2017 Periodic Review Report
Groundwater Monitoring and Sampling Annual Report

Roblin Steel Site
Site Number B00025
City of North Tonawanda

Prepared for
City of North Tonawanda

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1. Site Background

1.1 Site Location

The Roblin Steel site was an inactive steel processing manufacturing facility in the City of North Tonawanda, Niagara County, New York. The Site is bounded by East Avenue on the north, Oliver Street on the east, and Eighth Avenue on the south, and the Conrail-Erie Lackawanna railroad tracks on the west. One building, located on a 4.9-acre parcel adjacent to the northwest part of the site, represents an active facility occupied by Armstrong Pumps since 1985. In 1997, through tax delinquency, the City of North Tonawanda (City) obtained the former Roblin Steel facility. A site location map is presented on Figure 1.

1.2 Site History

Manufacturing operations were reported to have begun at the site in 1918, when the Buffalo Bolt Company owned the property. Roblin Seaway Industries, Inc. (a precursor to Roblin Industries, Inc.) purchased the manufacturing plant and property in 1961. From 1977 to 1987, Confer Plastics leased two long, narrow buildings on the west side of the site. In 1985, Roblin Industries sold a 4.9-acre portion of the site and the building on that portion of the site to Armstrong Pumps, Inc. In 1987, Roblin Industries declared bankruptcy, and all activities ceased at the site. In 1989, the property owned by Roblin Industries was divided. As a result of foreclosure for back taxes, the City assumed ownership of 11.5 acres of the former Roblin Steel site in 1992. At that time, Banac Enterprises owned the remaining 11.8 acres of the Roblin site. In 1995, this portion of the site was being used as an automobile salvage operation. The City currently owns the 11.8-acre parcel previously owned by Banac Enterprises, also acquired through foreclosure actions.

During the time that Roblin Industries owned the site from 1961 to 1987, operations taking place in the buildings included hot rolling of steel rods and bars, sulfuric acid pickling of steel coils, lime and oil coating of steel coils, annealing of steel coils, wire drawing and melting, and casting of nickel. Wastes were regularly staged near the center of the southern portion of the site prior to being sent off site for disposal. Wastes generated at the site included sludge from the phosphate tank, iron oxide scale, lime, spent pickle liquor, and waste oil.

Most of the site consisted of empty buildings in various states of disrepair and overgrown undeveloped property. Confer Plastics previously occupied two buildings on the western portion of the site, both of which had been burned prior to remediation efforts. The location of one of these buildings was identified only by the presence of brick piles, while the other building still had sections of walls standing.

The western portion of the rolling mill building that remained from the demolition project completed in 2000 contained flooring which consisted of stained, contaminated wood blocks. The block flooring had lifted off from the sub floor due to moisture. Trenches in the building appeared to be full of sediment and sludge. A soil floor comprised the eastern side of the building. Concrete-lined trenches were present in this portion of the building. Concrete-lined pickling tanks were present in the northwest portion of the mill building.

Waste piles, some from the previous operations at the site (identified as slag and scale during previous site investigations), and some containing building rubble/materials, were present on the western and southern sides of the site. Drums of various materials were present outside, near the southeast corner of the former mill building, and inside the large brick building, located in the center of the site. Transformer cases were adjacent to the southeast side of the former mill building. Most of the area not covered by buildings or heavy vegetative cover contained areas of black, stained soil. A concrete reservoir from a former quenching pond was located in the approximate center of the site.

1.3 Regulatory History

In 1998, Stearns & Wheler, LLC was contracted by the City to provide engineering services and prepare a Site Investigation/Remedial Alternatives Report (SI/RAR). The SI report and the preliminary RAR report were completed in 1999. In 2002, Stearns & Wheler developed a phased project approach for the site remediation based on the 1999 SI/RAR findings and earlier investigation completed in 1995 by the New York State Department of Environmental Conservation (NYSDEC). Based on the conclusions of the Site Investigation Report, Areas of Concern (AOC) were identified. The RAR addressed, defined and selected the most feasible remedial alternatives for the AOCs.

1.4 Remediation Activities

Several waste removal and disposal operations have taken place since manufacturing operations ceased at the site. In 1990, drum removal and disposal operations were conducted. In 1992, a transformer was cleaned out and PCB-impacted soil from the area surrounding the transformer pad was excavated and disposed off-site. The former wire mill building was demolished in 2000 so that the steel in the structure could be salvaged. An asbestos survey was completed prior to demolition.

In 2001, one 2,000-gallon and two 5,000-gallon steel underground storage tanks (USTs) were removed from the site. In addition, one 10,000-gallon fiberglass storage tank was excavated and demolished on-site. Approximately, 30 cubic yards of contaminated soil related to the UST removal remained on site for later removal and disposal off-site during the site remediation activities in 2003 and 2004. UST removal and disposal activities can be referenced in the Tank Closure Report dated May 2001.

The City received a “brownfields” redevelopment grant through the 1996 New York State Clean Water/Clean Air Bond Act to facilitate the rehabilitation of the site. As a result of a 2002 fire, site buildings were condemned by the City due to the deteriorated condition of building structures which posed a safety concern to the public. Immediate demolition of site buildings was required due to structural damage and the close proximity of the existing adjacent business known as Armstrong Pumps. This work was performed under Phase I construction and completed in 2003. Phase I construction also involved remediation of AOCs.

Phase II was undertaken in 2004. Final completion occurred during June 2005. Phase II work included the remediation of the site as recommended in the RAR and Record of Decision (ROD). Phase II construction involved remediation of the impacted soil and remediation of the former

quench pond. Once the site was remediated, the site could be returned to beneficial use without posing an unacceptable risk to new occupants, neighbors, or the environment near the site.

2. Groundwater Monitoring Activities

Results of groundwater sampling indicate that constituents in the soil/fill material have slightly impacted groundwater quality with volatile organic compounds (VOCs). Groundwater in the southeast corner of the site has been impacted with low concentrations of chlorinated VOCs. Groundwater in this portion of the site presumably flows toward the combined sewer line that runs down the west side of Oliver Street.

2.1 Monitoring Requirements

Annual monitoring will be performed on groundwater samples for a minimum period of 30 years or at reduced frequency and period as approved by NYSDEC. Groundwater monitoring was initially conducted after the remediation was completed and thereafter on an annual basis. Methods used are consistent with NYSDEC requirements. The NYSDEC will be notified in advance of each sampling event and summary reports of the data will be submitted to NYSDEC for review.

The extent and frequency of the sampling and analysis will be evaluated with the NYSDEC after the first year and then every five years thereafter to determine if sampling points or analytes can be dropped from the monitoring program.

The Roblin Steel Site has been sampled and reported through Periodic Review Reporting since 2010 and through 2017. Total VOC concentrations have been trending downward and reported below groundwater quality standards for three consecutive years. The NYSDEC was contacted in September 2017 requesting monitoring relief and/or termination of Site monitoring. The NYSDEC requested the 2017 sampling event be completed. If the 2017 groundwater sampling test results indicate total VOC concentrations below groundwater quality standards and continuing the downward trend, then the NYSDEC will determine if future sampling events are needed.

2.2 Groundwater Monitoring

The groundwater monitoring system will be maintained and sampled during the post-remediation period. The NYSDEC will detail changes as appropriate after reviewing the annual summary reports. Under the approved Site Management Plan dated March 2007, the following groundwater monitoring locations were to be sampled and tested for VOCs by EPA Method 8260: GW-3S, GW-3, GW-11S, GW-12S, and GW-18S.

The groundwater monitoring program was modified as proposed in the City's letter dated January 7, 2010 and presented in Appendix A. The City proposed to the NYSDEC to sample groundwater from one location at MW-3S. Analytical testing includes VOCs by EPA Method 8260. The NYSDEC has approved this change. As reported in the Site Investigation Report, impact to groundwater was localized, detecting concentrations of VOCs in groundwater from only monitoring well MW-3S. Groundwater from all other monitoring wells sampled was reported as non-detectable results or as estimated concentrations below groundwater standards.

Since the Site Management Plan has been finalized, some changes have occurred to the site. With the exception of MW-115, all monitoring wells designated for monitoring in the Site Management Plan have been reported as either damaged or missing based on a recent site inspection. The City began site development in March 2010 which includes the 10th Avenue roadway extension with water and sewer utilities. The proposed roadway and 8-inch diameter waterline conflicted with the monitoring well MW-3S location. As a result of this conflict, the City requested permission from the NYSDEC to replace monitoring well MW-3S and move its location approximately 65 feet to the north of its present location as stated in a letter dated January 7, 2010 and presented in Appendix A. Well relocation required drilling and installation of a new monitoring well. The NYSDEC approved this change; however, during construction of the 10th Avenue roadway extension, the waterline was moved to the other side of the street which allowed for new monitoring well MW-3S to be installed at approximately the same location as the original monitoring well MW-3S location. The location of monitoring well MW-3S is presented in Appendix A.

Decommissioning of existing site monitoring wells was completed in 2010. During the drilling and installation of monitoring well MW-3S, the well installer decommissioned eight existing monitoring wells.

2.3 2017 Groundwater Monitoring

The 2017 monitoring program at the Roblin Steel site consisted of one annual sampling event. Groundwater was sampled from monitoring well MW-3S on October 25, 2017. This sampling event represents the 7th event of the Roblin Steel groundwater monitoring program.

Groundwater sampling of monitoring well MW-3S was collected using low-flow purging and sampling techniques. Prior to sampling, the monitoring well was purged using a disposable bailer. Groundwater parameters of pH, conductance, dissolved oxygen (DO), temperature, and oxidation-reduction potential (ORP) were recorded. After the field parameters were recorded, groundwater was collected with a disposable bailer and transferred into sample containers provided by the testing laboratory. Groundwater elevation data was recorded. Purge water generated from monitoring well MW-3S was discharged to the ground. Groundwater Field Sampling Records are presented in Appendix C.

Several quality control samples, including a trip blank and a field duplicate were collected during the sampling event. Samples were delivered under a chain of custody to ESC Lab Sciences for analysis of VOCs by USEPA SW-846 Method 8260. The specific sampling protocol to be used, including sample preservation techniques, QA/QC objectives, a description of chain-of-custody documentation, and analytical parameters are included in the approved Site Management Plan.

3. Groundwater Monitoring Results

This section includes the analytical test results of the 2017 annual groundwater sampling event as presented in Table 1 and Appendix D. Included in this section are descriptions of the identification and distribution of constituents present in groundwater, and a comparison to historical data. Constituents are compared to the applicable NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Groundwater Standards and Guidance Values.

Data Usability Summary Reporting completed by Vali-Data of WNY, LLC is presented in Appendix E. The QA/QC measurements examined for the data were within method specified or laboratory derived limits. No data were rejected as a result of the data validation.

Analytical testing from the 2017 sampling event detected cis-1,2-dichloroethene at concentrations that were below groundwater standards. Trend analysis from the comparison of site historical data dated 1999, 2010, 2011, 2012, 2013, 2014, 2015, and 2016, and current data from 2017 analytical test results showed decreasing concentrations of cis-1,2-dichloroethene.

Analytical testing from the 2017 sampling event detected concentrations of tetrachloroethene and trichloroethene (estimated) below groundwater standards. Both compounds have periodically been detected below the groundwater standards and at estimated concentrations since 2010.

Total VOCs concentrations detected in groundwater decreased from 1999 to 2017 at concentrations of 158 µg/L to 4.6 µg/L, respectively, as presented in the following data. Total VOC concentrations detected in groundwater in the 2017 sampling event decreased from 2016 from 5.1 µg/L to 4.6 µg/L. Overall trend analysis comparing site historical data indicates a decreasing trend with a reduced total VOC concentration.

1999	158.0 µg/L
2010	63.7 µg/L
2011	26.6 µg/L
2012	22.7 µg/L
2013	13.1 µg/L
2014	9.4 µg/L
2015	6.3 µg/L
2016	5.1 µg/L
2017	4.6 µg/l

4. Soil Management Plan

The objective of the Soils Management Plan (SMP) is to set guidelines for management of soil material during any future activities which would breach the cover system at the site. The SMP addresses environmental concerns related to soil management and has been reviewed and approved by the NYSDEC.

4.1 Description of Institutional and Engineering Controls

Institutional and engineering controls are required by the NYSDEC ROD dated February 2002 and include the environmental easement for future redevelopment and ownership of the site. The approved SMP addresses the excavation procedures for the remaining soils during future redevelopment. The SMP includes soil management, characterization and disposal of excavated soils in accordance with the applicable NYSDEC regulations.

The ROD and environmental easement require the imposition of a deed restriction that requires compliance with the approved SMP and the future use of groundwater from the site. Deed restrictions are to be instituted that prohibit the installation of potable wells at the site. Any future use of groundwater at the site is prohibited. Annually, the future owners will be required to certify to the NYSDEC that the implemented remedy has been maintained in accordance with the SMP.

The site owner, as required by the NYSDEC, has included the signed Institutional and Engineering Controls Certification Form as presented in Appendix B.

4.2 Nature and Extent of Contamination

During site investigation activities, six areas of impacted soil were identified. These six impacted soil areas were excavated, removed and disposed off-site during the site remediation. Impacted soils were sampled to delineate the extent of the contamination and for waste characterization for off-site disposal. The impacted soils were excavated to a depth of 1 foot as defined in the NYSDEC issued ROD.

Five impacted soil areas contained semi-volatile organic compounds (SVOCs) which included polycyclic aromatic hydrocarbons (PAHs), and metals. Impacted soils were confined to surficial soils. Any unusually impacted soil defined as dark, oily materials observed beyond the depth of the first 12 inches were also removed. The potential exposure pathways for these soils included inhalation, absorption, ingestion, and physical contact. Health effects from exposure to these chemical compounds include skin and respiratory irritation.

The sixth impacted soil area contained polychlorinated biphenyls (PCBs). Soils were excavated, removed, and disposed off-site to a depth ranging from 12 to 18 inches. After excavation of the PCB impacted soils, confirmatory soil samples were collected to confirm no PCB impacted soils remained. The potential exposure pathways included inhalation, absorption, ingestion and contact. Health effects from exposure to PCBs include eye and skin irritants irritation.

4.3 Contemplated Use

As part of the redevelopment project, the property has been identified for light industrial/commercial usage. Residential redevelopment will not be permitted. Deed restrictions will require compliance with the approved SMP. The future use of site groundwater will be prohibited.

4.4 Purpose and Description of Surface Cover System

The purpose of the surface cover system is to eliminate the potential for human contact with fill material and eliminate the potential for contaminated runoff from the property. The cover material that was used to fill the remediated soil areas consisted of 12 inches of crushed concrete that was recycled from demolished site concrete foundations. An additional 4 inches of topsoil was spread over the crushed concrete fill to support vegetation**.**

4.5 Management of Soils/Fill and Long-Term Maintenance

The purpose of this section is to provide environmental guidelines for management of subsurface soils/fill and the long-term maintenance of the cover system during any future intrusive work which breaches the cover system. The SMP includes the following conditions:

- Any breach of the cover system, including for the purposes of construction or utilities work, must be replaced or repaired using an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. The repaired area must be covered with clean soil and reseeded or covered with impervious product such as concrete or asphalt to prevent erosion in the future.
- The immediate work area that will be disturbed must be monitored for particulate air monitoring. Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the work area at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers (PM-10) in size (MIE DataRAM Aerosol Monitor) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level.

  If the downwind particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided no visible dust is migrating from the work area.

  If, after implementation of dust suppression techniques, downwind particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.
- Control of surface erosion and run-off of the entire property at all times, including during construction activities. This includes proper maintenance of the vegetative cover established on the property. Maintenance of the surface drainage system located at the northeastern corner of the site at Oliver Street and East Avenue will be required.
- Site soil that is excavated and is intended to be removed from the property must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives.
- Soil excavated at the site may be reused as backfill material on-site provided it contains no visual or olfactory evidence of contamination, and is placed beneath a cover system component of 12 inches of clean fill from an acceptable source area.
- Any off-site fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination.

- Prior to any construction activities, workers are to be notified of the site conditions with clear instructions regarding how the work is to proceed. Intrusive work performed at the property will be performed in accordance with all applicable local, state, and federal regulations to protect worker health and safety.

4.6 Excavated and Stockpiled Soil/Fill Disposal

Every effort will be made to keep excavated soils on site. Soil/fill that is excavated as part of redevelopment that cannot be used as fill below the cover system will be characterized prior to transportation off-site for disposal at a permitted facility. For excavated soil/fill with visual evidence of contamination (i.e., staining or elevated photoionization detector (PID) measurements), one composite sample and a duplicate sample will be collected for each 100 cubic yards of stockpiled soil/fill. For excavated soil/fill that does not exhibit visual evidence of contamination but must be sent for off-site disposal, one composite sample and a duplicate sample will be collected for each 2,000 cubic yards of stockpiled soil, and a minimum of one sample will be collected for volumes less than 2,000 cubic yards.

The composite sample will be collected from five discrete locations within each stockpile. A duplicate composite sample will also be collected. PID measurements will be recorded for each of the five individual locations. One grab sample will be collected from the individual location with the highest PID measurement. If none of the five individual sample locations exhibit PID readings, one location will be selected at random. The composite sample will be analyzed by a NYSDOH ELAP-certified laboratory for pH (EPA Method 9045C), TCL SVOCs, pesticides, PCBs, and TAL metals. The grab sample will be analyzed for TCL VOCs.

Additional characterization sampling for off-site disposal may be required by the disposal facility. To potentially reduce off-site disposal requirements/costs, the owner or site developer may also choose to characterize each stockpile individually. If the analytical results indicate that concentrations exceed the standards for RCRA characteristics, the material will be considered a hazardous waste and must be properly disposed off-site at a permitted disposal facility within 90 days of excavation. If the analytical results indicate that the soil is not a hazardous waste, the material will be properly disposed off-site at a non-hazardous waste facility. Stockpiled soil cannot be transported on or off-site until the analytical results are received.

4.7 Subgrade Materials

Subgrade material used to backfill excavations or placed to increase site grades or elevation shall meet the following criteria.

- Subgrade material stockpiled on the surface for re-use must be placed on a liner material or other suitable surface to avoid commingling of this material with clean topsoil or other surface materials. Stockpiled subgrade material should also be managed to prevent erosion and runoff of precipitation which may contact this material.
- Excavated on-site soil/fill which appears to be visually impacted shall be sampled and analyzed. If analytical results indicate that the contaminants, if any, are present at concentrations below the Soil Cleanup Objectives and Cleanup Levels (SCOCLs) as presented in Tables 2, 3, and 4, the soil/fill can be used as backfill on-site.

- Any off-site fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination.
- Off-site soils intended for use as site backfill cannot otherwise be defined as a solid waste in accordance with 6 NYCRR Part 360-1.2(a).
- If the contractor designates a source as "virgin" soil, it shall be further documented in writing to be native soil material from areas not having supported any known prior industrial or commercial development or agricultural use.
- Virgin soils should be subject to collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. The soil will be acceptable for use as backfill provided that all parameters meet the SCOCLs.
- Non-virgin soils will be tested via collection of one composite sample per 500 cubic yards of material from each source area. If more than 1,000 cubic yards of soil are borrowed from a given off-site non-virgin soil source area and both samples of the first 1,000 cubic yards meet SCOCLs, the sample collection frequency will be reduced to one composite for every 2,500 cubic yards of additional soils from the same source, up to 5,000 cubic yards. For borrow sources greater than 5,000 cubic yards, sampling frequency may be reduced to one sample per 5,000 cubic yards, provided all earlier samples met the SCOCLs.

4.8 Site Usage 2009 - 2017

2009 - 2010: No excavation took place on-site in 2009. Construction for the 10th Street Extension including water, sewer and natural gas utilities, was implemented and completed during 2010. Excavation and removal of soil was conducted in accordance with the SMP.

Site redevelopment included the property ownership transfer from the City to IDEK, LLC on October 22, 2010. Ownership transfer was completed to IDEK, LLC for two lots that are accessible from the new 10th Street Extension roadway**.** IDEK, LLC (a subsidiary and doing business as Aquasol Corporation). Aquasol Corporation is a manufacturer of welding and water soluble technology to include water soluble paper, bags, tubes, confetti and water soluble packaging. NYSDEC Transfer of Ownership Certification is presented in Appendix F.

2011: No building activity took place in 2011. However, three trailers were found parked illegally and abandoned on site. Trailers contained old equipment, a car, and other common trash. Three 55-gallon drums were encountered that were filled with a white powder. This powder was evident throughout the one trailer that appears to be spilled materials from the drums. Approximately nine to ten 5-gallon pails were found sealed with full or half full contents of suspicious materials. No sampling of materials to date has yet been completed.

Site development is anticipated since construction is complete preparing lots with utility service connections. Additional site disturbances will occur once new development moves into the site. Future excavation will follow SMP guidelines.

2012: Site redevelopment included the property ownership transfer from the City to Taylor Devices, Inc. on February 14, 2012. Ownership transfer was completed to Taylor Devices, Inc. for three lots that are accessible from the new 10th Street Extension roadway**.** Incorporated in 1955, Taylor Devices, Inc. is a manufacturer that provides full analysis, development, manufacturing and testing capabilities of shock absorbers, liquid springs, shock isolation systems, seismic isolators, vibration dampers, powerplant snubbers, and other types of hydro-mechanical energy management products. NYSDEC Transfer of Ownership Certification is presented in Appendix F.

The three trailers as reported in 2011 were consolidated into one trailer in 2012 by the City. Two trailers that were emptied were removed from the Site. The City attempted to contract the sampling and waste disposal of these drums and wastes that have been moved into the only trailer on site.

The existing building adjacent to the Site and located off-site near the southwest corner of the Site has been improved. Some site activities associated with this building renovation include a small concrete pad for electrical equipment and a driveway.

2013: No building activity took place in 2013. Site development activities included the installation of an underground electrical duct bank to provide commercial power for future properties by National Grid along the 10th Street Extension Right of Way.

2014: No building activity took place in 2014. The miscellaneous paint cans, tires and the last remaining trailer was removed from the Site by the City's DPW department.

2015: No building activity took place in 2015.

2016: No building activity took place in 2016.

2017: No building activity took place in 2017.

5. Conclusions

Analytical testing from the 2017 sampling event detected concentrations of three VOC compounds below the groundwater quality standard.

- Cis-1,2-dichloroethene
- Tetrachoroethene
- Trichloroethene

Trend analysis of volatile compounds from the comparison of current and historical site data showed decreasing concentrations of cis-1,2-dichloroethene. Methyl-t-butyl ether (MTBE) was not detected in 2014, 2015, 2016, and 2017 and decreased from 2010 to 2013. Estimated concentrations of trichloroethene decreased from 1999 to 2017. Estimated concentrations of tetrachoroethene have been reported three times out of the eight sampling events with concentrations remaining below groundwater quality standards. All volatile compounds reported in 2017 are below groundwater quality standards.

Total VOCs concentrations detected in groundwater decreased from 1999 to 2017 from 158 µg/L to 4.6 µg/L, respectively. Trend analysis comparing site historical data indicates an overall decreasing

trend with a reduced total VOCs concentration reported below groundwater quality standards for three consecutive years.

The NYSDEC was contacted in September 2017 requesting monitoring relief and/or termination of Site monitoring. The NYSDEC requested the 2017 sampling event be completed. If 2017 groundwater sampling test results continue the downward trend and are reported below groundwater quality standards, then the NYSDEC will evaluate and determine if future sampling events are needed.

Figures

ROBLIN STEEL SITE
CITY OF NORTH TONAWANDA, NEW YORK
USGS QUAD: TONAWANDA WEST

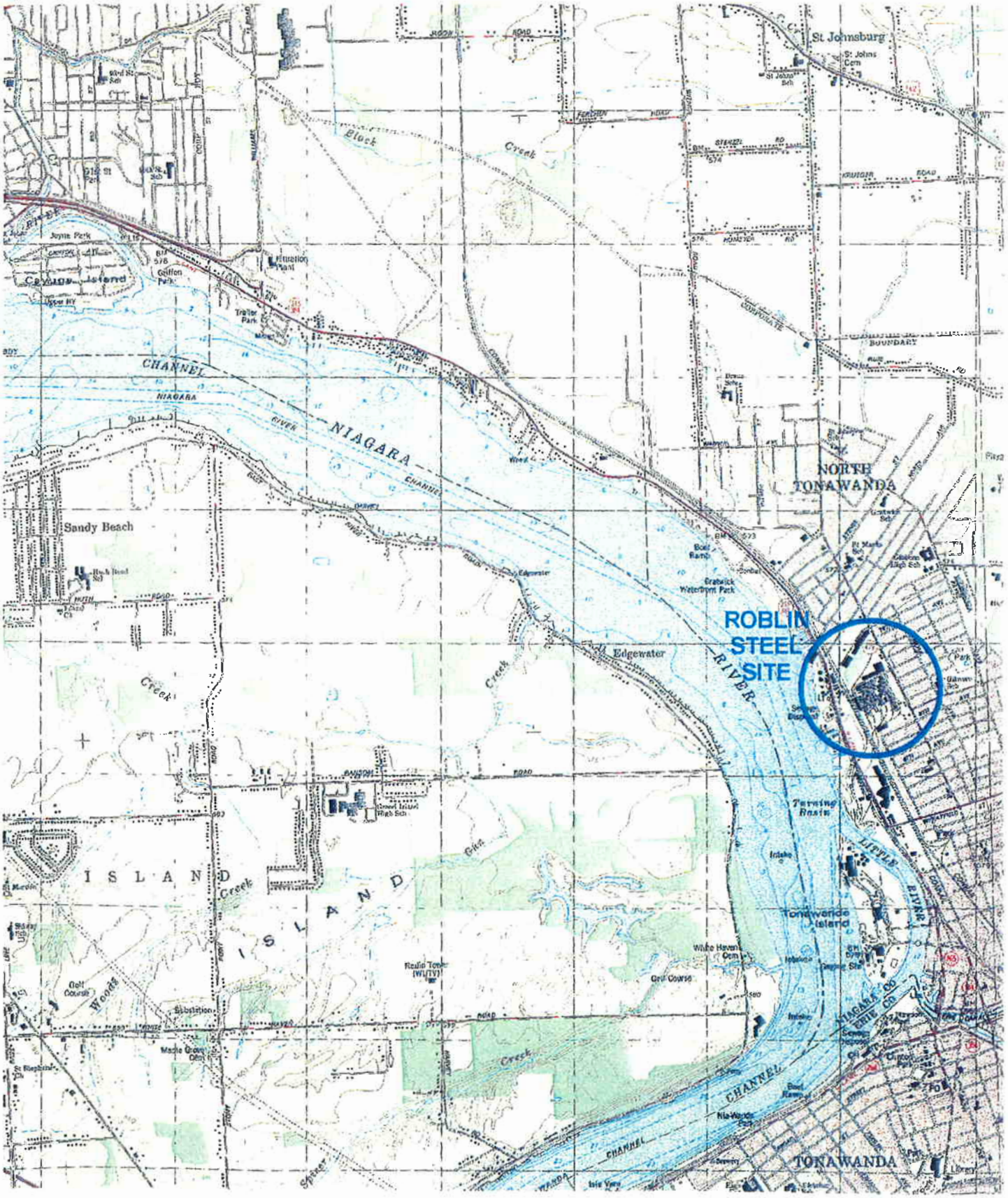

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Figure 1

Tables

TABLE 1
MONITORING WELL MW-3S
VOLATILE ORGANIC ANALYTICAL TEST RESULTS
ROBLIN STEEL SITE

Volatile Compounds	NYSDEC TOGS 1.1.1 Water Quality Standards[1]	Units	09/29/99	07/01/10	07/21/11	07/25/12	07/24/13	07/15/14	07/23/15	10/21/16	10/25/17
1,1,1-Trichloroethane	5	µg/L	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	5	µg/L	U	U	U	U	U	U	U	U	U
1,1,2-Trichlo-1,2,2-trifluoroethane	5	µg/L	-	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	1	µg/L	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	5	µg/L	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	5	µg/L	U	U	U	U	U	U	U	U	U
1,2,3-Trichlorobenzene	5	µg/L	-	U	U	U	U	U	U	U	U
1,2,4-Trichlorobenzene	5	µg/L	-	U	U	U	U	U	U	U	U
1,2-Dibromo-3-Chloropropane DBCP	0.04	µg/L	-	U	U	U	U	U	U	U	U
1,2-Dibromoethane (EDB)	NE	µg/L	-	U	U	U	U	U	U	U	U
1,2-Dichlorobenzene	3	µg/L	-	U	U	U	U	U	U	U	U
1,2-Dichloroethane	0.6	µg/L	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	5	µg/L	U	U	U	U	U	U	U	U	U
1,3-Dichlorobenzene	3	µg/L	-	U	U	U	U	U	U	U	U
1,4-Dichlorobenzene	3	µg/L	-	U	U	U	U	U	U	U	U
2-Hexanone	50	µg/L	U	U	U	U	U	U	U	U	U
Acetone	50	µg/L	UJ	**29 J**	U	U	U	U	U	U	U
Benzene	1	µg/L	U	U	U	U	U	U	U	U	U
Bromoform	50	µg/L	U	U	U	U	U	U	U	U	U
Bromomethane	5	µg/L	UJ	U	U	U	U	UJ	UJ	UJ	UJ
Bromodichloromethane	50.0	µg/L	U	U	U	U	U	U	U	U	U
Carbon disulfide	60	µg/L	U	U	U	U	U	U	U	U	U
Carbon tetrachloride	5	µg/L	U	U	U	U	U	U	U	U	U
Chlorobenzene	5	µg/L	U	U	U	U	U	U	U	U	U
Chloroethane	5	µg/L	UJ	U	U	U	U	U	U	U	U
Chloroform	7	µg/L	U	U	U	U	U	U	U	U	U
Chloromethane	NE	µg/L	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	5	µg/L	**62.0**	**28.0**	**23.0**	**21.0**	**11.0**	**8.7**	**3.9**	**4.4**	**3.5**
cis-1,3-Dichloropropene	0.40	µg/L	U	U	U	U	U	U	U	U	U
Cyclohexane	NE	µg/L	-	**0.31J**	U	U	U	U	U	U	U
Dibromochloromethane	50	µg/L	U	-	-	-	-	-	-	-	-
Dichlorobromoethane	NE	µg/L	-	U	U	U	U	U	U	U	U
Dichlorodifluoromethane	5	µg/L	-	U	U	U	U	U	U	U	U
Ethylbenzene	5	µg/L	U	U	U	U	U	U	U	U	U
Isopropylbenzene	5	µg/L	-	U	U	U	U	U	U	U	U
Methyl acetate	NE	µg/L	-	U	U	U	U	U	U	U	U
Methyl Ethyl Ketone	50	µg/L	U	U	U	U	U	U	U	U	U
Methylcyclohexane	NE	µg/L	-	U	U	U	U	U	U	U	U
Methylene chloride	5	µg/L	U	U	U	U	U	U	**1.3J**	U	U
Methyl-t-Butyl Ether (MTBE)	10	µg/L	U	**4.9J**	**1.7**	**1.1**	**0.42J**	U	U	U	U
m,p-Xylene	5	µg/L	U	U	U	U	U	U	U	U	U
o-Xylene	5	µg/L	U	U	U	U	U	U	U	U	U
Styrene	5	µg/L	U	UJ	UJ	UJ	UJ	U	U	U	U
Tetrachloroethene	5	µg/L	**40**	U	U	U	**0.91J**	U	U	**0.70J**	**0.71J**
Toluene	5	µg/L	U	U	U	U	U	U	U	U	U
Total Xylenes	5	µg/L	U	U	U	U	U	U	U	U	U
trans-1, 2-Dichloroethene	5	µg/L	U	**0.43J**	U	U	U	U	U	U	U
trans-1,3-Dichloropropene	0.4	µg/L	U	U	U	U	U	U	U	U	U
Trichloroethene	5	µg/L	**56**	**0.34J**	**1.5**	**0.64J**	**0.75J**	**0.66J**	**1.1**	U	**0.41J**
Trichlorofluoromethane	5	µg/L	-	U	U	U	U	U	U	U	U
Vinyl Chloride	2	µg/L	U	**0.74J**	**0.42J**	U	U	U	U	U	U
Total VOCs		µg/L	158.0	63.7	26.6	22.7	13.1	9.4	6.3	5.1	4.6
Total VOCs		mg/L	0.158	0.064	0.027	0.023	0.013	0.009	0.006	0.005	0.005

Notes:

1. New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (TOGS) 1.1.1: Ambient Water Quality Standards and Guidance Values (µg/L)

Bolded concentrations indicated the analyte was detected.

Bolded and shaded concentrations indicate equal to or exceedance of TOGS 1.1.1 criteria.

NE = NYSDEC TOGS 1.1.1 water quality standard not established.

U = The analyte was analyzed for and Not Detected. The associated value is the analyte quantitation limit.

J = The analyte was positively identified; however, the associated numerical value is an estimated concentration below the lowest calibration point.

- = The analyte was not sampled for.

Table 2
SEMI-VOLATILE ORGANIC COMPOUNDS

Compound	Soil Standard (mg/kg)
Naphthalene	500
Acenapthylene	500
Acenapthene	500
Fluorene	500
Phenanthrene	500
Anthracene	500
Fluoranthene	500
Pyrene	500
Benzo (a) anthracene	5.6
Chrysene	56
Benzo (b) fluoranthene	5.6
Benzo (k) fluoranthene	5.6
Benzo (a) pyrene	1
Indeno (1,2,3-c,d) pyrene	5.6
Dibenzo (a,h) anthracene	0.56
Benzo (g,h,i) perylene	500

Note: Standards based on Restricted Use Soil Cleanup Objectives for Commercial Use (NYSDEC, effective December 14, 2006)

Table 3
PCBs

Compound	Soil Standard (ug/kg)
Aroclor 1016	1,000
Aroclor 1221	1,000
Aroclor 1232	1,000
Aroclor 1242	1,000
Aroclor 1248	1,000
Aroclor 1254	1,000
Aroclor 1260	1,000

Note: Standards based on Determination of Soil Cleanup Objectives and Cleanup Levels (NYSDEC, January 1994)

Table 4
METALS

Compound	Soil Standard (mg/kg)
Aluminum	SB
Antimony	SB
Arsenic	16
Barium	400
Beryllium	590
Cadmium	9.3
Calcium	SB
Chromium	400
Cobalt	SB
Copper	270
Iron	SB
Lead	SB*
Magnesium	SB
Manganese	10,000
Mercury	2.8
Nickel	310
Potassium	SB
Selenium	1500
Silver	1500
Sodium	SB
Thallium	SB
Vanadium	SB
Zinc	10,000

Note: Standards based on Determination of Soil Cleanup (NYSDEC, effective December 14, 2006)
**Background levels for lead vary widely*
SB = Site Background

Appendices

Appendix A
Groundwater Monitoring Program Revision

City of North Tonawanda
Department of Engineering
City Hall, 216 Payne Avenue
North Tonawanda, NY 14120-5493
www.northtonawanda.org

Dale W. Marshall, P. E.
City Engineer
Phone: **(716) 695-8565**
Fax: **(716) 695-8568**

January 7, 2010

Mr. Jeffrey Konsella, P.E.
New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203

Re: Roblin Steel Groundwater Monitoring

Dear Mr. Konsella:

The City of North Tonawanda proposes modifications to the groundwater monitoring at the Roblin Steel Site. As stated in the approved Site Management Plan dated March 2007, annual monitoring will be performed on groundwater samples for a minimum period of 30 years or at a reduced frequency and period as approved by NYSDEC. Groundwater monitoring will initially be conducted after the remediation has been completed and thereafter on an annual basis. As stated in the Site Management Plan, groundwater samples will be collected from monitoring wells: GW-3S, GW-3, GW-11S, GW-12S, and GW-18S and tested for Volatile Organic Compounds (VOCs) under EPA Method 8260 TCL.

As reported in the Site Investigation Report, impacts to groundwater were localized detecting concentrations of volatile compounds in groundwater from only monitoring well MW-3S. Detected volatile concentrations were above groundwater standards as presented on the attached Table 3 of the Site Investigation Report. Groundwater from all other wells sampled was reported at non-detectable results or as estimated concentrations below groundwater standards.

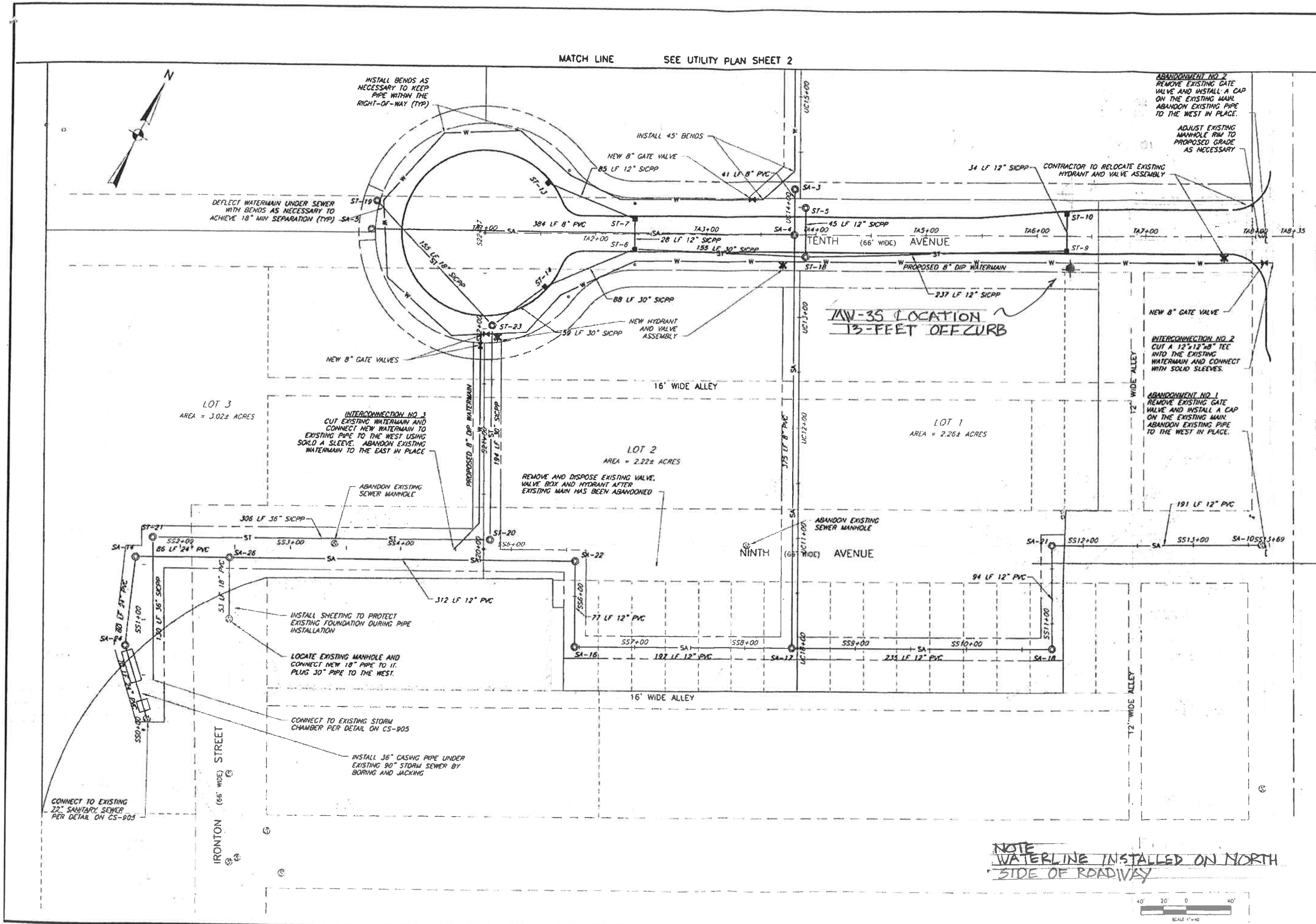
Since the Site Management Plan has been finalized, some changes have occurred to the site. All monitoring wells as listed in the Site Management Plan except for MW-11S have been reported from a recent site inspection as either damaged or missing. The City has begun site development which includes a roadway extension of Tenth Avenue as presented on Figure 1. The proposed roadway and 8-inch diameter waterline conflicts with monitoring well MW-3S location.

The City proposes to replace monitoring well MW-3S and move its location approximately 65-feet to the north of its old location. The new location would be located within the proposed road right-of-way area outside from proposed pavement and curb area. The proposed location of monitoring well MW-3S is presented on Figure 1. The City proposes to only sample groundwater from monitoring well MW-3S. Analytical testing will include Volatile Organic Compounds (VOCs) under EPA Method 8260 TCL.

Very truly yours,

Dale Marshall, P.E.
City Engineer

Cc: file, w/a
David Rowlinson, Stearns & Wheler, LLC - GHD


MATCH LINE SEE UTILITY PLAN SHEET 2
N
INSTALL BENDS AS NECESSARY TO KEEP PIPE WITHIN THE RIGHT-OF-WAY (TYP)
INSTALL 45° BENDS
NEW 8" GATE VALVE
85 LF 12" SICPP
41 LF 8" PVC
DEFLECT WATERMAIN UNDER SEWER WITH BENDS AS NECESSARY TO ACHIEVE 18" MIN SEPARATION (TYP)
384 LF 8" PVC
28 LF 12" SICPP
155 LF 30" SICPP
155 LF 18" SICPP
45 LF 12" SICPP
TENTH (66' WIDE) AVENUE
34 LF 12" SICPP
CONTRACTOR TO RELOCATE EXISTING HYDRANT AND VALVE ASSEMBLY
ABANDONMENT NO 2
REMOVE EXISTING GATE VALVE AND INSTALL A CAP ON THE EXISTING MAIN. ABANDON EXISTING PIPE TO THE WEST IN PLACE.
ADJUST EXISTING MANHOLE RIM TO PROPOSED GRADE AS NECESSARY
PROPOSED 8" DIP WATERMAIN
237 LF 12" SICPP
88 LF 30" SICPP
NEW HYDRANT AND VALVE ASSEMBLY
59 LF 30" SICPP
NEW 8" GATE VALVES
MW-35 LOCATION
13-FEET OFF CURB
NEW 8" GATE VALVE
INTERCONNECTION NO 2
CUT A 12"x12"x8" TEE INTO THE EXISTING WATERMAIN AND CONNECT WITH SOLID SLEEVES.
ABANDONMENT NO 1
REMOVE EXISTING GATE VALVE AND INSTALL A CAP ON THE EXISTING MAIN. ABANDON EXISTING PIPE TO THE WEST IN PLACE.
OLIVER (76' WIDE) STREET
16' WIDE ALLEY
12' WIDE ALLEY
LOT 3
AREA = 3.02± ACRES
LOT 2
AREA = 2.22± ACRES
LOT 1
AREA = 2.26± ACRES
INTERCONNECTION NO 3
CUT EXISTING WATERMAIN AND CONNECT NEW WATERMAIN TO EXISTING PIPE TO THE WEST USING SOLID A SLEEVE. ABANDON EXISTING WATERMAIN TO THE EAST IN PLACE
PROPOSED 8" DIP WATERMAIN
194 LF 30" SICPP
375 LF 8" PVC
REMOVE AND DISPOSE EXISTING VALVE, VALVE BOX AND HYDRANT AFTER EXISTING MAIN HAS BEEN ABANDONED
ABANDON EXISTING SEWER MANHOLE
306 LF 36" SICPP
ABANDON EXISTING SEWER MANHOLE
NINTH (66' WIDE) AVENUE
191 LF 12" PVC
86 LF 24" PVC
312 LF 12" PVC
94 LF 12" PVC
77 LF 12" PVC
53 LF 18" PVC
130 LF 36" SICPP
80 LF 24" PVC
INSTALL SHEETING TO PROTECT EXISTING FOUNDATION DURING PIPE INSTALLATION
LOCATE EXISTING MANHOLE AND CONNECT NEW 18" PIPE TO IT. PLUG 30" PIPE TO THE WEST.
192 LF 12" PVC
235 LF 12" PVC
CONNECT TO EXISTING STORM CHAMBER PER DETAIL ON CS-905
INSTALL 36" CASING PIPE UNDER EXISTING 90" STORM SEWER BY BORING AND JACKING
IRONTON (66' WIDE) STREET
CONNECT TO EXISTING 22" SANITARY SEWER PER DETAIL ON CS-905
NOTE
WATERLINE INSTALLED ON NORTH SIDE OF ROADWAY
40' 20' 0 40'
SCALE 1"=40'

REV | DATE | BY | DESCRIPTION

PRELIMINARY

Designed by: RJT
Drawn by: RJT
Checked by: DJH

Date: JULY 2009
Job No. 2009.0036.00
Dwg Scale: Horiz: 1" = 40' Vert: N/A

TVGA CONSULTANTS
1000 MAPLE ROAD
ELMA, NEW YORK 14059-9530
P. 716.655.8842
F. 716.655.0937
www.tvga.com

CITY OF NORTH TONAWANDA, NIAGARA COUNTY — STATE OF NEW YORK

BUFFALO BOLT BUSINESS PARK
101 EAST AVENUE
UTILITY PLAN SHEET 1

SHEET REFERENCE NUMBER:
CS-400
SHEET 8 OF 22

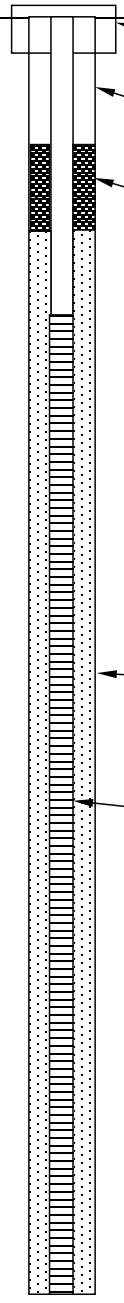
Stearns & Wheler, LLC
Environmental Engineers and Scientists

Boring/Well: MW-3S

Project No. 8612403
Date: 06/25/10

Weather: Partly Clear 70º

Project Name: Roblin Steel Groundwater Monitoring
Drilling Co.: SJB Services
S&W Representative: BPD
Drill Rig Type: Hollow Stem Auger
Drilling Method: Spilt Spoon

Depth (ft)	Sample No.	Recovery (%)	# of Blows	USCS Classification	Sample Description	Well Schematic	Comments
	S-1	88	3	GM	Black Silt (Fill)		Curb Box
1			5		- contains gravel with large cobbles		
			7				Cement Grout
2			7		2.0'		
	S-2	75	4	ML	Reddish Tan Sandy Silt		Bentonite Seal
3			8		- dry		
			10		- grades to rust/gray silt		
4			8				
	S-3	88	4				
5			6		5.0'		
			6	ML	Grayish Tan Sandy Silt		
6			8		- wet		
	S-4	63	6				
7			6				
			8				Sandpack filter
8			10				
	S-5	50	5				
9			7				
			8				0.20" Slot Well Screen
10			8		10.0'		
	S-6	88	7	CH	Reddish Gray Clay		
11			8		- dry		
			5		- some sand		
12			9				
	S-7	88	6				
13			6				
			8				
14			8				
	S-8	100	2		14.5'		
15			2	OH	Reddish Gray Clay		
			2		- wet 15.5'		
16			2		Augered to 16.0'		

Sample Log Key: Sediment Depth Lab Analysis Groundwater

Appendix B
IC-EC Certification

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

1/4/2018

Mr. Dale Marshall. P.E.
City Engineer
Municipal
City Hall
216 Payne Avenue
North Tonawanda, NY 14120

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Former Roblin Steel Site
Site No.: B00025
Site Address: 101 East Avenue
North Tonawanda, NY 14120

Dear Mr. Dale Marshall. P.E.:

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 **March 16, 2018**. 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.

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at:
http://www.dec.ny.gov/regulations/2586.html

The signed certification forms should be sent to Brian Sadowski, Project Manager, at the following address:

New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, NY 14203-2915

Phone number: 716-851-7220. E-mail: brian.sadowski@dec.ny.gov

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures
Brian Sadowski, Project Manager
Chad Staniszewski, Hazardous Waste Remediation Engineer, Region 9

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. **B00025**

Site Name Former Roblin Steel Site

Site Address: 101 East Avenue Zip Code: 14120
City/Town: North Tonawanda
County: Niagara
Site Acreage: 23.7

Reporting Period: February 14, 2017 to February 14, 2018

	YES	NO
1. Is the information above correct?	X	☐
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?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
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?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	☐
7. Are all ICs/ECs in place and functioning as designed?	X	☐

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 Date

SITE NO. B00025 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
181.12-1-14.11	City of North Tonawanda	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan

The summary of the Environmental Easement is as follows:

The property may be used for commercial/industrial purposes (excluding uses for day care, child care, and medical care, unless such use is approved in writing by the DEC and NYSDOH) as long as the following long-term engineering controls are employed:

(i) Soils and fill materials encountered during any construction or development activity below the crushed concrete cover layer must be handled in accordance with provisions of the Roblin Steel Site Soils Management Plan, dated February, 2006. Excavated soil must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives.

(ii) Should subsequent construction or development activities require the decommissioning (removal) of existing groundwater monitoring wells, the wells will be decommissioned in accordance with DEC guidance. Replacement monitoring wells may be required by the DEC.

(iii) A long term ground water monitoring program is required per the approved Roblin Steel Operation, Maintenance, and Monitoring Plan, which is contained in the approved Roblin Steel Site Management Plan, dated February, 2006. The City of North Tonawanda is required to conduct the periodic sampling, analysis, and reporting for the groundwater monitoring program.

(iv) Future uses of the site groundwater are prohibited unless authorized in writing by the DEC and NYSDOH.

The property may not be used for a higher level of use such as residential use and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of the Environmental Easement.

The City or any furture owners will submit annual (or such intervals as NYSDEC may allow)certification that the controls employed at the property are unchanged from the previous certification, or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such controls to protect the public health and environment.

181.12-1-14.112	IDEK, LLC	Monitoring Plan Site Management Plan Ground Water Use Restriction Soil Management Plan Landuse Restriction

The summary of the Environmental Easement is as follows:

The property may be used for commercial/industrial purposes (excluding uses for day care, child care, and medical care, unless such use is approved in writing by the DEC and NYSDOH) as long as the following long-term engineering controls are employed:

(i) Soils and fill materials encountered during any construction or development activity below the crushed concrete cover layer must be handled in accordance with provisions of the Roblin Steel Site Soils Management Plan, dated February, 2006. Excavated soil must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives.

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181.12-1-14.113 IDEK, LLC

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction

Monitoring Plan
Site Management Plan

The summary of the Environmental Easement is as follows:

The property may be used for commercial/industrial purposes (excluding uses for day care, child care, and medical care, unless such use is approved in writing by the DEC and NYSDOH) as long as the following long-term engineering controls are employed:

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181.12-1-24 Taylor Devices, Inc.

Monitoring Plan
Site Management Plan
Ground Water Use Restriction
Soil Management Plan
Landuse Restriction

The summary of the Environmental Easement is as follows:

The property may be used for commercial/industrial purposes (excluding uses for day care, child care, and medical care, unless such use is approved in writing by the DEC and NYSDOH) as long as the following long-term engineering controls are employed:

(i) Soils and fill materials encountered during any construction or development activity below the crushed concrete cover layer must be handled in accordance with provisions of the Roblin Steel Site Soils Management Plan, dated February, 2006. Excavated soil must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives.

(ii) Should subsequent construction or development activities require the decommissioning (removal) of existing groundwater monitoring wells, the wells will be decommissioned in accordance with DEC guidance. Replacement monitoring wells may be required by the DEC.

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(iv) Future uses of the site groundwater are prohibited unless authorized in writing by the DEC and NYSDOH.

The property may not be used for a higher level of use such as residential use and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of the Environmental Easement.

The City or any future owners will submit annual (or such intervals as NYSDEC may allow)certification that the controls employed at the property are unchanged from the previous certification, or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such controls to protect the public health and environment.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
181.12-1-14.11	
	Cover System

Surface Cover System

The surface cover system was installed to eliminate the potential for human contact with fill material and eliminate the potential for contaminated runoff from the property. The cover system that was used to fill the excavated impacted soil areas was 12 inches of crushed concrete that was recycled from demolished site concrete foundations. An additional 4 inches of topsoil was spread over the crushed concrete fill to provide a vegetative supporting soil cover.

181.12-1-14.112

Cover System

Surface Cover System

The surface cover system was installed to eliminate the potential for human contact with fill material and eliminate the potential for contaminated runoff from the property. The cover system that was used to fill the excavated impacted soil areas was 12 inches of crushed concrete that was recycled from demolished site concrete foundations. An additional 4 inches of topsoil was spread over the crushed concrete fill to provide a vegetative supporting soil cover.

181.12-1-14.113

Cover System

Surface Cover System

The surface cover system was installed to eliminate the potential for human contact with fill material and eliminate the potential for contaminated runoff from the property. The cover system that was used to fill the excavated impacted soil areas was 12 inches of crushed concrete that was recycled from

Parcel	Engineering Control

demolished site concrete foundations. An additional 4 inches of topsoil was spread over the crushed concrete fill to provide a vegetative supporting soil cover.

181.12-1-24

Cover System

Surface Cover System

The surface cover system was installed to eliminate the potential for human contact with fill material and eliminate the potential for contaminated runoff from the property. The cover system that was used to fill the excavated impacted soil areas was 12 inches of crushed concrete that was recycled from demolished site concrete foundations. An additional 4 inches of topsoil was spread over the crushed concrete fill to provide a vegetative supporting soil cover.

Box 5

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 compete.

YES	NO
X	☐

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
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. B00025

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 Dale W. Marshall (print name) at 216 Payne Ave, N. Tonawanda, NY (print business address),

am certifying as City Engineer North Tonawanda (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Dale W. Marshall
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

11/11/18
Date

IC/EC CERTIFICATIONS

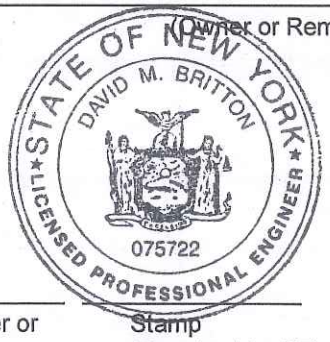
Box 7

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 David Britton at 285 Delaware Ave, Suite 500 Buffalo NY 14202
print name print business address

am certifying as a Professional Engineer for the Owner
(Owner or Remedial Party)



Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

1/19/2018
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
Sampling and Well Logs

ROBLIN STEEL SITE
CITY OF NORTH TONAWANDA, NEW YORK
SITE INSPECTION LOG SHEET

Inspector (Print): Dave Rowlinson

Inspector (Signature): _____

Date of Inspection: 10/25/2017

1. Fencing, Gates, and Access

Fence Intact	Yes, fencing around east and west sides of the perimeter
Gates Working	NA
Locks Operable	NA
Access Road Condition	Good

2. Waterways and Ditches

Signs of Erosion	None
Blockage of Drainage Pathway	None
Culverts Clear of Obstructions	Yes
Ponded Water Areas	None

3. Monitoring Wells - Well Casing, Cap, and Locks in Place and in Good Condition

monitoring well MW-3S in good condition.

4. Evidence of Vandalism/Site Usage by Others

None

Comments/Action Required:

GHD CONSULTING SERVICES INC.
GROUNDWATER FIELD SAMPLING RECORD

SITE: Roblin Steel Site DATE: 10/25/17

Sampler: Dave Rowlinson SAMPLE ID: MW-3S

Depth of well (from top of casing).....	15 ft	EL 562.04
Initial static water level (from top of casing)....	7.6 ft	EL 569.5
Top of PVC Casing Elevation	577.04	

Evacuation Method:

Peristaltic		Centrifugal		1 in. casing:		ft. of water x .09 =	gallons
Airlift		Pos. Displ.		2 in. casing:	7.5	ft. of water x .16 =	1.19 gallons
Bailer	X	>>> No. of bails		3 in. casing:		ft. of water x .36 =	gallons

Well Volume Calculation

Volume of water removed: 3.58 gals.

> 3 volumes:	**YES**	no
dry:	yes	**NO**

Field Tests:

Temp:	14.83	C
pH	6.9	
Conductivity	1.27	mS/cm
DO	4.52	mg/L
Turbidity	364	NTUs
Oxidation Reduction Potential (ORP)	90.0	mV

Sampling: Time: 1:00 PM

Sampling Method:

Peristaltic Pump	
Disposable Bailer	X
Disposable Tubing	

Observations:

Weather/Temperature: Overcast, 45 ° F

Physical Appearance and Odor of Sample: Initially clear, then light brown and turbid. No odor.

Comments: 9/16" socket needed to open cover.
Well is at grade.

Appendix D
Analytical Test Results

ANALYTICAL REPORT

November 02, 2017

GHD

Sample Delivery Group:	L946596
Samples Received:	10/26/2017
Project Number:	8612403-04-
Description:	Roblin Steel

Report To:

Mr. Dave Rowlinson
285 Delaware Ave.
Suite 500
Buffalo, NY 14202

Entire Report Reviewed By:

Nancy McLain
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

TABLE OF CONTENTS

GW-1 L946596-01 GW

Collected by: Dave Rowlinson
Collected date/time: 10/25/17 14:30
Received date/time: 10/26/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036811	1	10/29/17 15:35	10/29/17 15:35	KMC

FIELD DUP L946596-02 GW

Collected by: Dave Rowlinson
Collected date/time: 10/25/17 14:30
Received date/time: 10/26/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036811	1	10/29/17 15:53	10/29/17 15:53	KMC

TRIP BLANK L946596-03 GW

Collected by: Dave Rowlinson
Collected date/time: 10/25/17 00:00
Received date/time: 10/26/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG1036811	1	10/29/17 14:05	10/29/17 14:05	KMC

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Nancy F. McLain

Nancy McLain
Technical Service Representative

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		10.0	50.0	1	10/29/2017 15:35	WG1036811
Benzene	U		0.331	1.00	1	10/29/2017 15:35	WG1036811
Bromochloromethane	U		0.520	1.00	1	10/29/2017 15:35	WG1036811
Bromodichloromethane	U		0.380	1.00	1	10/29/2017 15:35	WG1036811
Bromoform	U		0.469	1.00	1	10/29/2017 15:35	WG1036811
Bromomethane	U	J3	0.866	5.00	1	10/29/2017 15:35	WG1036811
Carbon disulfide	U		0.275	1.00	1	10/29/2017 15:35	WG1036811
Carbon tetrachloride	U		0.379	1.00	1	10/29/2017 15:35	WG1036811
Chlorobenzene	U		0.348	1.00	1	10/29/2017 15:35	WG1036811
Chlorodibromomethane	U		0.327	1.00	1	10/29/2017 15:35	WG1036811
Chloroethane	U	J3	0.453	5.00	1	10/29/2017 15:35	WG1036811
Chloroform	U		0.324	5.00	1	10/29/2017 15:35	WG1036811
Chloromethane	U		0.276	2.50	1	10/29/2017 15:35	WG1036811
Cyclohexane	U		0.390	1.00	1	10/29/2017 15:35	WG1036811
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/29/2017 15:35	WG1036811
1,2-Dibromoethane	U		0.381	1.00	1	10/29/2017 15:35	WG1036811
1,2-Dichlorobenzene	U		0.349	1.00	1	10/29/2017 15:35	WG1036811
1,3-Dichlorobenzene	U		0.220	1.00	1	10/29/2017 15:35	WG1036811
1,4-Dichlorobenzene	U		0.274	1.00	1	10/29/2017 15:35	WG1036811
Dichlorodifluoromethane	U	J3	0.551	5.00	1	10/29/2017 15:35	WG1036811
1,1-Dichloroethane	U		0.259	1.00	1	10/29/2017 15:35	WG1036811
1,2-Dichloroethane	U		0.361	1.00	1	10/29/2017 15:35	WG1036811
1,1-Dichloroethene	U		0.398	1.00	1	10/29/2017 15:35	WG1036811
cis-1,2-Dichloroethene	3.50		0.260	1.00	1	10/29/2017 15:35	WG1036811
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/29/2017 15:35	WG1036811
1,2-Dichloropropane	U		0.306	1.00	1	10/29/2017 15:35	WG1036811
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/29/2017 15:35	WG1036811
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/29/2017 15:35	WG1036811
Ethylbenzene	U		0.384	1.00	1	10/29/2017 15:35	WG1036811
2-Hexanone	U		3.82	10.0	1	10/29/2017 15:35	WG1036811
Isopropylbenzene	U		0.326	1.00	1	10/29/2017 15:35	WG1036811
2-Butanone (MEK)	U		3.93	10.0	1	10/29/2017 15:35	WG1036811
Methyl Acetate	U		4.30	20.0	1	10/29/2017 15:35	WG1036811
Methyl Cyclohexane	U		0.380	1.00	1	10/29/2017 15:35	WG1036811
Methylene Chloride	U		1.00	5.00	1	10/29/2017 15:35	WG1036811
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/29/2017 15:35	WG1036811
Methyl tert-butyl ether	U		0.367	1.00	1	10/29/2017 15:35	WG1036811
Styrene	U		0.307	1.00	1	10/29/2017 15:35	WG1036811
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/29/2017 15:35	WG1036811
Tetrachloroethene	0.713	J	0.372	1.00	1	10/29/2017 15:35	WG1036811
Toluene	U		0.412	1.00	1	10/29/2017 15:35	WG1036811
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/29/2017 15:35	WG1036811
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/29/2017 15:35	WG1036811
1,1,1-Trichloroethane	U		0.319	1.00	1	10/29/2017 15:35	WG1036811
1,1,2-Trichloroethane	U		0.383	1.00	1	10/29/2017 15:35	WG1036811
Trichloroethene	0.405	J	0.398	1.00	1	10/29/2017 15:35	WG1036811
Trichlorofluoromethane	U		1.20	5.00	1	10/29/2017 15:35	WG1036811
1,1,2-Trichlorotrifluoroethane	U	J3	0.303	1.00	1	10/29/2017 15:35	WG1036811
Vinyl chloride	U	J3	0.259	1.00	1	10/29/2017 15:35	WG1036811
Xylenes, Total	U		1.06	3.00	1	10/29/2017 15:35	WG1036811
(S) Toluene-d8	*105*			*80.0-120*		*10/29/2017 15:35*	WG1036811
(S) Dibromofluoromethane	*92.7*			*76.0-123*		*10/29/2017 15:35*	WG1036811
(S) a,a,a-Trifluorotoluene	*106*			*80.0-120*		*10/29/2017 15:35*	WG1036811
(S) 4-Bromofluorobenzene	*105*			*80.0-120*		*10/29/2017 15:35*	WG1036811

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
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Acetone	U		10.0	50.0	1	10/29/2017 15:53	WG1036811
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cis-1,2-Dichloroethene	2.77		0.260	1.00	1	10/29/2017 15:53	WG1036811
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/29/2017 15:53	WG1036811
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1,1,2-Trichlorotrifluoroethane	U	J3	0.303	1.00	1	10/29/2017 15:53	WG1036811
Vinyl chloride	U	J3	0.259	1.00	1	10/29/2017 15:53	WG1036811
Xylenes, Total	U		1.06	3.00	1	10/29/2017 15:53	WG1036811
(S) Toluene-d8	*109*			*80.0-120*		*10/29/2017 15:53*	WG1036811
(S) Dibromofluoromethane	*94.6*			*76.0-123*		*10/29/2017 15:53*	WG1036811
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*		*10/29/2017 15:53*	WG1036811
(S) 4-Bromofluorobenzene	*104*			*80.0-120*		*10/29/2017 15:53*	WG1036811

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Bromodichloromethane	U		0.380	1.00	1	10/29/2017 14:05	WG1036811
Bromoform	U		0.469	1.00	1	10/29/2017 14:05	WG1036811
Bromomethane	U	J3	0.866	5.00	1	10/29/2017 14:05	WG1036811
Carbon disulfide	U		0.275	1.00	1	10/29/2017 14:05	WG1036811
Carbon tetrachloride	U		0.379	1.00	1	10/29/2017 14:05	WG1036811
Chlorobenzene	U		0.348	1.00	1	10/29/2017 14:05	WG1036811
Chlorodibromomethane	U		0.327	1.00	1	10/29/2017 14:05	WG1036811
Chloroethane	U	J3	0.453	5.00	1	10/29/2017 14:05	WG1036811
Chloroform	U		0.324	5.00	1	10/29/2017 14:05	WG1036811
Chloromethane	U		0.276	2.50	1	10/29/2017 14:05	WG1036811
Cyclohexane	U		0.390	1.00	1	10/29/2017 14:05	WG1036811
1,2-Dibromo-3-Chloropropane	U		1.33	5.00	1	10/29/2017 14:05	WG1036811
1,2-Dibromoethane	U		0.381	1.00	1	10/29/2017 14:05	WG1036811
1,2-Dichlorobenzene	U		0.349	1.00	1	10/29/2017 14:05	WG1036811
1,3-Dichlorobenzene	U		0.220	1.00	1	10/29/2017 14:05	WG1036811
1,4-Dichlorobenzene	U		0.274	1.00	1	10/29/2017 14:05	WG1036811
Dichlorodifluoromethane	U	J3	0.551	5.00	1	10/29/2017 14:05	WG1036811
1,1-Dichloroethane	U		0.259	1.00	1	10/29/2017 14:05	WG1036811
1,2-Dichloroethane	U		0.361	1.00	1	10/29/2017 14:05	WG1036811
1,1-Dichloroethene	U		0.398	1.00	1	10/29/2017 14:05	WG1036811
cis-1,2-Dichloroethene	U		0.260	1.00	1	10/29/2017 14:05	WG1036811
trans-1,2-Dichloroethene	U		0.396	1.00	1	10/29/2017 14:05	WG1036811
1,2-Dichloropropane	U		0.306	1.00	1	10/29/2017 14:05	WG1036811
cis-1,3-Dichloropropene	U		0.418	1.00	1	10/29/2017 14:05	WG1036811
trans-1,3-Dichloropropene	U		0.419	1.00	1	10/29/2017 14:05	WG1036811
Ethylbenzene	U		0.384	1.00	1	10/29/2017 14:05	WG1036811
2-Hexanone	U		3.82	10.0	1	10/29/2017 14:05	WG1036811
Isopropylbenzene	U		0.326	1.00	1	10/29/2017 14:05	WG1036811
2-Butanone (MEK)	U		3.93	10.0	1	10/29/2017 14:05	WG1036811
Methyl Acetate	U		4.30	20.0	1	10/29/2017 14:05	WG1036811
Methyl Cyclohexane	U		0.380	1.00	1	10/29/2017 14:05	WG1036811
Methylene Chloride	U		1.00	5.00	1	10/29/2017 14:05	WG1036811
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0	1	10/29/2017 14:05	WG1036811
Methyl tert-butyl ether	U		0.367	1.00	1	10/29/2017 14:05	WG1036811
Styrene	U		0.307	1.00	1	10/29/2017 14:05	WG1036811
1,1,2,2-Tetrachloroethane	U		0.130	1.00	1	10/29/2017 14:05	WG1036811
Tetrachloroethene	U		0.372	1.00	1	10/29/2017 14:05	WG1036811
Toluene	U		0.412	1.00	1	10/29/2017 14:05	WG1036811
1,2,3-Trichlorobenzene	U		0.230	1.00	1	10/29/2017 14:05	WG1036811
1,2,4-Trichlorobenzene	U		0.355	1.00	1	10/29/2017 14:05	WG1036811
1,1,1-Trichloroethane	U		0.319	1.00	1	10/29/2017 14:05	WG1036811
1,1,2-Trichloroethane	U		0.383	1.00	1	10/29/2017 14:05	WG1036811
Trichloroethene	U		0.398	1.00	1	10/29/2017 14:05	WG1036811
Trichlorofluoromethane	U		1.20	5.00	1	10/29/2017 14:05	WG1036811
1,1,2-Trichlorotrifluoroethane	U	J3	0.303	1.00	1	10/29/2017 14:05	WG1036811
Vinyl chloride	U	J3	0.259	1.00	1	10/29/2017 14:05	WG1036811
Xylenes, Total	U		1.06	3.00	1	10/29/2017 14:05	WG1036811
(S) Toluene-d8	*106*			*80.0-120*		*10/29/2017 14:05*	WG1036811
(S) Dibromofluoromethane	*91.8*			*76.0-123*		*10/29/2017 14:05*	WG1036811
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*		*10/29/2017 14:05*	WG1036811
(S) 4-Bromofluorobenzene	*107*			*80.0-120*		*10/29/2017 14:05*	WG1036811

Method Blank (MB)

(MB) R3262284-3 10/29/17 13:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		10.0	50.0
Benzene	U		0.331	1.00
Bromodichloromethane	U		0.380	1.00
Bromochloromethane	U		0.520	1.00
Bromoform	U		0.469	1.00
Bromomethane	U		0.866	5.00
Carbon disulfide	U		0.275	1.00
Carbon tetrachloride	U		0.379	1.00
Chlorobenzene	U		0.348	1.00
Chlorodibromomethane	U		0.327	1.00
Chloroethane	U		0.453	5.00
Chloroform	U		0.324	5.00
Chloromethane	U		0.276	2.50
Cyclohexane	U		0.390	1.00
1,2-Dibromo-3-Chloropropane	U		1.33	5.00
1,2-Dibromoethane	U		0.381	1.00
1,2-Dichlorobenzene	U		0.349	1.00
1,3-Dichlorobenzene	U		0.220	1.00
1,4-Dichlorobenzene	U		0.274	1.00
Dichlorodifluoromethane	U		0.551	5.00
1,1-Dichloroethane	U		0.259	1.00
1,2-Dichloroethane	U		0.361	1.00
1,1-Dichloroethene	U		0.398	1.00
cis-1,2-Dichloroethene	U		0.260	1.00
trans-1,2-Dichloroethene	U		0.396	1.00
1,2-Dichloropropane	U		0.306	1.00
cis-1,3-Dichloropropene	U		0.418	1.00
trans-1,3-Dichloropropene	U		0.419	1.00
Ethylbenzene	U		0.384	1.00
2-Hexanone	U		3.82	10.0
Isopropylbenzene	U		0.326	1.00
2-Butanone (MEK)	U		3.93	10.0
Methyl Acetate	U		4.30	20.0
Methyl Cyclohexane	U		0.380	1.00
Methylene Chloride	U		1.00	5.00
4-Methyl-2-pentanone (MIBK)	U		2.14	10.0
Methyl tert-butyl ether	U		0.367	1.00
Styrene	U		0.307	1.00
1,1,2,2-Tetrachloroethane	U		0.130	1.00
Tetrachloroethene	U		0.372	1.00

Method Blank (MB)

(MB) R3262284-3 10/29/17 13:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Toluene	U		0.412	1.00
1,1,2-Trichlorotrifluoroethane	U		0.303	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.355	1.00
1,1,1-Trichloroethane	U		0.319	1.00
1,1,2-Trichloroethane	U		0.383	1.00
Trichloroethene	U		0.398	1.00
Trichlorofluoromethane	U		1.20	5.00
Vinyl chloride	U		0.259	1.00
Xylenes, Total	U		1.06	3.00
(S) Toluene-d8	*107*			*80.0-120*
(S) Dibromofluoromethane	*92.9*			*76.0-123*
(S) a,a,a-Trifluorotoluene	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*105*			*80.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262284-1 10/29/17 12:27 • (LCSD) R3262284-2 10/29/17 12:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	125	116	128	93.0	103	10.0-160			10.0	23
Benzene	25.0	21.6	19.2	86.2	76.8	69.0-123			11.6	20
Bromodichloromethane	25.0	22.4	21.0	89.5	83.8	76.0-120			6.51	20
Bromochloromethane	25.0	22.5	21.5	90.2	86.2	76.0-122			4.54	20
Bromoform	25.0	24.2	24.4	96.8	97.5	67.0-132			0.730	20
Bromomethane	25.0	33.6	25.9	134	104	18.0-160		J3	25.7	20
Carbon disulfide	25.0	26.3	21.8	105	87.2	55.0-127			18.6	20
Carbon tetrachloride	25.0	20.6	17.2	82.3	68.8	63.0-122			17.9	20
Chlorobenzene	25.0	23.3	21.3	93.1	85.1	79.0-121			9.00	20
Chlorodibromomethane	25.0	24.6	23.7	98.4	94.9	75.0-125			3.64	20
Chloroethane	25.0	25.8	20.2	103	80.6	47.0-152		J3	24.7	20
Chloroform	25.0	21.4	19.4	85.5	77.7	72.0-121			9.62	20
Chloromethane	25.0	25.3	22.6	101	90.4	48.0-139			11.1	20
Cyclohexane	25.0	21.7	17.8	86.7	71.3	70.0-130			19.4	20
1,2-Dibromo-3-Chloropropane	25.0	21.9	24.6	87.6	98.3	64.0-127			11.6	20
1,2-Dibromoethane	25.0	23.9	23.8	95.7	95.3	77.0-123			0.430	20
1,2-Dichlorobenzene	25.0	22.7	22.6	90.8	90.5	80.0-120			0.430	20
1,3-Dichlorobenzene	25.0	22.3	21.5	89.3	86.0	72.0-123			3.81	20
1,4-Dichlorobenzene	25.0	22.9	22.4	91.5	89.7	77.0-120			2.04	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3262284-1 10/29/17 12:27 • (LCSD) R3262284-2 10/29/17 12:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dichlorodifluoromethane	25.0	24.2	19.1	96.7	76.4	49.0-155		J3	23.5	20
1,1-Dichloroethane	25.0	21.5	19.2	86.2	76.9	70.0-126			11.3	20
1,2-Dichloroethane	25.0	21.1	20.1	84.5	80.4	67.0-126			4.98	20
1,1-Dichloroethene	25.0	21.9	18.4	87.7	73.5	64.0-129			17.6	20
cis-1,2-Dichloroethene	25.0	21.8	19.8	87.1	79.3	73.0-120			9.38	20
trans-1,2-Dichloroethene	25.0	22.0	18.9	87.9	75.7	71.0-121			15.0	20
1,2-Dichloropropane	25.0	23.9	22.0	95.7	88.0	75.0-125			8.39	20
cis-1,3-Dichloropropene	25.0	24.7	23.1	98.7	92.3	79.0-123			6.71	20
trans-1,3-Dichloropropene	25.0	26.2	24.9	105	99.4	74.0-127			5.21	20
Ethylbenzene	25.0	24.2	21.2	96.7	84.9	77.0-120			13.1	20
2-Hexanone	125	115	125	91.9	100	58.0-147			8.86	20
Isopropylbenzene	25.0	23.0	20.4	91.9	81.6	75.0-120			11.8	20
2-Butanone (MEK)	125	105	119	84.4	95.3	37.0-158			12.2	20
Methyl Acetate	125	104	118	83.5	94.7	70.0-130			12.6	20
Methyl Cyclohexane	25.0	27.3	23.8	109	95.3	70.0-130			13.5	20
Methylene Chloride	25.0	21.0	19.8	84.1	79.0	66.0-121			6.21	20
4-Methyl-2-pentanone (MIBK)	125	110	118	87.8	94.2	59.0-143			7.03	20
Methyl tert-butyl ether	25.0	21.4	21.3	85.5	85.3	64.0-123			0.230	20
Styrene	25.0	23.6	22.2	94.6	88.7	78.0-124			6.34	20
1,1,2,2-Tetrachloroethane	25.0	21.8	23.0	87.2	92.1	71.0-122			5.48	20
Tetrachloroethene	25.0	23.8	20.5	95.3	82.0	70.0-127			14.9	20
Toluene	25.0	23.8	20.6	95.3	82.4	77.0-120			14.5	20
1,1,2-Trichlorotrifluoroethane	25.0	22.8	18.2	91.0	72.9	61.0-136		J3	22.0	20
1,2,3-Trichlorobenzene	25.0	22.7	23.5	90.9	93.8	61.0-133			3.22	20
1,2,4-Trichlorobenzene	25.0	23.4	23.1	93.6	92.2	69.0-129			1.48	20
1,1,1-Trichloroethane	25.0	21.4	18.1	85.5	72.6	68.0-122			16.4	20
1,1,2-Trichloroethane	25.0	23.5	23.1	94.0	92.3	78.0-120			1.88	20
Trichloroethene	25.0	23.2	20.5	92.9	81.8	78.0-120			12.6	20
Trichlorofluoromethane	25.0	22.2	18.6	88.6	74.2	56.0-137			17.7	20
Vinyl chloride	25.0	22.0	17.9	88.1	71.6	64.0-133		J3	20.6	20
Xylenes, Total	75.0	70.9	63.2	94.5	84.3	77.0-120			11.5	20
(S) Toluene-d8				*105*	*105*	*80.0-120*				
(S) Dibromofluoromethane				*91.3*	*90.5*	*76.0-123*				
(S) a,a,a-Trifluorotoluene				*105*	*107*	*80.0-120*				
(S) 4-Bromofluorobenzene				*101*	*103*	*80.0-120*				

L946511-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946511-02 10/29/17 14:58 • (MS) R3262284-4 10/29/17 19:46 • (MSD) R3262284-5 10/29/17 20:04

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	U	218	196	34.9	31.3	5	10.0-139			10.8	25
Benzene	25.0	207	261	269	42.9	49.6	5	34.0-147			3.16	20
Bromodichloromethane	25.0	U	84.2	89.5	67.4	71.6	5	52.0-135			6.14	20
Bromochloromethane	25.0	U	71.7	76.1	57.4	60.8	5	53.0-138			5.91	20
Bromoform	25.0	U	97.9	102	78.4	81.3	5	50.0-146			3.63	20
Bromomethane	25.0	U	15.5	24.0	12.4	19.2	5	10.0-160		J3	42.9	23
Carbon disulfide	25.0	U	19.7	19.1	15.7	15.2	5	10.0-147			3.07	20
Carbon tetrachloride	25.0	U	67.4	62.3	53.9	49.8	5	41.0-138			7.81	20
Chlorobenzene	25.0	U	78.4	81.0	62.8	64.8	5	52.0-141			3.17	20
Chlorodibromomethane	25.0	U	92.6	96.7	74.1	77.4	5	54.0-142			4.37	20
Chloroethane	25.0	U	52.5	46.3	42.0	37.1	5	23.0-160			12.4	20
Chloroform	25.0	U	82.1	82.8	65.7	66.2	5	50.0-139			0.790	20
Chloromethane	25.0	U	31.6	30.4	25.3	24.3	5	14.0-151			3.76	20
Cyclohexane	25.0	111	150	145	31.2	27.8	5	70.0-130	J6	J6	2.92	20
1,2-Dibromo-3-Chloropropane	25.0	U	104	107	83.4	85.7	5	49.0-144			2.73	24
1,2-Dibromoethane	25.0	U	83.9	88.9	67.2	71.2	5	54.0-140			5.78	20
1,2-Dichlorobenzene	25.0	U	90.5	94.7	72.4	75.8	5	56.0-139			4.53	20
1,3-Dichlorobenzene	25.0	U	85.6	87.5	68.5	70.0	5	50.0-141			2.12	20
1,4-Dichlorobenzene	25.0	U	85.8	91.3	68.7	73.0	5	53.0-136			6.14	20
Dichlorodifluoromethane	25.0	U	43.4	40.3	34.7	32.3	5	20.0-160			7.19	21
1,1-Dichloroethane	25.0	U	75.0	73.4	60.0	58.7	5	47.0-143			2.15	20
1,2-Dichloroethane	25.0	U	72.9	75.6	58.3	60.5	5	47.0-141			3.70	20
1,1-Dichloroethene	25.0	U	54.0	47.7	43.2	38.2	5	31.0-148			12.4	20
cis-1,2-Dichloroethene	25.0	U	76.4	75.3	61.1	60.3	5	43.0-142			1.39	20
trans-1,2-Dichloroethene	25.0	U	51.8	51.9	41.4	41.5	5	36.0-141			0.190	20
1,2-Dichloropropane	25.0	U	84.0	86.8	67.2	69.5	5	51.0-141			3.31	20
cis-1,3-Dichloropropene	25.0	U	80.6	84.7	64.5	67.7	5	53.0-139			4.96	20
trans-1,3-Dichloropropene	25.0	U	87.8	91.7	70.3	73.4	5	51.0-143			4.36	20
Ethylbenzene	25.0	1640	1660	1710	20.5	56.8	5	42.0-147	E V	E	2.69	20
2-Hexanone	125	U	442	443	70.8	70.8	5	36.0-145			0.0700	23
Isopropylbenzene	25.0	247	319	327	57.4	63.9	5	48.0-141			2.53	20
2-Butanone (MEK)	125	U	388	388	62.1	62.0	5	12.0-149			0.130	24
Methyl Acetate	125	U	437	452	69.9	72.3	5	70.0-130	J6		3.34	20.8
Methyl Cyclohexane	25.0	43.3	101	94.7	46.1	41.1	5	70.0-130	J6	J6	6.34	20.8
Methylene Chloride	25.0	U	60.2	62.9	48.2	50.3	5	42.0-135			4.27	20
4-Methyl-2-pentanone (MIBK)	125	U	488	487	78.1	77.9	5	44.0-160			0.260	22
Methyl tert-butyl ether	25.0	U	80.9	85.4	64.7	68.3	5	42.0-142			5.38	20
Styrene	25.0	U	85.9	89.3	68.7	71.4	5	47.0-147			3.88	20
1,1,2,2-Tetrachloroethane	25.0	U	96.2	98.1	76.9	78.5	5	46.0-149			2.01	20
Tetrachloroethene	25.0	U	71.0	63.7	56.8	51.0	5	38.0-147			10.8	20

L946511-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946511-02 10/29/17 14:58 • (MS) R3262284-4 10/29/17 19:46 • (MSD) R3262284-5 10/29/17 20:04

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Toluene	25.0	13.4	88.2	84.8	59.9	57.2	5	42.0-141			3.88	20
1,1,2-Trichlorotrifluoroethane	25.0	U	70.4	61.0	56.3	48.8	5	40.0-151			14.4	21
1,2,3-Trichlorobenzene	25.0	U	94.1	99.7	75.3	79.8	5	45.0-145			5.76	22
1,2,4-Trichlorobenzene	25.0	U	93.3	99.0	74.6	79.2	5	49.0-147			5.97	21
1,1,1-Trichloroethane	25.0	U	72.2	68.5	57.8	54.8	5	46.0-140			5.39	20
1,1,2-Trichloroethane	25.0	U	92.6	97.0	74.1	77.6	5	54.0-139			4.65	20
Trichloroethene	25.0	U	71.1	70.0	56.9	56.0	5	32.0-156			1.62	20
Trichlorofluoromethane	25.0	U	54.8	51.6	43.8	41.3	5	32.0-152			5.89	20
Vinyl chloride	25.0	U	37.3	34.2	29.8	27.4	5	24.0-153			8.55	20
Xylenes, Total	75.0	99.4	338	333	63.5	62.4	5	41.0-148			1.28	20
(S) Toluene-d8					*105*	*102*		*80.0-120*				
(S) Dibromofluoromethane					*92.4*	*92.2*		*76.0-123*				
(S) a,a,a-Trifluorotoluene					*104*	*107*		*80.0-120*				
(S) 4-Bromofluorobenzene					*103*	*102*		*80.0-120*				

L946631-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946631-05 10/29/17 19:10 • (MS) R3262284-6 10/29/17 20:22 • (MSD) R3262284-7 10/29/17 20:40

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	125	ND	58.4	54.3	46.7	43.5	1	10.0-139			7.16	25
Benzene	25.0	ND	14.4	13.6	57.7	54.5	1	34.0-147			5.71	20
Bromodichloromethane	25.0	ND	18.4	16.9	73.5	67.5	1	52.0-135			8.61	20
Bromochloromethane	25.0	ND	15.8	14.8	63.3	59.1	1	53.0-138			6.77	20
Bromoform	25.0	ND	21.8	19.7	87.2	78.9	1	50.0-146			9.96	20
Bromomethane	25.0	ND	5.19	4.52	20.8	18.1	1	10.0-160			13.8	23
Carbon disulfide	25.0	ND	4.68	4.64	18.7	18.5	1	10.0-147			0.840	20
Carbon tetrachloride	25.0	ND	14.4	13.9	57.5	55.4	1	41.0-138			3.78	20
Chlorobenzene	25.0	ND	18.1	17.0	72.4	67.9	1	52.0-141			6.44	20
Chlorodibromomethane	25.0	ND	20.7	19.1	82.8	76.5	1	54.0-142			8.00	20
Chloroethane	25.0	ND	13.5	12.1	54.0	48.3	1	23.0-160			11.1	20
Chloroform	25.0	ND	16.8	15.7	67.3	62.7	1	50.0-139			6.97	20
Chloromethane	25.0	ND	5.35	4.96	21.4	19.9	1	14.0-151			7.43	20
Cyclohexane	25.0	ND	9.74	9.35	39.0	37.4	1	70.0-130	J6	J6	4.15	20
1,2-Dibromo-3-Chloropropane	25.0	ND	24.3	21.7	97.1	86.6	1	49.0-144			11.4	24
1,2-Dibromoethane	25.0	ND	19.1	17.4	76.3	69.4	1	54.0-140			9.43	20
1,2-Dichlorobenzene	25.0	ND	20.0	17.9	80.0	71.7	1	56.0-139			11.0	20
1,3-Dichlorobenzene	25.0	ND	18.7	17.4	74.9	69.7	1	50.0-141			7.16	20
1,4-Dichlorobenzene	25.0	ND	19.5	18.1	78.0	72.6	1	53.0-136			7.21	20

L946631-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L946631-05 10/29/17 19:10 • (MS) R3262284-6 10/29/17 20:22 • (MSD) R3262284-7 10/29/17 20:40

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Dichlorodifluoromethane	25.0	ND	9.02	8.20	36.1	32.8	1	20.0-160			9.52	21
1,1-Dichloroethane	25.0	ND	16.0	15.0	64.0	59.9	1	47.0-143			6.60	20
1,2-Dichloroethane	25.0	ND	15.8	14.5	63.3	58.1	1	47.0-141			8.44	20
1,1-Dichloroethene	25.0	ND	12.0	11.3	48.0	45.2	1	31.0-148			6.03	20
cis-1,2-Dichloroethene	25.0	31.0	46.8	42.6	63.0	46.3	1	43.0-142			9.37	20
trans-1,2-Dichloroethene	25.0	ND	12.2	11.4	48.8	45.7	1	36.0-141			6.58	20
1,2-Dichloropropane	25.0	ND	18.4	17.3	73.7	69.3	1	51.0-141			6.04	20
cis-1,3-Dichloropropene	25.0	ND	17.9	16.9	71.6	67.8	1	53.0-139			5.45	20
trans-1,3-Dichloropropene	25.0	ND	19.3	17.7	77.1	70.7	1	51.0-143			8.69	20
Ethylbenzene	25.0	ND	18.8	17.3	75.2	69.2	1	42.0-147			8.30	20
2-Hexanone	125	ND	104	96.2	83.6	77.0	1	36.0-145			8.26	23
Isopropylbenzene	25.0	ND	18.7	17.7	74.9	70.6	1	48.0-141			5.87	20
2-Butanone (MEK)	125	ND	85.8	78.1	68.6	62.5	1	12.0-149			9.32	24
Methyl Acetate	125	ND	98.7	82.0	79.0	65.6	1	70.0-130		J6	18.5	20.8
Methyl Cyclohexane	25.0	ND	13.0	12.2	51.9	48.9	1	70.0-130	J6	J6	6.00	20.8
Methylene Chloride	25.0	ND	13.9	13.0	55.5	51.9	1	42.0-135			6.71	20
4-Methyl-2-pentanone (MIBK)	125	ND	113	103	90.7	82.6	1	44.0-160			9.38	22
Methyl tert-butyl ether	25.0	ND	17.7	16.2	70.8	64.9	1	42.0-142			8.74	20
Styrene	25.0	ND	19.1	17.7	76.3	70.9	1	47.0-147			7.28	20
1,1,2,2-Tetrachloroethane	25.0	ND	21.3	19.4	85.1	77.7	1	46.0-149			9.13	20
Tetrachloroethene	25.0	ND	16.0	15.1	64.0	60.3	1	38.0-147			6.06	20
Toluene	25.0	ND	16.4	15.6	65.5	62.2	1	42.0-141			5.15	20
1,1,2-Trichlorotrifluoroethane	25.0	ND	14.6	14.3	58.2	57.3	1	40.0-151			1.54	21
1,2,3-Trichlorobenzene	25.0	ND	20.1	18.2	80.4	73.0	1	45.0-145			9.75	22
1,2,4-Trichlorobenzene	25.0	ND	20.2	18.3	80.8	73.3	1	49.0-147			9.68	21
1,1,1-Trichloroethane	25.0	ND	15.8	15.0	63.1	60.1	1	46.0-140			4.85	20
1,1,2-Trichloroethane	25.0	ND	20.2	18.3	80.8	73.3	1	54.0-139			9.72	20
Trichloroethene	25.0	19.6	34.9	31.8	61.3	48.8	1	32.0-156			9.38	20
Trichlorofluoromethane	25.0	ND	11.3	10.6	45.2	42.6	1	32.0-152			5.85	20
Vinyl chloride	25.0	8.16	16.2	14.7	32.3	26.1	1	24.0-153			10.0	20
Xylenes, Total	75.0	ND	53.1	50.2	70.8	66.9	1	41.0-148			5.61	20
(S) Toluene-d8					*105*	*105*		*80.0-120*				
(S) Dibromofluoromethane					*91.8*	*92.9*		*76.0-123*				
(S) a,a,a-Trifluorotoluene					*104*	*104*		*80.0-120*				
(S) 4-Bromofluorobenzene					*105*	*103*		*80.0-120*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
***** Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

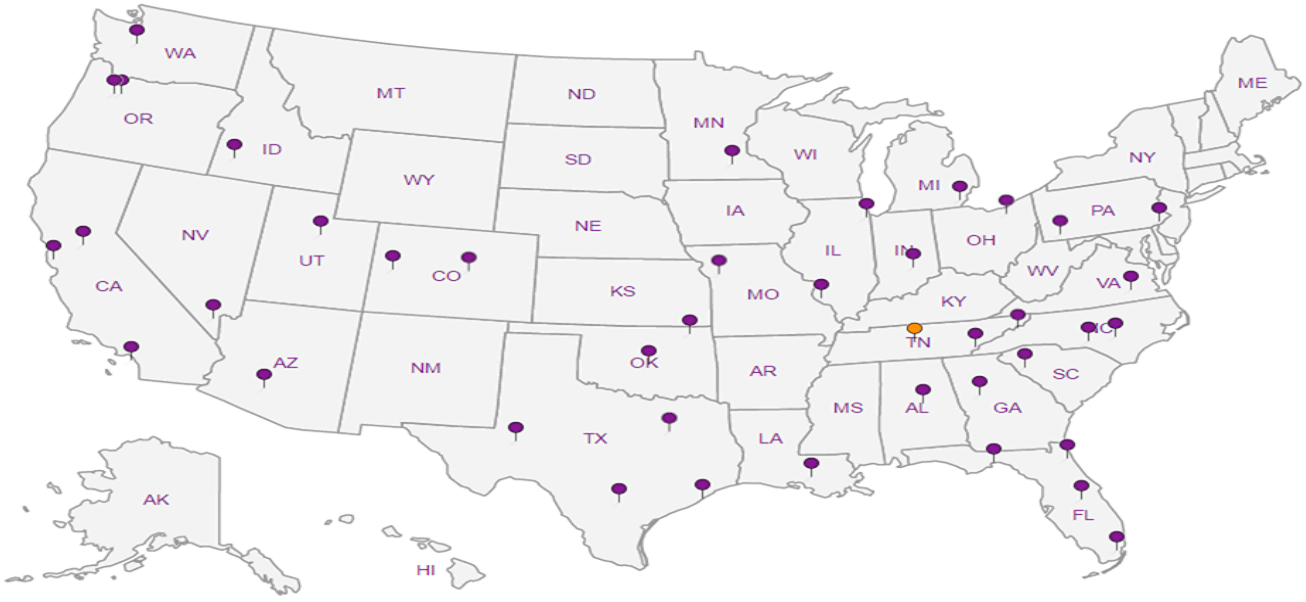
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1.] Drinking Water [2.] Underground Storage Tanks [3.] Aquatic Toxicity [4.] Chemical/Microbiological [5.] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Chain of Custody Page ___ of ___

ESC LAB SCIENCES
a subsidiary of Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

GHD

285 Delaware Ave.
Suite 500
Buffalo, NY 14202

Billing Information:
Mr. Dave Rowlinson
285 Delaware Ave.
Suite 500
Buffalo, NY 14202

Pres Chk

Report to: Mr. Dave Rowlinson

Email To: dave.rowlinson@ghd.com

Project Description: Roblin Steel

City/State Collected: N. Ton, NY

Phone: 716-748-6624
Fax:

Client Project # 8612403-04-

Lab Project # STEARNSANY-ROBLIN

Collected by (print): D Rowlinson

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y X

L# L946596

B247

Acctnum: STEARNSANY
Template: T65569
Prelogin: P623633
TSR: 364 - T. Alan Harvill
PB: 10/20/17 MW
Shipped Via: FedEX Ground

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260TCL 40mlAmb-HCl	V8260TCL 40mlAmb-HCl-Blk									Remarks	Sample # (lab only)
GW-1	G	GW		10/25/17	2:30	2	X											-01
Field Dup	G	GW		10/25/17	2:30	2	X											-02
		GW				2	X											
		GW				2	X											
		GW				2	X											-03
TRIP BLANK		GW				1		X										

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other___________

Remarks: ESC Quote: STEARNSANY051509S2

pH ______ Temp ______
Flow ______ Other ______

Sample Receipt Checklist
COC Seal Present/Intact: NP _Y _N
COC Signed/Accurate: _Y _N
Bottles arrive intact: _Y _N
Correct bottles used: _Y _N
Sufficient volume sent: _Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: _Y _N

Samples returned via:
__ UPS ✓ FedEx __ Courier ______

Tracking # 4142 5214 0132

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Dave Rowlinson	10/25/17	4:00pm	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature] 8163

Temp: 5.5 °C Bottles Received: 4

Date: 10/26/17 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

GHD
285 Delaware Ave.
Suite 500
Buffalo, NY 14202

Billing Information:
Mr. Dave Rowlinson
285 Delaware Ave.
Suite 500
Buffalo, NY 14202

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
a subsidiary of Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Mr. Dave Rowlinson

Email To: dave.rowlinson@ghd.com

Project Description: Roblin Steel

City/State Collected: N, Ton, NY

L# L946596

B247

Phone: 716-748-6624
Fax:

Client Project # 8612403-04-

Lab Project # STEARNSANY-ROBLIN

Acctnum: STEARNSANY
Template: T65569
Prelogin: P623633
TSR: 364 - T. Alan Harvill
PB: 10/20/17 MW
Shipped Via: FedEX Ground

Collected by (print): D Rowlinson

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260TCL 40mlAmb-HCl	V8260TCL 40mlAmb-HCl-Blk								Remarks	Sample # (lab only)
GW-1	G	GW		10/25/17	2:30	2	X										-01
Field Dup	G	GW		10/25/17	2:30	2	X										-02
		GW				2	X										
		GW				2	X										
		GW				2	X										
TRIP BLANK		GW				1		X									-03

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other___________

Remarks: ESC Quote: STEARNSANY051509S2

pH ______ Temp ______
Flow ______ Other ______

Sample Receipt Checklist
COC Seal Present/Intact: NP _Y _N
COC Signed/Accurate: _Y _N
Bottles arrive intact: _Y _N
Correct bottles used: _Y _N
Sufficient volume sent: _Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: _Y _N

Samples returned via:
___ UPS ✓ FedEx ___ Courier ______

Tracking # 4142 5214 0132

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)		
Dave Rowlinson	10/25/17	4:00pm			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.5 °C	Bottles Received: 4
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature] 863	Date: 10/26/17	Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Appendix E
Data Usability Reporting

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Roblin Steel
Project # 8612403
ESC Lab Sciences SDG#L946596
December 1, 2017
Reissued: 12/19/2017
Sampling date: 10/25/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package (Reissued; December 19, 2017) for GHD, project located at Roblin Steel, project # 8612403, SDG#L946596, submitted to Vali-Data of WNY, LLC on November 17, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocol and USEPA National Functional Guidelines. The laboratory performed the analysis using USEPA method 8260C (Volatile Organics).

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
-Narrative and Data Reporting Forms
-Chain of Custody and Traffic Reports
-Holding Times
-Internal Standard (IS) Area Performance
-Surrogate Spike Recoveries
-Method Blank
-Field Duplicate Sample Precision
-Laboratory Control Samples
-MS/MSD
-Compound Quantitation
-Initial Calibration
-Continuing Calibration
-GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met except no MDL study was included. Method Detection limits were recorded on the Form 1's.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met.

INTERNAL STANDARD (IS)
All criteria were met.

SURROGATE SPIKE RECOVERIES
All criteria were met.

METHOD BLANK
All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
All criteria were met except Trichloroethene was detected above the MDL, below the reporting limit in GW-1 but was not detected in FIELD DUP.

LABORATORY CONTROL SAMPLES
All criteria were met except the %RPD of Bromomethane, Chloroethane, Dichlorodifluoromethane, 1,1,2-Trichlorotrifluoroethane and Vinyl chloride was outside QC limits, between R3262284-1 and R3262284-2. These target analytes should be qualified as estimated in the samples and the laboratory control samples.

MS/MSD
The MS/MSD were not performed on samples within this SDG.

COMPOUND QUANTITATION
All criteria were met.

INITIAL CALIBRATION
All criteria were met except the RRF of Trichloroethene was outside ASP QC limits. ASP allows for up to two target analytes to be outside QC limits without further action.
Alternate forms of regression were used on target analytes in which the %RSD >20%, with acceptable results.

CONTINUING CALIBRATION
All criteria were met except the %D of Bromoform was outside QC limits in the calibration verification file #1027_14-1.D. ASP allows for up to two target analytes to be outside QC limits without further action.
The %D of Bromomethane and Chloroethane was outside ASP outer QC limits in the calibration verification file #1029_06. These target analytes should be qualified as estimated in the associated samples, blanks and spikes.

GC/MS PERFORMANCE CHECK

All criteria were met.

Appendix F
Site Development

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion, and/or Ownership

(to be submitted to: Chief, Site Control Section, New York State Department of Environmental Conservation, Division of Environmental Remediation, 625 Broadway, Albany NY 12233-7020; at least 60 days prior to any change of use, transfer of a Certificate of Completion, or change in ownership of a site as required by 6NYCRR Part 375-1.11(d) and 375-1.9(f))

I. **Site Name:** Former Roblin Steel Site **DEC Site ID No.** B00025

II. **Contact Information of Person Submitting Notification:**

Name: Dale W. Marshall, P.E. City Engineer

Address1: 216 Payne Avenue

Address2: North Tonawanda, NY 14120

Phone: (716) 695-8565 E-mail: dalemar@northtonawanda.org

III. **Type of Change and Date:** Indicate the Type of Change(s) (check all that apply):

☒ Change in Ownership or Change in Remedial Party(ies)

☐ Transfer of Certificate of Completion (CoC)

☐ Other (e.g., any physical alteration or other change of use)

Proposed Date of Change (mm/dd/yyyy): 10/25/2010

IV. **Description:** Describe proposed change(s) indicated above. Provide maps, drawings, and/or parcel information as applicable. If "Other," explain how such change may affect the site's proposed, ongoing, or completed remedial program (attach additional sheets if needed).

See attachments including recorded deeds and diagram of parcels sold.

V. **Certification Statement:** Where the change of use results in a change in ownership or in responsibility for the proposed, ongoing, or completed remedial program for the site, the following certification must be completed (by owner or designated representative; see §375-1.11(d)(3)(i)):

I hereby certify that the prospective purchaser and/or remedial party has been provided a copy of any order, agreement, Site Management Plan, or State Assistance Contract regarding the Site's remedial program as well as a copy of all approved remedial work plans and reports.

Name: Dale W. Marshall (Signature) 2/11/13 (Date)

Dale W. Marshall (Print Name)

Address1: 216 Payne Avenue

Address2: North Tonawanda, NY 14120

Phone: (716) 695-8565 E-mail: dalemar@northtonawanda.org

Reset Page

VI. **Contact Information for New Owner, Remedial Party, or CoC Holder:** If the site will be sold or there will be a new remedial party, identify the prospective owner(s) or party(ies) along with contact information. If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/ECs), indicate who will be the certifying party (attach additional sheets if needed).

☒ Prospective Owner ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: Idek, LLC (Mike Hacikyan, President of Aquasol Corporation)
Address1: 80 Thompson Street
Address2: North Tonawanda, NY 14120
Phone: (716) 564-8888 E-mail: mhacikyan@aquasolcorporation.com

Certifying Party Name: City of North Tonawanda
Address1: Dale W. Marshall, P.E., City Engineer
Address2: 216 Payne Avenue, North Tonawanda, NY 14120
Phone: (716) 695-8565 E-mail: dalemar@northtonawanda.org

VII. **Agreement to Notify DEC after Property Transfer/Sale:** If Section VI applies and all or part of the site will be sold, a letter to notify the DEC of the completion of the transfer must be provided. If the current owner is also the holder of a CoC for the site, the CoC should be transferred to the new owner using DEC's form found at http://www.dec.ny.gov/chemical/54736.html. This form has its own filing/recording requirements (see Part 375-1.9(f)).

Signing below indicates that a post transfer letter of notification for the sale of the property will be provided to the DEC within the specified timeframe. If the sale of the site also includes the transfer of a CoC, the DEC agrees to accept the notice given in VII.3 below in satisfaction of the post transfer notice required by VII.1 (to be submitted within 15 days of the sale of the site).

Within 30 days of the sale of the site, I agree to submit to the DEC:

1. the name and contact information for the new owner(s) (see §375-1.11(d)(3)(ii));
2. the name and contact information for any owner representative; and
3. a notice of transfer using the DEC's form found at http://www.dec.ny.gov/chemical/54736.html (see §375-1.9(f)).

Name: Dale W. Marshall (Signature) 2/11/13 (Date mm/dd/yyyy)

Dale W. Marshall, P.E. (Print Name)

Address1: City of North Tonawanda
Address2: 216 Payne Avenue, North Tonawanda, NY 14120
Phone: (716) 695-8565 E-mail: dalemar@northtonawanda.org

Reset Page

Continuation Sheet

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________________

Address1: ______________________________

Address2: ______________________________

Phone: ______________ E-mail: ______________

Reset Page

west line of Oliver Street; thence S24°13'54"E along the west line of Oliver Street, 335.62 feet to the point or place of beginning, containing 3.17 acres of land, more or less.

Subject to the condition that the existing iron fence located along the west line of Oliver Street and in part along the north line of Tenth Avenue be maintained in good condition without modification or removal unless authorized in writing by the City of North Tonawanda.

Subject to easements, covenants and restrictions of record affecting the premises.

TOGETHER with the appurtenances, and all the estate and rights of the said party of the first part in and to said premises.

TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, its successors and assigns forever.

AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatsoever, except as aforesaid.

THE party of the first part, in compliance with Section 13 of the Lien Law, will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement, and that the grantor will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

For the City of North Tonawanda

By: _____
Robert G. Ortt

STATE OF NEW YORK)
COUNTY OF NIAGARA) ss.:

On this 22nd day of October, 2010, before me the undersigned, a Notary Public in and for the State of New York, personally appeared Robert G. Ortt, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____

ROBERT SONDEL
NOTARY PUBLIC, State of New York
Qualified in Niagara County
My Commission Expires 3/17/14

NIAGARA COUNTY - STATE OF NEW YORK
WAYNE F. JAGOW - NIAGARA COUNTY CLERK
P.O. BOX 461, LOCKPORT, NEW YORK 14095-0461

COUNTY CLERK'S RECORDING PAGE
THIS PAGE IS PART OF THE DOCUMENT - DO NOT DETACH

RECEIPT NO. : 201060844

Clerk: BH
Instr #: 2010-17604
Rec Date: 10/25/2010 10:14:01 AM
Doc Grp: DEED
Descrip: DEED
Num Pgs: 3

Party1: CITY OF NORTH TONAWANDA
Party2: IDEK LLC
Town: NORTH TONAWANDA

Recording:

Cover Page	8.00
Recording Fee	11.00
Cultural Ed	14.25
Records Management - Coun	1.00
Records Management - Stat	4.75
RP5217 - County	9.00
RP5217 All others - State	241.00
Sub Total:	289.00
Transfer Tax	
Transfer Tax	138.00
Sub Total:	138.00
Total:	427.00

**** NOTICE: THIS IS NOT A BILL ****

***** Transfer Tax *****

Transfer Tax# : 1286

Consideration: 34100.00
Transfer Tax: 138.00

Record and Return To:

MCGEE & GELMAN
ATTORNEYS AT LAW
200 SUMMER STREET
BUFFALO NY 14222

201060844

2010-17604
10/25/2010 10:14:01 AM
3 Pages
DEED

Bargain & Sale Deed

Wayne F. Jagow, Niagara County Clerk

Clerk: BH

This Indenture

Made the 22nd day of October, in the year Two Thousand and Ten,

Between City of North Tonawanda, a municipal corporation organized under the Laws of the State of New York, and having its place of business at 216 Payne Avenue, City of North Tonawanda, New York 14120, party of the first part, and

IDEK, LLC, a New York limited liability company with offices at 80 Thompson Street, North Tonawanda, New York 14120, party of the second part,

Witnesseth, That the said party of the first part, in consideration of the sum of Thirty-four Thousand One Hundred Dollars ($34,100.00), lawful money of the United States, paid by the
said party of the second part, does hereby grant and release unto the said party of the second part, its successors and assigns forever,

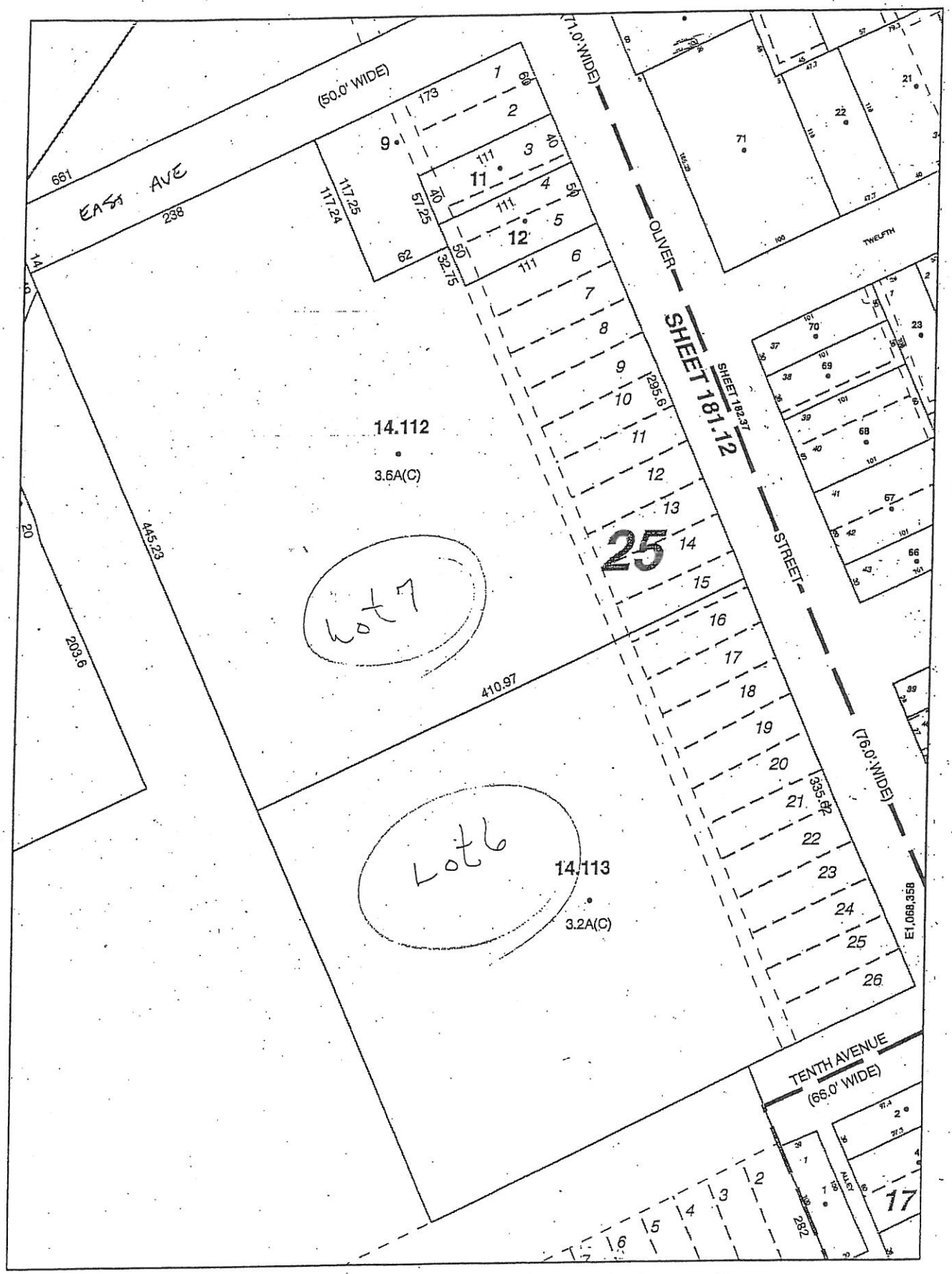
All that tract or parcel of land, situate in the City of North Tonawanda, County of Niagara and State of New York, being part of Lot 74 of the Mile Reservation, bounded and described as follows:

Beginning at a point in the west line of Oliver Street as a 76 foot wide street distant 150.00 feet southerly from the south line of East Avenue as a 50 foot wide street; thence S24°13'54"E along the west line of Oliver Street, 295.60 feet to a point; thence S65°46'06"W, 410.97 feet to a point; thence N24°13'54"W, 445.23 feet to a point in the south line of East Avenue; thence N65°43'01"E along the south line of East Avenue, 238.00 feet to a point; thence S24°13'54"E, 117.24 feet to a point; thence N65°43'01"E, 62.00 feet to a point; thence S24°13'54"E, 32.75 feet to a point; thence N65°43'01"E, 111.00 feet to the point or place of beginning, containing 3.65 acres of land, more or less.

Subject to the condition that the existing iron fence located along the west line of Oliver Street and in part along the last two courses of the above described land be maintained in good condition without modification or removal unless authorized in writing by the City of North Tonawanda.

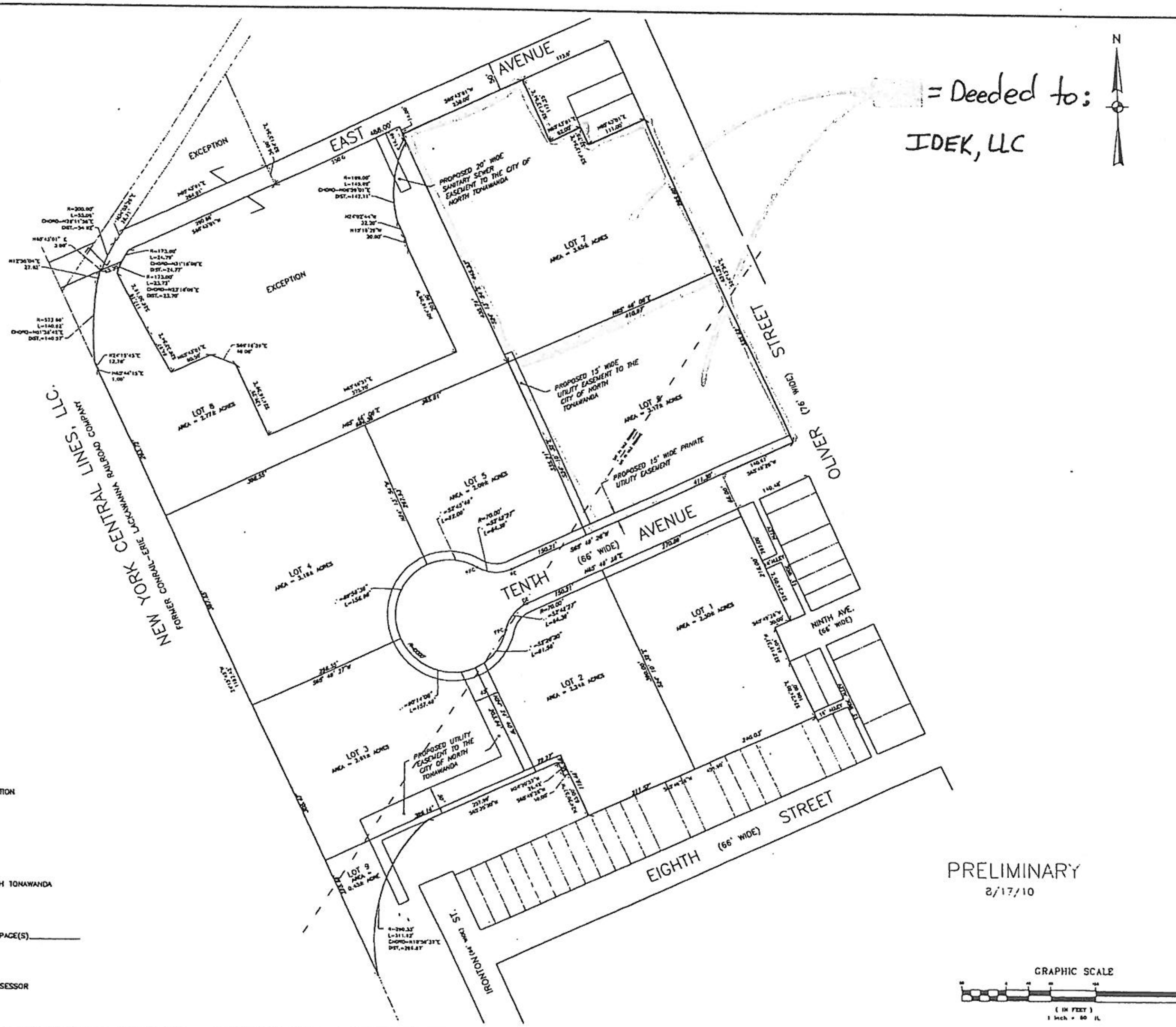
Also, all that tract or parcel of land, situate in the City of North Tonawanda, County of Niagara and State of New York, being part of Lots Nos. 74 and 75 of the Mile Reservation, bounded and described as follows:

Beginning at the point of intersect of the west line of Oliver Street as a 76 foot wide street with the north line of Tenth Avenue as a 66 foot wide street; thence S65°49'28"W along the north line of Tenth Avenue, 411.30 feet to a point; thence N24°10'32"W, 335.21 feet to a point; thence N65°46'06"E, 410.97 feet to a point in the



CNT
181.12-1-14.112, 14.113
2010-17604 10-25-10

CL 14.111 = 1067758-1108768
14.112 = 1067944-1109413
14.113 = 1068098-1109075



OWNERS CONSENT:
I HEREBY CONSENT TO THE FILING OF THIS MAP.
DATE:__________
NAME:__________

SANITARY SEWERS APPROVED BY
N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DATE:__________
NAME:__________

APPROVED BY THE PLANNING COMMISSION
CITY OF NORTH TONAWANDA
DATE:__________
CHAIRMAN:__________

APPROVED BY THE CITY ENGINEERS, CITY OF NORTH TONAWANDA
DATE:__________
CITY ENGINEER:__________

FILED IN THE NIAGARA COUNTY CLERK'S
OFFICE IN BOOK:________OF MICROFILMED MAPS PAGE(S)__________
SLIDE NO.__________
DATE:__________
COUNTY CLERK:__________

APPROVED BY THE CITY OF NORTH TONAWANDA ASSESSOR
DATE:__________
NAME:__________

CITY OF NORTH TONAWANDA — NIAGARA COUNTY — STATE OF NEW YORK

BUFFALO BOLT BUSINESS PARK SUBDIVISION

PART OF LOT NUMBERS 74 AND 75 OF THE MILE RESERVE

TVGA CONSULTANTS
ENGINEERING · LAND SURVEY · MAPPING · ENVIRONMENTAL

Designed by:	Date of Survey:
Drawn by: LAD	Job No. 2009.0034.00
Checked by:	Dwg Scale: Horiz: 1" = 60'

SHEET REFERENCE NUMBER: 60159
SHEET 1 OF 1

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

60-Day Advance Notification of Site Change of Use, Transfer of Certificate of Completion, and/or Ownership

(to be submitted to: Chief, Site Control Section, New York State Department of Environmental Conservation, Division of Environmental Remediation, 625 Broadway, Albany NY 12233-7020; at least 60 days prior to any change of use, transfer of a Certificate of Completion, or change in ownership of a site as required by 6NYCRR Part 375-1.11(d) and 375-1.9(f))

I. **Site Name:** Former Roblin Steel Site **DEC Site ID No.** B 00025

II. **Contact Information of Person Submitting Notification:**

Name: Dale W. Marshall, P.E. City Engineer

Address1: 216 Payne Avenue

Address2: North Tonawanda, NY 14120

Phone: (716) 695-8565 E-mail: dalemar@northtonawanda.org

III. **Type of Change and Date:** Indicate the Type of Change(s) (check all that apply):

☒ Change in Ownership or Change in Remedial Party(ies)

☐ Transfer of Certificate of Completion (CoC)

☐ Other (e.g., any physical alteration or other change of use)

Proposed Date of Change (mm/dd/yyyy): 02/21/2012

IV. **Description:** Describe proposed change(s) indicated above. Provide maps, drawings, and/or parcel information as applicable. If "Other," explain how such change may affect the site's proposed, ongoing, or completed remedial program (attach additional sheets if needed).

See attachments including recorded deed and diagram of parcels sold.

V. **Certification Statement:** Where the change of use results in a change in ownership or in responsibility for the proposed, ongoing, or completed remedial program for the site, the following certification must be completed (by owner or designated representative; see §375-1.11(d)(3)(i)):

I hereby certify that the prospective purchaser and/or remedial party has been provided a copy of any order, agreement, Site Management Plan, or State Assistance Contract regarding the Site's remedial program as well as a copy of all approved remedial work plans and reports.

Name: Dale W. Marshall (Signature) 2/11/13 (Date)

Dale W. Marshall (Print Name)

Address1: 216 Payne Avenue

Address2: North Tonawanda, NY 14120

Phone: (716) 695-8565 E-mail: dalemar@northtonawanda.org

Reset Page

VI. **Contact Information for New Owner, Remedial Party, or CoC Holder:** If the site will be sold or there will be a new remedial party, identify the prospective owner(s) or party(ies) along with contact information. If the site is subject to an Environmental Easement, Deed Restriction, or Site Management Plan requiring periodic certification of institutional controls/engineering controls (IC/ECs), indicate who will be the certifying party (attach additional sheets if needed).

☒ Prospective Owner ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: Taylor Devices, Inc. (Douglas P. Taylor, President)
Address1: 90 Taylor Drive, P.O. Box 748
Address2: North Tonawanda, NY 14120
Phone: (716) 694-0800 E-mail: taylordevi@aol.com

Certifying Party Name: City of North Tonawanda
Address1: Dale W. Marshall, P.E., City Engineer
Address2: 216 Payne Avenue, North Tonawanda, NY 14120
Phone: (716) 695-8565 E-mail: dalemar@northtonawanda.org

VII. **Agreement to Notify DEC after Property Transfer/Sale:** If Section VI applies and all or part of the site will be sold, a letter to notify the DEC of the completion of the transfer must be provided. If the current owner is also the holder of a CoC for the site, the CoC should be transferred to the new owner using DEC's form found at http://www.dec.ny.gov/chemical/54736.html. This form has its own filing/recording requirements (see Part 375-1.9(f)).

Signing below indicates that a post transfer letter of notification for the sale of the property will be provided to the DEC within the specified timeframe. If the sale of the site also includes the transfer of a CoC, the DEC agrees to accept the notice given in VII.3 below in satisfaction of the post transfer notice required by VII.1 (to be submitted within 15 days of the sale of the site).

Within 30 days of the sale of the site, I agree to submit to the DEC:

1. the name and contact information for the new owner(s) (see §375-1.11(d)(3)(ii));
2. the name and contact information for any owner representative; and
3. a notice of transfer using the DEC's form found at http://www.dec.ny.gov/chemical/54736.html (see §375-1.9(f)).

Name: Dale W. Marshall (Signature) 2/11/13 (Date mm/dd/yyyy)

Dale W. Marshall, P.E. (Print Name)

Address1: City of North Tonawanda
Address2: 216 Payne Avenue, North Tonawanda, NY 14120
Phone: (716) 695-8565 E-mail: dalemar@northtonawanda.org

Reset Page

Continuation Sheet

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________

Address1: ______________________

Address2: ______________________

Phone: ____________ E-mail: ______________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________

Address1: ______________________

Address2: ______________________

Phone: ____________ E-mail: ______________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________

Address1: ______________________

Address2: ______________________

Phone: ____________ E-mail: ______________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________

Address1: ______________________

Address2: ______________________

Phone: ____________ E-mail: ______________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________

Address1: ______________________

Address2: ______________________

Phone: ____________ E-mail: ______________________

☐ Prospective Owner/Holder ☐ Prospective Remedial Party ☐ Prospective Owner Representative

Name: ______________________

Address1: ______________________

Address2: ______________________

Phone: ____________ E-mail: ______________________

Reset Page

2012109916

2012-03835
02/21/2012 01:35:10 PM
5 Pages
DEED

Wayne F. Jagow, Niagara County Clerk Clerk: TH

Taylor
1 Buff. Bolt

This Indenture

Made the 14th day of February, in the year Two Thousand and Twelve,

Between **City of North Tonawanda,** a municipal corporation organized under the Laws of the State of New York, and having its place of business at 216 Payne Avenue, City of North Tonawanda, New York 14120, party of the first part, and

Taylor Devices, Inc., a business corporation, organized under the laws of the State of New York, with offices at 90 Taylor Drive, North Tonawanda, New York 14120, party of the second part,

Witnesseth, That the said party of the first part, in consideration of the sum of Thirty-Seven Thousand Six Hundred Dollars ($37,600.00), lawful money of the United States, paid by the said party of the second part, does hereby grant and release unto the said party of the second part, its successors and assigns forever,

All that tract or parcel of land, situate in the City of North Tonawanda, County of Niagara and State of New York, being part of Lots 74 and 75 of the Niagara River Reservation, bounded and described as follows:

Beginning at a point in the south line of Buffalo Bolt Way (formerly Tenth Avenue, 66 feet wide), distant 140.48 feet westerly from the intersection of the south line of Buffalo Bolt Way with the west line of Oliver Street; thence South 24°24'05" East, a distance of 216.00 feet; thence South 65°49'28" West, a distance of 30.00 feet; thence South 22°19'37" West, a distance of 66.04 feet; thence South 24°24'05" East, a distance of 100.00 feet; thence South 65°49'28" West, a distance of 451.60 feet; thence North 24°20'57" West, a distance of 75.00 feet; thence South 65°49'28" West, a distance of 10 feet; thence North 24°20'57" West, a distance of 26.42 feet; thence South 65°35'20" West, a distance of 257.99 feet; thence southwesterly on a curve to the left having a radius of 290.33 feet and a chord with a bearing of South 18°59'37" West with a chord distance of 296.87 feet, a distance of 311.62 feet; thence North 24°15'45" East, a distance of 531.15 feet; thence North 65°49'27" East, a distance of 298.35 feet to a point in Buffalo Bolt Way; thence along a curve to the left having a radius of 100.00 feet and along the south line of Buffalo Bolt Way, a distance of 249.07 feet to a point of reverse curvature in the south line of Buffalo Bolt Way; thence northeasterly along a curve to the right having a radius of 70.00 feet and along the south line of Buffalo Bolt Way, a distance of 64.39 feet to a point of tangency thereon; thence N 65°49'28" E along the south line of Buffalo Bolt Way, a distance of 421.10 feet to the principal point or place of beginning.

The party of the first part hereby quit claims to the party of the second part all of its right, title and interest, if any, in and to those lands which lie south, southeast and southwest of the lands above described and north, northeast and northwest of lands

conveyed to the party of the second part by deed recorded in the Niagara County Clerk's Office on December 27, 2011 as instrument no. 2011-23527.

Reserving unto the party of the first part, an easement solely for utility purposes as shown on a Survey prepared by TVGA Consultants on September 19, 2011, Job No. 2009-0036-00 and attached hereto as Schedule "A" and made a part hereof, the terms of which easement are more fully set forth in that certain sewer line easement agreement dated on or about the date hereof between the party of the first part and the party of the second part, ~~a copy of which is attached hereto as Exhibit A and made a part hereof.~~ Recorded simultaneously herwith in ~~Liber~~ ~~of~~ ~~at page~~ Instrument #2012-03834 of Deeds

TOGETHER with the appurtenances, and all the estate and rights of the said party of the first part in and to said premises.

TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, its successors and assigns forever.

AND the party of the first part covenants with the party of the second part as follows:

THAT party of the second part shall quietly enjoy the said premises.

THAT party of the first part will forever warrant the title to said premises.

THE party of the first part, in compliance with Section 13 of the Lien Law, will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement, and that the grantor will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

In Presence of

For the City of North Tonawanda

By: _____
Robert G. Ortt, Mayor

STATE OF NEW YORK)
COUNTY OF NIAGARA) ss.:

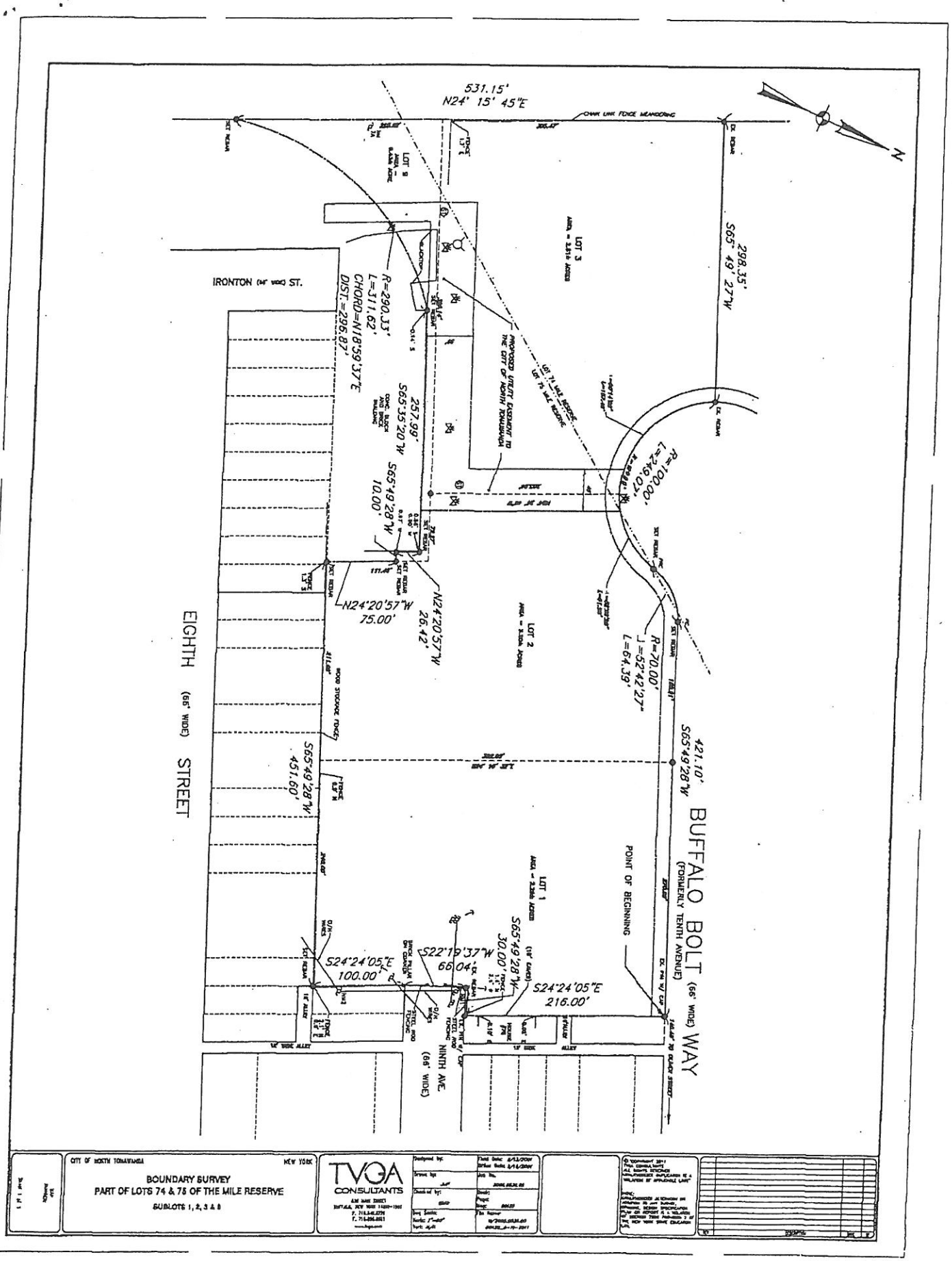
On this 14th day of February, 2012, before me the undersigned, a Notary Public in and for the State of New York, personally appeared Robert G. Ortt, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in

his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

David R. Jakubaszek

DAVID R. JAKUBASZEK Reg. No. 4697131
Notary Public, State of New York
Appointed in Niagara County
Commission Expires August 31, 20 13

SCHEDULE A



CITY OF NORTH TONAWANDA NEW YORK

BOUNDARY SURVEY
PART OF LOTS 74 & 75 OF THE MILE RESERVE
SUBLOTS 1, 2, 3 & 8

TVGA CONSULTANTS

NIAGARA COUNTY - STATE OF NEW YORK
WAYNE F. JAGOW - NIAGARA COUNTY CLERK
P.O. BOX 461, LOCKPORT, NEW YORK 14095-0461

COUNTY CLERK'S RECORDING PAGE
THIS PAGE IS PART OF THE DOCUMENT - DO NOT DETACH

RECEIPT NO. : 2012109916

Clerk: TH
Instr #: 2012-03835
Rec Date: 02/21/2012 01:35:10 PM
Doc Grp: DEED
Descrip: DEED
Num Pgs: 5

Party1: CITY OF NORTH TONAWANDA
Party2: TAYLOR DEVICES INC
Town: NORTH TONAWANDA

Recording:

Cover Page	8.00
Recording Fee	17.00
Cultural Ed	14.25
Records Management - Coun	1.00
Records Management - Stat	4.75
TP584	5.00
RP5217 - County	9.00
RP5217 All others - State	241.00
Sub Total:	300.00
Transfer Tax	
Transfer Tax	152.00
Sub Total:	152.00
Total:	452.00

**** NOTICE: THIS IS NOT A BILL ****

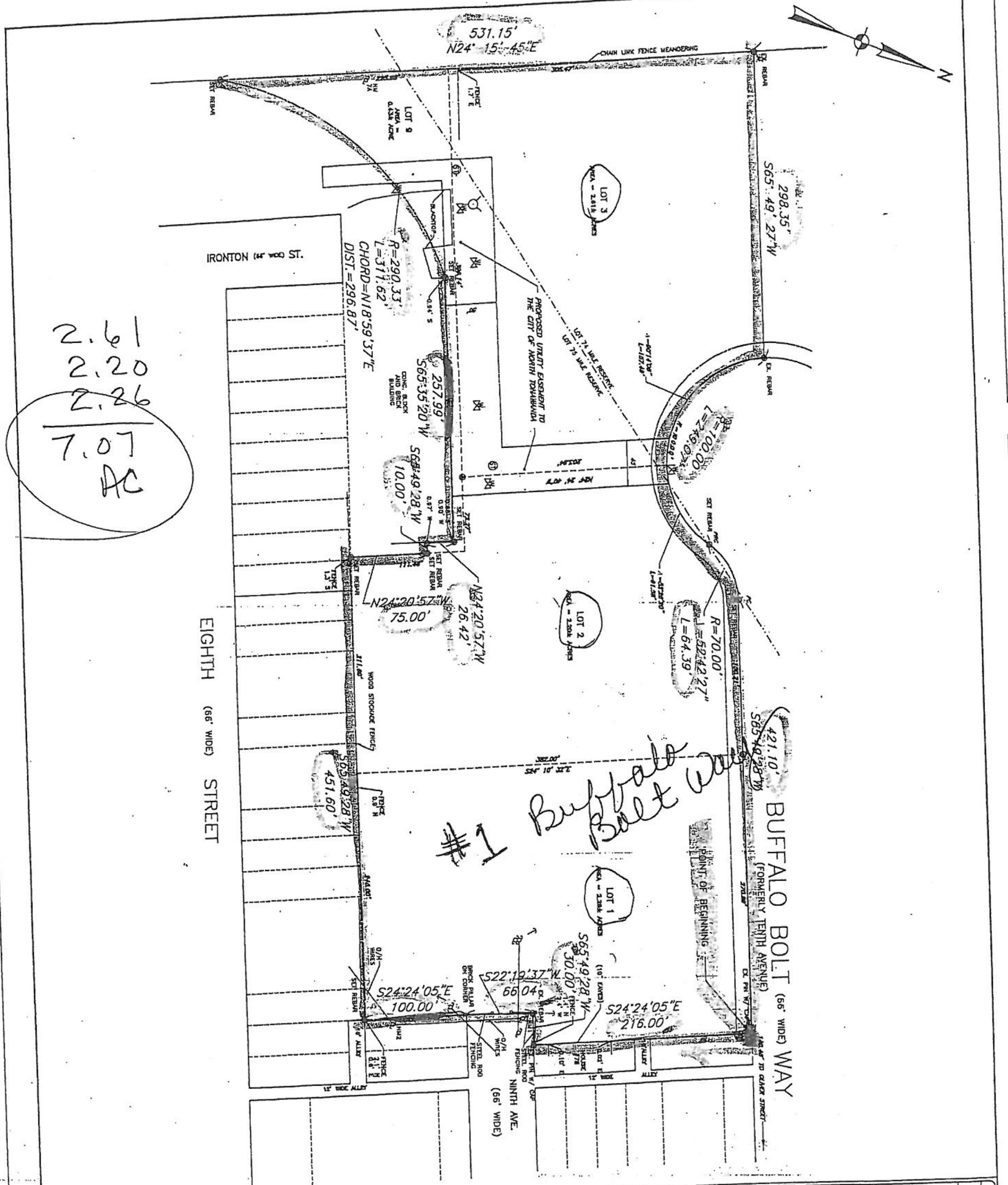
***** Transfer Tax *****

Transfer Tax# : 2743

Consideration: 37600.00
Transfer Tax: 152.00

Record and Return To:

HISCOCK & BARCLAY
1100 M&T CENTER
3 FOUNTAIN PLAZA
BUFFALO, NY 14203-9859



531.15'
N24° 15' 45"E
CHAIN LINK FENCE MEANDERING
N
LOT 9
LOT 3
S65° 49' 27"W
298.35'
IRONTON (66' WIDE) ST.
R=290.33'
L=311.62'
CHORD=N18°59'37"E
DIST.=296.87'
2.61
2.20
2.26
7.07
AC
S65°35'20"W
257.99'
L=249.07'
R=100.00'
S68°49'28"W
10.00'
N24°20'57"W
75.00'
N24°20'57"W
26.42'
LOT 2
R=70.00'
Δ=52°42'27"
L=64.39'
EIGHTH (66' WIDE) STREET
WOOD STOCKADE FENCE
S65°49'28"W
451.60'
421.10'
S65°49'28"W
#1 Buffalo Bolt Way
BUFFALO BOLT (66' WIDE) WAY
(FORMERLY TENTH AVENUE)
POINT OF BEGINNING
LOT 1
S65°49'28"W
30.00'
S22°19'37"W
66.04'
S24°24'05"E
100.00'
S24°24'05"E
216.00'
NINTH AVE.
(66' WIDE)
12' WIDE ALLEY

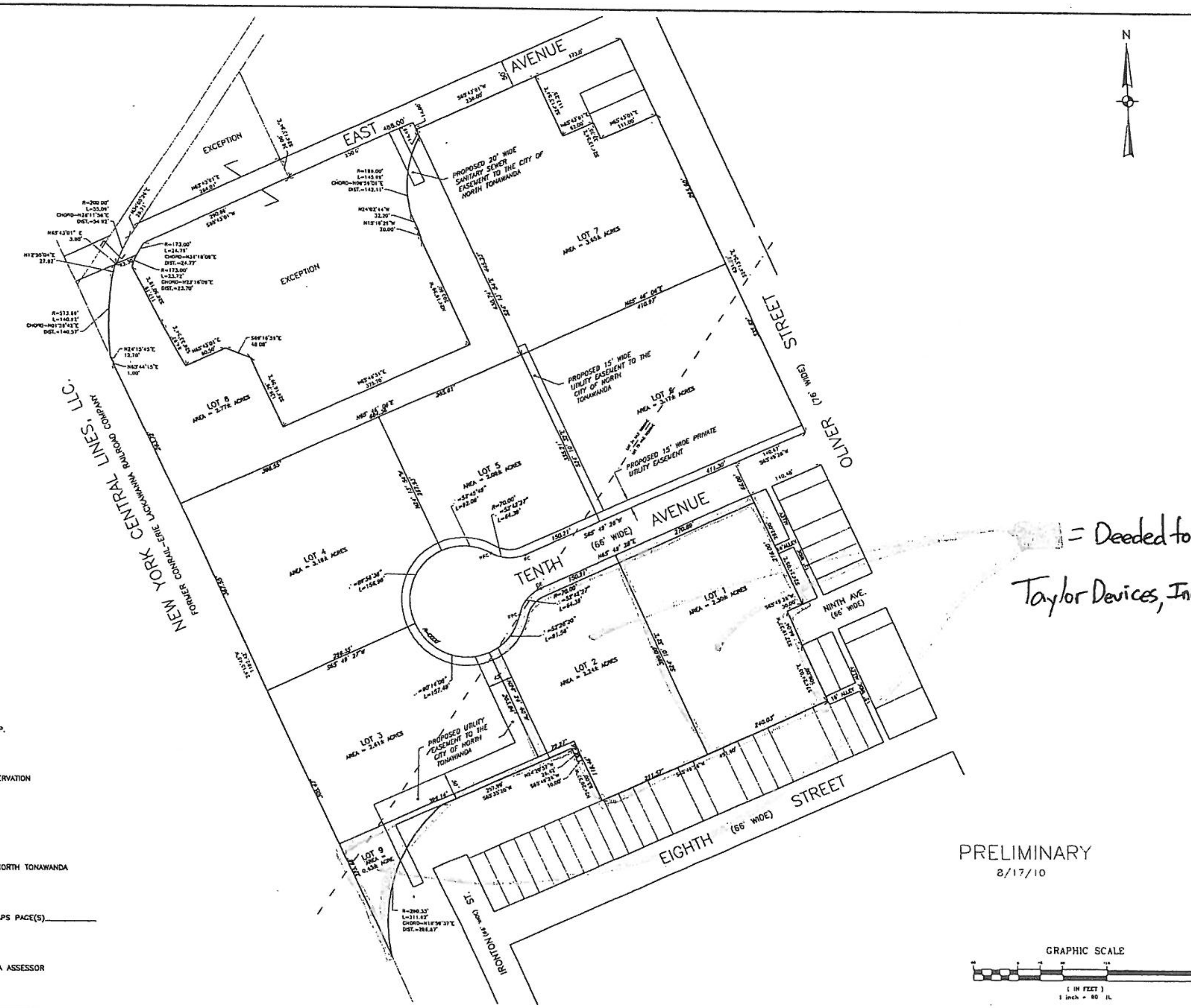
CITY OF NORTH TONAWANDA — NEW YORK

BOUNDARY SURVEY

PART OF LOTS 74 & 75 OF THE MILE RESERVE

SUBLOTS 1, 2, 3 & 9

TVGA CONSULTANTS



OWNERS CONSENT:
I HEREBY CONSENT TO THE FILING OF THIS MAP.
DATE:__________
NAME:__________

SANITARY SEWERS APPROVED BY
N.Y.S. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DATE:__________
NAME:__________

APPROVED BY THE PLANNING COMMISSION
CITY OF NORTH TONAWANDA
DATE:__________
CHAIRMAN:__________

APPROVED BY THE CITY ENGINEERS, CITY OF NORTH TONAWANDA
DATE:__________
CITY ENGINEER:__________

FILED IN THE NIAGARA COUNTY CLERK'S
OFFICE IN BOOK:________OF MICROFILMED MAPS PAGE(S)________
SLIDE NO.__________
DATE:__________
COUNTY CLERK:__________

APPROVED BY THE CITY OF NORTH TONAWANDA ASSESSOR
DATE:__________
NAME:__________

CITY OF NORTH TONAWANDA | NIAGARA COUNTY | STATE OF NEW YORK

BUFFALO BOLT BUSINESS PARK SUBDIVISION

PART OF LOT NUMBERS 74 AND 75 OF THE MILE RESERVE

TVGA CONSULTANTS
ENGINEERING · LAND SURVEY · MAPPING · ENVIRONMENTAL

Designed by:	MJT	Date of Survey:	04/19/09
Drawn by:	LRD	Job No.	2009.0036.00
Checked by:	WWW	Dwg Scale:	Horiz: 1" = 80' Vert: none

NOTE: UNAUTHORIZED ALTERATION OR ADDITION TO ANY SURVEY, DRAWING, DESIGN SPECIFICATION, PLAN OR REPORT IS A VIOLATION OF SECTION 7209 PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

SHEET REFERENCE NUMBER: 60159
SHEET 1 OF 1

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