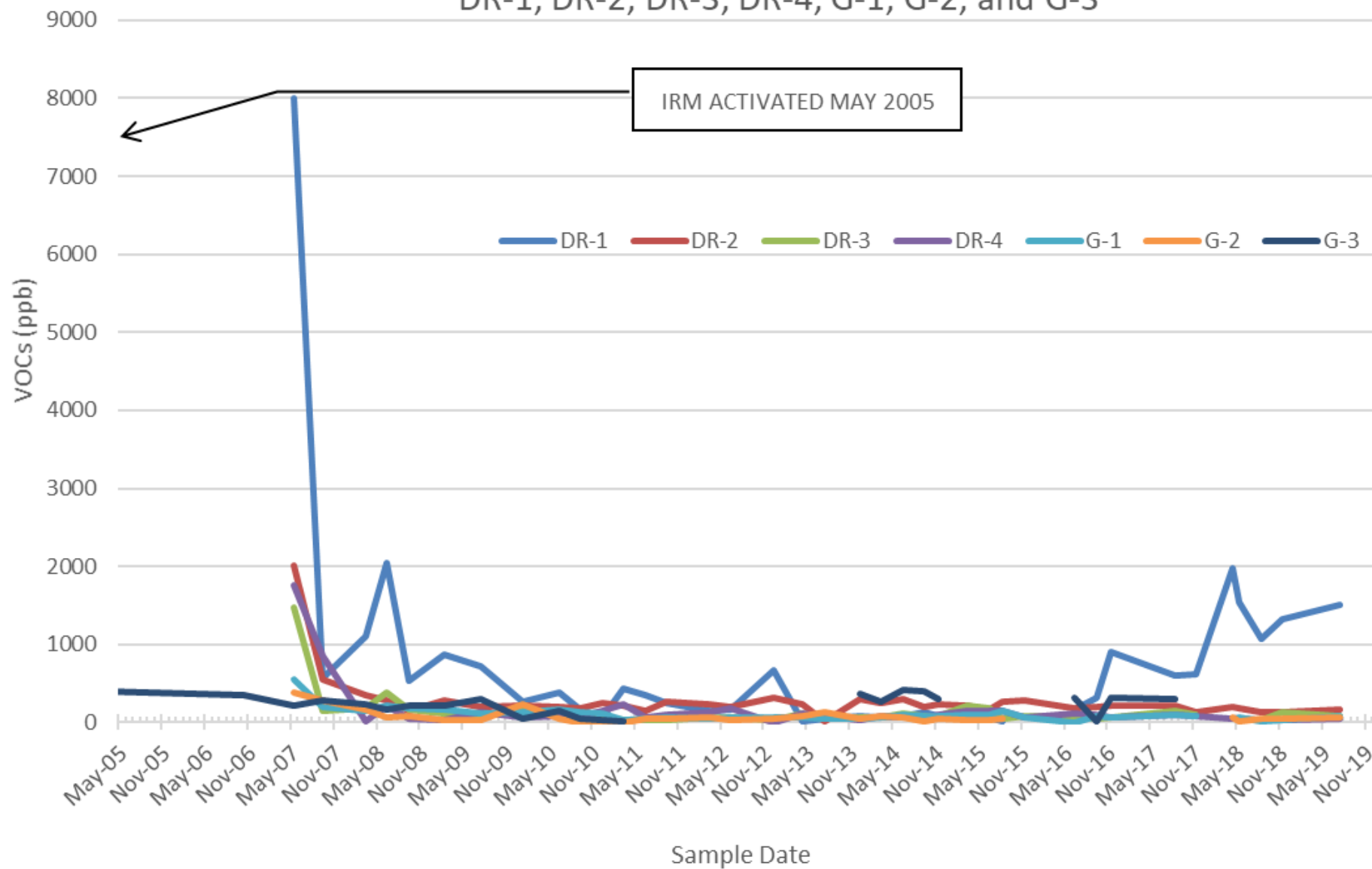


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Groundwater Recovery Wells DR-1, DR-2, DR-3, DR-4, G-1, G-2, and G-3

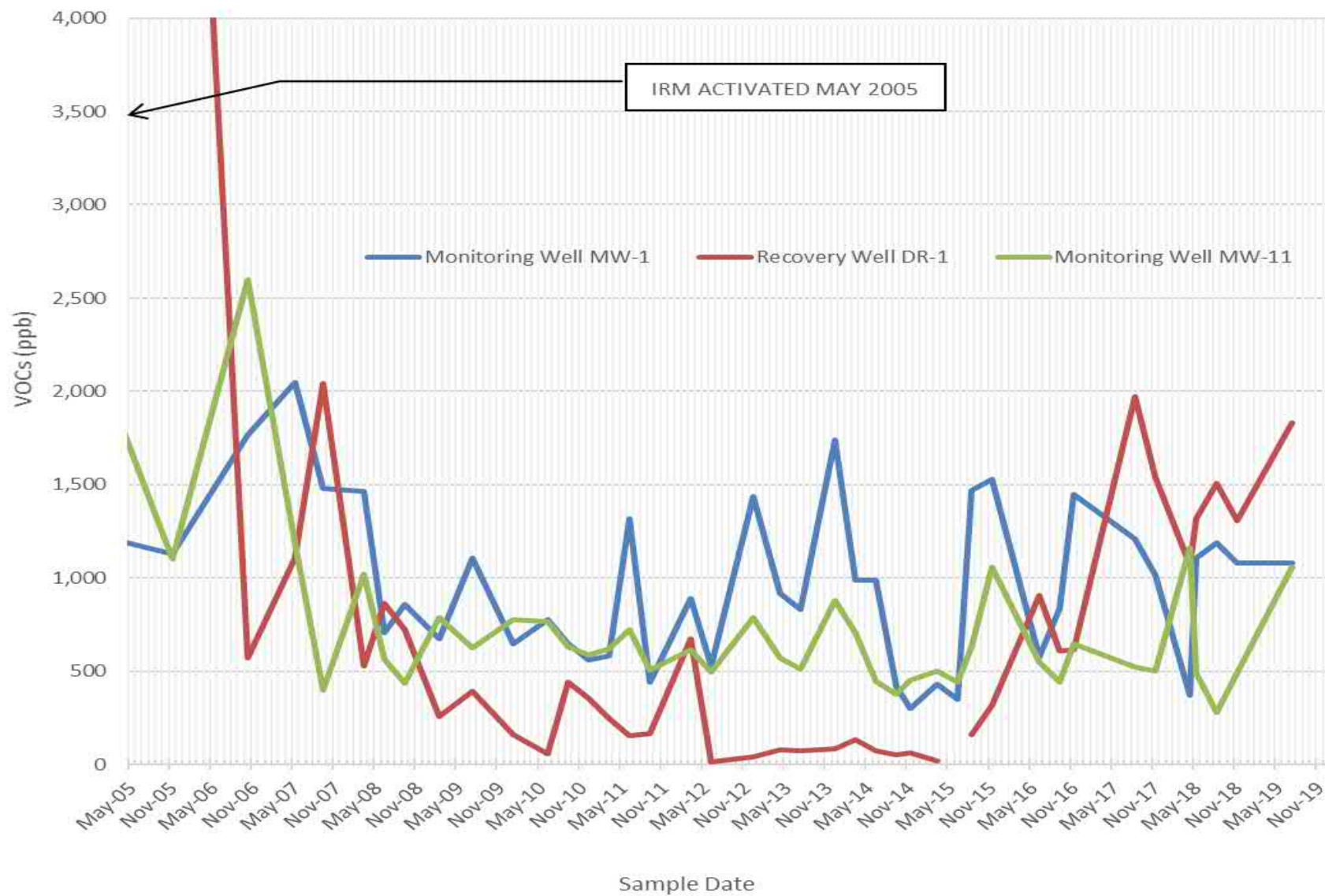




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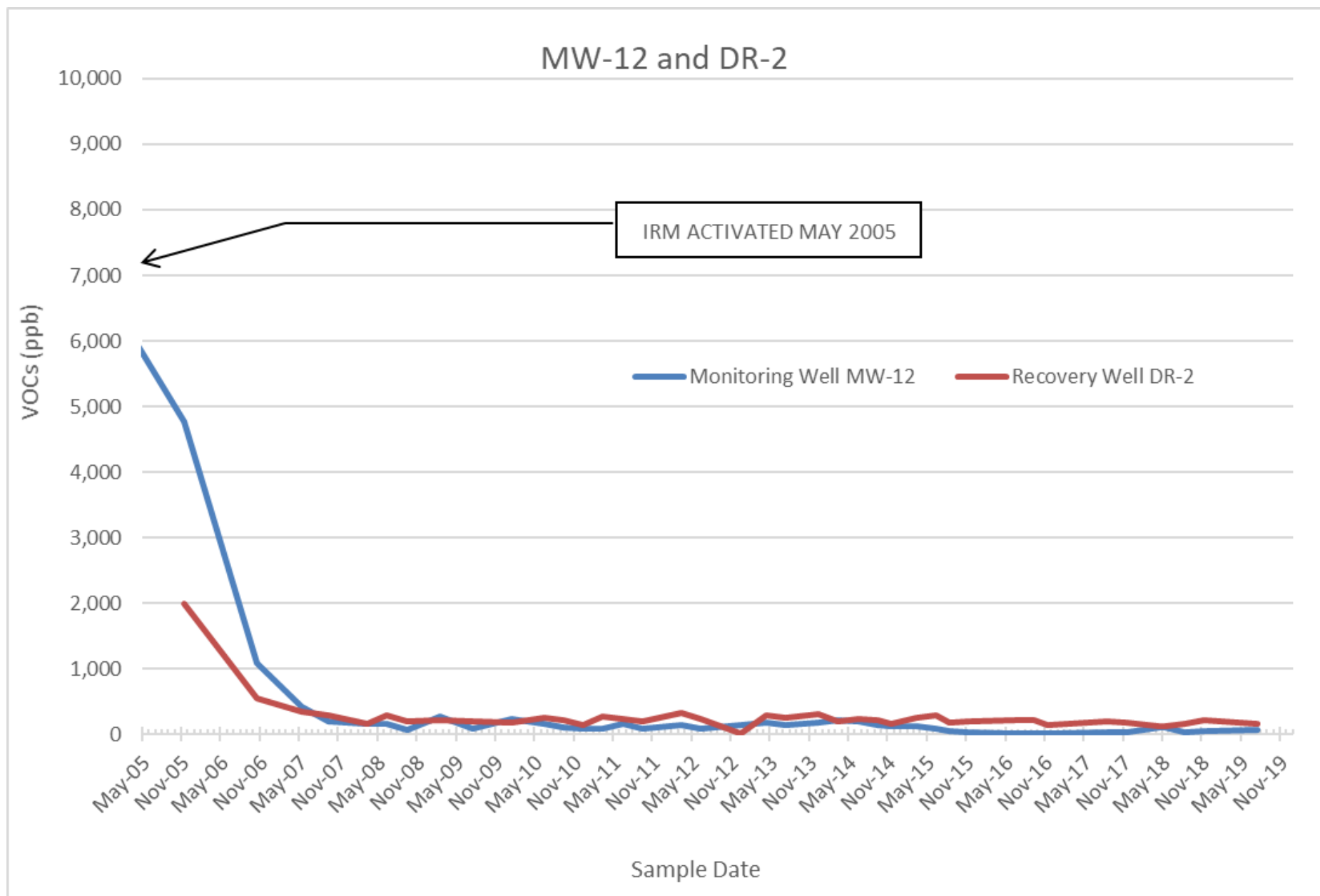
MW-1, DR-1 and MW-11





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ARCHITECTS ENGINEERS PLANNERS

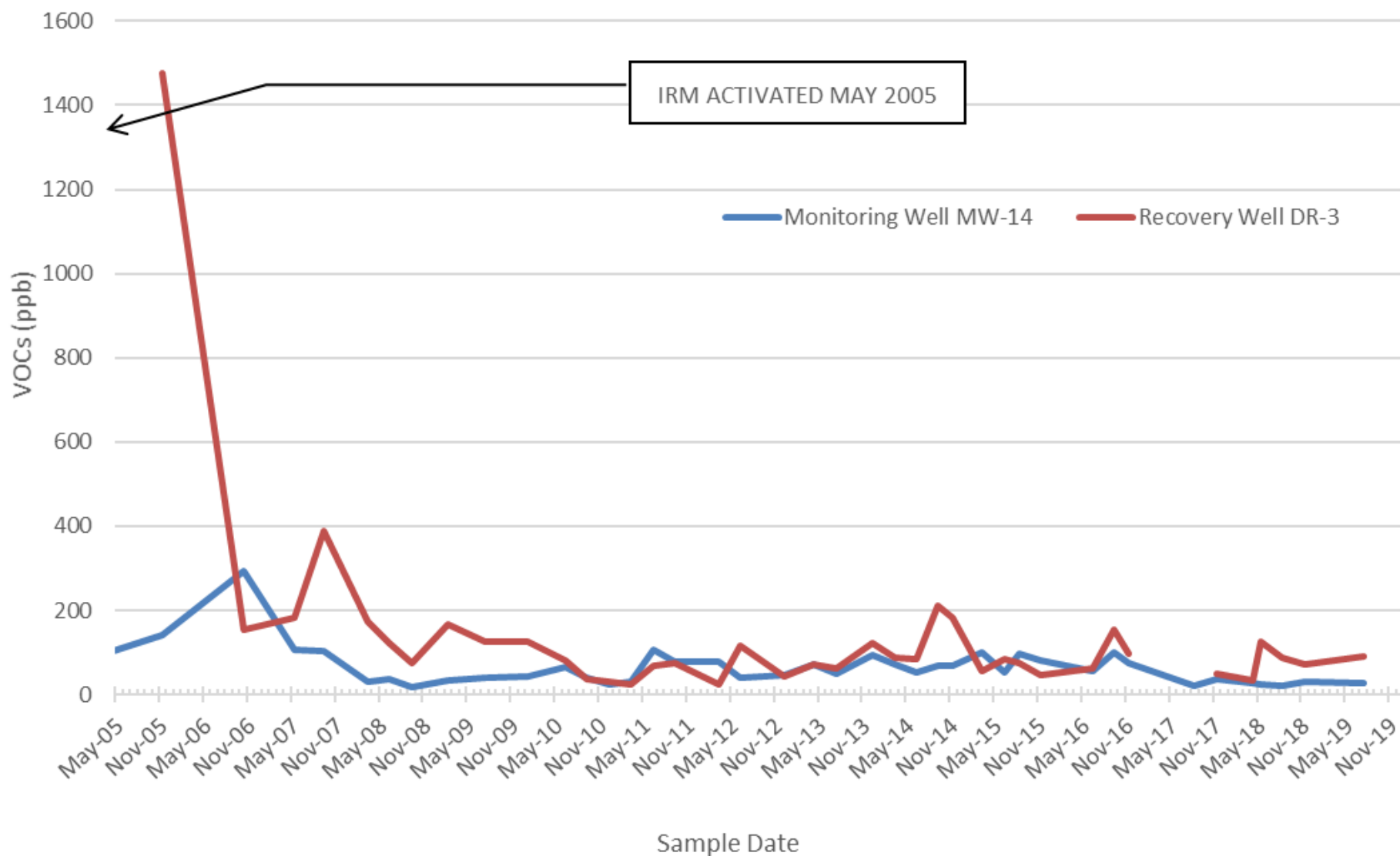




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MW-14 and DR-3

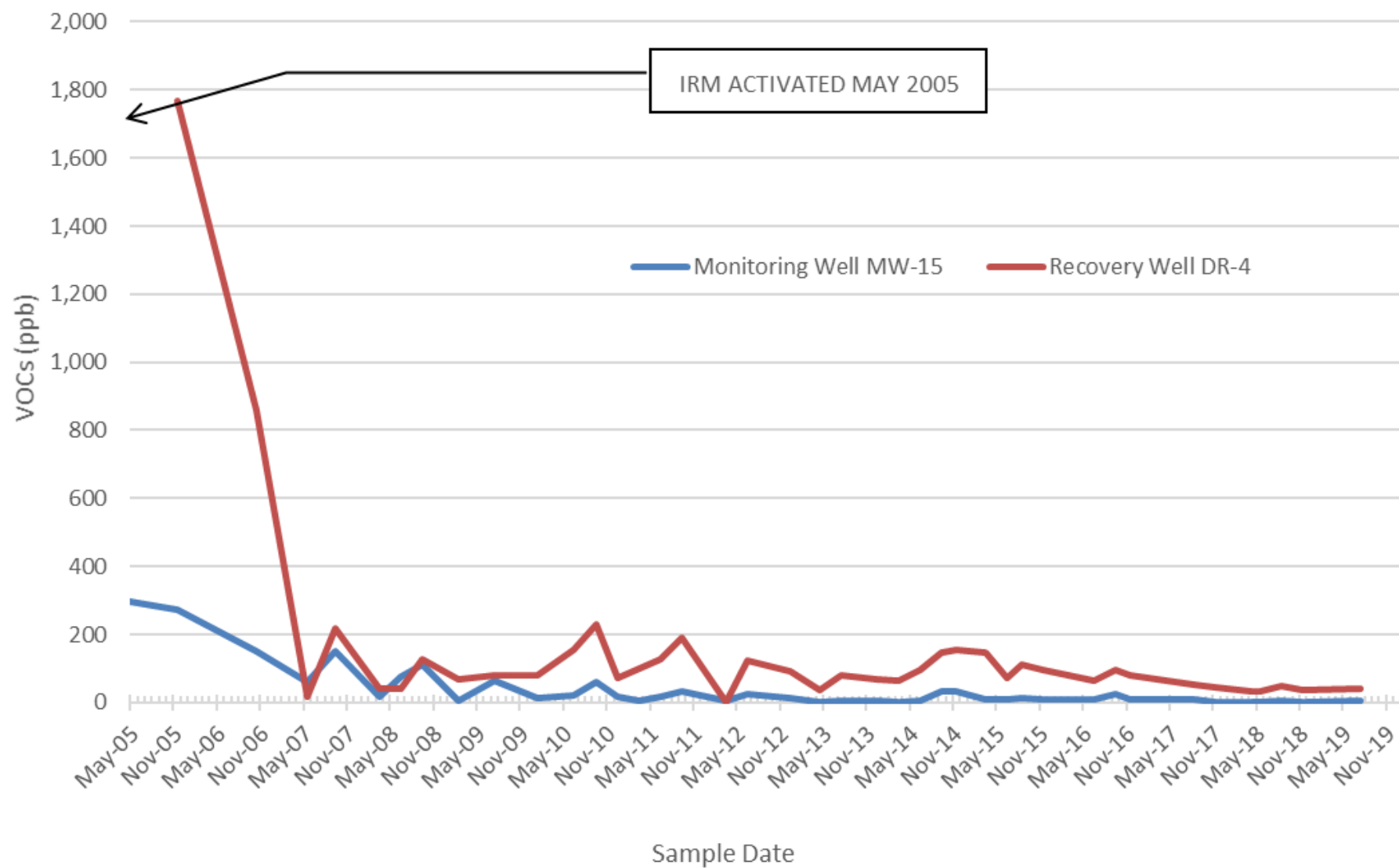




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MW-15 and DR-4

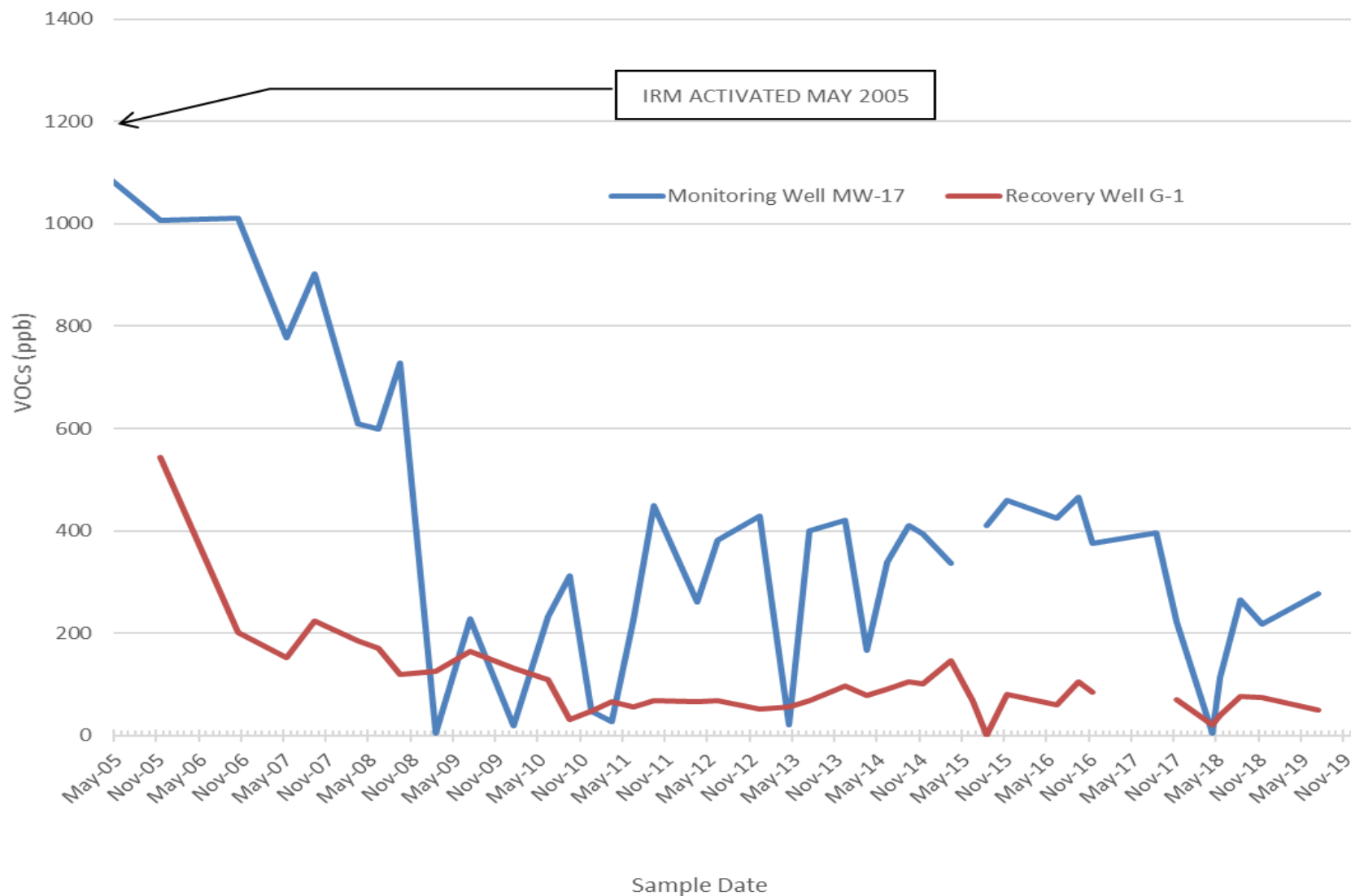




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MW-17 and G-1

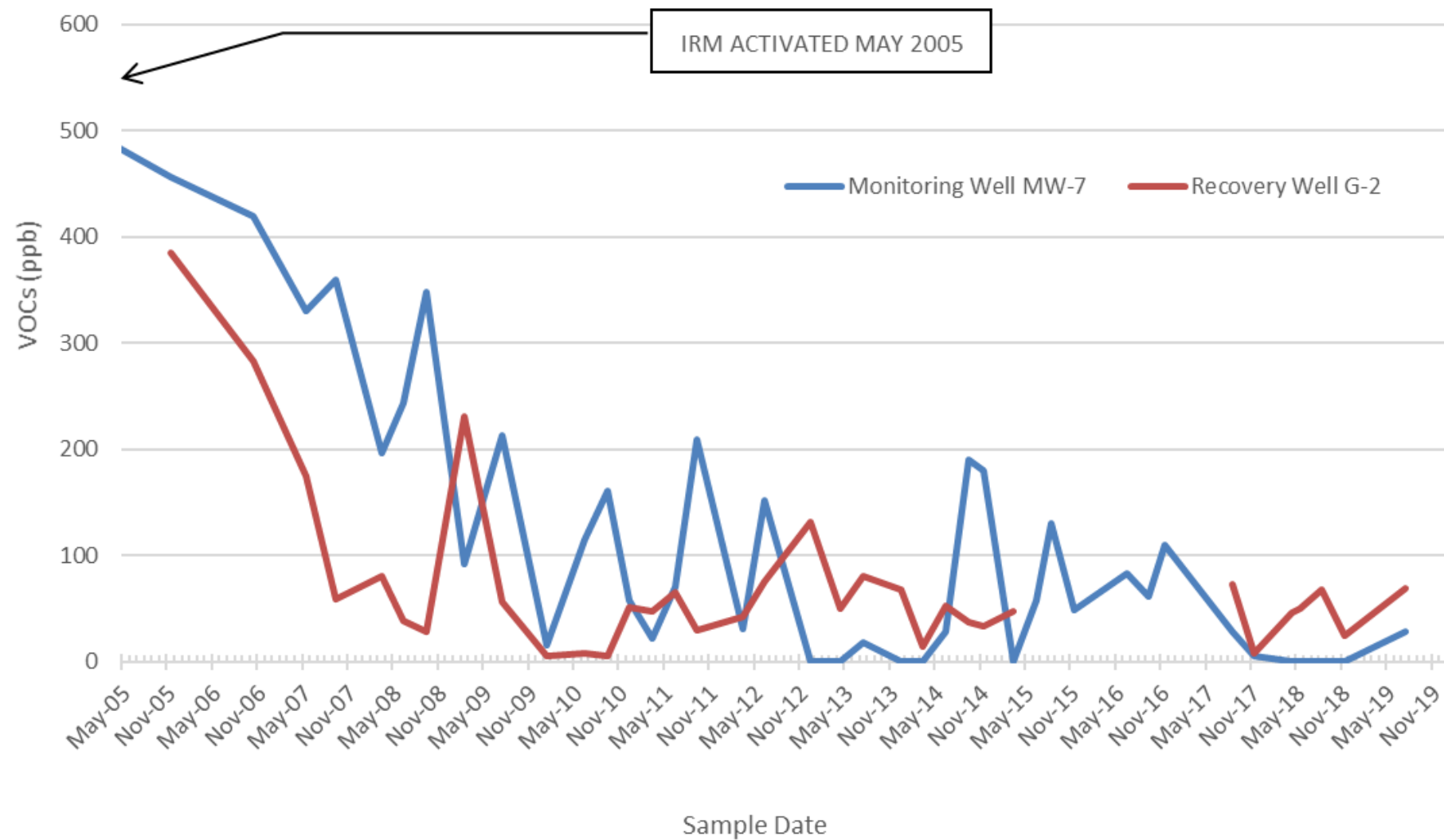




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MW-7 and G-2

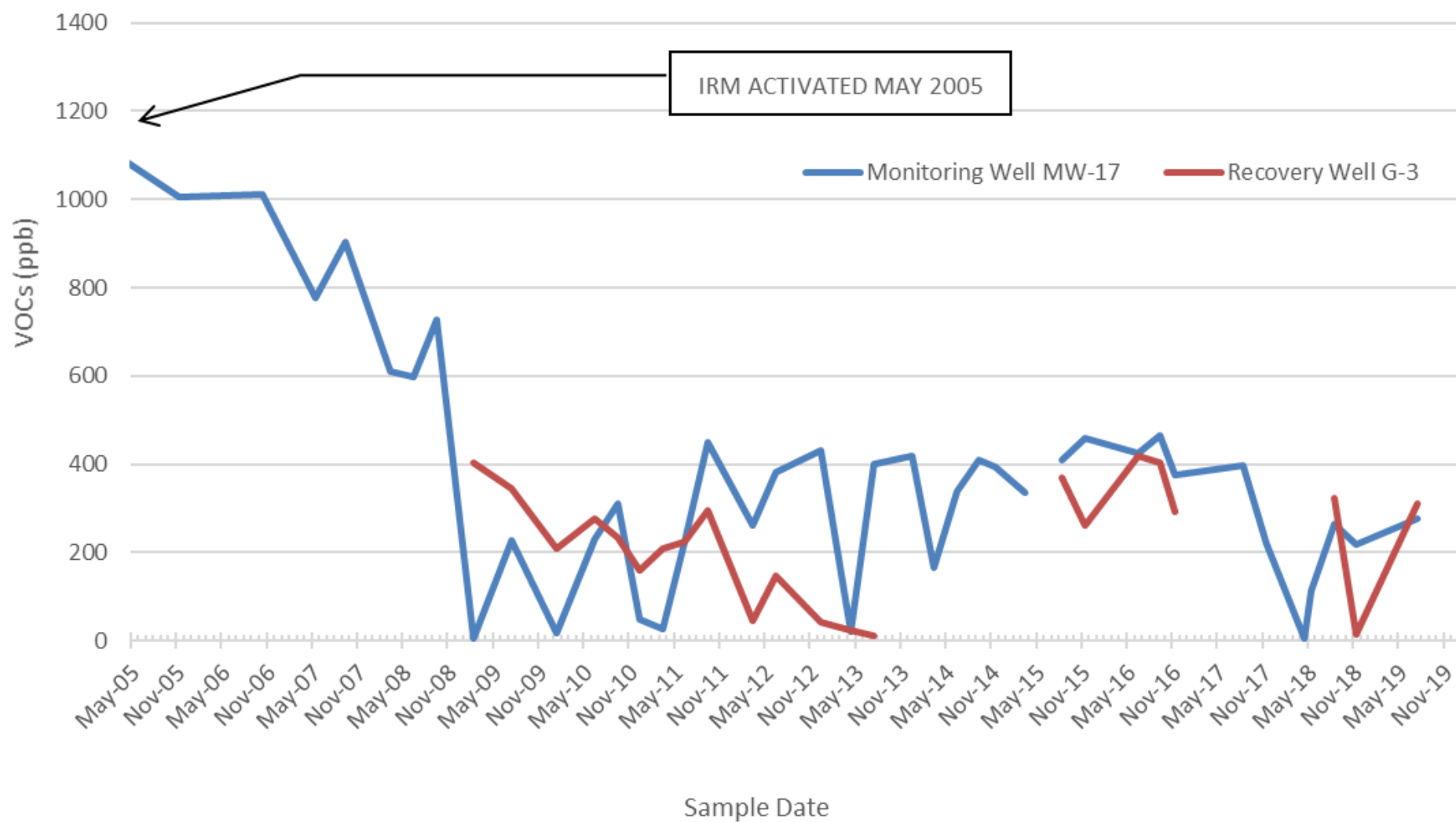




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ARCHITECTS ENGINEERS PLANNERS

MW-17 and G-3





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APPENDIX A:

LABORATORY ANALYTICAL RESULTS



ANALYTICAL REPORT

Lab Number:	L1938425
Client:	Bergmann Associates 280 E Broad Street Rochester, NY 14604
ATTN:	Ariadna Cheremeteff
Phone:	(585) 498-7950
Project Name:	DASNY GOWANDA
Project Number:	6974.98
Report Date:	09/03/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: DASNY GOWANDA

Project Number: 6974.98

Lab Number: L1938425

Report Date: 09/03/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1938425-01	MW-1	WATER	GOWANDA, NY	08/22/19 09:27	08/23/19
L1938425-02	MW-2	WATER	GOWANDA, NY	08/22/19 09:27	08/23/19
L1938425-03	MW-3	WATER	GOWANDA, NY	08/22/19 09:45	08/23/19
L1938425-04	MW-4	WATER	GOWANDA, NY	08/22/19 09:12	08/23/19
L1938425-05	MW-5	WATER	GOWANDA, NY	08/22/19 12:45	08/23/19
L1938425-06	MW-6	WATER	GOWANDA, NY	08/22/19 13:05	08/23/19
L1938425-07	MW-7	WATER	GOWANDA, NY	08/22/19 08:20	08/23/19
L1938425-08	MW-8	WATER	GOWANDA, NY	08/22/19 09:45	08/23/19
L1938425-09	MW-9	WATER	GOWANDA, NY	08/22/19 10:36	08/23/19
L1938425-10	MW-10	WATER	GOWANDA, NY	08/22/19 09:45	08/23/19
L1938425-11	MW-11	WATER	GOWANDA, NY	08/22/19 11:30	08/23/19
L1938425-12	MW-12	WATER	GOWANDA, NY	08/22/19 11:15	08/23/19
L1938425-13	MW-13	WATER	GOWANDA, NY	08/22/19 11:20	08/23/19
L1938425-14	MW-14	WATER	GOWANDA, NY	08/22/19 11:00	08/23/19
L1938425-15	MW-15	WATER	GOWANDA, NY	08/22/19 10:51	08/23/19
L1938425-16	MW-16	WATER	GOWANDA, NY	08/22/19 08:15	08/23/19
L1938425-17	MW-17	WATER	GOWANDA, NY	08/22/19 13:15	08/23/19
L1938425-18	MW-18	WATER	GOWANDA, NY	08/22/19 10:25	08/23/19
L1938425-19	MW-19R	WATER	GOWANDA, NY	08/22/19 10:10	08/23/19
L1938425-20	MW-20	WATER	GOWANDA, NY	08/22/19 08:55	08/23/19
L1938425-21	MW-21	WATER	GOWANDA, NY	08/22/19 10:17	08/23/19
L1938425-22	MW-X	WATER	GOWANDA, NY	08/22/19 11:30	08/23/19
L1938425-23	G-1	WATER	GOWANDA, NY	08/22/19 10:25	08/23/19
L1938425-24	G-2	WATER	GOWANDA, NY	08/22/19 10:25	08/23/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1938425-25	G-3	WATER	GOWANDA, NY	08/22/19 08:45	08/23/19
L1938425-26	DR-1	WATER	GOWANDA, NY	08/22/19 11:30	08/23/19
L1938425-27	DR-2	WATER	GOWANDA, NY	08/22/19 11:05	08/23/19
L1938425-28	DR-3	WATER	GOWANDA, NY	08/22/19 11:05	08/23/19
L1938425-29	DR-4	WATER	GOWANDA, NY	08/22/19 10:51	08/23/19
L1938425-30	TRIP BLANK	WATER	GOWANDA, NY	08/22/19 00:00	08/23/19

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L1938425-30: A sample identified as "TRIP BLANK" was received but not listed on the Chain of Custody. This sample was not analyzed.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Cristin Walker

Title: Technical Director/Representative

Date: 09/03/19

ORGANICS

VOLATILES

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-01 D

Date Collected: 08/22/19 09:27

Client ID: MW-1

Date Received: 08/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/28/19 22:31

Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	ND		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	ND		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	ND		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	ND		ug/l	2.0	0.64	4
Toluene	ND		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	2.9	J	ug/l	4.0	0.28	4
Chloroethane	ND		ug/l	10	2.8	4
1,1-Dichloroethene	ND		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	4.5	J	ug/l	10	2.8	4
Trichloroethene	450		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-01 D

Date Collected: 08/22/19 09:27

Client ID: MW-1

Date Received: 08/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	240		ug/l	10	2.8	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	7.4	J	ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
Methyl Acetate	ND		ug/l	8.0	0.94	4
Cyclohexane	ND		ug/l	40	1.1	4
1,4-Dioxane	ND		ug/l	1000	240	4
Freon-113	ND		ug/l	10	2.8	4
Methyl cyclohexane	ND		ug/l	40	1.6	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	97		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-02
Client ID: MW-2
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 09:27
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/28/19 22:53
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.28	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-02**Date Collected:** 08/22/19 09:27**Client ID:** MW-2**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	6.9		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	120		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	120		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-03
Client ID: MW-3
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 09:45
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/28/19 23:15
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.28	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-03
Client ID: MW-3
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 09:45
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	6.9		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	125		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	122		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-04
Client ID: MW-4
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 09:12
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/28/19 23:37
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-04**Date Collected:** 08/22/19 09:12**Client ID:** MW-4**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	6.3		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	117		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-05
Client ID: MW-5
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 12:45
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/28/19 23:59
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.52		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-05**Date Collected:** 08/22/19 12:45**Client ID:** MW-5**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	6.3		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	127		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	122		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-06
Client ID: MW-6
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 13:05
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 00:21
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.64	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-06**Date Collected:** 08/22/19 13:05**Client ID:** MW-6**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	92		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.4	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	114		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-07
Client ID: MW-7
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 08:20
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 00:43
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	1.1	J	ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.15	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.85		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-07
 Client ID: MW-7
 Sample Location: GOWANDA, NY

Date Collected: 08/22/19 08:20
 Date Received: 08/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	38		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.9	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	115		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-08
Client ID: MW-8
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 09:45
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 01:05
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-08**Date Collected:** 08/22/19 09:45**Client ID:** MW-8**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.5		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	127		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	121		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-09
Client ID: MW-9
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 10:36
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 01:27
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-09**Date Collected:** 08/22/19 10:36**Client ID:** MW-9**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	129		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	119		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-10
Client ID: MW-10
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 09:45
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 01:49
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-10
Client ID: MW-10
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 09:45
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.8		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	126		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	114		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-11 D

Date Collected: 08/22/19 11:30

Client ID: MW-11

Date Received: 08/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/29/19 02:11

Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	2.4	J	ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	15		ug/l	12	3.5	5
Trichloroethene	640		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-11 D

Date Collected: 08/22/19 11:30

Client ID: MW-11

Date Received: 08/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	280		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	ND		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	ND		ug/l	50	2.0	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	125		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	121		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-12
Client ID: MW-12
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 11:15
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 02:33
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.18	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	7.3		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-12
Client ID: MW-12
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 11:15
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	47		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	114		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-13
Client ID: MW-13
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 11:20
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/30/19 09:09
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.50		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-13**Date Collected:** 08/22/19 11:20**Client ID:** MW-13**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	106		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-14
Client ID: MW-14
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 11:00
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 08:55
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	21		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-14
Client ID: MW-14
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 11:00
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	5.5		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.9	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	99		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-15
Client ID: MW-15
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 10:51
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 09:18
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	6.1		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-15**Date Collected:** 08/22/19 10:51**Client ID:** MW-15**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	2.0	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.5	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	100		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-16
Client ID: MW-16
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 08:15
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 09:41
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.11	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.42	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1



Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-16**Date Collected:** 08/22/19 08:15**Client ID:** MW-16**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	31		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	6.8		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	101		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-17 D

Date Collected: 08/22/19 13:15

Client ID: MW-17

Date Received: 08/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/29/19 10:04

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	ND		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	ND		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	ND		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	ND		ug/l	1.2	0.40	2.5
Toluene	ND		ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	0.87	J	ug/l	2.5	0.18	2.5
Chloroethane	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	0.68	J	ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	1.8	J	ug/l	6.2	1.8	2.5
Trichloroethene	39		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-17 D

Date Collected: 08/22/19 13:15

Client ID: MW-17

Date Received: 08/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	ND		ug/l	6.2	1.8	2.5
o-Xylene	ND		ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	310		ug/l	6.2	1.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	ND		ug/l	12	2.5	2.5
Acetone	4.7	J	ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	ND		ug/l	12	4.8	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl Acetate	ND		ug/l	5.0	0.58	2.5
Cyclohexane	ND		ug/l	25	0.68	2.5
1,4-Dioxane	ND		ug/l	620	150	2.5
Freon-113	ND		ug/l	6.2	1.8	2.5
Methyl cyclohexane	ND		ug/l	25	0.99	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	104		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-18
Client ID: MW-18
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 10:25
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 10:28
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	1.1		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-18**Date Collected:** 08/22/19 10:25**Client ID:** MW-18**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	2.0	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	100		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-19
Client ID: MW-19R
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 10:10
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 10:51
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.43	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.60		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-19**Date Collected:** 08/22/19 10:10**Client ID:** MW-19R**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.4	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	100		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-20
Client ID: MW-20
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 08:55
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 11:14
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-20**Date Collected:** 08/22/19 08:55**Client ID:** MW-20**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.0		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	125		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	101		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-21
Client ID: MW-21
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 10:17
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 11:37
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.23	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	3.1		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-21**Date Collected:** 08/22/19 10:17**Client ID:** MW-21**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	15		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	125		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	102		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-22 D

Date Collected: 08/22/19 11:30

Client ID: MW-X

Date Received: 08/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/29/19 12:00

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	ND		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	8.9	J	ug/l	25	7.0	10
Trichloroethene	960		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-22 D

Date Collected: 08/22/19 11:30

Client ID: MW-X

Date Received: 08/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	150		ug/l	25	7.0	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
Methyl Acetate	ND		ug/l	20	2.3	10
Cyclohexane	ND		ug/l	100	2.7	10
1,4-Dioxane	ND		ug/l	2500	610	10
Freon-113	ND		ug/l	25	7.0	10
Methyl cyclohexane	ND		ug/l	100	4.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	126		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	104		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-23
 Client ID: G-1
 Sample Location: GOWANDA, NY

Date Collected: 08/22/19 10:25
 Date Received: 08/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/29/19 12:24
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	1.4	J	ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	2.3		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	4.4		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-23
Client ID: G-1
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 10:25
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	72		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.1	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	125		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	104		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-24
Client ID: G-2
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 10:25
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 12:47
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.6		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.21	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.89		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-24**Date Collected:** 08/22/19 10:25**Client ID:** G-2**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	88		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.3	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	125		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	104		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-25 D

Date Collected: 08/22/19 08:45

Client ID: G-3

Date Received: 08/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/29/19 13:10

Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	ND		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	ND		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	ND		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	ND		ug/l	1.2	0.40	2.5
Toluene	ND		ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	0.34	J	ug/l	2.5	0.18	2.5
Chloroethane	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	0.48	J	ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	ND		ug/l	6.2	1.8	2.5
Trichloroethene	45		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-25 D

Date Collected: 08/22/19 08:45

Client ID: G-3

Date Received: 08/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	ND		ug/l	6.2	1.8	2.5
o-Xylene	ND		ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	260		ug/l	6.2	1.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	ND		ug/l	12	2.5	2.5
Acetone	3.8	J	ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	ND		ug/l	12	4.8	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl Acetate	ND		ug/l	5.0	0.58	2.5
Cyclohexane	ND		ug/l	25	0.68	2.5
1,4-Dioxane	ND		ug/l	620	150	2.5
Freon-113	ND		ug/l	6.2	1.8	2.5
Methyl cyclohexane	ND		ug/l	25	0.99	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	126		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	106		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-26 D

Date Collected: 08/22/19 11:30

Client ID: DR-1

Date Received: 08/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 08/29/19 13:33

Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	ND		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	7.6	J	ug/l	25	7.0	10
Trichloroethene	890		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-26 D

Date Collected: 08/22/19 11:30

Client ID: DR-1

Date Received: 08/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	140		ug/l	25	7.0	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
Methyl Acetate	ND		ug/l	20	2.3	10
Cyclohexane	ND		ug/l	100	2.7	10
1,4-Dioxane	ND		ug/l	2500	610	10
Freon-113	ND		ug/l	25	7.0	10
Methyl cyclohexane	ND		ug/l	100	4.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	129		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	103		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-27
 Client ID: DR-2
 Sample Location: GOWANDA, NY

Date Collected: 08/22/19 11:05
 Date Received: 08/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/29/19 13:56
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	0.84	J	ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	5.6		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.38	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	1.4	J	ug/l	2.5	0.70	1
Trichloroethene	45		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-27
Client ID: DR-2
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 11:05
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	140		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.5	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	129		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	105		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

SAMPLE RESULTS

Lab ID: L1938425-28
Client ID: DR-3
Sample Location: GOWANDA, NY

Date Collected: 08/22/19 11:05
Date Received: 08/23/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 08/29/19 14:20
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.3		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.20	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	0.78	J	ug/l	2.5	0.70	1
Trichloroethene	23		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-28**Date Collected:** 08/22/19 11:05**Client ID:** DR-3**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	76		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	130		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	105		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS**

Lab ID: L1938425-29
 Client ID: DR-4
 Sample Location: GOWANDA, NY

Date Collected: 08/22/19 10:51
 Date Received: 08/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 08/29/19 14:43
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.62	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	36		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**SAMPLE RESULTS****Lab ID:** L1938425-29**Date Collected:** 08/22/19 10:51**Client ID:** DR-4**Date Received:** 08/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	10		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.4		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	129		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	102		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/19 08:31
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 14-29 Batch: WG1278303-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 08/29/19 08:31
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 14-29 Batch: WG1278303-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/29/19 08:31
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 14-29 Batch: WG1278303-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	99		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 08/28/19 20:20
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-12 Batch: WG1278309-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/28/19 20:20
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-12 Batch: WG1278309-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/28/19 20:20
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-12 Batch: WG1278309-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	101		70-130

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 08/30/19 08:26
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG1278790-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 08/30/19 08:26
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG1278790-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 08/30/19 08:26
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG1278790-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: DASNY GOWANDA

Project Number: 6974.98

Lab Number: L1938425

Report Date: 09/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 14-29 Batch: WG1278303-3 WG1278303-4								
Methylene chloride	99		98		70-130	1		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	91		91		63-130	0		20
1,1,2-Trichloroethane	110		100		70-130	10		20
Tetrachloroethene	97		95		70-130	2		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	130		130		62-150	0		20
1,2-Dichloroethane	120		120		70-130	0		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	100		96		67-130	4		20
trans-1,3-Dichloropropene	89		88		70-130	1		20
cis-1,3-Dichloropropene	91		91		70-130	0		20
Bromoform	72		72		54-136	0		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	93		92		64-130	1		20
Bromomethane	83		77		39-139	8		20
Vinyl chloride	100		98		55-140	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DASNY GOWANDA

Project Number: 6974.98

Lab Number: L1938425

Report Date: 09/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 14-29 Batch: WG1278303-3 WG1278303-4								
Chloroethane	140	Q	140	Q	55-138	0		20
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	110		100		70-130	10		20
Trichloroethene	99		99		70-130	0		20
1,2-Dichlorobenzene	98		98		70-130	0		20
1,3-Dichlorobenzene	98		97		70-130	1		20
1,4-Dichlorobenzene	99		98		70-130	1		20
Methyl tert butyl ether	97		97		63-130	0		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Styrene	105		100		70-130	5		20
Dichlorodifluoromethane	77		76		36-147	1		20
Acetone	140		140		58-148	0		20
Carbon disulfide	91		89		51-130	2		20
2-Butanone	120		130		63-138	8		20
4-Methyl-2-pentanone	97		95		59-130	2		20
2-Hexanone	100		99		57-130	1		20
Bromochloromethane	100		100		70-130	0		20
1,2-Dibromoethane	96		95		70-130	1		20
1,2-Dibromo-3-chloropropane	72		71		41-144	1		20
Isopropylbenzene	110		110		70-130	0		20
1,2,3-Trichlorobenzene	95		96		70-130	1		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: DASNY GOWANDA

Project Number: 6974.98

Lab Number: L1938425

Report Date: 09/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 14-29 Batch: WG1278303-3 WG1278303-4								
1,2,4-Trichlorobenzene	91		91		70-130	0		20
Methyl Acetate	120		120		70-130	0		20
Cyclohexane	120		110		70-130	9		20
1,4-Dioxane	100		100		56-162	0		20
Freon-113	110		110		70-130	0		20
Methyl cyclohexane	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	126		126		70-130
Toluene-d8	103		102		70-130
4-Bromofluorobenzene	106		106		70-130
Dibromofluoromethane	105		105		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: DASNY GOWANDA

Project Number: 6974.98

Lab Number: L1938425

Report Date: 09/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12 Batch: WG1278309-3 WG1278309-4								
Methylene chloride	88		85		70-130	3		20
1,1-Dichloroethane	86		89		70-130	3		20
Chloroform	89		82		70-130	8		20
Carbon tetrachloride	110		100		63-132	10		20
1,2-Dichloropropane	88		82		70-130	7		20
Dibromochloromethane	90		94		63-130	4		20
1,1,2-Trichloroethane	84		86		70-130	2		20
Tetrachloroethene	86		79		70-130	8		20
Chlorobenzene	88		86		75-130	2		20
Trichlorofluoromethane	100		86		62-150	15		20
1,2-Dichloroethane	98		100		70-130	2		20
1,1,1-Trichloroethane	91		95		67-130	4		20
Bromodichloromethane	95		90		67-130	5		20
trans-1,3-Dichloropropene	88		89		70-130	1		20
cis-1,3-Dichloropropene	88		85		70-130	3		20
Bromoform	85		88		54-136	3		20
1,1,2,2-Tetrachloroethane	80		82		67-130	2		20
Benzene	92		85		70-130	8		20
Toluene	85		86		70-130	1		20
Ethylbenzene	91		89		70-130	2		20
Chloromethane	86		78		64-130	10		20
Bromomethane	93		80		39-139	15		20
Vinyl chloride	87		84		55-140	4		20

Lab Control Sample Analysis Batch Quality Control

Project Name: DASNY GOWANDA

Project Number: 6974.98

Lab Number: L1938425

Report Date: 09/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12 Batch: WG1278309-3 WG1278309-4								
Chloroethane	100		92		55-138	8		20
1,1-Dichloroethene	92		89		61-145	3		20
trans-1,2-Dichloroethene	88		92		70-130	4		20
Trichloroethene	86		85		70-130	1		20
1,2-Dichlorobenzene	88		84		70-130	5		20
1,3-Dichlorobenzene	91		87		70-130	4		20
1,4-Dichlorobenzene	90		86		70-130	5		20
Methyl tert butyl ether	77		80		63-130	4		20
p/m-Xylene	90		90		70-130	0		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	85		94		70-130	10		20
Styrene	95		90		70-130	5		20
Dichlorodifluoromethane	78		73		36-147	7		20
Acetone	83		88		58-148	6		20
Carbon disulfide	84		83		51-130	1		20
2-Butanone	68		70		63-138	3		20
4-Methyl-2-pentanone	73		80		59-130	9		20
2-Hexanone	72		80		57-130	11		20
Bromochloromethane	99		87		70-130	13		20
1,2-Dibromoethane	85		89		70-130	5		20
1,2-Dibromo-3-chloropropane	83		91		41-144	9		20
Isopropylbenzene	92		90		70-130	2		20
1,2,3-Trichlorobenzene	70		78		70-130	11		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DASNY GOWANDA

Project Number: 6974.98

Lab Number: L1938425

Report Date: 09/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12 Batch: WG1278309-3 WG1278309-4								
1,2,4-Trichlorobenzene	72		81		70-130	12		20
Methyl Acetate	82		89		70-130	8		20
Cyclohexane	85		77		70-130	10		20
1,4-Dioxane	70		64		56-162	9		20
Freon-113	86		87		70-130	1		20
Methyl cyclohexane	86		80		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	108		106		70-130
Toluene-d8	100		98		70-130
4-Bromofluorobenzene	103		103		70-130
Dibromofluoromethane	103		96		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: DASNY GOWANDA

Project Number: 6974.98

Lab Number: L1938425

Report Date: 09/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1278790-3 WG1278790-4								
Methylene chloride	94		89		70-130	5		20
1,1-Dichloroethane	100		98		70-130	2		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	96		93		70-130	3		20
Dibromochloromethane	98		99		63-130	1		20
1,1,2-Trichloroethane	95		94		70-130	1		20
Tetrachloroethene	89		88		70-130	1		20
Chlorobenzene	97		96		75-130	1		20
Trichlorofluoromethane	97		94		62-150	3		20
1,2-Dichloroethane	99		100		70-130	1		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	99		100		67-130	1		20
trans-1,3-Dichloropropene	96		96		70-130	0		20
cis-1,3-Dichloropropene	95		93		70-130	2		20
Bromoform	97		98		54-136	1		20
1,1,2,2-Tetrachloroethane	94		96		67-130	2		20
Benzene	97		98		70-130	1		20
Toluene	97		96		70-130	1		20
Ethylbenzene	100		98		70-130	2		20
Chloromethane	84		80		64-130	5		20
Bromomethane	99		96		39-139	3		20
Vinyl chloride	86		85		55-140	1		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: DASNY GOWANDA

Project Number: 6974.98

Lab Number: L1938425

Report Date: 09/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1278790-3 WG1278790-4								
Chloroethane	97		100		55-138	3		20
1,1-Dichloroethene	98		97		61-145	1		20
trans-1,2-Dichloroethene	100		92		70-130	8		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	100		97		70-130	3		20
1,3-Dichlorobenzene	100		97		70-130	3		20
1,4-Dichlorobenzene	100		96		70-130	4		20
Methyl tert butyl ether	91		94		63-130	3		20
p/m-Xylene	95		90		70-130	5		20
o-Xylene	100		95		70-130	5		20
cis-1,2-Dichloroethene	100		95		70-130	5		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	61		61		36-147	0		20
Acetone	80		86		58-148	7		20
Carbon disulfide	88		89		51-130	1		20
2-Butanone	81		75		63-138	8		20
4-Methyl-2-pentanone	82		90		59-130	9		20
2-Hexanone	82		87		57-130	6		20
Bromochloromethane	100		100		70-130	0		20
1,2-Dibromoethane	91		92		70-130	1		20
1,2-Dibromo-3-chloropropane	95		90		41-144	5		20
Isopropylbenzene	100		98		70-130	2		20
1,2,3-Trichlorobenzene	88		84		70-130	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: DASNY GOWANDA

Project Number: 6974.98

Lab Number: L1938425

Report Date: 09/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1278790-3 WG1278790-4								
1,2,4-Trichlorobenzene	93		90		70-130	3		20
Methyl Acetate	83		85		70-130	2		20
Cyclohexane	96		92		70-130	4		20
1,4-Dioxane	92		92		56-162	0		20
Freon-113	100		97		70-130	3		20
Methyl cyclohexane	99		96		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		97		70-130
Toluene-d8	102		102		70-130
4-Bromofluorobenzene	106		105		70-130
Dibromofluoromethane	101		106		70-130

Project Name: DASNY GOWANDA**Lab Number:** L1938425**Project Number:** 6974.98**Report Date:** 09/03/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1938425-01A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-01B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-01C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-02A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-02B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-02C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-03A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-03B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-03C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-04A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-04B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-04C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-05A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-05B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-05C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-06A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-06B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-06C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-07A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-07B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-07C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-08A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-08B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)

Project Name: DASNY GOWANDA
Project Number: 6974.98

Serial_No:09031910:52
Lab Number: L1938425
Report Date: 09/03/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1938425-08C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-09A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-09B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-09C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-10A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-10B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-10C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-11A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-11B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-11C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-12A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-12B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-12C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-13A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-13B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-13C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-14A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-14B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-14C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-15A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-15B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-15C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-16A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-16B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-16C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-17A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-17B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-17C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)

Project Name: DASNY GOWANDA
Project Number: 6974.98

Serial_No:09031910:52
Lab Number: L1938425
Report Date: 09/03/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1938425-18A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-18B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-18C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-19A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-19B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-19C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-20A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-20B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-20C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-21A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-21B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-21C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-22A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-22B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-22C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-23A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-23B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-23C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-24A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-24B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-24C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-25A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-25B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-25C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-26A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-26B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-26C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-27A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)

Project Name: DASNY GOWANDA
Project Number: 6974.98

Serial_No:09031910:52
Lab Number: L1938425
Report Date: 09/03/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1938425-27B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-27C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-28A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-28B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-28C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-29A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-29B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-29C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1938425-30A	Vial HCl preserved	A	NA		2.8	Y	Absent		ARCHIVE()
L1938425-30B	Vial HCl preserved	A	NA		2.8	Y	Absent		ARCHIVE()

Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: DASNY GOWANDA
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- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: DASNY GOWANDA
Project Number: 6974.98

Lab Number: L1938425
Report Date: 09/03/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 15

Department: **Quality Assurance**

Published Date: 8/15/2019 9:53:42 AM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,


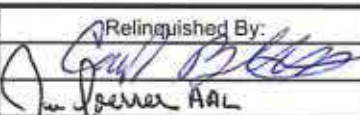
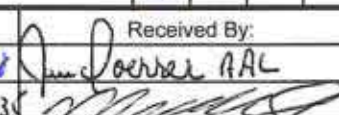
3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.


Biological Tissue Matrix: EPA 3050B


The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9120 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <div style="border: 1px solid black; padding: 2px; display: inline-block;">1 of 3</div>		Date Rec'd in Lab 08/24/19		ALPHA Job # L1938425	
		Project Information Project Name: DASNY Gowanda Project Location: Gowanda, NY Project # 6974.98 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #			
Client Information Client: Bergmann Address: 288 E Broad St #200 Rochester, NY 14604 Phone: 585-445-7950 Fax: Email: cbk@bergmanninc.com		Project Manager: A. Cheremetteff ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/> Due Date: # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other: <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities: Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
These samples have been previously analyzed by Alpha <input type="checkbox"/>						ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Preservation <input type="checkbox"/> Lab to do (Please Specify below)	
Other project specific requirements/comments:						NYTCL-8260		Total Bottles	
Please specify Metals or TAL.									
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date Time		Sample Matrix		Sampler's Initials	
38425-01		MW-1		8/22 0927		GW		CB	
-02		MW-2		8/22 0927		GW		CB	
-03		MW-3		8/22 0945		GW		CB	
-04		MW-4		8/22 0912		GW		CB	
-05		MW-5		8/22 1245		GW		CB	
-06		MW-6		8/22 1305		GW		CB	
-07		MW-7		8/22 0920		GW		CB	
-08		MW-8		8/22 0945		GW		CB	
-09		MW-9		8/22 1030		GW		CB	
-10		MW-10		8/22 0945		GW		CB	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type V		Preservative B	
Form No: 01-25 HC (rev. 30-Sept-2013)		Relinquished By: 		Date/Time 8/23/2019 12:28 8/23/19 14:35		Received By: 		Date/Time 8/23/19 14:35 8/23/19 14:10	
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)									

 NEW YORK CHAIN OF CUSTODY		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <div style="font-size: 1.5em;">2 of 3</div>		Date Rec'd in Lab 08/24/19		ALPHA Job # L1938425			
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Project Information Project Name: DASNY Gowanda Project Location: Gowanda, NY Project # 6974-98 (Use Project name as Project #) <input type="checkbox"/>				Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQulS (1 File) <input checked="" type="checkbox"/> EQulS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #	
Client Information Client: Bergman Address: 200 E Broad, #200 Rochester, NY 14604 Phone: 585-488-7950 Fax: Email: cbeier@bergmanpc.com		Project Manager: A. Chereneteff ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge				Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments:				ANALYSIS <div style="font-size: 1.5em; transform: rotate(-90deg);">NYTCL-8260</div>				Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)		Total Bottles	
Please specify Metals or TAL.								Sample Specific Comments			
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection		Sample Matrix	Sampler's Initials				
				Date	Time						
38425-11		MW-11		8/22	1130	GW	CB	X		3	
-12		MW-12		8/22	1115	GW	CB	X		3	
-13		MW-13		8/22	1120	GW	CB	X		3	
-14		MW-14		8/22	1100	GW	CB	X		3	
-15		MW-15		8/22	1051	GW	CB	X		3	
-16		MW-16		8/22	0815	GW	CB	X		3	
-17		MW-17		8/22	1315	GW	CB	X		3	
-18		MW-18		8/22	1025	GW	CB	X		3	
-19		MW-19R		8/22	1010	GW	CB	X		3	
-20		MW-20		8/22	0855	GW	CB	X		3	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type V Preservative B		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)			
		Relinquished By: [Signature]		Date/Time: 8/23/2019 12:20		Received By: [Signature]		Date/Time: 8/23/19 14:35			
		Relinquished By: [Signature]		Date/Time: 8/23/19 14:35		Received By: [Signature]		Date/Time: 8/24/19 06:16			

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 3 of 3		Date Rec'd in Lab 08/24/19		ALPHA Job # L1938425	
		Project Information: Project Name: DASNY Gowanda Project Location: Gowanda, NY Project # 6674.98 (Use Project name as Project #) <input type="checkbox"/>		Deliverables: <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input checked="" type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		Billing Information: <input checked="" type="checkbox"/> Same as Client Info PO #			
Client Information: Client: Bergmann Address: 250 E Broad St, #200 Rochester, NY 14604 Phone: 555-495-7950 Fax: Email: cb@leibergmannpc.com		Project Manager: A. Cherneteff ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Regulatory Requirement: <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information: Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
These samples have been previously analyzed by Alpha <input type="checkbox"/>		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)		Other project specific requirements/comments:		Total Bottle	
Please specify Metals or TAL.		ANALYSIS Table Header:		ANALYSIS Table Header:		ANALYSIS Table Header:			
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date Time		Sample Matrix	Sampler's Initials				
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-22	MW-X	8/22	1130	GW	CB	X			
-23	G-1	8/22	1025	GW	CB	X			
-24	G-2	8/22	1025	GW	CB	X			
-25	G-3	8/22	0845	GW	CB	X			
-26	DR-1	8/22	1130	GW	CB	X			
-27	DR-2	8/22	1105	GW	CB	X			
-28	DR-3	8/22	1105	GW	CB	X			
-29	DR-4	8/22	1051	GW	CB	X			
		8/22		GW	CB	X			
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type V Preservative B		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
Relinquished By: <i>[Signature]</i>		Date/Time: 8/23/19 12:20		Received By: <i>[Signature]</i>		Date/Time: 8/23/19 14:35			
Relinquished By: <i>[Signature]</i>		Date/Time: 8/23/19 14:35		Received By: <i>[Signature]</i>		Date/Time: 8/23/19 01:10			



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

APPENDIX B: FIELD NOTES

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-1
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 8.3
Depth to bottom of the well: 18.06
Length of water column in well: 9.76

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5909
3 Well volumes (= length water column X gal/foot X 3): 4.7726
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	19.6	NTU								
Temperature	15.6	°C								
pH	7.48									
Conductivity	0.772	SPC ms/cm								
Oxygen	2.8	DO mg/L								
Salinity										

Time sample was collected: 11:30

COMMENTS MW-X

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-2
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 8.03
Depth to bottom of the well: 18.06
Length of water column in well: 10.03

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.6349
3 Well volumes (= length water column X gal/foot X 3): 4.9047
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	15.3	NTU								
Temperature	6.92	°C								
pH	0.674									
Conductivity	3.45	SPC ms/cm								
Oxygen	8.20	DO mg/L								
Salinity										

Time sample was collected: 11:05

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-3
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 12:00
Depth to bottom of the well: 20.45
Length of water column in well: 19.95

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 3.2519
3 Well volumes (= length water column X gal/foot X 3): 9.7556
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	7	NTU								
Temperature	14.9	°C								
pH	7.86									
Conductivity	0.67	SPC ms/cm								
Oxygen	3.86	DO mg/L								
Salinity										

Time sample was collected: 11:05

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-4
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 12.08
Depth to bottom of the well: 19.69
Length of water column in well: 7.61

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.2404
3 Well volumes (= length water column X gal/foot X 3): 3.7213
Actual volume purged prior to sampling: N/A
Sampling Methodology:
Sampling Equipment: Hand bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	0	NTU								
Temperature	15.8	°C								
pH	6.68									
Conductivity	0.639	SPC ms/cm								
Oxygen	1.14	DO mg/L								
Salinity										

Time sample was collected: 10:51

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: G-1
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 12.13
Depth to bottom of the well: 22.98
Length of water column in well: 10.85

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7686
3 Well volumes (= length water column X gal/foot X 3): 5.3057
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	4	NTU								
Temperature	13.1	°C								
pH	7.9									
Conductivity	0.66	SPC ms/cm								
Oxygen	3.81	DO mg/L								
Salinity										

Time sample was collected: 10:25

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: G-2
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 12.1
Depth to bottom of the well: 20.72
Length of water column in well: 8.62

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.4051
3 Well volumes (= length water column X gal/foot X 3): 4.2152
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	0.42	NTU								
Temperature	16.90	°C								
pH	6.72									
Conductivity	0.632	SPC ms/cm								
Oxygen	1.56	DO mg/L								
Salinity										

Time sample was collected: 10:25

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: G-3
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.52
Depth to bottom of the well: 18.15
Length of water column in well: 7.63

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.2437
3 Well volumes (= length water column X gal/foot X 3): 3.7311
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	122.1	NTU								
Temperature	16.3	°C								
pH	6.64									
Conductivity	0.626	SPC ms/cm								
Oxygen	2.94	DO mg/L								
Salinity										

Time sample was collected: 8:45

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-1
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 6.71
Depth to bottom of the well: 16.02
Length of water column in well: 9.31

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5175
3 Well volumes (= length water column X gal/foot X 3): 4.5526
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer

Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	35	NTU								
<i>Temperature</i>	20.1	°C								
<i>pH</i>	7.6									
<i>Conductivity</i>	0.68	SPC ms/cm								
<i>Oxygen</i>	3.73	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 9:27

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-2
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 6.63
Depth to bottom of the well: 17.15
Length of water column in well: 10.52

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7148
3 Well volumes (= length water column X gal/foot X 3): 5.1443
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	41.8	NTU								
<i>Temperature</i>	17.8	°C								
<i>pH</i>	6.67									
<i>Conductivity</i>	0.108	SPC ms/cm								
<i>Oxygen</i>	2.32	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 9:27

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**

ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-3
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 14.46
Depth to bottom of the well: 16.30
Length of water column in well: 1.84

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 0.2999
3 Well volumes (= length water column X gal/foot X 3): 0.8998
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	26.7	NTU								
Temperature	20.90	°C								
pH	5.88									
Conductivity	0.773	SPC ms/cm								
Oxygen	2.85	DO mg/L								
Salinity										

Time sample was collected: 9:45

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-4
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 7.6
Depth to bottom of the well: 15.78
Length of water column in well: 8.18

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.3333
3 Well volumes (= length water column X gal/foot X 3): 4
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	15.7	NTU								
Temperature	19	°C								
pH	6.75									
Conductivity	0.583	SPC ms/cm								
Oxygen	3.14	DO mg/L								
Salinity										

Time sample was collected: 9:12

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-5
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.86
Depth to bottom of the well: 13.95
Length of water column in well: 3.09

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 0.5037
3 Well volumes (= length water column X gal/foot X 3): 1.511
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	106.19	NTU								
Temperature	17.2	°C								
pH	6.5									
Conductivity	0.599	SPC ms/cm								
Oxygen	5.9	DO mg/L								
Salinity										

Time sample was collected: 8:55

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-6
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 13.65
Depth to bottom of the well: 22.88
Length of water column in well: 9.23

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5045
3 Well volumes (= length water column X gal/foot X 3): 4.5135
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	13	NTU								
Temperature	15.3	°C								
pH	7.04									
Conductivity	0.619	SPC ms/cm								
Oxygen	2.67	DO mg/L								
Salinity										

Time sample was collected: 8:40

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-7
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 13.7
Depth to bottom of the well: 21.8
Length of water column in well: 8.1

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.3203
3 Well volumes (= length water column X gal/foot X 3): 3.9609
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	4.1	NTU								
Temperature	16.3	°C								
pH	7.78									
Conductivity	0.682	SPC ms/cm								
Oxygen	3.59	DO mg/L								
Salinity										

Time sample was collected: 8:23

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-8
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.4
Depth to bottom of the well: 17.65
Length of water column in well: 7.25

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.1818
3 Well volumes (= length water column X gal/foot X 3): 3.5453
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	3.27	NTU								
Temperature	16	°C								
pH	6.58									
Conductivity	0.586	SPC ms/cm								
Oxygen	1.95	DO mg/L								
Salinity										

Time sample was collected: 9:45

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-9
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.35
Depth to bottom of the well: 20.96
Length of water column in well: 10.61

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7294
3 Well volumes (= length water column X gal/foot X 3): 5.1883
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	22.4	NTU								
Temperature	14.8	°C								
pH	7.67									
Conductivity	1.019	SPC ms/cm								
Oxygen	3.11	DO mg/L								
Salinity										

Time sample was collected: 10:36

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-10
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 7.71
Depth to bottom of the well: 19.44
Length of water column in well: 11.73

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.9123
3 Well volumes (= length water column X gal/foot X 3): 5.7369
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	33.5	NTU								
Temperature	16.1	°C								
pH	7.68									
Conductivity	0.602	SPC ms/cm								
Oxygen	3.42	DO mg/L								
Salinity										

Time sample was collected: 9:45

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-11
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 7.42
Depth to bottom of the well: 15.48
Length of water column in well: 8.06

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.3138
3 Well volumes (= length water column X gal/foot X 3): 3.9413
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	12.01	NTU								
Temperature	15.4	°C								
pH	6.88									
Conductivity	0.905	SPC ms/cm								
Oxygen	2.94	DO mg/L								
Salinity										

Time sample was collected: 11:30

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-12
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 7.37
Depth to bottom of the well: 17.38
Length of water column in well: 10.01

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.6316
3 Well volumes (= length water column X gal/foot X 3): 4.8949
Actual volume purged prior to sampling: None
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	80.5	NTU								
Temperature	15.6	°C								
pH	7.67									
Conductivity	0.506	SPC ms/cm								
Oxygen	3.3	DO mg/L								
Salinity										

Time sample was collected: 11:15

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-13
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 7.84
Depth to bottom of the well: 17.40
Length of water column in well: 9.56

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5583
3 Well volumes (= length water column X gal/foot X 3): 4.6748
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	150.45	NTU								
<i>Temperature</i>	15.9	°C								
<i>pH</i>	6.62									
<i>Conductivity</i>	0.474	SPC ms/cm								
<i>Oxygen</i>	3.2	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 11:20

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-14
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.54
Depth to bottom of the well: 18.15
Length of water column in well: 7.61

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.2404
3 Well volumes (= length water column X gal/foot X 3): 3.7213
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	10.41	NTU								
Temperature	15.3	°C								
pH	6.74									
Conductivity	0.628	SPC ms/cm								
Oxygen	4.90	DO mg/L								
Salinity										

Time sample was collected: 11:00

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-15
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 10.39
Depth to bottom of the well: 19.80
Length of water column in well: 9.41

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5338
3 Well volumes (= length water column X gal/foot X 3): 4.6015
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	8.7	NTU								
Temperature	15.70	°C								
pH	7.74									
Conductivity	0.572	SPC ms/cm								
Oxygen	5.06	DO mg/L								
Salinity										

Time sample was collected: 10:51

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-16
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 13.25
Depth to bottom of the well: 23.26
Length of water column in well: 10.01

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.6316
3 Well volumes (= length water column X gal/foot X 3): 4.8949
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	48.5	NTU								
Temperature	17.7	°C								
pH	7.04									
Conductivity	0.758	SPC ms/cm								
Oxygen	3.82	DO mg/L								
Salinity										

Time sample was collected: 8:15

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-17
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 13.5
Depth to bottom of the well: 25.18
Length of water column in well: 11.68

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.9038
3 Well volumes (= length water column X gal/foot X 3): 5.7115
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	265	NTU								
<i>Temperature</i>	17.3	°C								
<i>pH</i>	6.8									
<i>Conductivity</i>	0.597	SPC ms/cm								
<i>Oxygen</i>	3.51	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 8:40

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-18
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 9.32
Depth to bottom of the well: 25.0
Length of water column in well: 15.68

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 2.5558
3 Well volumes (= length water column X gal/foot X 3): 7.6675
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	3.7	NTU								
Temperature	17.2	°C								
pH	8.05									
Conductivity	0.708	SPC ms/cm								
Oxygen	6.72	DO mg/L								
Salinity										

Time sample was collected: 10:25

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**

ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-19R
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 8.32
Depth to bottom of the well: 17.67
Length of water column in well: 9.35

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5241
3 Well volumes (= length water column X gal/foot X 3): 4.5722
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	51.1	NTU								
Temperature	18.7	°C								
pH	7.19									
Conductivity	0.837	SPC ms/cm								
Oxygen	6.46	DO mg/L								
Salinity										

Time sample was collected: 10:10

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-20
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.02
Depth to bottom of the well: 14.75
Length of water column in well: 4.73

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 0.771
3 Well volumes (= length water column X gal/foot X 3): 2.313
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	16.2	NTU								
Temperature	16.4	°C								
pH	7.52									
Conductivity	0.463	SPC ms/cm								
Oxygen	3.08	DO mg/L								
Salinity										

Time sample was collected: 8:55

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q3 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 8/22/2019
Weather: Partly cloudy 70°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-21
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 9.49
Depth to bottom of the well: 17.38
Length of water column in well: 7.89

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.2861
3 Well volumes (= length water column X gal/foot X 3): 3.8582
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	4.9	NTU								
Temperature	17.6	°C								
pH	7.4									
Conductivity	0.89	SPC ms/cm								
Oxygen	3.4	DO mg/L								
Salinity										

Time sample was collected: 10:17

COMMENTS



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OCTOBER 2019
GROUNDWATER CHARACTERIZATION REPORT



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New York State Office of People with Developmental Disabilities – Gowanda Site

GROUNDWATER CHARACTERIZATION REPORT – OCTOBER 2019



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Appendices

Appendix A:	Laboratory Analytical Results Report - October 2019 Sampling Event
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1.0 INTRODUCTION

Bergmann is submitting this groundwater characterization report for the October 2019 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, 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 2019 fourth quarter site-wide groundwater monitoring and laboratory analytical sampling event conducted on October 23, 2019. 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 all twenty-one (21) of twenty-one 21 site-related groundwater monitoring wells and all seven (7) groundwater recovery wells were sampled for laboratory analysis. Of the eight (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), all were sampled.

The prior groundwater sampling event was conducted in August 2019 and included analysis of groundwater samples from all of the of twenty-one (21) site-related groundwater monitoring wells and all seven (7) groundwater recovery wells.

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 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 seven (7) 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 was pumped to the equalization tank for settling of the sediment and transferred to the air stripper using a consistent flow rate. Air discharge from the air stripper was routed to the SVE for treatment prior to discharge. Groundwater was discharged to the village of Gowanda Sewage Treatment Plant (STP).



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 January 2014, 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 remedial action plan (RAP) and implementation of an ISCO treatment. Bergmann submitted 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. The ISCO was implemented in May 2015. An ISCO Report was prepared under a separate cover.

2.0 GROUNDWATER SAMPLING OVERVIEW AND METHODS

2.1 WELL MAINTENANCE ACTIVITIES

During the October 2019 site visit, all 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, with the exception of the redevelopment activities performed on August 19, 2015. All protective casings and flush-mount curb boxes were found to be intact and secure. Exterior monitoring wells are secured with locking stick-up protective casings. The monitoring wells within the building are secured with flush-mount roadway covers. Well maintenance was not performed during the October 2019 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 in groundwater monitoring wells are measured on a regular basis to track site-wide changes in the water table elevation and to allow for adjustment at recovery wells. Past operation of the recovery wells was intended to establish hydraulic containment of the impacted groundwater plume beneath the former Day Habilitation building and improve recovery and treatment of impacted groundwater. Groundwater samples were collected from twenty-one (21) of the twenty-one (21) site-related groundwater monitoring wells for laboratory analysis on October 23, 2019. Depth to groundwater measurements were obtained from twenty-eight (28) wells (including recovery wells).

Groundwater samples were collected from monitoring wells after each well was gauged and purged of standing water via bailing with dedicated bailers for each individual well. Sample parameters including turbidity, temperature, pH, oxygen, and conductivity were monitored using a YSI Quatro to ensure sufficient well purging prior to sampling. Groundwater samples were collected from recovery wells using dedicated bailers, to allow for an accurate representation of groundwater without collecting sediment from within the wells. A single duplicate sample and a field blank sample were collected and submitted for laboratory analysis.

Groundwater samples were delivered via chain-of-custody protocol to Alpha Analytical located in Westborough, MA, a NYSELAP 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 in Table 3 for comparative purposes from sampling events completed 2012 – 2019.



3.0 LOCAL GROUNDWATER FLOW CHARACTERIZATION

The Site water table pattern and groundwater flow direction was determined for October 2019 using elevations measured at each well. Groundwater elevations and well reference elevations were calculated using depth to water values obtained on October 23, 2019. The well gauging values and groundwater elevations are provided in Table 1 – Groundwater Elevations and Field Measurements – October 2019.

The October 2019 groundwater table map shows a flow pattern similar to groundwater flow pattern 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 October 2019 depths to groundwater range from 5.82 ft. below top of casing (btoc) at MW-2, to 13.49 ft. btoc at MW-7. The average depth to groundwater at the wells measured was 9.59 ft. btoc, which is a decrease from the average depth to water of the previous sampling event in August of 2019 (9.98).

The site-wide average depth to water table decreased by approximately 0.58 ft. when compared to the previous sampling event from August 2019 sampling event. This increase in the water table is inferred as seasonal.

Measured depth to water at all gauged monitoring and recovery wells is presented Table 1 and October 2019 Groundwater Contours are presented on Figure 1 – October 2019 Water Level Contour Map.

4.0 LABORATORY ANALYSIS

4.1 LABORATORY ANALYSIS ON GROUNDWATER SAMPLES

Laboratory analysis was completed on the groundwater samples from twenty-one (21) monitoring wells and seven (7) recovery wells collected October 23, 2019. 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 October 2019 analytical results indicate detection of four (4) chlorinated VOCs in monitoring well samples: TCE, Cis-DCE, VC and Trans-DCE. Chlorinated VOCs were detected in groundwater samples from fourteen (14) of the twenty-one (21) sampled monitoring wells. Analytical results are summarized in Table 2 – October 2019 Analytical Results Summary, which compares detected VOCs and applicable NYSDEC Class GA Standards for each analyte. The complete laboratory analytical report is provided in Appendix A – Laboratory Analytical Results Report October 2019 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 samples from seven (7) of the monitoring wells.

Groundwater samples from fourteen (14) monitoring wells had detectable chlorinated VOCs at concentrations above applicable Class GA Standards. The monitoring well with the highest total VOCs, MW-1 (1,009 ppb), is located in the area of historically greatest impacted groundwater.



Concentrations in six (6) of the twenty (21) monitoring well groundwater samples increased when compared to the August 2019 sampling event while concentrations in nine (9) of the twenty (21) monitoring well groundwater samples decreased. Concentrations in six (6) groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 86.80% since activation of the GTS in May 2005.

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 72.1% since groundwater monitoring of these wells began in 2002.

Monitoring well MW-1 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at monitoring well MW-1 for the October 2019 sampling event was 1,009 parts per billion (ppb), an increase from the August 2019 value of 698 ppb. Since activation of the GTS, detected VOCs at MW-1 have increased by 31.4%.

Monitoring well MW-11 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-11 for the October 2019 sampling event is 699.3 ppb, a decrease from the August 2019 value of 937.4 ppb. Since activation of the GTS in May 2005, detected VOCs at MW-11 have decreased by 84.95%.

Monitoring well MW-12 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-12 for the October 2019 sampling event is 54.0 ppb, a decrease from the August 2019 value of 54.48 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 about 99.57%.

Monitoring well MW-13 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at monitoring well MW-13 for the October 2019 sampling event was 2.1 ppb, an increase from the August 2019 sampling event, which was 0.50 ppb. Since activation of the GTS, detected VOCs at MW-13 have decreased by about 99.33%.

Monitoring well MW-14 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-14 for the October 2019 sampling event is 33.0 ppb, an increase from the August 2019 value of 26.5 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 about 89.52%.

Monitoring well MW-15 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-15 for the October 2019 sampling event was 7.6 ppb, a decrease from the August 2019 sampling event, which was 8.1 ppb. MW-15 is nearest to recovery well DR-4. Since activation of the GTS in May 2005, the detected VOCs at MW-15 have decreased 98.89%.

Six (6) 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, MW-17 and MW-21. The current analytical results exhibit a decrease in targeted VOCs at the sampled monitoring wells along the north perimeter.

Monitoring wells MW-18, MW-19R and MW-21 are located off-site along Torrance Place. These three (3) wells are considered to be beyond the radius of influence for the Day Habilitation groundwater treatment system. The current results indicate 1.56 ppb total chlorinated VOC levels for MW-18. Monitoring well MW-21 was added to the sampling list at the request of the NYSDEC beginning with the June 2015 sampling event. It was first noted that during the August 2017 sampling event, wells MW-19R and MW-21 were not sampled because



they were inaccessible. It was observed that the wells were uncovered and samples were taken from MW-19R and MW-21 during the October 2019 sampling event. The current VOC concentrations for MW-19R were 0.28 ppb, which was a decrease from the last time it was sampled (0.60 in August 2019). The current VOC concentrations for MW-21 is 24.49 ppb, which was an increase from the last time it was sampled (18.33 ppb in August 2019).

Laboratory analytical results are included in Appendix A. Monitoring well locations and distribution of analytical results are shown on Figure 2 – October 2019 Distribution of Groundwater Analytical Results: 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 well sampled for this event was MW-4. The current results indicate non-detect levels for this eastern sentry well.

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. According to Mr. Chris Sanson, an Environmental Scientist for Groundwater & Environmental Services, Inc. (GES), an ISCO injection application was implemented for the Gowanda Electronics site in March 2014.

Laboratory analytical results report is included in Appendix A. Sentry well locations and analytical results are shown on Figure 2.

4.4 RECOVERY WELL GROUNDWATER ANALYSIS SUMMARY

During the October 2019 sampling event, all of the seven (7) recovery wells were sampled.

The October 2019 analytical results indicate detection of four (4) chlorinated VOCs in recovery well samples that include: TCE, Cis-DCE, TRANS, and VC. Chlorinated VOCs were detected in samples from all seven (7) of the recovery wells. Total VOCs at the seven (7) recovery wells for which past data is available have decreased overall since activation of the GTS in May 2002. The average decrease in VOCs for the current sampling event is about 42.05% relative to concentrations prior to GTS activation in 2002. Relative percent increase 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 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-1 for the October 2019 sampling event is 912.6 ppb, a decrease from the August 2019 value of 1,038 ppb. The current sampling event indicates an increase in VOCs at DR-1 of 59.16% since activation of the GTS. Recovery well DR-1 is located closest to MW-1 in an area of historically highest concentrations.

Recovery well DR-2 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-2 for the October 2019 sampling event is 185.9 ppb, a decrease from the August 2019 value of 192 ppb. The current sampling event indicates a decrease in VOCs at DR-2 of about 66.15% since activation of the GTS.

Recovery well DR-3 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-3 for the October 2019 sampling event is 99.7 ppb, a decrease from the August 2019 value of 101 ppb. The current sampling event indicates a decrease in VOCs at DR-3 of about 34.62% 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 October 2019 sampling event is 40.6 ppb, a decrease from the August 2019 value of 46.6 ppb. The current sampling event indicates a decrease in VOCs at DR-4 of about 95.27% 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 October 2019 sampling event was 70.0 ppb, a decrease from the August 2019 value of 78.7 ppb. The current sampling event indicates a decrease in VOCs at G-1 of 65.14% since activation of the GTS.

Recovery well G-2 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at G-2 for the October 2019 sampling event was 90.49 ppb, an increase from the August 2019 value of 69.0 ppb. The current sampling event indicates a decrease in VOCs at G-2 of 68.07% since activation of the GTS.

Recovery well G-3 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at G-3 for the October 2019 sampling event was 305.54 ppb, a decrease from the August 2019 value of 309.65 ppb. The current sampling event indicates an increase in VOCs at G-2 of 24.23% since activation of the GTS.

Laboratory analytical results are included in Appendix A. Recovery well locations and analytical results are shown on Figure 3 – October 2019 Distribution of Groundwater Analytical Results: Recovery Wells.

4.5 QUALITY ASSURANCE AND QUALITY CONTROL SAMPLES

An equipment blank was collected to ensure proper cleaning of the sampling equipment. The equipment blank, designated as EB, was non-detect for chlorinated halogens. In addition, a duplicate blank (labeled as MW-X) was taken from DR-1.

Laboratory analytical results report is included in Appendix A.

5.0 REMEDIATION SYSTEM EFFICIENCY

5.1 IMPACT OF THE GTS RECOVERY WELLS

Groundwater control charts for the seven (7) sampled 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 the sampled groundwater recovery wells. Since activation of the GTS in May 2005, all seven (7) sampled groundwater recovery wells have demonstrated a general decrease in VOC concentration.

Chart 2 displays the relationship between monitoring wells MW-1, MW-11 and recovery well DR-1. The current total VOCs at MW-1 (1,009 ppb) show a decrease from the August 2019 sampling event (698 ppb). The current total VOCs at MW-11 (699.3 ppb) shows a decrease from the August 2019 sampling event (937.4 ppb). The current total VOCs at DR-1 (912.6 ppb) show a decrease from the August 2019 sampling event (1,038 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 1 and represent the northern limit of the highest concentration within the impacted area. The current total VOCs at MW-12 (54.00 ppb) shows a decrease from the August 2019 sampling event



(54.48 ppb). The current total VOCs at recovery well DR-2 (185.90 ppb) show as a decrease from the August 2019 sampling event (192 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 (33 ppb) show an increase from the August 2019 sampling event (26.5 ppb). The current total VOCs at recovery well DR-3 (99.7 ppb) show a decrease from the August 2019 sampling event (101 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 (7.6 ppb) show a decrease from the August 2019 sampling event (8.1 ppb). The current total VOCs at recovery well DR-4 (40.6 ppb) show a decrease from the August 2019 sampling event (46.6 ppb).

Chart 6 compares laboratory results between recovery well G-1 and monitoring well MW-17. The recovery well is located in the northern portion of the building and MW-17 is located along the northern property line. The current total VOCs at recovery well MW-17 (193.01 ppb) show a decrease from the August 2019 sampling event (342 ppb). The current total VOCs at recovery well G-1 (70 ppb) show a decrease from the August 2019 sampling event (78.7 ppb).

Chart 7 compares laboratory results between recovery well G-2 and MW-7 which are 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-2 had a total VOC concentration of (90.49 ppb), which shows an increase from the August 2019 sampling event (90 ppb). The October 2019 total VOCs of MW-7 (55.58 ppb) showed an increase from the August 2019 sampling event (39 ppb).

Chart 8 compares laboratory results between recovery well G-3 which is located at the northeastern portion of the building and MW-17 which is located along the northern property boundary. This area is at the western perimeter of the apparent area of impacted groundwater. The current total VOCs at monitoring well MW-17 (193.01 ppb) showed a decrease from the August 2019 sampling event (342 ppb). The current total VOCs at recovery well G-3 was (305.34 ppb) show a decrease from the August 2019 sampling event (309.34 ppb).

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. Concentration of VOCs in the source area have been reduced as a result of cleanup activities.

When operating, the GTS maintained an area of hydraulic containment for recovery wells within the source area of impacted groundwater. The GTS was 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 overall sample results are similar to previous quarterly sampling results. Therefore, residual VOCs in the plume have not migrated and appear to be stabilized when compared to sample results with operation of the GTS during previous monitoring events. The full analytical results are summarized in Table 5.

The redevelopment of wells was performed in fall 2015 to remove sediment from wells at the Site after the ISCO injections. Overall, reduction of contaminants in the majority of the monitoring and recovery wells has occurred after remediation at the Site when compared to pre-remediation levels during the past ten (10) years of sampling.



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 upon that these systems would be inactivated to allow for groundwater level recovery during the implementation of an ISCO groundwater treatment and subsequent sampling events. Bergmann performed an ISCO injection application in May (round 1) and September (round 2) 2015 to address remaining residual contamination at the Site in lieu of costly repair of the SVE and GTS. The SVE and GTS equipment remains on site in the event that re-activation is required in the future. However, system components may need repair and/or replacement prior to re-activation.

The next site-wide groundwater sampling and laboratory analysis event is scheduled for Q1 of 2020. Future sampling and analytical events will be conducted to track the effects of the ISCO injections 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 monitored and recorded during future sampling events.



TABLES

Table 1 Groundwater Elevations and Field Measurements October 2019

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

	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	5.82	6.31	7.05	10.96	13.45	13.49	9.72	9.70	7.13
Groundwater Elevation	771.83	772.26	772.07	771.38	767.65	767.65	767.45	771.61	772.91	772.89
Well Diameter	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Product Thickness	ND	NA	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	11.33	9.99	8.73	2.99	9.43	8.31	7.93	11.26	12.29
Minimum Purge Volume (gal)	1.6	1.85	1.6	1.4	0.5	1.5	1.4	1.3	1.8	2.0
3 Volumes	4.7	5.54	4.9	4.3	1.5	4.6	4.1	3.9	5.5	6.0
Actual volume purged	4.7	5.54	NS	4.3	1.4	4.6	4.1	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'

	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)	6.86	7.14	7.34	10.72	10.83	13.10	13.31	8.49	8.65	10.14	10.1
Groundwater Elevation	771.72	771.36	771.05	767.71	767.55	767.33	766.54	767.90	765.55	767.90	764.66
Well Diameter	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Product Thickness	ND	ND	ND	ND	ND	ND	ND	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	8.62	10.24	10.06	7.43	8.97	10.16	NA	16.51	9.02	4.61	5.72
Minimum Purge Volume (gal)	1.4	1.7	1.6	1.2	1.5	1.7	NS	2.7	1.47026	0.8	0.93236
3 Volumes	4.2	5.0	4.9	3.6	4.4	5.0	NS	8.1	4.41078	2.3	2.79708
Actual volume purged	4.2	5.0	NS	3.6	4.4	5.0	NS	8.1	4.41078	2.3	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'

	DR-1	DR-2	DR-3	DR-4	G-1	G-2	G-3
Casing Elevation	779.66	779.93	779.78	779.64	779.83	779.72	779.42
Depth to Groundwater (btoc)	7.62	7.35	11.07	11.70	11.95	11.72	10.28
Groundwater Elevation	772.04	772.58	768.71	767.94	767.88	768.00	769.14
Well Diameter	4"	4"	4"	4"	4"	4"	4"
Product Thickness	ND	ND	ND	ND	ND	ND	ND
Well Depth (btoc)	18.06	18.06	20.45	19.69	22.98	20.72	18.15
Bottom of Well Elevation	761.6	761.87	759.33	759.95	756.85	759	761.27
Thickness of Water Column	10.44	10.71	9.38	7.99	11.03	9.17	7.87
Minimum Purge Volume (gal)	6.82	6.99	6.13	5.22	7.20	5.98	5.14
3 Volumes	20.45	20.98	18.38	15.65	21.61	17.94	15.42
Actual volume purged	20.45	20.98	18.38	15.65	21.61	17.94	15.42
Comments	Stickup=0.85'	Stickup=1.06'	Stickup=0.95'	Stickup=0.84'	Stickup=1.03'	Stickup=0.86'	Vaulted well

NOTES

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

NS = Not Sampled

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, MW-19R and MW-21 have been paved over.

	DR-1	DR-2	DR-3	DR-4	G-1	G-2	G-3	SVE-1	SVE-2
Casing Elevation*	779.66	779.93	779.78	779.64	779.83	779.72		779.66	779.91
Depth to Groundwater (btoc)									
Groundwater Elevation	NA	NA	NA	NA	NA	NA	NA	DRY	DRY
Well Diameter	4"	4"	4"	4"	4"	4"		4"	4"
Product Thickness	ND	ND	ND	ND	ND	ND	ND		
Well Depth (btoc)	18.06	18.06	20.45	19.69	22.98	20.72			
Bottom of Well Elevation	761.6	761.87	759.33	759.95	756.85	759		8.39	8.63
Thickness of Water Column									
Minimum Purge Volume (gal)									
3 Volumes									
Actual volume purged									
Comments	Stickup=0.85'	Stickup=1.06'	Stickup=0.95'	Stickup=0.84'	Stickup=1.03'	Stickup=0.86'		Stickup=0.89'	Stickup=1.05'

Table 2 October 2019 Analytical Results Summary

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

Monitoring Well MW-1

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		450	750	5.0
CIS		240	250	5.0
TRANS		4.6	9.2	5.0
VC		2.9	0.0	2.0
TCA		ND	ND	5.0
Total VOCs		698	1,009	

Monitoring Well MW-2

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		0.28	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		0.28	ND	

Monitoring Well MW-3

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		0.28	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		0.28	ND	

Monitoring Well MW-4

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	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-5

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		0.52	0.47	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		0.52	0.47	

Monitoring Well MW-6

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		ND	ND	5.0
CIS		92	98	5.0
TRANS		ND	ND	5.0
VC		0.64	1.10	2.0
TCA		ND	ND	5.0
Total VOCs		92.64	99.10	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 October 2019 Analytical Results Summary

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

Monitoring Well MW-7

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		0.85	1.4	5.0
CIS		38	54	5.0
TRANS		ND	ND	5.0
VC		0.15	0.18	2.0
TCA		ND	ND	5.0
Total VOCs		39	55.58	

Monitoring Well MW-8

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	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-9

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	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-10

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	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-11

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		640	510	5.0
CIS		280	170	5.0
TRANS		15.0	18.0	5.0
VC		2.4	1.3	2.0
TCA		ND	ND	5.0
Total VOCs		937.4	699.3	

Monitoring Well MW-12

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		7	20	5.0
CIS		47	34	5.0
TRANS		ND	ND	5.0
VC		0.18	ND	2.0
TCA		ND	ND	5.0
Total VOCs		54.48	54.00	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 October 2019 Analytical Results Summary

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

Monitoring Well MW-13

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		0.50	2.10	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		0.50	2.10	

Monitoring Well MW-14

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		21	21	5.0
CIS		5.5	12	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		26.5	33.0	

Monitoring Well MW-15

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		6.1	6.6	5.0
CIS		2.0	1.0	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		8.10	7.57	

Monitoring Well MW-16

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		0.42	0.41	5.0
CIS		31	6.7	5.0
TRANS		ND	ND	5.0
VC		0.11	ND	2.0
TCA		ND	ND	5.0
Total VOCs		31.53	7.11	

Monitoring Well MW-17

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		29	31	5.0
CIS		310	160	5.0
TRANS		1.8	1.7	5.0
VC		0.87	0.31	2.0
TCA		ND	ND	5.0
Total VOCs		341.67	193.01	

Monitoring Well MW-18

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		1	1	5.0
CIS		2.0	1.0	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		3.1	1.56	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 October 2019 Analytical Results Summary

Gowanda Day Habilitation Center

4 Industrial Place, Gowanda, New York

VCA # V-00463-9

Monitoring Well MW-19R

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		0.6	0.28	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		0.6	0.28	

Monitoring Well MW-20

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	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: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		3.1	2.3	5.0
CIS		15	21	5.0
TRANS		ND	0.98	5.0
VC		0.23	0.21	2.0
TCA		ND	ND	5.0
Total VOCs		18.33	24.49	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 October 2019 Analytical Results Summary

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

Recovery Well DR-1

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		890	790	5.0
CIS		140	110	5.0
TRANS		7.6	12	5.0
VC		ND	0.6	2.0
TCA		ND	ND	5.0
Total VOCs		1,038	912.6	

Recovery Well DR-2

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		45	42	5.0
CIS		140	140	5.0
TRANS		1.4	1.7	5.0
VC		5.6	2.2	2.0
TCA		ND	ND	5.0
Total VOCs		192.0	185.9	

Recovery Well DR-3

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		23	30	5.0
CIS		76	66	5.0
TRANS		0.8	1.1	5.0
VC		1.3	2.6	2.0
TCA		ND	ND	5.0
Total VOCs		101	99.7	

Recovery Well DR-4

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		36	29	5.0
CIS		10	11	5.0
TRANS		ND	ND	5.0
VC		0.62	0.60	2.0
TCA		ND	ND	5.0
Total VOCs		46.6	40.6	

Recovery Well G-1

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		4.4	2.7	5.0
CIS		72	66	5.0
TRANS		ND	ND	5.0
VC		2.3	1.3	2.0
TCA		ND	ND	5.0
Total VOCs		78.7	70.0	

Recovery Well G-2

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		0.89	0.52	5.0
CIS		88	59	5.0
TRANS		ND	ND	5.0
VC		1.6	0.4	2.0
TCA		ND	ND	5.0
Total VOCs		90	59.96	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 October 2019 Analytical Results Summary

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

Recovery Well G-3

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	NYS Guidance Value
TCE		45	34	5.0
CIS		260	210	5.0
TRANS		ND	ND	5.0
VC		0.34	ND	2.0
TCA		ND	ND	5.0
Total VOCs		305.34	244	

Duplicate Blank (DR-1)

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Oct 2019	NYS Guidance Value
TCE		769	5.0
CIS		110	5.0
TRANS		12	5.0
VC		0.64	2.0
TCA		ND	5.0
Total VOCs		891.64	

Equipment Blank

Sample Date: 10/23/2019

Sampling Events

Analyte	in ppb	Aug 2019	Oct 2019	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	

ND = Non-detect

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

Results expressed as parts per billion (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

MONITORING WELLS																										
Monitoring Well Number	Total VOCs Oct 2019 (ppb)	Total VOCs Aug 2019	Total VOCs July 2019	Total VOCs Nov 2018	Total VOCs August 2018	Total VOCs May 2018 (ppb)	Total VOCs April 2018	Total VOCs Nov 2017	Total VOCs Aug 2017	Total VOCs Nov 2016	Total VOCs Sep 2016 (ppb)	Total VOCs Jun 2016 (ppb)	Total VOCs Nov 2015	Total VOCs Aug 2015	Total VOCs Jun 2015 (ppb)	Total VOCs Mar 2015 (ppb)	Total VOCs Nov 2014	Total VOCs Sep 2014 (ppb)	Total VOCs Jun 2014 (ppb)	Total VOCs Mar 2014 (ppb)	Total VOCs Dec 2013 (ppb)	Total VOCs Jul 2013 (ppb)	Total VOCs Apr 2013 (ppb)	Total VOCs Dec 2012 (ppb)	Total VOCs Jun 2012 (ppb)	Total VOCs Mar 2012 (ppb)
MW-1	1009	698	1,081	1,080	1,190	1,110	374	1013	1,210	1,467	838	580	1,530	1,470	350	430	300	420	990	990	1,740	830	910	1,440	528	889
MW-2	ND	0.28	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-3	ND	0.28	0.39	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-5	0.47	0.52	0.9	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-6	99.1	92.64	86.63	81	84	77	76	100	91	87	120	100	120	96	86	81	110	110	96	94	130	99	93	99	86.7	85.7
MW-7	55.58	39	27.83	ND	ND	ND	ND	5.8	29	110	62	83	49	130	58	ND	180	190	29	ND	ND	18	ND	ND	151.56	30.5
MW-8	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-9	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	699.3	937.4	1,059	489.3	282	489	1,160	470	525	646	445	550	1,060	630	444	500	451	375	450	710	880	510	570	790	498	617
MW-12	54	54.48	79	53	25	100	113	31	40	7.1	7.8	15.8	28.8	52	97	120	126	136	200	212	173	149.3	186.6	142	86.5	148.22
MW-13	2.1	0.50	1.38	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	33	26.5	25.9	30.7	22.3	22.8	28	38	22.1	76	100	57	81	96	52	99	68	68	54	73	94	49	71	47	39.7	76.6
MW-15	7.6	8.1	4.9	ND	6.5	ND	ND	ND	7.4	11	23.8	11	9.9	14	8.1	9.8	32	31	6.1	ND	6.8	7	ND	12.9	26.26	6.25
MW-16	7.11	31.53	37.61	41	10	41	43	32	36	14	20	37	31	13	6.8	ND	5.2	9.4	21	24	20	8.4	24	18	4.36	12.2
MW-17	193.01	342	277	218	265	112.5	5.1	222	396	375	465	425	460	410	NS	336	394	410	339	167	420	400	21.3	430	381	260.1
MW-18	1.6	3.1	2.8	ND	ND	ND	ND	6.3	ND	10	26	6.9	ND	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	16.6	2.33
MW-19R	0.28	0.6	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND
MW-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-21	24.49	18.33	NS	NS	NS	NS	NS	NS	NS	17	39	8.7	20	20	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-X (DUP)	1118.9	1118.9	914.6	ND	ND	434	NS	490	DWS	1,705	879	550	1,720	410	360	407	300	400	870	990	1,850	540	186.8	1,450	521	913
EB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

RECOVERY WELLS																										
Recovery Well Number	Total VOCs Oct 2019 (ppb)	Total VOCs Aug 2019	Total VOCs July 2019	Total VOCs Nov 2018	Total VOCs August 2018	Total VOCs May 2018 (ppb)	Total VOCs April 2018	Total VOCs Nov 2017	Total VOCs Aug 2017	Total VOCs Nov 2016	Total VOCs Sep 2016 (ppb)	Total VOCs Jun 2016 (ppb)	Total VOCs Nov 2015	Total VOCs Aug 2015	Total VOCs Jun 2015 (ppb)	Total VOCs Mar 2015 (ppb)	Total VOCs Nov 2014	Total VOCs Sep 2014 (ppb)	Total VOCs Jun 2014 (ppb)	Total VOCs Mar 2014 (ppb)	Total VOCs Dec 2013 (ppb)	Total VOCs Jul 2013 (ppb)	Total VOCs Apr 2013 (ppb)	Total VOCs Dec 2012 (ppb)	Total VOCs Jun 2012 (ppb)	Total VOCs Mar 2012 (ppb)
DR-1	912.6	1038	1,832	1,310	1,510	1,319	1,070	1540	1,970	617	610	910	319	160	NS	21.7	63	55	75	132	87	73	82	43	29.38	673
DR-2	185.9	192	156	216	162	128	130	181	199	137	218	215	199	187	291	259	162	224	231	207	302	256	293	19	229.9	305.3
DR-3	99.7	101	91	73	87	125.4	34	48	NS	98	154	62	45	76	83	55	181	210	83	89	123	62	73	42	116.96	24.9
DR-4	40.6	46.6	40	37.2	48	31.2	31.6	46	52	79	95	63	94	110	71	147	156	148	96	64	68	79	37	90	122.6	ND
G-1	70	78.7	50.4	74.6	77	40	22	70	73.5	85	105.6	59.7	80.3	ND	68	146	101	105	90	78	96.2	69.1	55.8	52.6	68.55	65.58
G-2	90.49	90	69	25	68	50	46	8.5	NS	NS	ND	NS	NS	28	NS	48	34	37	52	14	68	81	50	132.2	75.3	41.9
G-3	305.34	309.65	309.65	15	322	NS	NS	NS	NS	293	404	420	262	370	NS	NS	NS	NS	NS	82	NS	11	25	41.6	147.3	44.2

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, MW-21

All compounds are measured in parts per billion (ppb).

VOC - Volatile Organic Compounds.

DUP - Duplicate Sample

EB - Equipment/Field Blank Sample

* - Sample was broken in transit and not able to be analyzed

DWS- Different Well Sampled than previously tested.

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

	% Reduction 2002 to Oct 2019	% Reduction 2002 to Aug 2019	% Reduction 2002 to July 2019	% Reduction 2002 to Nov 2018	% Reduction 2002 to Aug 2018	% Reduction 2002 to May 2018	% Reduction 2002 to April 2018	% Reduction 2002 to Nov 2017	% Reduction 2002 to Aug 2017	% Reduction 2002 to Nov 2016	% Reduction 2002 to Sep 2016	% Reduction 2002 to Jun 2016	% Reduction 2002 to Nov 2015	% Reduction 2002 to Aug 2015	% Reduction 2002 to Jun 2015	% Reduction 2002 to Mar 2015	% Reduction 2002 to Nov 2014	% Reduction 2002 to Sep 2014	% Reduction 2002 to Jun 2014	% 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
Monitoring Well																									
MW-1 [*]	-31.4%	9.11%	-40.76%	-40.6%	-54.9%	-44.5%	51.3%	-39.90%	-57.6%	-48.0%	-9.1%	24.5%	-99.2%	-91.4%	54.4%	44.0%	60.9%	45.3%	-28.9%	-28.9%	-126.6%	-8.1%	-19.5%	-87.5%	31.3%
MW-2	100%	98.78%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	
MW-3	100%	98.13%	97.40%	100%	100%	100%	100%	100%	100.0%	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	Not Sampled	Not Sampled	
MW-4	100%	100.0%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
MW-5	96.64%	96.29%	93.57%	100%	100%	100%	100%	100%	100.0%	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	Not Sampled	Not Sampled	
MW-6	75.59%	77.18%	78.66%	100%	-83.3%	15.4%	15.4%	-84.60%	15.4%	81.3%	70.4%	75.4%	70.4%	76.4%	78.8%	80.0%	72.9%	72.9%	76.4%	76.8%	68.0%	75.6%	77.1%	75.6%	78.6%
MW-7	87.65%	91.33%	93.82%	80.0%	79.3%	100.0%	81.3%	98.70%	93.6%	75.6%	86.2%	81.6%	89.1%	71.1%	87.1%	100.0%	60.0%	57.8%	93.6%	100.0%	100.0%	96.0%	100.0%	100.0%	66.3%
MW-8	100%	100%	100%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	
MW-9	100%	100%	100%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	
MW-10	100%	100%	100%	100%	100%	100%	100%	100%	100.0%	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	Not Sampled	Not Sampled	
MW-11	84.95%	79.83%	77.21%	89.5%	93.9%	89.5%	75.0%	89.20%	99.1%	86.1%	90.4%	88.2%	77.2%	86.4%	90.4%	89.2%	90.3%	91.9%	90.3%	84.7%	81.1%	89.0%	87.7%	83.0%	89.3%
MW-12	99.57%	99.57%	99.38%	99.6%	99.8%	99.2%	99.1%	99.80%	75.0%	99.9%	99.9%	99.9%	99.8%	99.6%	99.2%	99.1%	99.0%	98.4%	98.4%	98.3%	98.6%	98.8%	98.5%	98.9%	99.3%
MW-13	99.33%	99.84%	99.56%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	
MW-14	89.52%	91.59%	91.78%	90.3%	92.9%	92.8%	91.1%	87.90%	2.3%	75.9%	68.3%	81.9%	74.3%	69.5%	83.5%	68.6%	78.4%	78.4%	82.9%	76.8%	70.2%	84.4%	77.5%	85.1%	87.4%
MW-15	98.89%	98.89%	99.33%	100%	99.1%	100%	100%	100%	99.0%	98.5%	96.7%	98.5%	98.6%	98.1%	98.9%	98.7%	95.6%	95.8%	99.2%	100.0%	99.1%	99.0%	100.0%	98.2%	96.4%
MW-16*	86.11%	38.42%	26.54%	19.9%	80.5%	19.9%	2.3%	2.80%	2.3%	72.7%	60.9%	27.7%	39.5%	74.6%	86.7%	100.0%	89.8%	81.6%	59.0%	53.1%	60.9%	77.9%	36.8%	52.6%	88.5%
MW-17*	80.91%	66.17%	72.60%	78.4%	73.8%	88.9%	99.5%	78*	2.3%	62.9%	54.0%	58.0%	54.5%	59.4%	Not Sampled	66.8%	61.0%	59.4%	66.5%	83.5%	58.5%	50.6%	97.4%	46.9%	53.0%
MW-18:*	62.50%	99.21%	99.29%	100%	100%	100%	100%	100%	100.0%	97.4%	93.4%	98.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	Not Sampled	100.0%	100.0%	100.0%	89.6%
MW-19 R*	98.00%	95.71%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	75.0%	99.0%
MW-20**	100%	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.4%	99.4%
MW-21**	94.38%	95.80%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	34.6%	-50.0%	66.5%	23.1%	23.1%	61.5%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
* Well installed 2003																									
** Well Installed 2004																									
Site-Wide reduction:	86.8%	87.42%	83.6%	85.1%	78.0%	82.2%	84.2%	67.60%	62.1%	74.1%	68.7%	78.6%	66.2%	69.1%	87.7%	88.2%	85.2%	83.2%	79.8%	80.3%	67.5%	81.8%	81.2%	71.3%	82.9%
Impacted Groundwater																									
Plume Area Only:	72.1%	78.21%	71.5%	74.6%	72.1%	67.6%	76.6%	51.40%	41.1%	66.5%	69.6%	76.0%	58.1%	58.6%	84.6%	80.8%	77.3%	75.0%	72.3%	73.9%	82.2%	73.2%	77.3%	62.5%	75.2%

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 Oct 2019	% Reduction 2002 to Aug 2019	% Reduction 2002 to July 2019	% Reduction 2002 to Nov 2018	% Reduction 2002 to Aug 2018	% Reduction 2002 to May 2018	% Reduction 2002 to April 2018	% Reduction 2002 to Nov 2017	% Reduction 2002 to Aug 2017	% Reduction 2002 to Nov 2016	% Reduction 2002 to Sep 2016	% Reduction 2002 to Jun 2016	% Reduction 2002 to Nov 2015	% Reduction 2002 to Aug 2015	% Reduction 2002 to Jun 2015	% Reduction 2002 to Mar 2015	% Reduction 2002 to Nov 2014	% Reduction 2002 to Sep 2014	% Reduction 2002 to Jun 2014	% 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
Recovery Well																									
DR-1	-59.16%	-81.03%	-219.50%	-128.5%	-163.3%	-130.0%	-86.6%	-243.6%	-243.6%	-7.6%	-6.4%	-58.7%	44.4%	72.1%	Not Sampled	96.2%	89.0%	90.4%	86.9%	77.0%	84.8%	99.1%	99.0%	99.5%	99.8%
DR-2	66.15%	65.04%	71.60%	60.7%	70.5%	76.7%	76%	63.8%	63.8%	75.1%	60.3%	60.9%	63.8%	66.0%	47.0%	52.8%	70.5%	59.2%	58.0%	62.3%	45.0%	87.2%	85.4%	99.1%	88.5%
DR-3	34.62%	33.77%	40.33%	52.1%	43.0%	17.8%	78%	68.5%	Not Sampled	35.7%	-1.0%	59.3%	70.5%	50.2%	45.6%	63.9%	-18.7%	-37.7%	45.6%	41.6%	19.3%	95.8%	95.1%	97.2%	92.1%
DR-4	95.27%	94.58%	95.34%	95.7%	94.4%	96.4%	96%	93.9%	93.9%	90.8%	88.9%	92.7%	89.1%	87.2%	91.7%	82.9%	81.8%	82.8%	88.8%	92.5%	90.8%	95.5%	97.9%	94.9%	93.1%
G-1	65.14%	60.81%	74.90%	62.8%	61.7%	80.1%	80%	74.1%	74.1%	57.7%	47.4%	92.7%	60.0%	100.0%	66.1%	27.3%	49.8%	47.7%	55.0%	61.3%	65.6%	87.3%	89.8%	90.3%	87.4%
G-2	68.07%	68.24%	75.65%	91.2%	76.0%	82.4%	84%	100.0%	Not Sampled	Not Sampled	100.0%	Not Sampled	Not Sampled	90.1%	Not Sampled	83.1%	88.0%	86.9%	81.7%	95.1%	71.4%	79.0%	87.0%	65.7%	80.4%
G-3	24.23%	24.23%	23.19%	96.3%	20.1%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	27.3%	-0.2%	-4.2%	35.0%	8.2%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	79.7%	NA	NA	NA	NA	NA
Overall Reduction	42.05%	37.95%	23.07%	47.2%	28.9%	37.2%	54.6%	60.4%	40.4%	46.5%	41.3%	40.4%	60.4%	67.7%	62.6%	67.7%	60.1%	54.9%	69.3%	72.8%	62.8%	90.7%	92.3%	91.1%	90.2%

*Sampling of recovery wells initiated in 2005

TABLE 5

Parameters Related to Alpha on 23-05-2015										MAG.1		MAG.2		MAG.3		MAG.4		MAG.5		MAG.6		MAG.7		MAG.8		MAG.9		MAG.10		MAG.11		MAG.12		MAG.13		MAG.14		MAG.15		MAG.16		MAG.17		MAG.18		MAG.19		MAG.20		MAG.21		MAG.22		MAG.23		MAG.24		MAG.25		MAG.26		MAG.27		MAG.28		MAG.29		MAG.30		MAG.31		MAG.32		MAG.33		MAG.34		MAG.35		MAG.36		MAG.37		MAG.38		MAG.39		MAG.40		MAG.41		MAG.42		MAG.43		MAG.44		MAG.45		MAG.46		MAG.47		MAG.48		MAG.49		MAG.50		MAG.51		MAG.52		MAG.53		MAG.54		MAG.55		MAG.56		MAG.57		MAG.58		MAG.59		MAG.60		MAG.61		MAG.62		MAG.63		MAG.64		MAG.65		MAG.66		MAG.67		MAG.68		MAG.69		MAG.70		MAG.71		MAG.72		MAG.73		MAG.74		MAG.75		MAG.76		MAG.77		MAG.78		MAG.79		MAG.80		MAG.81		MAG.82		MAG.83		MAG.84		MAG.85		MAG.86		MAG.87		MAG.88		MAG.89		MAG.90		MAG.91		MAG.92		MAG.93		MAG.94		MAG.95		MAG.96		MAG.97		MAG.98		MAG.99		MAG.100		MAG.101		MAG.102		MAG.103		MAG.104		MAG.105		MAG.106		MAG.107		MAG.108		MAG.109		MAG.110		MAG.111		MAG.112		MAG.113		MAG.114		MAG.115		MAG.116		MAG.117		MAG.118		MAG.119		MAG.120		MAG.121		MAG.122		MAG.123		MAG.124		MAG.125		MAG.126		MAG.127		MAG.128		MAG.129		MAG.130		MAG.131		MAG.132		MAG.133		MAG.134		MAG.135		MAG.136		MAG.137		MAG.138		MAG.139		MAG.140		MAG.141		MAG.142		MAG.143		MAG.144		MAG.145		MAG.146		MAG.147		MAG.148		MAG.149		MAG.150		MAG.151		MAG.152		MAG.153		MAG.154		MAG.155		MAG.156		MAG.157		MAG.158		MAG.159		MAG.160		MAG.161		MAG.162		MAG.163		MAG.164		MAG.165		MAG.166		MAG.167		MAG.168		MAG.169		MAG.170		MAG.171		MAG.172		MAG.173		MAG.174		MAG.175		MAG.176		MAG.177		MAG.178		MAG.179		MAG.180		MAG.181		MAG.182		MAG.183		MAG.184		MAG.185		MAG.186		MAG.187		MAG.188		MAG.189		MAG.190		MAG.191		MAG.192		MAG.193		MAG.194		MAG.195		MAG.196		MAG.197		MAG.198		MAG.199		MAG.200		MAG.201		MAG.202		MAG.203		MAG.204		MAG.205		MAG.206		MAG.207		MAG.208		MAG.209		MAG.210		MAG.211		MAG.212		MAG.213		MAG.214		MAG.215		MAG.216		MAG.217		MAG.218		MAG.219		MAG.220		MAG.221		MAG.222		MAG.223		MAG.224		MAG.225		MAG.226		MAG.227		MAG.228		MAG.229		MAG.230		MAG.231		MAG.232		MAG.233		MAG.234		MAG.235		MAG.236		MAG.237		MAG.238		MAG.239		MAG.240		MAG.241		MAG.242		MAG.243		MAG.244		MAG.245		MAG.246		MAG.247		MAG.248		MAG.249		MAG.250		MAG.251		MAG.252		MAG.253		MAG.254		MAG.255		MAG.256		MAG.257		MAG.258		MAG.259		MAG.260		MAG.261		MAG.262		MAG.263		MAG.264		MAG.265		MAG.266		MAG.267		MAG.268		MAG.269		MAG.270		MAG.271		MAG.272		MAG.273		MAG.274		MAG.275		MAG.276		MAG.277		MAG.278		MAG.279		MAG.280		MAG.281		MAG.282		MAG.283		MAG.284		MAG.285		MAG.286		MAG.287		MAG.288		MAG.289		MAG.290		MAG.291		MAG.292		MAG.293		MAG.294		MAG.295		MAG.296		MAG.297		MAG.298		MAG.299		MAG.300		MAG.301		MAG.302		MAG.303		MAG.304		MAG.305		MAG.306		MAG.307		MAG.308		MAG.309		MAG.310		MAG.311		MAG.312		MAG.313		MAG.314		MAG.315		MAG.316		MAG.317		MAG.318		MAG.319		MAG.320		MAG.321		MAG.322		MAG.323		MAG.324		MAG.325		MAG.326		MAG.327		MAG.328		MAG.329		MAG.330		MAG.331		MAG.332		MAG.333		MAG.334		MAG.335		MAG.336		MAG.337		MAG.338		MAG.339		MAG.340		MAG.341		MAG.342		MAG.343		MAG.344		MAG.345		MAG.346		MAG.347		MAG.348		MAG.349		MAG.350		MAG.351		MAG.352		MAG.353		MAG.354		MAG.355		MAG.356		MAG.357		MAG.358		MAG.359		MAG.360		MAG.361		MAG.362		MAG.363		MAG.364		MAG.365		MAG.366		MAG.367		MAG.368		MAG.369		MAG.370		MAG.371		MAG.372		MAG.373		MAG.374		MAG.375		MAG.376		MAG.377		MAG.378		MAG.379		MAG.380		MAG.381		MAG.382		MAG.383		MAG.384		MAG.385		MAG.386		MAG.387		MAG.388		MAG.389		MAG.390		MAG.391		MAG.392		MAG.393		MAG.394		MAG.395		MAG.396		MAG.397		MAG.398		MAG.399		MAG.400		MAG.401		MAG.402		MAG.403		MAG.404		MAG.405		MAG.406		MAG.407		MAG.408		MAG.409		MAG.410		MAG.411		MAG.412		MAG.413		MAG.414		MAG.415		MAG.416		MAG.417		MAG.418		MAG.419		MAG.420		MAG.421		MAG.422		MAG.423		MAG.424		MAG.425		MAG.426		MAG.427		MAG.428		MAG.429		MAG.430		MAG.431		MAG.432		MAG.433		MAG.434		MAG.435		MAG.436		MAG.437		MAG.438		MAG.439		MAG.440		MAG.441		MAG.442		MAG.443		MAG.444		MAG.445		MAG.446		MAG.447		MAG.448		MAG.449		MAG.450		MAG.451		MAG.452		MAG.453		MAG.454		MAG.455		MAG.456		MAG.457		MAG.458		MAG.459		MAG.460		MAG.461		MAG.462		MAG.463		MAG.464		MAG.465		MAG.466		MAG.467		MAG.468		MAG.469		MAG.470		MAG.471		MAG.472		MAG.473		MAG.474		MAG.475		MAG.476		MAG.477		MAG.478		MAG.479		MAG.480		MAG.481		MAG.482		MAG.483		MAG.484		MAG.485		MAG.486		MAG.487		MAG.488		MAG.489		MAG.490		MAG.491		MAG.492		MAG.493		MAG.494		MAG.495		MAG.496		MAG.497		MAG.498		MAG.499		MAG.500		MAG.501		MAG.502		MAG.503		MAG.504		MAG.505		MAG.506		MAG.507		MAG.508		MAG.509		MAG.510		MAG.511		MAG.512		MAG.513		MAG.514		MAG.515		MAG.516		MAG.517		MAG.518		MAG.519		MAG.520		MAG.521		MAG.522		MAG.523		MAG.524		MAG.525		MAG.526		MAG.527		MAG.528		MAG.529		MAG.530		MAG.531		MAG.532		MAG.533		MAG.534		MAG.535		MAG.536		MAG.537		MAG.538		MAG.539		MAG.540		MAG.541		MAG.542		MAG.543		MAG.544		MAG.545		MAG.546		MAG.547		MAG.548		MAG.549		MAG.550		MAG.551		MAG.552		MAG.553		MAG.554		MAG.555		MAG.556		MAG.557		MAG.558		MAG.559		MAG.560		MAG.561		MAG.562		MAG.563		MAG.564		MAG.565		MAG.566		MAG.567		MAG.568		MAG.569		MAG.570		MAG.571		MAG.572		MAG.573		MAG.574		MAG.575		MAG.576		MAG.577		MAG.578		MAG.579		MAG.580		MAG.581		MAG.582		MAG.583		MAG.584		MAG.585		MAG.586		MAG.587		MAG.588		MAG.589		MAG.590		MAG.591		MAG.592		MAG.593		MAG.594		MAG.595		MAG.596		MAG.597		MAG.598		MAG.599		MAG.600		MAG.601		MAG.602		MAG.603		MAG.604		MAG.605		MAG.606		MAG.607		MAG.608		MAG.609		MAG.610		MAG.611		MAG.612		MAG.613		MAG.614		MAG.615		MAG.616		MAG.617		MAG.618		MAG.619		MAG.620		MAG.621		MAG.622		MAG.623		MAG.624		MAG.625		MAG.626		MAG.627		MAG.628		MAG.629		MAG.630		MAG.631		MAG.632		MAG.633		MAG.634		MAG.635		MAG.636		MAG.637		MAG.638		MAG.639		MAG.640		MAG.641		MAG.642		MAG.643		MAG.644		MAG.645		MAG.646		MAG.647		MAG.648		MAG.649		MAG.650		MAG.651		MAG.652		MAG.653		MAG.654		MAG.655		MAG.656		MAG.657		MAG.658		MAG.659		MAG.660		MAG.661		MAG.662		MAG.663		MAG.664		MAG.665		MAG.666		MAG.667		MAG.668		MAG.669		MAG.670		MAG.671		MAG.672		MAG.673		MAG.674		MAG.675		MAG.676		MAG.677		MAG.678		MAG.679		MAG.680		MAG.681		MAG.682		MAG.683		MAG.684		MAG.685		MAG.686		MAG.687		MAG.688		MAG.689		MAG.690		MAG.691		MAG.692		MAG.693		MAG.694		MAG.695		MAG.696		MAG.697		MAG.698		MAG.699		MAG.700		MAG.701		MAG.702		MAG.703		MAG.704		MAG.705		MAG.706		MAG.707		MAG.708		MAG.709		MAG.710		MAG.711		MAG.712		MAG.713		MAG.714		MAG.715		MAG.716		MAG.717		MAG.718		MAG.719		MAG.720		MAG.721		MAG.722		MAG.723		MAG.724		MAG.725		MAG.726		MAG.727		MAG.728		MAG.729		MAG.730		MAG.731		MAG.732		MAG.733		MAG.734		MAG.735		MAG.736		MAG.737		MAG.738		MAG.739		MAG.740		MAG.741		MAG.742		MAG.743		MAG.744		MAG.745		MAG.746		MAG.747		MAG.748		MAG.749		MAG.750		MAG.751		MAG.752		MAG.753		MAG.754		MAG.755		MAG.756		MAG.757		MAG.758		MAG.759		MAG.760		MAG.761		MAG.762		MAG.763		MAG.764		MAG.765		MAG.766		MAG.767		MAG.768		MAG.769		MAG.770		MAG.771		MAG.772		MAG.773		MAG.774		MAG.775		MAG.776		MAG.777		MAG.778		MAG.779		MAG.780		MAG.781		MAG.782		MAG.783		MAG.784		MAG.785		MAG.786		MAG.787		MAG.788		MAG.789		MAG.790		MAG.791		MAG.792		MAG.793		MAG.794		MAG.795		MAG.796		MAG.797		MAG.798		MAG.799		MAG.800		MAG.801		MAG.802		MAG.803		MAG.804		MAG.805		MAG.806		MAG.807		MAG.808		MAG.809		MAG.810		MAG.811		MAG.812		MAG.813		MAG.814		MAG.815		MAG.816		MAG.817		MAG.818		MAG.819		MAG.820		MAG.821		MAG.822		MAG.823		MAG.824		MAG.825		MAG.826		MAG.827		MAG.828		MAG.829		MAG.830		MAG.831		MAG.832		MAG.833		MAG.834		MAG.835		MAG.836		MAG.837		MAG.838		MAG.839		MAG.840		MAG.841		MAG.842		MAG.843		MAG.844		MAG.845		MAG.846		MAG.847		MAG.848		MAG.849		MAG.850		MAG.851		MAG.852		MAG.853		MAG.854		MAG.855		MAG.856		MAG.857		MAG.858		MAG.859		MAG.860		MAG.861		MAG.862		MAG.863		MAG.864		MAG.865		MAG.866		MAG.867		MAG.868		MAG.869		MAG.870		MAG.871		MAG.872		MAG.873		MAG.874		MAG.875		MAG.876		MAG.877		MAG.878		MAG.879		MAG.880		MAG.881		MAG.882		MAG.883		MAG.884		MAG.885		MAG.886		MAG.887		MAG.888		MAG.889		MAG.890	
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FIGURES

I:\DASNY\006974.98 DASNY-Gowanda 2019 O&M\3.0 Design\3.8 Reports\Groundwater Contour Figures\October 2019 Figures\Figure 1 October 2019.dwg



DASNY
Gowanda Day
Habilitation Center
4 Industrial Place
Gowanda, New York



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Landscape Architects & Surveyors, D.P.C.
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REVISIONS				
NO.	DATE	DESCRIPTION	REV.	CK'D

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

Project Manager:	Checked By:
C. BLEIER	C. BLEIER
Designed By:	Drawn By:
	C. WOOD
Date Issued:	Scale:
12/23/2019	1" = 60'
Project Number:	
6974.98	

OCTOBER 2019
WATER LEVEL
CONTOUR MAP

Drawing Number:

FIGURE 1

DASNY

Gowanda Day
Habilitation Center

4 Industrial Place
Gowanda, NY



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Figure 2

October 2019
Distribution of
Groundwater
Analytical Results:
Monitoring Wells

0 30 60 90 120

Feet



DASNY

Gowanda Day
Habilitation Center

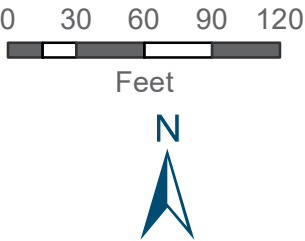
4 Industrial Place
Gowanda, NY



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Figure 3

October 2019
Distribution of
Groundwater
Analytical Results:
Recovery Wells





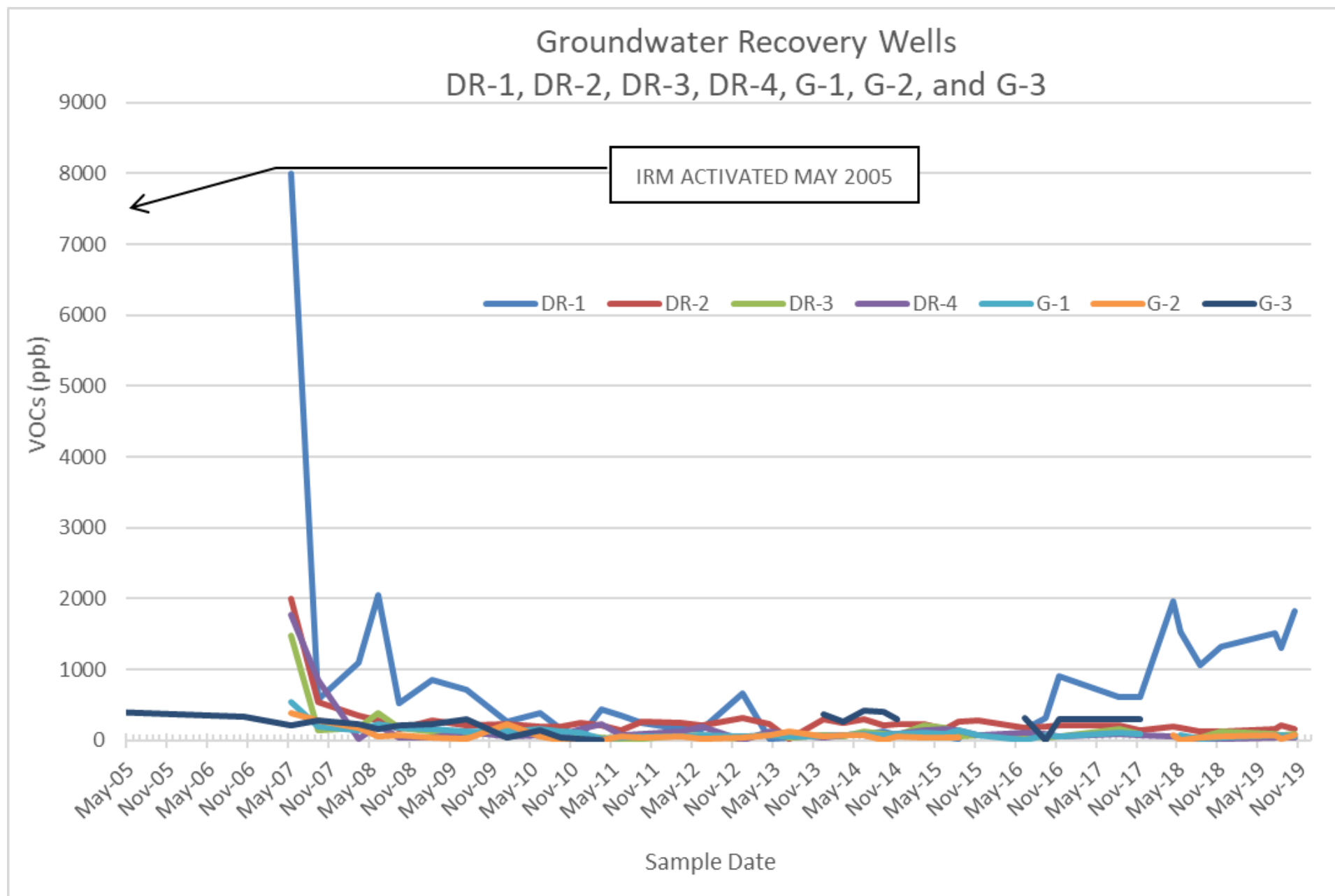
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CHARTS



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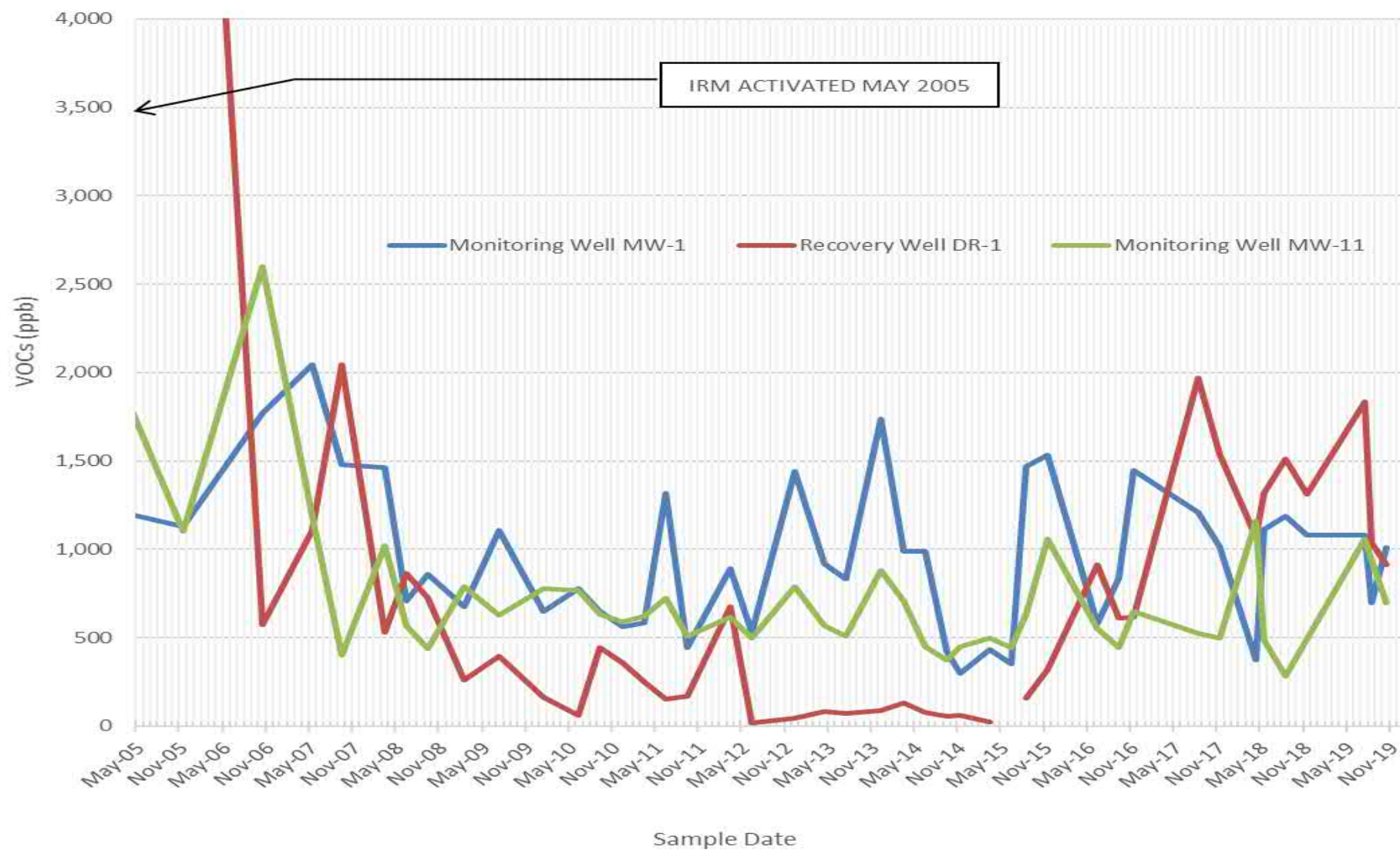




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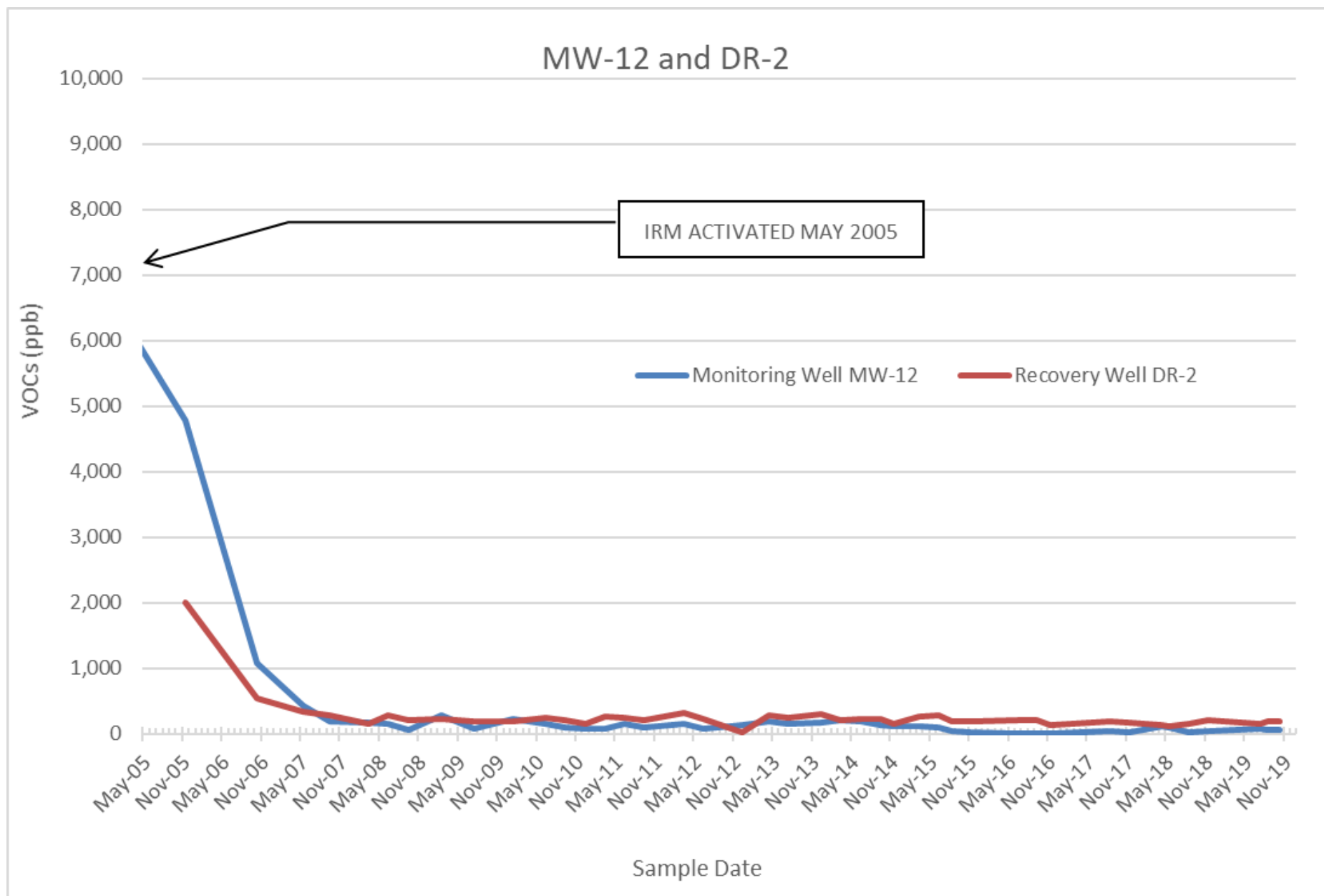
MW-1, DR-1 and MW-11





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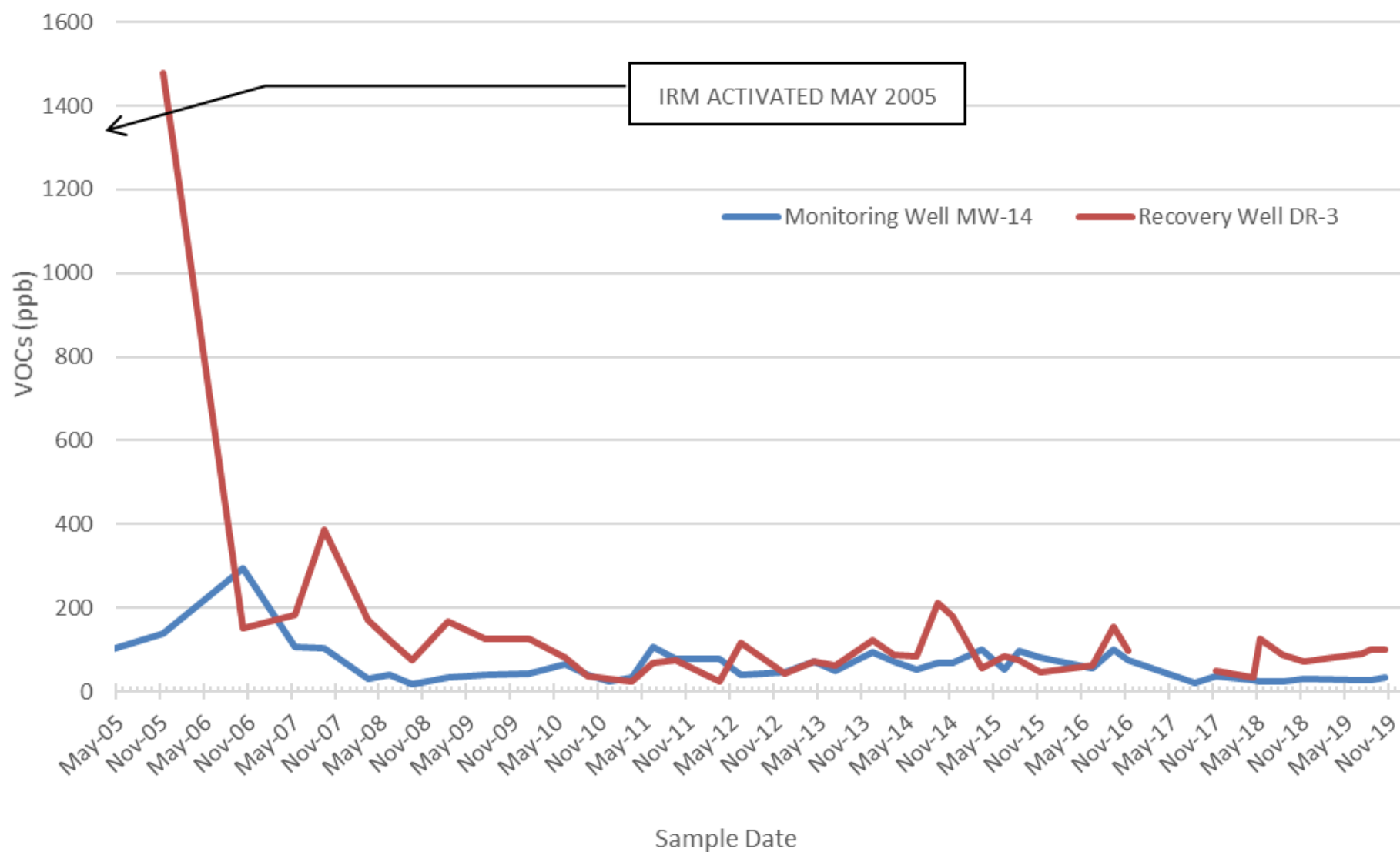




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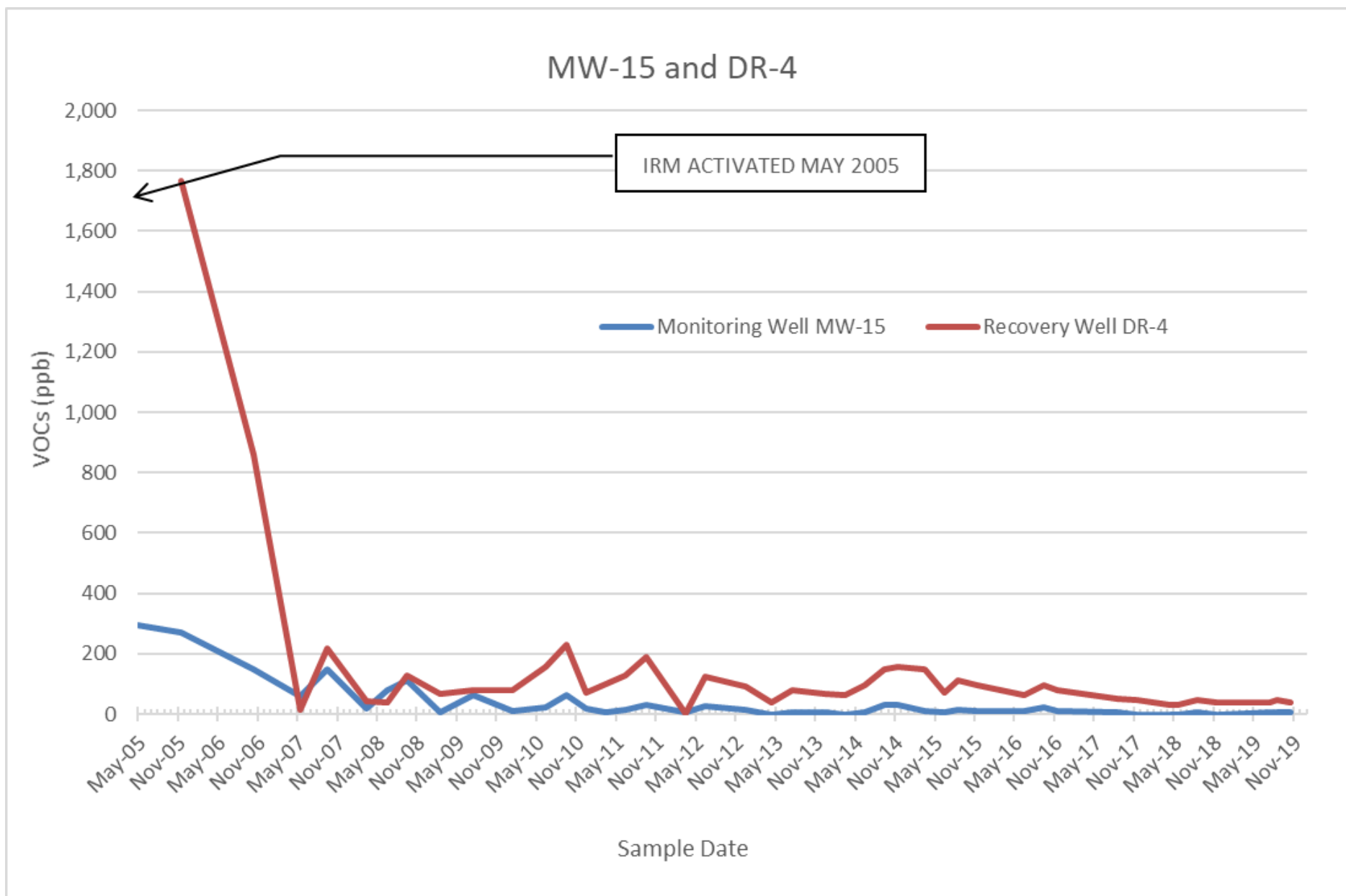
MW-14 and DR-3





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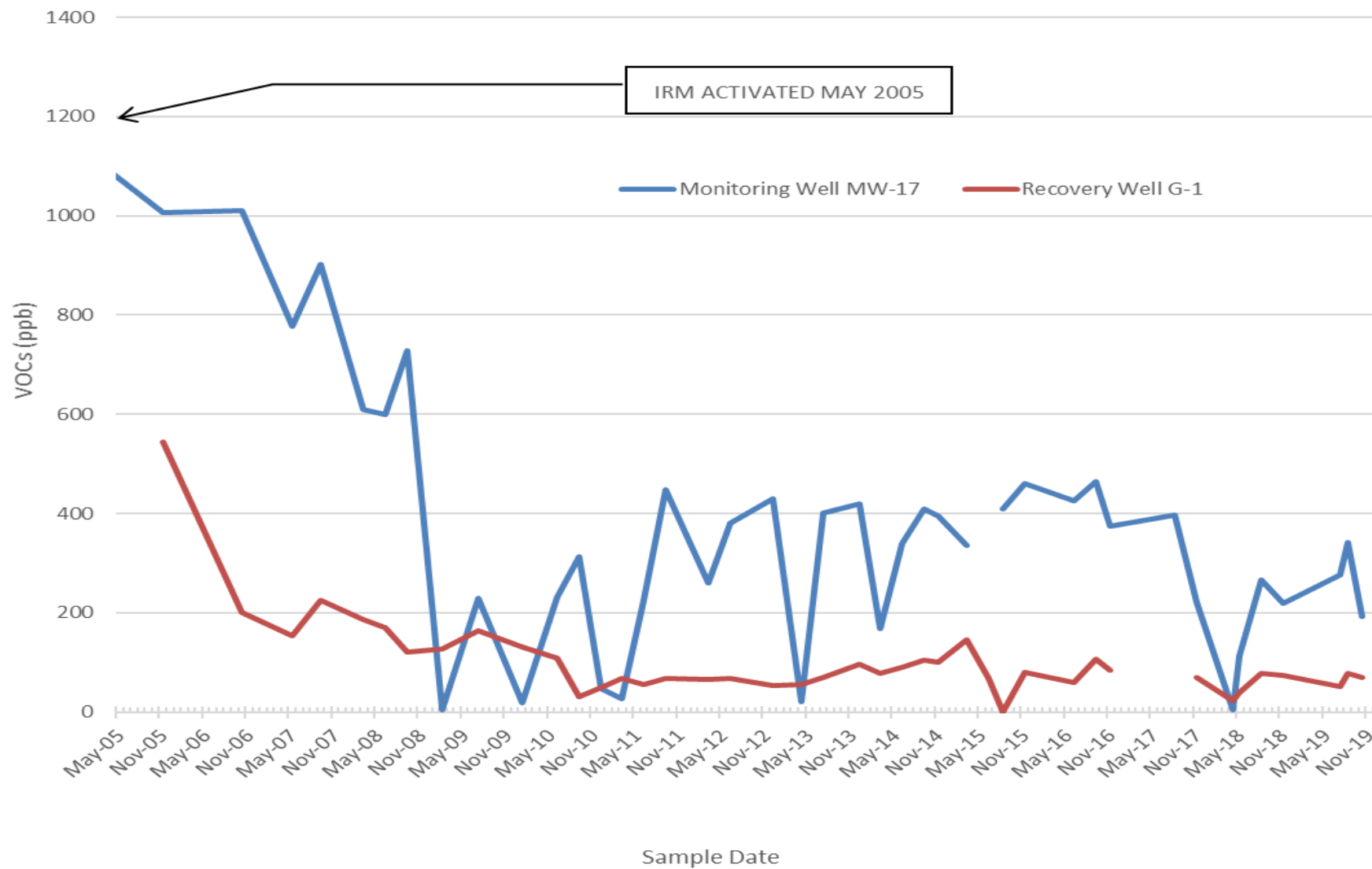




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MW-17 and G-1

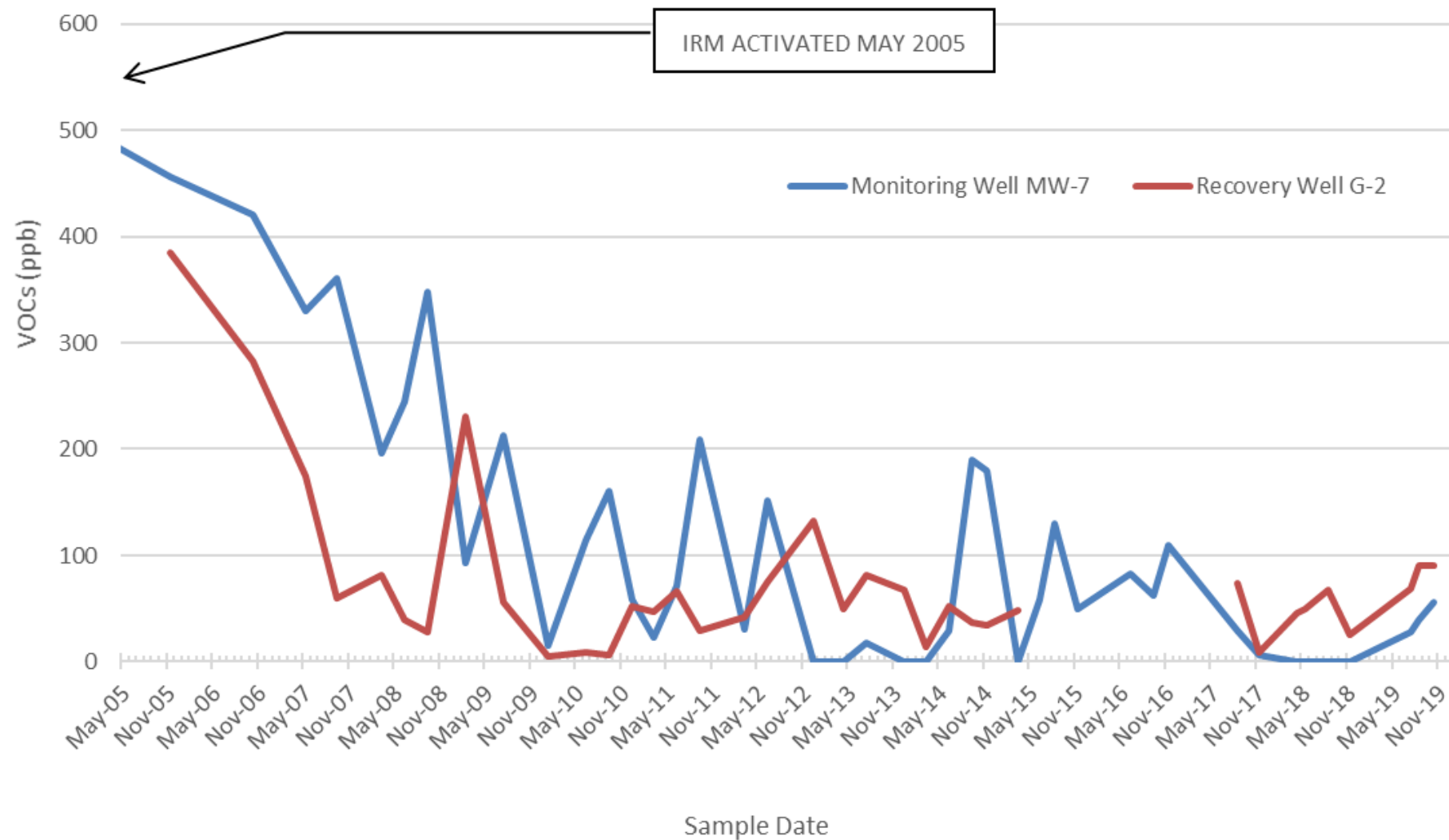




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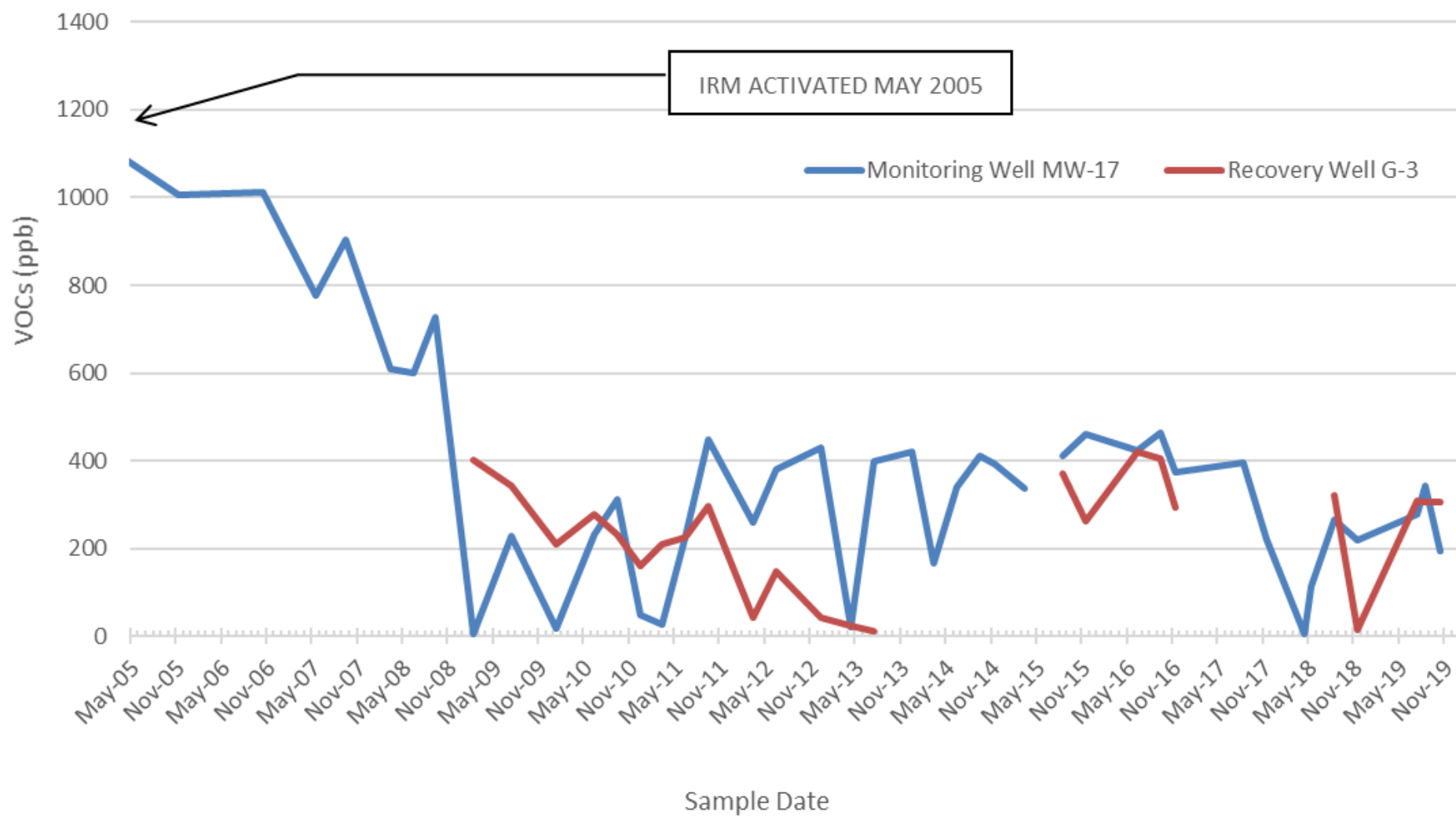
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MW-7 and G-2





MW-17 and G-3





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APPENDIX A:

LABORATORY ANALYTICAL RESULTS



ANALYTICAL REPORT

Lab Number:	L1950037
Client:	Bergmann Associates 280 E Broad Street Rochester, NY 14604
ATTN:	Ariadna Cheremeteff
Phone:	(585) 498-7950
Project Name:	GOWANDA Q4 2019
Project Number:	GOWANDA Q4 2019
Report Date:	10/30/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GOWANDA Q4 2019

Project Number: GOWANDA Q4 2019

Lab Number: L1950037

Report Date: 10/30/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1950037-01	MW-1	WATER	GOWANDA, NY	10/23/19 10:08	10/23/19
L1950037-02	MW-2	WATER	GOWANDA, NY	10/23/19 10:10	10/23/19
L1950037-03	MW-3	WATER	GOWANDA, NY	10/23/19 10:22	10/23/19
L1950037-04	MW-4	WATER	GOWANDA, NY	10/23/19 10:30	10/23/19
L1950037-05	MW-5	WATER	GOWANDA, NY	10/23/19 09:10	10/23/19
L1950037-06	MW-6	WATER	GOWANDA, NY	10/23/19 09:12	10/23/19
L1950037-07	MW-7	WATER	GOWANDA, NY	10/23/19 09:30	10/23/19
L1950037-08	MW-8	WATER	GOWANDA, NY	10/23/19 09:45	10/23/19
L1950037-09	MW-9	WATER	GOWANDA, NY	10/23/19 09:50	10/23/19
L1950037-10	MW-10	WATER	GOWANDA, NY	10/23/19 10:00	10/23/19
L1950037-11	MW-11	WATER	GOWANDA, NY	10/23/19 11:30	10/23/19
L1950037-12	MW-12	WATER	GOWANDA, NY	10/23/19 11:11	10/23/19
L1950037-13	MW-13	WATER	GOWANDA, NY	10/23/19 11:18	10/23/19
L1950037-14	MW-14	WATER	GOWANDA, NY	10/23/19 11:00	10/23/19
L1950037-15	MW-15	WATER	GOWANDA, NY	10/23/19 10:50	10/23/19
L1950037-16	MW-16	WATER	GOWANDA, NY	10/23/19 09:48	10/23/19
L1950037-17	MW-17	WATER	GOWANDA, NY	10/23/19 09:22	10/23/19
L1950037-18	MW-18	WATER	GOWANDA, NY	10/23/19 08:52	10/23/19
L1950037-19	MW-19R	WATER	GOWANDA, NY	10/23/19 08:42	10/23/19
L1950037-20	MW-20	WATER	GOWANDA, NY	10/23/19 08:55	10/23/19
L1950037-21	MW-21	WATER	GOWANDA, NY	10/23/19 08:34	10/23/19
L1950037-22	DR-1	WATER	GOWANDA, NY	10/23/19 11:25	10/23/19
L1950037-23	DR-2	WATER	GOWANDA, NY	10/23/19 11:15	10/23/19
L1950037-24	DR-3	WATER	GOWANDA, NY	10/23/19 11:06	10/23/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
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L1950037-26	G-1	WATER	GOWANDA, NY	10/23/19 10:45	10/23/19
L1950037-27	G-2	WATER	GOWANDA, NY	10/23/19 10:40	10/23/19
L1950037-28	G-3	WATER	GOWANDA, NY	10/23/19 09:35	10/23/19
L1950037-29	TRIP BLANK	WATER	GOWANDA, NY	10/23/19 00:00	10/23/19
L1950037-30	MW-X	WATER	GOWANDA, NY	10/23/19 00:00	10/23/19

Project Name: GOWANDA Q4 2019
Project Number: GOWANDA Q4 2019

Lab Number: L1950037
Report Date: 10/30/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: GOWANDA Q4 2019
Project Number: GOWANDA Q4 2019

Lab Number: L1950037
Report Date: 10/30/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L1950037-29: A sample identified as "TRIP BLANK" was received, but not listed on the Chain of Custody. This sample was not analyzed.

L1950037-30: A sample identified as "MW-X" was received, but not listed on the Chain of Custody. At the client's request, this sample was analyzed.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative

Date: 10/30/19

ORGANICS

VOLATILES

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-01 D

Date Collected: 10/23/19 10:08

Client ID: MW-1

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 10/30/19 12:04

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	ND		ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	9.2	J	ug/l	12	3.5	5
Trichloroethene	750		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-01 D

Date Collected: 10/23/19 10:08

Client ID: MW-1

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	250		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	ND		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	ND		ug/l	50	2.0	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	109		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-02
 Client ID: MW-2
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:10
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 19:32
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-02
 Client ID: MW-2
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:10
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.3	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	105		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-03
 Client ID: MW-3
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:22
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 20:05
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS****Lab ID:** L1950037-03**Date Collected:** 10/23/19 10:22**Client ID:** MW-3**Date Received:** 10/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	86		70-130
Dibromofluoromethane	105		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-04
 Client ID: MW-4
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:30
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 20:37
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-04
 Client ID: MW-4
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:30
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.9	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	84		70-130
Dibromofluoromethane	102		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-05
 Client ID: MW-5
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:10
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 21:10
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.47	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-05
Client ID: MW-5
Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:10
Date Received: 10/23/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.0	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	84		70-130
Dibromofluoromethane	102		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-06
 Client ID: MW-6
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:12
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 21:43
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.1		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-06
 Client ID: MW-6
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:12
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	98		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	82		70-130
Dibromofluoromethane	104		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-07
 Client ID: MW-7
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:30
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 22:16
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.18	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	1.4		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-07
 Client ID: MW-7
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:30
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	54		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.9	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	82		70-130
Dibromofluoromethane	104		70-130

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-08
 Client ID: MW-8
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:45
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 22:48
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-08
 Client ID: MW-8
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:45
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.0	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	83		70-130
Dibromofluoromethane	105		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-09
 Client ID: MW-9
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:50
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 23:21
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-09
 Client ID: MW-9
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:50
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.2	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	84		70-130
Dibromofluoromethane	107		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-10
 Client ID: MW-10
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:00
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 23:54
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS****Lab ID:** L1950037-10**Date Collected:** 10/23/19 10:00**Client ID:** MW-10**Date Received:** 10/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	85		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	105		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-11
 Client ID: MW-11
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 11:30
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/30/19 00:27
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.31	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.3		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.18	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	18		ug/l	2.5	0.70	1
Trichloroethene	510	E	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-11

Date Collected: 10/23/19 11:30

Client ID: MW-11

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	170		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	83		70-130
Dibromofluoromethane	102		70-130

Project Name: GOWANDA Q4 2019
Project Number: GOWANDA Q4 2019

Lab Number: L1950037
Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-11 D
 Client ID: MW-11
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 11:30
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/30/19 07:52
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS - Westborough Lab						
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Trichloroethene	540		ug/l	5.0	1.8	10
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	82		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	84		70-130
Dibromofluoromethane	104		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-12
 Client ID: MW-12
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 11:11
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/30/19 08:41
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	20		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-12
 Client ID: MW-12
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 11:11
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	34		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.1	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	87		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	107		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-13
 Client ID: MW-13
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 11:18
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 19:48
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	2.1		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-13

Date Collected: 10/23/19 11:18

Client ID: MW-13

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	106		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-14
 Client ID: MW-14
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 11:00
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 20:21
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	21		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-14
 Client ID: MW-14
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 11:00
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	12		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	104		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-15
 Client ID: MW-15
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:50
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 20:54
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	6.6		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-15

Date Collected: 10/23/19 10:50

Client ID: MW-15

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	0.97	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	87		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	105		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-16
 Client ID: MW-16
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:48
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 21:27
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.41	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-16
 Client ID: MW-16
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:48
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	6.7		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.4	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	85		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	107		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-17
 Client ID: MW-17
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:22
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 21:59
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.31	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.39	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	1.7	J	ug/l	2.5	0.70	1
Trichloroethene	31		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-17
 Client ID: MW-17
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 09:22
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	160		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.3	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	86		70-130
4-Bromofluorobenzene	86		70-130
Dibromofluoromethane	106		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-18
 Client ID: MW-18
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 08:52
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 22:32
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.56		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-18
 Client ID: MW-18
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 08:52
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.0	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	108		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-19
 Client ID: MW-19R
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 08:42
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 23:05
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.28	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.28	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-19
 Client ID: MW-19R
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 08:42
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	6.3		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	88		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	105		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-20
 Client ID: MW-20
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 08:55
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 23:37
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-20

Date Collected: 10/23/19 08:55

Client ID: MW-20

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.9	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	86		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	108		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-21
 Client ID: MW-21
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 08:34
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/30/19 00:10
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.21	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	0.98	J	ug/l	2.5	0.70	1
Trichloroethene	2.3		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-21

Date Collected: 10/23/19 08:34

Client ID: MW-21

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	21		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	86		70-130
4-Bromofluorobenzene	86		70-130
Dibromofluoromethane	108		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-22 D

Date Collected: 10/23/19 11:25

Client ID: DR-1

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 10/30/19 12:30

Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	0.60	J	ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	12		ug/l	12	3.5	5
Trichloroethene	790		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-22 D

Date Collected: 10/23/19 11:25

Client ID: DR-1

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	110		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	7.3	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	ND		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	ND		ug/l	50	2.0	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	110		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-23
 Client ID: DR-2
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 11:15
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/30/19 09:14
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	2.2		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.37	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	1.7	J	ug/l	2.5	0.70	1
Trichloroethene	42		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS****Lab ID:** L1950037-23**Date Collected:** 10/23/19 11:15**Client ID:** DR-2**Date Received:** 10/23/19**Sample Location:** GOWANDA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	140		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	85		70-130
4-Bromofluorobenzene	85		70-130
Dibromofluoromethane	106		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-24
 Client ID: DR-3
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 11:06
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/30/19 01:15
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	2.6		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.17	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	1.1	J	ug/l	2.5	0.70	1
Trichloroethene	30		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-24
 Client ID: DR-3
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 11:06
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	66		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	86		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	104		70-130

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-25
 Client ID: DR-4
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:52
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 21:06
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.60	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	29		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-25
 Client ID: DR-4
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:52
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	11		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.3	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	104		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-26
 Client ID: G-1
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:45
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 21:29
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.3		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	2.7		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-26
 Client ID: G-1
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:45
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	66		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.0	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	104		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-27
 Client ID: G-2
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:40
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 10/29/19 21:52
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.44	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.52		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-27
 Client ID: G-2
 Sample Location: GOWANDA, NY

Date Collected: 10/23/19 10:40
 Date Received: 10/23/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	59		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.0	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	105		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-28 D

Date Collected: 10/23/19 09:35

Client ID: G-3

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 10/30/19 00:57

Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	ND		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	ND		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	ND		ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	ND		ug/l	1.0	0.32	2
Toluene	ND		ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	ND		ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	0.36	J	ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2
Trichloroethene	34		ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-28 D

Date Collected: 10/23/19 09:35

Client ID: G-3

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	ND		ug/l	5.0	1.4	2
o-Xylene	ND		ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	210		ug/l	5.0	1.4	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	4.3	J	ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	ND		ug/l	10	3.9	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl Acetate	ND		ug/l	4.0	0.47	2
Cyclohexane	ND		ug/l	20	0.54	2
1,4-Dioxane	ND		ug/l	500	120	2
Freon-113	ND		ug/l	5.0	1.4	2
Methyl cyclohexane	ND		ug/l	20	0.79	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	107		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**SAMPLE RESULTS**

Lab ID: L1950037-30 D

Date Collected: 10/23/19 00:00

Client ID: MW-X

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 10/30/19 12:56

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	0.64	J	ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	12		ug/l	12	3.5	5
Trichloroethene	760		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

SAMPLE RESULTS

Lab ID: L1950037-30 D

Date Collected: 10/23/19 00:00

Client ID: MW-X

Date Received: 10/23/19

Sample Location: GOWANDA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	110		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	ND		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	ND		ug/l	50	2.0	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	111		70-130

Project Name: GOWANDA Q4 2019
Project Number: GOWANDA Q4 2019

Lab Number: L1950037
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/29/19 18:59
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-11 Batch: WG1302290-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/29/19 18:59
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-11 Batch: WG1302290-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: GOWANDA Q4 2019
Project Number: GOWANDA Q4 2019

Lab Number: L1950037
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/29/19 18:59
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-11 Batch: WG1302290-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	103		70-130

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/29/19 19:16
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-21,24 Batch: WG1302291-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/29/19 19:16
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-21,24 Batch: WG1302291-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: GOWANDA Q4 2019
Project Number: GOWANDA Q4 2019

Lab Number: L1950037
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/29/19 19:16
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-21,24 Batch: WG1302291-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	87		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	102		70-130

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/29/19 19:33
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 25-28 Batch: WG1302430-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/29/19 19:33
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 25-28 Batch: WG1302430-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/29/19 19:33
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 25-28 Batch: WG1302430-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	101		70-130

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/30/19 06:47
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1302433-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/30/19 06:47
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1302433-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: GOWANDA Q4 2019
Project Number: GOWANDA Q4 2019

Lab Number: L1950037
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/30/19 06:47
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1302433-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	83		70-130
Dibromofluoromethane	102		70-130

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/30/19 08:08
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12,23 Batch: WG1302438-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/30/19 08:08
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12,23 Batch: WG1302438-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: GOWANDA Q4 2019
Project Number: GOWANDA Q4 2019

Lab Number: L1950037
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/30/19 08:08
Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12,23 Batch: WG1302438-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	86		70-130
Toluene-d8	87		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	106		70-130

Project Name: GOWANDA Q4 2019
Project Number: GOWANDA Q4 2019

Lab Number: L1950037
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/30/19 11:38
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,22,30 Batch: WG1302498-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 10/30/19 11:38
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,22,30 Batch: WG1302498-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: GOWANDA Q4 2019
Project Number: GOWANDA Q4 2019

Lab Number: L1950037
Report Date: 10/30/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 10/30/19 11:38
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,22,30 Batch: WG1302498-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	109		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-11 Batch: WG1302290-3 WG1302290-4								
Methylene chloride	96		98		70-130	2		20
1,1-Dichloroethane	94		100		70-130	6		20
Chloroform	95		97		70-130	2		20
Carbon tetrachloride	100		110		63-132	10		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	100		110		63-130	10		20
1,1,2-Trichloroethane	95		99		70-130	4		20
Tetrachloroethene	120		120		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	100		99		62-150	1		20
1,2-Dichloroethane	93		94		70-130	1		20
1,1,1-Trichloroethane	100		110		67-130	10		20
Bromodichloromethane	93		97		67-130	4		20
trans-1,3-Dichloropropene	89		94		70-130	5		20
cis-1,3-Dichloropropene	99		100		70-130	1		20
Bromoform	100		110		54-136	10		20
1,1,2,2-Tetrachloroethane	88		94		67-130	7		20
Benzene	100		110		70-130	10		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	98		97		64-130	1		20
Bromomethane	110		100		39-139	10		20
Vinyl chloride	96		97		55-140	1		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-11 Batch: WG1302290-3 WG1302290-4								
Chloroethane	90		91		55-138	1		20
1,1-Dichloroethene	100		110		61-145	10		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	110		110		70-130	0		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	100		110		70-130	10		20
1,4-Dichlorobenzene	100		110		70-130	10		20
Methyl tert butyl ether	88		90		63-130	2		20
p/m-Xylene	105		110		70-130	5		20
o-Xylene	105		110		70-130	5		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	84		86		36-147	2		20
Acetone	100		100		58-148	0		20
Carbon disulfide	78		87		51-130	11		20
2-Butanone	110		110		63-138	0		20
4-Methyl-2-pentanone	97		100		59-130	3		20
2-Hexanone	96		100		57-130	4		20
Bromochloromethane	120		120		70-130	0		20
1,2-Dibromoethane	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	93		100		41-144	7		20
Isopropylbenzene	91		97		70-130	6		20
1,2,3-Trichlorobenzene	110		120		70-130	9		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-11 Batch: WG1302290-3 WG1302290-4								
1,2,4-Trichlorobenzene	110		110		70-130	0		20
Methyl Acetate	100		100		70-130	0		20
Cyclohexane	100		110		70-130	10		20
1,4-Dioxane	100		102		56-162	2		20
Freon-113	100		110		70-130	10		20
Methyl cyclohexane	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	86		84		70-130
Toluene-d8	92		91		70-130
4-Bromofluorobenzene	84		85		70-130
Dibromofluoromethane	104		104		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-21,24 Batch: WG1302291-3 WG1302291-4								
Methylene chloride	100		110		70-130	10		20
1,1-Dichloroethane	94		100		70-130	6		20
Chloroform	91		95		70-130	4		20
Carbon tetrachloride	97		110		63-132	13		20
1,2-Dichloropropane	97		100		70-130	3		20
Dibromochloromethane	100		110		63-130	10		20
1,1,2-Trichloroethane	92		98		70-130	6		20
Tetrachloroethene	100		110		70-130	10		20
Chlorobenzene	96		100		75-130	4		20
Trichlorofluoromethane	91		94		62-150	3		20
1,2-Dichloroethane	93		98		70-130	5		20
1,1,1-Trichloroethane	94		100		67-130	6		20
Bromodichloromethane	93		96		67-130	3		20
trans-1,3-Dichloropropene	84		89		70-130	6		20
cis-1,3-Dichloropropene	96		100		70-130	4		20
Bromoform	100		120		54-136	18		20
1,1,2,2-Tetrachloroethane	94		100		67-130	6		20
Benzene	96		100		70-130	4		20
Toluene	91		99		70-130	8		20
Ethylbenzene	93		99		70-130	6		20
Chloromethane	90		93		64-130	3		20
Bromomethane	75		80		39-139	6		20
Vinyl chloride	87		90		55-140	3		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-21,24 Batch: WG1302291-3 WG1302291-4								
Chloroethane	100		100		55-138	0		20
1,1-Dichloroethene	93		100		61-145	7		20
trans-1,2-Dichloroethene	96		100		70-130	4		20
Trichloroethene	98		110		70-130	12		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	100		110		70-130	10		20
1,4-Dichlorobenzene	99		100		70-130	1		20
Methyl tert butyl ether	96		100		63-130	4		20
p/m-Xylene	100		105		70-130	5		20
o-Xylene	95		105		70-130	10		20
cis-1,2-Dichloroethene	100		110		70-130	10		20
Styrene	100		105		70-130	5		20
Dichlorodifluoromethane	74		79		36-147	7		20
Acetone	120		120		58-148	0		20
Carbon disulfide	73		79		51-130	8		20
2-Butanone	120		120		63-138	0		20
4-Methyl-2-pentanone	100		110		59-130	10		20
2-Hexanone	98		100		57-130	2		20
Bromochloromethane	120		120		70-130	0		20
1,2-Dibromoethane	97		100		70-130	3		20
1,2-Dibromo-3-chloropropane	99		110		41-144	11		20
Isopropylbenzene	86		94		70-130	9		20
1,2,3-Trichlorobenzene	110		120		70-130	9		20

Lab Control Sample Analysis Batch Quality Control

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-21,24 Batch: WG1302291-3 WG1302291-4								
1,2,4-Trichlorobenzene	100		100		70-130	0		20
Methyl Acetate	120		120		70-130	0		20
Cyclohexane	98		100		70-130	2		20
1,4-Dioxane	104		110		56-162	6		20
Freon-113	94		100		70-130	6		20
Methyl cyclohexane	92		98		70-130	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	87		85		70-130
Toluene-d8	90		90		70-130
4-Bromofluorobenzene	87		86		70-130
Dibromofluoromethane	104		103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 25-28 Batch: WG1302430-3 WG1302430-4								
Methylene chloride	87		95		70-130	9		20
1,1-Dichloroethane	95		100		70-130	5		20
Chloroform	92		100		70-130	8		20
Carbon tetrachloride	110		120		63-132	9		20
1,2-Dichloropropane	90		98		70-130	9		20
Dibromochloromethane	93		99		63-130	6		20
1,1,2-Trichloroethane	98		100		70-130	2		20
Tetrachloroethene	120		130		70-130	8		20
Chlorobenzene	96		100		75-130	4		20
Trichlorofluoromethane	90		96		62-150	6		20
1,2-Dichloroethane	90		96		70-130	6		20
1,1,1-Trichloroethane	110		120		67-130	9		20
Bromodichloromethane	89		96		67-130	8		20
trans-1,3-Dichloropropene	83		86		70-130	4		20
cis-1,3-Dichloropropene	91		100		70-130	9		20
Bromoform	98		100		54-136	2		20
1,1,2,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	98		110		70-130	12		20
Toluene	100		110		70-130	10		20
Ethylbenzene	100		110		70-130	10		20
Chloromethane	72		80		64-130	11		20
Bromomethane	67		81		39-139	19		20
Vinyl chloride	89		97		55-140	9		20

Lab Control Sample Analysis Batch Quality Control

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 25-28 Batch: WG1302430-3 WG1302430-4								
Chloroethane	93		100		55-138	7		20
1,1-Dichloroethene	110		120		61-145	9		20
trans-1,2-Dichloroethene	99		110		70-130	11		20
Trichloroethene	99		110		70-130	11		20
1,2-Dichlorobenzene	97		110		70-130	13		20
1,3-Dichlorobenzene	97		110		70-130	13		20
1,4-Dichlorobenzene	95		100		70-130	5		20
Methyl tert butyl ether	96		96		63-130	0		20
p/m-Xylene	105		115		70-130	9		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	100		110		70-130	10		20
Styrene	100		110		70-130	10		20
Dichlorodifluoromethane	80		86		36-147	7		20
Acetone	96		110		58-148	14		20
Carbon disulfide	84		93		51-130	10		20
2-Butanone	91		100		63-138	9		20
4-Methyl-2-pentanone	100		110		59-130	10		20
2-Hexanone	96		100		57-130	4		20
Bromochloromethane	100		110		70-130	10		20
1,2-Dibromoethane	100		110		70-130	10		20
1,2-Dibromo-3-chloropropane	100		120		41-144	18		20
Isopropylbenzene	110		120		70-130	9		20
1,2,3-Trichlorobenzene	110		120		70-130	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOWANDA Q4 2019

Project Number: GOWANDA Q4 2019

Lab Number: L1950037

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 25-28 Batch: WG1302430-3 WG1302430-4								
1,2,4-Trichlorobenzene	100		110		70-130	10		20
Methyl Acetate	100		100		70-130	0		20
Cyclohexane	92		99		70-130	7		20
1,4-Dioxane	118		120		56-162	2		20
Freon-113	93		100		70-130	7		20
Methyl cyclohexane	91		100		70-130	9		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	104		104		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	99		99		70-130
Dibromofluoromethane	104		104		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1302433-3 WG1302433-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		98		70-130	2		20
Chloroform	96		94		70-130	2		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	98		98		70-130	0		20
Dibromochloromethane	100		110		63-130	10		20
1,1,2-Trichloroethane	94		92		70-130	2		20
Tetrachloroethene	120		110		70-130	9		20
Chlorobenzene	100		99		75-130	1		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	93		91		70-130	2		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	92		93		67-130	1		20
trans-1,3-Dichloropropene	86		90		70-130	5		20
cis-1,3-Dichloropropene	97		97		70-130	0		20
Bromoform	100		110		54-136	10		20
1,1,2,2-Tetrachloroethane	87		92		67-130	6		20
Benzene	100		100		70-130	0		20
Toluene	97		97		70-130	0		20
Ethylbenzene	95		96		70-130	1		20
Chloromethane	100		95		64-130	5		20
Bromomethane	120		110		39-139	9		20
Vinyl chloride	97		93		55-140	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1302433-3 WG1302433-4								
Chloroethane	91		86		55-138	6		20
1,1-Dichloroethene	110		100		61-145	10		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	110		110		70-130	0		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		110		70-130	10		20
1,4-Dichlorobenzene	100		110		70-130	10		20
Methyl tert butyl ether	97		96		63-130	1		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	86		81		36-147	6		20
Acetone	110		110		58-148	0		20
Carbon disulfide	83		85		51-130	2		20
2-Butanone	110		110		63-138	0		20
4-Methyl-2-pentanone	93		97		59-130	4		20
2-Hexanone	94		96		57-130	2		20
Bromochloromethane	120		120		70-130	0		20
1,2-Dibromoethane	99		100		70-130	1		20
1,2-Dibromo-3-chloropropane	94		100		41-144	6		20
Isopropylbenzene	89		92		70-130	3		20
1,2,3-Trichlorobenzene	110		110		70-130	0		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1302433-3 WG1302433-4								
1,2,4-Trichlorobenzene	100		110		70-130	10		20
Methyl Acetate	110		110		70-130	0		20
Cyclohexane	100		100		70-130	0		20
1,4-Dioxane	122		118		56-162	3		20
Freon-113	110		110		70-130	0		20
Methyl cyclohexane	95		95		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	85		84		70-130
Toluene-d8	90		91		70-130
4-Bromofluorobenzene	78		86		70-130
Dibromofluoromethane	105		105		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12,23 Batch: WG1302438-3 WG1302438-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	96		97		70-130	1		20
Chloroform	92		94		70-130	2		20
Carbon tetrachloride	100		110		63-132	10		20
1,2-Dichloropropane	98		98		70-130	0		20
Dibromochloromethane	110		110		63-130	0		20
1,1,2-Trichloroethane	92		93		70-130	1		20
Tetrachloroethene	110		120		70-130	9		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	91		95		70-130	4		20
1,1,1-Trichloroethane	99		100		67-130	1		20
Bromodichloromethane	92		95		67-130	3		20
trans-1,3-Dichloropropene	84		85		70-130	1		20
cis-1,3-Dichloropropene	96		98		70-130	2		20
Bromoform	110		110		54-136	0		20
1,1,2,2-Tetrachloroethane	91		93		67-130	2		20
Benzene	99		99		70-130	0		20
Toluene	94		97		70-130	3		20
Ethylbenzene	94		97		70-130	3		20
Chloromethane	92		94		64-130	2		20
Bromomethane	81		83		39-139	2		20
Vinyl chloride	94		95		55-140	1		20

Lab Control Sample Analysis Batch Quality Control

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12,23 Batch: WG1302438-3 WG1302438-4								
Chloroethane	100		110		55-138	10		20
1,1-Dichloroethene	100		110		61-145	10		20
trans-1,2-Dichloroethene	100		110		70-130	10		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	100		110		70-130	10		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	96		99		63-130	3		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	80		79		36-147	1		20
Acetone	110		120		58-148	9		20
Carbon disulfide	77		83		51-130	8		20
2-Butanone	110		120		63-138	9		20
4-Methyl-2-pentanone	100		100		59-130	0		20
2-Hexanone	97		98		57-130	1		20
Bromochloromethane	120		120		70-130	0		20
1,2-Dibromoethane	99		100		70-130	1		20
1,2-Dibromo-3-chloropropane	100		110		41-144	10		20
Isopropylbenzene	85		91		70-130	7		20
1,2,3-Trichlorobenzene	110		110		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12,23 Batch: WG1302438-3 WG1302438-4								
1,2,4-Trichlorobenzene	96		100		70-130	4		20
Methyl Acetate	110		110		70-130	0		20
Cyclohexane	99		100		70-130	1		20
1,4-Dioxane	118		126		56-162	7		20
Freon-113	110		110		70-130	0		20
Methyl cyclohexane	90		95		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	84		85		70-130
Toluene-d8	88		89		70-130
4-Bromofluorobenzene	84		85		70-130
Dibromofluoromethane	104		106		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,22,30 Batch: WG1302498-3 WG1302498-4								
Methylene chloride	87		87		70-130	0		20
1,1-Dichloroethane	92		92		70-130	0		20
Chloroform	94		93		70-130	1		20
Carbon tetrachloride	97		94		63-132	3		20
1,2-Dichloropropane	95		92		70-130	3		20
Dibromochloromethane	97		99		63-130	2		20
1,1,2-Trichloroethane	87		88		70-130	1		20
Tetrachloroethene	98		100		70-130	2		20
Chlorobenzene	92		91		75-130	1		20
Trichlorofluoromethane	92		92		62-150	0		20
1,2-Dichloroethane	81		81		70-130	0		20
1,1,1-Trichloroethane	96		95		67-130	1		20
Bromodichloromethane	94		96		67-130	2		20
trans-1,3-Dichloropropene	92		93		70-130	1		20
cis-1,3-Dichloropropene	200	Q	180	Q	70-130	11		20
Bromoform	94		97		54-136	3		20
1,1,2,2-Tetrachloroethane	84		83		67-130	1		20
Benzene	84		83		70-130	1		20
Toluene	86		87		70-130	1		20
Ethylbenzene	92		92		70-130	0		20
Chloromethane	77		78		64-130	1		20
Bromomethane	88		97		39-139	10		20
Vinyl chloride	120		120		55-140	0		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,22,30 Batch: WG1302498-3 WG1302498-4								
Chloroethane	160	Q	160	Q	55-138	0		20
1,1-Dichloroethene	92		90		61-145	2		20
trans-1,2-Dichloroethene	96		91		70-130	5		20
Trichloroethene	92		93		70-130	1		20
1,2-Dichlorobenzene	91		86		70-130	6		20
1,3-Dichlorobenzene	89		88		70-130	1		20
1,4-Dichlorobenzene	88		88		70-130	0		20
Methyl tert butyl ether	100		110		63-130	10		20
p/m-Xylene	95		100		70-130	5		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	99		97		70-130	2		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	75		72		36-147	4		20
Acetone	120		120		58-148	0		20
Carbon disulfide	84		84		51-130	0		20
2-Butanone	140	Q	120		63-138	15		20
4-Methyl-2-pentanone	120		120		59-130	0		20
2-Hexanone	130		130		57-130	0		20
Bromochloromethane	100		96		70-130	4		20
1,2-Dibromoethane	96		96		70-130	0		20
1,2-Dibromo-3-chloropropane	110		110		41-144	0		20
Isopropylbenzene	100		98		70-130	2		20
1,2,3-Trichlorobenzene	96		93		70-130	3		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q4 2019

Lab Number: L1950037

Project Number: GOWANDA Q4 2019

Report Date: 10/30/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,22,30 Batch: WG1302498-3 WG1302498-4								
1,2,4-Trichlorobenzene	99		98		70-130	1		20
Methyl Acetate	130		130		70-130	0		20
Cyclohexane	92		90		70-130	2		20
1,4-Dioxane	196	Q	160		56-162	20		20
Freon-113	86		81		70-130	6		20
Methyl cyclohexane	92		89		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	109		108		70-130
Toluene-d8	100		102		70-130
4-Bromofluorobenzene	97		96		70-130
Dibromofluoromethane	108		111		70-130

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1950037-01A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-01B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-01C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-02A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-02B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-02C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-03A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-03B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-03C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-04A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-04B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-04C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-05A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-05B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-05C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-06A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-06B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-06C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-07A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-07B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-07C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-08A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-08B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)

Project Name: GOWANDA Q4 2019
Project Number: GOWANDA Q4 2019

Serial_No: 10301915:54
Lab Number: L1950037
Report Date: 10/30/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1950037-08C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-09A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-09B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-09C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-10A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-10B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-10C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-11A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-11B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-11C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-12A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-12B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-12C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-13A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-13B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-13C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-14A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-14B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-14C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-15A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-15B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-15C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-16A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-16B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-16C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-17A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-17B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-17C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1950037-18A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-18B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-18C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-19A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-19B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-19C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-20A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-20B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-20C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-21A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-21B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-21C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-22A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-22B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-22C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-23A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-23B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-23C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-24A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-24B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-24C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-25A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-25B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-25C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-26A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-26B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-26C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-27A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)

Project Name: GOWANDA Q4 2019**Lab Number:** L1950037**Project Number:** GOWANDA Q4 2019**Report Date:** 10/30/19**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1950037-27B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-27C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-28A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-28B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-28C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-29A	Vial HCl preserved	A	NA		4.2	Y	Absent		ARCHIVE()
L1950037-29B	Vial HCl preserved	A	NA		4.2	Y	Absent		ARCHIVE()
L1950037-30A	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-30B	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)
L1950037-30C	Vial HCl preserved	A	NA		4.2	Y	Absent		NYTCL-8260-R2(14)

Project Name: GOWANDA Q4 2019
Project Number: GOWANDA Q4 2019

Lab Number: L1950037
Report Date: 10/30/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: GOWANDA Q4 2019
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- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: GOWANDA Q4 2019
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Lab Number: L1950037
Report Date: 10/30/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 15

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,


3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.


Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <div style="border: 1px solid black; padding: 2px; display: inline-block;">1 of 3</div>		Date Rec'd in Lab <u>10/24/19</u>		ALPHA Job # <u>61950037</u>					
		Project Information Project Name: <u>Gowanda Q4 2019</u> Project Location: <u>Gowanda, NY</u> Project # _____ (Use Project name as Project #) <input checked="" type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQulS (1 File) <input checked="" type="checkbox"/> EQulS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO # _____							
Client Information Client: <u>Bergmann</u> Address: <u>280 E Broad Str, 200</u> <u>Rochester, NY</u> Phone: <u>585-498-7450</u> Fax: _____ Email: <u>obleier@bergmannic.com</u>		Project Manager: <u>A. CheremetcFF</u> ALPHAQuote #: _____ Turn-Around Time Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/> Due Date: _____ # of Days: _____		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other: _____							
These samples have been previously analyzed by Alpha <input type="checkbox"/>						ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)					
Other project specific requirements/comments: _____ _____ Please specify Metals or TAL. _____ _____						Total Bottles		Sample Specific Comments					
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection						Sample Matrix		Sampler's Initials	
				Date Time									
<u>62037</u>		<u>01</u>		<u>MW-1</u>						<u>10/23/19</u> <u>10:08</u>		<u>GW</u> <u>CB</u>	
		<u>02</u>		<u>MW-2</u>						<u>10/23/19</u> <u>10:10</u>		<u>GW</u> <u>CB</u>	
		<u>03</u>		<u>MW-3</u>						<u>10/23/19</u> <u>10:22</u>		<u>GW</u> <u>CB</u>	
		<u>04</u>		<u>MW-4</u>						<u>10/23/19</u> <u>10:30</u>		<u>GW</u> <u>CB</u>	
		<u>05</u>		<u>MW-5</u>						<u>10/23/19</u> <u>9:10</u>		<u>GW</u> <u>CB</u>	
		<u>06</u>		<u>MW-6</u>						<u>10/23/19</u> <u>9:12</u>		<u>GW</u> <u>CB</u>	
		<u>07</u>		<u>MW-7</u>						<u>10/23/19</u> <u>9:30</u>		<u>GW</u> <u>CB</u>	
		<u>08</u>		<u>MW-8</u>		<u>10/23/19</u> <u>9:45</u>		<u>GW</u> <u>CB</u>					
		<u>09</u>		<u>MW-9</u>		<u>10/23/19</u> <u>9:50</u>		<u>GW</u> <u>CB</u>					
		<u>10</u>		<u>MW-10</u>		<u>10/23/19</u> <u>10:00</u>		<u>GW</u> <u>CB</u>					
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other:		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type <u>V</u> Preservative <u>B</u>		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)					
Relinquished By: <u>[Signature]</u>		Date/Time: <u>10/23/2019</u>		Received By: <u>[Signature]</u>		Date/Time: <u>10/23/19 18:05</u>							
<u>[Signature]</u>		<u>10/23/19 18:05</u>		<u>[Signature]</u>		<u>10/24/19 01:10</u>							
Form No: 01-25 HC (rev. 30-Sept-2013)													

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <div style="border: 1px solid black; padding: 2px; display: inline-block;">2 of 3</div>		Date Rec'd in Lab 10/24/19		ALPHA Job # 11950037	
		Project Information Project Name: Gowanda Q4 2019 Project Location: Gowanda, NY Project #: (Use Project name as Project #) <input checked="" type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQulS (1 File) <input checked="" type="checkbox"/> EQulS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #			
Client Information Client: Bergmann Address: 280 E Broad St, 200 Rochester NY Phone: 585-498-7950 Fax: Email: cbleneberg@bergmannrc.com		Project Manager: A. Cherechreff ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
These samples have been previously analyzed by Alpha <input type="checkbox"/>						ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Preservation <input type="checkbox"/> Lab to do (Please Specify below)	
Other project specific requirements/comments:						NYTCL-8260		Total Bottles	
Please specify Metals or TAL.									
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date Time		Sample Matrix		Sampler's Initials	
50037		11		10/23 1130		GW		CB	
		12		10/23 1111		GW		CB	
		13		10/23 1118		GW		CB	
		14		10/23 1100		GW		CB	
		15		10/23 1050		GW		CB	
		16		10/23 0948		GW		CB	
		17		10/23 0922		GW		CB	
		18		10/23 0852		GW		CB	
		19		10/23 0842		GW		CB	
		20		10/23 0855		GW		CB	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type V Preservative B		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
Relinquished By: Carol Blum James J. Blum		Date/Time 10/23/2019 18:35		Received By: James J. Blum James J. Blum		Date/Time 10/23/19 18:35 10/24/19 01:16			

 NEW YORK CHAIN OF CUSTODY		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <div style="font-size: 24px; font-weight: bold;">3</div> of <div style="font-size: 24px; font-weight: bold;">3</div>		Date Rec'd in Lab		ALPHA Job # <div style="font-size: 24px; font-weight: bold;">10/24/14</div> <div style="font-size: 24px; font-weight: bold;">66950037</div>		
		Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288						
Client Information		Project Information		Deliverables				Billing Information		
Client: <u>Bergmann</u>		Project Name: <u>Gowanda 04 2019</u>		<input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other				<input checked="" type="checkbox"/> Same as Client Info PO #		
Address: <u>280 E Broad St 200</u>		Project Location: <u>Gowanda, NY</u>		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge				Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:		
Phone: <u>585-498-7950</u>		Project Manager: <u>A. Cheremeteff</u>								
Fax: _____		ALPHAQuote #: _____		ANALYSIS				Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Preservation <input type="checkbox"/> Lab to do (Please Specify below)		
Email: <u>Cbeier@bergmannpc.com</u>		Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: _____ Rush (only if pre approved) <input type="checkbox"/> # of Days: _____								
These samples have been previously analyzed by Alpha <input type="checkbox"/>				<div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; font-size: 24px;">NYTCL-8260</div>				Sample Specific Comments		
Other project specific requirements/comments:										
Please specify Metals or TAL.										
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date Time		Sample Matrix	Sampler's Initials					
50037	21	MW-21	10/23	0831	GW	CB	X			
	22	DR-1	10/23	1125	GW	CB	X			
	23	DR-2	10/23	1115	GW	CB	X			
	24	DR-3	10/23	1106	GW	CB	X			
	25	DR-4	10/23	1052	GW	CB	X			
	26	Gr-1	10/23	1045	GW	CB	X			
	27	Gr-2	10/23	1046	GW	CB	X			
	28	Gr-3	10/23	0935	GW	CB	X			
Preservative Code:		Container Code		Westboro: Certification No: MA935		Container Type				
A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Mansfield: Certification No: MA015		Preservative				
				Relinquished By: <u>Carl Blum</u>		Date/Time: <u>10/23/2019</u>		Received By: <u>[Signature]</u>		
				<u>[Signature]</u>		<u>10/23/19 1805</u>		<u>10/24/19 0810</u>		
Form No: 01-25 HC (rev. 30-Sept-2013)										

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

APPENDIX B: FIELD NOTES

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-1
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 7.62
Depth to bottom of the well: 18.06
Length of water column in well: 10.44

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7017
3 Well volumes (= length water column X gal/foot X 3): 5.1052
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer

Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	4.02	NTU								
<i>Temperature</i>	15.9	°C								
<i>pH</i>	6.98									
<i>Conductivity</i>	0.723	SPC ms/cm								
<i>Oxygen</i>	2.88	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 11:25

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-2
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 7.35
Depth to bottom of the well: 18.06
Length of water column in well: 10.71

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7457
3 Well volumes (= length water column X gal/foot X 3): 5.2372
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	2.5	NTU								
Temperature	15.2	°C								
pH	6.59									
Conductivity	0.684	SPC ms/cm								
Oxygen	2.65	DO mg/L								
Salinity										

Time sample was collected: 11:15

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-3
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 11.07
Depth to bottom of the well: 20.45
Length of water column in well: 9.38

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5289
3 Well volumes (= length water column X gal/foot X 3): 4.5868
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	5.9	NTU								
Temperature	14.8	°C								
pH	6.96									
Conductivity	0.676	SPC ms/cm								
Oxygen	5.02	DO mg/L								
Salinity										

Time sample was collected: 11:06

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-4
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 11.7
Depth to bottom of the well: 19.69
Length of water column in well: 7.99

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.3024
3 Well volumes (= length water column X gal/foot X 3): 3.9071
Actual volume purged prior to sampling: N/A
Sampling Methodology:
Sampling Equipment: Hand bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	0.5	NTU								
Temperature	15.2	°C								
pH	6.62									
Conductivity	0.509	SPC ms/cm								
Oxygen	2.32	DO mg/L								
Salinity										

Time sample was collected: 10:52

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: G-1
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 11.95
Depth to bottom of the well: 22.98
Length of water column in well: 11.03

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7979
3 Well volumes (= length water column X gal/foot X 3): 5.3937
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	1.9	NTU								
Temperature	15.4	°C								
pH	6.74									
Conductivity	0.588	SPC ms/cm								
Oxygen	4.9	DO mg/L								
Salinity										

Time sample was collected: 10:45

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: G-2
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 11.72
Depth to bottom of the well: 20.72
Length of water column in well: 9.00

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.467
3 Well volumes (= length water column X gal/foot X 3): 4.401
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	10.01	NTU								
Temperature	15.00	°C								
pH	6.93									
Conductivity	0.662	SPC ms/cm								
Oxygen	1.99	DO mg/L								
Salinity										

Time sample was collected: 10:40

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: G-3
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.28
Depth to bottom of the well: 18.15
Length of water column in well: 7.87

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.2828
3 Well volumes (= length water column X gal/foot X 3): 3.8484
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	11.73	NTU								
Temperature	15.5	°C								
pH	7.08									
Conductivity	0.335	SPC ms/cm								
Oxygen	4.3	DO mg/L								
Salinity										

Time sample was collected: 9:35

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-1
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 6.4
Depth to bottom of the well: 16.02
Length of water column in well: 9.62

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5681
3 Well volumes (= length water column X gal/foot X 3): 4.7042
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	24.32	NTU								
<i>Temperature</i>	15.2	°C								
<i>pH</i>	7.01									
<i>Conductivity</i>	0.728	SPC ms/cm								
<i>Oxygen</i>	3.44	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 10:08

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-2
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 2.82
Depth to bottom of the well: 17.15
Length of water column in well: 14.33

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 2.3358
3 Well volumes (= length water column X gal/foot X 3): 7.0074
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	27.03	NTU								
<i>Temperature</i>	14.6	°C								
<i>pH</i>	7.56									
<i>Conductivity</i>	0.127	SPC ms/cm								
<i>Oxygen</i>	8.01	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 10:10

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**

ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-3
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 6.31
Depth to bottom of the well: 16.30
Length of water column in well: 9.99

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.6284
3 Well volumes (= length water column X gal/foot X 3): 4.8851
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	85.13	NTU								
<i>Temperature</i>	18.00	°C								
<i>pH</i>	7.15									
<i>Conductivity</i>	0.078	SPC ms/cm								
<i>Oxygen</i>	6.62	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 10:22

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-4
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 7.05
Depth to bottom of the well: 15.78
Length of water column in well: 8.73

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.423
3 Well volumes (= length water column X gal/foot X 3): 4.269
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	45.82	NTU								
Temperature	16.5	°C								
pH	6.38									
Conductivity	0.32	SPC ms/cm								
Oxygen	3.97	DO mg/L								
Salinity										

Time sample was collected: 10:30

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-5
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 10.96
Depth to bottom of the well: 13.95
Length of water column in well: 2.99

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 0.4874
3 Well volumes (= length water column X gal/foot X 3): 1.4621
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	16.18	NTU								
<i>Temperature</i>	16.3	°C								
<i>pH</i>	6.63									
<i>Conductivity</i>	0.561	SPC ms/cm								
<i>Oxygen</i>	5.42	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 9:10

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-6
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 13.45
Depth to bottom of the well: 22.88
Length of water column in well: 9.43

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5371
3 Well volumes (= length water column X gal/foot X 3): 4.6113
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	16.11	NTU								
Temperature	13.6	°C								
pH	7.12									
Conductivity	0.619	SPC ms/cm								
Oxygen	5.11	DO mg/L								
Salinity										

Time sample was collected: 9:12

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-7
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 13.49
Depth to bottom of the well: 21.8
Length of water column in well: 8.31

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.3545
3 Well volumes (= length water column X gal/foot X 3): 4.0636
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	7.65	NTU								
<i>Temperature</i>	15.2	°C								
<i>pH</i>	6.8									
<i>Conductivity</i>	0.715	SPC ms/cm								
<i>Oxygen</i>	3.44	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 9:30

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-8
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 9.72
Depth to bottom of the well: 17.65
Length of water column in well: 7.93

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.2926
3 Well volumes (= length water column X gal/foot X 3): 3.8778
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	6.19	NTU								
Temperature	13.4	°C								
pH	6.94									
Conductivity	0.609	SPC ms/cm								
Oxygen	5.61	DO mg/L								
Salinity										

Time sample was collected: 9:45

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-9
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 9.7
Depth to bottom of the well: 20.96
Length of water column in well: 11.26

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.8354
3 Well volumes (= length water column X gal/foot X 3): 5.5061
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	32.11	NTU								
Temperature	14	°C								
pH	6.61									
Conductivity	1.226	SPC ms/cm								
Oxygen	2.45	DO mg/L								
Salinity										

Time sample was collected: 9:50

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-10
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 7.13
Depth to bottom of the well: 19.44
Length of water column in well: 12.31

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 2.0069
3 Well volumes (= length water column X gal/foot X 3): 6.0206
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	42.37	NTU								
Temperature	13.1	°C								
pH	6.83									
Conductivity	0.615	SPC ms/cm								
Oxygen	2.75	DO mg/L								
Salinity										

Time sample was collected: 10:00

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-11
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 6.86
Depth to bottom of the well: 15.48
Length of water column in well: 8.62

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.4051
3 Well volumes (= length water column X gal/foot X 3): 4.2152
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	9.2	NTU								
Temperature	15.6	°C								
pH	6.63									
Conductivity	0.682	SPC ms/cm								
Oxygen	3.62	DO mg/L								
Salinity										

Time sample was collected: 11:30

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-12
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 7.14
Depth to bottom of the well: 17.38
Length of water column in well: 10.24

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.6691
3 Well volumes (= length water column X gal/foot X 3): 5.0074
Actual volume purged prior to sampling: None
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	67.01	NTU								
<i>Temperature</i>	15.5	°C								
<i>pH</i>	6.73									
<i>Conductivity</i>	0.519	SPC ms/cm								
<i>Oxygen</i>	4.3	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 11:11

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-13
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 7.34
Depth to bottom of the well: 17.40
Length of water column in well: 10.06

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.6398
3 Well volumes (= length water column X gal/foot X 3): 4.9193
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	229.8	NTU								
Temperature	16.2	°C								
pH	6.52									
Conductivity	0.517	SPC ms/cm								
Oxygen	3.9	DO mg/L								
Salinity										

Time sample was collected: 11:18

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-14
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.72
Depth to bottom of the well: 18.15
Length of water column in well: 7.43

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.2111
3 Well volumes (= length water column X gal/foot X 3): 3.6333
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	2.20	NTU								
Temperature	15.0	°C								
pH	6.65									
Conductivity	0.647	SPC ms/cm								
Oxygen	5.07	DO mg/L								
Salinity										

Time sample was collected: 11:00

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-15
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.83
Depth to bottom of the well: 19.80
Length of water column in well: 8.97

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.4621
3 Well volumes (= length water column X gal/foot X 3): 4.3863
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	35.3	NTU								
Temperature	15.00	°C								
pH	6.84									
Conductivity	0.557	SPC ms/cm								
Oxygen	5.22	DO mg/L								
Salinity										

Time sample was collected: 10:50

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-16
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 13.1
Depth to bottom of the well: 23.26
Length of water column in well: 10.16

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.6561
3 Well volumes (= length water column X gal/foot X 3): 4.9682
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	85.17	NTU								
Temperature	16.1	°C								
pH	6.75									
Conductivity	6.97	SPC ms/cm								
Oxygen	4.01	DO mg/L								
Salinity										

Time sample was collected: 9:48

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-17
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 13.31
Depth to bottom of the well: 25.18
Length of water column in well: 11.87

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.9348
3 Well volumes (= length water column X gal/foot X 3): 5.8044
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	109.07	NTU								
Temperature	15.1	°C								
pH	6.72									
Conductivity	0.321	SPC ms/cm								
Oxygen	2.77	DO mg/L								
Salinity										

Time sample was collected: 9:22

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q2 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 7/25/2019
Weather: Partly cloudy 75°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-18
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 8.49
Depth to bottom of the well: 25.0
Length of water column in well: 16.51

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 2.6911
3 Well volumes (= length water column X gal/foot X 3): 8.0734
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	9.1	NTU								
<i>Temperature</i>	15.4	°C								
<i>pH</i>	7.31									
<i>Conductivity</i>	0.701	SPC ms/cm								
<i>Oxygen</i>	7.15	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 8:52

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-19R
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 8.65
Depth to bottom of the well: 17.67
Length of water column in well: 9.02

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.4703
3 Well volumes (= length water column X gal/foot X 3): 4.4108
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	153.3	NTU								
<i>Temperature</i>	16.8	°C								
<i>pH</i>	6.8									
<i>Conductivity</i>	1.132	SPC ms/cm								
<i>Oxygen</i>	7.23	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 8:42

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-20
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.14
Depth to bottom of the well: 14.75
Length of water column in well: 4.61

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 0.7514
3 Well volumes (= length water column X gal/foot X 3): 2.2543
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	76.62	NTU								
Temperature	16.4	°C								
pH	6.81									
Conductivity	0.692	SPC ms/cm								
Oxygen	4.4	DO mg/L								
Salinity										

Time sample was collected: 8:58

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q4 2019
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 10/23/2019
Weather: Partly cloudy 55°
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-21
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.1
Depth to bottom of the well: 17.38
Length of water column in well: 7.28

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.1866
3 Well volumes (= length water column X gal/foot X 3): 3.5599
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	68.02	NTU								
Temperature	15.7	°C								
pH	6.76									
Conductivity	1.143	SPC ms/cm								
Oxygen	2.72	DO mg/L								
Salinity										

Time sample was collected: 8:34

COMMENTS



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FEBRUARY 2020
GROUNDWATER CHARACTERIZATION REPORT



BERGMANN

ARCHITECTS ENGINEERS PLANNERS

New York State Office of People with Developmental Disabilities – Gowanda Site

GROUNDWATER CHARACTERIZATION REPORT – FEBRUARY 2020



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1.0 INTRODUCTION

Bergmann is submitting this groundwater characterization report for the February 2020 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, 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 February 20, 2020. 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 all 21 of 21 site-related groundwater monitoring wells and all seven (7) groundwater recovery wells were sampled for laboratory analysis. Of the eight (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), all were sampled. Monitoring well MW-21 was added to the well sampling plan permanently by NYSDEC to monitor groundwater migration off-site.

The prior groundwater sampling event was conducted in October 2019 and included analysis of groundwater samples from all 21 of 21 site-related groundwater monitoring wells and all seven (7) groundwater recovery wells.

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 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 seven (7) 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 was pumped to the equalization tank for settling of the sediment and transferred to the air stripper using a consistent flow rate. Air discharge from the air stripper was routed to the SVE for treatment prior to discharge. Groundwater was discharged to the village of Gowanda Sewage Treatment Plant (STP).



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 January 2014, 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 remedial action plan (RAP) and implementation of an ISCO treatment. Bergmann submitted 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. The ISCO was implemented in May 2015. An ISCO Report was prepared under a separate cover.

2.0 GROUNDWATER SAMPLING OVERVIEW AND METHODS

2.1 WELL MAINTENANCE ACTIVITIES

During the February 2020 site visit, all 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, with the exception of the redevelopment activities performed on August 19, 2015. All protective casings and flush-mount curb boxes were found to be intact and secure. Exterior monitoring wells are secured with locking stick-up protective casings. The monitoring wells within the building are secured with flush-mount roadway covers. Well maintenance was not performed during the February 2020 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 in groundwater monitoring wells are measured on a regular basis to track site-wide changes in the water table elevation and to allow for adjustment at recovery wells. Past operation of the recovery wells was intended to establish hydraulic containment of the impacted groundwater plume beneath the former Day Habilitation building and improve recovery and treatment of impacted groundwater. Groundwater samples were collected from 21 of the 21 site-related groundwater monitoring wells for laboratory analysis on February 20, 2020. Depth to groundwater measurements were obtained from 28 wells (including recovery wells).

Groundwater samples were collected from monitoring wells after each well was gauged and purged of standing water via bailing with dedicated bailers for each individual well. Sample parameters including turbidity, temperature, pH, oxygen, and conductivity were monitored using a YSI Quatro to ensure sufficient well purging prior to sampling. Groundwater samples were collected from recovery wells using dedicated bailers, to allow for an accurate representation of groundwater without collecting sediment from within the wells. A single duplicate sample and a field blank sample were collected and submitted for laboratory analysis.

Groundwater samples were delivered via chain-of-custody protocol to Alpha Analytical located in Westborough, Massachusetts, a NYSELAP 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 in Table 3 for comparative purposes from sampling events completed 2012 – 2020.



3.0 LOCAL GROUNDWATER FLOW CHARACTERIZATION

The Site water table potentiometric surface pattern and groundwater flow direction was determined for February 2020 using elevations measured at each well. Groundwater elevations and well reference elevations were calculated using depth to water values obtained on February 20, 2020. The well gauging values and groundwater elevations are provided in Table 1 – Groundwater Elevations and Field Measurements – February 2020.

The February 2020 groundwater table map shows a flow pattern similar to groundwater flow pattern 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 February 2020 depths to groundwater range from 4.91 ft. below top of casing (btoc) at MW-2, to 12.91 ft. btoc at MW-7. The average depth to groundwater at the wells measured was 8.46 ft. btoc, which is a decrease from the average depth to water of the previous sampling event in October of 2019 (9.59).

The site-wide average depth to water table decreased by approximately 1.13 ft. when compared to the previous sampling event from October 2019. This decreased in the water table is inferred as seasonal.

Measured depth to water at all gauged monitoring and recovery wells is presented Table 1 and February 2020 Groundwater Contours are presented on Figure 1 – February 2020 Groundwater Contour Map.

4.0 LABORATORY ANALYSIS

4.1 LABORATORY ANALYSIS ON GROUNDWATER SAMPLES

Laboratory analysis was completed on the groundwater samples from 21 monitoring wells and seven (7) recovery wells collected February 20, 2020. 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 February 2020 analytical results indicate detection of four (4) chlorinated VOCs in monitoring well samples: TCE, Cis-DCE, VC and Trans-DCE. Chlorinated VOCs were detected in groundwater samples from fourteen (14) of the twenty-one (21) monitoring wells. Analytical results are summarized in Table 2 – February 2020 Analytical Results Summary, which compares detected VOCs and applicable NYSDEC Class GA Standards for each analyte. The complete laboratory analytical report is provided in Appendix A – Laboratory Analytical Results Report February 2020 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 seven (7) of the sampled monitoring wells.



Groundwater samples from eight (8) monitoring wells had detectable chlorinated VOCs at concentrations above applicable Class GA Standards. The monitoring well with the highest total VOCs, MW-1 (994 ppb), is located in the area of historically greatest impacted groundwater.

Concentrations in four (4) of the 21 monitoring well groundwater samples increased when compared to the October 2019 sampling event while concentrations in ten (10) of the 21 monitoring well groundwater samples decreased. Concentrations in seven (7) groundwater samples from monitoring wells had no change. The current sampling analytical results indicate an average site-wide decrease in total VOCs of approximately 94.61% since activation of the GTS in May 2005.

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 75.61% 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 February 2020 sampling event was 993 parts per billion (ppb), a decrease from the October 2019 value of 1,009.20 ppb. Since activation of the GTS, detected VOCs at MW-1 have increased by about 29.36%.

Monitoring well MW-11 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-11 for the February 2020 sampling event is 604.5 ppb, a decrease from the October 2019 value of 699.3 ppb. Since activation of the GTS in May 2005, detected VOCs at MW-11 have decreased by 86.99%.

Monitoring well MW-12 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-12 for the February 2020 sampling event is 116.54 ppb, an increase from the October 2019 value of 54 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 about 99.08%.

Monitoring well MW-13 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at monitoring well MW-13 for the February 2020 sampling event was 3.40 ppb, an increase from the October 2019 sampling event, which was 2.10 ppb. Since activation of the GTS, detected VOCs at MW-13 have decreased by about 98.92%.

Monitoring well MW-14 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-14 for the February 2020 sampling event is 34.00 ppb, an increase from the October 2019 value of 33.00 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 about 89.21%.

Monitoring well MW-15 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at MW-15 for the February 2020 sampling event was 2.90 ppb, a decrease from the October 2019 sampling event, which was 7.57 ppb. MW-15 is nearest to recovery well DR-4. Since activation of the GTS in May 2005, the detected VOCs at MW-15 have decreased 99.60%.

Six (6) 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, MW-17 and MW-21. The current analytical results exhibit a decrease in targeted VOCs at the sampled monitoring wells along the north perimeter.

Monitoring wells MW-18, MW-19R and MW-21 are located off-site along Torrance Place. These three (3) wells are considered to be beyond the radius of influence for the Day Habilitation groundwater treatment system.



The current results indicate a total VOC concentration of 0.73 ppb for MW-18. Monitoring well MW-21 was added to the sampling list at the request of the NYSDEC beginning with the June 2015 sampling event. It was first noted that during the August 2017 sampling event, wells MW-19R and MW-21 were not sampled because they were inaccessible. It was observed that the wells were likely paved over by a re-sealing the Torrance Place road surface. These wells were uncovered after the July 2019 sampling event. Well MW-19R had a total VOC concentration of 0.19 ppb, and well MW-21 had a total VOC concentration of 7.30 ppb.

Laboratory analytical results are included in Appendix A. Monitoring well locations and distribution of analytical results are shown on Figure 2 – February 2020 Distribution of Groundwater Analytical Results: 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 were MW-4 and MW-19R. The current results indicate non-detect levels for MW-4 and 0.19 ppb for MW-19R.

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. According to Mr. Chris Sanson, an Environmental Scientist for Groundwater & Environmental Services, Inc. (GES), an ISCO injection application was implemented for the Gowanda Electronics site in March 2014.

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

During the February 2020 sampling event, all of the seven (7) recovery wells were sampled.

The February 2020 analytical results indicate detection of chlorinated VOCs in all seven (7) recovery well samples that include: TRANS, TCE, Cis-DCE, and VC. Total VOCs detected in the seven (7) recovery wells for which past data is available have decreased overall since activation of the GTS in May 2002. The average decrease in VOCs for the current sampling event is about 39.15% relative to concentrations prior to GTS activation in 2002. Relative percent increase 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 total VOC concentration at DR-1 for the February 2020 sampling event is 1,123.6 ppb, an increase from the October 2019 value of 912.60 ppb. The current sampling event indicates an increase in VOCs at DR-1 of 81.03% since activation of the GTS. Recovery well DR-1 is located closest to MW-1 in an area of historically highest concentrations.

Recovery well DR-2 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-2 for the February 2020 sampling event is 137.8 ppb, a decrease from the October 2019 value of 185.9 ppb. The current sampling event indicates a decrease in VOCs at DR-2 of about 65.04% since activation of the GTS.

Recovery well DR-3 decreased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at DR-3 for the February 2020 sampling event is 67.7 ppb, a decrease from the October 2019



value of 99.7 ppb. The current sampling event indicates a decrease in VOCs at DR-3 of about 33.77% 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 February 2020 sampling event is 32.4 ppb, a decrease from the October 2019 value of 40.6 ppb. The current sampling event indicates a decrease in VOCs at DR-4 of about 94.58% 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 February 2020 sampling event was 50.1 ppb, a decrease from the October 2019 value of 70.0 ppb. The current sampling event indicates a decrease in VOCs at G-1 of 60.81% 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 February 2020 sampling event was 18.8 ppb, a decrease from the October 2019 value of 90.5 ppb. The current sampling event indicates a decrease in VOCs at G-2 of 76.62% since activation of the GTS.

Recovery well G-3 increased in targeted chlorinated VOCs relative to the prior sampling event. The total VOC concentration at G-3 for the February 2020 sampling event was 335.52 ppb, an increase from the October 2019 value of 3-5.34 ppb. The current sampling event indicates a decrease in VOCs at G-2 of 24.23% since activation of the GTS.

Laboratory analytical results are included in Appendix A. Recovery well locations and analytical results are shown on Figure 3 – February 2020 Distribution of Groundwater Analytical Results: Recovery Wells.

4.5 QUALITY ASSURANCE AND QUALITY CONTROL SAMPLES

An equipment blank was not collected. A field duplicate (labeled as MW-X) was taken from MW-13.

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 seven (7) sampled 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 the sampled groundwater recovery wells. Since activation of the GTS in May 2005, all seven (7) sampled groundwater recovery wells have demonstrated a general decrease in VOC concentration.

Chart 2 displays the relationship between monitoring wells MW-1, MW-11 and recovery well DR-1. The current total VOCs at MW-1 (993.50 ppb) show a decrease from the October 2019 sampling event (1,009.20 ppb). The current total VOCs at MW-11 (604.5 ppb) shows a decrease from the October 2019 sampling event (699.3 ppb). The current total VOCs at DR-1 (1123.6 ppb) show an increase from the October 2019 sampling event (912.6 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 1 and represent the northern limit of the highest concentration within the impacted area. The current total VOCs at MW-12 (116.54 ppb) shows an increase from the October 2019 sampling event



(54 ppb). The current total VOCs at recovery well DR-2 (137.8 ppb) show a decrease from the October 2020 sampling event (185.9 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 (34.0 ppb) show an increase from the October 2019 sampling event (33.0 ppb). The current total VOCs at recovery well DR-3 (67.7 ppb) show an increase from the October 2019 sampling event (99.7 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 (2.9 ppb) show an decrease from the October 2019 sampling event (7.57). The current total VOCs at recovery well DR-4 (32.4 ppb) show a decrease from the October 2019 sampling event (40.6 ppb).

Chart 6 compares laboratory results between recovery well G-1 and monitoring well MW-17. The recovery well is located in the northern portion of the building and MW-17 is located along the northern property line. The current total VOCs at recovery well MW-17 (16.2 ppb) show a decrease from the October 2019 sampling event (193.0 ppb). The current total VOCs at recovery well G-1 (50.1 ppb) show a decrease from the October 2019 sampling event (70.0 ppb).

Chart 7 compares laboratory results between recovery well G-2 and MW-7 which are 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-2 had a total VOC concentration of 18.8 ppb, which shows a decrease from the October 2019 sampling event (90.5 ppb). The February 2020 total VOCs of MW-7 (1.16 ppb) showed a decrease from the October 2019 sampling event (55.58.).

Chart 8 compares laboratory results between recovery well G-3 which is located at the northeastern portion of the building and MW-17 which is located along the northern property boundary. This area is at the western perimeter of the apparent area of impacted groundwater. The current total VOCs at monitoring well MW-17 (16.2 ppb) showed a decrease from the October 2019 sampling event (193 ppb). The current total VOCs at recovery well G-3 was (335.52 ppb), an increase from the October 2019 sampling event (305.34 ppb).

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. Concentration of VOCs in the source area have been reduced as a result of cleanup activities.

When operating, the GTS maintained an area of hydraulic containment for recovery wells within the source area of impacted groundwater. The GTS was 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 overall sample results are similar to previous quarterly sampling results. Therefore, residual VOCs in the plume have not migrated and appear to be stabilized when compared to sample results with operation of the GTS during previous monitoring events.

VOCs were not sampled at MW-19R and MW-21 during the July 2019 and November 2018 sampling events due to the fact that they were both paved over and inaccessible, as first reported by Bergmann in the August 2017 Sampling Report. These two (2) monitoring wells have since been uncovered and began to be sampled again starting with the August 2019 sampling event. The full analytical results are summarized in Table 5.

The redevelopment of wells was performed in fall 2015 to remove sediment from wells at the Site after the ISCO injections. Overall reduction of contaminants in the majority of the monitoring and recovery wells has occurred



due to completed remediation at the Site when compared to pre-remediation levels during the past ten (10) years of sampling.

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 upon that these remediation systems would be inactivated to allow for groundwater level recovery during the implementation of an ISCO groundwater treatment and subsequent sampling events. Bergmann performed an ISCO injection application in May (round 1) and September (round 2) 2015 to address remaining residual contamination at the Site in lieu of costly repair of the SVE and GTS. The SVE and GTS equipment remains on site in the event that re-activation is required in the future. However, system components may need repair and/or replacement prior to re-activation.

The next site-wide groundwater sampling and laboratory analysis event is scheduled for June 2020. Future sampling and analytical events will be conducted to track the effects of the ISCO injections 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 monitored and recorded during future sampling events.



TABLES

Table 1 Groundwater Elevations and Field Measurements February 2020

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

	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)	5.30	4.91	5.31	6.52	10.04	12.86	12.91	8.01	8.21	7.48
Groundwater Elevation	772.93	773.17	773.07	771.91	768.57	768.24	768.03	773.32	774.40	772.54
Well Diameter	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Product Thickness	ND	NA	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	10.72	12.24	10.99	9.26	3.91	10.02	8.89	9.64	12.75	11.94
Minimum Purge Volume (gal)	1.7	2.00	1.8	1.5	0.6	1.6	1.4	1.6	2.1	1.9
3 Volumes	5.2	5.99	5.4	4.5	1.9	4.9	4.3	4.7	6.2	5.8
Actual volume purged	5.2	5.99	NS	4.5	1.4	4.9	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'

	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)	5.45	6.40	6.81	9.81	9.32	12.51	12.55	8.63	7.14	8.74	8.79
Groundwater Elevation	773.13	772.10	771.58	768.62	769.06	767.92	767.30	767.76	767.06	769.30	764.66
Well Diameter	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"
Product Thickness	ND	ND	ND	ND	ND	ND	ND	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	10.03	10.98	10.59	8.34	10.48	10.75	NA	16.37	10.53	6.01	5.72
Minimum Purge Volume (gal)	1.6	1.8	1.7	1.4	1.7	1.8	NS	2.7	1.7	1.0	0.9
3 Volumes	4.9	5.4	5.2	4.1	5.1	5.3	NS	8.0	5.1	2.9	2.8
Actual volume purged	4.9	5.4	NS	4.1	5.1	5.3	NS	8.0	5.1	2.9	2.8
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'

	DR-1	DR-2	DR-3	DR-4	G-1	G-2	G-3
Casing Elevation	779.66	779.93	779.78	779.64	779.83	779.72	779.42
Depth to Groundwater (btoc)	6.67	6.50	11.25	11.80	11.43	11.32	9.73
Groundwater Elevation	772.99	773.43	768.53	767.84	768.40	768.40	769.69
Well Diameter	4"	4"	4"	4"	4"	4"	4"
Product Thickness	ND	ND	ND	ND	ND	ND	ND
Well Depth (btoc)	18.06	18.06	20.45	19.69	22.98	20.72	18.15
Bottom of Well Elevation	761.6	761.87	759.33	759.95	756.85	759	761.27
Thickness of Water Column	11.39	11.56	9.20	7.89	11.55	9.17	8.42
Minimum Purge Volume (gal)	7.44	7.55	6.01	5.15	7.54	5.98	5.50
3 Volumes	22.31	22.65	18.02	15.46	22.63	17.94	16.49
Actual volume purged	22.31	22.65	18.02	15.46	22.63	17.94	16.49
Comments	Stickup=0.85'	Stickup=1.06'	Stickup=0.95'	Stickup=0.84'	Stickup=1.03'	Stickup=0.86'	Vaulted well

NOTES

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

NS = Not Sampled

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.

Table 2 February 2020 Analytical Results Summary

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

Monitoring Well MW-1

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		750.00	800.00	5.0
CIS		250.00	180.00	5.0
TRANS		9.20	12.00	5.0
VC		ND	1.50	2.0
TCA		ND	ND	5.0
Total VOCs		1,009.20	993.50	

Monitoring Well MW-2

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	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-3

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	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-4

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	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-5

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		0.47	0.42	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		0.47	0.42	

Monitoring Well MW-6

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		ND	0.23	5.0
CIS		98.00	64.00	5.0
TRANS		ND	ND	5.0
VC		1.10	0.57	2.0
TCA		ND	ND	5.0
Total VOCs		99.1	64.80	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 February 2020 Analytical Results Summary

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

Monitoring Well MW-7

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		1.40	0.27	5.0
CIS		54.00	0.89	5.0
TRANS		ND	ND	5.0
VC		0.18	ND	2.0
TCA		ND	ND	5.0
Total VOCs		55.58	1.16	

Monitoring Well MW-8

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	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-9

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	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-10

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	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-11

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		510.00	490.00	5.0
CIS		170.00	100.00	5.0
TRANS		18.00	14.00	5.0
VC		1.30	0.47	2.0
TCA		ND	ND	5.0
Total VOCs		699.3	604.5	

Monitoring Well MW-12

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		20.00	16.00	5.0
CIS		34.00	100.00	5.0
TRANS		ND	1.20	5.0
VC		ND	0.54	2.0
TCA		ND	ND	5.0
Total VOCs		54.00	116.54	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 February 2020 Analytical Results Summary

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

Monitoring Well MW-13

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		2.10	1.70	5.0
CIS		ND	1.70	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		2.10	3.40	

Monitoring Well MW-14

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		21.0	22.0	5.0
CIS		12.0	12.0	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		33.00	34.00	

Monitoring Well MW-15

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		6.60	2.90	5.0
CIS		0.97	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		7.57	2.90	

Monitoring Well MW-16

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		0.41	0.24	5.0
CIS		6.70	25.00	5.0
TRANS		ND	ND	5.0
VC		ND	0.38	2.0
TCA		ND	ND	5.0
Total VOCs		7.1	25.62	

Monitoring Well MW-17

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		31.00	13.00	5.0
CIS		160.00	3.20	5.0
TRANS		1.7	ND	5.0
VC		0.31	ND	2.0
TCA		ND	ND	5.0
Total VOCs		193.0	16.2	

Monitoring Well MW-18

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		0.56	0.73	5.0
CIS		1.00	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		1.56	0.73	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 February 2020 Analytical Results Summary

Gowanda Day Habilitation Center

4 Industrial Place, Gowanda, New York

VCA # V-00463-9

Monitoring Well MW-19R

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		0.28	0.19	5.0
CIS		ND	ND	5.0
TRANS		ND	ND	5.0
VC		ND	ND	2.0
TCA		ND	ND	5.0
Total VOCs		0.28	0.19	

Monitoring Well MW-20

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	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: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		2.3	1.8	5.0
CIS		21	5.5	5.0
TRANS		0.98	ND	5.0
VC		0.21	ND	2.0
TCA		ND	ND	5.0
Total VOCs		24.49	7.30	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 February 2020 Analytical Results Summary

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

Recovery Well DR-1

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		790	980	5.0
CIS		110	130	5.0
TRANS		12	12.0	5.0
VC		0.6	1.6	2.0
TCA		ND	ND	5.0
Total VOCs		912.6	1,123.6	

Recovery Well DR-2

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		42	48	5.0
CIS		140	88	5.0
TRANS		1.7	1.1	5.0
VC		2.2	0.68	2.0
TCA		ND	ND	5.0
Total VOCs		185.9	137.8	

Recovery Well DR-3

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		30	27	5.0
CIS		66	39	5.0
TRANS		1.1	0.96	5.0
VC		2.6	0.78	2.0
TCA		ND	ND	5.0
Total VOCs		99.7	67.7	

Recovery Well DR-4

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		29	26	5.0
CIS		11	6.4	5.0
TRANS		ND	ND	5.0
VC		0.60	ND	2.0
TCA		ND	ND	5.0
Total VOCs		40.6	32.4	

Recovery Well G-1

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		2.7	6.50	5.0
CIS		66	43	5.0
TRANS		ND	ND	5.0
VC		1.3	0.55	2.0
TCA		ND	ND	5.0
Total VOCs		70.0	50.1	

Recovery Well G-2

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		0.89	0.65	5.0
CIS		88	18	5.0
TRANS		ND	ND	5.0
VC		1.60	0.15	2.0
TCA		ND	ND	5.0
Total VOCs		90.5	18.8	

ND = Non-detect

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

Results expressed as parts per billion (ppb).

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

Table 2 February 2020 Analytical Results Summary

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

Recovery Well G-3

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	NYS Guidance Value
TCE		45	52	5.0
CIS		260	280	5.0
TRANS		ND	2.8	5.0
VC		0.34	0.72	2.0
TCA		ND	ND	5.0
Total VOCs		305.34	335.52	

Duplicate Blank (MW-13)

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Feb 2020	NYS Guidance Value
TCE		1.7	5.0
CIS		1.6	5.0
TRANS		ND	5.0
VC		ND	2.0
TCA		ND	5.0
Total VOCs		3.3	

Equipment Blank

Sample Date: 02/20/2020

Sampling Events

Analyte	in ppb	Oct 2019	Feb 2020	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	

ND = Non-detect

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

Results expressed as parts per billion (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

Monitoring Well Number	MONITORING WELLS																										
	Total VOCs Feb 2020 (ppb)	Total VOCs Oct 2019 (ppb)	Total VOCs Aug 2019 (ppb)	Total VOCs July 2019 (ppb)	Total VOCs Nov 2018 (ppb)	Total VOCs August 2018 (ppb)	Total VOCs May 2018 (ppb)	Total VOCs April 2018 (ppb)	Total VOCs Nov 2017 (ppb)	Total VOCs Aug 2017 (ppb)	Total VOCs Nov 2016 (ppb)	Total VOCs Sep 2016 (ppb)	Total VOCs Jun 2016 (ppb)	Total VOCs Nov 2015 (ppb)	Total VOCs Aug 2015 (ppb)	Total VOCs Jun 2015 (ppb)	Total VOCs Mar 2015 (ppb)	Total VOCs Nov 2014 (ppb)	Total VOCs Sep 2014 (ppb)	Total VOCs Jun 2014 (ppb)	Total VOCs Mar 2014 (ppb)	Total VOCs Dec 2013 (ppb)	Total VOCs Jul 2013 (ppb)	Total VOCs Apr 2013 (ppb)	Total VOCs Dec 2012 (ppb)	Total VOCs Jun 2012 (ppb)	Total VOCs Mar 2012 (ppb)
MW-1	993.5	1009	698	1,081	1,080	1,190	1,110	374	1013	1,210	1,467	838	580	1,530	1,470	350	430	300	420	990	990	1,740	830	910	1,440	528	889
MW-2	ND	ND	0.28	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-3	ND	ND	0.28	0.39	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-5	0.42	0.47	0.52	0.9	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-6	64.8	99.1	92.64	86.63	81	84	77	76	100	91	87	120	100	120	96	86	81	110	110	96	94	130	99	93	99	86.7	85.7
MW-7	1.16	55.58	39	27.83	ND	ND	ND	ND	5.8	29	110	62	83	49	130	58	ND	180	190	29	ND	ND	18	ND	ND	151.56	30.5
MW-8	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-9	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	604.5	699.3	937.4	1,059	489.3	282	489	1,160	470	525	646	445	550	1,060	630	444	500	451	375	450	710	880	510	570	790	498	617
MW-12	116.54	54	54.48	79	53	25	100	113	31	40	7.1	7.8	15.8	28.8	52	97	120	126	136	200	212	173	149.3	186.6	142	86.5	148.22
MW-13	3.4	2.1	0.50	1.38	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	34	33	26.5	25.9	30.7	22.3	22.8	28	38	22.1	76	100	57	81	96	52	99	68	68	54	73	94	49	71	47	39.7	76.6
MW-15	2.9	7.6	8.1	4.9	ND	6.5	ND	ND	ND	7.4	11	23.8	11	9.9	14	8.1	9.8	32	31	6.1	ND	6.8	7	ND	12.9	26.26	6.25
MW-16	25.62	7.11	31.53	37.61	41	10	41	43	32	36	14	20	37	31	13	6.8	ND	5.2	9.4	21	24	20	8.4	24	18	4.36	12.2
MW-17	16.2	193.01	342	277	218	265	112.5	5.1	222	396	375	465	425	460	410	NS	336	394	410	339	167	420	400	21.3	430	381	260.1
MW-18	0.73	1.6	3.1	2.8	ND	ND	ND	ND	6.3	ND	37	10	26	6.9	ND	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND	16.6	2.33
MW-19R	0.19	0.28	0.6	NS	NS	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.5	ND	ND
MW-20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-21	25.3	24.49	18.33	NS	NS	NS	NS	NS	NS	NS	17	39	8.7	20	20	10	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-X (DUP)	3.3	1118.9	1118.9	914.6	ND	ND	434	NS	490	DWS	1,705	879	550	1,720	410	360	407	300	400	870	990	1,850	540	186.8	1,450	521	913
EB	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Recovery Well Number	RECOVERY WELLS																										
	Total VOCs Feb 2020 (ppb)	Total VOCs Oct 2019 (ppb)	Total VOCs Aug 2019 (ppb)	Total VOCs July 2019 (ppb)	Total VOCs Nov 2018 (ppb)	Total VOCs August 2018 (ppb)	Total VOCs May 2018 (ppb)	Total VOCs April 2018 (ppb)	Total VOCs Nov 2017 (ppb)	Total VOCs Aug 2017 (ppb)	Total VOCs Nov 2016 (ppb)	Total VOCs Sep 2016 (ppb)	Total VOCs Jun 2016 (ppb)	Total VOCs Nov 2015 (ppb)	Total VOCs Aug 2015 (ppb)	Total VOCs Jun 2015 (ppb)	Total VOCs Mar 2015 (ppb)	Total VOCs Nov 2014 (ppb)	Total VOCs Sep 2014 (ppb)	Total VOCs Jun 2014 (ppb)	Total VOCs Mar 2014 (ppb)	Total VOCs Dec 2013 (ppb)	Total VOCs Jul 2013 (ppb)	Total VOCs Apr 2013 (ppb)	Total VOCs Dec 2012 (ppb)	Total VOCs Jun 2012 (ppb)	Total VOCs Mar 2012 (ppb)
DR-1	1123.6	912.6	1038	1,832	1,310	1,510	1,319	1,070	1540	1,970	617	610	910	319	160	NS	21.7	63	55	75	132	87	73	82	43	29.38	673
DR-2	137.8	185.9	192	156	216	162	128	130	181	199	137	218	215	199	187	291	259	162	224	231	207	302	256	293	19	229.9	305.3
DR-3	67.7	99.7	101	91	73	87	125.4	34	48	NS	98	154	62	45	76	83	55	181	210	83	89	123	62	73	42	116.96	24.9
DR-4	32.4	40.6	46.6	40	37.2	48	31.2	31.6	46	52	79	95	63	94	110	71	147	156	148	96	64	68	79	37	90	122.6	ND
G-1	50.1	70	78.7	50.4	74.6	77	40	22	70	73.5	85	105.6	59.7	80.3	ND	68	146	101	105	90	78	96.2	69.1	55.8	52.6	68.55	65.58
G-2	18.8	90.49	90	69	25	68	50	46	8.5	NS	NS	ND	NS	NS	28	NS	48	34	37	52	14	68	81	50	132.2	75.3	41.9
G-3	335.52	305.34	309.65	309.65	15	322	NS	NS	NS	NS	293	404	420	262	370	NS	NS	NS	NS	NS	82	NS	11	25	41.6	147.3	44.2

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, MW-21

All compounds are measured in parts per billion (ppb).

VOC - Volatile Organic Compounds.

DUP - Duplicate Sample

EB - Equipment/Field Blank Sample

* - Sample was broken in transit and not able to be analyzed

DWS- Different Well Sampled than previously tested.

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 Feb 2020	% Reduction 2002 to Oct 2019	% Reduction 2002 to Aug 2019	% Reduction 2002 to July 2019	% Reduction 2002 to Nov 2018	% Reduction 2002 to Aug 2018	% Reduction 2002 to May 2018	% Reduction 2002 to April 2018	% Reduction 2002 to Nov 2017	% Reduction 2002 to Aug 2017	% Reduction 2002 to Nov 2016	% Reduction 2002 to Sep 2016	% Reduction 2002 to Jun 2016	% Reduction 2002 to Nov 2015	% Reduction 2002 to Aug 2015	% Reduction 2002 to Jun 2015	% Reduction 2002 to Mar 2015	% Reduction 2002 to Nov 2014	% Reduction 2002 to Sep 2014	% Reduction 2002 to Jun 2014	% 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
MW-1†	-29.36%	-31.4%	9.11%	-40.76%	-40.6%	-54.9%	-44.5%	51.3%	-39.90%	-57.6%	-48.0%	-9.1%	24.5%	-99.2%	-91.4%	54.4%	44.0%	60.9%	45.3%	-28.9%	-28.9%	-126.6%	-8.1%	-19.5%	-87.5%
MW-2	100%	100%	98.78%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-3	100%	100%	98.13%	97.40%	100%	100%	100%	100%	100%	100.0%	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	Not Sampled	Not Sampled
MW-4	100%	100%	100.0%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.00%
MW-5	97%	96.64%	96.29%	93.57%	100%	100%	100%	100%	100%	100.0%	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	Not Sampled	Not Sampled
MW-6	84.04%	75.59%	77.18%	78.66%	100%	-83.3%	15.4%	15.4%	-84.60%	15.4%	81.3%	70.4%	75.4%	70.4%	76.4%	78.8%	80.0%	72.9%	72.9%	76.4%	76.8%	68.0%	75.6%	77.1%	75.6%
MW-7	99.74%	87.65%	91.33%	93.82%	80.0%	79.3%	100.0%	81.3%	98.70%	93.6%	75.6%	86.2%	81.6%	89.1%	71.1%	87.1%	100.0%	60.0%	57.8%	93.6%	100.0%	100.0%	96.0%	100.0%	100.0%
MW-8	100%	100%	100%	100%	100%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled
MW-9	100%	100%	100%	100%	100%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-10	100%	100%	100%	100%	100%	100%	100%	100%	100%	100.0%	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	Not Sampled	Not Sampled
MW-11	86.99%	84.95%	79.83%	77.21%	89.5%	93.9%	89.5%	75.0%	89.20%	99.1%	86.1%	90.4%	88.2%	77.2%	86.4%	90.4%	89.2%	90.3%	91.9%	90.3%	84.7%	81.1%	89.0%	87.7%	83.0%
MW-12	99.08%	99.57%	99.57%	99.38%	99.6%	99.8%	99.2%	99.1%	99.80%	75.0%	99.9%	99.9%	99.9%	99.8%	99.6%	99.2%	99.1%	99.0%	98.4%	98.4%	98.3%	98.6%	98.8%	98.5%	98.9%
MW-13	98.92%	99.33%	99.84%	99.56%	100%	100%	100%	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	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
MW-14	89.21%	89.52%	91.59%	91.78%	90.3%	92.9%	92.8%	91.1%	87.90%	2.3%	75.9%	68.3%	81.9%	74.3%	69.5%	83.5%	68.6%	78.4%	78.4%	82.9%	76.8%	70.2%	84.4%	77.5%	85.1%
MW-15	99.60%	98.89%	98.89%	99.33%	100%	99.1%	100%	100%	99.0%	98.5%	96.7%	98.5%	98.6%	98.5%	98.9%	98.9%	98.7%	95.6%	95.8%	99.2%	100.0%	99.1%	99.0%	100.0%	98.2%
MW-16*	98.07%	86.11%	38.42%	26.54%	19.9%	80.5%	19.9%	2.3%	2.80%	2.3%	72.7%	60.9%	27.7%	39.5%	74.6%	86.7%	100.0%	89.8%	81.6%	59.0%	53.1%	60.9%	77.9%	36.8%	52.6%
MW-17*	98.40%	80.91%	66.17%	72.60%	78.4%	73.8%	88.9%	99.5%	78*	2.3%	62.9%	54.0%	58.0%	54.5%	59.4%	Not Sampled	66.8%	61.0%	59.4%	66.5%	83.5%	58.5%	50.6%	97.4%	46.9%
MW-18**	99.81%	62.50%	99.21%	99.29%	100%	100%	100%	100%	100%	100.0%	97.4%	93.4%	98.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	Not Sampled	100.0%	100.0%	100.0%
MW-19 R*	98.64%	98.00%	95.71%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	75.0%
MW-20**	100%	100%	100%	100%	100%	100%	100%	100%	100%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.4%
MW-21**	94.61%	94.38%	95.80%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	34.6%	-50.0%	66.5%	23.1%	23.1%	61.5%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled
* Well installed 2003																									
** Well installed 2004																									
Site-Wide reduction:	91.18%	86.8%	87.42%	83.6%	85.1%	78.0%	82.2%	84.2%	67.60%	62.1%	74.1%	68.7%	78.6%	66.2%	69.1%	87.7%	88.2%	85.2%	83.2%	79.8%	80.3%	67.5%	81.8%	81.2%	71.3%
Impacted Groundwater																									
Plume Area Only:	75.61%	72.11%	78.21%	71.5%	74.6%	72.1%	67.6%	76.6%	51.40%	41.1%	66.5%	69.6%	76.0%	58.1%	58.6%	84.6%	80.8%	77.3%	75.0%	72.3%	73.9%	82.2%	73.2%	77.3%	62.5%

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 Feb 2020	% Reduction 2002 to Oct 2019	% Reduction 2002 to Aug 2019	% Reduction 2002 to July 2019	% Reduction 2002 to Nov 2018	% Reduction 2002 to Aug 2018	% Reduction 2002 to May 2018	% Reduction 2002 to April 2018	% Reduction 2002 to Nov 2017	% Reduction 2002 to Aug 2017	% Reduction 2002 to Nov 2016	% Reduction 2002 to Sep 2016	% Reduction 2002 to Jun 2016	% Reduction 2002 to Nov 2015	% Reduction 2002 to Aug 2015	% Reduction 2002 to Jun 2015	% Reduction 2002 to Mar 2015	% Reduction 2002 to Nov 2014	% Reduction 2002 to Sep 2014	% Reduction 2002 to Jun 2014	% 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
DR-1	-81.03%	-59.16%	-81.03%	-219.50%	-128.5%	-163.3%	-130.0%	-86.6%	-243.6%	-243.6%	-7.6%	-6.4%	-58.7%	44.4%	72.1%	Not Sampled	96.2%	89.0%	90.4%	86.9%	77.0%	84.8%	99.1%	99.0%	99.5%
DR-2	65.04%	66.15%	65.04%	71.60%	60.7%	70.5%	76.7%	76%	63.8%	63.8%	75.1%	60.3%	60.9%	63.8%	66.0%	47.0%	52.8%	70.5%	59.2%	58.0%	62.3%	45.0%	87.2%	85.4%	99.1%
DR-3	33.77%	34.62%	33.77%	40.33%	52.1%	43.0%	17.8%	78%	68.5%	Not Sampled	35.7%	-1.0%	59.3%	70.5%	50.2%	45.6%	63.9%	-18.7%	-37.7%	45.6%	41.6%	19.3%	95.8%	95.1%	97.2%
DR-4	94.58%	95.27%	94.58%	95.34%	95.7%	94.4%	96.4%	96%	93.9%	93.9%	90.8%	88.9%	92.7%	89.1%	87.2%	91.7%	82.9%	81.8%	82.8%	88.8%	92.5%	90.8%	95.5%	97.9%	94.9%
G-1	60.81%	65.14%	60.81%	74.90%	62.8%	80.1%	60.81%	80%	74.1%	74.1%	57.7%	92.7%	60.0%	100.0%	100.0%	66.1%	27.3%	49.8%	47.7%	55.0%	61.3%	65.6%	87.3%	89.8%	90.3%
G-2	76.62%	68.07%	68.24%	75.65%	91.2%	76.0%	82.4%	84%	100.0%	Not Sampled	Not Sampled	100.0%	Not Sampled	Not Sampled	90.1%	Not Sampled	83.1%	88.0%	86.9%	81.7%	95.1%	71.4%	79.0%	87.0%	65.7%
G-3	24.23%	16.74%	24.23%	23.19%	96.3%	20.1%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	27.3%	-0.2%	-4.2%	35.0%	8.2%	Not Sampled	Not Sampled	Not Sampled	Not Sampled	Not Sampled	79.7%	NA	NA	NA	NA
Overall Reduction	39.15%	40.98%	37.95%	23.07%	47.2%	28.9%	37.2%	54.6%	60.4%	40.4%	46.5%	41.3%	40.4%	60.4%	67.7%	62.6%	67.7%	60.1%	54.9%	69.3%	72.8%	62.8%	90.7%	92.3%	91.1%

*Sampling of recovery wells initiated in 2005

TABLE 5

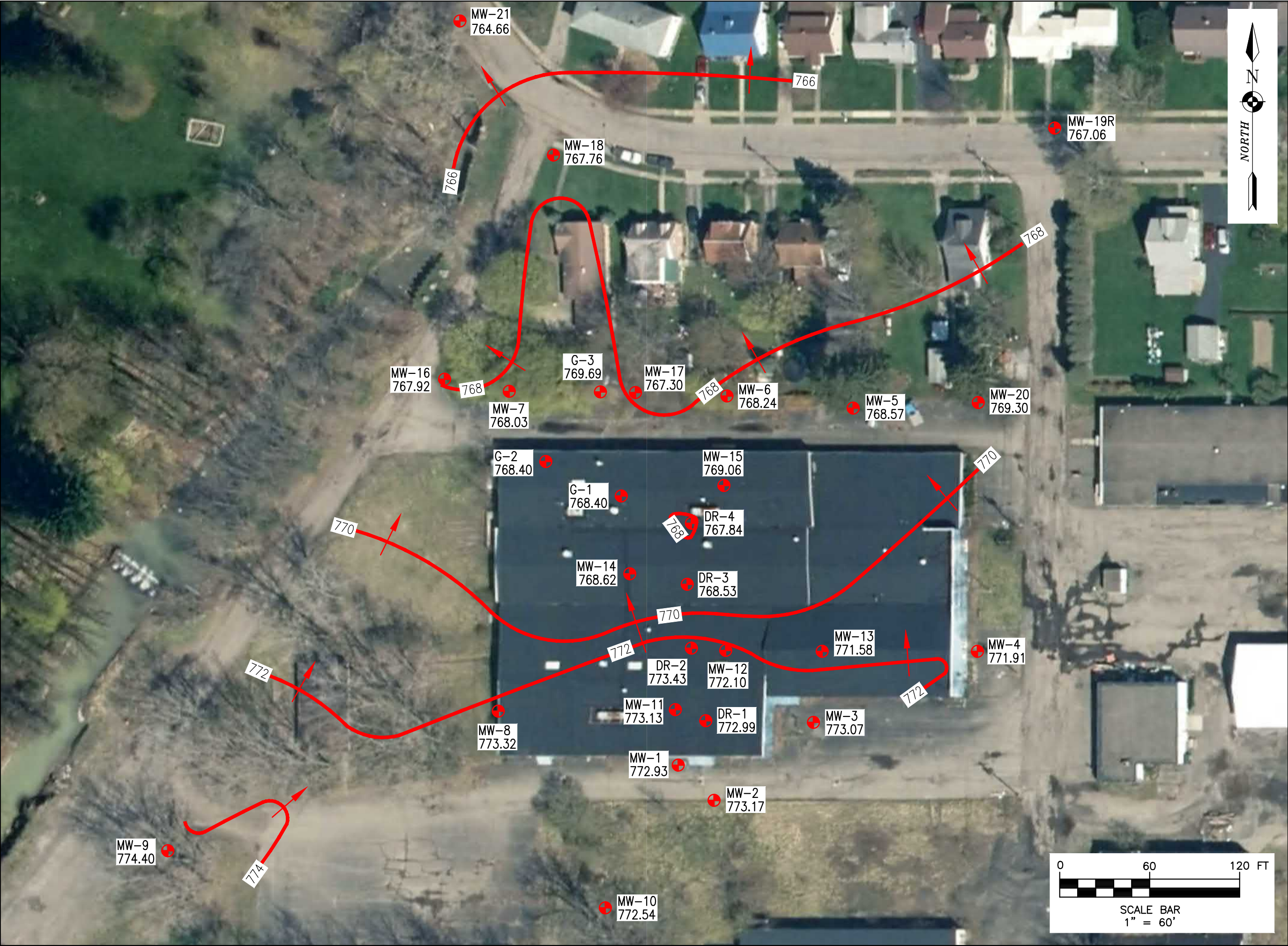
Awards Received by Alpha on 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Gowanda Day
Habilitation Center
4 Industrial Place
Gowanda, New York



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

Project Manager: J. O'BRIEN	Checked By: J. O'BRIEN
Designed By:	Drawn By: C. WOOD
Date Issued: 06/02/2020	Scale: 1" = 60'
Project Number: 6974.98	

FEBRUARY 2020
WATER LEVEL
CONTOUR MAP

Drawing Number:
FIGURE 1

DASNY

Gowanda Day
Habilitation Center

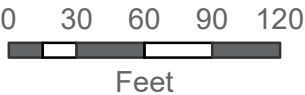
4 Industrial Place
Gowanda, NY



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Figure 2

February 2020
Distribution of
Groundwater
Analytical Results:
Monitoring Wells



DASNY

Gowanda Day
Habilitation Center

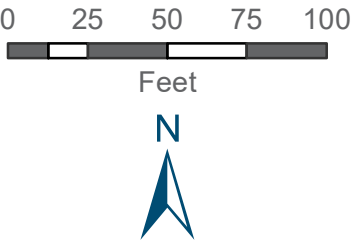
4 Industrial Place
Gowanda, NY



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Figure 3

February 2020
Distribution of
Groundwater
Analytical Results:
Recovery Wells





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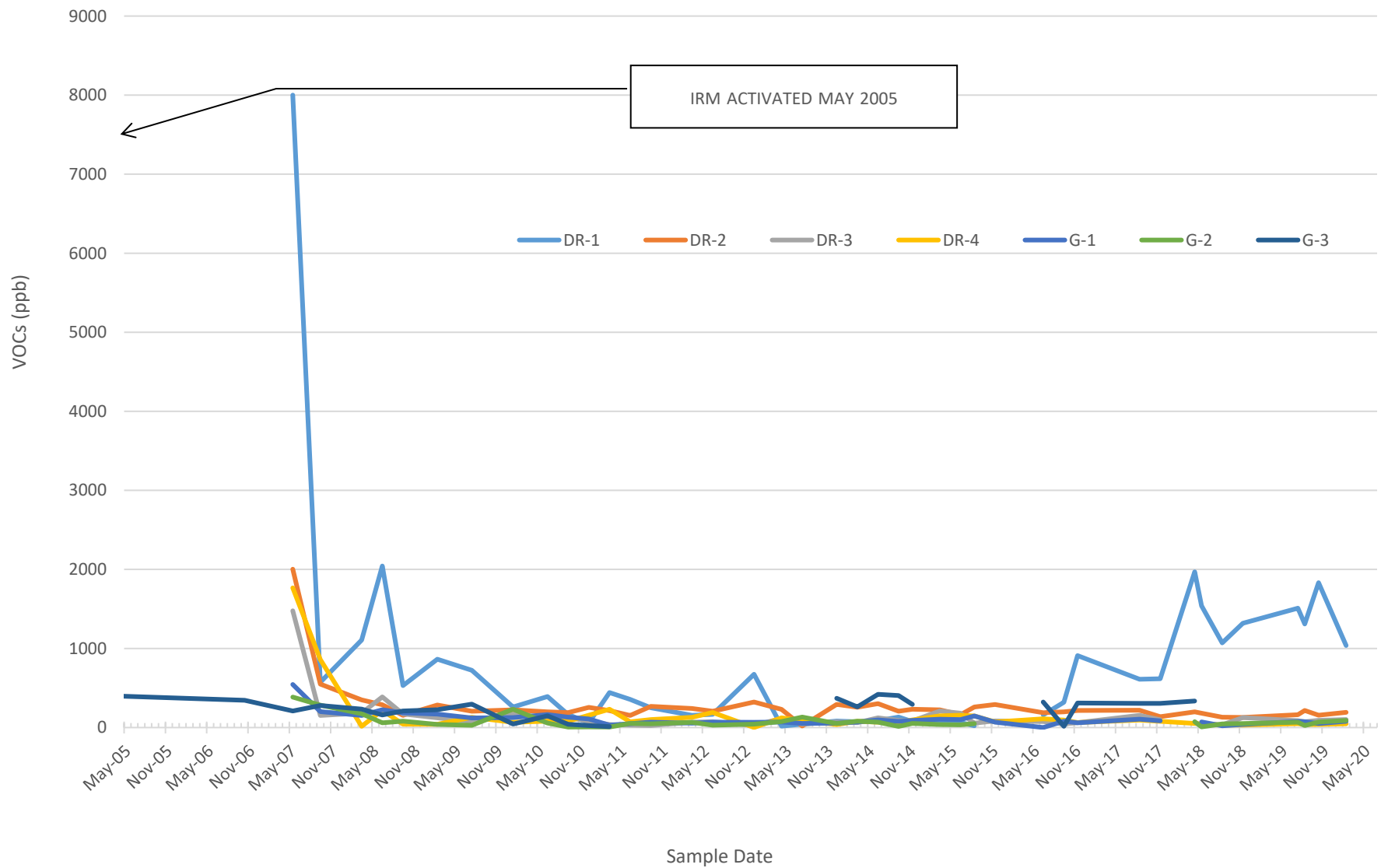
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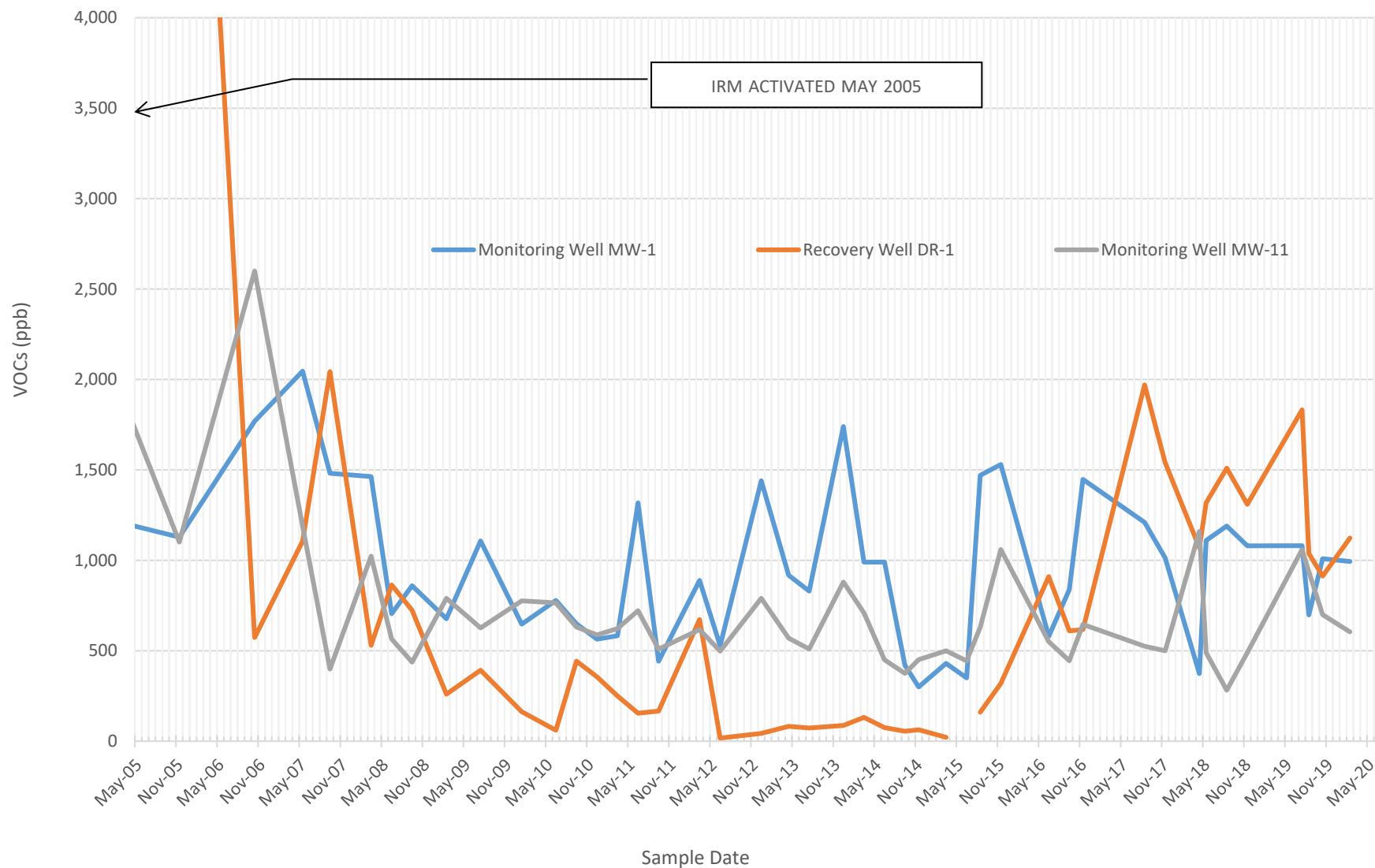
ARCHITECTS ENGINEERS PLANNERS

Groundwater Recovery Wells DR-1, DR-2, DR-3, DR-4, G-1, G-2, and G-3



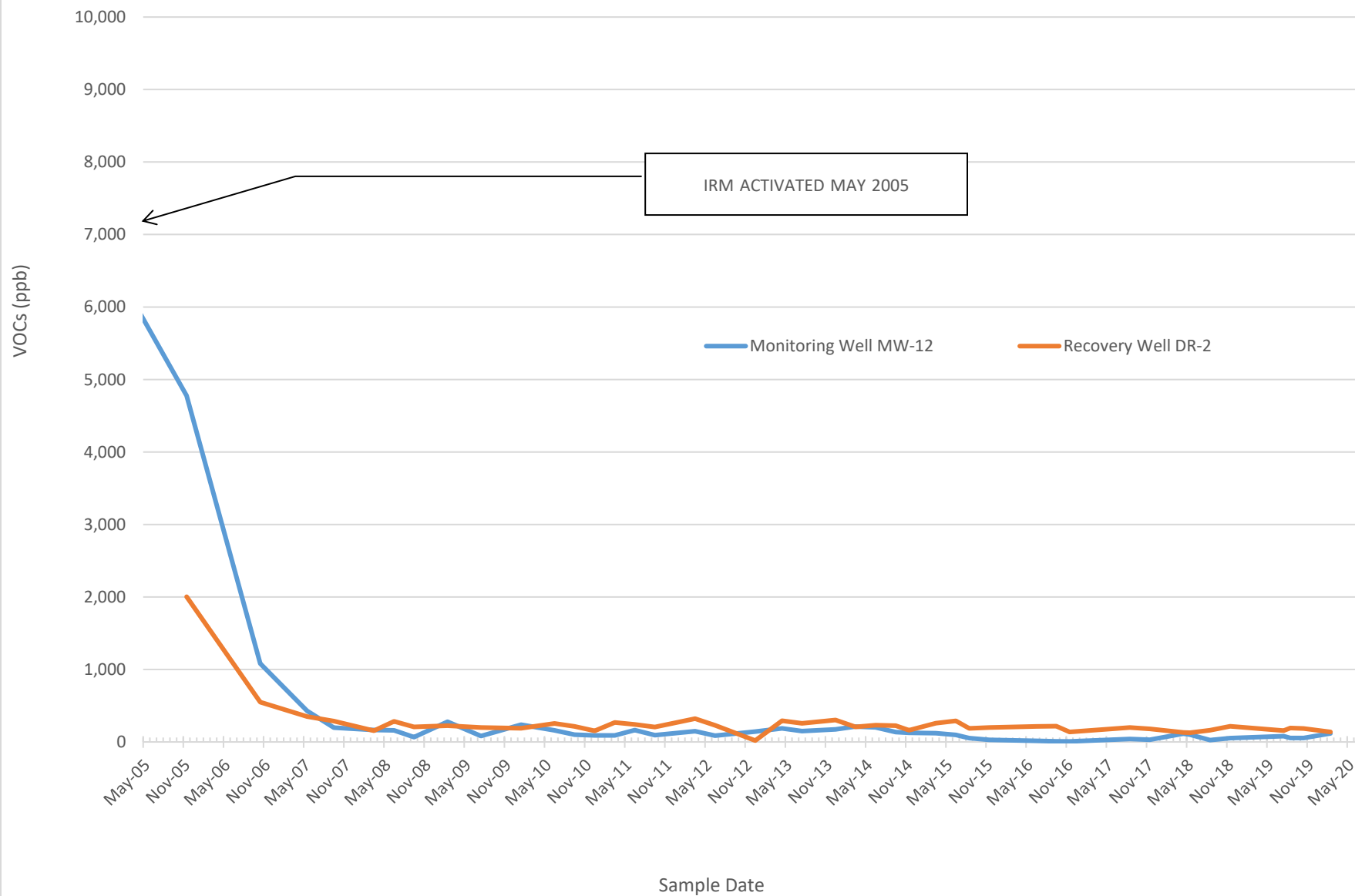


MW-1, DR-1 and MW-11





MW-12 and DR-2

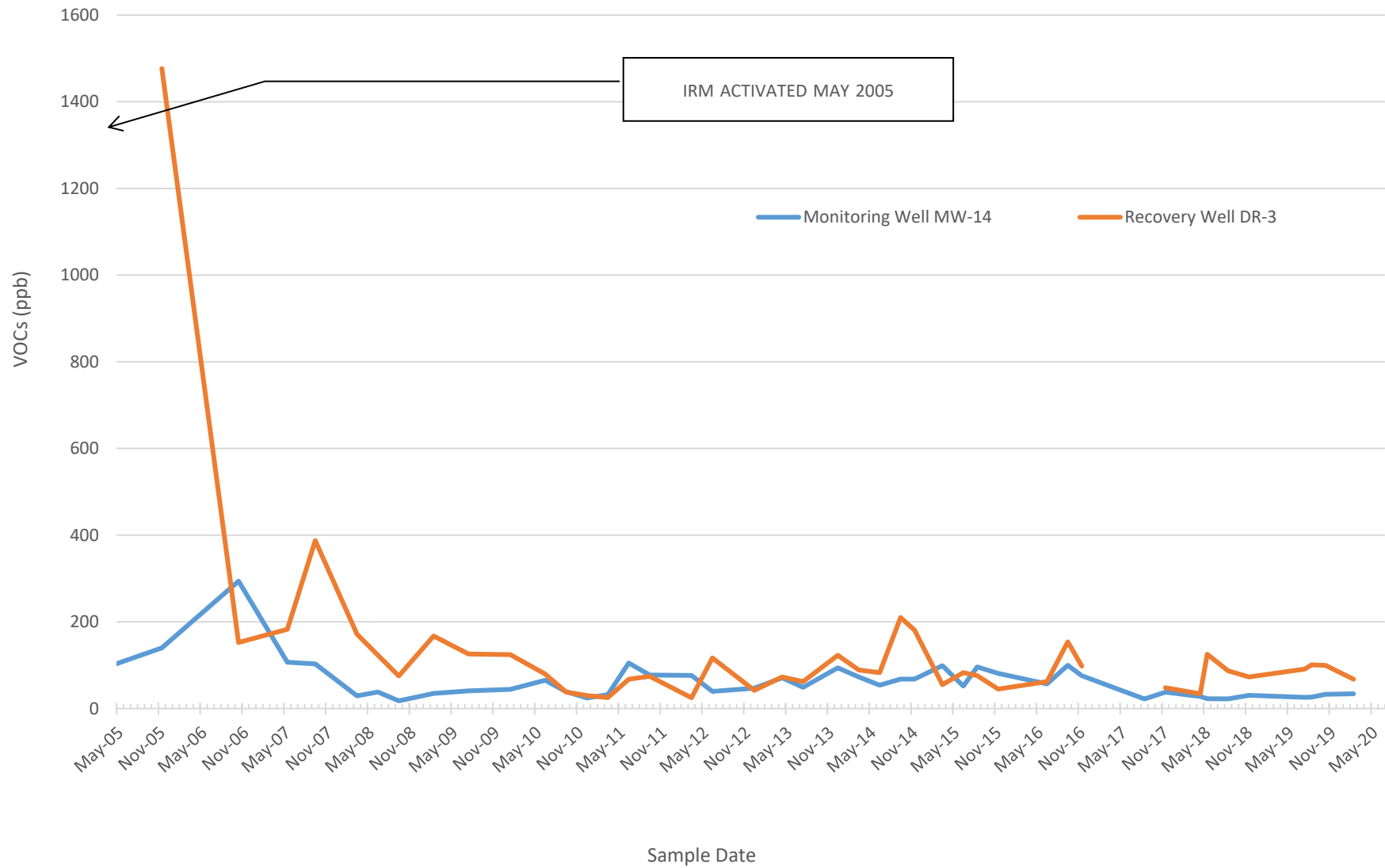




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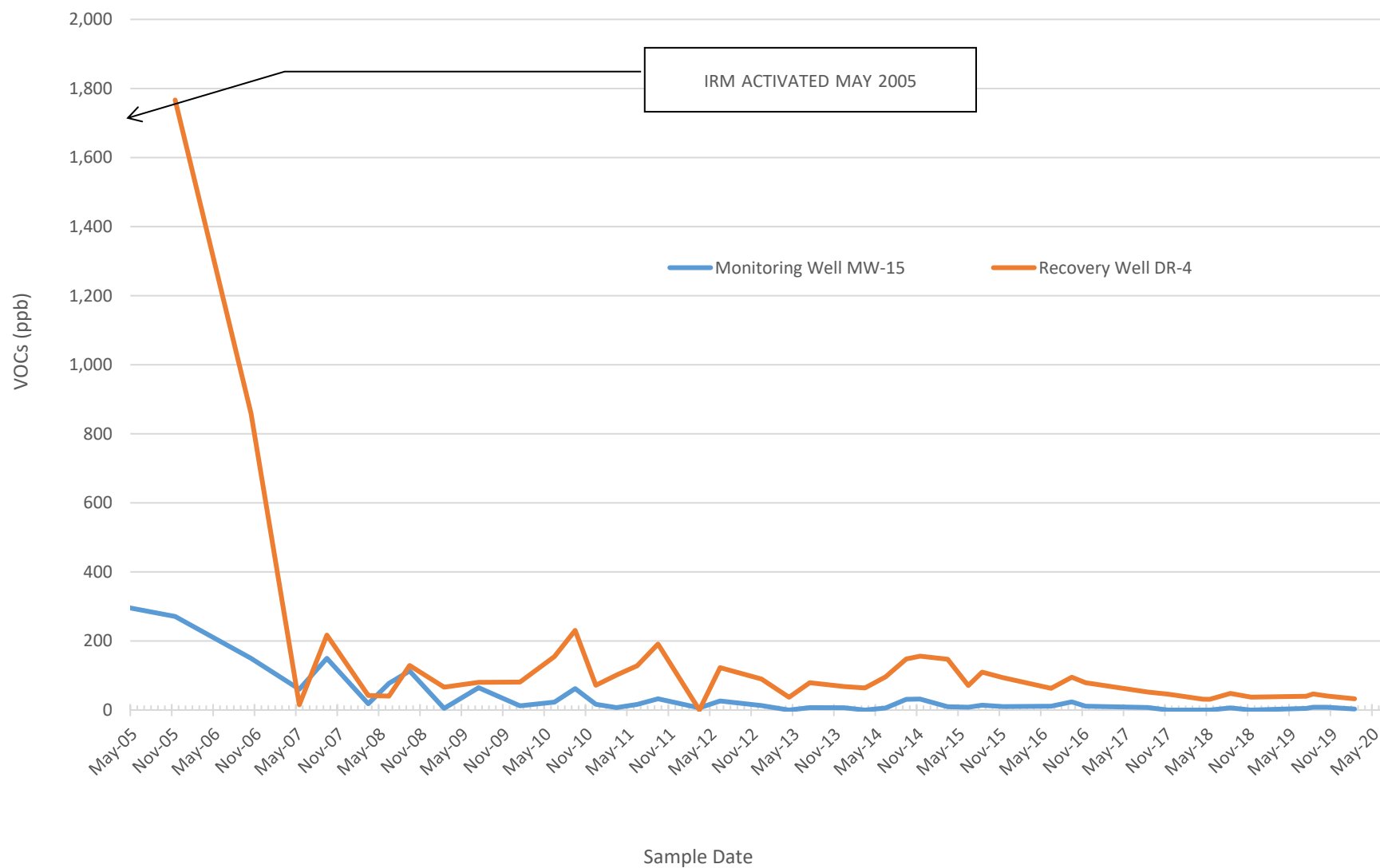
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MW-14 and DR-3



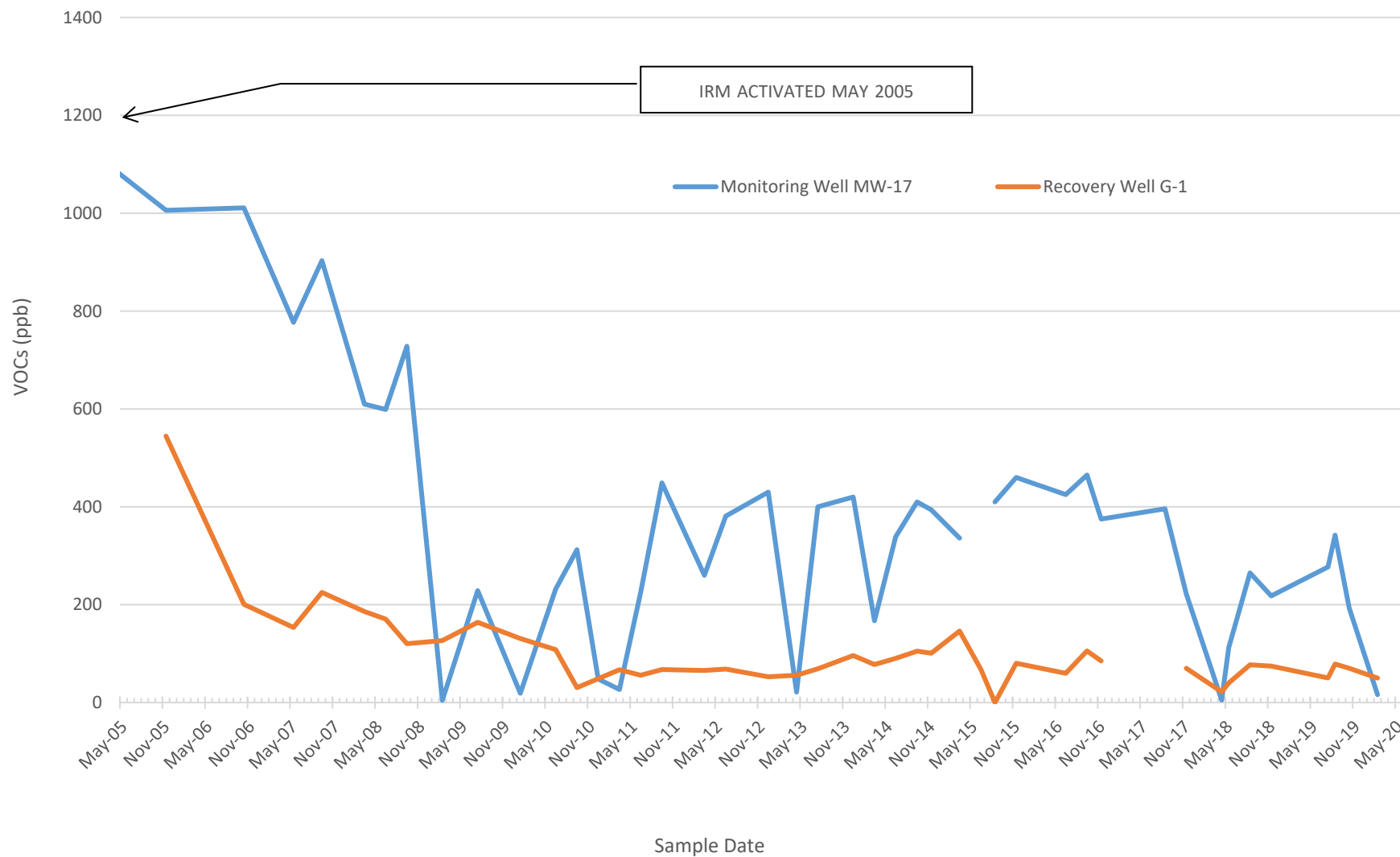


MW-15 and DR-4



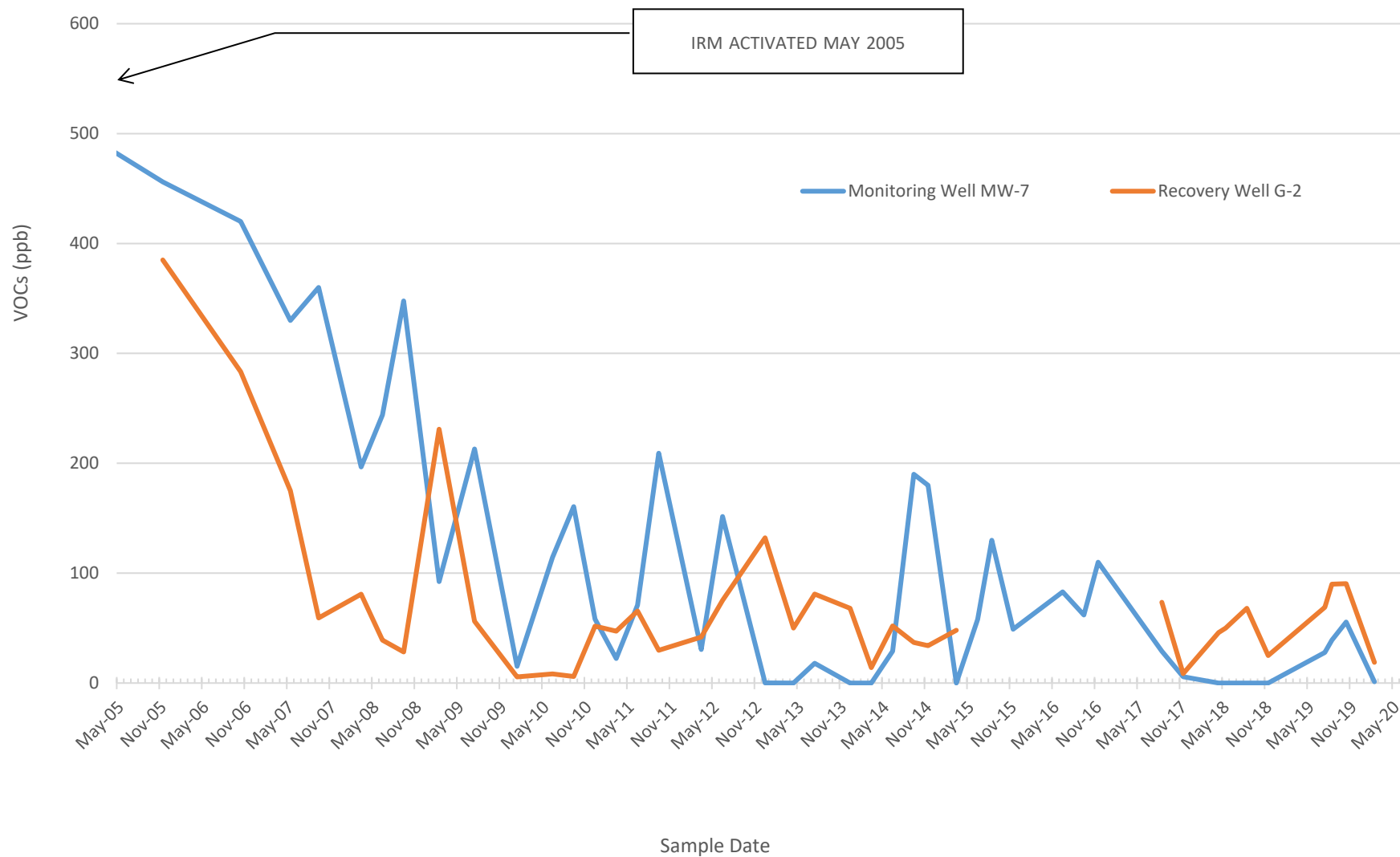


MW-17 and G-1





MW-7 and G-2

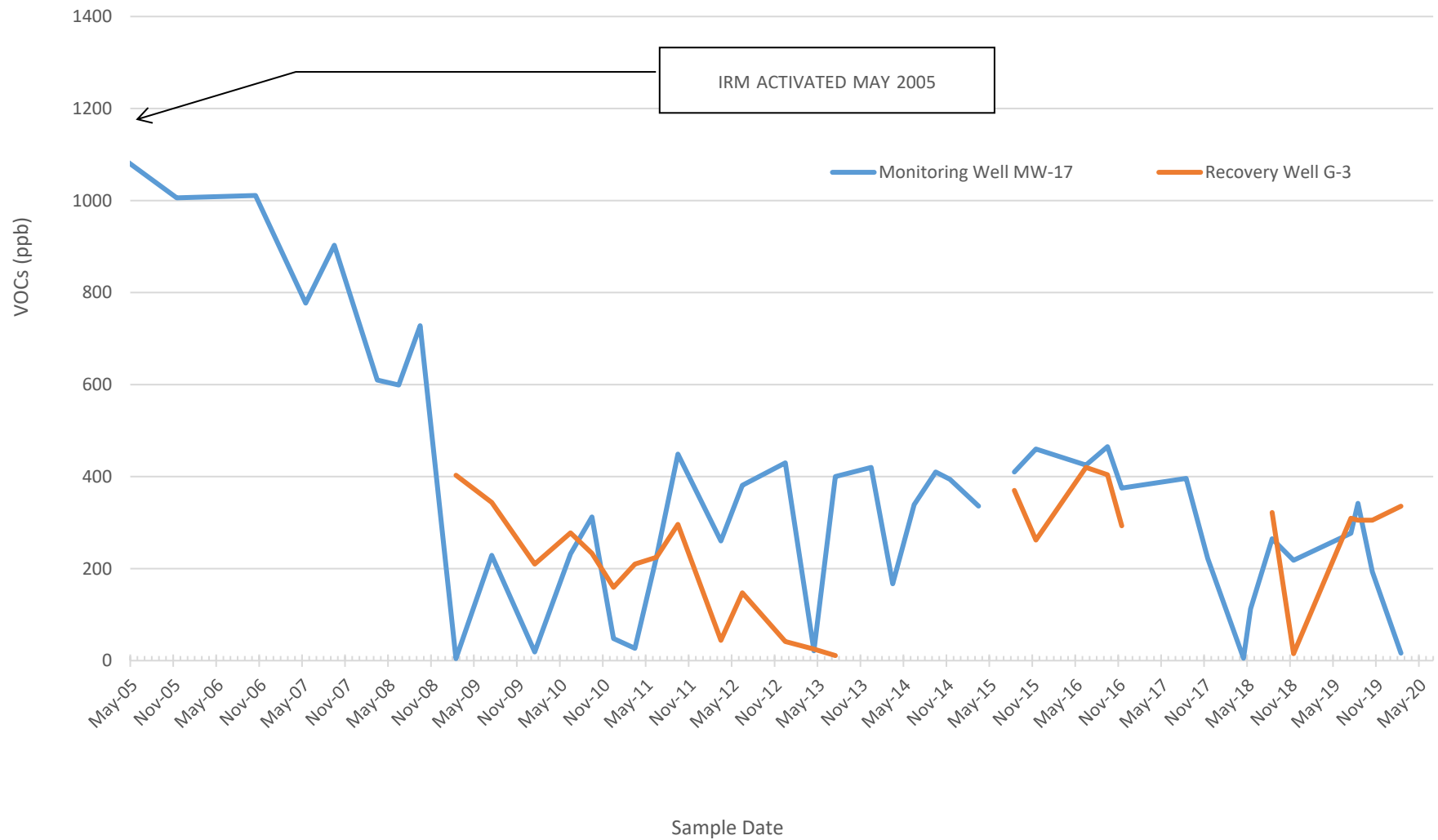




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MW-17 and G-3





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APPENDIX A:

LABORATORY ANALYTICAL RESULTS



ANALYTICAL REPORT

Lab Number:	L2007751
Client:	Bergmann Associates 280 E Broad Street Rochester, NY 14604
ATTN:	Ariadna Cheremeteff
Phone:	(585) 498-7950
Project Name:	GOWANDA Q1 2020
Project Number:	GOWANDA Q1 2020
Report Date:	02/27/20

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Lab Number: L2007751
Report Date: 02/27/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2007751-01	MW-1	WATER	GOWANDA, NEW YORK	02/20/20 09:55	02/20/20
L2007751-02	MW-2	WATER	GOWANDA, NEW YORK	02/20/20 09:50	02/20/20
L2007751-03	MW-3	WATER	GOWANDA, NEW YORK	02/20/20 09:58	02/20/20
L2007751-04	MW-4	WATER	GOWANDA, NEW YORK	02/20/20 10:05	02/20/20
L2007751-05	MW-5	WATER	GOWANDA, NEW YORK	02/20/20 08:50	02/20/20
L2007751-06	MW-6	WATER	GOWANDA, NEW YORK	02/20/20 09:01	02/20/20
L2007751-07	MW-7	WATER	GOWANDA, NEW YORK	02/20/20 09:17	02/20/20
L2007751-08	MW-8	WATER	GOWANDA, NEW YORK	02/20/20 09:45	02/20/20
L2007751-09	MW-9	WATER	GOWANDA, NEW YORK	02/20/20 09:30	02/20/20
L2007751-10	MW-10	WATER	GOWANDA, NEW YORK	02/20/20 09:39	02/20/20
L2007751-11	MW-11	WATER	GOWANDA, NEW YORK	02/20/20 11:09	02/20/20
L2007751-12	MW-12	WATER	GOWANDA, NEW YORK	02/20/20 10:57	02/20/20
L2007751-13	MW-13	WATER	GOWANDA, NEW YORK	02/20/20 11:00	02/20/20
L2007751-14	MW-14	WATER	GOWANDA, NEW YORK	02/20/20 10:38	02/20/20
L2007751-15	MW-15	WATER	GOWANDA, NEW YORK	02/20/20 10:26	02/20/20
L2007751-16	MW-16	WATER	GOWANDA, NEW YORK	02/20/20 09:22	02/20/20
L2007751-17	MW-17	WATER	GOWANDA, NEW YORK	02/20/20 09:08	02/20/20
L2007751-18	MW-18	WATER	GOWANDA, NEW YORK	02/20/20 11:28	02/20/20
L2007751-19	MW-19R	WATER	GOWANDA, NEW YORK	02/20/20 08:20	02/20/20
L2007751-20	MW-20	WATER	GOWANDA, NEW YORK	02/20/20 08:45	02/20/20
L2007751-21	MW-21	WATER	GOWANDA, NEW YORK	02/20/20 08:27	02/20/20
L2007751-22	DR-1	WATER	GOWANDA, NEW YORK	02/20/20 11:07	02/20/20
L2007751-23	DR-2	WATER	GOWANDA, NEW YORK	02/20/20 10:50	02/20/20
L2007751-24	DR-3	WATER	GOWANDA, NEW YORK	02/20/20 10:48	02/20/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2007751-25	DR-4	WATER	GOWANDA, NEW YORK	02/20/20 10:26	02/20/20
L2007751-26	G-1	WATER	GOWANDA, NEW YORK	02/20/20 10:21	02/20/20
L2007751-27	G-2	WATER	GOWANDA, NEW YORK	02/20/20 10:22	02/20/20
L2007751-28	G-3	WATER	GOWANDA, NEW YORK	02/20/20 09:13	02/20/20
L2007751-29	MW-X	WATER	GOWANDA, NEW YORK	02/20/20 11:05	02/20/20
L2007751-30	TRIP BLANK	WATER	GOWANDA, NEW YORK	02/20/20 00:00	02/20/20

Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Lab Number: L2007751
Report Date: 02/27/20

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Lab Number: L2007751
Report Date: 02/27/20

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

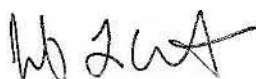
Sample Receipt

L2007751-30: A sample identified as "TRIP BLANK" was received, but not listed on the Chain of Custody. This sample was not analyzed.

L2007751-17: Headspace was noted in the sample containers submitted for TCL Volatiles - EPA 8260C. The analysis was performed at the client's request.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Jennifer L. Clements

Title: Technical Director/Representative

Date: 02/27/20

ORGANICS

VOLATILES

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-01 D
 Client ID: MW-1
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:55
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 02/25/20 02:42

Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	1.5	J	ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	12		ug/l	12	3.5	5
Trichloroethene	800		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-01 D

Date Collected: 02/20/20 09:55

Client ID: MW-1

Date Received: 02/20/20

Sample Location: GOWANDA, NEW YORK

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	180		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	12	J	ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	ND		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	ND		ug/l	50	2.0	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	91		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-02
 Client ID: MW-2
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:50
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/24/20 14:38
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-02

Date Collected: 02/20/20 09:50

Client ID: MW-2

Date Received: 02/20/20

Sample Location: GOWANDA, NEW YORK

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	10		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-03
 Client ID: MW-3
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:58
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/24/20 15:02
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-03
 Client ID: MW-3
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:58
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	16		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-04
 Client ID: MW-4
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:05
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/24/20 15:27
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-04
 Client ID: MW-4
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:05
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	96		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-05
 Client ID: MW-5
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 08:50
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/24/20 15:52
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.42	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-05
 Client ID: MW-5
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 08:50
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	12		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	98		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-06
 Client ID: MW-6
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:01
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/24/20 16:18
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.57	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.23	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-06
 Client ID: MW-6
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:01
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	64		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	22		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	94		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-07
 Client ID: MW-7
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:17
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/24/20 16:43
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.27	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-07
 Client ID: MW-7
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:17
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	0.89	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	10		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	126		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	98		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-08
 Client ID: MW-8
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:45
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/24/20 16:59
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-08
 Client ID: MW-8
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:45
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	15		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	98		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-09
 Client ID: MW-9
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:30
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 02/24/20 17:24

Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-09
 Client ID: MW-9
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:30
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	19		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	97		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-10
 Client ID: MW-10
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:39
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/24/20 17:50
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-10
 Client ID: MW-10
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:39
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	7.9		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	97		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-11 D
 Client ID: MW-11
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 11:09
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/24/20 19:07
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
Trichlorofluoromethane	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	0.47	J	ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	ND		ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	14		ug/l	12	3.5	5
Trichloroethene	490		ug/l	2.5	0.88	5
1,2-Dichlorobenzene	ND		ug/l	12	3.5	5

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-11 D
 Client ID: MW-11
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 11:09
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	12	3.5	5
1,4-Dichlorobenzene	ND		ug/l	12	3.5	5
Methyl tert butyl ether	ND		ug/l	12	3.5	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	100		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Dichlorodifluoromethane	ND		ug/l	25	5.0	5
Acetone	36		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5
Bromochloromethane	ND		ug/l	12	3.5	5
1,2-Dibromoethane	ND		ug/l	10	3.2	5
1,2-Dibromo-3-chloropropane	ND		ug/l	12	3.5	5
Isopropylbenzene	ND		ug/l	12	3.5	5
1,2,3-Trichlorobenzene	ND		ug/l	12	3.5	5
1,2,4-Trichlorobenzene	ND		ug/l	12	3.5	5
Methyl Acetate	ND		ug/l	10	1.2	5
Cyclohexane	ND		ug/l	50	1.4	5
1,4-Dioxane	ND		ug/l	1200	300	5
Freon-113	ND		ug/l	12	3.5	5
Methyl cyclohexane	ND		ug/l	50	2.0	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	101		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-12
 Client ID: MW-12
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:57
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/24/20 18:16
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.54	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.22	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	1.2	J	ug/l	2.5	0.70	1
Trichloroethene	16		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-12
 Client ID: MW-12
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:57
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	100		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	20		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	0.72	J	ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	98		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-13
 Client ID: MW-13
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 11:00
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/24/20 18:41
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	1.7		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-13
 Client ID: MW-13
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 11:00
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.7	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	22		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	98		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-14
 Client ID: MW-14
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:38
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/25/20 09:26
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	22		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-14
 Client ID: MW-14
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:38
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	12		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	6.5		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	1.0	J	ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	99		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-15
 Client ID: MW-15
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:26
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/25/20 09:50
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	2.9		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-15
 Client ID: MW-15
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:26
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	6.3		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	99		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-16
 Client ID: MW-16
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:22
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 02/25/20 10:14

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.38	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.24	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-16
 Client ID: MW-16
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:22
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	25		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	20		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	100		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-17
 Client ID: MW-17
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:08
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 02/25/20 10:38

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	13		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-17
 Client ID: MW-17
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:08
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	3.2		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	36		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	98		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-18
 Client ID: MW-18
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 11:28
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/25/20 11:01
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.73		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-18
 Client ID: MW-18
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 11:28
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	20		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	99		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-19
 Client ID: MW-19R
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 08:20
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/25/20 11:25
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.19	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-19
 Client ID: MW-19R
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 08:20
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	21		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	100		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-20
 Client ID: MW-20
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 08:45
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/25/20 11:49
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-20
 Client ID: MW-20
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 08:45
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	14		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	99		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-21

Date Collected: 02/20/20 08:27

Client ID: MW-21

Date Received: 02/20/20

Sample Location: GOWANDA, NEW YORK

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 02/25/20 12:13

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	1.8		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-21

Date Collected: 02/20/20 08:27

Client ID: MW-21

Date Received: 02/20/20

Sample Location: GOWANDA, NEW YORK

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	5.5		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	18		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-22 D
 Client ID: DR-1
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 11:07
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/25/20 15:00
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	1.6	J	ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	12	J	ug/l	25	7.0	10
Trichloroethene	980		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-22 D
 Client ID: DR-1
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 11:07
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	130		ug/l	25	7.0	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	38	J	ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
Methyl Acetate	9.5	J	ug/l	20	2.3	10
Cyclohexane	ND		ug/l	100	2.7	10
1,4-Dioxane	ND		ug/l	2500	610	10
Freon-113	ND		ug/l	25	7.0	10
Methyl cyclohexane	ND		ug/l	100	4.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	100		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-23
 Client ID: DR-2
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:50
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/25/20 12:36
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.68	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.22	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	1.1	J	ug/l	2.5	0.70	1
Trichloroethene	48		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-23
 Client ID: DR-2
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:50
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	88		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	23		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	100		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-24
 Client ID: DR-3
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:48
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/25/20 13:00
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.78	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	0.96	J	ug/l	2.5	0.70	1
Trichloroethene	27		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-24
 Client ID: DR-3
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:48
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	39		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	22		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	1.7	J	ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	99		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-25
 Client ID: DR-4
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:26
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/25/20 13:24
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	26		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-25
 Client ID: DR-4
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:26
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	6.4		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	8.3		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	1.0	J	ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	100		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-26
 Client ID: G-1
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:21
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/25/20 13:48
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.55	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	6.5		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-26
 Client ID: G-1
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:21
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	43		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	16		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	99		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-27
 Client ID: G-2
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:22
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 02/25/20 14:12

Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.15	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.65		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-27
 Client ID: G-2
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 10:22
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	18		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	7.8		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	100		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-28 D
 Client ID: G-3
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:13
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/25/20 15:24
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	ND		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	ND		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	ND		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	ND		ug/l	1.2	0.40	2.5
Toluene	ND		ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	0.72	J	ug/l	2.5	0.18	2.5
Chloroethane	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	0.59	J	ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	2.8	J	ug/l	6.2	1.8	2.5
Trichloroethene	52		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-28 D
 Client ID: G-3
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 09:13
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	ND		ug/l	6.2	1.8	2.5
p/m-Xylene	ND		ug/l	6.2	1.8	2.5
o-Xylene	ND		ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	280		ug/l	6.2	1.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	ND		ug/l	12	2.5	2.5
Acetone	27		ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	ND		ug/l	12	4.8	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl Acetate	2.6	J	ug/l	5.0	0.58	2.5
Cyclohexane	ND		ug/l	25	0.68	2.5
1,4-Dioxane	ND		ug/l	620	150	2.5
Freon-113	ND		ug/l	6.2	1.8	2.5
Methyl cyclohexane	ND		ug/l	25	0.99	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	100		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**SAMPLE RESULTS**

Lab ID: L2007751-29
 Client ID: MW-X
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 11:05
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/25/20 14:36
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	1.7		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

SAMPLE RESULTS

Lab ID: L2007751-29
 Client ID: MW-X
 Sample Location: GOWANDA, NEW YORK

Date Collected: 02/20/20 11:05
 Date Received: 02/20/20
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.6	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	21		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	1.2	J	ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	98		70-130

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/24/20 09:14
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-07 Batch: WG1343896-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/24/20 09:14
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-07 Batch: WG1343896-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Lab Number: L2007751
Report Date: 02/27/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/24/20 09:14
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-07 Batch: WG1343896-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/24/20 10:34
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 08-13 Batch: WG1343937-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Lab Number: L2007751
Report Date: 02/27/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/24/20 10:34
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 08-13 Batch: WG1343937-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Lab Number: L2007751
Report Date: 02/27/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/24/20 10:34
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 08-13 Batch: WG1343937-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/24/20 20:55
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1344206-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Lab Number: L2007751
Report Date: 02/27/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/24/20 20:55
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1344206-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Lab Number: L2007751
Report Date: 02/27/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/24/20 20:55
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1344206-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	94		70-130

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/25/20 09:02
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 14-29 Batch: WG1344212-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Lab Number: L2007751
Report Date: 02/27/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/25/20 09:02
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 14-29 Batch: WG1344212-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Lab Number: L2007751
Report Date: 02/27/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/25/20 09:02
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 14-29 Batch: WG1344212-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q1 2020

Project Number: GOWANDA Q1 2020

Lab Number: L2007751

Report Date: 02/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-07 Batch: WG1343896-3 WG1343896-4								
Methylene chloride	91		92		70-130	1		20
1,1-Dichloroethane	95		97		70-130	2		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	83		83		70-130	0		20
Dibromochloromethane	99		99		63-130	0		20
1,1,2-Trichloroethane	96		98		70-130	2		20
Tetrachloroethene	99		98		70-130	1		20
Chlorobenzene	96		97		75-130	1		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	82		84		70-130	2		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	94		95		67-130	1		20
trans-1,3-Dichloropropene	110		110		70-130	0		20
cis-1,3-Dichloropropene	96		87		70-130	10		20
Bromoform	99		99		54-136	0		20
1,1,2,2-Tetrachloroethane	92		95		67-130	3		20
Benzene	94		94		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	110		100		64-130	10		20
Bromomethane	47		45		39-139	4		20
Vinyl chloride	87		88		55-140	1		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q1 2020

Project Number: GOWANDA Q1 2020

Lab Number: L2007751

Report Date: 02/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-07 Batch: WG1343896-3 WG1343896-4								
Chloroethane	73		72		55-138	1		20
1,1-Dichloroethene	96		95		61-145	1		20
trans-1,2-Dichloroethene	94		92		70-130	2		20
Trichloroethene	89		89		70-130	0		20
1,2-Dichlorobenzene	95		95		70-130	0		20
1,3-Dichlorobenzene	97		98		70-130	1		20
1,4-Dichlorobenzene	94		96		70-130	2		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	94		93		70-130	1		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	120		110		36-147	9		20
Acetone	75		76		58-148	1		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	74		79		63-138	7		20
4-Methyl-2-pentanone	94		93		59-130	1		20
2-Hexanone	87		87		57-130	0		20
Bromochloromethane	93		92		70-130	1		20
1,2-Dibromoethane	92		94		70-130	2		20
1,2-Dibromo-3-chloropropane	90		92		41-144	2		20
Isopropylbenzene	96		94		70-130	2		20
1,2,3-Trichlorobenzene	99		99		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-07 Batch: WG1343896-3 WG1343896-4								
1,2,4-Trichlorobenzene	100		100		70-130	0		20
Methyl Acetate	89		96		70-130	8		20
Cyclohexane	83		83		70-130	0		20
1,4-Dioxane	104		106		56-162	2		20
Freon-113	92		90		70-130	2		20
Methyl cyclohexane	82		80		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		101		70-130
Toluene-d8	109		108		70-130
4-Bromofluorobenzene	100		100		70-130
Dibromofluoromethane	96		97		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q1 2020

Project Number: GOWANDA Q1 2020

Lab Number: L2007751

Report Date: 02/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08-13 Batch: WG1343937-3 WG1343937-4								
Methylene chloride	99		96		70-130	3		20
1,1-Dichloroethane	110		100		70-130	10		20
Chloroform	110		95		70-130	15		20
Carbon tetrachloride	100		96		63-132	4		20
1,2-Dichloropropane	100		97		70-130	3		20
Dibromochloromethane	120		110		63-130	9		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	100		98		70-130	2		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	100		97		67-130	3		20
Bromodichloromethane	110		98		67-130	12		20
trans-1,3-Dichloropropene	100		95		70-130	5		20
cis-1,3-Dichloropropene	99		94		70-130	5		20
Bromoform	130		120		54-136	8		20
1,1,2,2-Tetrachloroethane	120		110		67-130	9		20
Benzene	100		98		70-130	2		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	97		93		64-130	4		20
Bromomethane	69		74		39-139	7		20
Vinyl chloride	140		130		55-140	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOWANDA Q1 2020

Project Number: GOWANDA Q1 2020

Lab Number: L2007751

Report Date: 02/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08-13 Batch: WG1343937-3 WG1343937-4								
Chloroethane	120		110		55-138	9		20
1,1-Dichloroethene	100		93		61-145	7		20
trans-1,2-Dichloroethene	100		94		70-130	6		20
Trichloroethene	99		93		70-130	6		20
1,2-Dichlorobenzene	110		100		70-130	10		20
1,3-Dichlorobenzene	110		100		70-130	10		20
1,4-Dichlorobenzene	110		100		70-130	10		20
Methyl tert butyl ether	110		100		63-130	10		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	105		100		70-130	5		20
cis-1,2-Dichloroethene	100		96		70-130	4		20
Styrene	105		100		70-130	5		20
Dichlorodifluoromethane	100		100		36-147	0		20
Acetone	130		120		58-148	8		20
Carbon disulfide	110		100		51-130	10		20
2-Butanone	130		120		63-138	8		20
4-Methyl-2-pentanone	130		120		59-130	8		20
2-Hexanone	120		110		57-130	9		20
Bromochloromethane	110		100		70-130	10		20
1,2-Dibromoethane	120		110		70-130	9		20
1,2-Dibromo-3-chloropropane	130		120		41-144	8		20
Isopropylbenzene	100		98		70-130	2		20
1,2,3-Trichlorobenzene	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOWANDA Q1 2020

Project Number: GOWANDA Q1 2020

Lab Number: L2007751

Report Date: 02/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08-13 Batch: WG1343937-3 WG1343937-4								
1,2,4-Trichlorobenzene	100		98		70-130	2		20
Methyl Acetate	120		120		70-130	0		20
Cyclohexane	98		94		70-130	4		20
1,4-Dioxane	142		130		56-162	9		20
Freon-113	99		93		70-130	6		20
Methyl cyclohexane	91		87		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		116		70-130
Toluene-d8	99		100		70-130
4-Bromofluorobenzene	94		94		70-130
Dibromofluoromethane	101		99		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q1 2020

Project Number: GOWANDA Q1 2020

Lab Number: L2007751

Report Date: 02/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1344206-3 WG1344206-4								
Methylene chloride	83		85		70-130	2		20
1,1-Dichloroethane	90		88		70-130	2		20
Chloroform	90		92		70-130	2		20
Carbon tetrachloride	94		94		63-132	0		20
1,2-Dichloropropane	80		80		70-130	0		20
Dibromochloromethane	86		87		63-130	1		20
1,1,2-Trichloroethane	86		85		70-130	1		20
Tetrachloroethene	89		86		70-130	3		20
Chlorobenzene	87		85		75-130	2		20
Trichlorofluoromethane	100		98		62-150	2		20
1,2-Dichloroethane	80		82		70-130	2		20
1,1,1-Trichloroethane	95		94		67-130	1		20
Bromodichloromethane	86		86		67-130	0		20
trans-1,3-Dichloropropene	98		97		70-130	1		20
cis-1,3-Dichloropropene	80		92		70-130	14		20
Bromoform	86		86		54-136	0		20
1,1,2,2-Tetrachloroethane	85		83		67-130	2		20
Benzene	85		86		70-130	1		20
Toluene	92		88		70-130	4		20
Ethylbenzene	92		90		70-130	2		20
Chloromethane	96		93		64-130	3		20
Bromomethane	43		41		39-139	5		20
Vinyl chloride	84		82		55-140	2		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q1 2020

Project Number: GOWANDA Q1 2020

Lab Number: L2007751

Report Date: 02/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1344206-3 WG1344206-4								
Chloroethane	69		68		55-138	1		20
1,1-Dichloroethene	86		85		61-145	1		20
trans-1,2-Dichloroethene	84		82		70-130	2		20
Trichloroethene	79		79		70-130	0		20
1,2-Dichlorobenzene	85		84		70-130	1		20
1,3-Dichlorobenzene	86		85		70-130	1		20
1,4-Dichlorobenzene	85		85		70-130	0		20
Methyl tert butyl ether	96		97		63-130	1		20
p/m-Xylene	85		85		70-130	0		20
o-Xylene	85		85		70-130	0		20
cis-1,2-Dichloroethene	82		82		70-130	0		20
Styrene	85		85		70-130	0		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	70		60		58-148	15		20
Carbon disulfide	96		94		51-130	2		20
2-Butanone	79		73		63-138	8		20
4-Methyl-2-pentanone	84		82		59-130	2		20
2-Hexanone	78		79		57-130	1		20
Bromochloromethane	80		81		70-130	1		20
1,2-Dibromoethane	84		81		70-130	4		20
1,2-Dibromo-3-chloropropane	78		72		41-144	8		20
Isopropylbenzene	87		87		70-130	0		20
1,2,3-Trichlorobenzene	90		87		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1344206-3 WG1344206-4								
1,2,4-Trichlorobenzene	93		89		70-130	4		20
Methyl Acetate	96		91		70-130	5		20
Cyclohexane	80		79		70-130	1		20
1,4-Dioxane	94		86		56-162	9		20
Freon-113	84		85		70-130	1		20
Methyl cyclohexane	74		74		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	120		119		70-130
Toluene-d8	108		105		70-130
4-Bromofluorobenzene	102		100		70-130
Dibromofluoromethane	95		97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOWANDA Q1 2020

Project Number: GOWANDA Q1 2020

Lab Number: L2007751

Report Date: 02/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 14-29 Batch: WG1344212-3 WG1344212-4								
Methylene chloride	110		110		70-130	0		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	110		100		70-130	10		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	110		110		75-130	0		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	100		110		67-130	10		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	110		110		70-130	0		20
Bromoform	98		98		54-136	0		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	110		110		70-130	0		20
Toluene	110		110		70-130	0		20
Ethylbenzene	110		110		70-130	0		20
Chloromethane	110		110		64-130	0		20
Bromomethane	87		95		39-139	9		20
Vinyl chloride	110		110		55-140	0		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: GOWANDA Q1 2020

Project Number: GOWANDA Q1 2020

Lab Number: L2007751

Report Date: 02/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 14-29 Batch: WG1344212-3 WG1344212-4								
Chloroethane	120		120		55-138	0		20
1,1-Dichloroethene	120		120		61-145	0		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	110		110		70-130	0		20
1,2-Dichlorobenzene	110		110		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	110		110		63-130	0		20
p/m-Xylene	110		110		70-130	0		20
o-Xylene	110		110		70-130	0		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Styrene	110		110		70-130	0		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	120		120		58-148	0		20
Carbon disulfide	110		110		51-130	0		20
2-Butanone	100		110		63-138	10		20
4-Methyl-2-pentanone	100		110		59-130	10		20
2-Hexanone	94		94		57-130	0		20
Bromochloromethane	120		120		70-130	0		20
1,2-Dibromoethane	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	99		100		41-144	1		20
Isopropylbenzene	110		110		70-130	0		20
1,2,3-Trichlorobenzene	99		98		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GOWANDA Q1 2020

Lab Number: L2007751

Project Number: GOWANDA Q1 2020

Report Date: 02/27/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 14-29 Batch: WG1344212-3 WG1344212-4								
1,2,4-Trichlorobenzene	100		100		70-130	0		20
Methyl Acetate	100		110		70-130	10		20
Cyclohexane	110		110		70-130	0		20
1,4-Dioxane	134		128		56-162	5		20
Freon-113	120		110		70-130	9		20
Methyl cyclohexane	110		110		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		98		70-130
Toluene-d8	100		98		70-130
4-Bromofluorobenzene	97		95		70-130
Dibromofluoromethane	100		99		70-130

Project Name: GOWANDA Q1 2020**Lab Number:** L2007751**Project Number:** GOWANDA Q1 2020**Report Date:** 02/27/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2007751-01A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-01B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-01C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-02A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-02B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-02C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-03A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-03B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-03C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-04A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-04B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-04C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-05A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-05B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-05C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-06A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-06B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-06C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-07A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-07B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-07C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-08A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-08B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)

Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Serial_No:02272013:27
Lab Number: L2007751
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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2007751-08C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-09A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-09B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-09C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-10A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-10B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-10C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-11A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-11B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-11C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-12A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-12B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-12C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-13A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-13B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-13C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-14A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-14B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-14C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-15A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-15B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-15C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-16A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-16B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-16C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-17A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-17B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-17C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)

Project Name: GOWANDA Q1 2020
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Serial_No: 02272013:27
Lab Number: L2007751
Report Date: 02/27/20

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2007751-18A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-18B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-18C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-19A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-19B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-19C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-20A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-20B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-20C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-21A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-21B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-21C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-22A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-22B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-22C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-23A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-23B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-23C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-24A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-24B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-24C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-25A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-25B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-25C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-26A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-26B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-26C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-27A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)

Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Serial_No: 02272013:27
Lab Number: L2007751
Report Date: 02/27/20

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2007751-27B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-27C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-28A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-28B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-28C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-29A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-29B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-29C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L2007751-30A	Vial HCl preserved	A	NA		3.0	Y	Absent		ARCHIVE()
L2007751-30B	Vial HCl preserved	A	NA		3.0	Y	Absent		ARCHIVE()

Project Name: GOWANDA Q1 2020
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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: GOWANDA Q1 2020
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- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: DU Report with 'J' Qualifiers



Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Lab Number: L2007751
Report Date: 02/27/20

Data Qualifiers

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: GOWANDA Q1 2020
Project Number: GOWANDA Q1 2020

Lab Number: L2007751
Report Date: 02/27/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 16

Published Date: 2/17/2020 10:46:05 AM

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,


3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.


EPA TO-12 Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <div style="border: 1px solid black; padding: 2px; display: inline-block;">1 of 3</div>		Date Rec'd in Lab <u>2/21/20</u>		ALPHA Job # <u>L2007751</u>																																																																																																																																																																																																																																															
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Client Information Client: <u>Bergmann</u> Address: <u>260 E Broad St. #200</u> <u>Rochester New York 14604</u> Phone: <u>585-498-7949</u> Fax: _____ Email: <u>SFrancis@bergmannpc.com</u>		Project Information Project Name: <u>Gowanda G1 2020</u> Project Location: <u>Gowanda, New York</u> Project # <u>N/A</u> (Use Project name as Project #) <input checked="" type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input checked="" type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO # _____																																																																																																																																																																																																																																																	
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<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> <th rowspan="2"></th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr><td>07751-01</td><td>MW-1</td><td>2/20/20</td><td>21:18:20</td><td>9:55</td><td>GW</td><td>CB</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>-02</td><td>MW-2</td><td>2/20/20</td><td>21:19:20</td><td>9:50</td><td>GW</td><td>CB</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>-03</td><td>MW-3</td><td>2/20/20</td><td>21:19:20</td><td>9:58</td><td>GW</td><td>CB</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>-04</td><td>MW-4</td><td>2/20/20</td><td>21:19:20</td><td>10:05</td><td>GW</td><td>CB</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>-05</td><td>MW-5</td><td>2/20/20</td><td>21:19:20</td><td>8:50</td><td>GW</td><td>CB</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>-06</td><td>MW-6</td><td>2/20/20</td><td>21:19:20</td><td>9:01</td><td>GW</td><td>CB</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>-07</td><td>MW-7</td><td>2/20/20</td><td>21:19:20</td><td>9:17</td><td>GW</td><td>CB</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>-08</td><td>MW-8</td><td>2/20/20</td><td>21:19:20</td><td>9:45</td><td>GW</td><td>CB</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>-09</td><td>MW-9</td><td>2/20/20</td><td>21:19:20</td><td>9:30</td><td>GW</td><td>CB</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>-10</td><td>MW-10</td><td>2/20/20</td><td>21:19:20</td><td>9:39</td><td>GW</td><td>CB</td><td>X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>		ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials															Date	Time	07751-01	MW-1	2/20/20	21:18:20	9:55	GW	CB	X														-02	MW-2	2/20/20	21:19:20	9:50	GW	CB	X														-03	MW-3	2/20/20	21:19:20	9:58	GW	CB	X														-04	MW-4	2/20/20	21:19:20	10:05	GW	CB	X														-05	MW-5	2/20/20	21:19:20	8:50	GW	CB	X														-06	MW-6	2/20/20	21:19:20	9:01	GW	CB	X														-07	MW-7	2/20/20	21:19:20	9:17	GW	CB	X														-08	MW-8	2/20/20	21:19:20	9:45	GW	CB	X														-09	MW-9	2/20/20	21:19:20	9:30	GW	CB	X														-10	MW-10	2/20/20	21:19:20	9:39	GW	CB	X														Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type <u>V</u> Preservative <u>B</u>		Relinquished By: <u>[Signature]</u> Date/Time: <u>2/19/20</u> <u>2/20/20 17:10</u>		Received By: <u>[Signature]</u> Date/Time: <u>2/20/20 17:10</u> <u>2/21/20 00:05</u>		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
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Client Information Client: <u>Bergmann</u> Address: <u>290 E Broad St #200</u> <u>Rochester, New York</u> Phone: <u>505-498-7948</u> Fax: _____ Email: <u>SFrancis@bergmann.com</u>		Project Manager: <u>Asi Chereveteff</u> ALPHAQuote #: _____ Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: _____ Rush (only if pre approved) <input type="checkbox"/> # of Days: _____		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other: <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
These samples have been previously analyzed by Alpha: <input type="checkbox"/>						ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Preservation <input type="checkbox"/> Lab to do (Please Specify below)	
Other project specific requirements/comments:						NYTA-8260		Total Bottles	
Please specify Metals or TAL.									
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date Time		Sample Matrix		Sampler's Initials	
7751-11		MW-11		2/20/20 2/18/20 11:09		GW		CB	
07751-12		MW-12		2/20/20 2/18/20 10:51		GW		CB	
-13		MW-13		2/20/20 2/18/20 11:00		GW		CB	
-14		MW-14		2/20/20 2/18/20 10:38		GW		CB	
-15		MW-15		2/20/20 2/18/20 10:26		GW		CB	
-16		MW-16		2/20/20 2/18/20 9:22		GW		CB	
-17		MW-17		2/20/20 2/18/20 9:08		GW		CB	
-18		MW-18		2/20/20 2/18/20 11:28		GW		CB	
-19		MW-19 R		2/20/20 2/18/20 8:20		GW		CB	
-20		MW-20		2/20/20 2/18/20 8:45		GW		CB	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type <div style="font-size: 1.5em; font-weight: bold;">V</div>		Preservative <div style="font-size: 1.5em; font-weight: bold;">B</div>	
Relinquished By:		Date/Time		Received By:		Date/Time		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
<u>Josh Blener</u>		<u>2/18/20</u>		<u>James AAL</u>		<u>2/20/20 17:10</u>			
<u>James AAL</u>		<u>2/20/20 17:00</u>		<u>James AAL</u>		<u>2/20/20 17:05</u>			

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BERGMANN
ARCHITECTS ENGINEERS PLANNERS

APPENDIX B: FIELD NOTES

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-1
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 6.67
Depth to bottom of the well: 18.06
Length of water column in well: 11.39

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.8566
3 Well volumes (= length water column X gal/foot X 3): 5.5697
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer

Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	6.1	NTU								
<i>Temperature</i>	9.6	°C								
<i>pH</i>	7.08									
<i>Conductivity</i>	0.828	SPC ms/cm								
<i>Oxygen</i>	4.15	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 11:07

COMMENTS _____

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-2
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 6.5
Depth to bottom of the well: 18.06
Length of water column in well: 11.56

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.8843
3 Well volumes (= length water column X gal/foot X 3): 5.6528
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	15.9	NTU								
Temperature	11.6	°C								
pH	7.06									
Conductivity	0.634	SPC ms/cm								
Oxygen	4.02	DO mg/L								
Salinity										

Time sample was collected: 10:50

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-3
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 11.25
Depth to bottom of the well: 20.45
Length of water column in well: 9.20

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.4996
3 Well volumes (= length water column X gal/foot X 3): 4.4988
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	19.5	NTU								
Temperature	10.6	°C								
pH	7.47									
Conductivity	0.619	SPC ms/cm								
Oxygen	7.26	DO mg/L								
Salinity										

Time sample was collected: 10:48

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: DR-4
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 11.8
Depth to bottom of the well: 19.69
Length of water column in well: 7.89

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.2861
3 Well volumes (= length water column X gal/foot X 3): 3.8582
Actual volume purged prior to sampling: N/A
Sampling Methodology: _____
Sampling Equipment: Hand bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	17.6	NTU								
Temperature	11.4	°C								
pH	6.94									
Conductivity	0.596	SPC ms/cm								
Oxygen	3.59	DO mg/L								
Salinity										

Time sample was collected: 10:26

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: G-1
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 11.43
Depth to bottom of the well: 22.98
Length of water column in well: 11.55

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.8827
3 Well volumes (= length water column X gal/foot X 3): 5.648
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	32.3	NTU								
Temperature	10.8	°C								
pH	7.2									
Conductivity	0.642	SPC ms/cm								
Oxygen	5	DO mg/L								
Salinity										

Time sample was collected: 10:21

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: G-2
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 11.32
Depth to bottom of the well: 20.72
Length of water column in well: 9.40

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5322
3 Well volumes (= length water column X gal/foot X 3): 4.5966
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	0.63	NTU								
Temperature	11.4	°C								
pH	0.83									
Conductivity	0.637	SPC ms/cm								
Oxygen	3.69	DO mg/L								
Salinity										

Time sample was collected: 10:22

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: G-3
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 9.73
Depth to bottom of the well: 18.15
Length of water column in well: 8.42

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.3725
3 Well volumes (= length water column X gal/foot X 3): 4.1174
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	160.5	NTU								
Temperature	9.7	°C								
pH	7.25									
Conductivity	0.593	SPC ms/cm								
Oxygen	5.36	DO mg/L								
Salinity										

Time sample was collected: 9:13

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-1
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 5.3
Depth to bottom of the well: 16.02
Length of water column in well: 10.72

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7474
3 Well volumes (= length water column X gal/foot X 3): 5.2421
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	46.2	NTU								
Temperature	4.9	°C								
pH	7.71									
Conductivity	0.638	SPC ms/cm								
Oxygen	9.26	DO mg/L								
Salinity										

Time sample was collected: 9:55

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-2
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 4.91
Depth to bottom of the well: 17.15
Length of water column in well: 12.24

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.9951
3 Well volumes (= length water column X gal/foot X 3): 5.9854
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	93.4	NTU								
Temperature	5.6	°C								
pH	7.7									
Conductivity	0.141	SPC ms/cm								
Oxygen	8.67	DO mg/L								
Salinity										

Time sample was collected: 9:50

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**

ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-3
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 5.31
Depth to bottom of the well: 16.30
Length of water column in well: 10.99

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7914
3 Well volumes (= length water column X gal/foot X 3): 5.3741
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	75.8	NTU								
Temperature	6.3	°C								
pH	9.3									
Conductivity	0.055	SPC ms/cm								
Oxygen	10.26	DO mg/L								
Salinity										

Time sample was collected: 9:58

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-4
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 6.52
Depth to bottom of the well: 15.78
Length of water column in well: 9.26

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5094
3 Well volumes (= length water column X gal/foot X 3): 4.5281
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	132	NTU								
Temperature	7.4	°C								
pH	6.72									
Conductivity	0.463	SPC ms/cm								
Oxygen	6.9	DO mg/L								
Salinity										

Time sample was collected: 10:05

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-5
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 10.04
Depth to bottom of the well: 13.95
Length of water column in well: 3.91

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 0.6373
3 Well volumes (= length water column X gal/foot X 3): 1.912
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	10.9	NTU								
Temperature	7.7	°C								
pH	6.96									
Conductivity	0.373	SPC ms/cm								
Oxygen	9.9	DO mg/L								
Salinity										

Time sample was collected: 8:50

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-6
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 12.86
Depth to bottom of the well: 22.88
Length of water column in well: 10.02

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.6333
3 Well volumes (= length water column X gal/foot X 3): 4.8998
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	98.3	NTU								
Temperature	9.6	°C								
pH	6.72									
Conductivity	0.669	SPC ms/cm								
Oxygen	5.88	DO mg/L								
Salinity										

Time sample was collected: 9:01

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-7
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 12.91
Depth to bottom of the well: 21.8
Length of water column in well: 8.89

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.4491
3 Well volumes (= length water column X gal/foot X 3): 4.3472
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	309	NTU								
Temperature	5.1	°C								
pH	6.84									
Conductivity	0.005	SPC ms/cm								
Oxygen	12.44	DO mg/L								
Salinity										

Time sample was collected: 9:17

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-8
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 8.01
Depth to bottom of the well: 17.65
Length of water column in well: 9.64

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.5713
3 Well volumes (= length water column X gal/foot X 3): 4.714
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	51	NTU								
Temperature	6.3	°C								
pH	6.97									
Conductivity	1.007	SPC ms/cm								
Oxygen	8	DO mg/L								
Salinity										

Time sample was collected: 9:45

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-9
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 8.21
Depth to bottom of the well: 20.96
Length of water column in well: 12.75

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 2.0783
3 Well volumes (= length water column X gal/foot X 3): 6.2348
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	359.9	NTU								
Temperature	4.7	°C								
pH	6.52									
Conductivity	0.005	SPC ms/cm								
Oxygen	12.59	DO mg/L								
Salinity										

Time sample was collected: 9:30

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-10
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 7.48
Depth to bottom of the well: 19.44
Length of water column in well: 11.96

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.9498
3 Well volumes (= length water column X gal/foot X 3): 5.8494
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	1.5	NTU								
Temperature	4.91	°C								
pH	6.7									
Conductivity	0.484	SPC ms/cm								
Oxygen	6.71	DO mg/L								
Salinity										

Time sample was collected: 9:39

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-11
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 5.45
Depth to bottom of the well: 15.48
Length of water column in well: 10.03

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.6349
3 Well volumes (= length water column X gal/foot X 3): 4.9047
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	275	NTU								
Temperature	9.3	°C								
pH	7.43									
Conductivity	0.006	SPC ms/cm								
Oxygen	11.05	DO mg/L								
Salinity										

Time sample was collected: 11:09

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-12
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 6.4
Depth to bottom of the well: 17.38
Length of water column in well: 10.98

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7897
3 Well volumes (= length water column X gal/foot X 3): 5.3692
Actual volume purged prior to sampling: None
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
<i>Turbidity</i>	174.11	NTU								
<i>Temperature</i>	9.6	°C								
<i>pH</i>	6.86									
<i>Conductivity</i>	0.594	SPC ms/cm								
<i>Oxygen</i>	5.56	DO mg/L								
<i>Salinity</i>										

Time sample was collected: 10:57

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-13
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 6.81
Depth to bottom of the well: 17.40
Length of water column in well: 10.59

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7262
3 Well volumes (= length water column X gal/foot X 3): 5.1785
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	76	NTU								
Temperature	11.1	°C								
pH	7.08									
Conductivity	0.518	SPC ms/cm								
Oxygen	6.58	DO mg/L								
Salinity										

Time sample was collected: 11:00

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-14
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 9.81
Depth to bottom of the well: 18.15
Length of water column in well: 8.34

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.3594
3 Well volumes (= length water column X gal/foot X 3): 4.0783
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	7.00	NTU								
Temperature	11.3	°C								
pH	7.01									
Conductivity	0.619	SPC ms/cm								
Oxygen	8.76	DO mg/L								
Salinity										

Time sample was collected: 10:38

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-15
Location: _____
Casing Diameter: 2"

Depth to water, below top of casing: 9.32
Depth to bottom of the well: 19.80
Length of water column in well: 10.48

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7082
3 Well volumes (= length water column X gal/foot X 3): 5.1247
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis: _____

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	78.12	NTU								
Temperature	10.7	°C								
pH	7.09									
Conductivity	0.279	SPC ms/cm								
Oxygen	7.00	DO mg/L								
Salinity										

Time sample was collected: 10:26

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-16
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 12.51
Depth to bottom of the well: 23.26
Length of water column in well: 10.75

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7523
3 Well volumes (= length water column X gal/foot X 3): 5.2568
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	48.8	NTU								
Temperature	8.5	°C								
pH	7.57									
Conductivity	0.592	SPC ms/cm								
Oxygen	7.55	DO mg/L								
Salinity										

Time sample was collected: 9:22

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-17
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 12.55
Depth to bottom of the well: 25.18
Length of water column in well: 12.63

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 2.0587
3 Well volumes (= length water column X gal/foot X 3): 6.1761
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	203	NTU								
Temperature	8.1	°C								
pH	7.02									
Conductivity	0.272	SPC ms/cm								
Oxygen	7.87	DO mg/L								
Salinity										

Time sample was collected: 9:08

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-18
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 8.63
Depth to bottom of the well: 25.0
Length of water column in well: 16.37

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 2.6683
3 Well volumes (= length water column X gal/foot X 3): 8.0049
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	40.59	NTU								
Temperature	6.7	°C								
pH	7.4									
Conductivity	0.548	SPC ms/cm								
Oxygen	9.2	DO mg/L								
Salinity										

Time sample was collected: 11:28

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**

ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-19R
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 7.14
Depth to bottom of the well: 17.67
Length of water column in well: 10.53

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 1.7164
3 Well volumes (= length water column X gal/foot X 3): 5.1492
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	93.5	NTU								
Temperature	6.8	°C								
pH	7.26									
Conductivity	0.991	SPC ms/cm								
Oxygen	11.11	DO mg/L								
Salinity										

Time sample was collected: 8:20

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-20
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 8.74
Depth to bottom of the well: 14.75
Length of water column in well: 6.01

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 0.9796
3 Well volumes (= length water column X gal/foot X 3): 2.9389
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	45.7	NTU								
Temperature	7.2	°C								
pH	7.3									
Conductivity	0.0007	SPC ms/cm								
Oxygen	10.01	DO mg/L								
Salinity										

Time sample was collected: 8:45

COMMENTS

GROUNDWATER SAMPLING WORKSHEET**BERGMANN**
ARCHITECTS ENGINEERS PLANNERS

PROJECT NAME: Gowanda Q1 2020
Project Number: N/A
Site Location: Gowanda, New York
Sample Date: 2/20/2020
Weather: Cloudy 25 Degrees
Personnel: S. Francis / C. Bleier

GROUNDWATER SAMPLE POINT

Well Number: MW-21
Location:
Casing Diameter: 2"

Depth to water, below top of casing: 8.79
Depth to bottom of the well: 17.38
Length of water column in well: 15.82

Well Dia.	Volume/Foot
1"	0.041 gal/foot
2"	0.163 gal/foot
4"	0.653 gal/foot
6"	1.469 gal/foot
8"	2.611 gal/foot

Volume of water in well casing, gallons: 2.5787
3 Well volumes (= length water column X gal/foot X 3): 7.736
Actual volume purged prior to sampling: N/A
Sampling Methodology: Hand bailing
Sampling Equipment: Bailer
Well Recharged? N/A
Required Analysis:

FIELD PARAMETER MEASUREMENTS

Parameter:	Accumulated Volume Purged in Gallons									
Turbidity	79.5	NTU								
Temperature	9.1	°C								
pH	6.79									
Conductivity	0.946	SPC ms/cm								
Oxygen	4.18	DO mg/L								
Salinity										

Time sample was collected: 8:27

COMMENTS



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

APPENDIX B:

IC/EC CHECKLIST

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

625 Broadway, 11th Floor, Albany, NY 12233-7020

P: (518)402-9543 | F: (518)402-9547

www.dec.ny.gov

3/20/2020

Joe Whitney
Director Of Capital Services
NYS OPWDD
44 Holland Ave.
Albany, NY 12229

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal

Site Name: Gowanda Day Habilitation Center

Site No.: V00463

Site Address: 4 Industrial Place
Gowanda, NY 14070

Dear Joe Whitney:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site-specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at <http://www.dec.ny.gov/regulations/67386.html>) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **May 06, 2020**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.



**Department of
Environmental
Conservation**

All site-related documents and data, including the PRR, must be submitted in electronic format to the Department of Environmental Conservation. The required format for documents is an Adobe PDF file with optical character recognition and no password protection. Data must be submitted as an electronic data deliverable (EDD) according to the instructions on the following webpage:

<https://www.dec.ny.gov/chemical/62440.html>

Documents may be submitted to the project manager either through electronic mail or by using the Department's file transfer service at the following webpage:

<https://fts.dec.state.ny.us/fts/>

The Department will not approve the PRR unless all documents and data generated in support of the PRR have been submitted using the required formats and protocols.

You may contact Megan Kuczka, the Project Manager, at 716-842-2175 or megan.kuczka@dec.ny.gov with any questions or concerns about the site. Please notify the project manager before conducting inspections or field work. You may also write to the project manager at the following address:

New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, NY 14203-2915

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

cc: w/ enclosures

Megan Kuczka, Project Manager

Stanley Radon, Hazardous Waste Remediation Supervisor, Region 9

Bergmann Associates - Stephen DeMeo - sdemeo@BERGMANNPC.com

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7):

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.
- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.



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: 5.940

Reporting Period: April 06, 2019 to April 06, 2020

YES NO

1. Is the information above correct? ☒ ☐

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? ☐ ☒

3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? ☐ ☒

4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? ☐ ☒

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? ☐ ☒

Box 2

YES NO

6. Is the current site use consistent with the use(s) listed below? ☒ ☐
Commercial and Industrial

7. Are all ICs/ECs in place and functioning as designed? ☐ ☒

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.

Signature of Owner, Remedial Party or Designated Representative

May 7, 2020

Date

Description of Institutional ControlsParcelOwnerInstitutional 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.

Description of Engineering ControlsParcelEngineering 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.



7/6/2020

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 Ariadna Cheremeteff at Bergmann, 280 E. Broad Street, Rochester, NY 14604,
print name print business address

am certifying as Remedial Party Representative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.



Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

5/7/2020

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 Robert Switala at Bergmann, 280 E. Broad Street, Rochester, NY 14604,
print name print business address

am certifying as a Professional Engineer for the DASNY/OPWDD
(Owner or Remedial Party)

Robert Switala

Signature of Professional Engineer, for the Owner or
Remedial Party, Rendering Certification



Stamp
(Required for PE)

05/07/2020

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.



APPENDIX C:

Additional Subsurface Investigation Report, Bergmann, October 9th, 2019



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

DASNY – GOWANDA

VOLUNTARY CLEANUP PROGRAM SITE NO. V-00463-9

ADDITIONAL SUBSURFACE INVESTIGATION REPORT



Bergmann

Office:

280 East Broad Street, Suite 200
Rochester, NY 14604

Phone: 585.232.5135

www.bergmannpc.com

Issued: October 9, 2019

Revised: December 30, 2019





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Table 1	Field Soil Screening Soil PID Measurement Summary
Table 2	Volatile Organic Compound Summary

FIGURES

Figure 1	Site Vicinity Map
Figure 2	Additional Investigation Soil Boring Plan
Figure 3	Torrance Place Indoor Air/Sub-Slab Vapor Sample Locations and Concentrations of TCE

APPENDICES

Appendix 1	Test Boring Reports
Appendix 2	Laboratory Reports
Appendix 3	Limitations
Appendix 4	Hazard Identification and Assessment



1.0 INTRODUCTION

Bergmann completed an Additional Subsurface Soil Investigation (ASI) at the former Gowanda Day Habilitation Center facility at 4 Industrial Place, Gowanda, New York (Site) on August 13th and 14th, 2019 for further evaluation of soils at upgradient and downgradient chlorinated solvent source areas. This ASI has been prepared 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). The OPWDD, as the volunteer, entered into a Voluntary Cleanup Agreement (VCA) on August 16, 2001 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.

Residual concentrations of chlorinated volatile organic compounds (VOCs) remain in the source area located within the building and on the south side of building near monitoring wells MW-1/MW-11 (upgradient source area). Residual VOCs also remain at the downgradient source area along the property line near monitoring wells MW-6/MW-17 that adjoin residential properties on Torrance Place. The Site building is currently vacant and was formerly used as a learning center that included a maintenance/machine shop at the south side of the building, believed to be the source of trichloroethene (TCE) release during previous ownership of the site. The building and associated property of the Site are presented on Figure 1 – Site Vicinity Map.

This ASI was completed to investigate potential concentrations of Chlorinated VOCs in soils at elevations above the groundwater table. These potential source areas may be a continuing cross-media exchange from VOC-impacted soils to dissolved phase VOCs in groundwater, in correlation with seasonal groundwater fluctuation. Fluctuating levels of VOCs in groundwater samples have been reported during routine quarterly sampling events over the last four (4) years after the ISCO groundwater treatment was completed in 2015. The persistent elevated levels of dissolved phase VOCs in groundwater source areas appears to be influenced by VOCs in the soils above the water table. VOCs levels have shown a historic pattern of increasing with higher groundwater levels and decreasing with lower groundwater levels that would support potential cross-media transfer from the overlaying soils to the groundwater table. The scope of work detailed in the Additional Subsurface Soil Investigation Plan (ASIP) was implemented during the ASI.

1.1 BACKGROUND

The Gowanda Day Habilitation Site consists of a 5.94-acre parcel located at 4 Industrial Place with a building previously used by several manufacturing operations during several time periods between circa 1948 and 1987 followed by renovations during 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 as a Day Habilitation Center for mental care clients from 1989 through 2001 and was formerly known as Western New York Developmental Disabilities Services Office. In April 2001, on-site operations ceased. The nature and extent of contamination at the Gowanda Day Habilitation Center was documented as part of the 2003 Site Investigation and 2004 Supplemental Site Investigation reports. Trichloroethene (TCE) was the most commonly detected VOC in the subsurface soil and groundwater samples. TCE degradation products Cis-1,2-Dichloroethene (Cis-DCE), Trans-1,2-Dichloroethene (Trans-DCE), and Vinyl Chloride (VC) were also detected.

A Groundwater Treatment System (GTS) and Soil Vapor Extraction System (SVES) were activated on May 10, 2005 as Interim Remedial Measures (IRM). An additional groundwater recovery well, designated G-3, was installed outside the building and adjacent to MW-17 in November 2008. The GTS (pump and treat) consisted of seven groundwater recovery wells, an air compressor, a network of controller-less pneumatic pumps and an air stripper treatment system to process recovered groundwater. The use of the GTS and SVES were terminated



as these remedies reached their asymptotic limits. During 2015 and ISCO groundwater treatment was implemented to reduce dissolved phases VOCs. This treatment reduced the overall groundwater levels and plume size that resulted in remaining areas of groundwater residual impacts primarily at the source areas.

1.2 GEOLOGY AND HYDROGEOLOGIC SETTING

Subsurface geologic units present at the Gowanda Day Habilitation Center site include the following in descending order:

- Fill deposits of granular fill soil ranging from sands to gravel placed on Site for utility and building/site improvements;
- Flood plain deposits consisting of fine sand, silt, and clay.
- Alluvium deposits from a fluvial depositional regime, consisting of fine gravel, sand, and silt.
- Glacial till (lodgment or ablation-type glacial till).
- Bedrock, consisting of Devonian-age shale and siltstone deposits (not encountered).

A section of filled-in stream channel is apparently located as an elongated filled trough below the building area. The former stream channel scoured into the glacial till surface and was subsequently filled in with alluvial deposits. This apparent trough is oriented in a southwest-to-northeast direction beneath the Gowanda Day Habilitation Center building.

Groundwater occurs in the alluvial sand and gravel unit under unconfined conditions with depth to the groundwater table ranging from approximately 8 to 10 feet. Groundwater flow direction is in a generally northerly direction.

The 2002 SI report determined hydraulic conductivity for groundwater monitoring wells range from 1.001×10^{-3} to 1.403×10^{-3} cm/sec (2.838 to 3.978 ft/day). Groundwater seepage velocity in the direction of flow was estimated at 0.281 to 0.327 feet per day based on aquifer testing at the monitoring wells. Recharge to the water table aquifer at the subject parcel occurs predominately from up-gradient sources to the south. Although local vertical infiltration of precipitation can occur, the presence of asphalt and the building footprint reduces such an effect.

1.3 POTENTIAL RECEPTORS

Underground utilities located below the groundwater table may be considered potential receptors. Historically, impact to utilities in the source area have been limited by migration control by using the groundwater pump wells and groundwater recovery network associated with the Site GTS. Since the system deactivation, the possibility exists that the sewer line located along the north side of the building in the roadway that adjoins Torrance Place is a potential receptor from plume migration. A section of the sewer is within the downgradient source area near MW-6/MW-17 where soil borings SB-6 through SB-10 were installed during the ASI.

Residential homes along the property line were also suspect for potential vapor intrusion conditions due to the impacted groundwater in the downgradient source area at the property line in the area of MW-6/MW-17. Sub-slab vapor testing and basement air samples were tested by NYSDEC/NYSDOH during 2004 and 2005 with Sub-Slab Depressurization Systems (SSDS) installed in the following residential homes on Torrance Place that adjoin the Site (Figure 3):

- 98 Torrance Place (SSD installed July 2005);
- 106 Torrance Place (no SSD required);
- 110 Torrance Place (not sampled);
- 114 Torrance Place (SSD installed July 2005); and



- 118 Torrance Place (SSD installed July 2005).

During the remedial investigation in 2005 vapor measurements were made along the Site property line and modeling for the VI condition was determined to not be a risk to human receptors.

1.4 SUMMARY OF GROUNDWATER FLOW

The general groundwater flow is in a northerly direction towards the residential homes on Torrance Place. Torrance Place is hydraulically down gradient from the Day Habilitation Center building. Depths to groundwater range from approximately 6 feet below ground surface (bgs) at MW-1, along the south side of the building, to approximately 13.10 ft. bgs at MW-17, located at the northwestern property line. The average depth to groundwater is approximately 9 ft. bgs.

On August 13, 2019 water measurements were recorded for MW-1 and MW-17 prior to the installation of the ASI soil borings. The depth to groundwater in the upgradient source area at the south side of the building in MW-1 was 6.86 ft. and 11.50 ft. in MW-17 at the downgradient source area. ASI soil borings SB-1 through SB-5 were advanced to a depth of 6.5 ft. in the upgradient source area and SB-6 through SB-10 were advanced to a depth of 11.5 feet in the down gradient source area.

1.5 SUMMARY OF RECENT GROUNDWATER QUALITY

Recent groundwater quality results are based on the Second Quarter (July) 2019 and Third Quarter (August) 2019 groundwater monitoring event. Total VOCs during the Second Quarter were detected with concentrations of 1,081 µg/L and 1,059 µg/L in the groundwater samples collected from upgradient source area monitoring wells MW-1 and MW-11, respectively. Total VOCs during the Third Quarter were detected with decreased concentrations of 698 µg/L and 937.4 µg/L in the groundwater samples collected from upgradient source area monitoring wells MW-1 and MW-11, respectively. Total VOCs during the Second Quarter were detected in the downgradient monitoring wells with concentrations of 86.63 µg/L and 277 µg/L in MW-6 and MW-17, respectfully. VOCs during the Third Quarter were detected in the downgradient monitoring wells with concentrations of 92.64 µg/L and 342 µg/L in MW-6 and MW-17, respectively.

The Second Quarter average depth to the water table was 9.63 ft. compared to the Third Quarter average depth to the water table of 10.17 ft. The shallower depth (higher groundwater elevation) correlates to higher concentrations of total VOCs (total chlorinated VOCs) in the upgradient source area monitoring wells MW-1 and MW-11 in the Second Quarter as compared to Third Quarter results. The higher water table allows for greater groundwater contact with the overlying soils that are impacted with VOCs. This relationship does not occur at the downgradient source area as the overlying soils are not impacted with chlorinated VOCs. Changes of total VOCs at the downgradient source is controlled by fluctuations of the overall groundwater table and rate of VOCs entering the dissolved phase in groundwater.

The concentrations of VOCs are generally elevated in the source areas. The individual elevated VOCs detected in the groundwater samples include Trichloroethene (TCE), Cis-1,2-Dichloroethene (Cis-DCE) and Trans-1,2-Dichloroethene (Trans-DCE). Vinyl Chloride and TCA were detected at significantly lower levels and/or non-detect. The VOCs concentrations are further discussed below.

Trichloroethene (TCE) - Second Quarter 2019

TCE was detected in twenty (20) out of twenty-six (26) of the July 2019 Second Quarter groundwater samples from monitoring wells/recovery wells with concentrations ranging from 1,600 µg/L to 0.27 µg/L. Trichloroethene is the most frequently detected VOC and is believed to be the released chemical in the



upgradient source area at the building maintenance/machine shop. Currently, the level of TCE exceeds the NYSDEC Part 703.5 GA Groundwater Standard/Division of Water Technical and Operational Guidance Series 1.1.1 (NYSDEC Part 703.5 groundwater standard) of 5 µg/L in samples from eleven (11) monitoring wells/recovery wells.

Trichloroethene (TCE) - Third Quarter 2019

TCE was detected in twenty-two (22) out of twenty-seven (27) August 2019 groundwater samples from monitoring wells/recovery wells with concentrations ranging from 890 µg/L to 0.28J µg/L. TCE is the most frequently detected VOC. Currently, the level of TCE exceeds the NYSDEC Part 703.5 groundwater standard of 5 µg/L in samples from eleven (11) monitoring wells/recovery wells.

Cis-1,2-Dichloroethene (Cis-DCE) - Second Quarter 2019

Cis-DCE is the second most frequently detected VOC and is a break down product of TCE. Cis-DCE was detected in eighteen (18) out of twenty-six (26) of the July 2019 second quarter groundwater samples from monitoring wells/recovery wells with concentrations ranging from 260 µg/L to 1 µg/L. Currently, the level of Cis-DCE exceeds the NYSDEC Part 703.5 groundwater standard of 5 µg/L in samples from fourteen (14) monitoring wells/recovery wells.

Cis-1,2-Dichloroethene (Cis-DCE) - Third Quarter 2019

Cis-DCE was detected in eighteen (18) out of twenty-seven (27) of the August 2019 groundwater samples from monitoring wells/recovery wells with concentrations ranging from 2.0J µg/L to 310 µg/L. Currently, the level of Cis-DCE exceeds the NYSDEC Part 703.5 groundwater standard of 5 µg/L in samples from sixteen (16) monitoring wells/recovery wells.

Trans-1,2-Dichloroethene (Trans-DCE) - Second Quarter 2019

Trans-DCE was detected in seven (7) out of twenty-six (26) of the July Second Quarter 2019 groundwater samples from monitoring wells/recovery wells. The concentration of Trans-DCE ranged from 19 µg/L to 0.9 µg/L. Trans-DCE exceeds the NYSDEC Part 703.5 groundwater standard of 5 µg/L in samples in three (3) monitoring wells/recovery wells.

Trans-1,2-Dichloroethene (Trans-DCE) - Third Quarter 2019

Trans-DCE was detected in seven (7) out of twenty-seven (27) of the August 2019 groundwater samples from monitoring wells/recovery wells. The concentration of Trans-DCE ranged from 15 µg/L to 0.5 µg/L. Trans-DCE exceeds the NYSDEC Part 703.5 groundwater standard of 5 µg/L in samples in two (2) monitoring wells/recovery wells.

In general, VOCs levels fluctuate slightly higher during periods of higher groundwater table elevations and lower VOCs levels when groundwater table is at lower elevations. VOC impacts to groundwater quality have been substantially reduced in extent and concentration from seventeen (17) years of active remediation. Detection of elevated VOCs in the groundwater plume appears to be persistent within the upgradient and downgradient source areas based on the recent groundwater quality results.

2.0 ENVIRONMENTAL SETTING

The vacant building and site's physical setting is in a former industrial area adjacent to residential properties and Thatcher Creek. The majority of the Site was once occupied as a former industrial facility with parking lots, roadways, and some grass-covered landscaped areas. The ground surface topography in the vicinity of the Site is generally flat and the overburden groundwater flow is generally north.



3.0 FIELD INVESTIGATION

The primary objective of the ASI is to evaluate the soil quality at elevations above the groundwater table for VOCs in the source areas. This field investigation was initiated to test the theory that VOCs in source area soils overlying the groundwater table are impacting the groundwater quality via ongoing cross-media transport during seasonal fluctuations in groundwater elevations and Thatcher Brook flood events. A Bergmann New York State-licensed Professional Geologist (PG) monitored the installation of ten (10) soil borings in the two (2) source areas to evaluate this potential condition. The soil borings were installed at the following locations:

- Five (5) soil borings were installed in the building source area with the historically highest chlorinated VOCs concentrations upgradient source area (MW-1/MW-11, source area); and
- Five (5) soil borings were installed at the down gradient source area (MW-17 area), north along Torrance Place.

Prior to commencement of the Geoprobe® investigation, a Ground Penetrating Radar (GPR) survey was conducted by TREC Environmental, Inc. (TREC) of Spencerport, New York to locate underground utilities prior to the installation of soil borings. Soil borings (test borings) named SB-01 through SB-10 were installed on August 13th and 14th, 2019 by TREC using a track mounted direct push drill rig under the supervision of a Bergmann PG. The truck mounted direct push drill rig was used both inside and outside the building. The PG monitored investigation activities, directed TREC to install proposed boring locations, logged soil borings, field screened boring samples, and selected soil samples to be collected and submitted for laboratory analysis.

The down-hole sample equipment was decontaminated with an Alconox® and tap water rinse and new acetate sample liners between each sample interval to prevent cross-contamination. The locations of the soil borings are presented on Figure 2 – Additional Investigation Soil Boring Location Plan. Soil borings were advanced to completion depths of 6.5 feet in the MW-1/MW-11 upgradient source area and 11.5 feet at soil boring locations in the MW-6/MW-17 downgradient source area. These completion depths were based on the depth to the water table in MW-1 and MW-17 on the days of soil boring installation to allow for sample collection at depths above the groundwater table. Each soil sample was screened for total organic vapors using a Photoionization Detector (PID) meter. The PID measurements are summarized in Table 1 – Field Soil Screening PID Measurement Summary. The PID measurements are recorded on the test boring logs, see Appendix 1 – Test Boring Reports.

One (1) soil sample was collected from each of the ten (10) boring locations based on PID measurements, depths intervals above the top of groundwater table and based on historic groundwater levels in order to evaluate the potential soil zone of contamination. Therefore, the targeted zone for soil sample collection was from depths ranging from ground surface to 6.5 feet at the upgradient source area and 11.5 feet at the downgradient source area. Samples were submitted under Chain-of-Custody documentation to ALS Environmental of Rochester, New York, for VOC analysis via EPA collection Method 5035 and Method 8260.

4.0 OVERBURDEN DEPOSITS

Two (2) overburden soil deposits were encountered during the ASI at the Site. The overburden deposits encountered, with an increasing depth, include fill and alluvium. Pavement was encountered at the ground surface at soil borings SB-01, SB-02, SB-06, SB-07 and SB-10. Concrete floor was encountered at indoor soil boring locations SB-03, SB-04, and SB-05. The fill deposit soils were described as ranging from Light brown GRAVEL, some coarse to fine sand, trace silt, trace clay to Dark brown SILT, little fine sand, trace coarse to fine sand, trace clay. The fill deposit appears to be imported soil for Site improvements as backfill or regraded native



soils. The alluvium deposit soil descriptions ranged from Light brown SILT, trace fine sand to Gray GRAVEL, some coarse to fine sand, trace silt. The alluvium soils were deposited in post-glacial streams and from recent stream deposits. The complete soil descriptions for each soil sample collected are presented on the test boring reports in Appendix 1 – Test Boring Reports.

5.0 SOIL QUALITY

Ten (10) soil samples named SB-01 (3.0-3.5), SB-02 (2.0-2.5), SB-03 (1.0-1.5), SB-04 (1.0-1.5), SB-05 (1.0-1.5), SB-06 (10.0-10.5), SB-07 (7.5-8.0), SB-08 (11-11.5), SB-09 (11-11.5), and SB-10 (3-3.5) were selected from each soil boring location and submitted for laboratory analysis. Laboratory analytical soil sample results for volatile organic compounds (VOCs) in accordance with Method 8260 generally indicated the following detections that exceed New York Codes, Rules, and Regulations 6 NYCRR Part 375-6.8 Soil Cleanup Objectives (6 NYCRR Part 375-6.8 Soil Cleanup Objectives). Soil screen PID measurements are presented in Table 1 and sample results are summarized in Table 2 – Soil Sample VOC Result Summary.

- Acetone – Levels exceeds 6 NYCRR Part 375-6.8 (a) Unrestricted Use Soil Cleanup Objectives (UUSCO) and Part 375-6.8 (b) Restricted Residential Soil Cleanup Objectives (RRUSCO) in the following samples:

SB-01 (3.0-3.5) at 0.14 ppm,
SB-04 (1.0-1.5) at 0.11 ppm,
SB-09 (11-11.5) at 0.21 ppm, and
SB-10 (3-3.5) at 2.0 ppm.
- Cis-DCE - Levels exceeds 6 NYCRR Part 375-6.8 (a) UUSCO in the following samples:

SB-01 (3.0-3.5) at 20 ppm,
SB-02 (2.0-2.5) at 0.66 ppm,
SB-03 (1.0-1.5) at 8.3 ppm, and
SB-05 (1.0-1.5) at 7.5 ppm.
- TCE - Levels exceeds 6 NYCRR Part 375-6.8 (a) UUSCO in the following samples:

SB-01 (3.0-3.5) at 20 ppm,
SB-02 (2.0-2.5) at 0.66 ppm,
SB-04 (1.0-1.5) at 1.6 ppm.
- TCE - Levels exceeds 6 NYCRR Part 375-6.8 (b) RRUSCO and Commercial Use SCO (CUSCO) the following samples, respectfully:

SB-03 (1.0-1.5) at 100 ppm,
SB-05 (1.0-1.5) at 230 ppm.
- Vinyl Chloride - 6 NYCRR Part 375-6.8 (b) RRSCO in the following sample:

SB-01 (3.0-3.5) at 7.2 ppm.



In summary, concentrations of detected VOCs that exceed SCOs ranged from 0.66 ppm to 230 ppm and represent low-level to moderate concentrations. PID measurements for soil samples ranged from 0.4 ppm to 50 ppm, see Table 1. Samples were collected at depths indicating the highest concentration of VOCs during the field investigation. Several soil boring locations indicated PID measurements at two (2) different depth (*i.e.* SB-03 and SB-05), however, samples were collected in those borings from the depths demonstrating the highest VOC concentrations. The laboratory analytical reports are presented in Appendix 2 – Laboratory Reports. A summary of the soil sample analytical results is presented in Table 2.

6.0 CONCLUSIONS

The following conclusions are based on the field observations, field measurements, laboratory results and our project limitations, see Appendix 3 – Limitations.

1. Two (2) overburden soil deposits were encountered in each soil boring that include a fill deposit and an alluvium deposit that consisted of varying grain sizes.
2. Elevated PID measurements for total VOCs were detected in the fill soils at shallow depths ranging from one (1) to three (3) ft. bgs and above the elevation of the groundwater table in the upgradient source area at the south side of the building near MW-1/MW-11. Lower PID measurements were detected at the soils encountered at the downgradient source area.
3. Laboratory soil sample results indicate detections of chlorinated VOCs. Cis-DCE exceed UUSCOs, TCE exceed UUSCOs, RRUSCOs and CUSCOs, Vinyl Chloride exceeded RRUSCOs in soil borings SB-01 through SB-05.
4. Chlorinated VOC-impacted soils at the south side of the building and within the southern portion of the building near MW-1/MW-11, continue to impact the groundwater consistent with seasonal high groundwater fluctuations. These impacted soils continue to impact groundwater quality in this upgradient source area. It should be noted that even small concentrations of VOCs entering the dissolved phase can elevate groundwater quality levels above the goals of the Voluntary Cleanup Program.
5. Chlorinated VOCs were non-detect (ND) in the soil overlying the downgradient groundwater source area near MW-6/MW-17. It is Bergmann's hypothesis that the downgradient groundwater source area is an area of elevated VOCs controlled by a preferential pathway in the overburden soils. An alluvium historic buried stream channel or imported fill below the sewer lateral that runs along the northern side of the building is likely to be that pathway.

7.0 RECOMMENDATIONS

Based upon the completed investigation and remediation results, and discussions with DASNY and the NYSDEC, the following remediation options and recommendations have been determined at this time.

1. Bergmann finds that the most feasible recommendation is the localized removal of VOC-impacted soil in the upgradient source. The soils exhibiting the greatest levels of contamination are located in the shallow fill material as well as the smear zone making it difficult to treat with chemical injections. This recommendation would require the following:
 - a. Partial demolition of the building to allow safe access to the upgradient source area. Prior to partial demolition the following would be required:
 - i. An asbestos, lead, and PCB-caulk survey by a New York State Department of Labor-certified asbestos building inspector.



- ii. Asbestos and hazardous material abatement in the areas within the interior and exterior of the building that will be impacted by partial demolition.
 - iii. A thorough structural assessment by a structural engineer to determine the feasibility of a partial demolition.
 - iv. Potential shoring or bracing of remaining building, pending the structural assessment.
 - b. Full building demolition allowing safe access to entire site for delineation and source area removals. Full demolition would require an asbestos, lead, and PCB-caulk survey by a New York State Department of Labor-certified asbestos building inspector and an asbestos and hazardous material abatement.
 - c. Bergmann recommends a delineation of the VOC impacted soils at the upgradient source area prior to any removal of impacted soils to provide an estimate of required soil removal, disposal, and associated costs. Delineation would include one (1) day of geoprobe services, field screening with a PID, and GIS coordination of each probe point to be used for a detailed plume delineation map creation.
 - d. During localized removal, Bergmann personnel would be on-Site field screening with a PID to determine the extent of the impacted subsurface materials. Once PID readings have been determined to be low enough (ppm to be established with DEC concurrence), confirmatory soil samples will be collected and submitted for rush turnaround time. Confirmatory sample results will determine if the VOC levels are within the pre-determined Soil Cleanup Objectives (SCOs) as defined in 6 NYCRR Part 375 –6.8 and in agreement with NYSDEC, DASNY, and NYSDOH.
 - e. Localized removal may require “chasing” impacted soils within preferential pathways such as the filled in stream tributary or utility corridors. These pathways will not be included during the delineation event, however, Bergmann will include a contingency quantity from these areas in the removal/disposal cost estimate.
 - f. Post localized removal, Bergmann recommends placement of chemical oxidation materials in to the excavation prior to backfilling with clean materials to reduce remaining impacts of residual chlorinated VOCs.
2. An alternative to localized removal would be to perform another injection round of In-situ Chemical Oxidation (ISCO) material in the source area. Bergmann performed an initial and secondary In-Situ Chemical Oxidation injection round in May and September 2015, respectively. These injection rounds produced minimal decrease in groundwater CVOCs.
- a. Post new injection, the groundwater sampling events would continue for an approximate 12-18 months, in concurrence with NYSDEC, to determine efficacy and potential rebounding. It is noted that the chlorinated-VOCs are located in the shallow smear zone, therefore, this treatment may not prove to be effective as indicated by the previous injection events. Additionally, discussions with the NYSDEC have indicated the knowledge that injections alone will not lower the CVOCs to levels required for Site closure.
3. An additional alternative could be to introduce thermal conduction or a heating element to the source area. Radio frequency, electrical resistance heating, hot air injection, and vitrification require an energy source to



run the systems and can be costly to implement. It is noted that the current building does not have an active energy source, and some interior electrical conduits and wires have been damaged during flooding, roof leaks, and vandalism. Several of these thermal remediation systems require the installation of subsurface venting lines or conduit. While the facility does have an existing Soil Vapor Extraction (SVE) system, this system has been inactive for an extended period of time and is most likely not viable for future restart and reuse. Therefore, installation of new or repair of existing SVE conduit can be considered an added cost in addition to the costly installation and operation of a thermal remediation system.

Continued Monitoring and Additional Site Observations and Recommendations

4. The building has remained vacant since 2001 and as a result has deteriorated significantly. In November 2018, Bergmann's Environmental Health and Safety Manager performed a Hazard Assessment at the facility. The assessment determined that footing within the building is considered a hazard due to silt accumulation from previous flooding as well as buckling flooring from water infiltration. Mold growth has been identified as a Serious hazard requiring any personnel entering the building to wear a respirator and nitrile gloves. The leaking roof and several other hazards were identified as moderate at this time. A copy of the full Hazard Identification and Assessment is included as Appendix 4.
5. Continued groundwater monitoring in accordance with the Voluntary Cleanup Program (VCP) post-remediation is required until further notification or direction from the DEC.
6. Complete an updated Soil Vapor Intrusion and Indoor Air investigation on residential homes on Torrance Place consistent with the current New York State Department of Health (NYSDOH) Soil Vapor Intrusion Guidelines during the peak heating season of 2019/2020, coordinating the results with NYSDEC and NYSDOH.



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TABLES



TABLE 1
Field Soil Screening PID Measurement Summary
Additional Subsurface Investigation Report
Former Gowanda Day Habilitation Center
4 Industrial Place, Gowanda, New York

Boring Location	Depth Interval (ft)	PID (ppm)
SB-01	0-1	ND
	1	1
	1.5	5.5
	2	9.5
	3	9.5
	4	1.5
	5	4.5
	6	1.4
	6.5	1.5
SB-02	1	13
	1.75	4
	2	5
	3	3
	4	9
	4.25	3
	6	8
	6.5	0.3
SB-03	0.5	55
	1.75	30
	2	29
	3	17
	4	5
	4.25	4.5
	6	3.7
	6.5	3.7
SB-04	1	3.7
	1.75	3
	2.25	3.1
	3	1.7
	4	1.7
	4.25	1
	6	1.4
	6.5	1
SB-05	0.75	30
	1.75	8
	2.25	10
	3	7
	4	56



Boring Location	Depth Interval (ft)	PID (ppm)
SB-05	5	8
	5.7	6
	6.5	4
SB-06	0-11.5	ND
SB-07	0-11.5	ND
SB-08	0-11.5	ND
SB-09	0-11.5	ND
SB-10	0-11.5	ND

Note:

- 1) See Test Boring Reports for subsurface soil descriptions and PID measurements in Appendix 1.
- 2) Soil sample field screen PID measurements performed by Bergmann, on July 13th and July 14st 2019.

Table 2: Volatile Organic Compound Analytical Summary - Soils
Additional Subsurface Investigation Report
Former Gowanda Day Habilitation Center
Gowanda, New York

Sample ID and Date				SB-01 (3.0-3.5) 07/13/19	SB-02 (2.0-2.5) 07/13/19	SB-03 (1.0-1.5) 07/13/19	SB-04 (1.0-1.5) 07/13/19	SB-05 (1.0-1.5) 07/13/19	SB-06 (10.0-10.5) 07/13/19	SB-07 (7.5-8.0) 07/13/19	SB-08 (11-11.5) 07/13/19
EPA 8260 - TCL Volatile Organics Analyzed Parameters ¹	Unrestricted Use ²	Restricted Residential Use ³	Commercial Use ³								
1,1,1-Trichloroethane	0.680	100	500	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.270	26	240	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.330	100	500	0.0061	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	3.6	52	190	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromomethane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1.1	500	500	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.020	3.1	30	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.8	100	500	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.8	130	130	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	0.100	13	130	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	0.120	100	500	0.018	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	0.05	0.1	500	0.14	ND	ND	0.11	ND	0.01	0.037	0.05
Benzene	0.060	4.8	44	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Disulfide	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.760	2.4	22	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.370	49	350	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.250	100	500	20	0.66	8.3	0.034	7.8	ND	ND	ND
cis-1,3-Dichloropropene	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1.0	41	390	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylene	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Methyl acetate	-	-	-	0.0046	1.8	ND	0.11	4.8	ND	0.057	1.8
Methyl tert-butyl Ether	0.930	100	500	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.050	100	500	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	150	150	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.700	100	500	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.470	21	200	2.5	1.1	100 D	1.6	230 D	0.0086	ND	0.0091
Trichlorofluoromethane	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	0.020	0.9	13	7.2	ND	ND	ND	ND	ND	ND	ND
N-Butylbenzene	12.0	100	500	ND	ND	ND	ND	ND	ND	ND	ND
N-Propylbenzene	3.9	100	500	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12.0	100	500	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	11.0	100	500	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (mixed)	0.260	100	500	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.470	21	200	ND	ND	ND	ND	ND	ND	ND	ND

1 - All values presented in milligrams per kilogram (mg/Kg) (ppm).

2 - 6 NYCRR Part 375-6.8 - Table 375-6.8(a): Unrestricted Use SCOs

3 - 6 NYCRR Part 375-6.8 - Table 375-6.8(b): Restricted Residential and Commercial Use SCOs

ND - Not detected above reporting limit

NA - not analyzed.

J - value is estimated.

D - all compounds identified in an analysis at secondary dilution factor.

M - matrix spike recoveries outside QC limits; matrix bias indicated.

	Value Exceeds Unrestricted SCOs
	Value Exceeds Restricted Residential Use SCOs
	Value Exceeds Commercial Use SCOs

Table 2: Volatile Organic Compound Analytical Summary - Soils
Additional Subsurface Investigation Report
Former Gowanda Day Habilitation Center
Gowanda, New York

Sample ID and Date				SB-09 (11-11.5) 07/13/19	SB-10 (3-3.5) 07/13/19
EPA 8260 - TCL Volatile Organics Analyzed Parameters ¹	Unrestricted Use ²	Restricted Residential Use ³	Commercial Use ³		
1,1,1-Trichloroethane	0.680	100	500	ND	ND
1,1,2,2-Tetrachloroethane	-	-	-	ND	ND
1,1,2-Trichloroethane	-	-	-	ND	ND
1,1-Dichloroethane	0.270	26	240	ND	ND
1,1-Dichloroethene	0.330	100	500	ND	ND
1,2,3-Trichlorobenzene	-	-	-	ND	ND
1,2,4-Trichlorobenzene	3.6	52	190	ND	ND
1,2-Dibromo-3-Chloropropane	-	-	-	ND	ND
1,2-Dibromomethane	-	-	-	ND	ND
1,2-Dichlorobenzene	1.1	500	500	ND	ND
1,2-Dichloroethane	0.020	3.1	30	ND	ND
1,2-Dichloropropane	-	-	-	ND	ND
1,3-Dichlorobenzene	1.8	100	500	ND	ND
1,4-Dichlorobenzene	1.8	130	130	ND	ND
1,4-Dioxane	0.100	13	130	ND	ND
2-Butanone	0.120	100	500	0.0044	0.0071
2-Hexanone	-	-	-	ND	ND
4-Methyl-2-pentanone	-	-	-	ND	ND
Acetone	0.05	0.1	500	0.21	2
Benzene	0.060	4.8	44	ND	ND
Bromochloromethane	-	-	-	ND	ND
Bromodichloromethane	-	-	-	ND	ND
Bromoform	-	-	-	ND	ND
Bromomethane	-	-	-	ND	ND
Carbon Disulfide	-	-	-	ND	ND
Carbon Tetrachloride	0.760	2.4	22	ND	ND
Chlorobenzene	-	-	-	ND	ND
Chloroethane	-	-	-	ND	ND
Chloroform	0.370	49	350	ND	ND
Chloromethane	-	-	-	ND	ND
cis-1,2-Dichloroethene	0.250	100	500	ND	ND
cis-1,3-Dichloropropene	-	-	-	ND	ND
Cyclohexane	-	-	-	ND	ND
Dibromochloromethane	-	-	-	ND	ND
Dichlorodifluoromethane	-	-	-	ND	ND
Ethylbenzene	1.0	41	390	ND	ND
Freon 113	-	-	-	ND	ND
Isopropylbenzene	-	-	-	ND	ND
m,p-Xylene	-	-	-	ND	ND
Methyl acetate	-	-	-	0.73	8.1
Methyl tert-butyl Ether	0.930	100	500	ND	ND
Methylcyclohexane	-	-	-	ND	ND
Methylene chloride	0.050	100	500	ND	ND
o-Xylene	-	-	-	ND	ND
Styrene	-	-	-	ND	ND
Tetrachloroethene	1.3	150	150	ND	ND
Toluene	0.700	100	500	ND	ND
trans-1,2-Dichloroethene	-	-	-	ND	ND
trans-1,3-Dichloropropene	-	-	-	ND	ND
Trichloroethene	0.470	21	200	ND	ND
Trichlorofluoromethane	-	-	-	ND	ND
Vinyl Chloride	0.020	0.9	13	ND	ND
N-Butylbenzene	12.0	100	500	ND	ND
N-Propylbenzene	3.9	100	500	ND	ND
Naphthalene	12.0	100	500	ND	ND
o-Xylene	-	-	-	ND	ND
p-Isopropyltoluene	-	-	-	ND	ND
sec-Butylbenzene	11.0	100	500	ND	ND
Xylenes (mixed)	0.260	100	500	ND	ND
Trichloroethene	0.470	21	200	ND	ND

1 - All values presented in milligrams per kilogram (mg/Kg) (ppm).
2 - 6 NYCRR Part 375-6.8 - Table 375-6.8(a): Unrestricted Use SCOs
3 - 6 NYCRR Part 375-6.8 - Table 375-6.8(b): Restricted Residential and Commercial Use SCOs
ND - Not detected above reporting limit
NA - not analyzed.
J - value is estimated.
D - all compounds identified in an analysis at secondary dilution factor.
M - matrix spike recoveries outside QC limits; matrix bias indicated.



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FIGURES

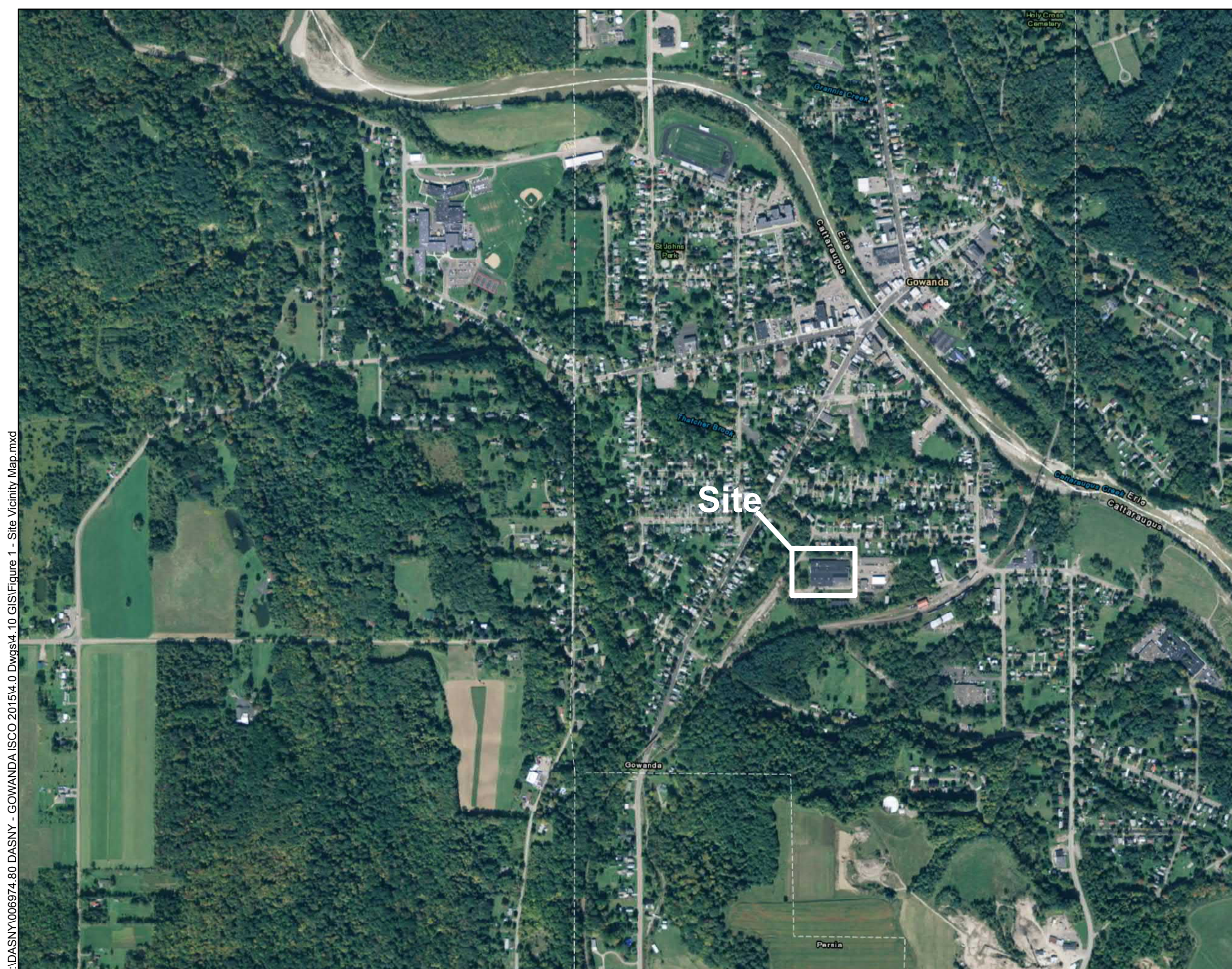
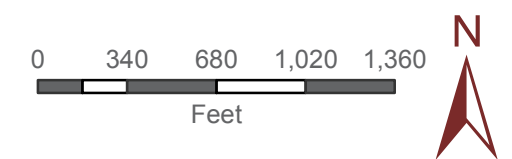
DASNY

**Gowanda Day
Habilitation Center**

**4 Industrial Place
Gowanda, NY**



Figure 1
Site Vicinity Map



DASNY

**Gowanda Day
Habilitation Center**

**4 Industrial Place
Gowanda, NY**



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Figure 2

**Additional
Investigation
Soil Boring Plan**



Torrance Place Indoor Air/ Subslab Vapor Sample Locations and Concentrations of TCE ($\mu\text{g}/\text{m}^3$)

Figure 3

90

Feet



Erie County, Gowanda, New York







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APPENDIX







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APPENDIX 1



 BERGMANN <small>ARCHITECTS ENGINEERS PLANNERS</small>		<h1>Test Boring Report</h1>					SB-01	
Project: Additional Subsurface Investigation, Gowanda Day Habilitation Center VCP Site No. V-00436-9 Client: DASNY Contractor: TREC Environmental						File No: 6974.99 Sheet No: 1 of 1 Location: See Plan		
Item		Casing	Drive Sampler	Core Barrel	Drilling Equipment and Procedures		Elevation:	
Type:		Direct Push	Macro core		Rig Type: Geoprobe Track Rig 66DT		Datum:	
Inside Diameter (IN):					Bit Type: NA		Start:	8/13/2019
Hammer Weight (LBS):					Drill Mud: NA		Finish:	8/13/2019
Hammer Fall (IN):					Other: Direct Push Method - Macro core sampler			
Other:							Driller:	E. Hamand
					Geologist:	S. DeMeo		
Depth (FT)	Sample Depth (FT)	Sampler Blows Per 6 Inchs	Head Space (PPM)	Sample Number and Recovery	Strata Change (FT)	Visual Classification and Remarks		
0	0	NA	1	S1 - 80%	0.5	Pavement		
2			5.5		3	Light brown GRAVEL, some coarse to fine sand, trace silt, damp. - FILL -		
			9.5			- FILL -		
4	4	NA	9.5					
			1.5		3.5	Gray CLAY, trace silt, damp. - ALLUVIUM -		
	4	NA	4.5	S2 - 90%		Light brown CLAY, damp.		
6			1.4					
	6.5	NA	1.5			- ALLUVIUM -		
8						Bottom of Soil Boring at 6.5 ft.		
10						Backfilled soil boring with soils from borhole and bentonite to ground surface.		
12								
14								
16								
18								
20								
Ground Water Data						Summary		 BERGMANN
Depth						Overburden (Lin FT)	6.5	
Date	Time	Elapsed Time (HR)	Bottom Of Casing	Bottom Of Hole	Groundwater Encountered	Rock Cored (Lin FT)	none	
8/13/2019		none	none	6.5	No	Samples:	S2	



 BERGMANN <small>ARCHITECTS ENGINEERS PLANNERS</small>		<h1>Test Boring Report</h1>					SB-02	
Project: Additional Subsurface Investigation, Gowanda Day Habilitation Center VCP Site No. V-00436-9 Client: DASNY Contractor: TREC Environmental						File No: 6974.99 Sheet No: 1 of 1 Location: See Plan		
Item		Casing	Drive Sampler	Core Barrel	Drilling Equipment and Procedures		Elevation:	
Type:		Direct Push	Macro core		Rig Type: Geoprobe Track Rig 66DT		Datum:	
Inside Diameter (IN):					Bit Type: NA		Start:	8/13/2019
Hammer Weight (LBS):					Drill Mud: NA		Finish:	8/13/2019
Hammer Fall (IN):					Other: Direct Push Method - Macro core sampler			
Other:							Driller:	E. Hamand
					Geologist:	S. DeMeo		
Depth (FT)	Sample Depth (FT)	Sampler Blows Per 6 Inchs	Head Space (PPM)	Sample Number and Recovery	Strata Change (FT)	Visual Classification and Remarks		
0	0	NA	13	S1 - 80%	0.5	Pavement		
2	4		4		2	Light brown GRAVEL, some coarse to fine sand, trace silt, trace clay, damp. - FILL -		
			5			- FILL -		
		NA	3		3	Gray CLAY, damp. - ALLUVIUM-		
4	4		9		-----			
	4	NA	3	S2 - 90%	6	Light brown CLAY, damp. - ALLUVIUM -		
6			8			-----		
	6.5	NA	0.3			Light brown SILT, moist. - ALLUVIUM -		
8						Bottom of Soil Boring at 6.5 ft.		
10						Backfilled soil boring with soils from borhole and bentonite to ground surface.		
12								
14								
16								
18								
20								
Ground Water Data						Summary		 BERGMANN
Depth						Overburden (Lin FT)	6.5	
Date	Time	Elapsed Time (HR)	Bottom Of Casing	Bottom Of Hole	Groundwater Encountered	Rock Cored (Lin FT)	none	
8/13/2019		none	none	6.5	No	Samples:	S2	



 BERGMANN <small>ARCHITECTS ENGINEERS PLANNERS</small>		<h1>Test Boring Report</h1>					SB-03	
Project: Additional Subsurface Investigation, Gowanda Day Habilitation Center VCP Site No. V-00436-9 Client: DASNY Contractor: TREC Environmental						File No: 6974.99 Sheet No: 1 of 1 Location: See Plan		
Item		Casing	Drive Sampler	Core Barrel	Drilling Equipment and Procedures		Elevation:	
Type:		Direct Push	Macro core		Rig Type: Geoprobe Track Rig 66DT		Datum:	
Inside Diameter (IN):					Bit Type: NA		Start:	8/14/2019
Hammer Weight (LBS):					Drill Mud: NA		Finish:	8/14/2019
Hammer Fall (IN):					Other: Direct Push Method - Macro core sampler			
Other:							Driller:	E. Hamand
					Geologist:	S. DeMeo		
Depth (FT)	Sample Depth (FT)	Sampler Blows Per 6 Inchs	Head Space (PPM)	Sample Number and Recovery	Strata Change (FT)	Visual Classification and Remarks		
0	0	NA	55	S1 - 90%	0.5	Concrete Building Floor		
2					30	- FILL -		
			29					
		NA	17		3			
4	4		5		3.5	Gray CLAY, damp. - ALLUVIUM -		
	4	NA	4.5	S2 - 85%		Light brown CLAY, trace silt, damp. - ALLUVIUM -		
6			3.7					
	6.5	NA	3.7			- ALLUVIUM -		
8						Bottom of Soil Boring at 6.5 ft.		
10						Backfilled soil boring with soils from borhole and bentonite to ground surface.		
12								
14								
16								
18								
20								
Ground Water Data						Summary		 BERGMANN
Depth						Overburden (Lin FT)	6.5	
Date	Time	Elapsed Time (HR)	Bottom Of Casing	Bottom Of Hole	Groundwater Encountered	Rock Cored (Lin FT)	none	
8/14/2019		none	none	6.5	No	Samples:	S2	



 BERGMANN <small>ARCHITECTS ENGINEERS PLANNERS</small>		<h1>Test Boring Report</h1>					SB-04		
Project: Additional Subsurface Investigation, Gowanda Day Habilitation Center VCP Site No. V-00436-9 Client: DASNY Contractor: TREC Environmental						File No: 6974.99 Sheet No: 1 of 1 Location: See Plan			
Item		Casing	Drive Sampler	Core Barrel	Drilling Equipment and Procedures		Elevation:		
Type:		Direct Push	Macro core		Rig Type: Geoprobe Track Rig 66DT		Datum:		
Inside Diameter (IN):					Bit Type: NA		Start:	8/14/2019	
Hammer Weight (LBS):					Drill Mud: NA		Finish:	8/14/2019	
Hammer Fall (IN):					Other: Direct Push Method - Macro core sampler				
Other:							Driller:	E. Hamand	
					Geologist:	S. DeMeo			
Depth (FT)	Sample Depth (FT)	Sampler Blows Per 6 Inchs	Head Space (PPM)	Sample Number and Recovery	Strata Change (FT)	Visual Classification and Remarks			
0	0	NA	ND	S1 - 90%	0.5	Concrete Building Floor			
2			3.7			1.5	Light brown coarse to fine SAND, some gravel, trace silt, damp. - FILL -		
			3					Gray CLAY, damp. - ALLUVIUM -	
4	4	NA	1.7	S2 - 85%		Light brown CLAY, trace silt, damp. - ALLUVIUM -			
6	4	NA	1.7			Same.			
		NA	1						
	6.5	NA	1.4			- ALLUVIUM -			
8			1			Bottom of Soil Boring at 6.5 ft.			
10						Backfilled soil boring with soils from borhole and bentonite to ground surface.			
12									
14									
16									
18									
20									
Ground Water Data						Summary		 BERGMANN	
Depth						Overburden (Lin FT)	6.5		
Date	Time	Elapsed Time (HR)	Bottom Of Casing	Bottom Of Hole	Groundwater Encountered	Rock Cored (Lin FT)	none		
8/14/2019		none	none	6.5	No	Samples:	S2		



 BERGMANN <small>ARCHITECTS ENGINEERS PLANNERS</small>		<h1>Test Boring Report</h1>					SB-05		
Project: Additional Subsurface Investigation, Gowanda Day Habilitation Center VCP Site No. V-00436-9 Client: DASNY Contractor: TREC Environmental						File No: 6974.99 Sheet No: 1 of 1 Location: See Plan			
Item		Casing	Drive Sampler	Core Barrel	Drilling Equipment and Procedures		Elevation:		
Type:		Direct Push	Macro core		Rig Type: Geoprobe Track Rig 66DT		Datum:		
Inside Diameter (IN):					Bit Type: NA		Start:	8/14/2019	
Hammer Weight (LBS):					Drill Mud: NA		Finish:	8/14/2019	
Hammer Fall (IN):					Other: Direct Push Method - Macro core sampler				
Other:							Driller:	E. Hamand	
					Geologist:	S. DeMeo			
Depth (FT)	Sample Depth (FT)	Sampler Blows Per 6 Inchs	Head Space (PPM)	Sample Number and Recovery	Strata Change (FT)	Visual Classification and Remarks			
0	0	NA	ND	S1 - 80%	0.5	Concrete Building Floor			
2			30			2.0	Light brown coarse to fine SAND, little gravel, trace silt, damp.		
			8			- FILL -			
4	4	NA	10		2.5	Gray CLAY, trace silt, damp. - ALLUVIUM -			
			7						
6	4	NA	56	S2 - 100%	6	Light brown CLAY, damp. Same.			
			8						
8	6.5	NA	5.7			Light brown CLAY with wet silt seams, moist to wet. - ALLUVIUM -			
			4						
10						Bottom of Soil Boring at 6.5 ft.			
12						Backfilled soil boring with soils from borhole and bentonite to ground surface.			
14									
16									
18									
20									
Ground Water Data						Summary		 BERGMANN	
Depth						Overburden (Lin FT)	6.5		
Date	Time	Elapsed Time (HR)	Bottom Of Casing	Bottom Of Hole	Groundwater Encountered	Rock Cored (Lin FT)	none		
8/14/2019		none	none	6.5	No	Samples:	S2		

 BERGMANN <small>ARCHITECTS ENGINEERS PLANNERS</small>		<h1>Test Boring Report</h1>					SB-06	
Project: Additional Subsurface Investigation, Gowanda Day Habilitation Center VCP Site No. V-00436-9 Client: DASNY Contractor: TREC Environmental						File No: 6974.99 Sheet No: 1 of 1 Location: See Plan		
Item		Casing	Drive Sampler	Core Barrel	Drilling Equipment and Procedures		Elevation:	
Type:			Macro core		Rig Type: Geoprobe Track Rig 66DT		Datum:	
Inside Diameter (IN):					Bit Type: NA		Start: 8/13/2019	
Hammer Weight (LBS):					Drill Mud: NA		Finish: 8/13/2019	
Hammer Fall (IN):					Other: Direct Push Method - Macro core sampler			
Other:		Direct Push					Driller: E. Hamand	
							Geologist: S. DeMeo	
Depth (FT)	Sample Depth (FT)	Sampler Blows Per 6 Inchs	Head Space (PPM)	Sample Number and Recovery	Strata Change (FT)	Visual Classification and Remarks		
0	0		ND		0.5	Pavement		
2		NA		S1 - 80%		Dark brown GRAVEL, trace coarse to fine sand, trace clay, damp.		
						- FILL -		
4	4	NA			4	Dark brown SILT, little fine sand, trace coarse to fine sand, trace clay, damp.		
						- FILL -		
6	4	NA	ND			Light brown CLAY, trace silt, damp. - ALLUVIUM -		
	8	NA						
8	8	NA				Same, with occasional fine sand seams, moist to wet.		
10		NA	ND		10.5	- ALLUVIUM -		
	11.5	NA				Gray GRAVEL, some coarse to fine san, trace silt, moist to wet. - ALLUVIUM -		
12						Bottom of soil boring at 11.5 ft.		
14						Backfilled soil boring with soil from boring and bentonite to ground surface.		
16								
18								
20								
Ground Water Data						Summary		 BERGMANN
Depth						Overburden (Lin FT)	11.5	
Date	Time	Elapsed Time (HR)	Bottom Of Casing	Bottom Of Hole	Groundwater Encountered	Rock Cored (Lin FT)	none	
8/13/2019		none	none	11.5	No	Samples:	S2	

 BERGMANN <small>ARCHITECTS ENGINEERS PLANNERS</small>		<h1>Test Boring Report</h1>					SB-07	
Project: Additional Subsurface Investigation, Gowanda Day Habilitation Center VCP Site No. V-00436-9 Client: DASNY Contractor: TREC Environmental						File No: 6974.99 Sheet No: 1 of 1 Location: See Plan		
Item		Casing	Drive Sampler	Core Barrel	Drilling Equipment and Procedures		Elevation:	
Type:		Direct Push	Macro core		Rig Type: Geoprobe Track Rig 66DT		Datum:	
Inside Diameter (IN):					Bit Type: NA		Start:	8/13/2019
Hammer Weight (LBS):					Drill Mud: NA		Finish:	8/13/2019
Hammer Fall (IN):					Other: Direct Push Method - Macro core sampler			
Other:							Driller:	E. Hamand
					Geologist:	S. DeMeo		
Depth (FT)	Sample Depth (FT)	Sampler Blows Per 6 Inchs	Head Space (PPM)	Sample Number and Recovery	Strata Change (FT)	Visual Classification and Remarks		
0	0	NA	ND	S1 - 80%	0.5	Pavement		
2						Dark brown SILT, little fine sand, trace coarse to fine sand, trace clay, damp. - FILL -		
4	4	NA	ND		4	Dark brown SILT, little fine sand, trace coarse to fine sand, trace clay, damp. - FILL -		
6	8	NA	ND			Light brown CLAY, with occasional silt seams, moist. - ALLUVIUM -		
8	8	NA	ND			Same, with occasional fine sand seams, moist to wet.		
10	11.5	NA	ND		10.5	- ALLUVIUM -		
12						Gray GRAVEL, some coarse to fine san, trace silt, moist. - ALLUVIUM -		
14						Bottom of soil boring at 11.5 ft.		
16						Backfilled soil boring with soil from boring and bentonite to ground surface.		
18								
20								
Ground Water Data						Summary		 BERGMANN
Depth						Overburden (Lin FT)	11.5	
Date	Time	Elapsed Time (HR)	Bottom Of Casing	Bottom Of Hole	Groundwater Encountered	Rock Cored (Lin FT)	none	
8/13/2019		none	none	11.5	No	Samples:	S2	

 BERGMANN <small>ARCHITECTS ENGINEERS PLANNERS</small>		<h1>Test Boring Report</h1>					SB-08	
Project: Additional Subsurface Investigation, Gowanda Day Habilitation Center VCP Site No. V-00436-9 Client: DASNY Contractor: TREC Environmental						File No: 6974.99 Sheet No: 1 of 1 Location: See Plan		
Item		Casing	Drive Sampler	Core Barrel	Drilling Equipment and Procedures		Elevation:	
Type:		Direct Push	Macro core		Rig Type: Geoprobe Track Rig 66DT		Datum:	
Inside Diameter (IN):					Bit Type: NA		Start:	8/13/2019
Hammer Weight (LBS):					Drill Mud: NA		Finish:	8/13/2019
Hammer Fall (IN):					Other: Direct Push Method - Macro core sampler			
Other:							Driller:	E. Hamand
					Geologist:	S. DeMeo		
Depth (FT)	Sample Depth (FT)	Sampler Blows Per 6 Inchs	Head Space (PPM)	Sample Number and Recovery	Strata Change (FT)	Visual Classification and Remarks		
0	0	NA	ND	S1 - 80%	1.0	Light Brown GRAVEL, some coarse to fine sand, trace silt, with wood fragments, damp. - FILL -		
2			ND				Dark brown SILT, with root fibers and wood, damp. - FILL -	
4	4	NA	ND		4	- FILL -		
6	8	NA	ND		8.0	Light brown SILT, trace fine sand, damp. - ALLUVIUM -		
8	8	NA	ND		10.5	Light Brown SILT, trace clay, moist.		
10	11.5	NA	ND			- ALLUVIUM -		
12						Gray GRAVEL, some coarse to fine san, trace silt, moist. - ALLUVIUM -		
14						Bottom of soil boring at 11.5 ft.		
16						Backfilled soil boring with soil from boring and bentonite to ground surface.		
18								
20								
Ground Water Data						Summary		 BERGMANN
Depth						Overburden (Lin FT)	11.5	
Date	Time	Elapsed Time (HR)	Bottom Of Casing	Bottom Of Hole	Groundwater Encountered	Rock Cored (Lin FT)	none	
8/13/2019		none	none	11.5	No	Samples:	S2	

 BERGMANN <small>ARCHITECTS ENGINEERS PLANNERS</small>		<h1>Test Boring Report</h1>					SB-09	
Project: Additional Subsurface Investigation, Gowanda Day Habilitation Center VCP Site No. V-00436-9 Client: DASNY Contractor: TREC Environmental						File No: 6974.99 Sheet No: 1 of 1 Location: See Plan		
Item		Casing	Drive Sampler	Core Barrel	Drilling Equipment and Procedures		Elevation:	
Type:		Direct Push	Macro core		Rig Type: Geoprobe Track Rig 66DT		Datum:	
Inside Diameter (IN):					Bit Type: NA		Start:	8/13/2019
Hammer Weight (LBS):					Drill Mud: NA		Finish:	8/13/2019
Hammer Fall (IN):					Other: Direct Push Method - Macro core sampler			
Other:							Driller:	E. Hamand
					Geologist:	S. DeMeo		
Depth (FT)	Sample Depth (FT)	Sampler Blows Per 6 Inchs	Head Space (PPM)	Sample Number and Recovery	Strata Change (FT)	Visual Classification and Remarks		
0	0	NA	ND	S1 - 90%	1.0	Dark brown SILT, with root fibers and wood, damp. - FILL -		
2			ND		2.5	Dark brown SILT, with root fibers and wood, damp. - FILL -		
4	4	NA	ND		4	- FILL -		
	4	NA	ND		8.0	Light brown SILT, trace fine sand, damp. - ALLUVIUM -		
6		NA	ND					
8	8		ND			Light Brown SILT, trace clay, moist.		
10		NA	ND		10.5	- ALLUVIUM -		
	11.5	NA	ND		Gray GRAVEL, some coarse to fine san, trace silt, moist. - ALLUVIUM -			
12					Bottom of soil boring at 11.5 ft.			
14				Backfilled soil boring with soil from boring and bentonite to ground surface.				
16								
18								
20								
Ground Water Data						Summary		 BERGMANN
Depth						Overburden (Lin FT)	11.5	
Date	Time	Elapsed Time (HR)	Bottom Of Casing	Bottom Of Hole	Groundwater Encountered	Rock Cored (Lin FT)	none	
8/13/2019		none	none	11.5	No	Samples:	S2	

 BERGMANN <small>ARCHITECTS ENGINEERS PLANNERS</small>		<h1>Test Boring Report</h1>					SB-10	
Project: Additional Subsurface Investigation, Gowanda Day Habilitation Center VCP Site No. V-00436-9 Client: DASNY Contractor: TREC Environmental						File No: 6974.99 Sheet No: 1 of 1 Location: See Plan		
Item		Casing	Drive Sampler	Core Barrel	Drilling Equipment and Procedures		Elevation:	
Type:			Macro core		Rig Type: Geoprobe Track Rig 66DT		Datum:	
Inside Diameter (IN):					Bit Type: NA		Start:	8/13/2019
Hammer Weight (LBS):					Drill Mud: NA		Finish:	8/13/2019
Hammer Fall (IN):					Other: Direct Push Method - Macro core sampler			
Other:		Direct Push					Driller:	E. Hamand
							Geologist:	S. DeMeo
Depth (FT)	Sample Depth (FT)	Sampler Blows Per 6 Inchs	Head Space (PPM)	Sample Number and Recovery	Strata Change (FT)	Visual Classification and Remarks		
0	0		ND		0.5	Pavement		
		NA			1.0	Dark brown coarse to fine SAND, some gravel, trace silt, damp. - FILL -		
2			ND	S1 - 90%				
		NA						
4	4		ND		4	- FILL -		
	4	NA				Light brown CLAY, trace silt, moist to wet with occasional wet silt seams. - ALLUVIUM -		
6		NA	ND	S2 - 70%				
	8		ND		8			
8	8	NA	ND	S3 - 50%		Light Brown SILT, trace coarse to fine sand, moist to wet. ALLUVIUM -		
	8.5					Refusal of the geoprobe equipment at 8.5 ft.		
10						Bottom of boring at 8.5 ft.		
						Backfilled soil boring with soil from boring and bentonite to ground surface.		
12								
14								
16								
18								
20								
Ground Water Data						Summary		 BERGMANN
Depth						Overburden (Lin FT)	11.5	
Date	Time	Elapsed Time (HR)	Bottom Of Casing	Bottom Of Hole	Groundwater Encountered	Rock Cored (Lin FT)	none	
8/13/2019		none	none	11.5	No	Samples:	S2	



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

APPENDIX 2



August 30, 2019

Service Request No:R1907734

Mr. Cash Bleier
Bergmann Associates, Incorporated
280 East Broad Street
Suite 200
Rochester, NY 14604

Laboratory Results for: Gowanda Subsurface Invst.

Dear Mr.Bleier,

Enclosed are the results of the sample(s) submitted to our laboratory August 14, 2019
For your reference, these analyses have been assigned our service request number **R1907734**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, 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), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

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

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invest.
Sample Matrix: Soil

Service Request: R1907734
Date Received: 08/14/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Ten soil samples were received for analysis at ALS Environmental on 08/14/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

General Chemistry:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 8260C, 08/27/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 08/27/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 08/19/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 08/19/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Approved by

A handwritten signature in black ink, appearing to read "Brady Knutson".

Date

08/30/2019



SAMPLE DETECTION SUMMARY

CLIENT ID: SB-02 (2.0-2.5)	Lab ID: R1907734-001
-----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	84.8				Percent	ALS SOP
Methyl Acetate	1800			530	ug/Kg	8260C
Trichloroethene (TCE)	1100			530	ug/Kg	8260C
cis-1,2-Dichloroethene	660			530	ug/Kg	8260C

CLIENT ID: SB-01 (3.0-3.5)	Lab ID: R1907734-002
-----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	82.7				Percent	ALS SOP
1,1-Dichloroethene (1,1-DCE)	6.1			4.4	ug/Kg	8260C
2-Butanone (MEK)	18			4.4	ug/Kg	8260C
Acetone	140			4.4	ug/Kg	8260C
Methyl Acetate	4.6			4.4	ug/Kg	8260C
Trichloroethene (TCE)	10			4.4	ug/Kg	8260C
Vinyl Chloride	2500	E		4.4	ug/Kg	8260C
cis-1,2-Dichloroethene	4000	E		4.4	ug/Kg	8260C
trans-1,2-Dichloroethene	57			4.4	ug/Kg	8260C
Methyl Acetate	2000	D		530	ug/Kg	8260C
Trichloroethene (TCE)	2500	D		530	ug/Kg	8260C
Vinyl Chloride	7200	D		530	ug/Kg	8260C
cis-1,2-Dichloroethene	20000	D		530	ug/Kg	8260C

CLIENT ID: SB-06 (10-10.5)	Lab ID: R1907734-003
-----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	84.7				Percent	ALS SOP
Acetone	10			3.8	ug/Kg	8260C
Trichloroethene (TCE)	8.6			3.8	ug/Kg	8260C

CLIENT ID: SB-07 (7.5-8)	Lab ID: R1907734-004
---------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	82.8				Percent	ALS SOP
Acetone	37			4.3	ug/Kg	8260C
Methyl Acetate	57			4.3	ug/Kg	8260C

CLIENT ID: SB-08 (11-11.5)	Lab ID: R1907734-005
-----------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	90.2				Percent	ALS SOP
Acetone	50			4.4	ug/Kg	8260C
Trichloroethene (TCE)	9.1			4.4	ug/Kg	8260C

CLIENT ID: SB-10 (3-3.5)	Lab ID: R1907734-006
---------------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	79.3				Percent	ALS SOP
2-Butanone (MEK)	7.1			4.7	ug/Kg	8260C
Acetone	260	E		4.7	ug/Kg	8260C



SAMPLE DETECTION SUMMARY

CLIENT ID: SB-10 (3-3.5)				Lab ID: R1907734-006		
Analyte	Results	Flag	MDL	MRL	Units	Method
Methyl Acetate	25			4.7	ug/Kg	8260C
Acetone	2000	D		800	ug/Kg	8260C
Methyl Acetate	8100	D		800	ug/Kg	8260C

CLIENT ID: SB-09 (11-11.5)				Lab ID: R1907734-007		
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	89.6				Percent	ALS SOP
2-Butanone (MEK)	4.4			4.3	ug/Kg	8260C
Acetone	210	E		4.3	ug/Kg	8260C
Methyl Acetate	7.2			4.3	ug/Kg	8260C
Methyl Acetate	730	D		480	ug/Kg	8260C

CLIENT ID: SB-03 (1.0-1.5)				Lab ID: R1907734-008		
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	94.4				Percent	ALS SOP
Trichloroethene (TCE)	100000	E		2300	ug/Kg	8260C
cis-1,2-Dichloroethene	8300			2300	ug/Kg	8260C
Trichloroethene (TCE)	100000	D		5800	ug/Kg	8260C
cis-1,2-Dichloroethene	7800	D		5800	ug/Kg	8260C

CLIENT ID: SB-05 (1.0-1.5)				Lab ID: R1907734-009		
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	84.8				Percent	ALS SOP
Methyl Acetate	4800			2300	ug/Kg	8260C
Trichloroethene (TCE)	230000	E		2300	ug/Kg	8260C
cis-1,2-Dichloroethene	7800			2300	ug/Kg	8260C
Trichloroethene (TCE)	230000	D		11000	ug/Kg	8260C

CLIENT ID: SB-04 (1.0-1.5)				Lab ID: R1907734-010		
Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	95.3				Percent	ALS SOP
Acetone	110			4.2	ug/Kg	8260C
Methyl Acetate	110			4.2	ug/Kg	8260C
Trichloroethene (TCE)	330	E		4.2	ug/Kg	8260C
cis-1,2-Dichloroethene	34			4.2	ug/Kg	8260C
Trichloroethene (TCE)	1600	D		400	ug/Kg	8260C



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96

Service Request:R1907734

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1907734-001	SB-02 (2.0-2.5)	8/13/2019	0830
R1907734-002	SB-01 (3.0-3.5)	8/13/2019	1050
R1907734-003	SB-06 (10-10.5)	8/13/2019	1150
R1907734-004	SB-07 (7.5-8)	8/13/2019	1215
R1907734-005	SB-08 (11-11.5)	8/13/2019	1300
R1907734-006	SB-10 (3-3.5)	8/13/2019	1345
R1907734-007	SB-09 (11-11.5)	8/13/2019	1415
R1907734-008	SB-03 (1.0-1.5)	8/14/2019	1030
R1907734-009	SB-05 (1.0-1.5)	8/14/2019	1145
R1907734-010	SB-04 (1.0-1.5)	8/14/2019	1400



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

58164

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

Project Name Gowanda Subsurface Invest		Project Number 6974.96		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																					
Project Manager Steve Delaney		Report CC		PRESERVATIVE																					
Company/Address Bergmann 280 E. Broad Street Rochester NY (585) 233-2396		Email sdameo@bergmannpc.com		<div style="display: flex;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">NUMBER OF CONTAINERS</div> <div> <div>GC/MS VOA's • 8260 • 824 • CLP</div> <div>GC/MS SYOA's • 8270 • 825</div> <div>GC VOA's • 8021 • 801/802</div> <div>PESTICIDES • 8081 • 808</div> <div>PCBs • 8082 • 808</div> <div>METALS, TOTAL (List in comments below)</div> <div>METALS, DISSOLVED (List in comments below)</div> </div> </div>																					
Phone # (585) 498-7806		Sampler's Signature [Signature]		Sampler's Printed Name Stephen J. Delaney		<div> <div>PRESERVATIVE KEY</div> <div> 0. NONE 1. HCL 2. HNO₃ 3. H₂SO₄ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO₄ 8. Other Chill </div> </div>																			
CLIENT SAMPLE ID		FOR OFFICE USE ONLY LAB ID		SAMPLING DATE		TIME		MATRIX		ALTERNATE DESCRIPTION															
SB-02 (2.0-2.5)				8/13/19		0830		Soil		4 X															
SB-01 (3.0-3.5)				8/13/19		1050		Soil		4 X															
SB-06 (10-10.5)				8/13/19		1150		Soil		4 X															
SB-07 (7.5-8)				8/13/19		1215		Soil		4 X															
SB-08 (11-11.5)				8/13/19		1300		Soil		4 X															
SB-10 (3-3.5)				8/13/19		1345		Soil		4 X															
SB-09 (11-11.5)				8/13/19		1415		Soil		4 X															
SB-03 (1.0-1.5)				8/14/19		1030		Soil		4 X															
SB-05 (1.0-1.5)				8/14/19		1145		Soil		4 X															
SB-04 (1.0-1.5)				8/14/19		1400		Soil		4 X															
Temp. Blank										1															
SPECIAL INSTRUCTIONS/COMMENTS Metals										TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day <input checked="" type="checkbox"/> Standard (10 business days-No Surcharge)					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 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					INVOICE INFORMATION PO # BILL TO:					
See QAPP <input type="checkbox"/> VCA# V-00463-9										REQUESTED REPORT DATE															
STATE WHERE SAMPLES WERE COLLECTED Gowanda Day Hub: 4 Industrial Place																									
RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY		RECEIVED BY							
Signature [Signature]		Signature [Signature]		Signature		Signature		Signature		Signature		Signature		Signature		Signature		Signature							
Printed Name Stephen J. Delaney		Printed Name Emil W. [Signature]		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		Printed Name							
Firm Bergmann		Firm ALS		Firm		Firm		Firm		Firm		Firm		Firm		Firm		Firm							
Date/Time 8/14/19 425		Date/Time 8/14/19 1625		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Date/Time							



Cooler Receipt and Preservation Check Form

R1907734

Bergmann Associates, Incorporated
Gowanda Subsurface Invest.

5



Project/Client Bergmann Folder Number _____

Cooler received on 8/14/19 by: dm

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
2	Custody papers properly completed (ink, signed)?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
3	Did all bottles arrive in good condition (unbroken)?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
4	Circle: Wet <input checked="" type="checkbox"/> Dry Ice Gel packs present?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

5a	Perchlorate samples have required headspace?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
6	Where did the bottles originate?	ACS/ROC CLIENT
7	Soil VOA received as: Bulk Encore <input checked="" type="checkbox"/> set NA	

8. Temperature Readings Date: 8/14/19 Time: 1650 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	51.3						
Correction Factor (°C)	±0.6						
Corrected Temp (°C)	51.3						
Temp from: Type of bottle							
Within 0-6°C?	<input checked="" type="checkbox"/> N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by dm on 8/14/19 at 1650
5035 samples placed in storage location: R-005 by V on ✓ at ✓

Cooler Breakdown/Preservation Check**: Date: _____ Time: _____ by: _____

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)?

☒ YES

☐ NO

10. Did all bottle labels and tags agree with custody papers?

☒ YES

☒ NO *

11. Were correct containers used for the tests indicated?

☒ YES

☐ NO

12. Were 5035 vials acceptable (no extra labels, not leaking)?

☒ YES

☐ NO

13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized

Tedlar® Bags Inflated

N/A

N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis.

Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: _____

Explain all Discrepancies/ Other Comments:

* SB-09 (11-11.5) Jar labeled SB-10 (11-11.5). Sample went into the lab per COC.

8/15/19

Labels secondary reviewed by: HE

PC Secondary Review: _____

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

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

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.	+	Correlation coefficient for MSA is <0.995.
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).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
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	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the öNotesö column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an öimmediateö hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (×100% Difference between two GC columns).
#	Spike was diluted out.	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

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

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 case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
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Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96

Service Request: R1907734

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
ALS SOP	Soil	Total Solids

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96

Service Request: R1907734

Sample Name: SB-02 (2.0-2.5)
Lab Code: R1907734-001
Sample Matrix: Soil

Date Collected: 08/13/19
Date Received: 08/14/19

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
GKNIGHT

Sample Name: SB-01 (3.0-3.5)
Lab Code: R1907734-002
Sample Matrix: Soil

Date Collected: 08/13/19
Date Received: 08/14/19

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
GKNIGHT

Sample Name: SB-01 (3.0-3.5)
Lab Code: R1907734-002.R01
Sample Matrix: Soil

Date Collected: 08/13/19
Date Received: 08/14/19

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: SB-06 (10-10.5)
Lab Code: R1907734-003
Sample Matrix: Soil

Date Collected: 08/13/19
Date Received: 08/14/19

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
GKNIGHT

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96

Service Request: R1907734

Sample Name: SB-07 (7.5-8)
Lab Code: R1907734-004
Sample Matrix: Soil

Date Collected: 08/13/19**Date Received:** 08/14/19

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
GKNIGHT

Sample Name: SB-08 (11-11.5)
Lab Code: R1907734-005
Sample Matrix: Soil

Date Collected: 08/13/19**Date Received:** 08/14/19

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
GKNIGHT

Sample Name: SB-10 (3-3.5)
Lab Code: R1907734-006
Sample Matrix: Soil

Date Collected: 08/13/19**Date Received:** 08/14/19

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
GKNIGHT

Sample Name: SB-10 (3-3.5)
Lab Code: R1907734-006.R01
Sample Matrix: Soil

Date Collected: 08/13/19**Date Received:** 08/14/19

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96

Service Request: R1907734

Sample Name: SB-09 (11-11.5)
Lab Code: R1907734-007
Sample Matrix: Soil

Date Collected: 08/13/19
Date Received: 08/14/19

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
GKNIGHT

Sample Name: SB-09 (11-11.5)
Lab Code: R1907734-007.R01
Sample Matrix: Soil

Date Collected: 08/13/19
Date Received: 08/14/19

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: SB-03 (1.0-1.5)
Lab Code: R1907734-008
Sample Matrix: Soil

Date Collected: 08/14/19
Date Received: 08/14/19

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
GKNIGHT

Sample Name: SB-03 (1.0-1.5)
Lab Code: R1907734-008.R01
Sample Matrix: Soil

Date Collected: 08/14/19
Date Received: 08/14/19

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96

Service Request: R1907734

Sample Name: SB-05 (1.0-1.5)
Lab Code: R1907734-009
Sample Matrix: Soil

Date Collected: 08/14/19
Date Received: 08/14/19

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
GKNIGHT

Sample Name: SB-05 (1.0-1.5)
Lab Code: R1907734-009.R01
Sample Matrix: Soil

Date Collected: 08/14/19
Date Received: 08/14/19

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: SB-04 (1.0-1.5)
Lab Code: R1907734-010
Sample Matrix: Soil

Date Collected: 08/14/19
Date Received: 08/14/19

Analysis Method
8260C
ALS SOP

Extracted/Digested By

Analyzed By
FNAEGLER
GKNIGHT

Sample Name: SB-04 (1.0-1.5)
Lab Code: R1907734-010.R01
Sample Matrix: Soil

Date Collected: 08/14/19
Date Received: 08/14/19

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER



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	200.2
200.8	200.2
6010C	3005A/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	3005A/3010A
6010 SPLP (1312) extract	3005A/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.



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Volatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 08:30
Date Received: 08/14/19 16:25

Sample Name: SB-02 (2.0-2.5)
Lab Code: R1907734-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	530 U	530	89.5	08/26/19 17:59	
1,1,2,2-Tetrachloroethane	530 U	530	89.5	08/26/19 17:59	
1,1,2-Trichloroethane	530 U	530	89.5	08/26/19 17:59	
1,1,2-Trichloro-1,2,2-trifluoroethane	530 U	530	89.5	08/26/19 17:59	
1,1-Dichloroethane (1,1-DCA)	530 U	530	89.5	08/26/19 17:59	
1,1-Dichloroethene (1,1-DCE)	530 U	530	89.5	08/26/19 17:59	
1,2,3-Trichlorobenzene	530 U	530	89.5	08/26/19 17:59	
1,2,4-Trichlorobenzene	530 U	530	89.5	08/26/19 17:59	
1,2-Dibromo-3-chloropropane (DBCP)	530 U	530	89.5	08/26/19 17:59	
1,2-Dibromoethane	530 U	530	89.5	08/26/19 17:59	
1,2-Dichlorobenzene	530 U	530	89.5	08/26/19 17:59	
1,2-Dichloroethane	530 U	530	89.5	08/26/19 17:59	
1,2-Dichloropropane	530 U	530	89.5	08/26/19 17:59	
1,3-Dichlorobenzene	530 U	530	89.5	08/26/19 17:59	
1,4-Dichlorobenzene	530 U	530	89.5	08/26/19 17:59	
1,4-Dioxane	11000 U	11000	89.5	08/26/19 17:59	
2-Butanone (MEK)	530 U	530	89.5	08/26/19 17:59	
2-Hexanone	530 U	530	89.5	08/26/19 17:59	
4-Methyl-2-pentanone	530 U	530	89.5	08/26/19 17:59	
Acetone	530 U	530	89.5	08/26/19 17:59	
Benzene	530 U	530	89.5	08/26/19 17:59	
Bromochloromethane	530 U	530	89.5	08/26/19 17:59	
Bromodichloromethane	530 U	530	89.5	08/26/19 17:59	
Bromoform	530 U	530	89.5	08/26/19 17:59	
Bromomethane	530 U	530	89.5	08/26/19 17:59	
Carbon Disulfide	530 U	530	89.5	08/26/19 17:59	
Carbon Tetrachloride	530 U	530	89.5	08/26/19 17:59	
Chlorobenzene	530 U	530	89.5	08/26/19 17:59	
Chloroethane	530 U	530	89.5	08/26/19 17:59	
Chloroform	530 U	530	89.5	08/26/19 17:59	
Chloromethane	530 U	530	89.5	08/26/19 17:59	
Cyclohexane	530 U	530	89.5	08/26/19 17:59	
Dibromochloromethane	530 U	530	89.5	08/26/19 17:59	
Dichlorodifluoromethane (CFC 12)	530 U	530	89.5	08/26/19 17:59	
Dichloromethane	530 U	530	89.5	08/26/19 17:59	
Ethylbenzene	530 U	530	89.5	08/26/19 17:59	
Isopropylbenzene (Cumene)	530 U	530	89.5	08/26/19 17:59	
Methyl Acetate	1800	530	89.5	08/26/19 17:59	
Methyl tert-Butyl Ether	530 U	530	89.5	08/26/19 17:59	
Methylcyclohexane	530 U	530	89.5	08/26/19 17:59	
Styrene	530 U	530	89.5	08/26/19 17:59	
Tetrachloroethene (PCE)	530 U	530	89.5	08/26/19 17:59	
Toluene	530 U	530	89.5	08/26/19 17:59	

ALS Group USA, Corp.
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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 08:30
Date Received: 08/14/19 16:25

Sample Name: SB-02 (2.0-2.5)
Lab Code: R1907734-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	1100	530	89.5	08/26/19 17:59	
Trichlorofluoromethane (CFC 11)	530 U	530	89.5	08/26/19 17:59	
Vinyl Chloride	530 U	530	89.5	08/26/19 17:59	
cis-1,2-Dichloroethene	660	530	89.5	08/26/19 17:59	
cis-1,3-Dichloropropene	530 U	530	89.5	08/26/19 17:59	
m,p-Xylenes	1100 U	1100	89.5	08/26/19 17:59	
o-Xylene	530 U	530	89.5	08/26/19 17:59	
trans-1,2-Dichloroethene	530 U	530	89.5	08/26/19 17:59	
trans-1,3-Dichloropropene	530 U	530	89.5	08/26/19 17:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	31 - 154	08/26/19 17:59	
Dibromofluoromethane	82	63 - 138	08/26/19 17:59	
Toluene-d8	94	66 - 138	08/26/19 17:59	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 10:50
Date Received: 08/14/19 16:25

Sample Name: SB-01 (3.0-3.5)
Lab Code: R1907734-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	4.4 U	4.4	.73	08/19/19 17:18	
1,1,2,2-Tetrachloroethane	4.4 U	4.4	.73	08/19/19 17:18	
1,1,2-Trichloroethane	4.4 U	4.4	.73	08/19/19 17:18	
1,1,2-Trichloro-1,2,2-trifluoroethane	4.4 U	4.4	.73	08/19/19 17:18	
1,1-Dichloroethane (1,1-DCA)	4.4 U	4.4	.73	08/19/19 17:18	
1,1-Dichloroethene (1,1-DCE)	6.1	4.4	.73	08/19/19 17:18	
1,2,3-Trichlorobenzene	4.4 U	4.4	.73	08/19/19 17:18	
1,2,4-Trichlorobenzene	4.4 U	4.4	.73	08/19/19 17:18	
1,2-Dibromo-3-chloropropane (DBCP)	4.4 U	4.4	.73	08/19/19 17:18	
1,2-Dibromoethane	4.4 U	4.4	.73	08/19/19 17:18	
1,2-Dichlorobenzene	4.4 U	4.4	.73	08/19/19 17:18	
1,2-Dichloroethane	4.4 U	4.4	.73	08/19/19 17:18	
1,2-Dichloropropane	4.4 U	4.4	.73	08/19/19 17:18	
1,3-Dichlorobenzene	4.4 U	4.4	.73	08/19/19 17:18	
1,4-Dichlorobenzene	4.4 U	4.4	.73	08/19/19 17:18	
1,4-Dioxane	88 U	88	.73	08/19/19 17:18	
2-Butanone (MEK)	18	4.4	.73	08/19/19 17:18	
2-Hexanone	4.4 U	4.4	.73	08/19/19 17:18	
4-Methyl-2-pentanone	4.4 U	4.4	.73	08/19/19 17:18	
Acetone	140	4.4	.73	08/19/19 17:18	
Benzene	4.4 U	4.4	.73	08/19/19 17:18	
Bromochloromethane	4.4 U	4.4	.73	08/19/19 17:18	
Bromodichloromethane	4.4 U	4.4	.73	08/19/19 17:18	
Bromoform	4.4 U	4.4	.73	08/19/19 17:18	
Bromomethane	4.4 U	4.4	.73	08/19/19 17:18	
Carbon Disulfide	4.4 U	4.4	.73	08/19/19 17:18	
Carbon Tetrachloride	4.4 U	4.4	.73	08/19/19 17:18	
Chlorobenzene	4.4 U	4.4	.73	08/19/19 17:18	
Chloroethane	4.4 U	4.4	.73	08/19/19 17:18	
Chloroform	4.4 U	4.4	.73	08/19/19 17:18	
Chloromethane	4.4 U	4.4	.73	08/19/19 17:18	
Cyclohexane	4.4 U	4.4	.73	08/19/19 17:18	
Dibromochloromethane	4.4 U	4.4	.73	08/19/19 17:18	
Dichlorodifluoromethane (CFC 12)	4.4 U	4.4	.73	08/19/19 17:18	
Dichloromethane	4.4 U	4.4	.73	08/19/19 17:18	
Ethylbenzene	4.4 U	4.4	.73	08/19/19 17:18	
Isopropylbenzene (Cumene)	4.4 U	4.4	.73	08/19/19 17:18	
Methyl Acetate	4.6	4.4	.73	08/19/19 17:18	
Methyl tert-Butyl Ether	4.4 U	4.4	.73	08/19/19 17:18	
Methylcyclohexane	4.4 U	4.4	.73	08/19/19 17:18	
Styrene	4.4 U	4.4	.73	08/19/19 17:18	
Tetrachloroethene (PCE)	4.4 U	4.4	.73	08/19/19 17:18	
Toluene	4.4 U	4.4	.73	08/19/19 17:18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 10:50
Date Received: 08/14/19 16:25

Sample Name: SB-01 (3.0-3.5)
Lab Code: R1907734-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	10	4.4	.73	08/19/19 17:18	
Trichlorofluoromethane (CFC 11)	4.4 U	4.4	.73	08/19/19 17:18	
Vinyl Chloride	2500 E	4.4	.73	08/19/19 17:18	
cis-1,2-Dichloroethene	4000 E	4.4	.73	08/19/19 17:18	
cis-1,3-Dichloropropene	4.4 U	4.4	.73	08/19/19 17:18	
m,p-Xylenes	8.8 U	8.8	.73	08/19/19 17:18	
o-Xylene	4.4 U	4.4	.73	08/19/19 17:18	
trans-1,2-Dichloroethene	57	4.4	.73	08/19/19 17:18	
trans-1,3-Dichloropropene	4.4 U	4.4	.73	08/19/19 17:18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	76	31 - 154	08/19/19 17:18	
Dibromofluoromethane	98	63 - 138	08/19/19 17:18	
Toluene-d8	94	66 - 138	08/19/19 17:18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 10:50
Date Received: 08/14/19 16:25

Sample Name: SB-01 (3.0-3.5)
Lab Code: R1907734-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	530 U	530	87	08/26/19 18:22	
1,1,2,2-Tetrachloroethane	530 U	530	87	08/26/19 18:22	
1,1,2-Trichloroethane	530 U	530	87	08/26/19 18:22	
1,1,2-Trichloro-1,2,2-trifluoroethane	530 U	530	87	08/26/19 18:22	
1,1-Dichloroethane (1,1-DCA)	530 U	530	87	08/26/19 18:22	
1,1-Dichloroethene (1,1-DCE)	530 U	530	87	08/26/19 18:22	
1,2,3-Trichlorobenzene	530 U	530	87	08/26/19 18:22	
1,2,4-Trichlorobenzene	530 U	530	87	08/26/19 18:22	
1,2-Dibromo-3-chloropropane (DBCP)	530 U	530	87	08/26/19 18:22	
1,2-Dibromoethane	530 U	530	87	08/26/19 18:22	
1,2-Dichlorobenzene	530 U	530	87	08/26/19 18:22	
1,2-Dichloroethane	530 U	530	87	08/26/19 18:22	
1,2-Dichloropropane	530 U	530	87	08/26/19 18:22	
1,3-Dichlorobenzene	530 U	530	87	08/26/19 18:22	
1,4-Dichlorobenzene	530 U	530	87	08/26/19 18:22	
1,4-Dioxane	11000 U	11000	87	08/26/19 18:22	
2-Butanone (MEK)	530 U	530	87	08/26/19 18:22	
2-Hexanone	530 U	530	87	08/26/19 18:22	
4-Methyl-2-pentanone	530 U	530	87	08/26/19 18:22	
Acetone	530 U	530	87	08/26/19 18:22	
Benzene	530 U	530	87	08/26/19 18:22	
Bromochloromethane	530 U	530	87	08/26/19 18:22	
Bromodichloromethane	530 U	530	87	08/26/19 18:22	
Bromoform	530 U	530	87	08/26/19 18:22	
Bromomethane	530 U	530	87	08/26/19 18:22	
Carbon Disulfide	530 U	530	87	08/26/19 18:22	
Carbon Tetrachloride	530 U	530	87	08/26/19 18:22	
Chlorobenzene	530 U	530	87	08/26/19 18:22	
Chloroethane	530 U	530	87	08/26/19 18:22	
Chloroform	530 U	530	87	08/26/19 18:22	
Chloromethane	530 U	530	87	08/26/19 18:22	
Cyclohexane	530 U	530	87	08/26/19 18:22	
Dibromochloromethane	530 U	530	87	08/26/19 18:22	
Dichlorodifluoromethane (CFC 12)	530 U	530	87	08/26/19 18:22	
Dichloromethane	530 U	530	87	08/26/19 18:22	
Ethylbenzene	530 U	530	87	08/26/19 18:22	
Isopropylbenzene (Cumene)	530 U	530	87	08/26/19 18:22	
Methyl Acetate	2000 D	530	87	08/26/19 18:22	
Methyl tert-Butyl Ether	530 U	530	87	08/26/19 18:22	
Methylcyclohexane	530 U	530	87	08/26/19 18:22	
Styrene	530 U	530	87	08/26/19 18:22	
Tetrachloroethene (PCE)	530 U	530	87	08/26/19 18:22	
Toluene	530 U	530	87	08/26/19 18:22	

ALS Group USA, Corp.
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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 10:50
Date Received: 08/14/19 16:25

Sample Name: SB-01 (3.0-3.5)
Lab Code: R1907734-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	2500 D	530	87	08/26/19 18:22	
Trichlorofluoromethane (CFC 11)	530 U	530	87	08/26/19 18:22	
Vinyl Chloride	7200 D	530	87	08/26/19 18:22	
cis-1,2-Dichloroethene	20000 D	530	87	08/26/19 18:22	
cis-1,3-Dichloropropene	530 U	530	87	08/26/19 18:22	
m,p-Xylenes	1100 U	1100	87	08/26/19 18:22	
o-Xylene	530 U	530	87	08/26/19 18:22	
trans-1,2-Dichloroethene	530 U	530	87	08/26/19 18:22	
trans-1,3-Dichloropropene	530 U	530	87	08/26/19 18:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	31 - 154	08/26/19 18:22	
Dibromofluoromethane	85	63 - 138	08/26/19 18:22	
Toluene-d8	100	66 - 138	08/26/19 18:22	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 11:50
Date Received: 08/14/19 16:25

Sample Name: SB-06 (10-10.5)
Lab Code: R1907734-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	3.8 U	3.8	.65	08/19/19 17:42	
1,1,2,2-Tetrachloroethane	3.8 U	3.8	.65	08/19/19 17:42	
1,1,2-Trichloroethane	3.8 U	3.8	.65	08/19/19 17:42	
1,1,2-Trichloro-1,2,2-trifluoroethane	3.8 U	3.8	.65	08/19/19 17:42	
1,1-Dichloroethane (1,1-DCA)	3.8 U	3.8	.65	08/19/19 17:42	
1,1-Dichloroethene (1,1-DCE)	3.8 U	3.8	.65	08/19/19 17:42	
1,2,3-Trichlorobenzene	3.8 U	3.8	.65	08/19/19 17:42	
1,2,4-Trichlorobenzene	3.8 U	3.8	.65	08/19/19 17:42	
1,2-Dibromo-3-chloropropane (DBCP)	3.8 U	3.8	.65	08/19/19 17:42	
1,2-Dibromoethane	3.8 U	3.8	.65	08/19/19 17:42	
1,2-Dichlorobenzene	3.8 U	3.8	.65	08/19/19 17:42	
1,2-Dichloroethane	3.8 U	3.8	.65	08/19/19 17:42	
1,2-Dichloropropane	3.8 U	3.8	.65	08/19/19 17:42	
1,3-Dichlorobenzene	3.8 U	3.8	.65	08/19/19 17:42	
1,4-Dichlorobenzene	3.8 U	3.8	.65	08/19/19 17:42	
1,4-Dioxane	77 U	77	.65	08/19/19 17:42	
2-Butanone (MEK)	3.8 U	3.8	.65	08/19/19 17:42	
2-Hexanone	3.8 U	3.8	.65	08/19/19 17:42	
4-Methyl-2-pentanone	3.8 U	3.8	.65	08/19/19 17:42	
Acetone	10	3.8	.65	08/19/19 17:42	
Benzene	3.8 U	3.8	.65	08/19/19 17:42	
Bromochloromethane	3.8 U	3.8	.65	08/19/19 17:42	
Bromodichloromethane	3.8 U	3.8	.65	08/19/19 17:42	
Bromoform	3.8 U	3.8	.65	08/19/19 17:42	
Bromomethane	3.8 U	3.8	.65	08/19/19 17:42	
Carbon Disulfide	3.8 U	3.8	.65	08/19/19 17:42	
Carbon Tetrachloride	3.8 U	3.8	.65	08/19/19 17:42	
Chlorobenzene	3.8 U	3.8	.65	08/19/19 17:42	
Chloroethane	3.8 U	3.8	.65	08/19/19 17:42	
Chloroform	3.8 U	3.8	.65	08/19/19 17:42	
Chloromethane	3.8 U	3.8	.65	08/19/19 17:42	
Cyclohexane	3.8 U	3.8	.65	08/19/19 17:42	
Dibromochloromethane	3.8 U	3.8	.65	08/19/19 17:42	
Dichlorodifluoromethane (CFC 12)	3.8 U	3.8	.65	08/19/19 17:42	
Dichloromethane	3.8 U	3.8	.65	08/19/19 17:42	
Ethylbenzene	3.8 U	3.8	.65	08/19/19 17:42	
Isopropylbenzene (Cumene)	3.8 U	3.8	.65	08/19/19 17:42	
Methyl Acetate	3.8 U	3.8	.65	08/19/19 17:42	
Methyl tert-Butyl Ether	3.8 U	3.8	.65	08/19/19 17:42	
Methylcyclohexane	3.8 U	3.8	.65	08/19/19 17:42	
Styrene	3.8 U	3.8	.65	08/19/19 17:42	
Tetrachloroethene (PCE)	3.8 U	3.8	.65	08/19/19 17:42	
Toluene	3.8 U	3.8	.65	08/19/19 17:42	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 11:50
Date Received: 08/14/19 16:25

Sample Name: SB-06 (10-10.5)
Lab Code: R1907734-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	8.6	3.8	.65	08/19/19 17:42	
Trichlorofluoromethane (CFC 11)	3.8 U	3.8	.65	08/19/19 17:42	
Vinyl Chloride	3.8 U	3.8	.65	08/19/19 17:42	
cis-1,2-Dichloroethene	3.8 U	3.8	.65	08/19/19 17:42	
cis-1,3-Dichloropropene	3.8 U	3.8	.65	08/19/19 17:42	
m,p-Xylenes	7.7 U	7.7	.65	08/19/19 17:42	
o-Xylene	3.8 U	3.8	.65	08/19/19 17:42	
trans-1,2-Dichloroethene	3.8 U	3.8	.65	08/19/19 17:42	
trans-1,3-Dichloropropene	3.8 U	3.8	.65	08/19/19 17:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	78	31 - 154	08/19/19 17:42	
Dibromofluoromethane	96	63 - 138	08/19/19 17:42	
Toluene-d8	95	66 - 138	08/19/19 17:42	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 12:15
Date Received: 08/14/19 16:25

Sample Name: SB-07 (7.5-8)
Lab Code: R1907734-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	4.3 U	4.3	.72	08/19/19 18:05	
1,1,2,2-Tetrachloroethane	4.3 U	4.3	.72	08/19/19 18:05	
1,1,2-Trichloroethane	4.3 U	4.3	.72	08/19/19 18:05	
1,1,2-Trichloro-1,2,2-trifluoroethane	4.3 U	4.3	.72	08/19/19 18:05	
1,1-Dichloroethane (1,1-DCA)	4.3 U	4.3	.72	08/19/19 18:05	
1,1-Dichloroethene (1,1-DCE)	4.3 U	4.3	.72	08/19/19 18:05	
1,2,3-Trichlorobenzene	4.3 U	4.3	.72	08/19/19 18:05	
1,2,4-Trichlorobenzene	4.3 U	4.3	.72	08/19/19 18:05	
1,2-Dibromo-3-chloropropane (DBCP)	4.3 U	4.3	.72	08/19/19 18:05	
1,2-Dibromoethane	4.3 U	4.3	.72	08/19/19 18:05	
1,2-Dichlorobenzene	4.3 U	4.3	.72	08/19/19 18:05	
1,2-Dichloroethane	4.3 U	4.3	.72	08/19/19 18:05	
1,2-Dichloropropane	4.3 U	4.3	.72	08/19/19 18:05	
1,3-Dichlorobenzene	4.3 U	4.3	.72	08/19/19 18:05	
1,4-Dichlorobenzene	4.3 U	4.3	.72	08/19/19 18:05	
1,4-Dioxane	87 U	87	.72	08/19/19 18:05	
2-Butanone (MEK)	4.3 U	4.3	.72	08/19/19 18:05	
2-Hexanone	4.3 U	4.3	.72	08/19/19 18:05	
4-Methyl-2-pentanone	4.3 U	4.3	.72	08/19/19 18:05	
Acetone	37	4.3	.72	08/19/19 18:05	
Benzene	4.3 U	4.3	.72	08/19/19 18:05	
Bromochloromethane	4.3 U	4.3	.72	08/19/19 18:05	
Bromodichloromethane	4.3 U	4.3	.72	08/19/19 18:05	
Bromoform	4.3 U	4.3	.72	08/19/19 18:05	
Bromomethane	4.3 U	4.3	.72	08/19/19 18:05	
Carbon Disulfide	4.3 U	4.3	.72	08/19/19 18:05	
Carbon Tetrachloride	4.3 U	4.3	.72	08/19/19 18:05	
Chlorobenzene	4.3 U	4.3	.72	08/19/19 18:05	
Chloroethane	4.3 U	4.3	.72	08/19/19 18:05	
Chloroform	4.3 U	4.3	.72	08/19/19 18:05	
Chloromethane	4.3 U	4.3	.72	08/19/19 18:05	
Cyclohexane	4.3 U	4.3	.72	08/19/19 18:05	
Dibromochloromethane	4.3 U	4.3	.72	08/19/19 18:05	
Dichlorodifluoromethane (CFC 12)	4.3 U	4.3	.72	08/19/19 18:05	
Dichloromethane	4.3 U	4.3	.72	08/19/19 18:05	
Ethylbenzene	4.3 U	4.3	.72	08/19/19 18:05	
Isopropylbenzene (Cumene)	4.3 U	4.3	.72	08/19/19 18:05	
Methyl Acetate	57	4.3	.72	08/19/19 18:05	
Methyl tert-Butyl Ether	4.3 U	4.3	.72	08/19/19 18:05	
Methylcyclohexane	4.3 U	4.3	.72	08/19/19 18:05	
Styrene	4.3 U	4.3	.72	08/19/19 18:05	
Tetrachloroethene (PCE)	4.3 U	4.3	.72	08/19/19 18:05	
Toluene	4.3 U	4.3	.72	08/19/19 18:05	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invest./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 12:15
Date Received: 08/14/19 16:25

Sample Name: SB-07 (7.5-8)
Lab Code: R1907734-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	4.3 U	4.3	.72	08/19/19 18:05	
Trichlorofluoromethane (CFC 11)	4.3 U	4.3	.72	08/19/19 18:05	
Vinyl Chloride	4.3 U	4.3	.72	08/19/19 18:05	
cis-1,2-Dichloroethene	4.3 U	4.3	.72	08/19/19 18:05	
cis-1,3-Dichloropropene	4.3 U	4.3	.72	08/19/19 18:05	
m,p-Xylenes	8.7 U	8.7	.72	08/19/19 18:05	
o-Xylene	4.3 U	4.3	.72	08/19/19 18:05	
trans-1,2-Dichloroethene	4.3 U	4.3	.72	08/19/19 18:05	
trans-1,3-Dichloropropene	4.3 U	4.3	.72	08/19/19 18:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	73	31 - 154	08/19/19 18:05	
Dibromofluoromethane	95	63 - 138	08/19/19 18:05	
Toluene-d8	94	66 - 138	08/19/19 18:05	

ALS Group USA, Corp.
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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 13:00
Date Received: 08/14/19 16:25

Sample Name: SB-08 (11-11.5)
Lab Code: R1907734-005

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	4.4 U	4.4	.8	08/19/19 18:28	
1,1,2,2-Tetrachloroethane	4.4 U	4.4	.8	08/19/19 18:28	
1,1,2-Trichloroethane	4.4 U	4.4	.8	08/19/19 18:28	
1,1,2-Trichloro-1,2,2-trifluoroethane	4.4 U	4.4	.8	08/19/19 18:28	
1,1-Dichloroethane (1,1-DCA)	4.4 U	4.4	.8	08/19/19 18:28	
1,1-Dichloroethene (1,1-DCE)	4.4 U	4.4	.8	08/19/19 18:28	
1,2,3-Trichlorobenzene	4.4 U	4.4	.8	08/19/19 18:28	
1,2,4-Trichlorobenzene	4.4 U	4.4	.8	08/19/19 18:28	
1,2-Dibromo-3-chloropropane (DBCP)	4.4 U	4.4	.8	08/19/19 18:28	
1,2-Dibromoethane	4.4 U	4.4	.8	08/19/19 18:28	
1,2-Dichlorobenzene	4.4 U	4.4	.8	08/19/19 18:28	
1,2-Dichloroethane	4.4 U	4.4	.8	08/19/19 18:28	
1,2-Dichloropropane	4.4 U	4.4	.8	08/19/19 18:28	
1,3-Dichlorobenzene	4.4 U	4.4	.8	08/19/19 18:28	
1,4-Dichlorobenzene	4.4 U	4.4	.8	08/19/19 18:28	
1,4-Dioxane	89 U	89	.8	08/19/19 18:28	
2-Butanone (MEK)	4.4 U	4.4	.8	08/19/19 18:28	
2-Hexanone	4.4 U	4.4	.8	08/19/19 18:28	
4-Methyl-2-pentanone	4.4 U	4.4	.8	08/19/19 18:28	
Acetone	50	4.4	.8	08/19/19 18:28	
Benzene	4.4 U	4.4	.8	08/19/19 18:28	
Bromochloromethane	4.4 U	4.4	.8	08/19/19 18:28	
Bromodichloromethane	4.4 U	4.4	.8	08/19/19 18:28	
Bromoform	4.4 U	4.4	.8	08/19/19 18:28	
Bromomethane	4.4 U	4.4	.8	08/19/19 18:28	
Carbon Disulfide	4.4 U	4.4	.8	08/19/19 18:28	
Carbon Tetrachloride	4.4 U	4.4	.8	08/19/19 18:28	
Chlorobenzene	4.4 U	4.4	.8	08/19/19 18:28	
Chloroethane	4.4 U	4.4	.8	08/19/19 18:28	
Chloroform	4.4 U	4.4	.8	08/19/19 18:28	
Chloromethane	4.4 U	4.4	.8	08/19/19 18:28	
Cyclohexane	4.4 U	4.4	.8	08/19/19 18:28	
Dibromochloromethane	4.4 U	4.4	.8	08/19/19 18:28	
Dichlorodifluoromethane (CFC 12)	4.4 U	4.4	.8	08/19/19 18:28	
Dichloromethane	4.4 U	4.4	.8	08/19/19 18:28	
Ethylbenzene	4.4 U	4.4	.8	08/19/19 18:28	
Isopropylbenzene (Cumene)	4.4 U	4.4	.8	08/19/19 18:28	
Methyl Acetate	4.4 U	4.4	.8	08/19/19 18:28	
Methyl tert-Butyl Ether	4.4 U	4.4	.8	08/19/19 18:28	
Methylcyclohexane	4.4 U	4.4	.8	08/19/19 18:28	
Styrene	4.4 U	4.4	.8	08/19/19 18:28	
Tetrachloroethene (PCE)	4.4 U	4.4	.8	08/19/19 18:28	
Toluene	4.4 U	4.4	.8	08/19/19 18:28	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 13:00
Date Received: 08/14/19 16:25

Sample Name: SB-08 (11-11.5)
Lab Code: R1907734-005

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	9.1	4.4	.8	08/19/19 18:28	
Trichlorofluoromethane (CFC 11)	4.4 U	4.4	.8	08/19/19 18:28	
Vinyl Chloride	4.4 U	4.4	.8	08/19/19 18:28	
cis-1,2-Dichloroethene	4.4 U	4.4	.8	08/19/19 18:28	
cis-1,3-Dichloropropene	4.4 U	4.4	.8	08/19/19 18:28	
m,p-Xylenes	8.9 U	8.9	.8	08/19/19 18:28	
o-Xylene	4.4 U	4.4	.8	08/19/19 18:28	
trans-1,2-Dichloroethene	4.4 U	4.4	.8	08/19/19 18:28	
trans-1,3-Dichloropropene	4.4 U	4.4	.8	08/19/19 18:28	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	80	31 - 154	08/19/19 18:28	
Dibromofluoromethane	94	63 - 138	08/19/19 18:28	
Toluene-d8	96	66 - 138	08/19/19 18:28	

ALS Group USA, Corp.
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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 13:45
Date Received: 08/14/19 16:25

Sample Name: SB-10 (3-3.5)
Lab Code: R1907734-006

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	4.7 U	4.7	.74	08/19/19 18:51	
1,1,2,2-Tetrachloroethane	4.7 U	4.7	.74	08/19/19 18:51	
1,1,2-Trichloroethane	4.7 U	4.7	.74	08/19/19 18:51	
1,1,2-Trichloro-1,2,2-trifluoroethane	4.7 U	4.7	.74	08/19/19 18:51	
1,1-Dichloroethane (1,1-DCA)	4.7 U	4.7	.74	08/19/19 18:51	
1,1-Dichloroethene (1,1-DCE)	4.7 U	4.7	.74	08/19/19 18:51	
1,2,3-Trichlorobenzene	4.7 U	4.7	.74	08/19/19 18:51	
1,2,4-Trichlorobenzene	4.7 U	4.7	.74	08/19/19 18:51	
1,2-Dibromo-3-chloropropane (DBCP)	4.7 U	4.7	.74	08/19/19 18:51	
1,2-Dibromoethane	4.7 U	4.7	.74	08/19/19 18:51	
1,2-Dichlorobenzene	4.7 U	4.7	.74	08/19/19 18:51	
1,2-Dichloroethane	4.7 U	4.7	.74	08/19/19 18:51	
1,2-Dichloropropane	4.7 U	4.7	.74	08/19/19 18:51	
1,3-Dichlorobenzene	4.7 U	4.7	.74	08/19/19 18:51	
1,4-Dichlorobenzene	4.7 U	4.7	.74	08/19/19 18:51	
1,4-Dioxane	93 U	93	.74	08/19/19 18:51	
2-Butanone (MEK)	7.1	4.7	.74	08/19/19 18:51	
2-Hexanone	4.7 U	4.7	.74	08/19/19 18:51	
4-Methyl-2-pentanone	4.7 U	4.7	.74	08/19/19 18:51	
Acetone	260 E	4.7	.74	08/19/19 18:51	
Benzene	4.7 U	4.7	.74	08/19/19 18:51	
Bromochloromethane	4.7 U	4.7	.74	08/19/19 18:51	
Bromodichloromethane	4.7 U	4.7	.74	08/19/19 18:51	
Bromoform	4.7 U	4.7	.74	08/19/19 18:51	
Bromomethane	4.7 U	4.7	.74	08/19/19 18:51	
Carbon Disulfide	4.7 U	4.7	.74	08/19/19 18:51	
Carbon Tetrachloride	4.7 U	4.7	.74	08/19/19 18:51	
Chlorobenzene	4.7 U	4.7	.74	08/19/19 18:51	
Chloroethane	4.7 U	4.7	.74	08/19/19 18:51	
Chloroform	4.7 U	4.7	.74	08/19/19 18:51	
Chloromethane	4.7 U	4.7	.74	08/19/19 18:51	
Cyclohexane	4.7 U	4.7	.74	08/19/19 18:51	
Dibromochloromethane	4.7 U	4.7	.74	08/19/19 18:51	
Dichlorodifluoromethane (CFC 12)	4.7 U	4.7	.74	08/19/19 18:51	
Dichloromethane	4.7 U	4.7	.74	08/19/19 18:51	
Ethylbenzene	4.7 U	4.7	.74	08/19/19 18:51	
Isopropylbenzene (Cumene)	4.7 U	4.7	.74	08/19/19 18:51	
Methyl Acetate	25	4.7	.74	08/19/19 18:51	
Methyl tert-Butyl Ether	4.7 U	4.7	.74	08/19/19 18:51	
Methylcyclohexane	4.7 U	4.7	.74	08/19/19 18:51	
Styrene	4.7 U	4.7	.74	08/19/19 18:51	
Tetrachloroethene (PCE)	4.7 U	4.7	.74	08/19/19 18:51	
Toluene	4.7 U	4.7	.74	08/19/19 18:51	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 13:45
Date Received: 08/14/19 16:25

Sample Name: SB-10 (3-3.5)
Lab Code: R1907734-006

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	4.7 U	4.7	.74	08/19/19 18:51	
Trichlorofluoromethane (CFC 11)	4.7 U	4.7	.74	08/19/19 18:51	
Vinyl Chloride	4.7 U	4.7	.74	08/19/19 18:51	
cis-1,2-Dichloroethene	4.7 U	4.7	.74	08/19/19 18:51	
cis-1,3-Dichloropropene	4.7 U	4.7	.74	08/19/19 18:51	
m,p-Xylenes	9.3 U	9.3	.74	08/19/19 18:51	
o-Xylene	4.7 U	4.7	.74	08/19/19 18:51	
trans-1,2-Dichloroethene	4.7 U	4.7	.74	08/19/19 18:51	
trans-1,3-Dichloropropene	4.7 U	4.7	.74	08/19/19 18:51	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	67	31 - 154	08/19/19 18:51	
Dibromofluoromethane	94	63 - 138	08/19/19 18:51	
Toluene-d8	94	66 - 138	08/19/19 18:51	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 13:45
Date Received: 08/14/19 16:25

Sample Name: SB-10 (3-3.5)
Lab Code: R1907734-006

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	800 U	800	126.5	08/26/19 17:15	
1,1,2,2-Tetrachloroethane	800 U	800	126.5	08/26/19 17:15	
1,1,2-Trichloroethane	800 U	800	126.5	08/26/19 17:15	
1,1,2-Trichloro-1,2,2-trifluoroethane	800 U	800	126.5	08/26/19 17:15	
1,1-Dichloroethane (1,1-DCA)	800 U	800	126.5	08/26/19 17:15	
1,1-Dichloroethene (1,1-DCE)	800 U	800	126.5	08/26/19 17:15	
1,2,3-Trichlorobenzene	800 U	800	126.5	08/26/19 17:15	
1,2,4-Trichlorobenzene	800 U	800	126.5	08/26/19 17:15	
1,2-Dibromo-3-chloropropane (DBCP)	800 U	800	126.5	08/26/19 17:15	
1,2-Dibromoethane	800 U	800	126.5	08/26/19 17:15	
1,2-Dichlorobenzene	800 U	800	126.5	08/26/19 17:15	
1,2-Dichloroethane	800 U	800	126.5	08/26/19 17:15	
1,2-Dichloropropane	800 U	800	126.5	08/26/19 17:15	
1,3-Dichlorobenzene	800 U	800	126.5	08/26/19 17:15	
1,4-Dichlorobenzene	800 U	800	126.5	08/26/19 17:15	
1,4-Dioxane	16000 U	16000	126.5	08/26/19 17:15	
2-Butanone (MEK)	800 U	800	126.5	08/26/19 17:15	
2-Hexanone	800 U	800	126.5	08/26/19 17:15	
4-Methyl-2-pentanone	800 U	800	126.5	08/26/19 17:15	
Acetone	2000 D	800	126.5	08/26/19 17:15	
Benzene	800 U	800	126.5	08/26/19 17:15	
Bromochloromethane	800 U	800	126.5	08/26/19 17:15	
Bromodichloromethane	800 U	800	126.5	08/26/19 17:15	
Bromoform	800 U	800	126.5	08/26/19 17:15	
Bromomethane	800 U	800	126.5	08/26/19 17:15	
Carbon Disulfide	800 U	800	126.5	08/26/19 17:15	
Carbon Tetrachloride	800 U	800	126.5	08/26/19 17:15	
Chlorobenzene	800 U	800	126.5	08/26/19 17:15	
Chloroethane	800 U	800	126.5	08/26/19 17:15	
Chloroform	800 U	800	126.5	08/26/19 17:15	
Chloromethane	800 U	800	126.5	08/26/19 17:15	
Cyclohexane	800 U	800	126.5	08/26/19 17:15	
Dibromochloromethane	800 U	800	126.5	08/26/19 17:15	
Dichlorodifluoromethane (CFC 12)	800 U	800	126.5	08/26/19 17:15	
Dichloromethane	800 U	800	126.5	08/26/19 17:15	
Ethylbenzene	800 U	800	126.5	08/26/19 17:15	
Isopropylbenzene (Cumene)	800 U	800	126.5	08/26/19 17:15	
Methyl Acetate	8100 D	800	126.5	08/26/19 17:15	
Methyl tert-Butyl Ether	800 U	800	126.5	08/26/19 17:15	
Methylcyclohexane	800 U	800	126.5	08/26/19 17:15	
Styrene	800 U	800	126.5	08/26/19 17:15	
Tetrachloroethene (PCE)	800 U	800	126.5	08/26/19 17:15	
Toluene	800 U	800	126.5	08/26/19 17:15	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 13:45
Date Received: 08/14/19 16:25

Sample Name: SB-10 (3-3.5)
Lab Code: R1907734-006

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	800 U	800	126.5	08/26/19 17:15	
Trichlorofluoromethane (CFC 11)	800 U	800	126.5	08/26/19 17:15	
Vinyl Chloride	800 U	800	126.5	08/26/19 17:15	
cis-1,2-Dichloroethene	800 U	800	126.5	08/26/19 17:15	
cis-1,3-Dichloropropene	800 U	800	126.5	08/26/19 17:15	
m,p-Xylenes	1600 U	1600	126.5	08/26/19 17:15	
o-Xylene	800 U	800	126.5	08/26/19 17:15	
trans-1,2-Dichloroethene	800 U	800	126.5	08/26/19 17:15	
trans-1,3-Dichloropropene	800 U	800	126.5	08/26/19 17:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	31 - 154	08/26/19 17:15	
Dibromofluoromethane	84	63 - 138	08/26/19 17:15	
Toluene-d8	94	66 - 138	08/26/19 17:15	

ALS Group USA, Corp.
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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 14:15
Date Received: 08/14/19 16:25

Sample Name: SB-09 (11-11.5)
Lab Code: R1907734-007

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	4.3 U	4.3	.77	08/19/19 19:15	
1,1,2,2-Tetrachloroethane	4.3 U	4.3	.77	08/19/19 19:15	
1,1,2-Trichloroethane	4.3 U	4.3	.77	08/19/19 19:15	
1,1,2-Trichloro-1,2,2-trifluoroethane	4.3 U	4.3	.77	08/19/19 19:15	
1,1-Dichloroethane (1,1-DCA)	4.3 U	4.3	.77	08/19/19 19:15	
1,1-Dichloroethene (1,1-DCE)	4.3 U	4.3	.77	08/19/19 19:15	
1,2,3-Trichlorobenzene	4.3 U	4.3	.77	08/19/19 19:15	
1,2,4-Trichlorobenzene	4.3 U	4.3	.77	08/19/19 19:15	
1,2-Dibromo-3-chloropropane (DBCP)	4.3 U	4.3	.77	08/19/19 19:15	
1,2-Dibromoethane	4.3 U	4.3	.77	08/19/19 19:15	
1,2-Dichlorobenzene	4.3 U	4.3	.77	08/19/19 19:15	
1,2-Dichloroethane	4.3 U	4.3	.77	08/19/19 19:15	
1,2-Dichloropropane	4.3 U	4.3	.77	08/19/19 19:15	
1,3-Dichlorobenzene	4.3 U	4.3	.77	08/19/19 19:15	
1,4-Dichlorobenzene	4.3 U	4.3	.77	08/19/19 19:15	
1,4-Dioxane	86 U	86	.77	08/19/19 19:15	
2-Butanone (MEK)	4.4	4.3	.77	08/19/19 19:15	
2-Hexanone	4.3 U	4.3	.77	08/19/19 19:15	
4-Methyl-2-pentanone	4.3 U	4.3	.77	08/19/19 19:15	
Acetone	210 E	4.3	.77	08/19/19 19:15	
Benzene	4.3 U	4.3	.77	08/19/19 19:15	
Bromochloromethane	4.3 U	4.3	.77	08/19/19 19:15	
Bromodichloromethane	4.3 U	4.3	.77	08/19/19 19:15	
Bromoform	4.3 U	4.3	.77	08/19/19 19:15	
Bromomethane	4.3 U	4.3	.77	08/19/19 19:15	
Carbon Disulfide	4.3 U	4.3	.77	08/19/19 19:15	
Carbon Tetrachloride	4.3 U	4.3	.77	08/19/19 19:15	
Chlorobenzene	4.3 U	4.3	.77	08/19/19 19:15	
Chloroethane	4.3 U	4.3	.77	08/19/19 19:15	
Chloroform	4.3 U	4.3	.77	08/19/19 19:15	
Chloromethane	4.3 U	4.3	.77	08/19/19 19:15	
Cyclohexane	4.3 U	4.3	.77	08/19/19 19:15	
Dibromochloromethane	4.3 U	4.3	.77	08/19/19 19:15	
Dichlorodifluoromethane (CFC 12)	4.3 U	4.3	.77	08/19/19 19:15	
Dichloromethane	4.3 U	4.3	.77	08/19/19 19:15	
Ethylbenzene	4.3 U	4.3	.77	08/19/19 19:15	
Isopropylbenzene (Cumene)	4.3 U	4.3	.77	08/19/19 19:15	
Methyl Acetate	7.2	4.3	.77	08/19/19 19:15	
Methyl tert-Butyl Ether	4.3 U	4.3	.77	08/19/19 19:15	
Methylcyclohexane	4.3 U	4.3	.77	08/19/19 19:15	
Styrene	4.3 U	4.3	.77	08/19/19 19:15	
Tetrachloroethene (PCE)	4.3 U	4.3	.77	08/19/19 19:15	
Toluene	4.3 U	4.3	.77	08/19/19 19:15	

ALS Group USA, Corp.
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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invest./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 14:15
Date Received: 08/14/19 16:25

Sample Name: SB-09 (11-11.5)
Lab Code: R1907734-007

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	4.3 U	4.3	.77	08/19/19 19:15	
Trichlorofluoromethane (CFC 11)	4.3 U	4.3	.77	08/19/19 19:15	
Vinyl Chloride	4.3 U	4.3	.77	08/19/19 19:15	
cis-1,2-Dichloroethene	4.3 U	4.3	.77	08/19/19 19:15	
cis-1,3-Dichloropropene	4.3 U	4.3	.77	08/19/19 19:15	
m,p-Xylenes	8.6 U	8.6	.77	08/19/19 19:15	
o-Xylene	4.3 U	4.3	.77	08/19/19 19:15	
trans-1,2-Dichloroethene	4.3 U	4.3	.77	08/19/19 19:15	
trans-1,3-Dichloropropene	4.3 U	4.3	.77	08/19/19 19:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	78	31 - 154	08/19/19 19:15	
Dibromofluoromethane	92	63 - 138	08/19/19 19:15	
Toluene-d8	94	66 - 138	08/19/19 19:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 14:15
Date Received: 08/14/19 16:25

Sample Name: SB-09 (11-11.5)
Lab Code: R1907734-007

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	480 U	480	86.5	08/26/19 17:37	
1,1,2,2-Tetrachloroethane	480 U	480	86.5	08/26/19 17:37	
1,1,2-Trichloroethane	480 U	480	86.5	08/26/19 17:37	
1,1,2-Trichloro-1,2,2-trifluoroethane	480 U	480	86.5	08/26/19 17:37	
1,1-Dichloroethane (1,1-DCA)	480 U	480	86.5	08/26/19 17:37	
1,1-Dichloroethene (1,1-DCE)	480 U	480	86.5	08/26/19 17:37	
1,2,3-Trichlorobenzene	480 U	480	86.5	08/26/19 17:37	
1,2,4-Trichlorobenzene	480 U	480	86.5	08/26/19 17:37	
1,2-Dibromo-3-chloropropane (DBCP)	480 U	480	86.5	08/26/19 17:37	
1,2-Dibromoethane	480 U	480	86.5	08/26/19 17:37	
1,2-Dichlorobenzene	480 U	480	86.5	08/26/19 17:37	
1,2-Dichloroethane	480 U	480	86.5	08/26/19 17:37	
1,2-Dichloropropane	480 U	480	86.5	08/26/19 17:37	
1,3-Dichlorobenzene	480 U	480	86.5	08/26/19 17:37	
1,4-Dichlorobenzene	480 U	480	86.5	08/26/19 17:37	
1,4-Dioxane	9700 U	9700	86.5	08/26/19 17:37	
2-Butanone (MEK)	480 U	480	86.5	08/26/19 17:37	
2-Hexanone	480 U	480	86.5	08/26/19 17:37	
4-Methyl-2-pentanone	480 U	480	86.5	08/26/19 17:37	
Acetone	480 U	480	86.5	08/26/19 17:37	
Benzene	480 U	480	86.5	08/26/19 17:37	
Bromochloromethane	480 U	480	86.5	08/26/19 17:37	
Bromodichloromethane	480 U	480	86.5	08/26/19 17:37	
Bromoform	480 U	480	86.5	08/26/19 17:37	
Bromomethane	480 U	480	86.5	08/26/19 17:37	
Carbon Disulfide	480 U	480	86.5	08/26/19 17:37	
Carbon Tetrachloride	480 U	480	86.5	08/26/19 17:37	
Chlorobenzene	480 U	480	86.5	08/26/19 17:37	
Chloroethane	480 U	480	86.5	08/26/19 17:37	
Chloroform	480 U	480	86.5	08/26/19 17:37	
Chloromethane	480 U	480	86.5	08/26/19 17:37	
Cyclohexane	480 U	480	86.5	08/26/19 17:37	
Dibromochloromethane	480 U	480	86.5	08/26/19 17:37	
Dichlorodifluoromethane (CFC 12)	480 U	480	86.5	08/26/19 17:37	
Dichloromethane	480 U	480	86.5	08/26/19 17:37	
Ethylbenzene	480 U	480	86.5	08/26/19 17:37	
Isopropylbenzene (Cumene)	480 U	480	86.5	08/26/19 17:37	
Methyl Acetate	730 D	480	86.5	08/26/19 17:37	
Methyl tert-Butyl Ether	480 U	480	86.5	08/26/19 17:37	
Methylcyclohexane	480 U	480	86.5	08/26/19 17:37	
Styrene	480 U	480	86.5	08/26/19 17:37	
Tetrachloroethene (PCE)	480 U	480	86.5	08/26/19 17:37	
Toluene	480 U	480	86.5	08/26/19 17:37	

ALS Group USA, Corp.
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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invest./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/13/19 14:15
Date Received: 08/14/19 16:25

Sample Name: SB-09 (11-11.5)
Lab Code: R1907734-007

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	480 U	480	86.5	08/26/19 17:37	
Trichlorofluoromethane (CFC 11)	480 U	480	86.5	08/26/19 17:37	
Vinyl Chloride	480 U	480	86.5	08/26/19 17:37	
cis-1,2-Dichloroethene	480 U	480	86.5	08/26/19 17:37	
cis-1,3-Dichloropropene	480 U	480	86.5	08/26/19 17:37	
m,p-Xylenes	970 U	970	86.5	08/26/19 17:37	
o-Xylene	480 U	480	86.5	08/26/19 17:37	
trans-1,2-Dichloroethene	480 U	480	86.5	08/26/19 17:37	
trans-1,3-Dichloropropene	480 U	480	86.5	08/26/19 17:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	31 - 154	08/26/19 17:37	
Dibromofluoromethane	82	63 - 138	08/26/19 17:37	
Toluene-d8	96	66 - 138	08/26/19 17:37	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/14/19 10:30
Date Received: 08/14/19 16:25

Sample Name: SB-03 (1.0-1.5)
Lab Code: R1907734-008

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	2300 U	2300	436	08/26/19 18:44	
1,1,2,2-Tetrachloroethane	2300 U	2300	436	08/26/19 18:44	
1,1,2-Trichloroethane	2300 U	2300	436	08/26/19 18:44	
1,1,2-Trichloro-1,2,2-trifluoroethane	2300 U	2300	436	08/26/19 18:44	
1,1-Dichloroethane (1,1-DCA)	2300 U	2300	436	08/26/19 18:44	
1,1-Dichloroethene (1,1-DCE)	2300 U	2300	436	08/26/19 18:44	
1,2,3-Trichlorobenzene	2300 U	2300	436	08/26/19 18:44	
1,2,4-Trichlorobenzene	2300 U	2300	436	08/26/19 18:44	
1,2-Dibromo-3-chloropropane (DBCP)	2300 U	2300	436	08/26/19 18:44	
1,2-Dibromoethane	2300 U	2300	436	08/26/19 18:44	
1,2-Dichlorobenzene	2300 U	2300	436	08/26/19 18:44	
1,2-Dichloroethane	2300 U	2300	436	08/26/19 18:44	
1,2-Dichloropropane	2300 U	2300	436	08/26/19 18:44	
1,3-Dichlorobenzene	2300 U	2300	436	08/26/19 18:44	
1,4-Dichlorobenzene	2300 U	2300	436	08/26/19 18:44	
1,4-Dioxane	46000 U	46000	436	08/26/19 18:44	
2-Butanone (MEK)	2300 U	2300	436	08/26/19 18:44	
2-Hexanone	2300 U	2300	436	08/26/19 18:44	
4-Methyl-2-pentanone	2300 U	2300	436	08/26/19 18:44	
Acetone	2300 U	2300	436	08/26/19 18:44	
Benzene	2300 U	2300	436	08/26/19 18:44	
Bromochloromethane	2300 U	2300	436	08/26/19 18:44	
Bromodichloromethane	2300 U	2300	436	08/26/19 18:44	
Bromoform	2300 U	2300	436	08/26/19 18:44	
Bromomethane	2300 U	2300	436	08/26/19 18:44	
Carbon Disulfide	2300 U	2300	436	08/26/19 18:44	
Carbon Tetrachloride	2300 U	2300	436	08/26/19 18:44	
Chlorobenzene	2300 U	2300	436	08/26/19 18:44	
Chloroethane	2300 U	2300	436	08/26/19 18:44	
Chloroform	2300 U	2300	436	08/26/19 18:44	
Chloromethane	2300 U	2300	436	08/26/19 18:44	
Cyclohexane	2300 U	2300	436	08/26/19 18:44	
Dibromochloromethane	2300 U	2300	436	08/26/19 18:44	
Dichlorodifluoromethane (CFC 12)	2300 U	2300	436	08/26/19 18:44	
Dichloromethane	2300 U	2300	436	08/26/19 18:44	
Ethylbenzene	2300 U	2300	436	08/26/19 18:44	
Isopropylbenzene (Cumene)	2300 U	2300	436	08/26/19 18:44	
Methyl Acetate	2300 U	2300	436	08/26/19 18:44	
Methyl tert-Butyl Ether	2300 U	2300	436	08/26/19 18:44	
Methylcyclohexane	2300 U	2300	436	08/26/19 18:44	
Styrene	2300 U	2300	436	08/26/19 18:44	
Tetrachloroethene (PCE)	2300 U	2300	436	08/26/19 18:44	
Toluene	2300 U	2300	436	08/26/19 18:44	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/14/19 10:30
Date Received: 08/14/19 16:25

Sample Name: SB-03 (1.0-1.5)
Lab Code: R1907734-008

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	100000 E	2300	436	08/26/19 18:44	
Trichlorofluoromethane (CFC 11)	2300 U	2300	436	08/26/19 18:44	
Vinyl Chloride	2300 U	2300	436	08/26/19 18:44	
cis-1,2-Dichloroethene	8300	2300	436	08/26/19 18:44	
cis-1,3-Dichloropropene	2300 U	2300	436	08/26/19 18:44	
m,p-Xylenes	4600 U	4600	436	08/26/19 18:44	
o-Xylene	2300 U	2300	436	08/26/19 18:44	
trans-1,2-Dichloroethene	2300 U	2300	436	08/26/19 18:44	
trans-1,3-Dichloropropene	2300 U	2300	436	08/26/19 18:44	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	31 - 154	08/26/19 18:44	
Dibromofluoromethane	86	63 - 138	08/26/19 18:44	
Toluene-d8	97	66 - 138	08/26/19 18:44	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/14/19 10:30
Date Received: 08/14/19 16:25

Sample Name: SB-03 (1.0-1.5)
Lab Code: R1907734-008

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5800 U	5800	1090	08/27/19 13:28	
1,1,2,2-Tetrachloroethane	5800 U	5800	1090	08/27/19 13:28	
1,1,2-Trichloroethane	5800 U	5800	1090	08/27/19 13:28	
1,1,2-Trichloro-1,2,2-trifluoroethane	5800 U	5800	1090	08/27/19 13:28	
1,1-Dichloroethane (1,1-DCA)	5800 U	5800	1090	08/27/19 13:28	
1,1-Dichloroethene (1,1-DCE)	5800 U	5800	1090	08/27/19 13:28	
1,2,3-Trichlorobenzene	5800 U	5800	1090	08/27/19 13:28	
1,2,4-Trichlorobenzene	5800 U	5800	1090	08/27/19 13:28	
1,2-Dibromo-3-chloropropane (DBCP)	5800 U	5800	1090	08/27/19 13:28	
1,2-Dibromoethane	5800 U	5800	1090	08/27/19 13:28	
1,2-Dichlorobenzene	5800 U	5800	1090	08/27/19 13:28	
1,2-Dichloroethane	5800 U	5800	1090	08/27/19 13:28	
1,2-Dichloropropane	5800 U	5800	1090	08/27/19 13:28	
1,3-Dichlorobenzene	5800 U	5800	1090	08/27/19 13:28	
1,4-Dichlorobenzene	5800 U	5800	1090	08/27/19 13:28	
1,4-Dioxane	120000 U	120000	1090	08/27/19 13:28	
2-Butanone (MEK)	5800 U	5800	1090	08/27/19 13:28	
2-Hexanone	5800 U	5800	1090	08/27/19 13:28	
4-Methyl-2-pentanone	5800 U	5800	1090	08/27/19 13:28	
Acetone	5800 U	5800	1090	08/27/19 13:28	
Benzene	5800 U	5800	1090	08/27/19 13:28	
Bromochloromethane	5800 U	5800	1090	08/27/19 13:28	
Bromodichloromethane	5800 U	5800	1090	08/27/19 13:28	
Bromoform	5800 U	5800	1090	08/27/19 13:28	
Bromomethane	5800 U	5800	1090	08/27/19 13:28	
Carbon Disulfide	5800 U	5800	1090	08/27/19 13:28	
Carbon Tetrachloride	5800 U	5800	1090	08/27/19 13:28	
Chlorobenzene	5800 U	5800	1090	08/27/19 13:28	
Chloroethane	5800 U	5800	1090	08/27/19 13:28	
Chloroform	5800 U	5800	1090	08/27/19 13:28	
Chloromethane	5800 U	5800	1090	08/27/19 13:28	
Cyclohexane	5800 U	5800	1090	08/27/19 13:28	
Dibromochloromethane	5800 U	5800	1090	08/27/19 13:28	
Dichlorodifluoromethane (CFC 12)	5800 U	5800	1090	08/27/19 13:28	
Dichloromethane	5800 U	5800	1090	08/27/19 13:28	
Ethylbenzene	5800 U	5800	1090	08/27/19 13:28	
Isopropylbenzene (Cumene)	5800 U	5800	1090	08/27/19 13:28	
Methyl Acetate	5800 U	5800	1090	08/27/19 13:28	
Methyl tert-Butyl Ether	5800 U	5800	1090	08/27/19 13:28	
Methylcyclohexane	5800 U	5800	1090	08/27/19 13:28	
Styrene	5800 U	5800	1090	08/27/19 13:28	
Tetrachloroethene (PCE)	5800 U	5800	1090	08/27/19 13:28	
Toluene	5800 U	5800	1090	08/27/19 13:28	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invest./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/14/19 10:30
Date Received: 08/14/19 16:25

Sample Name: SB-03 (1.0-1.5)
Lab Code: R1907734-008

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	100000 D	5800	1090	08/27/19 13:28	
Trichlorofluoromethane (CFC 11)	5800 U	5800	1090	08/27/19 13:28	
Vinyl Chloride	5800 U	5800	1090	08/27/19 13:28	
cis-1,2-Dichloroethene	7800 D	5800	1090	08/27/19 13:28	
cis-1,3-Dichloropropene	5800 U	5800	1090	08/27/19 13:28	
m,p-Xylenes	12000 U	12000	1090	08/27/19 13:28	
o-Xylene	5800 U	5800	1090	08/27/19 13:28	
trans-1,2-Dichloroethene	5800 U	5800	1090	08/27/19 13:28	
trans-1,3-Dichloropropene	5800 U	5800	1090	08/27/19 13:28	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	31 - 154	08/27/19 13:28	
Dibromofluoromethane	89	63 - 138	08/27/19 13:28	
Toluene-d8	98	66 - 138	08/27/19 13:28	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/14/19 11:45
Date Received: 08/14/19 16:25

Sample Name: SB-05 (1.0-1.5)
Lab Code: R1907734-009

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	2300 U	2300	388	08/26/19 19:06	
1,1,2,2-Tetrachloroethane	2300 U	2300	388	08/26/19 19:06	
1,1,2-Trichloroethane	2300 U	2300	388	08/26/19 19:06	
1,1,2-Trichloro-1,2,2-trifluoroethane	2300 U	2300	388	08/26/19 19:06	
1,1-Dichloroethane (1,1-DCA)	2300 U	2300	388	08/26/19 19:06	
1,1-Dichloroethene (1,1-DCE)	2300 U	2300	388	08/26/19 19:06	
1,2,3-Trichlorobenzene	2300 U	2300	388	08/26/19 19:06	
1,2,4-Trichlorobenzene	2300 U	2300	388	08/26/19 19:06	
1,2-Dibromo-3-chloropropane (DBCP)	2300 U	2300	388	08/26/19 19:06	
1,2-Dibromoethane	2300 U	2300	388	08/26/19 19:06	
1,2-Dichlorobenzene	2300 U	2300	388	08/26/19 19:06	
1,2-Dichloroethane	2300 U	2300	388	08/26/19 19:06	
1,2-Dichloropropane	2300 U	2300	388	08/26/19 19:06	
1,3-Dichlorobenzene	2300 U	2300	388	08/26/19 19:06	
1,4-Dichlorobenzene	2300 U	2300	388	08/26/19 19:06	
1,4-Dioxane	46000 U	46000	388	08/26/19 19:06	
2-Butanone (MEK)	2300 U	2300	388	08/26/19 19:06	
2-Hexanone	2300 U	2300	388	08/26/19 19:06	
4-Methyl-2-pentanone	2300 U	2300	388	08/26/19 19:06	
Acetone	2300 U	2300	388	08/26/19 19:06	
Benzene	2300 U	2300	388	08/26/19 19:06	
Bromochloromethane	2300 U	2300	388	08/26/19 19:06	
Bromodichloromethane	2300 U	2300	388	08/26/19 19:06	
Bromoform	2300 U	2300	388	08/26/19 19:06	
Bromomethane	2300 U	2300	388	08/26/19 19:06	
Carbon Disulfide	2300 U	2300	388	08/26/19 19:06	
Carbon Tetrachloride	2300 U	2300	388	08/26/19 19:06	
Chlorobenzene	2300 U	2300	388	08/26/19 19:06	
Chloroethane	2300 U	2300	388	08/26/19 19:06	
Chloroform	2300 U	2300	388	08/26/19 19:06	
Chloromethane	2300 U	2300	388	08/26/19 19:06	
Cyclohexane	2300 U	2300	388	08/26/19 19:06	
Dibromochloromethane	2300 U	2300	388	08/26/19 19:06	
Dichlorodifluoromethane (CFC 12)	2300 U	2300	388	08/26/19 19:06	
Dichloromethane	2300 U	2300	388	08/26/19 19:06	
Ethylbenzene	2300 U	2300	388	08/26/19 19:06	
Isopropylbenzene (Cumene)	2300 U	2300	388	08/26/19 19:06	
Methyl Acetate	4800	2300	388	08/26/19 19:06	
Methyl tert-Butyl Ether	2300 U	2300	388	08/26/19 19:06	
Methylcyclohexane	2300 U	2300	388	08/26/19 19:06	
Styrene	2300 U	2300	388	08/26/19 19:06	
Tetrachloroethene (PCE)	2300 U	2300	388	08/26/19 19:06	
Toluene	2300 U	2300	388	08/26/19 19:06	

ALS Group USA, Corp.
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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/14/19 11:45
Date Received: 08/14/19 16:25

Sample Name: SB-05 (1.0-1.5)
Lab Code: R1907734-009

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	230000 E	2300	388	08/26/19 19:06	
Trichlorofluoromethane (CFC 11)	2300 U	2300	388	08/26/19 19:06	
Vinyl Chloride	2300 U	2300	388	08/26/19 19:06	
cis-1,2-Dichloroethene	7800	2300	388	08/26/19 19:06	
cis-1,3-Dichloropropene	2300 U	2300	388	08/26/19 19:06	
m,p-Xylenes	4600 U	4600	388	08/26/19 19:06	
o-Xylene	2300 U	2300	388	08/26/19 19:06	
trans-1,2-Dichloroethene	2300 U	2300	388	08/26/19 19:06	
trans-1,3-Dichloropropene	2300 U	2300	388	08/26/19 19:06	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	31 - 154	08/26/19 19:06	
Dibromofluoromethane	89	63 - 138	08/26/19 19:06	
Toluene-d8	103	66 - 138	08/26/19 19:06	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/14/19 11:45
Date Received: 08/14/19 16:25

Sample Name: SB-05 (1.0-1.5)
Lab Code: R1907734-009

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	11000 U	11000	1940	08/27/19 13:50	
1,1,2,2-Tetrachloroethane	11000 U	11000	1940	08/27/19 13:50	
1,1,2-Trichloroethane	11000 U	11000	1940	08/27/19 13:50	
1,1,2-Trichloro-1,2,2-trifluoroethane	11000 U	11000	1940	08/27/19 13:50	
1,1-Dichloroethane (1,1-DCA)	11000 U	11000	1940	08/27/19 13:50	
1,1-Dichloroethene (1,1-DCE)	11000 U	11000	1940	08/27/19 13:50	
1,2,3-Trichlorobenzene	11000 U	11000	1940	08/27/19 13:50	
1,2,4-Trichlorobenzene	11000 U	11000	1940	08/27/19 13:50	
1,2-Dibromo-3-chloropropane (DBCP)	11000 U	11000	1940	08/27/19 13:50	
1,2-Dibromoethane	11000 U	11000	1940	08/27/19 13:50	
1,2-Dichlorobenzene	11000 U	11000	1940	08/27/19 13:50	
1,2-Dichloroethane	11000 U	11000	1940	08/27/19 13:50	
1,2-Dichloropropane	11000 U	11000	1940	08/27/19 13:50	
1,3-Dichlorobenzene	11000 U	11000	1940	08/27/19 13:50	
1,4-Dichlorobenzene	11000 U	11000	1940	08/27/19 13:50	
1,4-Dioxane	230000 U	230000	1940	08/27/19 13:50	
2-Butanone (MEK)	11000 U	11000	1940	08/27/19 13:50	
2-Hexanone	11000 U	11000	1940	08/27/19 13:50	
4-Methyl-2-pentanone	11000 U	11000	1940	08/27/19 13:50	
Acetone	11000 U	11000	1940	08/27/19 13:50	
Benzene	11000 U	11000	1940	08/27/19 13:50	
Bromochloromethane	11000 U	11000	1940	08/27/19 13:50	
Bromodichloromethane	11000 U	11000	1940	08/27/19 13:50	
Bromoform	11000 U	11000	1940	08/27/19 13:50	
Bromomethane	11000 U	11000	1940	08/27/19 13:50	
Carbon Disulfide	11000 U	11000	1940	08/27/19 13:50	
Carbon Tetrachloride	11000 U	11000	1940	08/27/19 13:50	
Chlorobenzene	11000 U	11000	1940	08/27/19 13:50	
Chloroethane	11000 U	11000	1940	08/27/19 13:50	
Chloroform	11000 U	11000	1940	08/27/19 13:50	
Chloromethane	11000 U	11000	1940	08/27/19 13:50	
Cyclohexane	11000 U	11000	1940	08/27/19 13:50	
Dibromochloromethane	11000 U	11000	1940	08/27/19 13:50	
Dichlorodifluoromethane (CFC 12)	11000 U	11000	1940	08/27/19 13:50	
Dichloromethane	11000 U	11000	1940	08/27/19 13:50	
Ethylbenzene	11000 U	11000	1940	08/27/19 13:50	
Isopropylbenzene (Cumene)	11000 U	11000	1940	08/27/19 13:50	
Methyl Acetate	11000 U	11000	1940	08/27/19 13:50	
Methyl tert-Butyl Ether	11000 U	11000	1940	08/27/19 13:50	
Methylcyclohexane	11000 U	11000	1940	08/27/19 13:50	
Styrene	11000 U	11000	1940	08/27/19 13:50	
Tetrachloroethene (PCE)	11000 U	11000	1940	08/27/19 13:50	
Toluene	11000 U	11000	1940	08/27/19 13:50	

ALS Group USA, Corp.
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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/14/19 11:45
Date Received: 08/14/19 16:25

Sample Name: SB-05 (1.0-1.5)
Lab Code: R1907734-009

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	230000 D	11000	1940	08/27/19 13:50	
Trichlorofluoromethane (CFC 11)	11000 U	11000	1940	08/27/19 13:50	
Vinyl Chloride	11000 U	11000	1940	08/27/19 13:50	
cis-1,2-Dichloroethene	11000 U	11000	1940	08/27/19 13:50	
cis-1,3-Dichloropropene	11000 U	11000	1940	08/27/19 13:50	
m,p-Xylenes	23000 U	23000	1940	08/27/19 13:50	
o-Xylene	11000 U	11000	1940	08/27/19 13:50	
trans-1,2-Dichloroethene	11000 U	11000	1940	08/27/19 13:50	
trans-1,3-Dichloropropene	11000 U	11000	1940	08/27/19 13:50	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	82	31 - 154	08/27/19 13:50	
Dibromofluoromethane	87	63 - 138	08/27/19 13:50	
Toluene-d8	94	66 - 138	08/27/19 13:50	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/14/19 14:00
Date Received: 08/14/19 16:25

Sample Name: SB-04 (1.0-1.5)
Lab Code: R1907734-010

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	4.2 U	4.2	.8	08/19/19 20:24	
1,1,2,2-Tetrachloroethane	4.2 U	4.2	.8	08/19/19 20:24	
1,1,2-Trichloroethane	4.2 U	4.2	.8	08/19/19 20:24	
1,1,2-Trichloro-1,2,2-trifluoroethane	4.2 U	4.2	.8	08/19/19 20:24	
1,1-Dichloroethane (1,1-DCA)	4.2 U	4.2	.8	08/19/19 20:24	
1,1-Dichloroethene (1,1-DCE)	4.2 U	4.2	.8	08/19/19 20:24	
1,2,3-Trichlorobenzene	4.2 U	4.2	.8	08/19/19 20:24	
1,2,4-Trichlorobenzene	4.2 U	4.2	.8	08/19/19 20:24	
1,2-Dibromo-3-chloropropane (DBCP)	4.2 U	4.2	.8	08/19/19 20:24	
1,2-Dibromoethane	4.2 U	4.2	.8	08/19/19 20:24	
1,2-Dichlorobenzene	4.2 U	4.2	.8	08/19/19 20:24	
1,2-Dichloroethane	4.2 U	4.2	.8	08/19/19 20:24	
1,2-Dichloropropane	4.2 U	4.2	.8	08/19/19 20:24	
1,3-Dichlorobenzene	4.2 U	4.2	.8	08/19/19 20:24	
1,4-Dichlorobenzene	4.2 U	4.2	.8	08/19/19 20:24	
1,4-Dioxane	84 U	84	.8	08/19/19 20:24	
2-Butanone (MEK)	4.2 U	4.2	.8	08/19/19 20:24	
2-Hexanone	4.2 U	4.2	.8	08/19/19 20:24	
4-Methyl-2-pentanone	4.2 U	4.2	.8	08/19/19 20:24	
Acetone	110	4.2	.8	08/19/19 20:24	
Benzene	4.2 U	4.2	.8	08/19/19 20:24	
Bromochloromethane	4.2 U	4.2	.8	08/19/19 20:24	
Bromodichloromethane	4.2 U	4.2	.8	08/19/19 20:24	
Bromoform	4.2 U	4.2	.8	08/19/19 20:24	
Bromomethane	4.2 U	4.2	.8	08/19/19 20:24	
Carbon Disulfide	4.2 U	4.2	.8	08/19/19 20:24	
Carbon Tetrachloride	4.2 U	4.2	.8	08/19/19 20:24	
Chlorobenzene	4.2 U	4.2	.8	08/19/19 20:24	
Chloroethane	4.2 U	4.2	.8	08/19/19 20:24	
Chloroform	4.2 U	4.2	.8	08/19/19 20:24	
Chloromethane	4.2 U	4.2	.8	08/19/19 20:24	
Cyclohexane	4.2 U	4.2	.8	08/19/19 20:24	
Dibromochloromethane	4.2 U	4.2	.8	08/19/19 20:24	
Dichlorodifluoromethane (CFC 12)	4.2 U	4.2	.8	08/19/19 20:24	
Dichloromethane	4.2 U	4.2	.8	08/19/19 20:24	
Ethylbenzene	4.2 U	4.2	.8	08/19/19 20:24	
Isopropylbenzene (Cumene)	4.2 U	4.2	.8	08/19/19 20:24	
Methyl Acetate	110	4.2	.8	08/19/19 20:24	
Methyl tert-Butyl Ether	4.2 U	4.2	.8	08/19/19 20:24	
Methylcyclohexane	4.2 U	4.2	.8	08/19/19 20:24	
Styrene	4.2 U	4.2	.8	08/19/19 20:24	
Tetrachloroethene (PCE)	4.2 U	4.2	.8	08/19/19 20:24	
Toluene	4.2 U	4.2	.8	08/19/19 20:24	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/14/19 14:00
Date Received: 08/14/19 16:25

Sample Name: SB-04 (1.0-1.5)
Lab Code: R1907734-010

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	330 E	4.2	.8	08/19/19 20:24	
Trichlorofluoromethane (CFC 11)	4.2 U	4.2	.8	08/19/19 20:24	
Vinyl Chloride	4.2 U	4.2	.8	08/19/19 20:24	
cis-1,2-Dichloroethene	34	4.2	.8	08/19/19 20:24	
cis-1,3-Dichloropropene	4.2 U	4.2	.8	08/19/19 20:24	
m,p-Xylenes	8.4 U	8.4	.8	08/19/19 20:24	
o-Xylene	4.2 U	4.2	.8	08/19/19 20:24	
trans-1,2-Dichloroethene	4.2 U	4.2	.8	08/19/19 20:24	
trans-1,3-Dichloropropene	4.2 U	4.2	.8	08/19/19 20:24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	79	31 - 154	08/19/19 20:24	
Dibromofluoromethane	96	63 - 138	08/19/19 20:24	
Toluene-d8	96	66 - 138	08/19/19 20:24	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/14/19 14:00
Date Received: 08/14/19 16:25

Sample Name: SB-04 (1.0-1.5)
Lab Code: R1907734-010

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	400 U	400	77	08/26/19 19:28	
1,1,2,2-Tetrachloroethane	400 U	400	77	08/26/19 19:28	
1,1,2-Trichloroethane	400 U	400	77	08/26/19 19:28	
1,1,2-Trichloro-1,2,2-trifluoroethane	400 U	400	77	08/26/19 19:28	
1,1-Dichloroethane (1,1-DCA)	400 U	400	77	08/26/19 19:28	
1,1-Dichloroethene (1,1-DCE)	400 U	400	77	08/26/19 19:28	
1,2,3-Trichlorobenzene	400 U	400	77	08/26/19 19:28	
1,2,4-Trichlorobenzene	400 U	400	77	08/26/19 19:28	
1,2-Dibromo-3-chloropropane (DBCP)	400 U	400	77	08/26/19 19:28	
1,2-Dibromoethane	400 U	400	77	08/26/19 19:28	
1,2-Dichlorobenzene	400 U	400	77	08/26/19 19:28	
1,2-Dichloroethane	400 U	400	77	08/26/19 19:28	
1,2-Dichloropropane	400 U	400	77	08/26/19 19:28	
1,3-Dichlorobenzene	400 U	400	77	08/26/19 19:28	
1,4-Dichlorobenzene	400 U	400	77	08/26/19 19:28	
1,4-Dioxane	8100 U	8100	77	08/26/19 19:28	
2-Butanone (MEK)	400 U	400	77	08/26/19 19:28	
2-Hexanone	400 U	400	77	08/26/19 19:28	
4-Methyl-2-pentanone	400 U	400	77	08/26/19 19:28	
Acetone	400 U	400	77	08/26/19 19:28	
Benzene	400 U	400	77	08/26/19 19:28	
Bromochloromethane	400 U	400	77	08/26/19 19:28	
Bromodichloromethane	400 U	400	77	08/26/19 19:28	
Bromoform	400 U	400	77	08/26/19 19:28	
Bromomethane	400 U	400	77	08/26/19 19:28	
Carbon Disulfide	400 U	400	77	08/26/19 19:28	
Carbon Tetrachloride	400 U	400	77	08/26/19 19:28	
Chlorobenzene	400 U	400	77	08/26/19 19:28	
Chloroethane	400 U	400	77	08/26/19 19:28	
Chloroform	400 U	400	77	08/26/19 19:28	
Chloromethane	400 U	400	77	08/26/19 19:28	
Cyclohexane	400 U	400	77	08/26/19 19:28	
Dibromochloromethane	400 U	400	77	08/26/19 19:28	
Dichlorodifluoromethane (CFC 12)	400 U	400	77	08/26/19 19:28	
Dichloromethane	400 U	400	77	08/26/19 19:28	
Ethylbenzene	400 U	400	77	08/26/19 19:28	
Isopropylbenzene (Cumene)	400 U	400	77	08/26/19 19:28	
Methyl Acetate	400 U	400	77	08/26/19 19:28	
Methyl tert-Butyl Ether	400 U	400	77	08/26/19 19:28	
Methylcyclohexane	400 U	400	77	08/26/19 19:28	
Styrene	400 U	400	77	08/26/19 19:28	
Tetrachloroethene (PCE)	400 U	400	77	08/26/19 19:28	
Toluene	400 U	400	77	08/26/19 19:28	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invest./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: 08/14/19 14:00
Date Received: 08/14/19 16:25

Sample Name: SB-04 (1.0-1.5)
Lab Code: R1907734-010

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	1600 D	400	77	08/26/19 19:28	
Trichlorofluoromethane (CFC 11)	400 U	400	77	08/26/19 19:28	
Vinyl Chloride	400 U	400	77	08/26/19 19:28	
cis-1,2-Dichloroethene	400 U	400	77	08/26/19 19:28	
cis-1,3-Dichloropropene	400 U	400	77	08/26/19 19:28	
m,p-Xylenes	810 U	810	77	08/26/19 19:28	
o-Xylene	400 U	400	77	08/26/19 19:28	
trans-1,2-Dichloroethene	400 U	400	77	08/26/19 19:28	
trans-1,3-Dichloropropene	400 U	400	77	08/26/19 19:28	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	31 - 154	08/26/19 19:28	
Dibromofluoromethane	87	63 - 138	08/26/19 19:28	
Toluene-d8	99	66 - 138	08/26/19 19:28	



General Chemistry

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Sample Name: SB-02 (2.0-2.5)
Lab Code: R1907734-001

Service Request: R1907734
Date Collected: 08/13/19 08:30
Date Received: 08/14/19 16:25

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	84.8	Percent	-	1	08/16/19 13:30	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Sample Name: SB-01 (3.0-3.5)
Lab Code: R1907734-002

Service Request: R1907734
Date Collected: 08/13/19 10:50
Date Received: 08/14/19 16:25

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	82.7	Percent	-	1	08/16/19 13:30	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Sample Name: SB-06 (10-10.5)
Lab Code: R1907734-003

Service Request: R1907734
Date Collected: 08/13/19 11:50
Date Received: 08/14/19 16:25

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	84.7	Percent	-	1	08/16/19 13:30	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Sample Name: SB-07 (7.5-8)
Lab Code: R1907734-004

Service Request: R1907734
Date Collected: 08/13/19 12:15
Date Received: 08/14/19 16:25

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	82.8	Percent	-	1	08/16/19 13:30	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Sample Name: SB-08 (11-11.5)
Lab Code: R1907734-005

Service Request: R1907734
Date Collected: 08/13/19 13:00
Date Received: 08/14/19 16:25

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	90.2	Percent	-	1	08/16/19 13:30	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Sample Name: SB-10 (3-3.5)
Lab Code: R1907734-006

Service Request: R1907734
Date Collected: 08/13/19 13:45
Date Received: 08/14/19 16:25

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	79.3	Percent	-	1	08/16/19 13:30	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Sample Name: SB-09 (11-11.5)
Lab Code: R1907734-007

Service Request: R1907734
Date Collected: 08/13/19 14:15
Date Received: 08/14/19 16:25

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	89.6	Percent	-	1	08/16/19 13:30	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Sample Name: SB-03 (1.0-1.5)
Lab Code: R1907734-008

Service Request: R1907734
Date Collected: 08/14/19 10:30
Date Received: 08/14/19 16:25

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	94.4	Percent	-	1	08/16/19 13:30	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Sample Name: SB-05 (1.0-1.5)
Lab Code: R1907734-009

Service Request: R1907734
Date Collected: 08/14/19 11:45
Date Received: 08/14/19 16:25

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	84.8	Percent	-	1	08/16/19 13:30	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Sample Name: SB-04 (1.0-1.5)
Lab Code: R1907734-010

Service Request: R1907734
Date Collected: 08/14/19 14:00
Date Received: 08/14/19 16:25

Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	95.3	Percent	-	1	08/16/19 13:30	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5035A

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		31-154	63-138	66-138
SB-02 (2.0-2.5)	R1907734-001	90	82	94
SB-01 (3.0-3.5)	R1907734-002	76	98	94
SB-01 (3.0-3.5) DL	R1907734-002	93	85	100
SB-06 (10-10.5)	R1907734-003	78	96	95
SB-07 (7.5-8)	R1907734-004	73	95	94
SB-08 (11-11.5)	R1907734-005	80	94	96
SB-10 (3-3.5)	R1907734-006	67	94	94
SB-10 (3-3.5) DL	R1907734-006	93	84	94
SB-09 (11-11.5)	R1907734-007	78	92	94
SB-09 (11-11.5) DL	R1907734-007	90	82	96
SB-03 (1.0-1.5)	R1907734-008	90	86	97
SB-03 (1.0-1.5) DL	R1907734-008	89	89	98
SB-05 (1.0-1.5)	R1907734-009	94	89	103
SB-05 (1.0-1.5) DL	R1907734-009	82	87	94
SB-04 (1.0-1.5)	R1907734-010	79	96	96
SB-04 (1.0-1.5) DL	R1907734-010	95	87	99
Method Blank	RQ1909001-04	91	96	99
Method Blank	RQ1909457-04	97	86	96
Lab Control Sample	RQ1909001-03	94	100	94
Lab Control Sample	RQ1909457-03	96	97	102
Method Blank	RQ1909381-04	99	87	96
Lab Control Sample	RQ1909381-03	100	97	98

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1909001-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	08/19/19 13:25	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	08/19/19 13:25	
1,1,2-Trichloroethane	5.0 U	5.0	1	08/19/19 13:25	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	08/19/19 13:25	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	08/19/19 13:25	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	08/19/19 13:25	
1,2,3-Trichlorobenzene	5.0 U	5.0	1	08/19/19 13:25	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	08/19/19 13:25	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	08/19/19 13:25	
1,2-Dibromoethane	5.0 U	5.0	1	08/19/19 13:25	
1,2-Dichlorobenzene	5.0 U	5.0	1	08/19/19 13:25	
1,2-Dichloroethane	5.0 U	5.0	1	08/19/19 13:25	
1,2-Dichloropropane	5.0 U	5.0	1	08/19/19 13:25	
1,3-Dichlorobenzene	5.0 U	5.0	1	08/19/19 13:25	
1,4-Dichlorobenzene	5.0 U	5.0	1	08/19/19 13:25	
1,4-Dioxane	100 U	100	1	08/19/19 13:25	
2-Butanone (MEK)	5.0 U	5.0	1	08/19/19 13:25	
2-Hexanone	5.0 U	5.0	1	08/19/19 13:25	
4-Methyl-2-pentanone	5.0 U	5.0	1	08/19/19 13:25	
Acetone	5.0 U	5.0	1	08/19/19 13:25	
Benzene	5.0 U	5.0	1	08/19/19 13:25	
Bromochloromethane	5.0 U	5.0	1	08/19/19 13:25	
Bromodichloromethane	5.0 U	5.0	1	08/19/19 13:25	
Bromoform	5.0 U	5.0	1	08/19/19 13:25	
Bromomethane	5.0 U	5.0	1	08/19/19 13:25	
Carbon Disulfide	5.0 U	5.0	1	08/19/19 13:25	
Carbon Tetrachloride	5.0 U	5.0	1	08/19/19 13:25	
Chlorobenzene	5.0 U	5.0	1	08/19/19 13:25	
Chloroethane	5.0 U	5.0	1	08/19/19 13:25	
Chloroform	5.0 U	5.0	1	08/19/19 13:25	
Chloromethane	5.0 U	5.0	1	08/19/19 13:25	
Cyclohexane	5.0 U	5.0	1	08/19/19 13:25	
Dibromochloromethane	5.0 U	5.0	1	08/19/19 13:25	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	08/19/19 13:25	
Dichloromethane	5.0 U	5.0	1	08/19/19 13:25	
Ethylbenzene	5.0 U	5.0	1	08/19/19 13:25	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	08/19/19 13:25	
Methyl Acetate	5.0 U	5.0	1	08/19/19 13:25	
Methyl tert-Butyl Ether	5.0 U	5.0	1	08/19/19 13:25	
Methylcyclohexane	5.0 U	5.0	1	08/19/19 13:25	
Styrene	5.0 U	5.0	1	08/19/19 13:25	
Tetrachloroethene (PCE)	5.0 U	5.0	1	08/19/19 13:25	
Toluene	5.0 U	5.0	1	08/19/19 13:25	

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Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1909001-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	5.0 U	5.0	1	08/19/19 13:25	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	08/19/19 13:25	
Vinyl Chloride	5.0 U	5.0	1	08/19/19 13:25	
cis-1,2-Dichloroethene	5.0 U	5.0	1	08/19/19 13:25	
cis-1,3-Dichloropropene	5.0 U	5.0	1	08/19/19 13:25	
m,p-Xylenes	10 U	10	1	08/19/19 13:25	
o-Xylene	5.0 U	5.0	1	08/19/19 13:25	
trans-1,2-Dichloroethene	5.0 U	5.0	1	08/19/19 13:25	
trans-1,3-Dichloropropene	5.0 U	5.0	1	08/19/19 13:25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	31 - 154	08/19/19 13:25	
Dibromofluoromethane	96	63 - 138	08/19/19 13:25	
Toluene-d8	99	66 - 138	08/19/19 13:25	

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dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1909381-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	250 U	250	50	08/27/19 12:51	
1,1,2,2-Tetrachloroethane	250 U	250	50	08/27/19 12:51	
1,1,2-Trichloroethane	250 U	250	50	08/27/19 12:51	
1,1,2-Trichloro-1,2,2-trifluoroethane	250 U	250	50	08/27/19 12:51	
1,1-Dichloroethane (1,1-DCA)	250 U	250	50	08/27/19 12:51	
1,1-Dichloroethene (1,1-DCE)	250 U	250	50	08/27/19 12:51	
1,2,3-Trichlorobenzene	250 U	250	50	08/27/19 12:51	
1,2,4-Trichlorobenzene	250 U	250	50	08/27/19 12:51	
1,2-Dibromo-3-chloropropane (DBCP)	250 U	250	50	08/27/19 12:51	
1,2-Dibromoethane	250 U	250	50	08/27/19 12:51	
1,2-Dichlorobenzene	250 U	250	50	08/27/19 12:51	
1,2-Dichloroethane	250 U	250	50	08/27/19 12:51	
1,2-Dichloropropane	250 U	250	50	08/27/19 12:51	
1,3-Dichlorobenzene	250 U	250	50	08/27/19 12:51	
1,4-Dichlorobenzene	250 U	250	50	08/27/19 12:51	
1,4-Dioxane	5000 U	5000	50	08/27/19 12:51	
2-Butanone (MEK)	250 U	250	50	08/27/19 12:51	
2-Hexanone	250 U	250	50	08/27/19 12:51	
4-Methyl-2-pentanone	250 U	250	50	08/27/19 12:51	
Acetone	250 U	250	50	08/27/19 12:51	
Benzene	250 U	250	50	08/27/19 12:51	
Bromochloromethane	250 U	250	50	08/27/19 12:51	
Bromodichloromethane	250 U	250	50	08/27/19 12:51	
Bromoform	250 U	250	50	08/27/19 12:51	
Bromomethane	250 U	250	50	08/27/19 12:51	
Carbon Disulfide	250 U	250	50	08/27/19 12:51	
Carbon Tetrachloride	250 U	250	50	08/27/19 12:51	
Chlorobenzene	250 U	250	50	08/27/19 12:51	
Chloroethane	250 U	250	50	08/27/19 12:51	
Chloroform	250 U	250	50	08/27/19 12:51	
Chloromethane	250 U	250	50	08/27/19 12:51	
Cyclohexane	250 U	250	50	08/27/19 12:51	
Dibromochloromethane	250 U	250	50	08/27/19 12:51	
Dichlorodifluoromethane (CFC 12)	250 U	250	50	08/27/19 12:51	
Dichloromethane	250 U	250	50	08/27/19 12:51	
Ethylbenzene	250 U	250	50	08/27/19 12:51	
Isopropylbenzene (Cumene)	250 U	250	50	08/27/19 12:51	
Methyl Acetate	250 U	250	50	08/27/19 12:51	
Methyl tert-Butyl Ether	250 U	250	50	08/27/19 12:51	
Methylcyclohexane	250 U	250	50	08/27/19 12:51	
Styrene	250 U	250	50	08/27/19 12:51	
Tetrachloroethene (PCE)	250 U	250	50	08/27/19 12:51	
Toluene	250 U	250	50	08/27/19 12:51	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1909381-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	250 U	250	50	08/27/19 12:51	
Trichlorofluoromethane (CFC 11)	250 U	250	50	08/27/19 12:51	
Vinyl Chloride	250 U	250	50	08/27/19 12:51	
cis-1,2-Dichloroethene	250 U	250	50	08/27/19 12:51	
cis-1,3-Dichloropropene	250 U	250	50	08/27/19 12:51	
m,p-Xylenes	500 U	500	50	08/27/19 12:51	
o-Xylene	250 U	250	50	08/27/19 12:51	
trans-1,2-Dichloroethene	250 U	250	50	08/27/19 12:51	
trans-1,3-Dichloropropene	250 U	250	50	08/27/19 12:51	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	31 - 154	08/27/19 12:51	
Dibromofluoromethane	87	63 - 138	08/27/19 12:51	
Toluene-d8	96	66 - 138	08/27/19 12:51	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1909457-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	250 U	250	50	08/26/19 15:49	
1,1,2,2-Tetrachloroethane	250 U	250	50	08/26/19 15:49	
1,1,2-Trichloroethane	250 U	250	50	08/26/19 15:49	
1,1,2-Trichloro-1,2,2-trifluoroethane	250 U	250	50	08/26/19 15:49	
1,1-Dichloroethane (1,1-DCA)	250 U	250	50	08/26/19 15:49	
1,1-Dichloroethene (1,1-DCE)	250 U	250	50	08/26/19 15:49	
1,2,3-Trichlorobenzene	250 U	250	50	08/26/19 15:49	
1,2,4-Trichlorobenzene	250 U	250	50	08/26/19 15:49	
1,2-Dibromo-3-chloropropane (DBCP)	250 U	250	50	08/26/19 15:49	
1,2-Dibromoethane	250 U	250	50	08/26/19 15:49	
1,2-Dichlorobenzene	250 U	250	50	08/26/19 15:49	
1,2-Dichloroethane	250 U	250	50	08/26/19 15:49	
1,2-Dichloropropane	250 U	250	50	08/26/19 15:49	
1,3-Dichlorobenzene	250 U	250	50	08/26/19 15:49	
1,4-Dichlorobenzene	250 U	250	50	08/26/19 15:49	
1,4-Dioxane	5000 U	5000	50	08/26/19 15:49	
2-Butanone (MEK)	250 U	250	50	08/26/19 15:49	
2-Hexanone	250 U	250	50	08/26/19 15:49	
4-Methyl-2-pentanone	250 U	250	50	08/26/19 15:49	
Acetone	250 U	250	50	08/26/19 15:49	
Benzene	250 U	250	50	08/26/19 15:49	
Bromochloromethane	250 U	250	50	08/26/19 15:49	
Bromodichloromethane	250 U	250	50	08/26/19 15:49	
Bromoform	250 U	250	50	08/26/19 15:49	
Bromomethane	250 U	250	50	08/26/19 15:49	
Carbon Disulfide	250 U	250	50	08/26/19 15:49	
Carbon Tetrachloride	250 U	250	50	08/26/19 15:49	
Chlorobenzene	250 U	250	50	08/26/19 15:49	
Chloroethane	250 U	250	50	08/26/19 15:49	
Chloroform	250 U	250	50	08/26/19 15:49	
Chloromethane	250 U	250	50	08/26/19 15:49	
Cyclohexane	250 U	250	50	08/26/19 15:49	
Dibromochloromethane	250 U	250	50	08/26/19 15:49	
Dichlorodifluoromethane (CFC 12)	250 U	250	50	08/26/19 15:49	
Dichloromethane	250 U	250	50	08/26/19 15:49	
Ethylbenzene	250 U	250	50	08/26/19 15:49	
Isopropylbenzene (Cumene)	250 U	250	50	08/26/19 15:49	
Methyl Acetate	250 U	250	50	08/26/19 15:49	
Methyl tert-Butyl Ether	250 U	250	50	08/26/19 15:49	
Methylcyclohexane	250 U	250	50	08/26/19 15:49	
Styrene	250 U	250	50	08/26/19 15:49	
Tetrachloroethene (PCE)	250 U	250	50	08/26/19 15:49	
Toluene	250 U	250	50	08/26/19 15:49	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invest./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1909457-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5035A

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Trichloroethene (TCE)	250 U	250	50	08/26/19 15:49	
Trichlorofluoromethane (CFC 11)	250 U	250	50	08/26/19 15:49	
Vinyl Chloride	250 U	250	50	08/26/19 15:49	
cis-1,2-Dichloroethene	250 U	250	50	08/26/19 15:49	
cis-1,3-Dichloropropene	250 U	250	50	08/26/19 15:49	
m,p-Xylenes	500 U	500	50	08/26/19 15:49	
o-Xylene	250 U	250	50	08/26/19 15:49	
trans-1,2-Dichloroethene	250 U	250	50	08/26/19 15:49	
trans-1,3-Dichloropropene	250 U	250	50	08/26/19 15:49	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	31 - 154	08/26/19 15:49	
Dibromofluoromethane	86	63 - 138	08/26/19 15:49	
Toluene-d8	96	66 - 138	08/26/19 15:49	

ALS Group USA, Corp.
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QA/QC Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Analyzed: 08/19/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ1909001-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	16.1	20.0	80	68-123
1,1,2,2-Tetrachloroethane	8260C	17.5	20.0	88	78-121
1,1,2-Trichloroethane	8260C	18.4	20.0	92	84-117
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	16.2	20.0	81	54-121
1,1-Dichloroethane (1,1-DCA)	8260C	18.5	20.0	92	76-123
1,1-Dichloroethene (1,1-DCE)	8260C	18.3	20.0	92	65-115
1,2,3-Trichlorobenzene	8260C	19.4	20.0	97	60-128
1,2,4-Trichlorobenzene	8260C	18.3	20.0	92	62-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	21.8	20.0	109	54-135
1,2-Dibromoethane	8260C	19.4	20.0	97	77-117
1,2-Dichlorobenzene	8260C	18.4	20.0	92	75-116
1,2-Dichloroethane	8260C	16.2	20.0	81	74-116
1,2-Dichloropropane	8260C	19.4	20.0	97	79-112
1,3-Dichlorobenzene	8260C	18.7	20.0	93	72-118
1,4-Dichlorobenzene	8260C	18.3	20.0	91	72-117
1,4-Dioxane	8260C	377	400	94	59-147
2-Butanone (MEK)	8260C	18.9	20.0	94	67-129
2-Hexanone	8260C	16.5	20.0	83	68-118
4-Methyl-2-pentanone	8260C	16.9	20.0	84	64-123
Acetone	8260C	17.6	20.0	88	32-154
Benzene	8260C	19.3	20.0	96	77-114
Bromochloromethane	8260C	19.8	20.0	99	78-117
Bromodichloromethane	8260C	18.4	20.0	92	72-118
Bromoform	8260C	23.4	20.0	117	55-134
Bromomethane	8260C	17.8	20.0	89	10-150
Carbon Disulfide	8260C	18.9	20.0	94	44-139
Carbon Tetrachloride	8260C	15.1	20.0	76	51-123
Chlorobenzene	8260C	19.0	20.0	95	79-115
Chloroethane	8260C	16.2	20.0	81	10-140
Chloroform	8260C	18.3	20.0	91	76-115
Chloromethane	8260C	18.9	20.0	95	10-131
Cyclohexane	8260C	17.3	20.0	87	67-122
Dibromochloromethane	8260C	19.0	20.0	95	68-121

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Analyzed: 08/19/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ1909001-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	17.1	20.0	85	51-144
Dichloromethane	8260C	19.1	20.0	96	72-118
Ethylbenzene	8260C	18.0	20.0	90	64-118
Isopropylbenzene (Cumene)	8260C	16.3	20.0	81	60-123
Methyl Acetate	8260C	16.4	20.0	82	31-122
Methyl tert-Butyl Ether	8260C	18.2	20.0	91	76-118
Methylcyclohexane	8260C	18.8	20.0	94	70-124
Styrene	8260C	18.9	20.0	94	74-117
Tetrachloroethene (PCE)	8260C	16.4	20.0	82	58-124
Toluene	8260C	16.5	20.0	82	72-116
Trichloroethene (TCE)	8260C	20.0	20.0	100	69-118
Trichlorofluoromethane (CFC 11)	8260C	15.3	20.0	76	52-127
Vinyl Chloride	8260C	19.1	20.0	96	59-153
cis-1,2-Dichloroethene	8260C	19.8	20.0	99	79-113
cis-1,3-Dichloropropene	8260C	19.2	20.0	96	66-117
m,p-Xylenes	8260C	36.2	40.0	90	68-118
o-Xylene	8260C	18.3	20.0	91	71-116
trans-1,2-Dichloroethene	8260C	19.4	20.0	97	73-114
trans-1,3-Dichloropropene	8260C	17.2	20.0	86	57-135

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Analyzed: 08/27/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ1909381-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	15.6	20.0	78	68-123
1,1,2,2-Tetrachloroethane	8260C	17.8	20.0	89	78-121
1,1,2-Trichloroethane	8260C	18.0	20.0	90	84-117
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	17.8	20.0	89	54-121
1,1-Dichloroethane (1,1-DCA)	8260C	17.0	20.0	85	76-123
1,1-Dichloroethene (1,1-DCE)	8260C	18.1	20.0	90	65-115
1,2,3-Trichlorobenzene	8260C	17.8	20.0	89	60-128
1,2,4-Trichlorobenzene	8260C	19.1	20.0	95	62-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	16.9	20.0	84	54-135
1,2-Dibromoethane	8260C	17.1	20.0	86	77-117
1,2-Dichlorobenzene	8260C	18.2	20.0	91	75-116
1,2-Dichloroethane	8260C	15.0	20.0	75	74-116
1,2-Dichloropropane	8260C	18.4	20.0	92	79-112
1,3-Dichlorobenzene	8260C	17.1	20.0	85	72-118
1,4-Dichlorobenzene	8260C	17.0	20.0	85	72-117
1,4-Dioxane	8260C	415	400	104	59-147
2-Butanone (MEK)	8260C	16.6	20.0	83	67-129
2-Hexanone	8260C	15.7	20.0	78	68-118
4-Methyl-2-pentanone	8260C	17.0	20.0	85	64-123
Acetone	8260C	15.4	20.0	77	32-154
Benzene	8260C	18.0	20.0	90	77-114
Bromochloromethane	8260C	18.0	20.0	90	78-117
Bromodichloromethane	8260C	15.2	20.0	76	72-118
Bromoform	8260C	17.7	20.0	88	55-134
Bromomethane	8260C	14.9	20.0	74	10-150
Carbon Disulfide	8260C	13.9	20.0	70	44-139
Carbon Tetrachloride	8260C	15.2	20.0	76	51-123
Chlorobenzene	8260C	18.2	20.0	91	79-115
Chloroethane	8260C	12.0	20.0	60	10-140
Chloroform	8260C	16.8	20.0	84	76-115
Chloromethane	8260C	22.4	20.0	112	10-131
Cyclohexane	8260C	18.8	20.0	94	67-122
Dibromochloromethane	8260C	15.9	20.0	80	68-121

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Analyzed: 08/27/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ1909381-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	15.8	20.0	79	51-144
Dichloromethane	8260C	17.0	20.0	85	72-118
Ethylbenzene	8260C	16.9	20.0	84	64-118
Isopropylbenzene (Cumene)	8260C	16.3	20.0	81	60-123
Methyl Acetate	8260C	20.1	20.0	101	31-122
Methyl tert-Butyl Ether	8260C	17.0	20.0	85	76-118
Methylcyclohexane	8260C	20.3	20.0	101	70-124
Styrene	8260C	17.9	20.0	89	74-117
Tetrachloroethene (PCE)	8260C	16.4	20.0	82	58-124
Toluene	8260C	18.2	20.0	91	72-116
Trichloroethene (TCE)	8260C	17.3	20.0	86	69-118
Trichlorofluoromethane (CFC 11)	8260C	15.8	20.0	79	52-127
Vinyl Chloride	8260C	18.8	20.0	94	59-153
cis-1,2-Dichloroethene	8260C	18.7	20.0	94	79-113
cis-1,3-Dichloropropene	8260C	17.1	20.0	86	66-117
m,p-Xylenes	8260C	34.9	40.0	87	68-118
o-Xylene	8260C	17.9	20.0	90	71-116
trans-1,2-Dichloroethene	8260C	17.6	20.0	88	73-114
trans-1,3-Dichloropropene	8260C	16.7	20.0	84	57-135

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Analyzed: 08/26/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ1909457-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	17.4	20.0	87	68-123
1,1,2,2-Tetrachloroethane	8260C	18.9	20.0	94	78-121
1,1,2-Trichloroethane	8260C	21.2	20.0	106	84-117
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	21.4	20.0	107	54-121
1,1-Dichloroethane (1,1-DCA)	8260C	19.3	20.0	97	76-123
1,1-Dichloroethene (1,1-DCE)	8260C	20.4	20.0	102	65-115
1,2,3-Trichlorobenzene	8260C	21.3	20.0	107	60-128
1,2,4-Trichlorobenzene	8260C	23.3	20.0	116	62-130
1,2-Dibromo-3-chloropropane (DBCP)	8260C	19.3	20.0	96	54-135
1,2-Dibromoethane	8260C	19.6	20.0	98	77-117
1,2-Dichlorobenzene	8260C	21.3	20.0	107	75-116
1,2-Dichloroethane	8260C	16.9	20.0	85	74-116
1,2-Dichloropropane	8260C	20.6	20.0	103	79-112
1,3-Dichlorobenzene	8260C	21.2	20.0	106	72-118
1,4-Dichlorobenzene	8260C	20.6	20.0	103	72-117
1,4-Dioxane	8260C	453	400	113	59-147
2-Butanone (MEK)	8260C	17.9	20.0	90	67-129
2-Hexanone	8260C	18.7	20.0	94	68-118
4-Methyl-2-pentanone	8260C	19.1	20.0	96	64-123
Acetone	8260C	16.9	20.0	84	32-154
Benzene	8260C	20.6	20.0	103	77-114
Bromochloromethane	8260C	20.6	20.0	103	78-117
Bromodichloromethane	8260C	17.5	20.0	88	72-118
Bromoform	8260C	19.4	20.0	97	55-134
Bromomethane	8260C	17.8	20.0	89	10-150
Carbon Disulfide	8260C	14.2	20.0	71	44-139
Carbon Tetrachloride	8260C	17.6	20.0	88	51-123
Chlorobenzene	8260C	21.1	20.0	105	79-115
Chloroethane	8260C	13.8	20.0	69	10-140
Chloroform	8260C	18.9	20.0	94	76-115
Chloromethane	8260C	26.1	20.0	130	10-131
Cyclohexane	8260C	18.2	20.0	91	67-122
Dibromochloromethane	8260C	18.8	20.0	94	68-121

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
Project: Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734
Date Analyzed: 08/26/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ1909457-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Dichlorodifluoromethane (CFC 12)	8260C	17.7	20.0	89	51-144
Dichloromethane	8260C	18.9	20.0	95	72-118
Ethylbenzene	8260C	20.1	20.0	100	64-118
Isopropylbenzene (Cumene)	8260C	19.7	20.0	99	60-123
Methyl Acetate	8260C	22.7	20.0	113	31-122
Methyl tert-Butyl Ether	8260C	18.4	20.0	92	76-118
Methylcyclohexane	8260C	20.5	20.0	103	70-124
Styrene	8260C	20.6	20.0	103	74-117
Tetrachloroethene (PCE)	8260C	21.2	20.0	106	58-124
Toluene	8260C	20.8	20.0	104	72-116
Trichloroethene (TCE)	8260C	20.0	20.0	100	69-118
Trichlorofluoromethane (CFC 11)	8260C	18.9	20.0	94	52-127
Vinyl Chloride	8260C	23.1	20.0	116	59-153
cis-1,2-Dichloroethene	8260C	20.6	20.0	103	79-113
cis-1,3-Dichloropropene	8260C	18.5	20.0	92	66-117
m,p-Xylenes	8260C	41.2	40.0	103	68-118
o-Xylene	8260C	20.4	20.0	102	71-116
trans-1,2-Dichloroethene	8260C	19.8	20.0	99	73-114
trans-1,3-Dichloropropene	8260C	18.5	20.0	92	57-135



General Chemistry

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ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Bergmann Associates, Incorporated
Project Gowanda Subsurface Invst./6974.96
Sample Matrix: Soil

Service Request: R1907734**Date Collected:** 08/14/19**Date Received:** 08/14/19**Date Analyzed:** 08/16/19**Replicate Sample Summary
General Chemistry Parameters****Sample Name:** SB-03 (1.0-1.5)**Units:** Percent**Lab Code:** R1907734-008**Basis:** As Received

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
				R1907734-008DUP Result			
Total Solids	ALS SOP	-	94.4	94.3	94.3	<1	20

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.



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APPENDIX 3



LIMITATIONS FOR INVESTIGATION PROJECT WORK

1. While additional explorations will always better define the nature and extent of contamination at any given site, it is our professional opinion that subsurface soils at the former Gowanda Day Habilitation Center facility at 4 Industrial Place, Gowanda, New York (Site) have been sampled and analyzed for Method 8260 (VOCs) as noted at the time of this Additional Subsurface Investigation (ASI) report.
2. Environmental impairment of a property may result from activities such as illegal, unreported dumping, or sudden spilling of hazardous waste or materials. It should be noted that the presence of contaminants at a particular property may not always be apparent, and the completion of a Phase I, Phase II Environmental Site Assessment, and remediation at select areas cannot provide a guarantee that hazardous waste or materials do not exist in other media or at other areas on the site.
3. It should be noted that no subsurface exploration can be thorough enough to exclude the possible presence of, variation of chemical compounds, hazardous materials or wastes at a given site. In cases where contaminants have not been discovered through exploration, this should not be construed as a guarantee that contaminants do not exist. At a given site, environmental conditions may exist that cannot be identified by visual observation. Where sample collection and testing have been performed, Bergmann's professional opinions are based in part on the interpretation of data from discrete sampling locations that may not represent conditions at unsampled locations.
4. It is the nature of environmental site assessment work for soil and groundwater conditions observed during this investigation to vary from the conditions identified during past and future site assessment explorations, even when the exploration program conforms to industry standards.
5. This Site soil and groundwater is impacted with low levels of chemical compounds that exceed NYSDEC soil cleanup objectives and groundwater standards and is in the NYSDEC Voluntary Cleanup Program. A Site Management Plan (SMP) will be prepared after the on-going post-remediation activities are completed to address remaining impacts and management of soil and groundwater during future re-development of this Site.



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APPENDIX 4

Hazard Identification/Hazard Assessment

Description of DASNY Gowanda (Former AVM Facility), 4 Industrial Place

Work/Scope: Groundwater Sampling, Building Evaluation, Future Excavation Remediation

In Attendance Field Site Visit

Date: 11/13/2018

Assessment By: Jim Marschner / Ari Cheremeteff

Respirator required in building.

Tyvek and gloves required to keep mold and dirt off clothing and skin.

Signature:

#	Description of Hazard (condition/circumstance)	Exposure (1-5)	Probability (1-5)	Consequences (1-5)	Total	Rating	Controls (EC/AC/PPE)
1	Work Alone in Vacant Building	5	4	4	13	Serious	1. Assure building is secure prior to entry checking windows and doors each day minimum. 2. Site Visit and access with local Site Representative. Local Rep Visits. 3. Do not enter an unsecure building. Contact local PD or Site Contact 4. Work inside building with doors locked to the outside. 5. Turn all lights on in areas where work will be done. 6. Communication with BA office. Daily at minimum.
2	Slips, Trips and Falls	5	4	4	13	Serious	1. Wet or dirty (soil, mold) walking surfaces. 2. Fall from high elevation (truck dock, stairs others). 3. Watch footing and walking surface areas. 4. Floor tiles and coverings cracking and buckling. Tiles popping from substrate. 5. Ground sinking above storm water line within the driveway located north of the building.
3	Electrical	1	2	5	8	Moderate	1. Electric is live in the building. Watch for down wires... 2. Keep watch for falling ceiling tiles or other above ceiling equipment or parts.
4	Leaking Roof	3	3	2	8	Moderate	1. Leaking water may have damaged ceiling tiles causing them to fall. Hard Hat Required in these areas.
5	Mold Growth	5	5	5	14	Serious	1. Wear respirator, Tyvek and gloves in building. Sampling proposed to ID mold.
6	Contaminated Groundwater	4	4	2	10	Moderate	1. Wear appropriate PPE (gloves, safety glasses) during water handling activities.
7	Dead Animals	2	2	1	5	Low	1. May find dead bird occasionally in building. Wear PPE and dispose of in a sealed garbage bag if found in the area of project work.
8	Bees in Monitoring Wells or nests on building	3	2	3	8	Moderate	1. Be aware of presence. Bring Epi Pen if needed for staff with know allergic reactions. 2. Remove small nests if comfortable. Seek assistance to have medium to large nests removed.
9	Site Traffic (Gowanda DPW/Others)	3	3	5	13	Serious	1. Be aware of vehicular traffic around building (DPW, others) 2. Site work in traffic areas require appropriate ANSI Class Traffic Vests 3. Stay clear of neighbors storing autos and equipment on the project site. Cars on jack stands may fall.
10	Weather	4	5	3	12	Serious	1. Prepare for cold and heat in the non-climate controlled building. 2. Be prepared and appropriately dressed and hydrated for heat and cold. Be aware of the signs of heat and cold stress.
11	Heavy Equip in Building	2	4	3	9	Moderate	1. Care in negotiation of equipment movement within the building. (see #2) 2. Ventilation - monitoring of indoor breathing zone air.
12	Regenisis Regenox Compound	2	4	3	9	Moderate	1. Follow Manufactures Safety Data Sheet (SDS) requirements for safe handling and mixing.
Assistance	Emergency Assistance						LOCAL Police Department 716.532.2020