SEMI-ANNUAL DATA SUMMARY REPORT

NIAGARA COUNTY REFUSE DISTRICT SITE

Wheatfield, Niagara County, New York **(NYSDEC Site No. 9-32-026)**

SUBMITTED TO:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

NEW YORK STATE DEPARMENT OF ENVIRONMENTAL CONSERVATION

SUBMITTED FOR:

NIAGARA COUNTY REFUSE DISTRICT AND PRP GROUP

PREPARED BY:

PARSONS
40 La Riviere Drive, Suite 350
Buffalo, New York 14202
(716) 541-0730 Fax (716) 541-0760

July 2016

SEMI-ANNUAL DATA SUMMARY REPORT

NIAGARA COUNTY REFUSE DISTRICT SITE
Wheatfield, Niagara County, New York
(NYSDEC Site No. 9-32-026)

Prepared For:

NIAGARA COUNTY REFUSE DISTRICT AND PRP GROUP

Prepared By:

PARSONS
40 La Riviere Drive, Suite 350
Buffalo, New York 14202
(716) 541-0730 Fax (716) 541-0760

July 2016

TABLE OF CONTENTS

Page No.

LIST OF TABLES

TABLE OF CONTENTS

Page No.

LIST OF FIGURES

LIST OF APPENDICES

TABLE OF CONTENTS

Page No.

SECTION 1

INTRODUCTION

The Niagara County Refuse Site Potentially Responsible Parties (PRP) Group completed a remedial action at the Niagara County Refuse Site (Site), Wheatfield, New York in 2000. The remedial action was conducted in accordance with the United States Environmental Protection Agency (USEPA) Record of Decision (USEPA, 1993) and the United States District Court Consent Decree (USEPA, 1995). The PRP Group is currently performing operations, maintenance, and monitoring (OM&M) in accordance with the USEPA-approved OM&M Manual (CRA, 2000). This data report summarizes the second quarter monitoring activities conducted from April through June 2016.

1.1 PROCEDURES

1.1.1 Effluent Sampling

The current Industrial Wastewater Discharge Permit (Appendix A) was issued by the City of North Tonawanda, and is effective through April 1, 2019. The current permit has a reduced analytical parameter list compared to the original permit, and a semi-annual sampling frequency. Prior to March 2007, samples were collected monthly. In the current reporting period (April through June 2016), an effluent sample was collected on April 14, 2016. The next effluent sample is scheduled to be collected in October 2016. Effluent samples are collected from Wet Well A, which receives water from the leachate collection system surrounding the landfill. Composite 24-hour samples are collected from Wet Well A using an automated sampler.

1.1.2 Groundwater Sampling

Samples were collected from wells NCR-3S, NCR-4S, NCR-5S, and NCR-13S in April 2015. These four wells are screened in the shallow overburden soil. Annual groundwater sampling from these wells commenced in 2006. As approved by the USEPA, the wells are purged and sampled using dedicated disposable HDPE bailers.

Each groundwater monitoring well was purged prior to sample collection using the dedicated disposable HDPE bailer. Each of the wells was bailed dry the day prior to sampling. Water quality parameters including pH, temperature, conductivity, and turbidity of the purge water were periodically measured and recorded. Purge water was placed in an onsite wet-well. Wet well water is discharged to the City of North Tonawanda publicly owned treatment works (POTW). The dedicated disposable bailer was also used to collect the groundwater samples.

Since 2006, volatile organic compounds (VOC) and semi-volatile organic compound (SVOC) samples have been collected every other year, and metals samples have been collected annually. In April 2016, in accordance with this schedule, groundwater samples were collected and analyzed for:

- Volatile organics in accordance with EPA Method 8260;
- Semivolatile organics in accordance with EPA Method 8270;

- Mercury in accordance with EPA Method 245.1 and Method SW-7470; and
- Inorganics in accordance with EPA Method 200.7 and Method SW-6010.

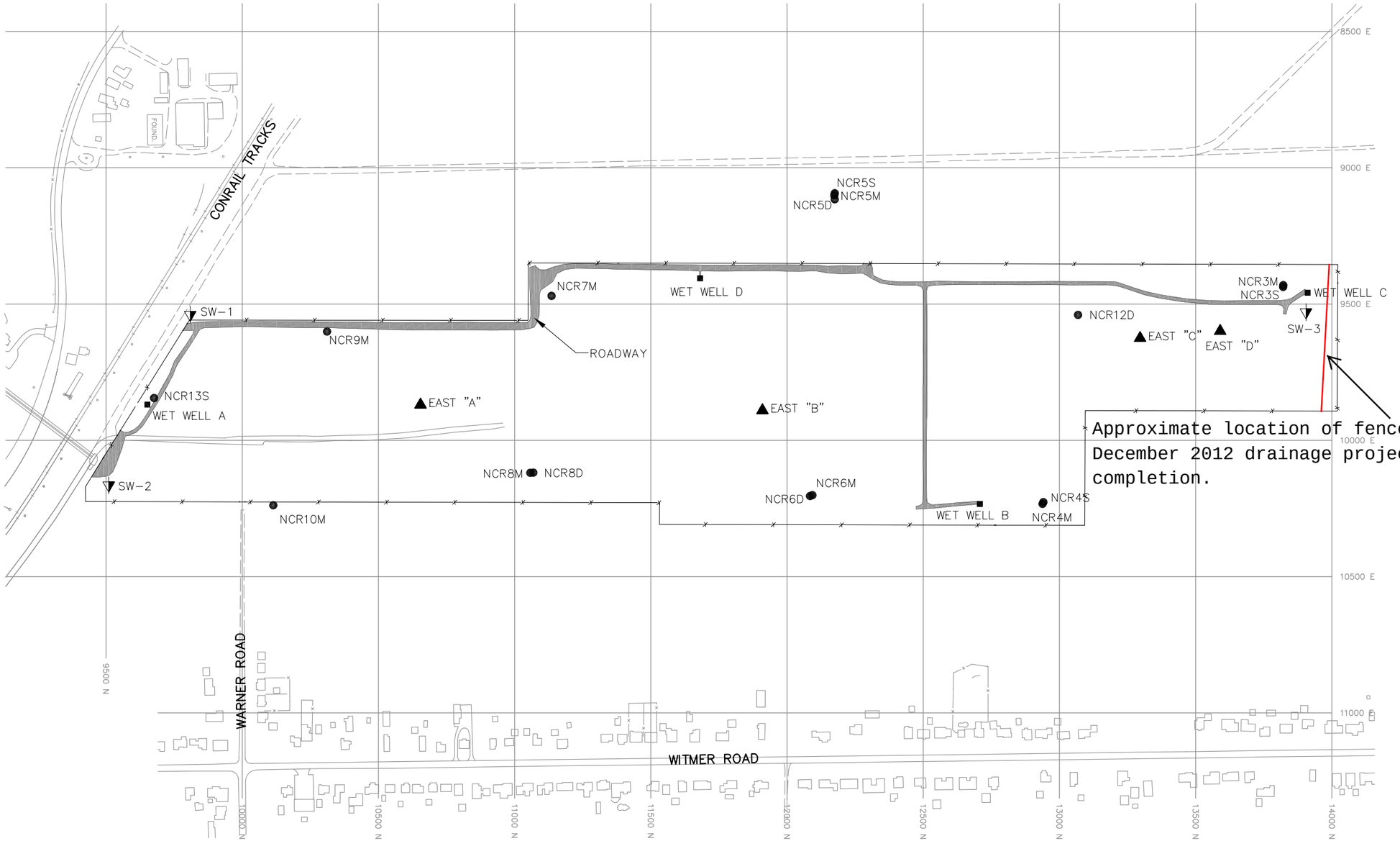
The groundwater samples were analyzed by TestAmerica Laboratories of Amherst, New York. A chain-of-custody (COC) accompanied the sample bottles from the laboratory, to the field, and back to the laboratory.

1.1.3 Water Level Measurements

Water levels were measured in April, May, and June 2016 at four observation well locations (Piezometers East A, East B, East C, and East D), four effluent monitoring locations (Wet Wells A, B, C, and D), and four monitoring well locations (NCR-3S, NCR-4S, NCR-5S, and NCR-13S). The water levels were measured with an electronic water level indicator and reported as an elevation above mean sea level. Figure 1.1 shows the locations of the water level monitoring points.

1.1.4 Site Inspections

Monthly Site inspections were conducted on April 27, May 24, and June 28, 2016. During the Site inspections, the manholes, wet wells, landfill cap, wetlands, perimeter fence, drainage ditches, swale outlets, culverts, gas vents, and monitoring wells were each visually inspected.



LEGEND

▲EAST "A"	WATER LEVEL MONITORING WELL LOCATION
▼SW-2	SURFACE WATER MONITORING LOCATION
■WET WELL A	EFFLUENT MONITORING LOCATION
●NCR13S	GROUNDWATER QUALITY MONITORING LOCATION

400 200 0 400 800

SCALE: 1"=400'

P:\738641-NCRfs\cad\38641C001.dwg, 02/27/04 at 07:27, MAB, 1=1
No XREFs

FIGURE 1.1

NIAGARA COUNTY REFUSE SITE
WHEATFIELD, NEW YORK

SITE PLAN

PARSONS
180 LAWRENCE BELL DRIVE, SUITE 104, WILLIAMSVILLE, N.Y. 14221, PHONE: 716-633-7074

SECTION 2

RESULTS

This section describes the results of the second quarter OM&M activities conducted in April, May, and June 2016. Activities during this quarter included water level measurements, monthly Site inspections, pump maintenance, groundwater sampling, and effluent sampling.

2.1 EFFLUENT SAMPLES

GHD collected one effluent sample during the reporting period (April 14, 2016) for analysis by the City of North Tonawanda. The analytical results are used by the City to confirm that the effluent received from the Site meets the criteria for acceptance by the City's treatment system. These data will be summarized in the 2016 annual monitoring report. The current City of North Tonawanda Industrial Wastewater Discharge Permit (March 31, 2016 through April 1, 2019) and chain-of-custody for the April 2016 sampling event are included in Appendix A. The next effluent sample is scheduled to be collected in October 2016.

2.2 GROUNDWATER ANALYTICAL RESULTS

Analytical results for the sampling event for this reporting period are summarized in Table 2.1. The results were compared to NYSDEC ambient water quality standards (AWQS), NYSDOH maximum contaminant levels (MCLs), and USEPA MCLs (see Table 2.1). The groundwater samples collected during this reporting period were analyzed for VOCs, SVOCs, and total metals.

The analytical results received from the laboratory are presented in Appendix B, along with the COC. A Sample Collection Data Sheet, which includes purge volumes, sample date, time, description, required analyses, and the COC number for each well, is included in Appendix B. This sheet also indicates which well was used to collect the matrix spike (MS) and the matrix spike duplicate (MSD). Well purging information, including pH, conductivity, turbidity, odor, comments, and well volumes, is also provided in Appendix B.

April 2016 Event

Monitoring wells NCR-3S, NCR-4S, NCR-5S, and NCR-13S were sampled on April 14, 2016. The locations of the monitoring wells are provided in Figure 1.1. The data validation report is presented in Appendix C.

No volatile organic compounds were detected in the groundwater samples from the monitoring wells; however, acetone (4.7 J ug/L) and methylene chloride (4.5 ug/L) were found in the rinse blank. No semivolatile organic compounds were identified. Eighteen metals were identified in one or more of the groundwater samples. Five of the detected metals exceeded either the NYSDEC AWQS, NYSDOH MCLs, or USEPA MCLs (screening criteria), which is consistent with previous sampling events. In general, the detected values are consistent with

ranges observed in previous sampling events. Plots of selected total metals concentrations over time are presented in Figures 2.1A through Figure 2.1J. Key results are summarized below.

- Total aluminum exceeded the NYSDEC AWQS in each of the four samples. Historically, total aluminum has been above the NYSDEC AWQS.
- Total copper was identified in each of the samples and was above the NYSDEC AWQS in three of the samples (NCR-3S, NCR-5S, and NCR-13S). Typically, total copper has exceeded the NYSDEC AWQS in two or more of the groundwater samples.
- Total iron was identified in each of the samples exceeding the AWQS and the NYSDOH MCL. The Record of Decision (ROD) (USEPA, 1993) identifies iron as typically exceeding MCLs in the regional groundwater.
- Total magnesium was identified in each of the four samples and exceeded the AWQS guidance value (not a standard) in each of the samples. Historically, total magnesium has exceeded the AWQS guidance value.
- Total sodium was found above the NYSDEC AWQS, the NYSDOH MCL, and USEPA MCL in one of the four samples (NCR-4S). The ROD identifies sodium as typically exceeding MCLs in the regional groundwater.

Groundwater analytical results were reviewed and validated by Parsons for usability (see Appendix C for the complete report). The laboratory data packages were found to be of good overall quality. Groundwater samples were collected, properly preserved, shipped under a COC record, and received at the laboratory within one day of sampling. The analytical results are considered compliant and usable. A summary of the data validation report is provided below:

All volatile organic data was considered compliant and acceptable in accordance with the validation with the exception of MS/MSD precision and accuracy and blank contamination:

- MS/MSD precision and accuracy - All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits with the exception of the high MSD accuracy results for 1,2,4-trichlorobenzene (QC limit 70-122%R, 125%R) and tetrachloroethene (QC limit 74-122%R, 128%R) during the spiked analysis of sample NCR-13S. Validation qualification was not required.
- Blank contamination - The field equipment blank associated with all samples contained acetone and methylene chloride less than the reporting limits. Therefore, results for these compounds less than validation action concentrations were considered not detected and qualified "U" for the affected samples.

While all semivolatile sample results were considered usable following data validation, several items were found to be noncompliant:

- Surrogate recoveries – All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the low surrogate recovery for p-terphenyl-d14 (QC limit 67-150%R) in NCR-3S (60%R), NCR-4S (62%R), and NCR-13S (47%R). Validation qualification of these samples was not required.
- MS/MSD precision and accuracy – All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits with the exception of the many MS/MSD precision and accuracy results during the spiked analysis of sample NCR-13S. Validation qualification of this sample was not required.
- Continuing calibrations – All continuing calibration compounds were considered acceptable with relative response factors (RRFs) greater than 0.05 and percent differences (%Ds) within +/-20% with the exception of 3-nitroanaline (-50.7%D) in the continuing calibration associated with sample NCR-13S; and pentachlorophenol (-33.9%D) in the continuing calibration associated with sample NCR-3S and NCR-4S. Therefore, sample results for these compounds which were nondetects were considered estimated and qualified "UJ".

While all metals sample results were considered usable following data validation, several items were found to be noncompliant:

- Blank contamination – The field equipment blank contained manganese below reporting limits. Validation qualification of the sample results was not required since samples were not affected by the contamination in this blank.
- Serial dilutions – All serial dilution results were considered acceptable with %D less than 10% with the exception of chromium associated with sample NCR-13S. Therefore, the results for chromium were considered estimated and qualified "J" for this sample.
- Field duplicate precision – all field duplicate precision results were considered acceptable with the exception of aluminum (66%RPD) and chromium (63%RPD) associated with sample NCR-5S and its field duplicate sample NCR-6S. Therefore, results for these analytes were considered estimated and qualified "J" for these samples.

2.3 WATER LEVELS

Results of water level measurements collected during this reporting period are presented in Appendix D. Water levels were collected from the monitoring locations on April 5, April 20, May 4, and June 6, 2016. Water levels generally decreased over the reporting period. Measured water levels were consistent with the levels observed in previous years between April and June.

2.4 SITE INSPECTIONS

A summary of the Site inspection findings is included in Table 2.2. Copies of the Site Inspection Logs have been included in Appendix E.

Each of the inspections found the manholes and wet wells to be in good condition. Water levels were measured in the wet wells during the inspections and recorded on the water level records.

Examination of the landfill cap vegetative cover included checking for erosion, bare areas, wash-outs, leachate seeps, height of vegetation, and assessing the condition of the vegetation. No surface erosion or leachate seeps were noted. The grass covering on the landfill was noted to be a good length and as being in good condition during each of the inspections.

Additionally, the access roads were examined for erosion, potholes/puddles, and obstructions. All aspects of the access roads that were examined were deemed acceptable during each of the inspections during the reporting period. The gate lock and sign were replaced during the June inspection.

The wetlands were visually examined to assess the condition of the vegetation, change in water levels, and to observe general conditions. No issues were noted with the wetland vegetation during the inspections. The water level in the wetland was noted to be within the range expected during each of the inspections. The wetland vegetation was noted to be in good condition during each of the site inspections. The general condition of the wetlands was noted as good during each of the inspections in the reporting period.

The vegetation in the drainage ditches and swale outlets was noted to be in good condition with the need of some rain during the June inspection. No erosion or flow obstruction was observed, and the condition of the erosion protection devices were in good condition.

All other parts of the landfill system which were examined, including the culverts and gas vents, were found to be in acceptable condition during the reporting period.

2.5 MAINTENANCE

No unscheduled maintenance was required during the reporting period. Scheduled maintenance included annual pump maintenance of each of the four wet well pumps. Maintenance was completed on June 7, 13, 16, and 17, 2016 and involved pulling each of the pumps, cleaning, testing with a volt meter, and reinstalling the pumps. Maintenance record logs have been included in Appendix F. No major repairs were required during the reporting quarter.

2.6 OM&M OVERSIGHT

Parsons' Quality Assurance (QA) work included periodic oversight of OM&M activities by GHD, review of monthly inspection and monitoring data, and periodic communications with GHD. GHD has replaced O&M Enterprises, Inc. as of January 1, 2016 as the OM&M contractor for the site. Upon completion of work performed by GHD, routine activity report forms were completed. Parsons reviewed the report forms for completeness, and recorded problems, if any, on the forms (Appendices B and C).

Table 2.1
Detected Analytes in Groundwater Samples
Niagara County Refuse Site
Wheatfield, Niagara County, New York

City of North Tonawanda NY1A8791 216 Payne Ave North Tonawanda, NY C/O Niagara County Refuse Site Validated Groundwater Sampling Event April 2016		Location ID: Sample ID: Lab Id: Source: SDG: Matrix: Sampled:	NYS DEC AWQS*	NYS DOH MCL	US EPA MCL	NCR3S WG-11109668-04 1416-SG-NCR3S 480-98311-2 TALBUFF 480983111 WATER 4/14/2016 9:40	NCR4S WG-11109668-04 1416-SG-NCR4S 480-98311-3 TALBUFF 480983111 WATER 4/14/2016 9:55	NCR5S WG-11109668-04 1416-SG-NCR5S 480-98311-4 TALBUFF 480983111 WATER 4/14/2016 9:15	Field Duplicate WG-11109668-04 1416-SG-NCR6S 480-98311-5 TALBUFF 480983111 WATER 4/14/2016 9:15	NCR13S WG-11109668-04 1416-SG-NCR13S 480-98311-1 TALBUFF 480983111 WATER 4/14/2016 8:30
CAS NO.	COMPOUND	Validated:				6/6/2016	6/6/2016	6/6/2016	6/6/2016	6/6/2016
	VOLATILES	UNITS:							Dup of NCR5S	
	NONE DETECTED									
	SEMIVOLATILES									
	NONE DETECTED									
	TOTAL METALS									
7429-90-5	ALUMINUM	mg/l	0.1	-	-	0.65	22.5	0.91 J	1.8 J	0.32
7440-38-2	ARSENIC	mg/l	0.025	0.05	0.05	0.015 U	0.0081 J	0.015 U	0.015 U	0.015 U
7440-39-3	BARIUM	mg/l	1	2	2	0.048	0.12	0.14	0.16	0.055
7440-41-7	BERYLLIUM	mg/l	0.003+	0.004	0.004	0.002 U	0.0011 J	0.002 U	0.002 U	0.002 U
7440-43-9	CADMIUM	mg/l	0.005	0.005	0.005	0.00073 J	0.00098 J	0.002 U	0.002 U	0.002 U
7440-70-2	CALCIUM	mg/l	-	-	-	125	169	83.7	82.5	178
7440-47-3	CHROMIUM	mg/l	0.05	0.10	0.10	0.0083	0.011	0.0089 J	0.017 J	0.029 J
7440-48-4	COBALT	mg/l	-	-	-	0.004 U	0.00084 J	0.004 U	0.004 U	0.004 U
7440-50-8	COPPER	mg/l	0.005	-	-	0.005 J	0.035	0.0041 J	0.0057 J	0.0062 J
7439-89-6	IRON	mg/l	0.3>	0.3+	-	**1.4**	**67.5**	**0.91**	**1.4**	**1.1**
7439-92-1	LEAD	mg/l	0.025	0.025	0.015	0.01 U	0.02	0.01 U	0.01 U	0.01 U
7439-95-4	MAGNESIUM	mg/l	35	-	-	75.2	53.6	44.4	44.1	58.1
7439-96-5	MANGANESE	mg/l	0.3>	0.3+	-	0.035	0.26	0.025	0.036	0.032
7440-02-0	NICKEL	mg/l	0.10	-	-	0.011	0.012	0.0095 J	0.013	0.0066 J
7440-09-7	POTASSIUM	mg/l	-	-	-	2.2	10.6	0.66	0.75	1.4
7440-23-5	SODIUM	mg/l	20	20	20	6.9	**27.1**	14.9	16.6	12.5
7440-62-2	VANADIUM	mg/l	0.014	-	-	0.005 U	0.0096	0.005 U	0.002 J	0.0022 J
7440-66-6	ZINC	mg/l	2.0+	5	-	0.13	1.2	0.013	0.017	0.019

* = NYSDEC Ambient Water Quality Standards + = Guidance value

> = Sum of iron and manganese should not exceed 500 ug/L NYSDEC or 300 ug/L NYSDOH

J = estimated value. - = No standard identified.

Boxed values exceed NYSDEC AWQS.

Bold values exceed NYSDOH maximum contaminant levels (MCL).

Shaded values exceed USEPA maximum contaminant levels.

Table 2.2
Quarterly Site Inspection Results Summary

Inspection Item	Acceptable	Requires Action	Comments
Manholes	X		No issues were identified.
Wet Wells	X		Water levels were measured monthly.
Wetlands	X		Water level was noted to be normal during each of the inspections. Water levels were within the historical range. Vegetation in the wetlands was noted as good for each of the inspections.
Perimeter Fence	X		No damage was observed during the quarter. The gate lock and sign were replaced in June.
Condition of Roads	X		No potholes were observed.
Integrity of the Cap	X		No erosion was observed. Vegetation length was good and was the normal height for time of year during each of the inspections.
Drainage Ditches/Swales	X		Vegetation in the ditches and swales was in good condition during the April and May inspections and need for rain was noted during the June inspection.
Gas Venting System	X		No issues were identified.
Wells	X		Water levels were measured monthly.
Culverts	X		No issues were identified.
Other	X		No issues were identified with any other aspects of the site.

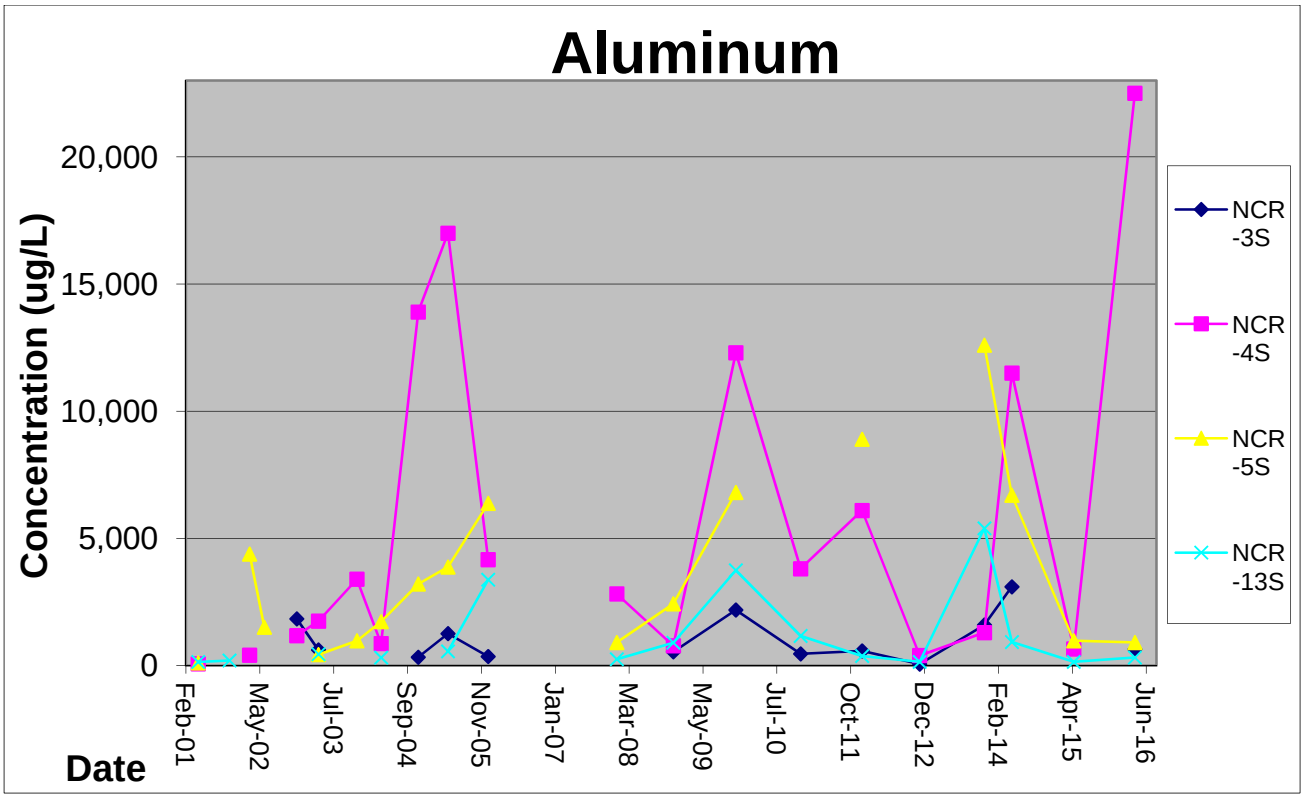


Figure 2.1A: Plot of Historical Aluminum Concentration

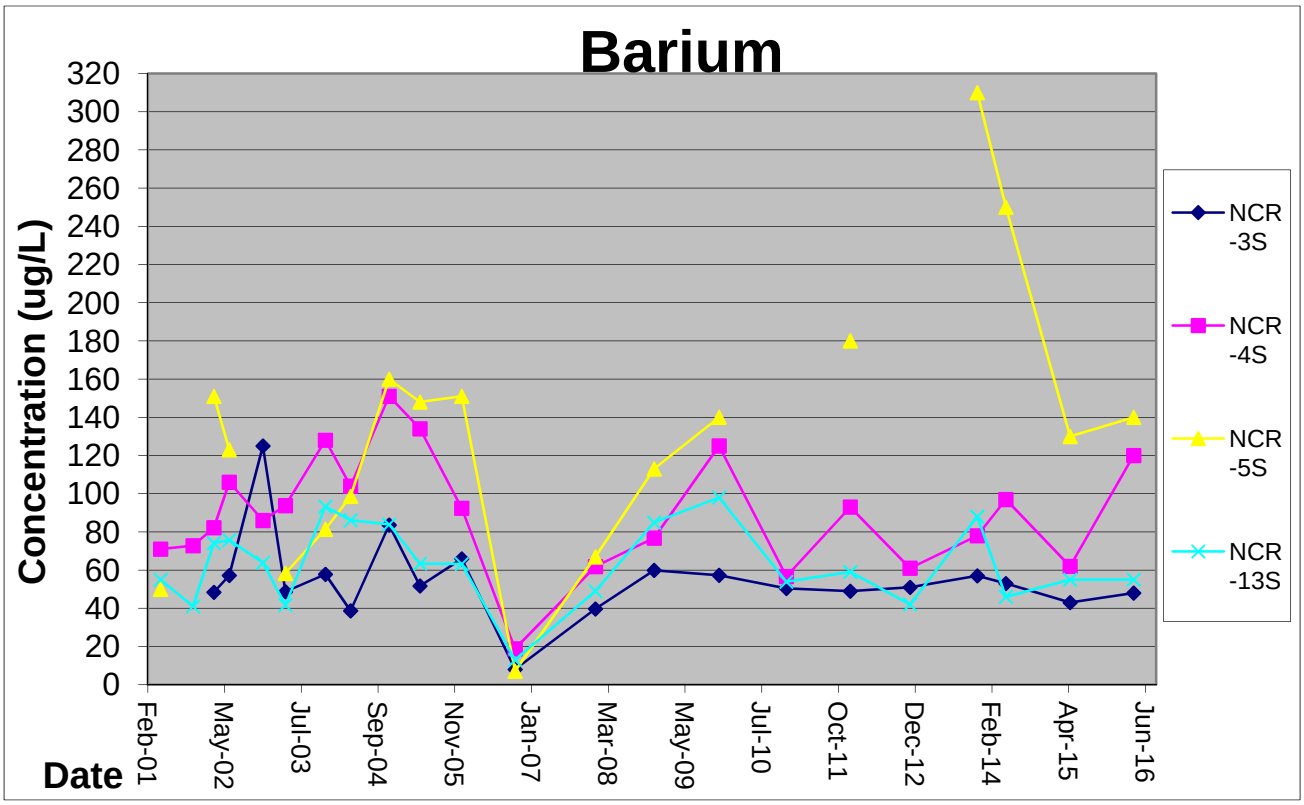


Figure 2.1B: Plot of Historical Barium Concentration

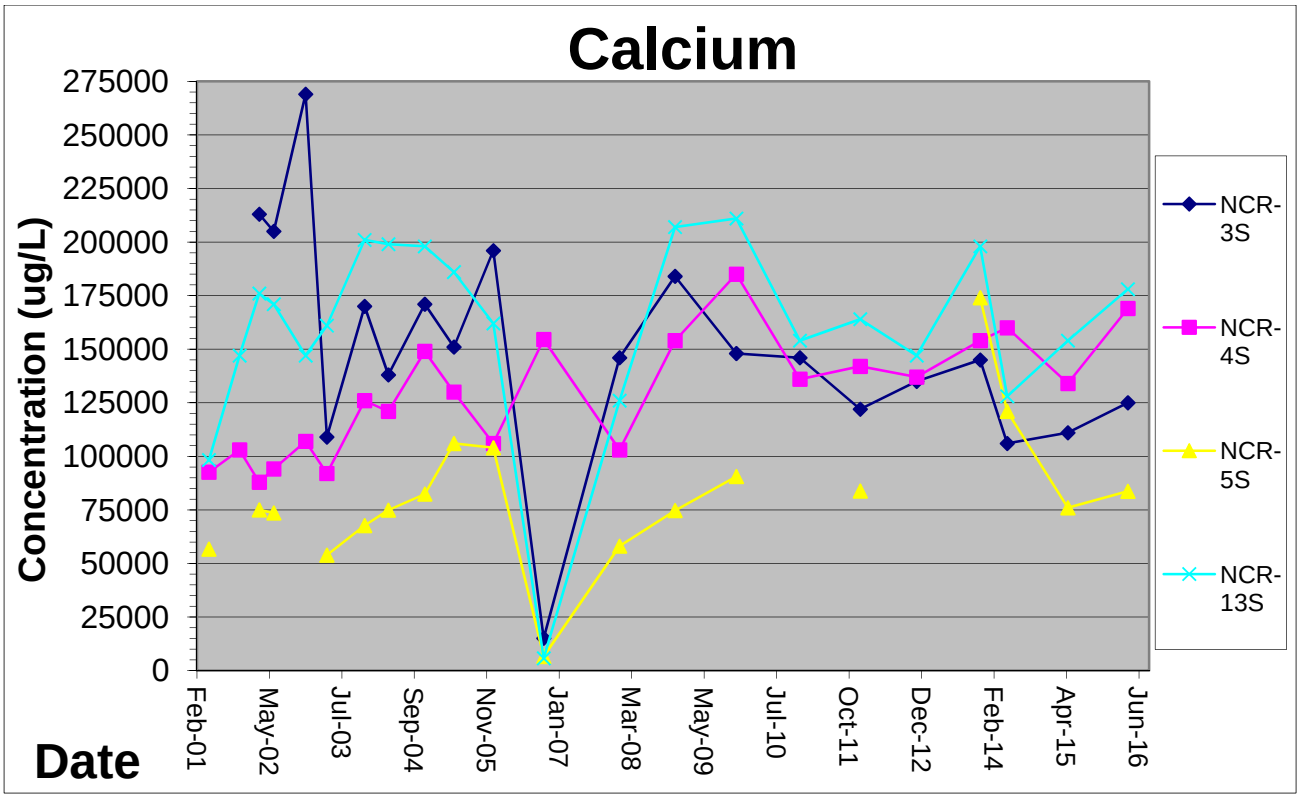


Figure 2.1C: Plot of Historical Calcium Concentration

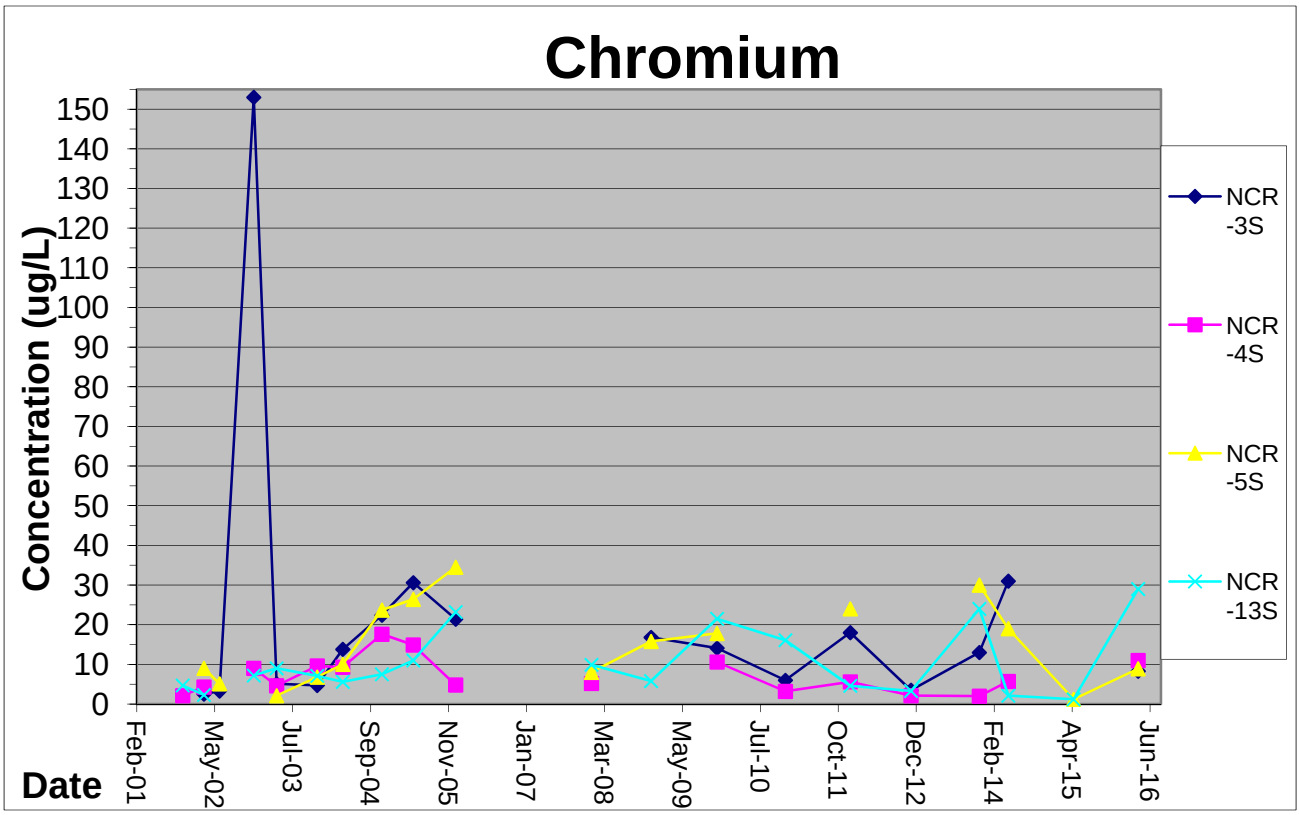


Figure 2.1D: Plot of Historical Chromium Concentration

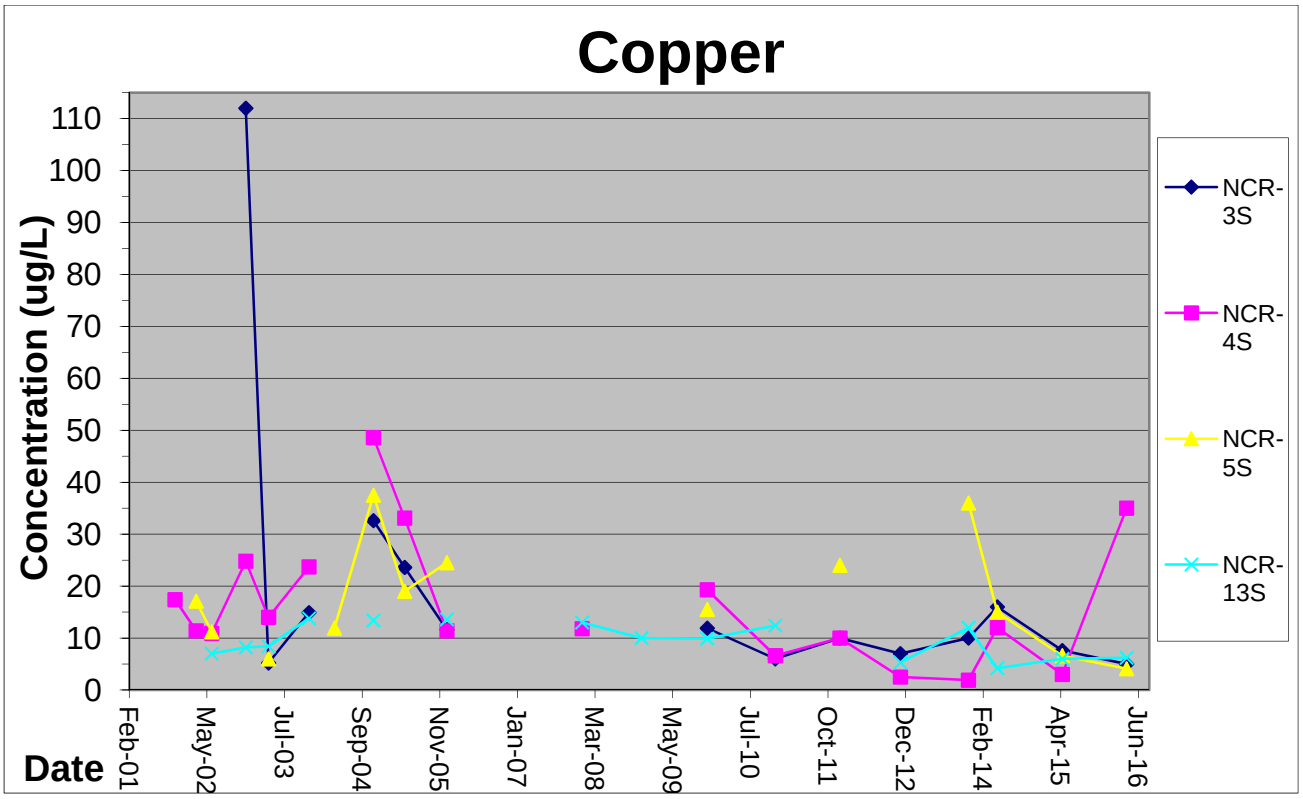


Figure 2.1E: Plot of Historical Copper Concentration

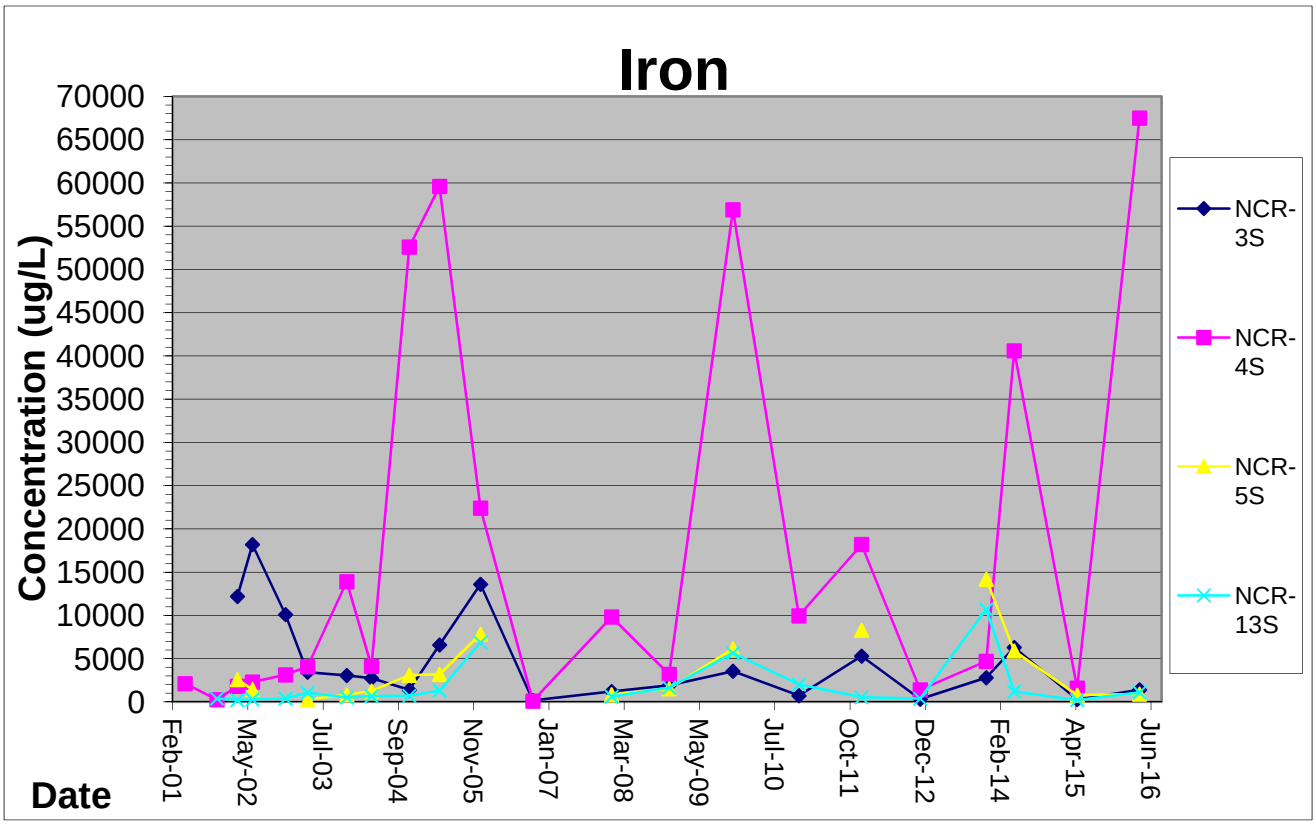


Figure 2.1F: Plot of Historical Iron Concentration

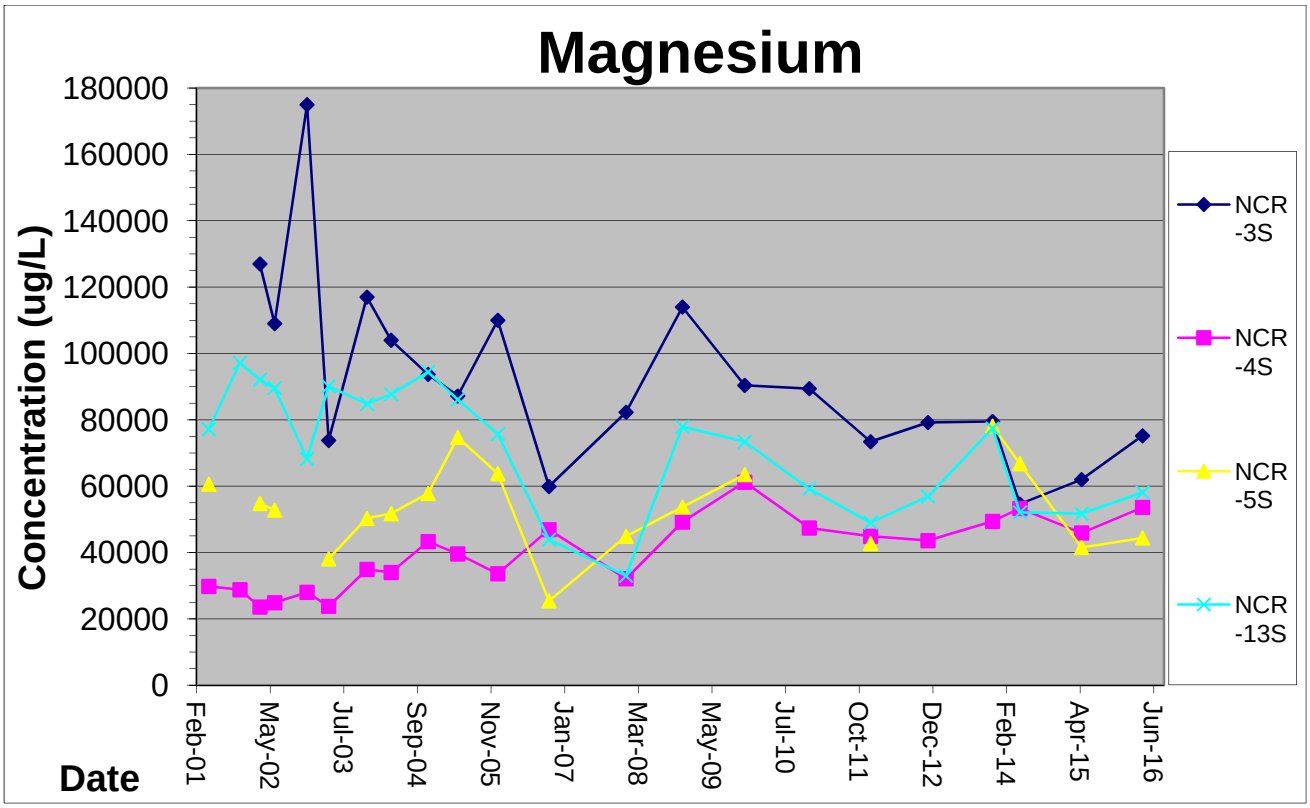


Figure 2.1G: Plot of Historical Magnesium Concentration

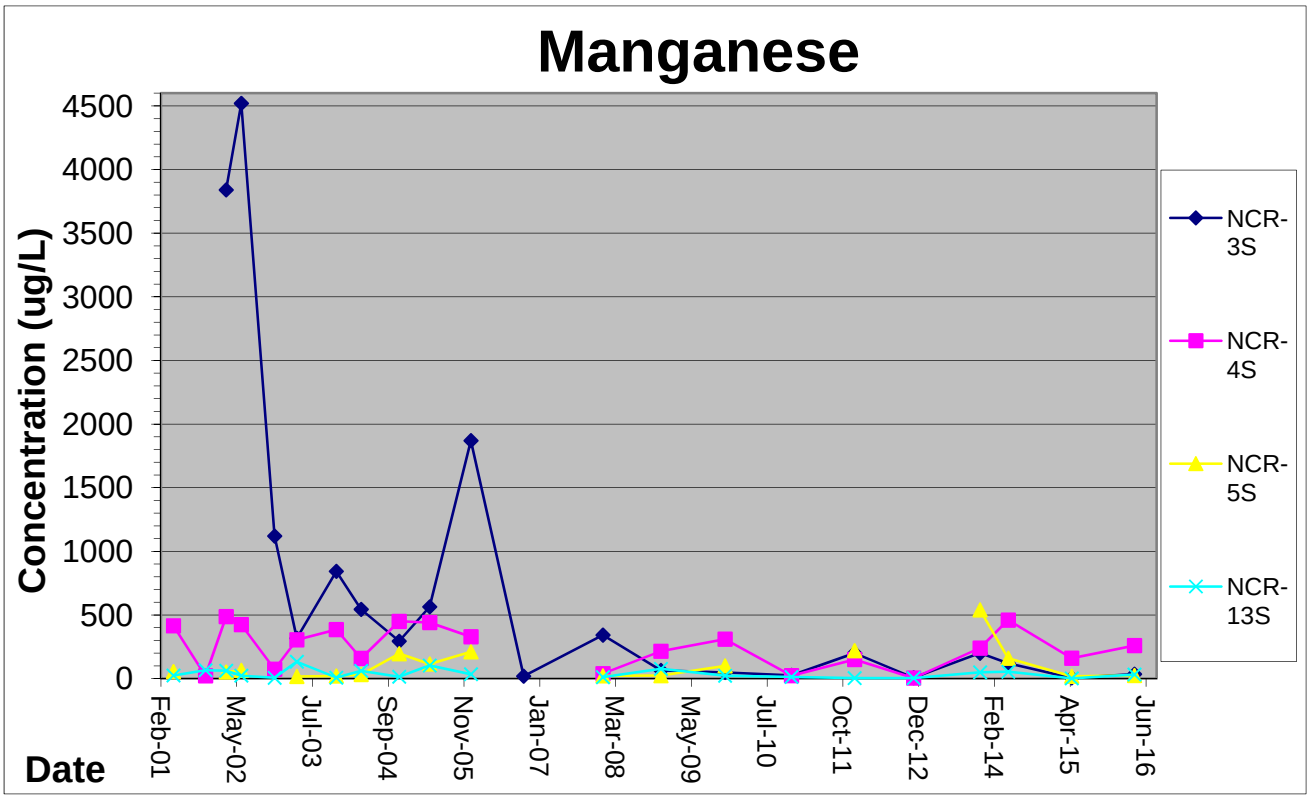


Figure 2.1H: Plot of Historical Manganese Concentration

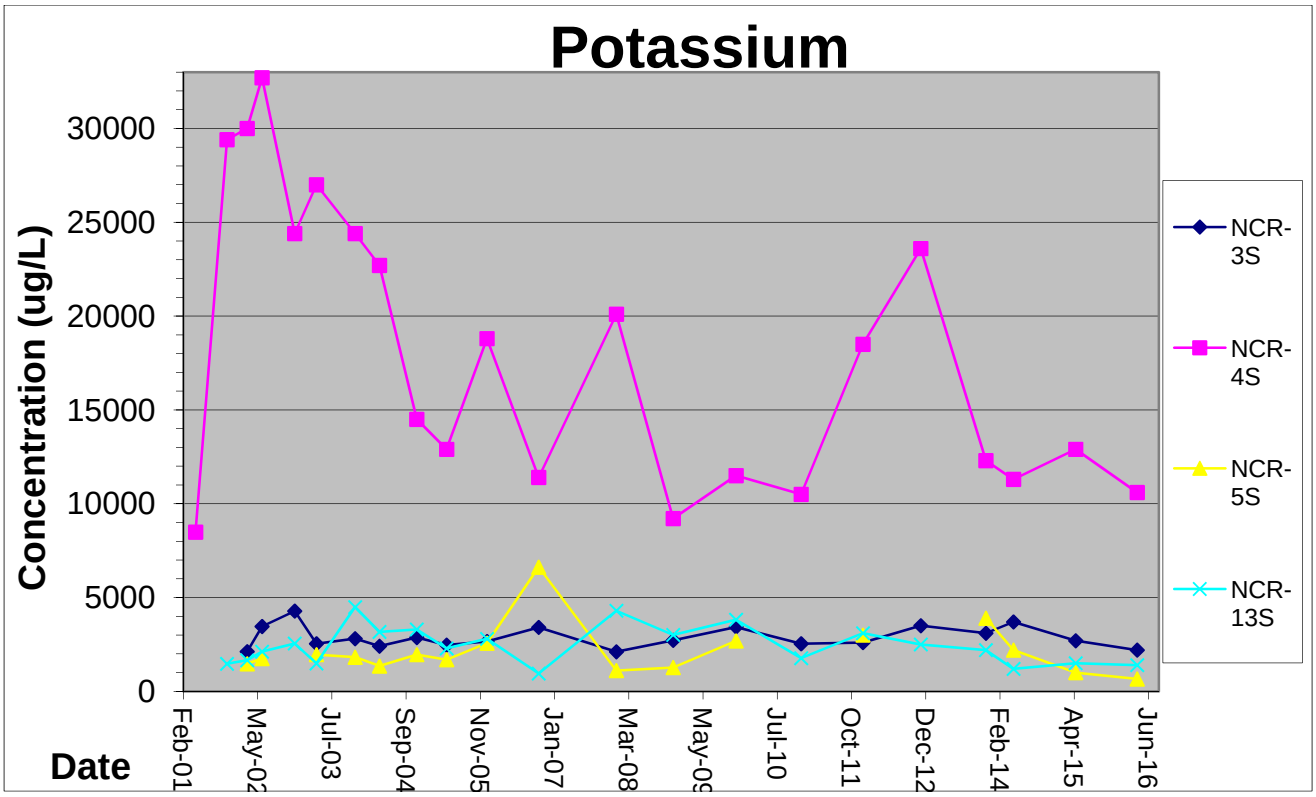


Figure 2.1I: Plot of Historical Potassium Concentration

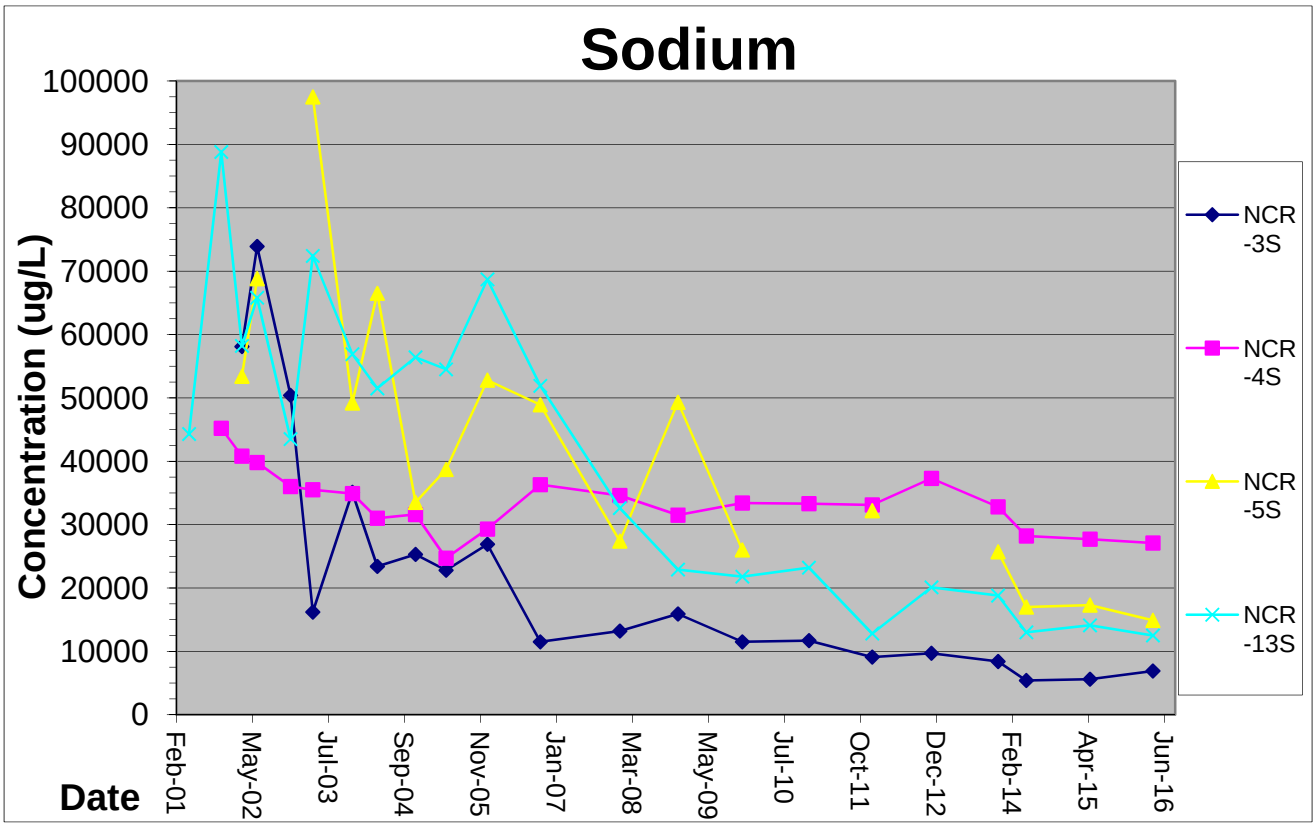


Figure 2.1J: Plot of Historical Sodium Concentration

SECTION 3

SUMMARY AND CONCLUSIONS

The following summary and conclusions were developed based on the data collected during this reporting period:

- The landfill was inspected monthly and was appropriately maintained. No major repairs were required during the reporting period.
- Annual groundwater samples were collected on April 14, 2016. Five total metals parameters exceeded either the NYSDEC AWQS, NYSDOH MCLs, or USEPA MCLs, which is consistent with previous sampling events. In general, detected values appear to be consistent with ranges observed in previous sampling events.
- Water levels were measured in the wet wells, monitoring wells, and the observation wells on the landfill on a monthly basis. Water levels generally decreased over the reporting period. Measured water levels were consistent with the levels observed in previous years between April and June.
- Wetlands vegetation was in a condition typical for the time of year during each of the monthly inspections. The wetlands vegetation will continue to be visually assessed during the monthly site inspections.

SECTION 4

REFERENCES

Record of Decision, Niagara County Refuse Site, Wheatfield, Niagara County, New York; United States Environmental Protection Agency, September 1993.

Consent Decree, Docket 946-849; United States Environmental Protection Agency, February 3, 1995.

Operations, Maintenance and Monitoring Manual for Niagara County Refuse District Site Remedial Construction, Wheatfield, Niagara County, New York; Conestoga-Rovers & Associates, December 2000.

APPENDIX A

CITY OF NORTH TONAWANDA INDUSTRIAL WASTEWATER DISCHARGE PERMIT

CITY OF NORTH TONAWANDA
INDUSTRIAL WASTEWATER DISCHARGE PERMIT

Permit Number: 2628010

In accordance with the provisions of the Clean Water Act as amended, all terms and conditions set forth in this permit, the City of North Tonawanda Local Sewer Use Ordinance and any applicable Federal, State or local laws or regulations, authorization is hereby granted to:

Niagara County Department of Public Works
Engineering Department
59 Park Avenue
Lockport, NY 14094

Site: **Niagara County Refuse Site**
Witmer Road
Town of Wheatfield, NY 14120

Classified by S.I.C. Number(s): N/A

for the discharge of ground water and other wastes generated during Remedial Action construction and implementation into the City of North Tonawanda Sewerage System.

This permit is granted in accordance with an application filed in the offices of the Water/Wastewater Superintendent located at 830 River Road, and in conformity with specifications and other required data submitted in support of the above named application, all of which are filed with and considered part of this permit. This permit is also granted in accordance with discharge limitations and requirements, monitoring and reporting requirements, and all other conditions set forth in Parts I and II hereof.

Effective this 31st day of March, 2016

To expire the 1st day of April, 2019

William M. Davignon

William M. Davignon, Water Works Superintendent
Signed this 11th day of March, 2016

PART I. SPECIFIC CONDITIONS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date of this permit and lasting until the expiration date, discharge from the permitted facility outfall(s) shall be limited and monitored by the permittee as specified below (Refer to attached map for sampling and monitoring sites).

Sample Point	Parameter	Discharge Limitations mg/l except pH Daily Max.	Sampling Period	Sampling Type
001	Total Flow		1 Sampling Day Monthly	continuous
	pH	Monitor Only	1 Sampling Day Monthly	grab
	Aluminum	2.0	1 Sampling Day semi-annual	24 hr comp.
	Lead	4.6	1 Sampling Day semi-annual	24 hr comp.
	Iron	10	1 Sampling Day semi-annual	24 hr comp.
	Magnesium	Monitor Only	1 Sampling Day semi-annual	24 hr comp.
	Sodium	Monitor Only	1 Sampling Day semi-annual	24 hr comp.
	BOD	Monitor Only	1 Sampling Day semi-annual	24 hr comp.
	Total Suspended Solids	Monitor Only	1 Sampling Day semi-annual	24 hr comp.

PART I. SPECIFIC CONDITIONS

B. DISCHARGE MONITORING AND REPORTING REQUIREMENTS

During the period beginning the effective date of this permit and lasting until the expiration date, discharge monitoring results shall be summarized and reported by the permittee no later than the days specified below.

Sample Point	Parameter	Initial Monitoring Report	Subsequent Monitoring Reports
001	Total Flow	January 31, 2007	Semi-annual
	Lead	January 31, 2007	Semi-annual
	Iron	January 31, 2007	Semi-annual
	Magnesium	January 31, 2007	Semi-annual
	Sodium	January 31, 2007	Semi-annual
	pH	January 31, 2007	Semi-annual
	BOD	January 31, 2007	Semi-annual
	Total Suspended Solids	January 31, 2007	Semi-annual

PART I. SPECIFIC CONDITIONS

C. SPECIAL REQUIREMENTS

1) This permit is written for a duration of three (3) years. Upon renewal of this permit, all parameters will be re-evaluated to develop a parameter list based on chemical concentrations present in the extracted groundwater.

2) Frequency of monitoring is to be re-evaluated yearly.

3) All monitoring reports (initial and subsequent), are to be received by the Superintendent, no later than thirty (30) days after receipt of validated data.

4) It is required that the Permittee have a Site Operations Manual available at all times. All emergency phone numbers must be listed in an appropriate place for easy access by operations personnel. The Permittee shall not discharge into the City of North Tonawanda sewerage treatment works during WWTP overflow conditions. The Permittee is required to cease all pumping operations upon verbal request of the North Tonawanda Water/Wastewater Superintendent or his designee. Pumping operations shall not recommence until approval by the North Tonawanda Water/Wastewater Superintendent or his designee.

5) Analysts are required to use GC/MS method detection limits for most organics (if GC/MS is appropriate); GC/ECD for PCB's/Pesticides and GF method detection limits for metals (where GF is appropriate), as contained in attachment 5 of the NYSDEC TOGs 1.3.8 – New Discharges to Publicly Owned Treatment Works – dated 10/26/94.

CITY OF NORTH TONAWANDA WATER WORKS
WASTEWATER DEPARTMENT
830 RIVER ROAD
NORTH TONAWANDA, NEW YORK 14120
PHONE: (716) 695 - 8560
FAX: (716) 695 - 8563

William M. Davignon
Superintendent

Kelley J. Williams
Maintenance Supervisor

Don Alesse
Chief Operator

Michael W. Gibbons
Lab Director / Chemist

CHAIN OF CUSTODY

Sampling Record

NIAGARA COUNTY REFUSE SITE

DATE: April 13 & 14, 2016

SITE NAME: **NIAGARA COUNTY REFUSE SITE**

NAME (*Signature*) Tony [signature]

NAME (Print) Tony Manno

SPL #	SAMPLE NAME	DATE	TIME	SAMPLE LOCATION	SAMPLE TYPE	#OF BTLS
1&2	NCRS 1&2	4/13/16	0815	wet well A	water	2
3&4	NCRS 3&4	4/13/16	1615	wet well A	water	2
5&6	NCRS 5&6	4/14/16	0015	wet well A	water	2

FLOWS:

FINAL METER READING	9145000
INITIAL METER READING	9116000
DAILY FLOW	29000

RELINQUISHED BY: Tony [signature]

RECEIVED BY: [signature]

DATE: 3/14/16

TIME: 1007

APPENDIX B
ANALYTICAL DATA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

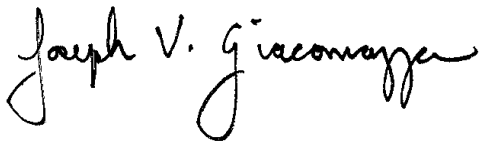
ANALYTICAL REPORT

Job Number: 480-98311-1

Job Description: City of North Tonawanda - NCRS

For:
N Tonawanda Water Works
830 River Road
North Tonawanda, NY 14120

Attention: Michael W Gibbons



Approved for release.
Joe V Giacomazza
Project Management Assistant II
5/13/2016 11:59 AM

Designee for
Judy L Stone, Senior Project Manager
10 Hazelwood Drive, Amherst, NY, 14228-2298
(484)685-0868
judy.stone@testamericainc.com
05/13/2016

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report.

TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

Table of Contents

Table of Contents

Table of Contents

Job Narrative
480-98311-1

Receipt
The samples were received on 4/14/2016 10:34 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-297289 recovered above the upper control limit for 1,1,2-Trichloro-1,2,2-trifluoroethane and 2-Butanone (MEK). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: WG-11109668-041416-SG-NCR4S (480-98311-3), WG-11109668-041416-SG-NCR5S (480-98311-4), WG-11109668-041416-SG-NCR6S (480-98311-5), RB-11109668-041416-SG (480-98311-6) and TB-11109668-041416-SG (480-98311-7).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows two of these surrogates to be outside acceptance criteria without performing re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: WG-11109668-041416-SG-NCR13S (480-98311-1), WG-11109668-041416-SG-NCR13S (480-98311-1[MS]) and WG-11109668-041416-SG-NCR13S (480-98311-1[MSD]). These results have been reported and qualified.

Method(s) 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows two of these surrogates to be outside acceptance criteria without performing re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: WG-11109668-041416-SG-NCR5S (480-98311-4). These results have been reported and qualified.

Method(s) 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows two of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: WG-11109668-041416-SG-NCR3S (480-98311-2) and WG-11109668-041416-SG-NCR4S (480-98311-3). These results have been reported and qualified.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-296472 recovered outside acceptance criteria, low biased, for 3,3'-Dichlorobenzidine, 3-Nitroaniline, 4-Chloroaniline and 4-Nitroaniline. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. WG-11109668-041416-SG-NCR13S (480-98311-1), WG-11109668-041416-SG-NCR13S (480-98311-1[MS]) and WG-11109668-041416-SG-NCR13S (480-98311-1[MSD]).

Method(s) 8270D: The laboratory control sample (LCS) for preparation batch 480-296108 and analytical batch 480-296472 recovered outside control limits for the following analytes: Benzaldehyde. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-296732 recovered outside acceptance criteria, low biased, for Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. WG-11109668-041416-SG-NCR3S (480-98311-2) and WG-11109668-041416-SG-NCR4S (480-98311-3).

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-296545 recovered outside acceptance criteria, low biased, for 3,3'-Dichlorobenzidine and 3-Nitroaniline. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. WG-11109668-041416-SG-NCR5S (480-98311-4), WG-11109668-041416-SG-NCR6S (480-98311-5) and RB-11109668-041416-SG (480-98311-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

SAMPLE SUMMARY

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-98311-1	WG-11109668-041416-SG-NCR 13S	Water	04/14/2016 0830	04/14/2016 1034
480-98311-1MS	WG-11109668-041416-SG-NCR 13S	Water	04/14/2016 0830	04/14/2016 1034
480-98311-1MSD	WG-11109668-041416-SG-NCR 13S	Water	04/14/2016 0830	04/14/2016 1034
480-98311-2	WG-11109668-041416-SG-NCR 3S	Water	04/14/2016 0940	04/14/2016 1034
480-98311-3	WG-11109668-041416-SG-NCR 4S	Water	04/14/2016 0955	04/14/2016 1034
480-98311-4	WG-11109668-041416-SG-NCR 5S	Water	04/14/2016 0915	04/14/2016 1034
480-98311-5	WG-11109668-041416-SG-NCR 6S	Water	04/14/2016 0915	04/14/2016 1034
480-98311-6	RB-11109668-041416-SG	Water	04/14/2016 0900	04/14/2016 1034
480-98311-7	TB-11109668-041416-SG	Water	04/14/2016 0000	04/14/2016 1034

EXECUTIVE SUMMARY - Detections

Client: N Tonawanda Water Works Job Number: 480-98311-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-98311-1	**WG-11109668-041416-SG-NCR13S**					
Aluminum		0.32		0.20	mg/L	6010C
Barium		0.055		0.0020	mg/L	6010C
Calcium		178		0.50	mg/L	6010C
Chromium		0.029		0.0040	mg/L	6010C
Copper		0.0062	J	0.010	mg/L	6010C
Iron		1.1		0.050	mg/L	6010C
Magnesium		58.1		0.20	mg/L	6010C
Manganese		0.032		0.0030	mg/L	6010C
Nickel		0.0066	J	0.010	mg/L	6010C
Potassium		1.4		0.50	mg/L	6010C
Sodium		12.5		1.0	mg/L	6010C
Vanadium		0.0022	J	0.0050	mg/L	6010C
Zinc		0.019		0.010	mg/L	6010C
480-98311-2	**WG-11109668-041416-SG-NCR3S**					
Aluminum		0.65		0.20	mg/L	6010C
Barium		0.048		0.0020	mg/L	6010C
Cadmium		0.00073	J	0.0020	mg/L	6010C
Calcium		125		0.50	mg/L	6010C
Chromium		0.0083		0.0040	mg/L	6010C
Copper		0.0050	J	0.010	mg/L	6010C
Iron		1.4		0.050	mg/L	6010C
Magnesium		75.2		0.20	mg/L	6010C
Manganese		0.035		0.0030	mg/L	6010C
Nickel		0.011		0.010	mg/L	6010C
Potassium		2.2		0.50	mg/L	6010C
Sodium		6.9		1.0	mg/L	6010C
Zinc		0.13		0.010	mg/L	6010C

EXECUTIVE SUMMARY - Detections

Client: N Tonawanda Water Works Job Number: 480-98311-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-98311-3	**WG-11109668-041416-SG-NCR4S**					
Acetone		4.3	J	10	ug/L	8260C
Aluminum		22.5		0.20	mg/L	6010C
Arsenic		0.0081	J	0.015	mg/L	6010C
Barium		0.12		0.0020	mg/L	6010C
Beryllium		0.0011	J	0.0020	mg/L	6010C
Cadmium		0.00098	J	0.0020	mg/L	6010C
Calcium		169		0.50	mg/L	6010C
Chromium		0.011		0.0040	mg/L	6010C
Cobalt		0.00084	J	0.0040	mg/L	6010C
Copper		0.035		0.010	mg/L	6010C
Iron		67.5		0.050	mg/L	6010C
Lead		0.020		0.010	mg/L	6010C
Magnesium		53.6		0.20	mg/L	6010C
Manganese		0.26		0.0030	mg/L	6010C
Nickel		0.012		0.010	mg/L	6010C
Potassium		10.6		0.50	mg/L	6010C
Sodium		27.1		1.0	mg/L	6010C
Vanadium		0.0096		0.0050	mg/L	6010C
Zinc		1.2		0.010	mg/L	6010C
480-98311-4	**WG-11109668-041416-SG-NCR5S**					
Acetone		3.2	J	10	ug/L	8260C
Aluminum		0.91		0.20	mg/L	6010C
Barium		0.14		0.0020	mg/L	6010C
Calcium		83.7		0.50	mg/L	6010C
Chromium		0.0089		0.0040	mg/L	6010C
Copper		0.0041	J	0.010	mg/L	6010C
Iron		0.91		0.050	mg/L	6010C
Magnesium		44.4		0.20	mg/L	6010C
Manganese		0.025		0.0030	mg/L	6010C
Nickel		0.0095	J	0.010	mg/L	6010C
Potassium		0.66		0.50	mg/L	6010C
Sodium		14.9		1.0	mg/L	6010C
Zinc		0.013		0.010	mg/L	6010C

EXECUTIVE SUMMARY - Detections

Client: N Tonawanda Water Works Job Number: 480-98311-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-98311-5	**WG-11109668-041416-SG-NCR6S**					
Acetone		3.1	J	10	ug/L	8260C
Aluminum		1.8		0.20	mg/L	6010C
Barium		0.16		0.0020	mg/L	6010C
Calcium		82.5		0.50	mg/L	6010C
Chromium		0.017		0.0040	mg/L	6010C
Copper		0.0057	J	0.010	mg/L	6010C
Iron		1.4		0.050	mg/L	6010C
Magnesium		44.1		0.20	mg/L	6010C
Manganese		0.036		0.0030	mg/L	6010C
Nickel		0.013		0.010	mg/L	6010C
Potassium		0.75		0.50	mg/L	6010C
Sodium		16.6		1.0	mg/L	6010C
Vanadium		0.0020	J	0.0050	mg/L	6010C
Zinc		0.017		0.010	mg/L	6010C
480-98311-6	**RB-11109668-041416-SG**					
Acetone		4.7	J	10	ug/L	8260C
Methylene Chloride		4.5		1.0	ug/L	8260C
Manganese		0.00046	J	0.0030	mg/L	6010C

METHOD SUMMARY

Client: N Tonawanda Water Works Job Number: 480-98311-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL BUF	SW846 8260C	
Purge and Trap	TAL BUF		SW846 5030C
Semivolatile Organic Compounds (GC/MS)	TAL BUF	SW846 8270D	
Liquid-Liquid Extraction (Separatory Funnel)	TAL BUF		SW846 3510C
Metals (ICP)	TAL BUF	SW846 6010C	
Preparation, Total Metals	TAL BUF		SW846 3005A
Mercury (CVAA)	TAL BUF	SW846 7470A	
Preparation, Mercury	TAL BUF		SW846 7470A

Lab References:

TAL BUF = TestAmerica Buffalo

Method References:

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

METHOD / ANALYST SUMMARY

Client: N Tonawanda Water Works Job Number: 480-98311-1

Method	Analyst	Analyst ID
SW846 8260C	Dias, Nicole M	NMD1
SW846 8260C	O'Brien, Shaun W	SWO
SW846 8270D	Wolf, Leah M	LMW
SW846 6010C	Hanks, Lisa M	LMH
SW846 7470A	Seger, Tiffany A	TAS

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR13S**

Lab Sample ID: 480-98311-1 Date Sampled: 04/14/2016 0830
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297222	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S0289.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 0452			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 0452				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND	F1	0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND	F1	0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR13S**

Lab Sample ID: 480-98311-1 Date Sampled: 04/14/2016 0830
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297222	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S0289.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 0452			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 0452				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		66 - 137
4-Bromofluorobenzene (Surr)	109		73 - 120
Dibromofluoromethane (Surr)	98		60 - 140
Toluene-d8 (Surr)	102		71 - 126

Client Sample ID: **WG-11109668-041416-SG-NCR3S**

Lab Sample ID: 480-98311-2 Date Sampled: 04/14/2016 0940
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297222	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S0290.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 0515			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 0515				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR3S**

Lab Sample ID: 480-98311-2 Date Sampled: 04/14/2016 0940
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297222	Instrument ID:	HP5973S
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	S0290.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 0515			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 0515				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		66 - 137
4-Bromofluorobenzene (Surr)	111		73 - 120
Dibromofluoromethane (Surr)	100		60 - 140
Toluene-d8 (Surr)	102		71 - 126

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR4S**

Lab Sample ID: 480-98311-3 Date Sampled: 04/14/2016 0955
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	P5188.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1336			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1336				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	4.3	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR4S**

Lab Sample ID: 480-98311-3 Date Sampled: 04/14/2016 0955
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	P5188.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1336			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1336				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114		66 - 137
4-Bromofluorobenzene (Surr)	98		73 - 120
Dibromofluoromethane (Surr)	113		60 - 140
Toluene-d8 (Surr)	105		71 - 126

Client: N Tonawanda Water Works | Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR5S**

Lab Sample ID: 480-98311-4 | Date Sampled: 04/14/2016 0915
Client Matrix: Water | Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	P5189.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1403			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1403				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	3.2	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR5S**

Lab Sample ID: 480-98311-4 Date Sampled: 04/14/2016 0915
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	P5189.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1403			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1403				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	118		66 - 137
4-Bromofluorobenzene (Surr)	98		73 - 120
Dibromofluoromethane (Surr)	112		60 - 140
Toluene-d8 (Surr)	105		71 - 126

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR6S**

Lab Sample ID: 480-98311-5 Date Sampled: 04/14/2016 0915
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	P5190.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1430			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1430				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	3.1	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR6S**

Lab Sample ID: 480-98311-5 Date Sampled: 04/14/2016 0915
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	P5190.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1430			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1430				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	118		66 - 137
4-Bromofluorobenzene (Surr)	96		73 - 120
Dibromofluoromethane (Surr)	114		60 - 140
Toluene-d8 (Surr)	104		71 - 126

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **RB-11109668-041416-SG**

Lab Sample ID: 480-98311-6 Date Sampled: 04/14/2016 0900
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	P5191.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1457			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1457				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	4.7	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	4.5		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **RB-11109668-041416-SG**

Lab Sample ID: 480-98311-6 Date Sampled: 04/14/2016 0900
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	P5191.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1457			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1457				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	117		66 - 137
4-Bromofluorobenzene (Surr)	95		73 - 120
Dibromofluoromethane (Surr)	111		60 - 140
Toluene-d8 (Surr)	102		71 - 126

Client Sample ID: **TB-11109668-041416-SG**

Lab Sample ID: 480-98311-7 Date Sampled: 04/14/2016 0000
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	P5192.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1524			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1524				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **TB-11109668-041416-SG**

Lab Sample ID: 480-98311-7 Date Sampled: 04/14/2016 0000
Client Matrix: Water Date Received: 04/14/2016 1034

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	P5192.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1524			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1524				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114		66 - 137
4-Bromofluorobenzene (Surr)	98		73 - 120
Dibromofluoromethane (Surr)	109		60 - 140
Toluene-d8 (Surr)	105		71 - 126

Client Sample ID: **WG-11109668-041416-SG-NCR13S**

Lab Sample ID: 480-98311-1 Date Sampled: 04/14/2016 0830
Client Matrix: Water Date Received: 04/14/2016 1034

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-296472	Instrument ID:	HP5973X
Prep Method:	3510C	Prep Batch:	480-296108	Lab File ID:	X00904478.D
Dilution:	1.0			Initial Weight/Volume:	270 mL
Analysis Date:	04/18/2016 1955			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dichlorobenzene	ND		0.37	9.3
1,3-Dichlorobenzene	ND		0.44	9.3
1,4-Dichlorobenzene	ND		0.43	9.3
2,4,5-Trichlorophenol	ND		0.44	4.6
2,4,6-Trichlorophenol	ND		0.56	4.6
2,4-Dichlorophenol	ND		0.47	4.6
2,4-Dimethylphenol	ND	F1	0.46	4.6
2,4-Dinitrophenol	ND		2.1	9.3
2,4-Dinitrotoluene	ND		0.41	4.6
2,6-Dinitrotoluene	ND		0.37	4.6
2-Chloronaphthalene	ND		0.43	4.6
2-Chlorophenol	ND		0.49	4.6
2-Methylnaphthalene	ND		0.56	4.6
2-Methylphenol	ND		0.37	4.6
2-Nitroaniline	ND		0.39	9.3
2-Nitrophenol	ND		0.44	4.6
3,3'-Dichlorobenzidine	ND		0.37	4.6
3-Nitroaniline	ND	F1	0.44	9.3
4,6-Dinitro-2-methylphenol	ND		2.0	9.3
4-Bromophenyl phenyl ether	ND		0.42	4.6
4-Chloro-3-methylphenol	ND		0.42	4.6
4-Chloroaniline	ND	F1	0.55	4.6
4-Chlorophenyl phenyl ether	ND		0.32	4.6
4-Methylphenol	ND		0.33	9.3
4-Nitroaniline	ND		0.23	9.3
4-Nitrophenol	ND		1.4	9.3
Acenaphthene	ND		0.38	4.6
Acenaphthylene	ND		0.35	4.6
Acetophenone	ND		0.50	4.6
Anthracene	ND		0.26	4.6
Atrazine	ND		0.43	4.6
Benzaldehyde	ND	F1 *	0.25	4.6
Benzo[a]anthracene	ND	F1	0.33	4.6
Benzo[a]pyrene	ND	F1	0.44	4.6
Benzo[b]fluoranthene	ND	F1	0.31	4.6
Benzo[g,h,i]perylene	ND	F1	0.32	4.6
Benzo[k]fluoranthene	ND	F1	0.68	4.6
Biphenyl	ND		0.60	4.6
bis (2-chloroisopropyl) ether	ND		0.48	4.6
Bis(2-chloroethoxy)methane	ND		0.32	4.6
Bis(2-chloroethyl)ether	ND		0.37	4.6
Bis(2-ethylhexyl) phthalate	ND	F1	2.0	4.6
Butyl benzyl phthalate	ND		0.93	4.6
Caprolactam	ND		2.0	4.6
Carbazole	ND		0.28	4.6
Chrysene	ND	F1	0.31	4.6

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR13S**

Lab Sample ID: 480-98311-1 Date Sampled: 04/14/2016 0830
Client Matrix: Water Date Received: 04/14/2016 1034

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-296472	Instrument ID:	HP5973X
Prep Method:	3510C	Prep Batch:	480-296108	Lab File ID:	X00904478.D
Dilution:	1.0			Initial Weight/Volume:	270 mL
Analysis Date:	04/18/2016 1955			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenz(a,h)anthracene	ND	F1	0.39	4.6
Dibenzofuran	ND		0.47	9.3
Diethyl phthalate	ND		0.20	4.6
Dimethyl phthalate	ND		0.33	4.6
Di-n-butyl phthalate	ND		0.29	4.6
Di-n-octyl phthalate	ND	F1	0.44	4.6
Fluoranthene	ND		0.37	4.6
Fluorene	ND		0.33	4.6
Hexachlorobenzene	ND		0.47	4.6
Hexachlorobutadiene	ND		0.63	4.6
Hexachlorocyclopentadiene	ND		0.55	4.6
Hexachloroethane	ND		0.55	4.6
Indeno[1,2,3-cd]pyrene	ND	F1	0.44	4.6
Isophorone	ND		0.40	4.6
Naphthalene	ND		0.70	4.6
Nitrobenzene	ND		0.27	4.6
N-Nitrosodi-n-propylamine	ND		0.50	4.6
N-Nitrosodiphenylamine	ND		0.47	4.6
Pentachlorophenol	ND		2.0	9.3
Phenanthrene	ND		0.41	4.6
Phenol	ND	F2	0.36	4.6
Pyrene	ND		0.31	4.6

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	65		52 - 132
2-Fluorobiphenyl	70		48 - 120
2-Fluorophenol (Surr)	42		20 - 120
Nitrobenzene-d5 (Surr)	64		46 - 120
Phenol-d5 (Surr)	31		16 - 120
p-Terphenyl-d14 (Surr)	47	X	67 - 150

Client Sample ID: **WG-11109668-041416-SG-NCR3S**

Lab Sample ID: 480-98311-2 Date Sampled: 04/14/2016 0940
Client Matrix: Water Date Received: 04/14/2016 1034

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-296732	Instrument ID:	HP5973X
Prep Method:	3510C	Prep Batch:	480-296108	Lab File ID:	X00904511.D
Dilution:	1.0			Initial Weight/Volume:	272.2 mL
Analysis Date:	04/19/2016 1229			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dichlorobenzene	ND		0.37	9.2
1,3-Dichlorobenzene	ND		0.44	9.2
1,4-Dichlorobenzene	ND		0.42	9.2
2,4,5-Trichlorophenol	ND		0.44	4.6
2,4,6-Trichlorophenol	ND		0.56	4.6
2,4-Dichlorophenol	ND		0.47	4.6
2,4-Dimethylphenol	ND		0.46	4.6
2,4-Dinitrophenol	ND		2.0	9.2
2,4-Dinitrotoluene	ND		0.41	4.6
2,6-Dinitrotoluene	ND		0.37	4.6
2-Chloronaphthalene	ND		0.42	4.6
2-Chlorophenol	ND		0.49	4.6
2-Methylnaphthalene	ND		0.55	4.6
2-Methylphenol	ND		0.37	4.6
2-Nitroaniline	ND		0.39	9.2
2-Nitrophenol	ND		0.44	4.6
3,3'-Dichlorobenzidine	ND		0.37	4.6
3-Nitroaniline	ND		0.44	9.2
4,6-Dinitro-2-methylphenol	ND		2.0	9.2
4-Bromophenyl phenyl ether	ND		0.41	4.6
4-Chloro-3-methylphenol	ND		0.41	4.6
4-Chloroaniline	ND		0.54	4.6
4-Chlorophenyl phenyl ether	ND		0.32	4.6
4-Methylphenol	ND		0.33	9.2
4-Nitroaniline	ND		0.23	9.2
4-Nitrophenol	ND		1.4	9.2
Acenaphthene	ND		0.38	4.6
Acenaphthylene	ND		0.35	4.6
Acetophenone	ND		0.50	4.6
Anthracene	ND		0.26	4.6
Atrazine	ND		0.42	4.6
Benzaldehyde	ND	*	0.25	4.6
Benzo[a]anthracene	ND		0.33	4.6
Benzo[a]pyrene	ND		0.43	4.6
Benzo[b]fluoranthene	ND		0.31	4.6
Benzo[g,h,i]perylene	ND		0.32	4.6
Benzo[k]fluoranthene	ND		0.67	4.6
Biphenyl	ND		0.60	4.6
bis (2-chloroisopropyl) ether	ND		0.48	4.6
Bis(2-chloroethoxy)methane	ND		0.32	4.6
Bis(2-chloroethyl)ether	ND		0.37	4.6
Bis(2-ethylhexyl) phthalate	ND		2.0	4.6
Butyl benzyl phthalate	ND		0.92	4.6
Caprolactam	ND		2.0	4.6
Carbazole	ND		0.28	4.6
Chrysene	ND		0.30	4.6

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR3S**

Lab Sample ID: 480-98311-2 Date Sampled: 04/14/2016 0940
Client Matrix: Water Date Received: 04/14/2016 1034

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-296732	Instrument ID:	HP5973X
Prep Method:	3510C	Prep Batch:	480-296108	Lab File ID:	X00904511.D
Dilution:	1.0			Initial Weight/Volume:	272.2 mL
Analysis Date:	04/19/2016 1229			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenz(a,h)anthracene	ND		0.39	4.6
Dibenzofuran	ND		0.47	9.2
Diethyl phthalate	ND		0.20	4.6
Dimethyl phthalate	ND		0.33	4.6
Di-n-butyl phthalate	ND		0.28	4.6
Di-n-octyl phthalate	ND		0.43	4.6
Fluoranthene	ND		0.37	4.6
Fluorene	ND		0.33	4.6
Hexachlorobenzene	ND		0.47	4.6
Hexachlorobutadiene	ND		0.62	4.6
Hexachlorocyclopentadiene	ND		0.54	4.6
Hexachloroethane	ND		0.54	4.6
Indeno[1,2,3-cd]pyrene	ND		0.43	4.6
Isophorone	ND		0.39	4.6
Naphthalene	ND		0.70	4.6
Nitrobenzene	ND		0.27	4.6
N-Nitrosodi-n-propylamine	ND		0.50	4.6
N-Nitrosodiphenylamine	ND		0.47	4.6
Pentachlorophenol	ND		2.0	9.2
Phenanthrene	ND		0.40	4.6
Phenol	ND		0.36	4.6
Pyrene	ND		0.31	4.6

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	75		52 - 132
2-Fluorobiphenyl	87		48 - 120
2-Fluorophenol (Surr)	50		20 - 120
Nitrobenzene-d5 (Surr)	78		46 - 120
Phenol-d5 (Surr)	34		16 - 120
p-Terphenyl-d14 (Surr)	60	X	67 - 150

Client Sample ID: **WG-11109668-041416-SG-NCR4S**

Lab Sample ID: 480-98311-3 Date Sampled: 04/14/2016 0955
Client Matrix: Water Date Received: 04/14/2016 1034

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-296732	Instrument ID:	HP5973X
Prep Method:	3510C	Prep Batch:	480-296108	Lab File ID:	X00904512.D
Dilution:	1.0			Initial Weight/Volume:	269.9 mL
Analysis Date:	04/19/2016 1258			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dichlorobenzene	ND		0.37	9.3
1,3-Dichlorobenzene	ND		0.44	9.3
1,4-Dichlorobenzene	ND		0.43	9.3
2,4,5-Trichlorophenol	ND		0.44	4.6
2,4,6-Trichlorophenol	ND		0.57	4.6
2,4-Dichlorophenol	ND		0.47	4.6
2,4-Dimethylphenol	ND		0.46	4.6
2,4-Dinitrophenol	ND		2.1	9.3
2,4-Dinitrotoluene	ND		0.41	4.6
2,6-Dinitrotoluene	ND		0.37	4.6
2-Chloronaphthalene	ND		0.43	4.6
2-Chlorophenol	ND		0.49	4.6
2-Methylnaphthalene	ND		0.56	4.6
2-Methylphenol	ND		0.37	4.6
2-Nitroaniline	ND		0.39	9.3
2-Nitrophenol	ND		0.44	4.6
3,3'-Dichlorobenzidine	ND		0.37	4.6
3-Nitroaniline	ND		0.44	9.3
4,6-Dinitro-2-methylphenol	ND		2.0	9.3
4-Bromophenyl phenyl ether	ND		0.42	4.6
4-Chloro-3-methylphenol	ND		0.42	4.6
4-Chloroaniline	ND		0.55	4.6
4-Chlorophenyl phenyl ether	ND		0.32	4.6
4-Methylphenol	ND		0.33	9.3
4-Nitroaniline	ND		0.23	9.3
4-Nitrophenol	ND		1.4	9.3
Acenaphthene	ND		0.38	4.6
Acenaphthylene	ND		0.35	4.6
Acetophenone	ND		0.50	4.6
Anthracene	ND		0.26	4.6
Atrazine	ND		0.43	4.6
Benzaldehyde	ND	*	0.25	4.6
Benzo[a]anthracene	ND		0.33	4.6
Benzo[a]pyrene	ND		0.44	4.6
Benzo[b]fluoranthene	ND		0.31	4.6
Benzo[g,h,i]perylene	ND		0.32	4.6
Benzo[k]fluoranthene	ND		0.68	4.6
Biphenyl	ND		0.60	4.6
bis (2-chloroisopropyl) ether	ND		0.48	4.6
Bis(2-chloroethoxy)methane	ND		0.32	4.6
Bis(2-chloroethyl)ether	ND		0.37	4.6
Bis(2-ethylhexyl) phthalate	ND		2.0	4.6
Butyl benzyl phthalate	ND		0.93	4.6
Caprolactam	ND		2.0	4.6
Carbazole	ND		0.28	4.6
Chrysene	ND		0.31	4.6

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR4S**

Lab Sample ID: 480-98311-3 Date Sampled: 04/14/2016 0955
Client Matrix: Water Date Received: 04/14/2016 1034

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-296732	Instrument ID:	HP5973X
Prep Method:	3510C	Prep Batch:	480-296108	Lab File ID:	X00904512.D
Dilution:	1.0			Initial Weight/Volume:	269.9 mL
Analysis Date:	04/19/2016 1258			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenz(a,h)anthracene	ND		0.39	4.6
Dibenzofuran	ND		0.47	9.3
Diethyl phthalate	ND		0.20	4.6
Dimethyl phthalate	ND		0.33	4.6
Di-n-butyl phthalate	ND		0.29	4.6
Di-n-octyl phthalate	ND		0.44	4.6
Fluoranthene	ND		0.37	4.6
Fluorene	ND		0.33	4.6
Hexachlorobenzene	ND		0.47	4.6
Hexachlorobutadiene	ND		0.63	4.6
Hexachlorocyclopentadiene	ND		0.55	4.6
Hexachloroethane	ND		0.55	4.6
Indeno[1,2,3-cd]pyrene	ND		0.44	4.6
Isophorone	ND		0.40	4.6
Naphthalene	ND		0.70	4.6
Nitrobenzene	ND		0.27	4.6
N-Nitrosodi-n-propylamine	ND		0.50	4.6
N-Nitrosodiphenylamine	ND		0.47	4.6
Pentachlorophenol	ND		2.0	9.3
Phenanthrene	ND		0.41	4.6
Phenol	ND		0.36	4.6
Pyrene	ND		0.31	4.6

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	67		52 - 132
2-Fluorobiphenyl	83		48 - 120
2-Fluorophenol (Surr)	44		20 - 120
Nitrobenzene-d5 (Surr)	75		46 - 120
Phenol-d5 (Surr)	35		16 - 120
p-Terphenyl-d14 (Surr)	62	X	67 - 150

Client Sample ID: **WG-11109668-041416-SG-NCR5S**

Lab Sample ID: 480-98311-4 Date Sampled: 04/14/2016 0915
Client Matrix: Water Date Received: 04/14/2016 1034

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-296545	Instrument ID:	HP5973X
Prep Method:	3510C	Prep Batch:	480-296108	Lab File ID:	X00904488.D
Dilution:	1.0			Initial Weight/Volume:	270.9 mL
Analysis Date:	04/19/2016 0048			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dichlorobenzene	ND		0.37	9.2
1,3-Dichlorobenzene	ND		0.44	9.2
1,4-Dichlorobenzene	ND		0.42	9.2
2,4,5-Trichlorophenol	ND		0.44	4.6
2,4,6-Trichlorophenol	ND		0.56	4.6
2,4-Dichlorophenol	ND		0.47	4.6
2,4-Dimethylphenol	ND		0.46	4.6
2,4-Dinitrophenol	ND		2.0	9.2
2,4-Dinitrotoluene	ND		0.41	4.6
2,6-Dinitrotoluene	ND		0.37	4.6
2-Chloronaphthalene	ND		0.42	4.6
2-Chlorophenol	ND		0.49	4.6
2-Methylnaphthalene	ND		0.55	4.6
2-Methylphenol	ND		0.37	4.6
2-Nitroaniline	ND		0.39	9.2
2-Nitrophenol	ND		0.44	4.6
3,3'-Dichlorobenzidine	ND		0.37	4.6
3-Nitroaniline	ND		0.44	9.2
4,6-Dinitro-2-methylphenol	ND		2.0	9.2
4-Bromophenyl phenyl ether	ND		0.42	4.6
4-Chloro-3-methylphenol	ND		0.42	4.6
4-Chloroaniline	ND		0.54	4.6
4-Chlorophenyl phenyl ether	ND		0.32	4.6
4-Methylphenol	ND		0.33	9.2
4-Nitroaniline	ND		0.23	9.2
4-Nitrophenol	ND		1.4	9.2
Acenaphthene	ND		0.38	4.6
Acenaphthylene	ND		0.35	4.6
Acetophenone	ND		0.50	4.6
Anthracene	ND		0.26	4.6
Atrazine	ND		0.42	4.6
Benzaldehyde	ND	*	0.25	4.6
Benzo[a]anthracene	ND		0.33	4.6
Benzo[a]pyrene	ND		0.43	4.6
Benzo[b]fluoranthene	ND		0.31	4.6
Benzo[g,h,i]perylene	ND		0.32	4.6
Benzo[k]fluoranthene	ND		0.67	4.6
Biphenyl	ND		0.60	4.6
bis (2-chloroisopropyl) ether	ND		0.48	4.6
Bis(2-chloroethoxy)methane	ND		0.32	4.6
Bis(2-chloroethyl)ether	ND		0.37	4.6
Bis(2-ethylhexyl) phthalate	ND		2.0	4.6
Butyl benzyl phthalate	ND		0.92	4.6
Caprolactam	ND		2.0	4.6
Carbazole	ND		0.28	4.6
Chrysene	ND		0.30	4.6

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR5S**

Lab Sample ID: 480-98311-4 Date Sampled: 04/14/2016 0915
Client Matrix: Water Date Received: 04/14/2016 1034

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-296545	Instrument ID:	HP5973X
Prep Method:	3510C	Prep Batch:	480-296108	Lab File ID:	X00904488.D
Dilution:	1.0			Initial Weight/Volume:	270.9 mL
Analysis Date:	04/19/2016 0048			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenz(a,h)anthracene	ND		0.39	4.6
Dibenzofuran	ND		0.47	9.2
Diethyl phthalate	ND		0.20	4.6
Dimethyl phthalate	ND		0.33	4.6
Di-n-butyl phthalate	ND		0.29	4.6
Di-n-octyl phthalate	ND		0.43	4.6
Fluoranthene	ND		0.37	4.6
Fluorene	ND		0.33	4.6
Hexachlorobenzene	ND		0.47	4.6
Hexachlorobutadiene	ND		0.63	4.6
Hexachlorocyclopentadiene	ND		0.54	4.6
Hexachloroethane	ND		0.54	4.6
Indeno[1,2,3-cd]pyrene	ND		0.43	4.6
Isophorone	ND		0.40	4.6
Naphthalene	ND		0.70	4.6
Nitrobenzene	ND		0.27	4.6
N-Nitrosodi-n-propylamine	ND		0.50	4.6
N-Nitrosodiphenylamine	ND		0.47	4.6
Pentachlorophenol	ND		2.0	9.2
Phenanthrene	ND		0.41	4.6
Phenol	ND		0.36	4.6
Pyrene	ND		0.31	4.6

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	62		52 - 132
2-Fluorobiphenyl	72		48 - 120
2-Fluorophenol (Surr)	42		20 - 120
Nitrobenzene-d5 (Surr)	65		46 - 120
Phenol-d5 (Surr)	30		16 - 120
p-Terphenyl-d14 (Surr)	61	X	67 - 150

Client Sample ID: **WG-11109668-041416-SG-NCR6S**

Lab Sample ID: 480-98311-5 Date Sampled: 04/14/2016 0915
Client Matrix: Water Date Received: 04/14/2016 1034

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-296545	Instrument ID:	HP5973X
Prep Method:	3510C	Prep Batch:	480-296108	Lab File ID:	X00904489.D
Dilution:	1.0			Initial Weight/Volume:	264.8 mL
Analysis Date:	04/19/2016 0116			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dichlorobenzene	ND		0.38	9.4
1,3-Dichlorobenzene	ND		0.45	9.4
1,4-Dichlorobenzene	ND		0.43	9.4
2,4,5-Trichlorophenol	ND		0.45	4.7
2,4,6-Trichlorophenol	ND		0.58	4.7
2,4-Dichlorophenol	ND		0.48	4.7
2,4-Dimethylphenol	ND		0.47	4.7
2,4-Dinitrophenol	ND		2.1	9.4
2,4-Dinitrotoluene	ND		0.42	4.7
2,6-Dinitrotoluene	ND		0.38	4.7
2-Chloronaphthalene	ND		0.43	4.7
2-Chlorophenol	ND		0.50	4.7
2-Methylnaphthalene	ND		0.57	4.7
2-Methylphenol	ND		0.38	4.7
2-Nitroaniline	ND		0.40	9.4
2-Nitrophenol	ND		0.45	4.7
3,3'-Dichlorobenzidine	ND		0.38	4.7
3-Nitroaniline	ND		0.45	9.4
4,6-Dinitro-2-methylphenol	ND		2.1	9.4
4-Bromophenyl phenyl ether	ND		0.42	4.7
4-Chloro-3-methylphenol	ND		0.42	4.7
4-Chloroaniline	ND		0.56	4.7
4-Chlorophenyl phenyl ether	ND		0.33	4.7
4-Methylphenol	ND		0.34	9.4
4-Nitroaniline	ND		0.24	9.4
4-Nitrophenol	ND		1.4	9.4
Acenaphthene	ND		0.39	4.7
Acenaphthylene	ND		0.36	4.7
Acetophenone	ND		0.51	4.7
Anthracene	ND		0.26	4.7
Atrazine	ND		0.43	4.7
Benzaldehyde	ND	*	0.25	4.7
Benzo[a]anthracene	ND		0.34	4.7
Benzo[a]pyrene	ND		0.44	4.7
Benzo[b]fluoranthene	ND		0.32	4.7
Benzo[g,h,i]perylene	ND		0.33	4.7
Benzo[k]fluoranthene	ND		0.69	4.7
Biphenyl	ND		0.62	4.7
bis (2-chloroisopropyl) ether	ND		0.49	4.7
Bis(2-chloroethoxy)methane	ND		0.33	4.7
Bis(2-chloroethyl)ether	ND		0.38	4.7
Bis(2-ethylhexyl) phthalate	ND		2.1	4.7
Butyl benzyl phthalate	ND		0.94	4.7
Caprolactam	ND		2.1	4.7
Carbazole	ND		0.28	4.7
Chrysene	ND		0.31	4.7

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR6S**

Lab Sample ID: 480-98311-5 Date Sampled: 04/14/2016 0915
Client Matrix: Water Date Received: 04/14/2016 1034

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-296545	Instrument ID:	HP5973X
Prep Method:	3510C	Prep Batch:	480-296108	Lab File ID:	X00904489.D
Dilution:	1.0			Initial Weight/Volume:	264.8 mL
Analysis Date:	04/19/2016 0116			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenz(a,h)anthracene	ND		0.40	4.7
Dibenzofuran	ND		0.48	9.4
Diethyl phthalate	ND		0.21	4.7
Dimethyl phthalate	ND		0.34	4.7
Di-n-butyl phthalate	ND		0.29	4.7
Di-n-octyl phthalate	ND		0.44	4.7
Fluoranthene	ND		0.38	4.7
Fluorene	ND		0.34	4.7
Hexachlorobenzene	ND		0.48	4.7
Hexachlorobutadiene	ND		0.64	4.7
Hexachlorocyclopentadiene	ND		0.56	4.7
Hexachloroethane	ND		0.56	4.7
Indeno[1,2,3-cd]pyrene	ND		0.44	4.7
Isophorone	ND		0.41	4.7
Naphthalene	ND		0.72	4.7
Nitrobenzene	ND		0.27	4.7
N-Nitrosodi-n-propylamine	ND		0.51	4.7
N-Nitrosodiphenylamine	ND		0.48	4.7
Pentachlorophenol	ND		2.1	9.4
Phenanthrene	ND		0.42	4.7
Phenol	ND		0.37	4.7
Pyrene	ND		0.32	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	70		52 - 132
2-Fluorobiphenyl	75		48 - 120
2-Fluorophenol (Surr)	46		20 - 120
Nitrobenzene-d5 (Surr)	67		46 - 120
Phenol-d5 (Surr)	33		16 - 120
p-Terphenyl-d14 (Surr)	70		67 - 150

Client Sample ID: **RB-11109668-041416-SG**

Lab Sample ID: 480-98311-6 Date Sampled: 04/14/2016 0900
Client Matrix: Water Date Received: 04/14/2016 1034

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-296545	Instrument ID:	HP5973X
Prep Method:	3510C	Prep Batch:	480-296108	Lab File ID:	X00904490.D
Dilution:	1.0			Initial Weight/Volume:	273.8 mL
Analysis Date:	04/19/2016 0145			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2-Dichlorobenzene	ND		0.37	9.1
1,3-Dichlorobenzene	ND		0.44	9.1
1,4-Dichlorobenzene	ND		0.42	9.1
2,4,5-Trichlorophenol	ND		0.44	4.6
2,4,6-Trichlorophenol	ND		0.56	4.6
2,4-Dichlorophenol	ND		0.47	4.6
2,4-Dimethylphenol	ND		0.46	4.6
2,4-Dinitrophenol	ND		2.0	9.1
2,4-Dinitrotoluene	ND		0.41	4.6
2,6-Dinitrotoluene	ND		0.37	4.6
2-Chloronaphthalene	ND		0.42	4.6
2-Chlorophenol	ND		0.48	4.6
2-Methylnaphthalene	ND		0.55	4.6
2-Methylphenol	ND		0.37	4.6
2-Nitroaniline	ND		0.38	9.1
2-Nitrophenol	ND		0.44	4.6
3,3'-Dichlorobenzidine	ND		0.37	4.6
3-Nitroaniline	ND		0.44	9.1
4,6-Dinitro-2-methylphenol	ND		2.0	9.1
4-Bromophenyl phenyl ether	ND		0.41	4.6
4-Chloro-3-methylphenol	ND		0.41	4.6
4-Chloroaniline	ND		0.54	4.6
4-Chlorophenyl phenyl ether	ND		0.32	4.6
4-Methylphenol	ND		0.33	9.1
4-Nitroaniline	ND		0.23	9.1
4-Nitrophenol	ND		1.4	9.1
Acenaphthene	ND		0.37	4.6
Acenaphthylene	ND		0.35	4.6
Acetophenone	ND		0.49	4.6
Anthracene	ND		0.26	4.6
Atrazine	ND		0.42	4.6
Benzaldehyde	ND	*	0.24	4.6
Benzo[a]anthracene	ND		0.33	4.6
Benzo[a]pyrene	ND		0.43	4.6
Benzo[b]fluoranthene	ND		0.31	4.6
Benzo[g,h,i]perylene	ND		0.32	4.6
Benzo[k]fluoranthene	ND		0.67	4.6
Biphenyl	ND		0.60	4.6
bis (2-chloroisopropyl) ether	ND		0.47	4.6
Bis(2-chloroethoxy)methane	ND		0.32	4.6
Bis(2-chloroethyl)ether	ND		0.37	4.6
Bis(2-ethylhexyl) phthalate	ND		2.0	4.6
Butyl benzyl phthalate	ND		0.91	4.6
Caprolactam	ND		2.0	4.6
Carbazole	ND		0.27	4.6
Chrysene	ND		0.30	4.6

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **RB-11109668-041416-SG**

Lab Sample ID: 480-98311-6 Date Sampled: 04/14/2016 0900
Client Matrix: Water Date Received: 04/14/2016 1034

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	480-296545	Instrument ID:	HP5973X
Prep Method:	3510C	Prep Batch:	480-296108	Lab File ID:	X00904490.D
Dilution:	1.0			Initial Weight/Volume:	273.8 mL
Analysis Date:	04/19/2016 0145			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Dibenz(a,h)anthracene	ND		0.38	4.6
Dibenzofuran	ND		0.47	9.1
Diethyl phthalate	ND		0.20	4.6
Dimethyl phthalate	ND		0.33	4.6
Di-n-butyl phthalate	ND		0.28	4.6
Di-n-octyl phthalate	ND		0.43	4.6
Fluoranthene	ND		0.37	4.6
Fluorene	ND		0.33	4.6
Hexachlorobenzene	ND		0.47	4.6
Hexachlorobutadiene	ND		0.62	4.6
Hexachlorocyclopentadiene	ND		0.54	4.6
Hexachloroethane	ND		0.54	4.6
Indeno[1,2,3-cd]pyrene	ND		0.43	4.6
Isophorone	ND		0.39	4.6
Naphthalene	ND		0.69	4.6
Nitrobenzene	ND		0.26	4.6
N-Nitrosodi-n-propylamine	ND		0.49	4.6
N-Nitrosodiphenylamine	ND		0.47	4.6
Pentachlorophenol	ND		2.0	9.1
Phenanthrene	ND		0.40	4.6
Phenol	ND		0.36	4.6
Pyrene	ND		0.31	4.6

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol (Surr)	75		52 - 132
2-Fluorobiphenyl	81		48 - 120
2-Fluorophenol (Surr)	47		20 - 120
Nitrobenzene-d5 (Surr)	74		46 - 120
Phenol-d5 (Surr)	34		16 - 120
p-Terphenyl-d14 (Surr)	96		67 - 150

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR13S**

Lab Sample ID: 480-98311-1 Date Sampled: 04/14/2016 0830
Client Matrix: Water Date Received: 04/14/2016 1034

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	480-296462	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-296020	Lab File ID:	I2041616A-2.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/16/2016 0937			Final Weight/Volume:	50 mL
Prep Date:	04/15/2016 0805				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.32		0.060	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.015
Barium	0.055		0.00070	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	ND		0.00050	0.0020
Calcium	178		0.10	0.50
Chromium	0.029		0.0010	0.0040
Cobalt	ND		0.00063	0.0040
Copper	0.0062	J	0.0016	0.010
Iron	1.1		0.019	0.050
Lead	ND		0.0030	0.010
Magnesium	58.1		0.043	0.20
Manganese	0.032		0.00040	0.0030
Nickel	0.0066	J	0.0013	0.010
Potassium	1.4		0.10	0.50
Selenium	ND		0.0087	0.025
Silver	ND		0.0017	0.0060
Sodium	12.5		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0022	J	0.0015	0.0050
Zinc	0.019		0.0015	0.010

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	480-296862	Instrument ID:	LEEMAN2
Prep Method:	7470A	Prep Batch:	480-296703	Lab File ID:	H04196W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	04/19/2016 1254			Final Weight/Volume:	50 mL
Prep Date:	04/19/2016 0900				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR3S**

Lab Sample ID: 480-98311-2 Date Sampled: 04/14/2016 0940
Client Matrix: Water Date Received: 04/14/2016 1034

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	480-296462	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-296020	Lab File ID:	I2041616A-2.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/16/2016 0953			Final Weight/Volume:	50 mL
Prep Date:	04/15/2016 0805				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.65		0.060	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.015
Barium	0.048		0.00070	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	0.00073	J	0.00050	0.0020
Calcium	125		0.10	0.50
Chromium	0.0083		0.0010	0.0040
Cobalt	ND		0.00063	0.0040
Copper	0.0050	J	0.0016	0.010
Iron	1.4		0.019	0.050
Lead	ND		0.0030	0.010
Magnesium	75.2		0.043	0.20
Manganese	0.035		0.00040	0.0030
Nickel	0.011		0.0013	0.010
Potassium	2.2		0.10	0.50
Selenium	ND		0.0087	0.025
Silver	ND		0.0017	0.0060
Sodium	6.9		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	ND		0.0015	0.0050
Zinc	0.13		0.0015	0.010

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	480-296862	Instrument ID:	LEEMAN2
Prep Method:	7470A	Prep Batch:	480-296703	Lab File ID:	H04196W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	04/19/2016 1301			Final Weight/Volume:	50 mL
Prep Date:	04/19/2016 0900				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR4S**

Lab Sample ID: 480-98311-3 Date Sampled: 04/14/2016 0955
Client Matrix: Water Date Received: 04/14/2016 1034

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	480-296462	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-296020	Lab File ID:	I2041616A-2.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/16/2016 0956			Final Weight/Volume:	50 mL
Prep Date:	04/15/2016 0805				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	22.5		0.060	0.20
Antimony	ND		0.0068	0.020
Arsenic	0.0081	J	0.0056	0.015
Barium	0.12		0.00070	0.0020
Beryllium	0.0011	J	0.00030	0.0020
Cadmium	0.00098	J	0.00050	0.0020
Calcium	169		0.10	0.50
Chromium	0.011		0.0010	0.0040
Cobalt	0.00084	J	0.00063	0.0040
Copper	0.035		0.0016	0.010
Iron	67.5		0.019	0.050
Lead	0.020		0.0030	0.010
Magnesium	53.6		0.043	0.20
Manganese	0.26		0.00040	0.0030
Nickel	0.012		0.0013	0.010
Potassium	10.6		0.10	0.50
Selenium	ND		0.0087	0.025
Silver	ND		0.0017	0.0060
Sodium	27.1		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0096		0.0015	0.0050
Zinc	1.2		0.0015	0.010

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	480-296862	Instrument ID:	LEEMAN2
Prep Method:	7470A	Prep Batch:	480-296703	Lab File ID:	H04196W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	04/19/2016 1303			Final Weight/Volume:	50 mL
Prep Date:	04/19/2016 0900				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR5S**

Lab Sample ID: 480-98311-4 Date Sampled: 04/14/2016 0915
Client Matrix: Water Date Received: 04/14/2016 1034

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	480-296462	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-296020	Lab File ID:	I2041616A-2.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/16/2016 1009			Final Weight/Volume:	50 mL
Prep Date:	04/15/2016 0805				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	0.91		0.060	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.015
Barium	0.14		0.00070	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	ND		0.00050	0.0020
Calcium	83.7		0.10	0.50
Chromium	0.0089		0.0010	0.0040
Cobalt	ND		0.00063	0.0040
Copper	0.0041	J	0.0016	0.010
Iron	0.91		0.019	0.050
Lead	ND		0.0030	0.010
Magnesium	44.4		0.043	0.20
Manganese	0.025		0.00040	0.0030
Nickel	0.0095	J	0.0013	0.010
Potassium	0.66		0.10	0.50
Selenium	ND		0.0087	0.025
Silver	ND		0.0017	0.0060
Sodium	14.9		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	ND		0.0015	0.0050
Zinc	0.013		0.0015	0.010

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	480-296862	Instrument ID:	LEEMAN2
Prep Method:	7470A	Prep Batch:	480-296703	Lab File ID:	H04196W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	04/19/2016 1304			Final Weight/Volume:	50 mL
Prep Date:	04/19/2016 0900				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **WG-11109668-041416-SG-NCR6S**

Lab Sample ID: 480-98311-5 Date Sampled: 04/14/2016 0915
Client Matrix: Water Date Received: 04/14/2016 1034

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	480-296462	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-296020	Lab File ID:	I2041616A-2.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/16/2016 1013			Final Weight/Volume:	50 mL
Prep Date:	04/15/2016 0805				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	1.8		0.060	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.015
Barium	0.16		0.00070	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	ND		0.00050	0.0020
Calcium	82.5		0.10	0.50
Chromium	0.017		0.0010	0.0040
Cobalt	ND		0.00063	0.0040
Copper	0.0057	J	0.0016	0.010
Iron	1.4		0.019	0.050
Lead	ND		0.0030	0.010
Magnesium	44.1		0.043	0.20
Manganese	0.036		0.00040	0.0030
Nickel	0.013		0.0013	0.010
Potassium	0.75		0.10	0.50
Selenium	ND		0.0087	0.025
Silver	ND		0.0017	0.0060
Sodium	16.6		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	0.0020	J	0.0015	0.0050
Zinc	0.017		0.0015	0.010

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	480-296862	Instrument ID:	LEEMAN2
Prep Method:	7470A	Prep Batch:	480-296703	Lab File ID:	H04196W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	04/19/2016 1307			Final Weight/Volume:	50 mL
Prep Date:	04/19/2016 0900				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

Client: N Tonawanda Water Works Job Number: 480-98311-1

Client Sample ID: **RB-11109668-041416-SG**

Lab Sample ID: 480-98311-6 Date Sampled: 04/14/2016 0900
Client Matrix: Water Date Received: 04/14/2016 1034

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	480-296462	Instrument ID:	ICAP2
Prep Method:	3005A	Prep Batch:	480-296020	Lab File ID:	I2041616A-2.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	04/16/2016 1016			Final Weight/Volume:	50 mL
Prep Date:	04/15/2016 0805				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	ND		0.060	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.015
Barium	ND		0.00070	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	ND		0.00050	0.0020
Calcium	ND		0.10	0.50
Chromium	ND		0.0010	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0016	0.010
Iron	ND		0.019	0.050
Lead	ND		0.0030	0.010
Magnesium	ND		0.043	0.20
Manganese	0.00046	J	0.00040	0.0030
Nickel	ND		0.0013	0.010
Potassium	ND		0.10	0.50
Selenium	ND		0.0087	0.025
Silver	ND		0.0017	0.0060
Sodium	ND		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	ND		0.0015	0.0050
Zinc	ND		0.0015	0.010

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	480-296862	Instrument ID:	LEEMAN2
Prep Method:	7470A	Prep Batch:	480-296703	Lab File ID:	H04196W1.PRN
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	04/19/2016 1313			Final Weight/Volume:	50 mL
Prep Date:	04/19/2016 0900				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.00012	0.00020

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
480-98311-1	WG-11109668-041416-SG-NCR13S	98	97	102	109
480-98311-2	WG-11109668-041416-SG-NCR3S	100	101	102	111
480-98311-3	WG-11109668-041416-SG-NCR4S	113	114	105	98
480-98311-4	WG-11109668-041416-SG-NCR5S	112	118	105	98
480-98311-5	WG-11109668-041416-SG-NCR6S	114	118	104	96
480-98311-6	RB-11109668-041416-SG	111	117	102	95
480-98311-7	TB-11109668-041416-SG	109	114	105	98
MB 480-297222/7		101	100	105	111
MB 480-297289/6		115	120	106	103
LCS 480-297222/5		99	94	105	111
LCS 480-297289/4		111	114	108	105
480-98311-1 MS	WG-11109668-041416-SG-NCR13S MS	98	96	101	109
480-98311-1 MSD	WG-11109668-041416-SG-NCR13S MSD	97	93	104	112

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	60-140
DCA = 1,2-Dichloroethane-d4 (Surr)	66-137
TOL = Toluene-d8 (Surr)	71-126
BFB = 4-Bromofluorobenzene (Surr)	73-120

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
480-98311-1	WG-11109668-041416-SG-NCR13S	42	31	64	70	65	47X
480-98311-2	WG-11109668-041416-SG-NCR3S	50	34	78	87	75	60X
480-98311-3	WG-11109668-041416-SG-NCR4S	44	35	75	83	67	62X
480-98311-4	WG-11109668-041416-SG-NCR5S	42	30	65	72	62	61X
480-98311-5	WG-11109668-041416-SG-NCR6S	46	33	67	75	70	70
480-98311-6	RB-11109668-041416-SG	47	34	74	81	75	96
MB 480-296108/1-A		50	34	60	66	74	89
LCS 480-296108/2-A		62	49	72	80	95	97
480-98311-1 MS	WG-11109668-041416-SG-NCR13S MS	55	41	76	80	94	53X
480-98311-1 MSD	WG-11109668-041416-SG-NCR13S MSD	56	41	76	79	94	53X

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	20-120
PHL = Phenol-d5 (Surr)	16-120
NBZ = Nitrobenzene-d5 (Surr)	46-120
FBP = 2-Fluorobiphenyl	48-120
TBP = 2,4,6-Tribromophenol (Surr)	52-132
TPH = p-Terphenyl-d14 (Surr)	67-150

Method Blank - Batch: 480-297222

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 480-297222/7	Analysis Batch:	480-297222	Instrument ID:	HP5973S
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	S0272.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/20/2016 2208	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/20/2016 2208				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Method Blank - Batch: 480-297222

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 480-297222/7	Analysis Batch:	480-297222	Instrument ID:	HP5973S
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	S0272.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/20/2016 2208	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/20/2016 2208				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100	66 - 137
4-Bromofluorobenzene (Surr)	111	73 - 120
Dibromofluoromethane (Surr)	101	60 - 140
Toluene-d8 (Surr)	105	71 - 126

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Lab Control Sample - Batch: 480-297222

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 480-297222/5	Analysis Batch:	480-297222	Instrument ID:	HP5973S
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	S0270.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/20/2016 2122	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/20/2016 2122				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	25.0	25.7	103	73 - 126	
1,1,2,2-Tetrachloroethane	25.0	24.6	98	70 - 126	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.4	102	52 - 148	
1,1,2-Trichloroethane	25.0	25.7	103	76 - 122	
1,1-Dichloroethane	25.0	24.9	99	71 - 129	
1,1-Dichloroethene	25.0	25.2	101	58 - 121	
1,2,4-Trichlorobenzene	25.0	27.0	108	70 - 122	
1,2-Dibromo-3-Chloropropane	25.0	24.7	99	56 - 134	
1,2-Dibromoethane	25.0	26.1	104	77 - 120	
1,2-Dichlorobenzene	25.0	25.8	103	80 - 124	
1,2-Dichloroethane	25.0	22.4	89	75 - 127	
1,2-Dichloropropane	25.0	24.8	99	76 - 120	
1,3-Dichlorobenzene	25.0	25.8	103	77 - 120	
1,4-Dichlorobenzene	25.0	25.6	102	75 - 120	
2-Butanone (MEK)	125	112	89	57 - 140	
2-Hexanone	125	117	93	65 - 127	
4-Methyl-2-pentanone (MIBK)	125	120	96	71 - 125	
Acetone	125	110	88	56 - 142	
Benzene	25.0	25.0	100	71 - 124	
Bromodichloromethane	25.0	24.5	98	80 - 122	
Bromoform	25.0	29.5	118	52 - 132	
Bromomethane	25.0	20.9	84	55 - 144	
Carbon disulfide	25.0	25.0	100	59 - 134	
Carbon tetrachloride	25.0	25.7	103	72 - 134	
Chlorobenzene	25.0	25.4	102	72 - 120	
Chloroethane	25.0	23.4	94	69 - 136	
Chloroform	25.0	23.9	96	73 - 127	
Chloromethane	25.0	19.0	76	68 - 124	
cis-1,2-Dichloroethene	25.0	24.8	99	74 - 124	
cis-1,3-Dichloropropene	25.0	24.8	99	74 - 124	
Cyclohexane	25.0	26.2	105	59 - 135	
Dibromochloromethane	25.0	26.9	108	75 - 125	
Dichlorodifluoromethane	25.0	15.0	60	59 - 135	
Ethylbenzene	25.0	25.6	102	77 - 123	
Isopropylbenzene	25.0	25.5	102	77 - 122	
Methyl acetate	125	124	99	74 - 133	
Methyl tert-butyl ether	25.0	24.1	97	64 - 127	
Methylcyclohexane	25.0	26.2	105	61 - 138	
Methylene Chloride	25.0	24.8	99	57 - 132	
Styrene	25.0	26.8	107	70 - 130	
Tetrachloroethene	25.0	27.2	109	74 - 122	
Toluene	25.0	25.7	103	80 - 122	
trans-1,2-Dichloroethene	25.0	25.9	103	73 - 127	
trans-1,3-Dichloropropene	25.0	26.0	104	72 - 123	
Trichloroethene	25.0	24.1	96	74 - 123	
Trichlorofluoromethane	25.0	22.5	90	62 - 152	

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Lab Control Sample - Batch: 480-297222

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 480-297222/5	Analysis Batch:	480-297222	Instrument ID:	HP5973S
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	S0270.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/20/2016 2122	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/20/2016 2122				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Vinyl chloride	25.0	22.1	88	65 - 133	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94	66 - 137
4-Bromofluorobenzene (Surr)	111	73 - 120
Dibromofluoromethane (Surr)	99	60 - 140
Toluene-d8 (Surr)	105	71 - 126

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-297222

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	480-98311-1	Analysis Batch:	480-297222	Instrument ID:	HP5973S
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	S0291.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 0537			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 0537				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	480-98311-1	Analysis Batch:	480-297222	Instrument ID:	HP5973S
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	S0292.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 0600			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 0600				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1,1-Trichloroethane	110	114	73 - 126	3	15		
1,1,2,2-Tetrachloroethane	103	112	70 - 126	8	15		
1,1,2-Trichloro-1,2,2-trifluoroethane	100	103	52 - 148	3	20		
1,1,2-Trichloroethane	108	121	76 - 122	12	15		
1,1-Dichloroethane	108	113	71 - 129	4	20		
1,1-Dichloroethene	114	117	58 - 121	3	16		
1,2,4-Trichlorobenzene	114	125	70 - 122	10	20		F1
1,2-Dibromo-3-Chloropropane	97	107	56 - 134	9	15		
1,2-Dibromoethane	106	120	77 - 120	12	15		
1,2-Dichlorobenzene	110	117	80 - 124	6	20		
1,2-Dichloroethane	93	102	75 - 127	9	20		
1,2-Dichloropropane	107	113	76 - 120	5	20		
1,3-Dichlorobenzene	110	117	77 - 120	6	20		
1,4-Dichlorobenzene	108	116	75 - 120	7	20		
2-Butanone (MEK)	95	107	57 - 140	12	20		
2-Hexanone	99	111	65 - 127	12	15		
4-Methyl-2-pentanone (MIBK)	100	113	71 - 125	12	35		
Acetone	92	100	56 - 142	8	15		
Benzene	111	115	71 - 124	3	13		
Bromodichloromethane	105	112	80 - 122	6	15		
Bromoform	115	126	52 - 132	9	15		
Bromomethane	98	99	55 - 144	1	15		
Carbon disulfide	106	108	59 - 134	2	15		
Carbon tetrachloride	108	115	72 - 134	6	15		
Chlorobenzene	110	119	72 - 120	8	25		
Chloroethane	112	114	69 - 136	2	15		
Chloroform	104	108	73 - 127	3	20		
Chloromethane	95	94	68 - 124	0	15		
cis-1,2-Dichloroethene	107	108	74 - 124	1	15		
cis-1,3-Dichloropropene	102	108	74 - 124	6	15		
Cyclohexane	105	116	59 - 135	10	20		
Dibromochloromethane	107	120	75 - 125	11	15		
Dichlorodifluoromethane	70	69	59 - 135	1	20		

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-297222

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	480-98311-1	Analysis Batch:	480-297222	Instrument ID:	HP5973S
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	S0291.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 0537			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 0537				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	480-98311-1	Analysis Batch:	480-297222	Instrument ID:	HP5973S
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	S0292.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 0600			Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 0600				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Ethylbenzene	109	117	77 - 123	8	15		
Isopropylbenzene	109	115	77 - 122	6	20		
Methyl acetate	102	110	74 - 133	8	20		
Methyl tert-butyl ether	103	110	64 - 127	7	37		
Methylcyclohexane	108	114	61 - 138	5	20		
Methylene Chloride	107	117	57 - 132	9	15		
Styrene	111	122	70 - 130	10	20		
Tetrachloroethene	118	128	74 - 122	7	20		F1
Toluene	111	120	80 - 122	7	15		
trans-1,2-Dichloroethene	115	115	73 - 127	0	20		
trans-1,3-Dichloropropene	106	117	72 - 123	10	15		
Trichloroethene	108	110	74 - 123	2	16		
Trichlorofluoromethane	108	106	62 - 152	1	20		
Vinyl chloride	109	110	65 - 133	1	15		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96	93	66 - 137
4-Bromofluorobenzene (Surr)	109	112	73 - 120
Dibromofluoromethane (Surr)	98	97	60 - 140
Toluene-d8 (Surr)	101	104	71 - 126

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-297222

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	480-98311-1	Units: ug/L	MSD Lab Sample ID:	480-98311-1	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	04/21/2016 0537		Analysis Date:	04/21/2016 0600	
Prep Date:	04/21/2016 0537		Prep Date:	04/21/2016 0600	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual	
1,1,1-Trichloroethane	ND	25.0	25.0	27.6	28.4	
1,1,2,2-Tetrachloroethane	ND	25.0	25.0	25.7	27.9	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	25.0	25.0	25.1	25.8	
1,1,2-Trichloroethane	ND	25.0	25.0	26.9	30.3	
1,1-Dichloroethane	ND	25.0	25.0	27.0	28.2	
1,1-Dichloroethene	ND	25.0	25.0	28.4	29.2	
1,2,4-Trichlorobenzene	ND	25.0	25.0	28.5	31.3	F1
1,2-Dibromo-3-Chloropropane	ND	25.0	25.0	24.3	26.7	
1,2-Dibromoethane	ND	25.0	25.0	26.5	30.0	
1,2-Dichlorobenzene	ND	25.0	25.0	27.5	29.4	
1,2-Dichloroethane	ND	25.0	25.0	23.3	25.5	
1,2-Dichloropropane	ND	25.0	25.0	26.8	28.2	
1,3-Dichlorobenzene	ND	25.0	25.0	27.4	29.2	
1,4-Dichlorobenzene	ND	25.0	25.0	27.1	29.0	
2-Butanone (MEK)	ND	125	125	119	134	
2-Hexanone	ND	125	125	123	139	
4-Methyl-2-pentanone (MIBK)	ND	125	125	125	141	
Acetone	ND	125	125	116	125	
Benzene	ND	25.0	25.0	27.7	28.7	
Bromodichloromethane	ND	25.0	25.0	26.2	27.9	
Bromoform	ND	25.0	25.0	28.8	31.6	
Bromomethane	ND	25.0	25.0	24.6	24.7	
Carbon disulfide	ND	25.0	25.0	26.4	27.0	
Carbon tetrachloride	ND	25.0	25.0	27.0	28.6	
Chlorobenzene	ND	25.0	25.0	27.5	29.6	
Chloroethane	ND	25.0	25.0	27.9	28.5	
Chloroform	ND	25.0	25.0	26.0	26.9	
Chloromethane	ND	25.0	25.0	23.7	23.6	
cis-1,2-Dichloroethene	ND	25.0	25.0	26.7	27.1	
cis-1,3-Dichloropropene	ND	25.0	25.0	25.5	27.0	
Cyclohexane	ND	25.0	25.0	26.3	29.0	
Dibromochloromethane	ND	25.0	25.0	26.7	29.9	
Dichlorodifluoromethane	ND	25.0	25.0	17.5	17.3	
Ethylbenzene	ND	25.0	25.0	27.2	29.4	
Isopropylbenzene	ND	25.0	25.0	27.2	28.8	
Methyl acetate	ND	125	125	128	138	
Methyl tert-butyl ether	ND	25.0	25.0	25.7	27.6	
Methylcyclohexane	ND	25.0	25.0	27.0	28.5	
Methylene Chloride	ND	25.0	25.0	26.8	29.2	
Styrene	ND	25.0	25.0	27.6	30.5	
Tetrachloroethene	ND	25.0	25.0	29.6	31.9	F1
Toluene	ND	25.0	25.0	27.9	30.0	
trans-1,2-Dichloroethene	ND	25.0	25.0	28.7	28.7	

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-297222

Method: 8260C
Preparation: 5030C

MS Lab Sample ID:	480-98311-1	Units: ug/L	MSD Lab Sample ID:	480-98311-1	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	04/21/2016 0537		Analysis Date:	04/21/2016 0600	
Prep Date:	04/21/2016 0537		Prep Date:	04/21/2016 0600	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
trans-1,3-Dichloropropene	ND	25.0	25.0	26.5	29.2
Trichloroethene	ND	25.0	25.0	27.0	27.5
Trichlorofluoromethane	ND	25.0	25.0	26.9	26.6
Vinyl chloride	ND	25.0	25.0	27.4	27.6

Method Blank - Batch: 480-297289

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 480-297289/6	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P5183.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1102	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1102				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloroethene, Total	ND		0.81	2.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		1.3	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Method Blank - Batch: 480-297289

Method: 8260C
Preparation: 5030C

Lab Sample ID:	MB 480-297289/6	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P5183.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1102	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1102				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	120	66 - 137
4-Bromofluorobenzene (Surr)	103	73 - 120
Dibromofluoromethane (Surr)	115	60 - 140
Toluene-d8 (Surr)	106	71 - 126

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Lab Control Sample - Batch: 480-297289

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 480-297289/4	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P5181.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1008	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1008				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1-Trichloroethane	25.0	27.9	111	73 - 126	
1,1,2,2-Tetrachloroethane	25.0	27.8	111	70 - 126	
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	30.8	123	52 - 148	
1,1,2-Trichloroethane	25.0	26.5	106	76 - 122	
1,1-Dichloroethane	25.0	25.5	102	71 - 129	
1,1-Dichloroethene	25.0	28.4	114	58 - 121	
1,2,4-Trichlorobenzene	25.0	25.8	103	70 - 122	
1,2-Dibromo-3-Chloropropane	25.0	29.8	119	56 - 134	
1,2-Dibromoethane	25.0	26.9	108	77 - 120	
1,2-Dichlorobenzene	25.0	25.4	101	80 - 124	
1,2-Dichloroethane	25.0	26.0	104	75 - 127	
1,2-Dichloropropane	25.0	25.0	100	76 - 120	
1,3-Dichlorobenzene	25.0	25.2	101	77 - 120	
1,4-Dichlorobenzene	25.0	24.9	99	75 - 120	
2-Butanone (MEK)	125	150	120	57 - 140	
2-Hexanone	125	142	114	65 - 127	
4-Methyl-2-pentanone (MIBK)	125	141	113	71 - 125	
Acetone	125	167	133	56 - 142	
Benzene	25.0	25.4	102	71 - 124	
Bromodichloromethane	25.0	26.9	107	80 - 122	
Bromoform	25.0	28.6	114	52 - 132	
Bromomethane	25.0	31.2	125	55 - 144	
Carbon disulfide	25.0	26.1	105	59 - 134	
Carbon tetrachloride	25.0	29.3	117	72 - 134	
Chlorobenzene	25.0	25.2	101	72 - 120	
Chloroethane	25.0	27.8	111	69 - 136	
Chloroform	25.0	26.4	106	73 - 127	
Chloromethane	25.0	22.4	90	68 - 124	
cis-1,2-Dichloroethene	25.0	25.9	104	74 - 124	
cis-1,3-Dichloropropene	25.0	25.5	102	74 - 124	
Cyclohexane	25.0	27.8	111	59 - 135	
Dibromochloromethane	25.0	27.2	109	75 - 125	
Dichlorodifluoromethane	25.0	24.9	100	59 - 135	
Ethylbenzene	25.0	25.8	103	77 - 123	
Isopropylbenzene	25.0	25.9	104	77 - 122	
Methyl acetate	125	149	119	74 - 133	
Methyl tert-butyl ether	25.0	26.0	104	64 - 127	
Methylcyclohexane	25.0	27.8	111	61 - 138	
Methylene Chloride	25.0	25.0	100	57 - 132	
Styrene	25.0	24.9	100	70 - 130	
Tetrachloroethene	25.0	26.4	105	74 - 122	
Toluene	25.0	25.2	101	80 - 122	
trans-1,2-Dichloroethene	25.0	26.4	106	73 - 127	
trans-1,3-Dichloropropene	25.0	26.3	105	72 - 123	
Trichloroethene	25.0	26.5	106	74 - 123	
Trichlorofluoromethane	25.0	28.8	115	62 - 152	

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Lab Control Sample - Batch: 480-297289

Method: 8260C
Preparation: 5030C

Lab Sample ID:	LCS 480-297289/4	Analysis Batch:	480-297289	Instrument ID:	HP5973P
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P5181.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/21/2016 1008	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/21/2016 1008				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Vinyl chloride	25.0	23.5	94	65 - 133	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	114	66 - 137
4-Bromofluorobenzene (Surr)	105	73 - 120
Dibromofluoromethane (Surr)	111	60 - 140
Toluene-d8 (Surr)	108	71 - 126

Method Blank - Batch: 480-296108

Method: 8270D
Preparation: 3510C

Lab Sample ID:	MB 480-296108/1-A	Analysis Batch:	480-296472	Instrument ID:	HP5973X
Client Matrix:	Water	Prep Batch:	480-296108	Lab File ID:	X00904471.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	04/18/2016 1630	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,2-Dichlorobenzene	ND		0.40	10
1,3-Dichlorobenzene	ND		0.48	10
1,4-Dichlorobenzene	ND		0.46	10
2,4,5-Trichlorophenol	ND		0.48	5.0
2,4,6-Trichlorophenol	ND		0.61	5.0
2,4-Dichlorophenol	ND		0.51	5.0
2,4-Dimethylphenol	ND		0.50	5.0
2,4-Dinitrophenol	ND		2.2	10
2,4-Dinitrotoluene	ND		0.45	5.0
2,6-Dinitrotoluene	ND		0.40	5.0
2-Chloronaphthalene	ND		0.46	5.0
2-Chlorophenol	ND		0.53	5.0
2-Methylnaphthalene	ND		0.60	5.0
2-Methylphenol	ND		0.40	5.0
2-Nitroaniline	ND		0.42	10
2-Nitrophenol	ND		0.48	5.0
3,3'-Dichlorobenzidine	ND		0.40	5.0
3-Nitroaniline	ND		0.48	10
4,6-Dinitro-2-methylphenol	ND		2.2	10
4-Bromophenyl phenyl ether	ND		0.45	5.0
4-Chloro-3-methylphenol	ND		0.45	5.0
4-Chloroaniline	ND		0.59	5.0
4-Chlorophenyl phenyl ether	ND		0.35	5.0
4-Methylphenol	ND		0.36	10
4-Nitroaniline	ND		0.25	10
4-Nitrophenol	ND		1.5	10
Acenaphthene	ND		0.41	5.0
Acenaphthylene	ND		0.38	5.0
Acetophenone	ND		0.54	5.0
Anthracene	ND		0.28	5.0
Atrazine	ND		0.46	5.0
Benzaldehyde	ND		0.27	5.0
Benzo[a]anthracene	ND		0.36	5.0
Benzo[a]pyrene	ND		0.47	5.0
Benzo[b]fluoranthene	ND		0.34	5.0
Benzo[g,h,i]perylene	ND		0.35	5.0
Benzo[k]fluoranthene	ND		0.73	5.0
Biphenyl	ND		0.65	5.0
bis (2-chloroisopropyl) ether	ND		0.52	5.0
Bis(2-chloroethoxy)methane	ND		0.35	5.0
Bis(2-chloroethyl)ether	ND		0.40	5.0
Bis(2-ethylhexyl) phthalate	ND		2.2	5.0
Butyl benzyl phthalate	ND		1.0	5.0
Caprolactam	ND		2.2	5.0
Carbazole	ND		0.30	5.0

Method Blank - Batch: 480-296108

Method: 8270D
Preparation: 3510C

Lab Sample ID:	MB 480-296108/1-A	Analysis Batch:	480-296472	Instrument ID:	HP5973X
Client Matrix:	Water	Prep Batch:	480-296108	Lab File ID:	X00904471.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	04/18/2016 1630	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Chrysene	ND		0.33	5.0
Dibenz(a,h)anthracene	ND		0.42	5.0
Dibenzofuran	ND		0.51	10
Diethyl phthalate	ND		0.22	5.0
Dimethyl phthalate	ND		0.36	5.0
Di-n-butyl phthalate	ND		0.31	5.0
Di-n-octyl phthalate	ND		0.47	5.0
Fluoranthene	ND		0.40	5.0
Fluorene	ND		0.36	5.0
Hexachlorobenzene	ND		0.51	5.0
Hexachlorobutadiene	ND		0.68	5.0
Hexachlorocyclopentadiene	ND		0.59	5.0
Hexachloroethane	ND		0.59	5.0
Indeno[1,2,3-cd]pyrene	ND		0.47	5.0
Isophorone	ND		0.43	5.0
Naphthalene	ND		0.76	5.0
Nitrobenzene	ND		0.29	5.0
N-Nitrosodi-n-propylamine	ND		0.54	5.0
N-Nitrosodiphenylamine	ND		0.51	5.0
Pentachlorophenol	ND		2.2	10
Phenanthrene	ND		0.44	5.0
Phenol	ND		0.39	5.0
Pyrene	ND		0.34	5.0

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	74	52 - 132
2-Fluorobiphenyl	66	48 - 120
2-Fluorophenol (Surr)	50	20 - 120
Nitrobenzene-d5 (Surr)	60	46 - 120
Phenol-d5 (Surr)	34	16 - 120
p-Terphenyl-d14 (Surr)	89	67 - 150

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Lab Control Sample - Batch: 480-296108

Method: 8270D
Preparation: 3510C

Lab Sample ID:	LCS 480-296108/2-A	Analysis Batch:	480-296472	Instrument ID:	HP5973X
Client Matrix:	Water	Prep Batch:	480-296108	Lab File ID:	X00904472.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	04/18/2016 1659	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,2-Dichlorobenzene	16.0	11.4	71	33 - 120	
1,3-Dichlorobenzene	16.0	10.8	67	28 - 120	
1,4-Dichlorobenzene	16.0	11.4	71	32 - 120	
2,4,5-Trichlorophenol	16.0	14.3	89	65 - 126	
2,4,6-Trichlorophenol	16.0	13.2	82	64 - 120	
2,4-Dichlorophenol	16.0	13.0	81	64 - 120	
2,4-Dimethylphenol	16.0	12.0	75	57 - 120	
2,4-Dinitrophenol	32.0	22.0	69	42 - 153	
2,4-Dinitrotoluene	16.0	13.8	86	65 - 154	
2,6-Dinitrotoluene	16.0	14.3	90	74 - 134	
2-Chloronaphthalene	16.0	12.8	80	41 - 124	
2-Chlorophenol	16.0	12.1	76	48 - 120	
2-Methylnaphthalene	16.0	12.6	79	34 - 122	
2-Methylphenol	16.0	11.7	73	39 - 120	
2-Nitroaniline	16.0	13.8	86	67 - 136	
2-Nitrophenol	16.0	12.3	77	59 - 120	
3,3'-Dichlorobenzidine	32.0	29.0	91	33 - 140	
3-Nitroaniline	16.0	12.5	78	28 - 130	
4,6-Dinitro-2-methylphenol	32.0	22.8	71	64 - 159	
4-Bromophenyl phenyl ether	16.0	13.7	86	71 - 126	
4-Chloro-3-methylphenol	16.0	14.5	90	64 - 120	
4-Chloroaniline	16.0	9.84	62	10 - 130	
4-Chlorophenyl phenyl ether	16.0	13.7	85	71 - 122	
4-Methylphenol	16.0	13.1	82	39 - 120	
4-Nitroaniline	16.0	14.0	87	47 - 130	
4-Nitrophenol	32.0	22.1	69	16 - 120	
Acenaphthene	16.0	13.2	83	60 - 120	
Acenaphthylene	16.0	13.1	82	63 - 120	
Acetophenone	16.0	13.4	84	45 - 120	
Anthracene	16.0	13.6	85	58 - 148	
Atrazine	32.0	30.3	95	56 - 179	
Benzaldehyde	32.0	46.8	146	30 - 140	*
Benzo[a]anthracene	16.0	13.8	86	55 - 151	
Benzo[a]pyrene	16.0	13.9	87	60 - 145	
Benzo[b]fluoranthene	16.0	14.9	93	54 - 140	
Benzo[g,h,i]perylene	16.0	14.3	89	66 - 152	
Benzo[k]fluoranthene	16.0	13.9	87	51 - 153	
Biphenyl	16.0	12.9	81	30 - 140	
bis (2-chloroisopropyl) ether	16.0	12.3	77	28 - 136	
Bis(2-chloroethoxy)methane	16.0	12.9	80	50 - 128	
Bis(2-chloroethyl)ether	16.0	13.6	85	51 - 120	
Bis(2-ethylhexyl) phthalate	16.0	15.8	99	53 - 158	
Butyl benzyl phthalate	16.0	14.6	91	58 - 163	
Caprolactam	32.0	11.5	36	14 - 130	
Carbazole	16.0	13.9	87	59 - 148	
Chrysene	16.0	14.0	88	69 - 140	

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Lab Control Sample - Batch: 480-296108

Method: 8270D
Preparation: 3510C

Lab Sample ID:	LCS 480-296108/2-A	Analysis Batch:	480-296472	Instrument ID:	HP5973X
Client Matrix:	Water	Prep Batch:	480-296108	Lab File ID:	X00904472.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	04/18/2016 1659	Units:	ug/L	Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Dibenz(a,h)anthracene	16.0	14.3	89	57 - 148	
Dibenzofuran	16.0	13.6	85	49 - 137	
Diethyl phthalate	16.0	14.5	91	59 - 146	
Dimethyl phthalate	16.0	13.6	85	59 - 141	
Di-n-butyl phthalate	16.0	15.0	93	58 - 149	
Di-n-octyl phthalate	16.0	15.2	95	55 - 167	
Fluoranthene	16.0	13.7	85	55 - 147	
Fluorene	16.0	13.7	86	55 - 143	
Hexachlorobenzene	16.0	13.9	87	14 - 130	
Hexachlorobutadiene	16.0	11.1	69	14 - 130	
Hexachlorocyclopentadiene	16.0	9.05	57	13 - 130	
Hexachloroethane	16.0	11.4	71	14 - 130	
Indeno[1,2,3-cd]pyrene	16.0	14.1	88	69 - 146	
Isophorone	16.0	13.2	82	48 - 133	
Naphthalene	16.0	13.5	85	35 - 130	
Nitrobenzene	16.0	11.9	74	45 - 123	
N-Nitrosodi-n-propylamine	16.0	12.9	81	56 - 120	
N-Nitrosodiphenylamine	16.0	12.9	81	25 - 125	
Pentachlorophenol	32.0	18.6	58	39 - 136	
Phenanthrene	16.0	14.4	90	57 - 147	
Phenol	16.0	9.12	57	17 - 120	
Pyrene	16.0	14.4	90	58 - 136	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	95	52 - 132
2-Fluorobiphenyl	80	48 - 120
2-Fluorophenol (Surr)	62	20 - 120
Nitrobenzene-d5 (Surr)	72	46 - 120
Phenol-d5 (Surr)	49	16 - 120
p-Terphenyl-d14 (Surr)	97	67 - 150

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-296108

Method: 8270D
Preparation: 3510C

MS Lab Sample ID: 480-98311-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/18/2016 1856
Prep Date: 04/15/2016 0841
Leach Date: N/A

Analysis Batch: 480-296472
Prep Batch: 480-296108
Leach Batch: N/A

Instrument ID: HP5973X
Lab File ID: X00904476.D
Initial Weight/Volume: 267 mL
Final Weight/Volume: 1 mL
Injection Volume: 2 uL

MSD Lab Sample ID: 480-98311-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/18/2016 1925
Prep Date: 04/15/2016 0841
Leach Date: N/A

Analysis Batch: 480-296472
Prep Batch: 480-296108
Leach Batch: N/A

Instrument ID: HP5973X
Lab File ID: X00904477.D
Initial Weight/Volume: 272.6 mL
Final Weight/Volume: 1 mL
Injection Volume: 2 uL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,2-Dichlorobenzene	73	73	33 - 120	2	29		
1,3-Dichlorobenzene	72	73	28 - 120	1	37		
1,4-Dichlorobenzene	74	70	32 - 120	7	36		
2,4,5-Trichlorophenol	83	89	65 - 126	5	18		
2,4,6-Trichlorophenol	84	83	64 - 120	4	19		
2,4-Dichlorophenol	81	81	64 - 120	3	19		
2,4-Dimethylphenol	66	56	57 - 120	19	42		F1
2,4-Dinitrophenol	68	68	42 - 153	3	22		
2,4-Dinitrotoluene	90	89	62 - 148	3	20		
2,6-Dinitrotoluene	90	84	65 - 154	8	15		
2-Chloronaphthalene	79	80	41 - 124	1	21		
2-Chlorophenol	72	70	48 - 120	5	25		
2-Methylnaphthalene	80	77	34 - 122	6	21		
2-Methylphenol	67	66	39 - 120	2	27		
2-Nitroaniline	90	85	67 - 136	8	15		
2-Nitrophenol	78	77	59 - 120	3	18		
3,3'-Dichlorobenzidine	84	81	33 - 140	6	25		
3-Nitroaniline	74	66	69 - 129	13	19		F1
4,6-Dinitro-2-methylphenol	73	73	64 - 159	3	15		
4-Bromophenyl phenyl ether	73	75	71 - 126	0	15		
4-Chloro-3-methylphenol	89	88	64 - 120	4	27		
4-Chloroaniline	56	53	60 - 124	8	22	F1	F1
4-Chlorophenyl phenyl ether	77	77	48 - 145	2	16		
4-Methylphenol	68	68	36 - 120	2	24		
4-Nitroaniline	83	81	64 - 135	4	24		
4-Nitrophenol	62	60	16 - 120	6	48		
Acenaphthene	81	80	60 - 120	3	24		
Acenaphthylene	83	80	63 - 120	5	18		
Acetophenone	81	79	45 - 120	5	20		
Anthracene	75	76	58 - 148	1	15		
Atrazine	97	96	56 - 179	4	20		
Benzaldehyde	149	145	30 - 140	5	20	F1	F1
Benzo[a]anthracene	51	52	55 - 151	1	15	F1	F1

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-296108

Method: 8270D
Preparation: 3510C

MS Lab Sample ID:	480-98311-1	Analysis Batch:	480-296472	Instrument ID:	HP5973X
Client Matrix:	Water	Prep Batch:	480-296108	Lab File ID:	X00904476.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	267 mL
Analysis Date:	04/18/2016 1856			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL
Leach Date:	N/A				

MSD Lab Sample ID:	480-98311-1	Analysis Batch:	480-296472	Instrument ID:	HP5973X
Client Matrix:	Water	Prep Batch:	480-296108	Lab File ID:	X00904477.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	272.6 mL
Analysis Date:	04/18/2016 1925			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzo[a]pyrene	43	41	60 - 145	7	15	F1	F1
Benzo[b]fluoranthene	46	43	54 - 140	10	15	F1	F1
Benzo[g,h,i]perylene	44	41	66 - 152	9	15	F1	F1
Benzo[k]fluoranthene	44	42	51 - 153	5	22	F1	F1
Biphenyl	78	79	30 - 140	1	20		
bis (2-chloroisopropyl) ether	75	74	28 - 136	3	24		
Bis(2-chloroethoxy)methane	80	79	50 - 128	2	17		
Bis(2-chloroethyl)ether	84	83	51 - 120	3	21		
Bis(2-ethylhexyl) phthalate	55	51	53 - 158	10	15		F1
Butyl benzyl phthalate	68	70	58 - 163	0	16		
Caprolactam	32	32	30 - 140	3	20		
Carbazole	88	82	59 - 148	9	20		
Chrysene	51	52	69 - 140	2	15	F1	F1
Dibenz(a,h)anthracene	45	41	57 - 158	11	15	F1	F1
Dibenzofuran	85	82	49 - 137	6	15		
Diethyl phthalate	91	90	59 - 146	4	15		
Dimethyl phthalate	87	86	59 - 141	4	15		
Di-n-butyl phthalate	74	74	58 - 149	2	15		
Di-n-octyl phthalate	53	50	55 - 167	7	16	F1	F1
Fluoranthene	62	65	55 - 147	2	15		
Fluorene	82	81	55 - 143	4	15		
Hexachlorobenzene	61	66	38 - 131	6	15		
Hexachlorobutadiene	68	69	14 - 130	1	44		
Hexachlorocyclopentadiene	46	45	13 - 130	3	49		
Hexachloroethane	69	70	14 - 130	1	46		
Indeno[1,2,3-cd]pyrene	45	40	69 - 146	13	15	F1	F1
Isophorone	82	82	48 - 133	2	17		
Naphthalene	86	76	35 - 130	14	29		
Nitrobenzene	77	77	45 - 123	2	24		
N-Nitrosodi-n-propylamine	78	78	56 - 120	2	31		
N-Nitrosodiphenylamine	85	84	25 - 125	3	15		
Pentachlorophenol	63	62	39 - 136	4	37		
Phenanthrene	80	82	57 - 147	0	15		

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-296108

Method: 8270D
Preparation: 3510C

MS Lab Sample ID:	480-98311-1	Analysis Batch:	480-296472	Instrument ID:	HP5973X
Client Matrix:	Water	Prep Batch:	480-296108	Lab File ID:	X00904476.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	267 mL
Analysis Date:	04/18/2016 1856			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL
Leach Date:	N/A				

MSD Lab Sample ID:	480-98311-1	Analysis Batch:	480-296472	Instrument ID:	HP5973X
Client Matrix:	Water	Prep Batch:	480-296108	Lab File ID:	X00904477.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	272.6 mL
Analysis Date:	04/18/2016 1925			Final Weight/Volume:	1 mL
Prep Date:	04/15/2016 0841			Injection Volume:	2 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Phenol	66	45	17 - 120	40	34		F2
Pyrene	69	73	58 - 136	4	19		

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
2,4,6-Tribromophenol (Surr)	94		94		52 - 132
2-Fluorobiphenyl	80		79		48 - 120
2-Fluorophenol (Surr)	55		56		20 - 120
Nitrobenzene-d5 (Surr)	76		76		46 - 120
Phenol-d5 (Surr)	41		41		16 - 120
p-Terphenyl-d14 (Surr)	53	X	53	X	67 - 150

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-296108

Method: 8270D
Preparation: 3510C

MS Lab Sample ID:	480-98311-1	Units: ug/L	MSD Lab Sample ID:	480-98311-1	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	04/18/2016 1856		Analysis Date:	04/18/2016 1925	
Prep Date:	04/15/2016 0841		Prep Date:	04/15/2016 0841	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
1,2-Dichlorobenzene	ND	15.0	14.7	10.9		10.7	
1,3-Dichlorobenzene	ND	15.0	14.7	10.8		10.7	
1,4-Dichlorobenzene	ND	15.0	14.7	11.1		10.3	
2,4,5-Trichlorophenol	ND	15.0	14.7	12.4		13.0	
2,4,6-Trichlorophenol	ND	15.0	14.7	12.6		12.1	
2,4-Dichlorophenol	ND	15.0	14.7	12.2		11.8	
2,4-Dimethylphenol	ND	15.0	14.7	9.89		8.18	F1
2,4-Dinitrophenol	ND	30.0	29.3	20.5		20.0	
2,4-Dinitrotoluene	ND	15.0	14.7	13.5		13.1	
2,6-Dinitrotoluene	ND	15.0	14.7	13.4		12.4	
2-Chloronaphthalene	ND	15.0	14.7	11.9		11.7	
2-Chlorophenol	ND	15.0	14.7	10.8		10.3	
2-Methylnaphthalene	ND	15.0	14.7	12.0		11.3	
2-Methylphenol	ND	15.0	14.7	9.98		9.74	
2-Nitroaniline	ND	15.0	14.7	13.5		12.4	
2-Nitrophenol	ND	15.0	14.7	11.6		11.3	
3,3'-Dichlorobenzidine	ND	30.0	29.3	25.3		23.8	
3-Nitroaniline	ND	15.0	14.7	11.1		9.74	F1
4,6-Dinitro-2-methylphenol	ND	30.0	29.3	22.0		21.4	
4-Bromophenyl phenyl ether	ND	15.0	14.7	11.0		11.0	
4-Chloro-3-methylphenol	ND	15.0	14.7	13.3		12.9	
4-Chloroaniline	ND	15.0	14.7	8.35	F1	7.73	F1
4-Chlorophenyl phenyl ether	ND	15.0	14.7	11.5		11.3	
4-Methylphenol	ND	15.0	14.7	10.2		9.99	
4-Nitroaniline	ND	15.0	14.7	12.4		11.9	
4-Nitrophenol	ND	30.0	29.3	18.7		17.5	
Acenaphthene	ND	15.0	14.7	12.1		11.8	
Acenaphthylene	ND	15.0	14.7	12.4		11.8	
Acetophenone	ND	15.0	14.7	12.1		11.6	
Anthracene	ND	15.0	14.7	11.2		11.1	
Atrazine	ND	30.0	29.3	29.2		28.1	
Benzaldehyde	ND	30.0	29.3	44.5	F1	42.4	F1
Benzo[a]anthracene	ND	15.0	14.7	7.58	F1	7.64	F1
Benzo[a]pyrene	ND	15.0	14.7	6.48	F1	6.02	F1
Benzo[b]fluoranthene	ND	15.0	14.7	6.96	F1	6.30	F1
Benzo[g,h,i]perylene	ND	15.0	14.7	6.58	F1	6.00	F1
Benzo[k]fluoranthene	ND	15.0	14.7	6.55	F1	6.20	F1
Biphenyl	ND	15.0	14.7	11.7		11.6	
bis (2-chloroisopropyl) ether	ND	15.0	14.7	11.2		10.8	
Bis(2-chloroethoxy)methane	ND	15.0	14.7	11.9		11.7	
Bis(2-chloroethyl)ether	ND	15.0	14.7	12.5		12.2	
Bis(2-ethylhexyl) phthalate	ND	15.0	14.7	8.26		7.51	F1
Butyl benzyl phthalate	ND	15.0	14.7	10.3		10.2	

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-296108

Method: 8270D
Preparation: 3510C

MS Lab Sample ID:	480-98311-1	Units: ug/L	
Client Matrix:	Water		
Dilution:	1.0		
Analysis Date:	04/18/2016 1856		
Prep Date:	04/15/2016 0841		
Leach Date:	N/A		

MSD Lab Sample ID:	480-98311-1
Client Matrix:	Water
Dilution:	1.0
Analysis Date:	04/18/2016 1925
Prep Date:	04/15/2016 0841
Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Caprolactam	ND	30.0	29.3	9.70		9.41	
Carbazole	ND	15.0	14.7	13.2		12.0	
Chrysene	ND	15.0	14.7	7.71	F1	7.57	F1
Dibenz(a,h)anthracene	ND	15.0	14.7	6.68	F1	5.96	F1
Dibenzofuran	ND	15.0	14.7	12.7		12.0	
Diethyl phthalate	ND	15.0	14.7	13.7		13.2	
Dimethyl phthalate	ND	15.0	14.7	13.1		12.6	
Di-n-butyl phthalate	ND	15.0	14.7	11.1		10.9	
Di-n-octyl phthalate	ND	15.0	14.7	7.94	F1	7.38	F1
Fluoranthene	ND	15.0	14.7	9.32		9.51	
Fluorene	ND	15.0	14.7	12.4		11.9	
Hexachlorobenzene	ND	15.0	14.7	9.16		9.75	
Hexachlorobutadiene	ND	15.0	14.7	10.2		10.1	
Hexachlorocyclopentadiene	ND	15.0	14.7	6.88		6.66	
Hexachloroethane	ND	15.0	14.7	10.3		10.3	
Indeno[1,2,3-cd]pyrene	ND	15.0	14.7	6.67	F1	5.84	F1
Isophorone	ND	15.0	14.7	12.3		12.1	
Naphthalene	ND	15.0	14.7	12.9		11.2	
Nitrobenzene	ND	15.0	14.7	11.6		11.3	
N-Nitrosodi-n-propylamine	ND	15.0	14.7	11.7		11.5	
N-Nitrosodiphenylamine	ND	15.0	14.7	12.7		12.4	
Pentachlorophenol	ND	30.0	29.3	19.0		18.2	
Phenanthrene	ND	15.0	14.7	12.0		12.0	
Phenol	ND	15.0	14.7	9.86		6.58	F2
Pyrene	ND	15.0	14.7	10.3		10.7	

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Method Blank - Batch: 480-296020

Method: 6010C
Preparation: 3005A

Lab Sample ID:	MB 480-296020/1-A	Analysis Batch:	480-296462	Instrument ID:	ICAP2
Client Matrix:	Water	Prep Batch:	480-296020	Lab File ID:	I2041616A-2.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/16/2016 0930	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/15/2016 0805				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	ND		0.060	0.20
Antimony	ND		0.0068	0.020
Arsenic	ND		0.0056	0.015
Barium	ND		0.00070	0.0020
Beryllium	ND		0.00030	0.0020
Cadmium	ND		0.00050	0.0020
Calcium	ND		0.10	0.50
Chromium	ND		0.0010	0.0040
Cobalt	ND		0.00063	0.0040
Copper	ND		0.0016	0.010
Iron	ND		0.019	0.050
Lead	ND		0.0030	0.010
Magnesium	ND		0.043	0.20
Manganese	ND		0.00040	0.0030
Nickel	ND		0.0013	0.010
Potassium	ND		0.10	0.50
Selenium	ND		0.0087	0.025
Silver	ND		0.0017	0.0060
Sodium	ND		0.32	1.0
Thallium	ND		0.010	0.020
Vanadium	ND		0.0015	0.0050
Zinc	ND		0.0015	0.010

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Lab Control Sample - Batch: 480-296020

Method: 6010C
Preparation: 3005A

Lab Sample ID:	LCS 480-296020/2-A	Analysis Batch:	480-296462	Instrument ID:	ICAP2
Client Matrix:	Water	Prep Batch:	480-296020	Lab File ID:	I2041616A-2.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/16/2016 0934	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/15/2016 0805				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	10.0	10.03	100	80 - 120	
Antimony	0.200	0.207	103	80 - 120	
Arsenic	0.200	0.215	108	80 - 120	
Barium	0.200	0.210	105	80 - 120	
Beryllium	0.200	0.213	107	80 - 120	
Cadmium	0.200	0.213	106	80 - 120	
Calcium	10.0	10.20	102	80 - 120	
Chromium	0.200	0.217	108	80 - 120	
Cobalt	0.200	0.204	102	80 - 120	
Copper	0.200	0.209	105	80 - 120	
Iron	10.0	10.42	104	80 - 120	
Lead	0.200	0.207	104	80 - 120	
Magnesium	10.0	10.68	107	80 - 120	
Manganese	0.200	0.211	106	80 - 120	
Nickel	0.200	0.202	101	80 - 120	
Potassium	10.0	10.15	101	80 - 120	
Selenium	0.200	0.208	104	80 - 120	
Silver	0.0500	0.0502	100	80 - 120	
Sodium	10.0	10.04	100	80 - 120	
Thallium	0.200	0.211	106	80 - 120	
Vanadium	0.200	0.216	108	80 - 120	
Zinc	0.200	0.208	104	80 - 120	

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Post Digestion Spike - Batch: 480-296020

Method: 6010C
Preparation: 3005A

Lab Sample ID:	480-98311-1	Analysis Batch:	480-296462	Instrument ID:	ICAP2
Client Matrix:	Water	Prep Batch:	480-296020	Lab File ID:	I2041616A-2.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/16/2016 0943	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/15/2016 0805				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	0.32		10.0	11.11	108	80 - 120	
Antimony	ND		0.200	0.219	110	80 - 120	
Arsenic	ND		0.200	0.223	112	80 - 120	
Barium	0.055		0.200	0.273	109	80 - 120	
Beryllium	ND		0.200	0.219	110	80 - 120	
Cadmium	ND		0.200	0.229	114	80 - 120	
Calcium	178		10.0	183.4	NC	80 - 120	
Chromium	0.029		0.200	0.253	112	80 - 120	
Cobalt	ND		0.200	0.220	110	80 - 120	
Copper	0.0062	J	0.200	0.228	111	80 - 120	
Iron	1.1		10.0	11.99	109	80 - 120	
Lead	ND		0.200	0.222	111	80 - 120	
Magnesium	58.1		10.0	68.09	100	80 - 120	
Manganese	0.032		0.200	0.248	108	80 - 120	
Nickel	0.0066	J	0.200	0.222	108	80 - 120	
Potassium	1.4		10.0	12.23	108	80 - 120	
Selenium	ND		0.200	0.221	111	80 - 120	
Silver	ND		0.0500	0.0522	104	80 - 120	
Sodium	12.5		10.0	22.69	102	80 - 120	
Thallium	ND		0.200	0.223	111	80 - 120	
Vanadium	0.0022	J	0.200	0.230	114	80 - 120	
Zinc	0.019		0.200	0.230	106	80 - 120	

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-296020

Method: 6010C
Preparation: 3005A

MS Lab Sample ID: 480-98311-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/16/2016 0947
Prep Date: 04/15/2016 0805
Leach Date: N/A

Analysis Batch: 480-296462
Prep Batch: 480-296020
Leach Batch: N/A

Instrument ID: ICAP2
Lab File ID: I2041616A-2.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 480-98311-1
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/16/2016 0950
Prep Date: 04/15/2016 0805
Leach Date: N/A

Analysis Batch: 480-296462
Prep Batch: 480-296020
Leach Batch: N/A

Instrument ID: ICAP2
Lab File ID: I2041616A-2.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aluminum	104	104	75 - 125	1	20		
Antimony	105	104	75 - 125	0	20		
Arsenic	109	109	75 - 125	0	20		
Barium	104	103	75 - 125	1	20		
Beryllium	107	107	75 - 125	0	20		
Cadmium	107	108	75 - 125	1	20		
Calcium	98	98	75 - 125	0	20	4	4
Chromium	104	102	75 - 125	2	20		
Cobalt	103	103	75 - 125	0	20		
Copper	105	105	75 - 125	0	20		
Iron	101	101	75 - 125	0	20		
Lead	103	104	75 - 125	1	20		
Magnesium	97	100	75 - 125	0	20	4	4
Manganese	99	102	75 - 125	3	20		
Nickel	101	101	75 - 125	0	20		
Potassium	104	102	75 - 125	1	20		
Selenium	104	104	75 - 125	1	20		
Silver	102	104	75 - 125	3	20		
Sodium	91	97	75 - 125	3	20		
Thallium	104	105	75 - 125	1	20		
Vanadium	107	108	75 - 125	1	20		
Zinc	102	99	75 - 125	3	20		

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-296020

Method: 6010C
Preparation: 3005A

MS Lab Sample ID:	480-98311-1	Units:	mg/L	MSD Lab Sample ID:	480-98311-1
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/16/2016 0947			Analysis Date:	04/16/2016 0950
Prep Date:	04/15/2016 0805			Prep Date:	04/15/2016 0805
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Aluminum	0.32		10.0	10.0	10.67		10.76	
Antimony	ND		0.200	0.200	0.209		0.209	
Arsenic	ND		0.200	0.200	0.218		0.217	
Barium	0.055		0.200	0.200	0.263		0.261	
Beryllium	ND		0.200	0.200	0.213		0.214	
Cadmium	ND		0.200	0.200	0.214		0.215	
Calcium	178		10.0	10.0	187.4	4	187.4	4
Chromium	0.029		0.200	0.200	0.237		0.232	
Cobalt	ND		0.200	0.200	0.205		0.205	
Copper	0.0062	J	0.200	0.200	0.216		0.216	
Iron	1.1		10.0	10.0	11.21		11.22	
Lead	ND		0.200	0.200	0.206		0.208	
Magnesium	58.1		10.0	10.0	67.80	4	68.14	4
Manganese	0.032		0.200	0.200	0.230		0.237	
Nickel	0.0066	J	0.200	0.200	0.208		0.208	
Potassium	1.4		10.0	10.0	11.80		11.69	
Selenium	ND		0.200	0.200	0.209		0.207	
Silver	ND		0.0500	0.0500	0.0509		0.0522	
Sodium	12.5		10.0	10.0	21.62		22.18	
Thallium	ND		0.200	0.200	0.209		0.211	
Vanadium	0.0022	J	0.200	0.200	0.217		0.218	
Zinc	0.019		0.200	0.200	0.224		0.218	

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Serial Dilution - Batch: 480-296020

Method: 6010C
Preparation: 3005A

Lab Sample ID:	480-98311-1	Analysis Batch:	480-296462	Instrument ID:	ICAP2
Client Matrix:	Water	Prep Batch:	480-296020	Lab File ID:	I2041616A-2.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/16/2016 0940	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/15/2016 0805				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Aluminum	0.32		ND	NC	10	
Antimony	ND		ND	NC	10	
Arsenic	ND		ND	NC	10	
Barium	0.055		0.0556	1.0	10	
Beryllium	ND		ND	NC	10	
Cadmium	ND		ND	NC	10	
Calcium	178		180.4	1.6	10	
Chromium	0.029		0.0247	15	10	V
Cobalt	ND		ND	NC	10	
Copper	0.0062	J	ND	NC	10	
Iron	1.1		1.10	0.99	10	
Lead	ND		ND	NC	10	
Magnesium	58.1		57.97	0.23	10	
Manganese	0.032		0.0317	0.78	10	
Nickel	0.0066	J	0.00660	NC	10	J
Potassium	1.4		1.57	NC	10	J
Selenium	ND		ND	NC	10	
Silver	ND		ND	NC	10	
Sodium	12.5		12.40	0.74	10	
Thallium	ND		ND	NC	10	
Vanadium	0.0022	J	ND	NC	10	
Zinc	0.019		0.0198	NC	10	J

Client: N Tonawanda Water Works Job Number: 480-98311-1

Method Blank - Batch: 480-296703

Method: 7470A
Preparation: 7470A

Lab Sample ID:	MB 480-296703/1-A	Analysis Batch:	480-296862	Instrument ID:	LEEMAN2
Client Matrix:	Water	Prep Batch:	480-296703	Lab File ID:	H04196W1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	04/19/2016 1232	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/19/2016 0900				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.00012	0.00020

Lab Control Sample - Batch: 480-296703

Method: 7470A
Preparation: 7470A

Lab Sample ID:	LCS 480-296703/2-A	Analysis Batch:	480-296862	Instrument ID:	LEEMAN2
Client Matrix:	Water	Prep Batch:	480-296703	Lab File ID:	H04196W1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	04/19/2016 1234	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/19/2016 0900				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00667	0.00647	97	80 - 120	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-296703

Method: 7470A
Preparation: 7470A

MS Lab Sample ID:	480-98311-1	Analysis Batch:	480-296862	Instrument ID:	LEEMAN2
Client Matrix:	Water	Prep Batch:	480-296703	Lab File ID:	H04196W1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	04/19/2016 1257			Final Weight/Volume:	50 mL
Prep Date:	04/19/2016 0900				
Leach Date:	N/A				

MSD Lab Sample ID:	480-98311-1	Analysis Batch:	480-296862	Instrument ID:	LEEMAN2
Client Matrix:	Water	Prep Batch:	480-296703	Lab File ID:	H04196W1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	04/19/2016 1259			Final Weight/Volume:	50 mL
Prep Date:	04/19/2016 0900				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	95	89	80 - 120	7	20		

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-296703

Method: 7470A
Preparation: 7470A

MS Lab Sample ID:	480-98311-1	Units: mg/L	MSD Lab Sample ID:	480-98311-1	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	04/19/2016 1257		Analysis Date:	04/19/2016 1259	
Prep Date:	04/19/2016 0900		Prep Date:	04/19/2016 0900	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	ND	0.00667	0.00667	0.00633	0.00593

Serial Dilution - Batch: 480-296703

Method: 7470A
Preparation: 7470A

Lab Sample ID:	480-98311-1	Analysis Batch:	480-296862	Instrument ID:	LEEMAN2
Client Matrix:	Water	Prep Batch:	480-296703	Lab File ID:	H04196W1.PRN
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	04/19/2016 1256	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/19/2016 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Mercury	ND	ND	NC	10	

DATA REPORTING QUALIFIERS

Client: N Tonawanda Water Works Job Number: 480-98311-1

Lab Section	Qualifier	Description
GC/MS VOA		
	F1	MS and/or MSD Recovery is outside acceptance limits.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	*	LCS or LCSD is outside acceptance limits.
	F1	MS and/or MSD Recovery is outside acceptance limits.
	F2	MS/MSD RPD exceeds control limits
	X	Surrogate is outside control limits
Metals		
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	V	Serial Dilution exceeds the control limits

Client: N Tonawanda Water Works Job Number: 480-98311-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:480-297222					
LCS 480-297222/5	Lab Control Sample	T	Water	8260C	
MB 480-297222/7	Method Blank	T	Water	8260C	
480-98311-1	WG-11109668-041416-SG-NCR13S	T	Water	8260C	
480-98311-1MS	Matrix Spike	T	Water	8260C	
480-98311-1MSD	Matrix Spike Duplicate	T	Water	8260C	
480-98311-2	WG-11109668-041416-SG-NCR3S	T	Water	8260C	
Analysis Batch:480-297289					
LCS 480-297289/4	Lab Control Sample	T	Water	8260C	
MB 480-297289/6	Method Blank	T	Water	8260C	
480-98311-3	WG-11109668-041416-SG-NCR4S	T	Water	8260C	
480-98311-4	WG-11109668-041416-SG-NCR5S	T	Water	8260C	
480-98311-5	WG-11109668-041416-SG-NCR6S	T	Water	8260C	
480-98311-6	RB-11109668-041416-SG	T	Water	8260C	
480-98311-7	TB-11109668-041416-SG	T	Water	8260C	

Report Basis
T = Total

Client: N Tonawanda Water Works Job Number: 480-98311-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 480-296108					
LCS 480-296108/2-A	Lab Control Sample	T	Water	3510C	
MB 480-296108/1-A	Method Blank	T	Water	3510C	
480-98311-1	WG-11109668-041416-SG-NCR13S	T	Water	3510C	
480-98311-1MS	Matrix Spike	T	Water	3510C	
480-98311-1MSD	Matrix Spike Duplicate	T	Water	3510C	
480-98311-2	WG-11109668-041416-SG-NCR3S	T	Water	3510C	
480-98311-3	WG-11109668-041416-SG-NCR4S	T	Water	3510C	
480-98311-4	WG-11109668-041416-SG-NCR5S	T	Water	3510C	
480-98311-5	WG-11109668-041416-SG-NCR6S	T	Water	3510C	
480-98311-6	RB-11109668-041416-SG	T	Water	3510C	
Analysis Batch:480-296472					
LCS 480-296108/2-A	Lab Control Sample	T	Water	8270D	480-296108
MB 480-296108/1-A	Method Blank	T	Water	8270D	480-296108
480-98311-1	WG-11109668-041416-SG-NCR13S	T	Water	8270D	480-296108
480-98311-1MS	Matrix Spike	T	Water	8270D	480-296108
480-98311-1MSD	Matrix Spike Duplicate	T	Water	8270D	480-296108
Analysis Batch:480-296545					
480-98311-4	WG-11109668-041416-SG-NCR5S	T	Water	8270D	480-296108
480-98311-5	WG-11109668-041416-SG-NCR6S	T	Water	8270D	480-296108
480-98311-6	RB-11109668-041416-SG	T	Water	8270D	480-296108
Analysis Batch:480-296732					
480-98311-2	WG-11109668-041416-SG-NCR3S	T	Water	8270D	480-296108
480-98311-3	WG-11109668-041416-SG-NCR4S	T	Water	8270D	480-296108

Report Basis
T = Total

Client: N Tonawanda Water Works Job Number: 480-98311-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 480-296020					
LCS 480-296020/2-A	Lab Control Sample	T	Water	3005A	
MB 480-296020/1-A	Method Blank	T	Water	3005A	
480-98311-1	WG-11109668-041416-SG-NCR13S	T	Water	3005A	
480-98311-1MS	Matrix Spike	T	Water	3005A	
480-98311-1MSD	Matrix Spike Duplicate	T	Water	3005A	
480-98311-2	WG-11109668-041416-SG-NCR3S	T	Water	3005A	
480-98311-3	WG-11109668-041416-SG-NCR4S	T	Water	3005A	
480-98311-4	WG-11109668-041416-SG-NCR5S	T	Water	3005A	
480-98311-5	WG-11109668-041416-SG-NCR6S	T	Water	3005A	
480-98311-6	RB-11109668-041416-SG	T	Water	3005A	
Analysis Batch:480-296462					
LCS 480-296020/2-A	Lab Control Sample	T	Water	6010C	480-296020
MB 480-296020/1-A	Method Blank	T	Water	6010C	480-296020
480-98311-1	WG-11109668-041416-SG-NCR13S	T	Water	6010C	480-296020
480-98311-1MS	Matrix Spike	T	Water	6010C	480-296020
480-98311-1MSD	Matrix Spike Duplicate	T	Water	6010C	480-296020
480-98311-2	WG-11109668-041416-SG-NCR3S	T	Water	6010C	480-296020
480-98311-3	WG-11109668-041416-SG-NCR4S	T	Water	6010C	480-296020
480-98311-4	WG-11109668-041416-SG-NCR5S	T	Water	6010C	480-296020
480-98311-5	WG-11109668-041416-SG-NCR6S	T	Water	6010C	480-296020
480-98311-6	RB-11109668-041416-SG	T	Water	6010C	480-296020
Prep Batch: 480-296703					
LCS 480-296703/2-A	Lab Control Sample	T	Water	7470A	
MB 480-296703/1-A	Method Blank	T	Water	7470A	
480-98311-1	WG-11109668-041416-SG-NCR13S	T	Water	7470A	
480-98311-1MS	Matrix Spike	T	Water	7470A	
480-98311-1MSD	Matrix Spike Duplicate	T	Water	7470A	
480-98311-2	WG-11109668-041416-SG-NCR3S	T	Water	7470A	
480-98311-3	WG-11109668-041416-SG-NCR4S	T	Water	7470A	
480-98311-4	WG-11109668-041416-SG-NCR5S	T	Water	7470A	
480-98311-5	WG-11109668-041416-SG-NCR6S	T	Water	7470A	
480-98311-6	RB-11109668-041416-SG	T	Water	7470A	

Client: N Tonawanda Water Works Job Number: 480-98311-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:480-296862					
LCS 480-296703/2-A	Lab Control Sample	T	Water	7470A	480-296703
MB 480-296703/1-A	Method Blank	T	Water	7470A	480-296703
480-98311-1	WG-11109668-041416-SG-NCR13S	T	Water	7470A	480-296703
480-98311-1MS	Matrix Spike	T	Water	7470A	480-296703
480-98311-1MSD	Matrix Spike Duplicate	T	Water	7470A	480-296703
480-98311-2	WG-11109668-041416-SG-NCR3S	T	Water	7470A	480-296703
480-98311-3	WG-11109668-041416-SG-NCR4S	T	Water	7470A	480-296703
480-98311-4	WG-11109668-041416-SG-NCR5S	T	Water	7470A	480-296703
480-98311-5	WG-11109668-041416-SG-NCR6S	T	Water	7470A	480-296703
480-98311-6	RB-11109668-041416-SG	T	Water	7470A	480-296703

Report Basis
T = Total

Client: N Tonawanda Water Works Job Number: 480-98311-1

Laboratory Chronicle

Lab ID: 480-98311-1 **Client ID: WG-11109668-041416-SG-NCR13S**

Sample Date/Time: 04/14/2016 08:30 Received Date/Time: 04/14/2016 10:34

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	480-98311-D-1		480-297222		04/21/2016 04:52	1	TAL BUF	SWO
A:8260C	480-98311-D-1		480-297222		04/21/2016 04:52	1	TAL BUF	SWO
P:3510C	480-98311-A-1-B		480-296472	480-296108	04/15/2016 08:41	1	TAL BUF	CPH
A:8270D	480-98311-A-1-B		480-296472	480-296108	04/18/2016 19:55	1	TAL BUF	LMW
P:3005A	480-98311-C-1-A		480-296462	480-296020	04/15/2016 08:05	1	TAL BUF	CMM
A:6010C	480-98311-C-1-A		480-296462	480-296020	04/16/2016 09:37	1	TAL BUF	LMH
P:7470A	480-98311-C-1-D		480-296862	480-296703	04/19/2016 09:00	1	TAL BUF	TAS
A:7470A	480-98311-C-1-D		480-296862	480-296703	04/19/2016 12:54	1	TAL BUF	TAS

Lab ID: 480-98311-1 **Client ID: WG-11109668-041416-SG-NCR13S**

Sample Date/Time: 04/14/2016 08:30 Received Date/Time: 04/14/2016 10:34

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	480-98311-D-1 MS		480-297222		04/21/2016 05:37	1	TAL BUF	SWO
A:8260C	480-98311-D-1 MS		480-297222		04/21/2016 05:37	1	TAL BUF	SWO
P:3510C	480-98311-A-1-A MS		480-296472	480-296108	04/15/2016 08:41	1	TAL BUF	CPH
A:8270D	480-98311-A-1-A MS		480-296472	480-296108	04/18/2016 18:56	1	TAL BUF	LMW
P:3005A	480-98311-C-1-B MS		480-296462	480-296020	04/15/2016 08:05	1	TAL BUF	CMM
A:6010C	480-98311-C-1-B MS		480-296462	480-296020	04/16/2016 09:47	1	TAL BUF	LMH
P:7470A	480-98311-C-1-E MS		480-296862	480-296703	04/19/2016 09:00	1	TAL BUF	TAS
A:7470A	480-98311-C-1-E MS		480-296862	480-296703	04/19/2016 12:57	1	TAL BUF	TAS

Lab ID: 480-98311-1 **Client ID: WG-11109668-041416-SG-NCR13S**

Sample Date/Time: 04/14/2016 08:30 Received Date/Time: 04/14/2016 10:34

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	480-98311-D-1 MSD		480-297222		04/21/2016 06:00	1	TAL BUF	SWO
A:8260C	480-98311-D-1 MSD		480-297222		04/21/2016 06:00	1	TAL BUF	SWO
P:3510C	480-98311-B-1-A MSD		480-296472	480-296108	04/15/2016 08:41	1	TAL BUF	CPH
A:8270D	480-98311-B-1-A MSD		480-296472	480-296108	04/18/2016 19:25	1	TAL BUF	LMW
P:3005A	480-98311-C-1-C MSD		480-296462	480-296020	04/15/2016 08:05	1	TAL BUF	CMM
A:6010C	480-98311-C-1-C MSD		480-296462	480-296020	04/16/2016 09:50	1	TAL BUF	LMH
P:7470A	480-98311-C-1-F MSD		480-296862	480-296703	04/19/2016 09:00	1	TAL BUF	TAS
A:7470A	480-98311-C-1-F MSD		480-296862	480-296703	04/19/2016 12:59	1	TAL BUF	TAS

Client: N Tonawanda Water Works Job Number: 480-98311-1

Laboratory Chronicle

Lab ID: 480-98311-1 SD **Client ID: WG-11109668-041416-SG-NCR13S**

Sample Date/Time: 04/14/2016 08:30 Received Date/Time: 04/14/2016 10:34

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3005A	480-98311-C-1-A SD ^5		480-296462	480-296020	04/15/2016 08:05	5	TAL BUF	CMM
A:6010C	480-98311-C-1-A SD ^5		480-296462	480-296020	04/16/2016 09:40	5	TAL BUF	LMH
P:3005A	480-98311-C-1-A PDS		480-296462	480-296020	04/15/2016 08:05	1	TAL BUF	CMM
A:6010C	480-98311-C-1-A PDS		480-296462	480-296020	04/16/2016 09:43	1	TAL BUF	LMH
P:7470A	480-98311-C-1-D SD ^5		480-296862	480-296703	04/19/2016 09:00	5	TAL BUF	TAS
A:7470A	480-98311-C-1-D SD ^5		480-296862	480-296703	04/19/2016 12:56	5	TAL BUF	TAS

Lab ID: 480-98311-2 **Client ID: WG-11109668-041416-SG-NCR3S**

Sample Date/Time: 04/14/2016 09:40 Received Date/Time: 04/14/2016 10:34

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	480-98311-D-2		480-297222		04/21/2016 05:15	1	TAL BUF	SWO
A:8260C	480-98311-D-2		480-297222		04/21/2016 05:15	1	TAL BUF	SWO
P:3510C	480-98311-B-2-A		480-296732	480-296108	04/15/2016 08:41	1	TAL BUF	CPH
A:8270D	480-98311-B-2-A		480-296732	480-296108	04/19/2016 12:29	1	TAL BUF	LMW
P:3005A	480-98311-C-2-A		480-296462	480-296020	04/15/2016 08:05	1	TAL BUF	CMM
A:6010C	480-98311-C-2-A		480-296462	480-296020	04/16/2016 09:53	1	TAL BUF	LMH
P:7470A	480-98311-C-2-B		480-296862	480-296703	04/19/2016 09:00	1	TAL BUF	TAS
A:7470A	480-98311-C-2-B		480-296862	480-296703	04/19/2016 13:01	1	TAL BUF	TAS

Lab ID: 480-98311-3 **Client ID: WG-11109668-041416-SG-NCR4S**

Sample Date/Time: 04/14/2016 09:55 Received Date/Time: 04/14/2016 10:34

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	480-98311-D-3		480-297289		04/21/2016 13:36	1	TAL BUF	NMD1
A:8260C	480-98311-D-3		480-297289		04/21/2016 13:36	1	TAL BUF	NMD1
P:3510C	480-98311-A-3-A		480-296732	480-296108	04/15/2016 08:41	1	TAL BUF	CPH
A:8270D	480-98311-A-3-A		480-296732	480-296108	04/19/2016 12:58	1	TAL BUF	LMW
P:3005A	480-98311-C-3-A		480-296462	480-296020	04/15/2016 08:05	1	TAL BUF	CMM
A:6010C	480-98311-C-3-A		480-296462	480-296020	04/16/2016 09:56	1	TAL BUF	LMH
P:7470A	480-98311-C-3-B		480-296862	480-296703	04/19/2016 09:00	1	TAL BUF	TAS
A:7470A	480-98311-C-3-B		480-296862	480-296703	04/19/2016 13:03	1	TAL BUF	TAS

Client: N Tonawanda Water Works Job Number: 480-98311-1

Laboratory Chronicle

Lab ID: 480-98311-4 **Client ID: WG-11109668-041416-SG-NCR5S**

Sample Date/Time: 04/14/2016 09:15 Received Date/Time: 04/14/2016 10:34

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	480-98311-D-4		480-297289		04/21/2016 14:03	1	TAL BUF	NMD1
A:8260C	480-98311-D-4		480-297289		04/21/2016 14:03	1	TAL BUF	NMD1
P:3510C	480-98311-A-4-A		480-296545	480-296108	04/15/2016 08:41	1	TAL BUF	CPH
A:8270D	480-98311-A-4-A		480-296545	480-296108	04/19/2016 00:48	1	TAL BUF	LMW
P:3005A	480-98311-C-4-A		480-296462	480-296020	04/15/2016 08:05	1	TAL BUF	CMM
A:6010C	480-98311-C-4-A		480-296462	480-296020	04/16/2016 10:09	1	TAL BUF	LMH
P:7470A	480-98311-C-4-B		480-296862	480-296703	04/19/2016 09:00	1	TAL BUF	TAS
A:7470A	480-98311-C-4-B		480-296862	480-296703	04/19/2016 13:04	1	TAL BUF	TAS

Lab ID: 480-98311-5 **Client ID: WG-11109668-041416-SG-NCR6S**

Sample Date/Time: 04/14/2016 09:15 Received Date/Time: 04/14/2016 10:34

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	480-98311-D-5		480-297289		04/21/2016 14:30	1	TAL BUF	NMD1
A:8260C	480-98311-D-5		480-297289		04/21/2016 14:30	1	TAL BUF	NMD1
P:3510C	480-98311-B-5-A		480-296545	480-296108	04/15/2016 08:41	1	TAL BUF	CPH
A:8270D	480-98311-B-5-A		480-296545	480-296108	04/19/2016 01:16	1	TAL BUF	LMW
P:3005A	480-98311-C-5-A		480-296462	480-296020	04/15/2016 08:05	1	TAL BUF	CMM
A:6010C	480-98311-C-5-A		480-296462	480-296020	04/16/2016 10:13	1	TAL BUF	LMH
P:7470A	480-98311-C-5-B		480-296862	480-296703	04/19/2016 09:00	1	TAL BUF	TAS
A:7470A	480-98311-C-5-B		480-296862	480-296703	04/19/2016 13:07	1	TAL BUF	TAS

Lab ID: 480-98311-6 **Client ID: RB-11109668-041416-SG**

Sample Date/Time: 04/14/2016 09:00 Received Date/Time: 04/14/2016 10:34

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	480-98311-D-6		480-297289		04/21/2016 14:57	1	TAL BUF	NMD1
A:8260C	480-98311-D-6		480-297289		04/21/2016 14:57	1	TAL BUF	NMD1
P:3510C	480-98311-B-6-A		480-296545	480-296108	04/15/2016 08:41	1	TAL BUF	CPH
A:8270D	480-98311-B-6-A		480-296545	480-296108	04/19/2016 01:45	1	TAL BUF	LMW
P:3005A	480-98311-C-6-A		480-296462	480-296020	04/15/2016 08:05	1	TAL BUF	CMM
A:6010C	480-98311-C-6-A		480-296462	480-296020	04/16/2016 10:16	1	TAL BUF	LMH
P:7470A	480-98311-C-6-B		480-296862	480-296703	04/19/2016 09:00	1	TAL BUF	TAS
A:7470A	480-98311-C-6-B		480-296862	480-296703	04/19/2016 13:13	1	TAL BUF	TAS

Lab ID: 480-98311-7 **Client ID: TB-11109668-041416-SG**

Sample Date/Time: 04/14/2016 00:00 Received Date/Time: 04/14/2016 10:34

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	480-98311-A-7		480-297289		04/21/2016 15:24	1	TAL BUF	NMD1
A:8260C	480-98311-A-7		480-297289		04/21/2016 15:24	1	TAL BUF	NMD1

Client: N Tonawanda Water Works Job Number: 480-98311-1

Laboratory Chronicle

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	MB 480-297222/7		480-297222		04/20/2016 22:08	1	TAL BUF	SWO
A:8260C	MB 480-297222/7		480-297222		04/20/2016 22:08	1	TAL BUF	SWO
P:5030C	MB 480-297289/6		480-297289		04/21/2016 11:02	1	TAL BUF	NMD1
A:8260C	MB 480-297289/6		480-297289		04/21/2016 11:02	1	TAL BUF	NMD1
P:3510C	MB 480-296108/1-A		480-296472	480-296108	04/15/2016 08:41	1	TAL BUF	CPH
A:8270D	MB 480-296108/1-A		480-296472	480-296108	04/18/2016 16:30	1	TAL BUF	LMW
P:3005A	MB 480-296020/1-A		480-296462	480-296020	04/15/2016 08:05	1	TAL BUF	CMM
A:6010C	MB 480-296020/1-A		480-296462	480-296020	04/16/2016 09:30	1	TAL BUF	LMH
P:7470A	MB 480-296703/1-A		480-296862	480-296703	04/19/2016 09:00	1	TAL BUF	TAS
A:7470A	MB 480-296703/1-A		480-296862	480-296703	04/19/2016 12:32	1	TAL BUF	TAS

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030C	LCS 480-297222/5		480-297222		04/20/2016 21:22	1	TAL BUF	SWO
A:8260C	LCS 480-297222/5		480-297222		04/20/2016 21:22	1	TAL BUF	SWO
P:5030C	LCS 480-297289/4		480-297289		04/21/2016 10:08	1	TAL BUF	NMD1
A:8260C	LCS 480-297289/4		480-297289		04/21/2016 10:08	1	TAL BUF	NMD1
P:3510C	LCS 480-296108/2-A		480-296472	480-296108	04/15/2016 08:41	1	TAL BUF	CPH
A:8270D	LCS 480-296108/2-A		480-296472	480-296108	04/18/2016 16:59	1	TAL BUF	LMW
P:3005A	LCS 480-296020/2-A		480-296462	480-296020	04/15/2016 08:05	1	TAL BUF	CMM
A:6010C	LCS 480-296020/2-A		480-296462	480-296020	04/16/2016 09:34	1	TAL BUF	LMH
P:7470A	LCS 480-296703/2-A		480-296862	480-296703	04/19/2016 09:00	1	TAL BUF	TAS
A:7470A	LCS 480-296703/2-A		480-296862	480-296703	04/19/2016 12:34	1	TAL BUF	TAS

Lab References:
TAL BUF = TestAmerica Buffalo

CHAIN OF CUSTODY RECORD

COC NO.: 53202

Address: 2055 Niagara Falls Blvd NF NY 14304
Phone: 716-297-6150 Fax:

PAGE 1 OF 1

05/13/2016

Project No/ Phase/Task Code: 11109668-01	Laboratory Name: Test America	Lab Location: Amherst	SSOW ID:
Project Name: NCR Landfill Annual GW	Lab Contact: Melissa Deyo		Cooler No:
Project Location: Witmer Road N. Tonawanda			Carrier:
GHD Chemistry Contact: Paul McMahon			Airbill No:
Sampler(s): S. Gardner D. Tyran			Total # of Containers:

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Filtered (Y/N)	VOCs	SVOCs	Metals	Total Containers/sample	MS/MSD Request	Comments/ Special Instructions:
	PRESERVATION - (SEE BACK OF COC FOR ABBREVIATIONS)						HCl		HNO3			
1	WG-11109668-041416-SG-NCR35	4/14/16	0830	WG	G	N	X	X	X	18	X	
2	WG-11109668-041416-SG-NCR3S	4/14/16	0940	WG	G	N	X	X	X	6		
3	WG-11109668-041416-SG-NCR4S	4/14/16	0955	WG	G	N	X	X	X	6		
4	WG-11109668-041416-SG-NCR5S	4/14/16	0915	WG	G	N	X	X	X	6		
5	WG-11109668-041416-SG-NCR6S	4/14/16	0915	WG	G	N	X	X	X	6		
6	TB-11109668-041416-SG	4/14/16		TB	G	N	X			3		
7	RB-11109668-041416-SG	4/14/16	0900	RB	G	N	X	X	X	6		
8												
9												
10												
11												
12										51		

480-98311 Chain of Custody

Page 1368 of 1369

TAT Required in business days (use separate COCs for different TATs):

☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Week ☐ Other:

Notes/ Special Requirements:

#1 3.9°C

	Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1.	Dave Tyran	GHD	4/14/16	1034	1.	FA Buf.	4/14/16	1034
2.					2.			
3.					3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

GHD Form: COC-10B (20110804)

Login Sample Receipt Checklist

Client: N Tonawanda Water Works

Job Number: 480-98311-1

Login Number: 98311

List Source: TestAmerica Buffalo

List Number: 1

Creator: Hulbert, Michael J

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GHD
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Groundwater Sampling Equipment and Supply Checklist
(Form SP-05)

Date: 04/19/2016 (mm/dd/yyyy)

Reference No. 11109668-01

Equipment

- [x] Required sampling equipment (as per work plan or QAPP)

Instruments

- [x] Water level indicator
- [x] Thermometer *
- [x] pH meter *
- [x] Conductivity probe *
- [x] Turbidity meter
- [ ] HNu/OVA/Microtip
- [ ] Air monitoring equipment

Supplies

- [ ] Gasoline can/gas
- [x] Polypropylene rope
- [ ] Aluminum foil
- [x] Paper towels
- [x] pH buffer solution(s)
- [x] Conductivity standard solution(s)
- [ ] Decontamination fluids (as per work plan and QAPP)
- [x] Sample jars (extra)
- [ ] Sample jar labels (GHD) materials
- [ ] Cooler(s)/ice packs/packing materials
- [x] Trash bags
- [x] Sample preservatives
- [x] Plastic spray bottles
- [ ] Plastic basin or pan
- [ ] Sample filter (on line or external filter)
- [ ] Polyethylene sheeting
- [x] First aid kit
- [x] Personal protective equipment (as per HASP)

Documentation

- [x] Chain of custody forms
- [x] Well logs
- [ ] Notebook/Field book
- [ ] Photolog
- [ ] Site pass/badge
- [ ] Federal Express manifests
- [x] Previous well logs/previous historical well data
- [x] Site map
- [x] Blank well data forms

Miscellaneous

- [x] Well cap keys
- [ ] Bolt cutters
- [ ] Camera/film
- [ ] Knife
- [ ] Spare batteries for instruments
- [ ] Lock deicer (winter)
- [x] Reinforced packing tape
- [x] Pen/pencil/indelible marking pen
- [x] Tool box
- [ ] Spare locks/keys
- [ ] On site transportation (all-terrain vehicle/snowmobiles)

Completed By: David Tyran (please print) Date: 04/14/2016 (mm/dd/yyyy)

Project Planning Completion and Follow-Up Checklist
(Form SP-02)

Date: 04/14/2016 (mm/dd/yyyy) Reference No. 11109668-01

Prior Planning and Coordination

- [x] Confirm well numbers, location and accessibility
- [x] Review of project documents, Health and Safety Plan (HASP), sampling Quality Assurance/Quality Control (QA/QC) and site-specific sampling requirements
- [x] Historical well data; depth, pH, performance and disposition of purge water
- [x] Site access notification and coordination
- [x] Coordination with laboratory through GHD chemistry group
- [x] Procurement, inventory and inspection of all equipment and supplies
- [x] Prior equipment preparation, calibration or maintenance
- [ ] NA All utilities located and approved

Filed Procedure

- [x] Instruments calibrated daily
- [x] Sampling equipment decontaminated in accordance with the QAPP
- [x] Field measurements and sampling details logged in appropriate field books or an appropriate field form
- [x] Well volume calculated and specified volumes removed
- [x] Specified samples, and QA/QC samples taken per Quality Assurance Project Plan (QAPP)
- [x] Samples properly labeled, preserved and packed
- [x] Sampling locations secured or completed according to work plan
- [x] Sample date times, locations and sample numbers have all been recorded in applicable log(s)
- [x] Samples have been properly stored if not shipped/delivered to lab same day
- [x] Samples were shipped with complete and accurate chain of custody record

Follow-Up Activities

- [x] Questionable measurements field verified
- [x] Confirm all samples collected
- [x] All equipment has been maintained and returned
- [x] Sampling information reduced and required sample keys and field data distributed
- [x] Chain of custody records filed
- [x] Expendable stock supplies replaced
- [x] GHD and client-controlled items returned (i.e., keys)
- [x] Arrange disposal of investigation generated wastes with client
- [x] Confirm all samples collected

Completed By: David Tyran (please print) Date: 04/14/2016 (mm/dd/yyyy)

Field Data Record Form
Meter, Turbidity (Portable) Hach 2100P
(QSF-421D)

Control number: NFO 5041
Date (mm/dd/yyyy): 04/13/2016
User (print name): S. Gardner

Project number:
Project name: NCR Annual GW

Location: Witmer Rd NT

Additional equipment control numbers and descriptions:
20 NTU LOT # A6008 EXP 4/2017
100 NTU LOT # A5350 EXP 3/2017
800 NTU LOT # A6007 EXP 4/2017

Field procedure before use:

Do not calibrate in the field - in-house calibration only by field equipment manager.	Check when completed
Check kit contents;	
• Meter	☒
• Low 0-10, medium 0-100, high 0-1000 standards	☒
• Extra AA batteries	☒
• Sample vials	☒
Test and record Gelex standards:	☒

	Gelex Standard	*Meter Reading*
• Low 0-10	20	20.4
• Medium 0-100	100	106
• High 0-1000	800	801

Note: Condensation on outside of sample bottles affects meter readings.

Filing: Field file

Signature: David J Tyson

Field Data Record Form
Meter, Turbidity (Portable) Hach 2100P
(QSF-421D)

Control number: NFO 5039
Date (mm/dd/yyyy): 04/13/2016
User (print name): D. Tyson

Project number:
Project name: NCR Annual GW
Location: Witmer Rd NT

Additional equipment control numbers and descriptions:
20 NTU LOT # A6008 EXP 4/2017
100 NTU LOT # A5350 EXP 3/2017
800 NTU LOT # A6007 EXP 4/2017

Field procedure before use:

Do not calibrate in the field - in-house calibration only by field equipment manager.	
	Check when completed
Check kit contents; • Meter • Low 0-10, medium 0-100, high 0-1000 standards • Extra AA batteries • Sample vials	☒ ☒ ☒ ☒
Test and record Gelex standards:	☒
	Gelex Standard / ***Meter Reading***
• Low 0-10	20 / 22.1
• Medium 0-100	100 / 102
• High 0-1000	800 / 804
Note: Condensation on outside of sample bottles affects meter readings.	

Filing: Field file

Signature: Dave J Tyson

NCR Landfill

11109668-01

DAILY LOG

4/13/16 YSI PRO SERIES # NF07L02 CALABRATION USING PH 4.00 AUTO CAL LOT# CS79417 EXP. 7/16

PH 4.00 BEFORE 3.97 AFTER 3.99

COND. 4.49 BEFORE 4.55 AFTER 4.49

U22 HORIBA # NF0U15G CALABRATION USING SAME AS ABOVE CAL SOLUTION

PH 4.00 BEFORE 3.93 AFTER 4.00

COND. 4.49 BEFORE 4.55 AFTER 4.50

0800 ONSITE SG/DJT/TM WEATHER - SUNNY 29-32°F WINDS NE 0-5MPH TAILGATE SAFETY MEETING, LOCATE WELLS ONSITE

0835 SET UP ON NCR-4S PURGE WELL DRY

0858 SET UP ON NCR-5S PURGE WELL DRY

0914 SET UP ON NCR-13S PURGE WELL DRY

0945 OFFSITE

DST

NCR Landfill

DAILY LOG

4/14/16 0800 ONSITE SG/DJT WEATHER SUNNY 38-45°F WINDS ENE 5-10MPH

TAILGATE SAFETY MEETING, BEGIN SET UP FOR SAMPLING WELLS

AFTER BEING DRIED OUT THE DAY BEFORE

METHOD - DEDICATED 3' POLY BAILER, FILL CLEAN SAMPLE BOTTLES

FROM LAB

TRIPBLANK - TB-11109668-041416-SG (3)

RINSEBLANK - RB-11109668-041416-SG 0900

METHOD - POUR LAB SUPPLIED DI WATER INTO NEW 3' POLY BAILER

FILL CLEAN SAMPLE BOTTLES

0905 SAMPLE NCR 5S DUPLICATE - NCR 6S

0930 SAMPLE NCR 3S

0945 SAMPLE NCR 4S

1013 SAMPLING COMPLETE, OFFSITE

DJT

11109668-01

111096668-01

WELL PURGING INFORMATION

SITE/PROJECT NAME: Niagara County Refuge Site

DATE: 0 4 1 3 1 6 (MM DD YY)

CREW MEMBERS: D. Tyran W/L 3.63 Depth 6.04

PURGING METHOD: Bailer / Volumes

WELL NUMBER: NCR35

ONE WELL VOLUME: 0.39 gallons

FIVE WELL VOLUMES: 1.95 gallons

(See Sction 4.2.4.1 of the OM&M Manual and Table FP-4.1 to calculate well volumes based on current water levels).

Well Dry @ 0.4 gallons

	1	2	3	4	5	TOT/AVG
WELL VOLUME						
VOLUME PURGED (total)	0.40					0.4
pH	6.29					6.29
TEMPERATURE	10.72					10.72
CONDUCTIVITY	0.959					0.959
TURBIDITY	97.2					97.2
COLOR	Light Brown					
ODOR	None					
COMMENTS	Dry					

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE PROTOCOLS

4/13/16	David Tyran	David Tyran
DATE	PRINT NAME	SIGNATURE

FP-4C 6.04 - 3.63 = 2.41 x .16 = 0.39

1110668-01

WELL PURGING INFORMATION

SITE/PROJECT NAME: Niagara County Refuge Site

DATE: 0 4 1 3 1 6 (MM DD YY)

CREW MEMBERS: S GARDNER

PURGING METHOD: BAILER / VOLUMES

WELL NUMBER: NCRAS

ONE WELL VOLUME: 0.38 gallons SOUNDED DEPTH - 5.12

FIVE WELL VOLUMES: gallons W/L = 2.75

(See Sction 4.2.4.1 of the OM&M Manual and Table FP-4.1 to calculate well volumes based on current water levels).

WELL DRY @ 2 VOLUMES

WELL VOLUME	1	2	3	4	5	TOT/AVG
VOLUME PURGED (total)	0.38	0.76				0.76
pH	6.40	6.71				6.55
TEMPERATURE	5.3	5.2				5.25
CONDUCTIVITY	0.96	0.93				94.5
TURBIDITY	293	963				628
COLOR	CLOUDY BROWN	SAME				CLOUDY BROWN
ODOR	NONE	NONE				NONE
COMMENTS						

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE PROTOCOLS

4/13/16 SHAWN GARDNER Shawn Gardner

DATE PRINT NAME SIGNATURE

FP-4C 5.12 - 2.75 = 2.37 x .16 = 0.38 GAL

1110968-01

WELL PURGING INFORMATION

SITE/PROJECT NAME: Niagara County Refuge Site

DATE: 04/13/10 (MM DD YY)

CREW MEMBERS: S GARDNER, D TYRAN

PURGING METHOD: BAILER/VOLUMES

WELL NUMBER: NCR-5S

ONE WELL VOLUME: 0.78 gallons SOUNDED DEPTH - 11.26

FIVE WELL VOLUMES: gallons W/L - 6.36

(See Sction 4.2.4.1 of the OM&M Manual and Table FP-4.1 to calculate well volumes based on current water levels).

WELL DRY @ 1.2 GAL

WELL VOLUME	1	2	3	4	5	TOT/AVG
VOLUME PURGED (total)	0.78					1.2
pH	7.38					7.38
TEMPERATURE	6.6					6.6
CONDUCTIVITY	0.628					0.628
TURBIDITY	417					417
COLOR	CLOUDY BROWN					CLOUDY BROWN
ODOR	NONE					NONE
COMMENTS						

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE PROTOCOLS

4/13/10 SHAWN GARDNER Shawn Gardner

DATE PRINT NAME SIGNATURE

FP-4C 11.26 - 6.36 = 4.9 x .16 = 0.78 GAL

11109668-01

WELL PURGING INFORMATION

SITE/PROJECT NAME: Niagara County Refuge Site

DATE: 0 4 1 3 1 6 (MM DD YY)

CREW MEMBERS: S GARDNER, D TYRAN

PURGING METHOD: BAILER / VOLUMES

WELL NUMBER: NCR-133

ONE WELL VOLUME: 0.55 gallons SOUNDED DEPTH- 7.93

FIVE WELL VOLUMES: gallons W/L - 4.46

(See Sction 4.2.4.1 of the OM&M Manual and Table FP-4.1 to calculate well volumes based on current water levels).

WELL DRY @ 1.3 GAL

	1	2	3	4	5	TOT/AVG
WELL VOLUME						
VOLUME PURGED (total)	0.55	1.1				1.3
pH	7.31	7.16				7.23
TEMPERATURE	5.6	5.8				5.7
CONDUCTIVITY	1.09	1.18				1.13
TURBIDITY	44.1	84.8				64.4
COLOR	SL CLOUDY LT BROWN	SAME				SL CLOUDY BROWN
ODOR	NONE	NONE				NONE
COMMENTS						

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE PROTOCOLS

4/13/16 SHAWN GARDNER Shawn Gardner

DATE PRINT NAME SIGNATURE

FP-4C 7.93 - 4.46 = 3.47 x .16 = 0.55 GAL

1110968-01

GROUNDWATER SAMPLING • SAMPLE COLLECTION DATA SHEET

PROJECT NAME: *NIAGARA COUNTY REFUSE SITE*

SAMPLING CREW MEMBERS: D TYRRELL, S GARDNER

DATE OF SAMPLE COLLECTION: 04/14/10
(M M D D Y Y)

Sample I.D. Number	*Well Number*	*Well Volume (Gallons)*	*Volume Purged (Gallons)*	*Sample Time*	*Sample Description*	*Analysis Required*	*Chain-of-Custody Number*	*Shipping Manifest Number*
WG-1110968-041410-SG-NCR3S	NCR 3S	0.39	0.39	0940	CLEAR COLORLESS	VOCs, SVOCs METALS	53202	
WG-1110968-041410-SG-NCR4S	NCR 4S	0.38	0.76	0955	CLEAR COLORLESS	SAME	53202	
WG-1110968-041410-SG-NCR5S	NCR 5S	0.78	1.20	0915	CLEAR COLORLESS	SAME	53202	
WG-1110968-041410-SG-NCR13S	NCR 13S	0.55	1.30	0830	CLEAR COLORLESS	SAME	53202	
WG-1110968-041410-SG-NCR13S	(MS/MSD) * NCR-13S			0830	CLEAR COLORLESS	SAME	53202	
WG-1110968-041410-SG-NCR6S	(Duplicate) * NCR-5S			0915	CLEAR COLORLESS	SAME	53202	
RB-1110968-041410-SG	(Rinse Blank) *			0900	CLEAR COLORLESS	SAME	53202	

Note: * QA/QC sample (see QAPP for explanation of how to collect and label these samples). Collect MS/MSD and duplicate from one of the four monitoring wells listed above. Create a unique sample ID for the blind duplicate using NCR 6S for the well number. Write the name of the well where the MS/MSD and duplicate were actually collected in the well number boxes under "MS/MSD" and "Duplicate" above.

Additional Comments: _____

FP-5A

CRA 5723 (17)

David J Tyrrell

Tailgate Safety Meeting Form
Small Group Format – Multiple Days

Date: 4/13/16 Time: 0800 Project No.: 11109668-01
Presenter: D. Tyran Project Name: NCR Landfill

Safety topics/items discussed:

Frost on ground - Slip Hazard - Proper PPE - gloves
Safety glasses
Practice STAR

Print Name	Signature	Company
David Tyran	Dave Tyran	GHD
Shawn Gardner	Shawn Gardner	GHD
Tony Manns	Tony	GHD

Date: 4/14/16 Time: 0720 Project No.: 11109668-01
Presenter: D. Tyran Project Name: NCR - Landfill

Safety topics/items discussed:

Site is very muddy stick to gravel rd with vehicles
walk equipment over to wells. Weather is warming up
check stickup wells for bees
Practice STAR

Print Name	Signature	Company
David Tyran	Dave Tyran	GHD
Shawn Gardner	Shawn Gardner	GHD

Date: Time: Project No.:
Presenter: Project Name:

Safety topics/items discussed:

Print Name	Signature	Company

CHAIN OF CUSTODY RECORD

COC NO.: 53202

Address: 2055 Niagara Falls Blvd NF NY 14304 PAGE 1 OF 1
Phone: 716-297-6150 Fax:

Project No/ Phase/Task Code: 11109668-01	Laboratory Name: Test America	Lab Location: Amherst	SSOW ID:
Project Name: NCR Landfill Annual GW	Lab Contact: Melissa DeJo		Cooler No:
Project Location: Witmer Road N. Tonawanda	SAMPLE TYPE / ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:
GHD Chemistry Contact: Paul McMahon			Airbill No:
Sampler(s): S Gaecher D. Tyson			Total # of Containers:

Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd//yy)	TIME (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Filtered (Y/N)	VOCs	SVOCs	Metals										Total Containers/sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
	PRESERVATION - (SEE BACK OF COC FOR ABBREVIATIONS)						HCl		HNO3												
1	WG-11109668-041416-SG-NCRBS	4/14/16	0930	WG	G	N	X	X	X										18	X	
2	WG-11109668-041416-SG-NCR3S	4/14/16	0940	WG	G	N	X	X	X										6		
3	WG-11109668-041416-SG-NCR4S	4/14/16	0955	WG	G	N	X	X	X										6		
4	WG-11109668-041416-SG-NCR5S	4/14/16	0915	WG	G	N	X	X	X										6		
5	WG-11109668-041416-SG-NCR6S	4/14/16	0915	WG	G	N	X	X	X										6		
6	TB-11109668-041416-SG	4/14/16		TB	G	N	X												3		
7	RB-11109668-041416-SG	4/14/16	0900	RB	G	N	X	X	X										6		
8																					
9																					
10																					
11																					
12																			51		

TAT Required in business days (use separate COCs for different TATs):

☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☑ 2 Week ☐ Other:

Notes/ Special Requirements:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
1.	GHD	4/14/16	1034	1.			
2.				2.			
3.				3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

APPENDIX C
DATA VALIDATION REPORT

DATA USABILITY SUMMARY REPORT
FOR
NIAGARA COUNTY REFUSE SITE

Prepared By:

PARSONS

301 Plainfield Road, Suite 350
Syracuse, NY 13212
Phone: (315) 451-9560
Fax: (315) 451-9570

JUNE 2016

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ATTACHMMENTS

SECTION 1

DATA USABILITY SUMMARY

Groundwater samples were collected from the Niagara County Refuse site in North Tonawanda, New York on April 14, 2016. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Work Plan,
- USEPA SW-846 analytical methodologies,
- USEPA Region II Standard Operating Procedures (SOPs) for organic and inorganic data review.

The analytical laboratory for this project was Test America Laboratory (TAL) in Buffalo, New York. This laboratory is certified to conduct project analyses through the National Environmental Laboratory Accreditation Program (NELAP).

1.1 LABORATORY DATA PACKAGES

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 29 days for the groundwater samples.

The data packages received from TAL were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report in Section 2.

1.2 SAMPLING AND CHAIN-OF-CUSTODY

Groundwater samples were collected, properly preserved, shipped under a COC record, and received at TAL within one day of sampling. All samples were received intact and in good condition at TAL.

1.3 LABORATORY ANALYTICAL METHODS

Groundwater samples were collected from the site and analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and total metals. Summaries of issues concerning this laboratory analysis are presented in Subsections 1.3.1 through 1.3.3. The data qualifications resulting from the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) are discussed in Section 2. The laboratory data were reviewed and may be qualified with the following validation flags:

"U" - not detected at the value given,

"UJ" - estimated and not detected at the value given,

"J" - estimated at the value given,

"J+" - estimated biased high at the value given,

"J-" - estimated biased low at the value given,

"N" - presumptive evidence at the value given, and

"R" - unusable value.

The validated laboratory data were tabulated and are presented in Attachment A.

1.3.1 Volatile Organic Analysis

Groundwater samples collected from the site were analyzed for target compound list (TCL) VOCs using the USEPA SW-846 8260C analytical method. Certain reported results for the TCL VOC samples were qualified as nondetect based upon equipment blank contamination. The reported TCL VOC analytical results were 100% complete (i.e., usable) for the groundwater data presented by TAL. PARCCS requirements were met.

1.3.2 Semivolatile Organic Analysis

Groundwater samples collected from the site were analyzed for TCL SVOCs using the USEPA SW-846 8270D analytical method. Certain TCL SVOC sample results were considered estimated based upon instrument calibrations. The reported TCL SVOC analytical results were 100% complete (i.e., usable) for the groundwater data presented by TAL. PARCCS requirements were met.

1.3.3 Metals Analysis

Groundwater samples collected from the site were analyzed for total metals using the USEPA SW-846 6010C/7470A analytical methods. Certain metals results were considered estimated based upon serial dilutions and field duplicate precision. All of the metals data were considered usable and 100% complete for the groundwater data presented by TAL. PARCCS requirements were met.

SECTION 2

DATA VALIDATION REPORT

2.1 GROUNDWATER DATA

Data review has been completed for data packages generated by TAL containing groundwater samples collected from the Niagara County Refuse site. The specific samples contained in these data packages, the analyses performed, and a usability summary are presented in Table 2.1-1. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. The samples were contained within sample delivery group (SDG) 480-98311-1. The validated laboratory data are presented in Attachment A.

Data validation was performed for all samples in accordance with the most current editions of the USEPA Region II SOPs for organic and inorganic data review. This data validation and usability report is presented by analysis type.

2.1.1 TCL Volatiles

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and equipment/trip blank contamination
- Instrument performance
- Sample result verification and identification
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of MS/MSD precision and accuracy and blank contamination as discussed below.

MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits for designated spiked project samples with the exception of the high MSD accuracy results for 1,2,4-trichlorobenzene (125%R; QC limit 70-122%R) and tetrachloroethene (128%R; QC limit 74-122%R) during the spiked analyses of sample NCR-13S. Validation qualification of the parent sample was not required.

Blank Contamination

The field equipment blank RB-11109668-041416-SG associated with the project samples contained acetone and methylene chloride below the reporting limits at concentrations of 4.7 and 4.5 µg/L, respectively. Therefore, sample results for these compounds below validation action concentrations were considered not detected and qualified "U" for the affected samples.

Usability

All TCL volatile sample results were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The TCL volatile data presented by TAL were 100% complete (i.e., usable) for groundwater. The validated TCL volatile laboratory data are tabulated and presented in Attachment A.

2.1.2 TCL Semivolatiles

The following items were reviewed for compliance in the semivolatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- MS/MSD precision and accuracy
- LCS recoveries
- Laboratory method blank and equipment blank contamination
- Instrument performance
- Sample result verification and identification
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Quantitation limits

- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of surrogate recoveries, MS/MSD precision and accuracy, and continuing calibrations as discussed below.

Surrogate Recoveries

All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the low surrogate recovery for p-terphenyl-d14 (QC limit 67-150%R) in NCR-3S (60%R), NCR-4S (62%R), and NCR-13S (47%R). Validation qualification of these samples was not required.

MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits for designated spiked project samples with the exception of the many MS/MSD precision and accuracy results during the spiked analyses of parent sample NCR-13S. Validation qualification of this sample was not required.

Continuing Calibrations

All continuing calibration compounds were considered acceptable with relative response factors (RRFs) greater than 0.05 and percent differences (%Ds) within ±20% with the exception of 3-nitroaniline (-50.7%D) in the continuing calibration associated with sample NCR-13S; and pentachlorophenol (-33.9%D) in the continuing calibration associated with samples NCR-3S and NCR-4S. Therefore, sample results for these compounds which were nondetects were considered estimated and qualified "UJ" for the affected samples.

Usability

All semivolatile sample results were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The semivolatile data presented by TAL were 100% complete (i.e., usable). The validated semivolatile laboratory data are tabulated and presented in Attachment A.

2.1.3 Total Metals

The following items were reviewed for compliancy in the metals analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications

- Initial and continuing calibration and laboratory preparation blank, and equipment blank contamination
- Inductively coupled plasma (ICP) interference check sample (ICS)
- MS/MSD recoveries
- Laboratory duplicate precision
- Laboratory control sample recoveries
- ICP serial dilution
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination, serial dilutions, and field duplicate precision as discussed below.

Blank Contamination

The field equipment blank associated with the project samples contained manganese below reporting limit at a concentration of 0.00046 mg/L. Validation qualification of the sample results was not required since samples were not affected by the contamination in this blank.

Serial Dilutions

All serial dilution results were considered acceptable with %D less than 10% with the exception of chromium (15%D) associated with sample NCR-13S. Therefore, the positive chromium result was considered estimated and qualified "J" for this sample.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the precision for aluminum (66%RPD) and chromium (63%RPD) associated with sample NCR-5S and its field duplicate sample NCR-6S. Therefore, results for these analytes were considered estimated and qualified "J" for these samples.

Usability

All metals sample results were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The metals data presented by TAL were 100% complete with all metals data considered valid and usable. The validated metals laboratory data are tabulated and presented in Attachment A.

TABLE 2.1-1

SUMMARY OF SAMPLE ANALYSES AND USABILITY

NIAGARA COUNTY REFUSE SITE

SAMPLE ID	MATRIX	SAMPLE DATE	VOCs	SVOCs	METALS
NCR-3S	Water	4/14/16	OK	OK	OK
NCR-4S	Water	4/14/16	OK	OK	OK
NCR-5S	Water	4/14/16	OK	OK	OK
NCR-6S	Water	4/14/16	OK	OK	OK
NCR-13S	Water	4/14/16	OK	OK	OK
RB	Water	4/14/16	OK	OK	OK
TB	Water	4/14/16	OK		
			7	6	6

NOTES: OK - Sample analysis considered valid and usable.

ATTACHMENT A

VALIDATED LABORATORY DATA

City of North Tonawanda NY1A8791 216 Payne Ave North Tonawanda, NY C/O Niagara County Refuse Site Validated Groundwater Sampling Event April 2016		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	NCR3S WG-11109668-041416-SG-NCR3S 480-98311-2 TALBUFF 480983111 WATER 4/14/2016 9:40 6/6/2016	NCR4S WG-11109668-041416-SG-NCR4S 480-98311-3 TALBUFF 480983111 WATER 4/14/2016 9:55 6/6/2016	NCR5S WG-11109668-041416-SG-NCR5S 480-98311-4 TALBUFF 480983111 WATER 4/14/2016 9:15 6/6/2016
CAS NO.	COMPOUND	UNITS:			
	VOLATILES				
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	1 U	1 U	1 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/l	1 U	1 U	1 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	1 U	1 U	1 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/l	1 U	1 U	1 U
75-34-3	1,1-DICHLOROETHANE	ug/l	1 U	1 U	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	1 U	1 U	1 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/l	1 U	1 U	1 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/l	1 U	1 U	1 U
106-93-4	1,2-DIBROMOETHANE	ug/l	1 U	1 U	1 U
95-50-1	1,2-DICHLOROBENZENE	ug/l	1 U	1 U	1 U
107-06-2	1,2-DICHLOROETHANE	ug/l	1 U	1 U	1 U
78-87-5	1,2-DICHLOROPROPANE	ug/l	1 U	1 U	1 U
541-73-1	1,3-DICHLOROBENZENE	ug/l	1 U	1 U	1 U
106-46-7	1,4-DICHLOROBENZENE	ug/l	1 U	1 U	1 U
591-78-6	2-HEXANONE	ug/l	5 U	5 U	5 U
67-64-1	ACETONE	ug/l	10 U	10 U	10 U
71-43-2	BENZENE	ug/l	1 U	1 U	1 U
75-27-4	BROMODICHLOROMETHANE	ug/l	1 U	1 U	1 U
75-25-2	BROMOFORM	ug/l	1 U	1 U	1 U
74-83-9	BROMOMETHANE	ug/l	1 U	1 U	1 U
75-15-0	CARBON DISULFIDE	ug/l	1 U	1 U	1 U
56-23-5	CARBON TETRACHLORIDE	ug/l	1 U	1 U	1 U
108-90-7	CHLOROBENZENE	ug/l	1 U	1 U	1 U
75-00-3	CHLOROETHANE	ug/l	1 U	1 U	1 U
67-66-3	CHLOROFORM	ug/l	1 U	1 U	1 U
74-87-3	CHLOROMETHANE	ug/l	1 U	1 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	1 U	1 U	1 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/l	1 U	1 U	1 U
110-82-7	CYCLOHEXANE	ug/l	1 U	1 U	1 U
124-48-1	DIBROMOCHLOROMETHANE	ug/l	1 U	1 U	1 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/l	1 U	1 U	1 U
540-59-0	DICHLOROETHYLENES	ug/l	2 U	2 U	2 U
100-41-4	ETHYLBENZENE	ug/l	1 U	1 U	1 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/l	1 U	1 U	1 U
79-20-9	METHYL ACETATE	ug/l	2.5 U	2.5 U	2.5 U
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	10 U	10 U	10 U
108-10-1	METHYL ISOBUTYL KETONE	ug/l	5 U	5 U	5 U
108-87-2	METHYLCYCLOHEXANE	ug/l	1 U	1 U	1 U
75-09-2	METHYLENE CHLORIDE	ug/l	1 U	1 U	1 U
100-42-5	STYRENE	ug/l	1 U	1 U	1 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/l	1 U	1 U	1 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	1 U	1 U	1 U
108-88-3	TOLUENE	ug/l	1 U	1 U	1 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	1 U	1 U	1 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/l	1 U	1 U	1 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U	1 U	1 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/l	1 U	1 U	1 U
75-01-4	VINYL CHLORIDE	ug/l	1 U	1 U	1 U
XYLENES	XYLENES, TOTAL	ug/l	2 U	2 U	2 U

City of North Tonawanda NY1A8791 216 Payne Ave North Tonawanda, NY C/O Niagara County Refuse Site Validated Groundwater Sampling Event April 2016		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	NCR3S WG-11109668-041416-SG-NCR3S 480-98311-2 TALBUFF 480983111 WATER 4/14/2016 9:40 6/6/2016	NCR4S WG-11109668-041416-SG-NCR4S 480-98311-3 TALBUFF 480983111 WATER 4/14/2016 9:55 6/6/2016	NCR5S WG-11109668-041416-SG-NCR5S 480-98311-4 TALBUFF 480983111 WATER 4/14/2016 9:15 6/6/2016
CAS NO.	COMPOUND	UNITS:			
	SEMIVOLATILES				
95-95-4	2,4,5-TRICHLOROPHENOL	ug/l	4.6 U	4.6 U	4.6 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/l	4.6 U	4.6 U	4.6 U
120-83-2	2,4-DICHLOROPHENOL	ug/l	4.6 U	4.6 U	4.6 U
105-67-9	2,4-DIMETHYLPHENOL	ug/l	4.6 U	4.6 U	4.6 U
51-28-5	2,4-DINITROPHENOL	ug/l	9.2 U	9.3 U	9.2 U
121-14-2	2,4-DINITROTOLUENE	ug/l	4.6 U	4.6 U	4.6 U
606-20-2	2,6-DINITROTOLUENE	ug/l	4.6 U	4.6 U	4.6 U
91-58-7	2-CHLORONAPHTHALENE	ug/l	4.6 U	4.6 U	4.6 U
95-57-8	2-CHLOROPHENOL	ug/l	4.6 U	4.6 U	4.6 U
91-57-6	2-METHYLNAPHTHALENE	ug/l	4.6 U	4.6 U	4.6 U
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/l	4.6 U	4.6 U	4.6 U
88-74-4	2-NITROANILINE	ug/l	9.2 U	9.3 U	9.2 U
88-75-5	2-NITROPHENOL	ug/l	4.6 U	4.6 U	4.6 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/l	4.6 U	4.6 U	4.6 U
99-09-2	3-NITROANILINE	ug/l	9.2 U	9.3 U	9.2 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/l	9.2 U	9.3 U	9.2 U
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/l	4.6 U	4.6 U	4.6 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/l	4.6 U	4.6 U	4.6 U
106-47-8	4-CHLOROANILINE	ug/l	4.6 U	4.6 U	4.6 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/l	4.6 U	4.6 U	4.6 U
106-44-5	4-METHYLPHENOL (P-CRESOL)	ug/l	9.2 U	9.3 U	9.2 U
100-01-6	4-NITROANILINE	ug/l	9.2 U	9.3 U	9.2 U
100-02-7	4-NITROPHENOL	ug/l	9.2 U	9.3 U	9.2 U
83-32-9	ACENAPHTHENE	ug/l	4.6 U	4.6 U	4.6 U
208-96-8	ACENAPHTHYLENE	ug/l	4.6 U	4.6 U	4.6 U
98-86-2	ACETOPHENONE	ug/l	4.6 U	4.6 U	4.6 U
120-12-7	ANTHRACENE	ug/l	4.6 U	4.6 U	4.6 U
1912-24-9	ATRAZINE	ug/l	4.6 U	4.6 U	4.6 U
100-52-7	BENZALDEHYDE	ug/l	4.6 U	4.6 U	4.6 U
56-55-3	BENZO(A)ANTHRACENE	ug/l	4.6 U	4.6 U	4.6 U
50-32-8	BENZO(A)PYRENE	ug/l	4.6 U	4.6 U	4.6 U
205-99-2	BENZO(B)FLUORANTHENE	ug/l	4.6 U	4.6 U	4.6 U
191-24-2	BENZO(G,H,I)PERYLENE	ug/l	4.6 U	4.6 U	4.6 U
207-08-9	BENZO(K)FLUORANTHENE	ug/l	4.6 U	4.6 U	4.6 U
85-68-7	BENZYL BUTYL PHTHALATE	ug/l	4.6 U	4.6 U	4.6 U
92-52-4	BIPHENYL (DIPHENYL)	ug/l	4.6 U	4.6 U	4.6 U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/l	4.6 U	4.6 U	4.6 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/l	4.6 U	4.6 U	4.6 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/l	4.6 U	4.6 U	4.6 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	4.6 U	4.6 U	4.6 U
105-60-2	CAPROLACTAM	ug/l	4.6 U	4.6 U	4.6 U
86-74-8	CARBAZOLE	ug/l	4.6 U	4.6 U	4.6 U
218-01-9	CHRYSENE	ug/l	4.6 U	4.6 U	4.6 U
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/l	4.6 U	4.6 U	4.6 U
132-64-9	DIBENZOFURAN	ug/l	9.2 U	9.3 U	9.2 U
84-66-2	DIETHYL PHTHALATE	ug/l	4.6 U	4.6 U	4.6 U
131-11-3	DIMETHYL PHTHALATE	ug/l	4.6 U	4.6 U	4.6 U
84-74-2	DI-N-BUTYL PHTHALATE	ug/l	4.6 U	4.6 U	4.6 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/l	4.6 U	4.6 U	4.6 U
206-44-0	FLUORANTHENE	ug/l	4.6 U	4.6 U	4.6 U
86-73-7	FLUORENE	ug/l	4.6 U	4.6 U	4.6 U
118-74-1	HEXACHLOROBENZENE	ug/l	4.6 U	4.6 U	4.6 U
87-68-3	HEXACHLOROBUTADIENE	ug/l	4.6 U	4.6 U	4.6 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/l	4.6 U	4.6 U	4.6 U
67-72-1	HEXACHLOROETHANE	ug/l	4.6 U	4.6 U	4.6 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/l	4.6 U	4.6 U	4.6 U
78-59-1	ISOPHORONE	ug/l	4.6 U	4.6 U	4.6 U
91-20-3	NAPHTHALENE	ug/l	4.6 U	4.6 U	4.6 U
98-95-3	NITROBENZENE	ug/l	4.6 U	4.6 U	4.6 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/l	4.6 U	4.6 U	4.6 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/l	4.6 U	4.6 U	4.6 U
87-86-5	PENTACHLOROPHENOL	ug/l	9.2 UJ	9.3 UJ	9.2 U
85-01-8	PHENANTHRENE	ug/l	4.6 U	4.6 U	4.6 U
108-95-2	PHENOL	ug/l	4.6 U	4.6 U	4.6 U
129-00-0	PYRENE	ug/l	4.6 U	4.6 U	4.6 U

City of North Tonawanda NY1A8791 216 Payne Ave North Tonawanda, NY C/O Niagara County Refuse Site Validated Groundwater Sampling Event April 2016		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	NCR3S WG-11109668-041416-SG-NCR3S 480-98311-2 TALBUFF 480983111 WATER 4/14/2016 9:40 6/6/2016	NCR4S WG-11109668-041416-SG-NCR4S 480-98311-3 TALBUFF 480983111 WATER 4/14/2016 9:55 6/6/2016	NCR5S WG-11109668-041416-SG-NCR5S 480-98311-4 TALBUFF 480983111 WATER 4/14/2016 9:15 6/6/2016
CAS NO.	COMPOUND	UNITS:			
	METALS				
7429-90-5	ALUMINUM	mg/l	0.65	22.5	0.91 J
7440-36-0	ANTIMONY	mg/l	0.02 U	0.02 U	0.02 U
7440-38-2	ARSENIC	mg/l	0.015 U	0.0081 J	0.015 U
7440-39-3	BARIUM	mg/l	0.048	0.12	0.14
7440-41-7	BERYLLIUM	mg/l	0.002 U	0.0011 J	0.002 U
7440-43-9	CADMIUM	mg/l	0.00073 J	0.00098 J	0.002 U
7440-70-2	CALCIUM	mg/l	125	169	83.7
7440-47-3	CHROMIUM, TOTAL	mg/l	0.0083	0.011	0.0089 J
7440-48-4	COBALT	mg/l	0.004 U	0.00084 J	0.004 U
7440-50-8	COPPER	mg/l	0.005 J	0.035	0.0041 J
7439-89-6	IRON	mg/l	1.4	67.5	0.91
7439-92-1	LEAD	mg/l	0.01 U	0.02	0.01 U
7439-95-4	MAGNESIUM	mg/l	75.2	53.6	44.4
7439-96-5	MANGANESE	mg/l	0.035	0.26	0.025
7439-97-6	MERCURY	mg/l	0.0002 U	0.0002 U	0.0002 U
7440-02-0	NICKEL	mg/l	0.011	0.012	0.0095 J
7440-09-7	POTASSIUM	mg/l	2.2	10.6	0.66
7782-49-2	SELENIUM	mg/l	0.025 U	0.025 U	0.025 U
7440-22-4	SILVER	mg/l	0.006 U	0.006 U	0.006 U
7440-23-5	SODIUM	mg/l	6.9	27.1	14.9
7440-28-0	THALLIUM	mg/l	0.02 U	0.02 U	0.02 U
7440-62-2	VANADIUM	mg/l	0.005 U	0.0096	0.005 U
7440-66-6	ZINC	mg/l	0.13	1.2	0.013

			Dup of WG-11109668-041416-SG-NCR5S		
City of North Tonawanda NY1A8791		Location ID:	NCR6S	NCR13S	FIELDQC
216 Payne Ave		Sample ID:	WG-11109668-041416-SG-NCR6S	WG-11109668-041416-SG-NCR13S	RB-11109668-041416-SG
North Tonawanda, NY		Lab Sample Id:	480-98311-5	480-98311-1	480-98311-6
C/O Niagara County Refuse Site		Source:	TALBUFF	TALBUFF	TALBUFF
Validated Groundwater Sampling Event		SDG:	480983111	480983111	480983111
April 2016		Matrix:	WATER	WATER	WATER
		Sampled:	4/14/2016 9:15	4/14/2016 8:30	4/14/2016 9:00
		Validated:	6/6/2016	6/6/2016	6/6/2016
CAS NO.	COMPOUND	UNITS:			
	VOLATILES				
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	1 U	1 U	1 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/l	1 U	1 U	1 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	1 U	1 U	1 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/l	1 U	1 U	1 U
75-34-3	1,1-DICHLOROETHANE	ug/l	1 U	1 U	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	1 U	1 U	1 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/l	1 U	1 U	1 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/l	1 U	1 U	1 U
106-93-4	1,2-DIBROMOETHANE	ug/l	1 U	1 U	1 U
95-50-1	1,2-DICHLOROBENZENE	ug/l	1 U	1 U	1 U
107-06-2	1,2-DICHLOROETHANE	ug/l	1 U	1 U	1 U
78-87-5	1,2-DICHLOROPROPANE	ug/l	1 U	1 U	1 U
541-73-1	1,3-DICHLOROBENZENE	ug/l	1 U	1 U	1 U
106-46-7	1,4-DICHLOROBENZENE	ug/l	1 U	1 U	9.1 U
591-78-6	2-HEXANONE	ug/l	5 U	5 U	5 U
67-64-1	ACETONE	ug/l	10 U	10 U	4.7 J
71-43-2	BENZENE	ug/l	1 U	1 U	1 U
75-27-4	BROMODICHLOROMETHANE	ug/l	1 U	1 U	1 U
75-25-2	BROMOFORM	ug/l	1 U	1 U	1 U
74-83-9	BROMOMETHANE	ug/l	1 U	1 U	1 U
75-15-0	CARBON DISULFIDE	ug/l	1 U	1 U	1 U
56-23-5	CARBON TETRACHLORIDE	ug/l	1 U	1 U	1 U
108-90-7	CHLOROBENZENE	ug/l	1 U	1 U	1 U
75-00-3	CHLOROETHANE	ug/l	1 U	1 U	1 U
67-66-3	CHLOROFORM	ug/l	1 U	1 U	1 U
74-87-3	CHLOROMETHANE	ug/l	1 U	1 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	1 U	1 U	1 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/l	1 U	1 U	1 U
110-82-7	CYCLOHEXANE	ug/l	1 U	1 U	1 U
124-48-1	DIBROMOCHLOROMETHANE	ug/l	1 U	1 U	1 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/l	1 U	1 U	1 U
540-59-0	DICHLOROETHYLENES	ug/l	2 U	2 U	2 U
100-41-4	ETHYLBENZENE	ug/l	1 U	1 U	1 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/l	1 U	1 U	1 U
79-20-9	METHYL ACETATE	ug/l	2.5 U	2.5 U	2.5 U
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	10 U	10 U	10 U
108-10-1	METHYL ISOBUTYL KETONE	ug/l	5 U	5 U	5 U
108-87-2	METHYLCYCLOHEXANE	ug/l	1 U	1 U	1 U
75-09-2	METHYLENE CHLORIDE	ug/l	1 U	1 U	4.5
100-42-5	STYRENE	ug/l	1 U	1 U	1 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/l	1 U	1 U	1 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	1 U	1 U	1 U
108-88-3	TOLUENE	ug/l	1 U	1 U	1 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	1 U	1 U	1 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/l	1 U	1 U	1 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U	1 U	1 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/l	1 U	1 U	1 U
75-01-4	VINYL CHLORIDE	ug/l	1 U	1 U	1 U
XYLENES	XYLENES, TOTAL	ug/l	2 U	2 U	2 U

			Dup of WG-11109668-041416-SG-NCR5S		
City of North Tonawanda NY1A8791		Location ID:	NCR6S	NCR13S	FIELDQC
216 Payne Ave		Sample ID:	WG-11109668-041416-SG-NCR6S	WG-11109668-041416-SG-NCR13S	RB-11109668-041416-SG
North Tonawanda, NY		Lab Sample Id:	480-98311-5	480-98311-1	480-98311-6
C/O Niagara County Refuse Site		Source:	TALBUFF	TALBUFF	TALBUFF
Validated Groundwater Sampling Event		SDG:	480983111	480983111	480983111
April 2016		Matrix:	WATER	WATER	WATER
		Sampled:	4/14/2016 9:15	4/14/2016 8:30	4/14/2016 9:00
		Validated:	6/6/2016	6/6/2016	6/6/2016
CAS NO.	COMPOUND	UNITS:			
	SEMIVOLATILES				
95-95-4	2,4,5-TRICHLOROPHENOL	ug/l	4.7 U	4.6 U	4.6 U
88-06-2	2,4,6-TRICHLOROPHENOL	ug/l	4.7 U	4.6 U	4.6 U
120-83-2	2,4-DICHLOROPHENOL	ug/l	4.7 U	4.6 U	4.6 U
105-67-9	2,4-DIMETHYLPHENOL	ug/l	4.7 U	4.6 U	4.6 U
51-28-5	2,4-DINITROPHENOL	ug/l	9.4 U	9.3 U	9.1 U
121-14-2	2,4-DINITROTOLUENE	ug/l	4.7 U	4.6 U	4.6 U
606-20-2	2,6-DINITROTOLUENE	ug/l	4.7 U	4.6 U	4.6 U
91-58-7	2-CHLORONAPHTHALENE	ug/l	4.7 U	4.6 U	4.6 U
95-57-8	2-CHLOROPHENOL	ug/l	4.7 U	4.6 U	4.6 U
91-57-6	2-METHYLNAPHTHALENE	ug/l	4.7 U	4.6 U	4.6 U
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/l	4.7 U	4.6 U	4.6 U
88-74-4	2-NITROANILINE	ug/l	9.4 U	9.3 U	9.1 U
88-75-5	2-NITROPHENOL	ug/l	4.7 U	4.6 U	4.6 U
91-94-1	3,3'-DICHLOROBENZIDINE	ug/l	4.7 U	4.6 U	4.6 U
99-09-2	3-NITROANILINE	ug/l	9.4 U	9.3 UJ	9.1 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/l	9.4 U	9.3 U	9.1 U
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/l	4.7 U	4.6 U	4.6 U
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/l	4.7 U	4.6 U	4.6 U
106-47-8	4-CHLOROANILINE	ug/l	4.7 U	4.6 U	4.6 U
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/l	4.7 U	4.6 U	4.6 U
106-44-5	4-METHYLPHENOL (P-CRESOL)	ug/l	9.4 U	9.3 U	9.1 U
100-01-6	4-NITROANILINE	ug/l	9.4 U	9.3 U	9.1 U
100-02-7	4-NITROPHENOL	ug/l	9.4 U	9.3 U	9.1 U
83-32-9	ACENAPHTHENE	ug/l	4.7 U	4.6 U	4.6 U
208-96-8	ACENAPHTHYLENE	ug/l	4.7 U	4.6 U	4.6 U
98-86-2	ACETOPHENONE	ug/l	4.7 U	4.6 U	4.6 U
120-12-7	ANTHRACENE	ug/l	4.7 U	4.6 U	4.6 U
1912-24-9	ATRAZINE	ug/l	4.7 U	4.6 U	4.6 U
100-52-7	BENZALDEHYDE	ug/l	4.7 U	4.6 U	4.6 U
56-55-3	BENZO(A)ANTHRACENE	ug/l	4.7 U	4.6 U	4.6 U
50-32-8	BENZO(A)PYRENE	ug/l	4.7 U	4.6 U	4.6 U
205-99-2	BENZO(B)FLUORANTHENE	ug/l	4.7 U	4.6 U	4.6 U
191-24-2	BENZO(G,H,I)PERYLENE	ug/l	4.7 U	4.6 U	4.6 U
207-08-9	BENZO(K)FLUORANTHENE	ug/l	4.7 U	4.6 U	4.6 U
85-68-7	BENZYL BUTYL PHTHALATE	ug/l	4.7 U	4.6 U	4.6 U
92-52-4	BIPHENYL (DIPHENYL)	ug/l	4.7 U	4.6 U	4.6 U
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/l	4.7 U	4.6 U	4.6 U
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/l	4.7 U	4.6 U	4.6 U
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/l	4.7 U	4.6 U	4.6 U
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	4.7 U	4.6 U	4.6 U
105-60-2	CAPROLACTAM	ug/l	4.7 U	4.6 U	4.6 U
86-74-8	CARBAZOLE	ug/l	4.7 U	4.6 U	4.6 U
218-01-9	CHRYSENE	ug/l	4.7 U	4.6 U	4.6 U
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/l	4.7 U	4.6 U	4.6 U
132-64-9	DIBENZOFURAN	ug/l	9.4 U	9.3 U	9.1 U
84-66-2	DIETHYL PHTHALATE	ug/l	4.7 U	4.6 U	4.6 U
131-11-3	DIMETHYL PHTHALATE	ug/l	4.7 U	4.6 U	4.6 U
84-74-2	DI-N-BUTYL PHTHALATE	ug/l	4.7 U	4.6 U	4.6 U
117-84-0	DI-N-OCTYLPHTHALATE	ug/l	4.7 U	4.6 U	4.6 U
206-44-0	FLUORANTHENE	ug/l	4.7 U	4.6 U	4.6 U
86-73-7	FLUORENE	ug/l	4.7 U	4.6 U	4.6 U
118-74-1	HEXACHLOROBENZENE	ug/l	4.7 U	4.6 U	4.6 U
87-68-3	HEXACHLOROBUTADIENE	ug/l	4.7 U	4.6 U	4.6 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/l	4.7 U	4.6 U	4.6 U
67-72-1	HEXACHLOROETHANE	ug/l	4.7 U	4.6 U	4.6 U
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/l	4.7 U	4.6 U	4.6 U
78-59-1	ISOPHORONE	ug/l	4.7 U	4.6 U	4.6 U
91-20-3	NAPHTHALENE	ug/l	4.7 U	4.6 U	4.6 U
98-95-3	NITROBENZENE	ug/l	4.7 U	4.6 U	4.6 U
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/l	4.7 U	4.6 U	4.6 U
86-30-6	N-NITROSODIPHENYLAMINE	ug/l	4.7 U	4.6 U	4.6 U
87-86-5	PENTACHLOROPHENOL	ug/l	9.4 U	9.3 U	9.1 U
85-01-8	PHENANTHRENE	ug/l	4.7 U	4.6 U	4.6 U
108-95-2	PHENOL	ug/l	4.7 U	4.6 U	4.6 U
129-00-0	PYRENE	ug/l	4.7 U	4.6 U	4.6 U

			Dup of WG-11109668-041416-SG-NCR5S		
City of North Tonawanda NY1A8791		Location ID:	NCR6S	NCR13S	FIELDQC
216 Payne Ave		Sample ID:	WG-11109668-041416-SG-NCR6S	WG-11109668-041416-SG-NCR13S	RB-11109668-041416-SG
North Tonawanda, NY		Lab Sample Id:	480-98311-5	480-98311-1	480-98311-6
C/O Niagara County Refuse Site		Source:	TALBUFF	TALBUFF	TALBUFF
Validated Groundwater Sampling Event		SDG:	480983111	480983111	480983111
April 2016		Matrix:	WATER	WATER	WATER
		Sampled:	4/14/2016 9:15	4/14/2016 8:30	4/14/2016 9:00
		Validated:	6/6/2016	6/6/2016	6/6/2016
CAS NO.	COMPOUND	UNITS:			
	METALS				
7429-90-5	ALUMINUM	mg/l	1.8 J	0.32	0.2 U
7440-36-0	ANTIMONY	mg/l	0.02 U	0.02 U	0.02 U
7440-38-2	ARSENIC	mg/l	0.015 U	0.015 U	0.015 U
7440-39-3	BARIUM	mg/l	0.16	0.055	0.002 U
7440-41-7	BERYLLIUM	mg/l	0.002 U	0.002 U	0.002 U
7440-43-9	CADMIUM	mg/l	0.002 U	0.002 U	0.002 U
7440-70-2	CALCIUM	mg/l	82.5	178	0.5 U
7440-47-3	CHROMIUM, TOTAL	mg/l	0.017 J	0.029 J	0.004 U
7440-48-4	COBALT	mg/l	0.004 U	0.004 U	0.004 U
7440-50-8	COPPER	mg/l	0.0057 J	0.0062 J	0.01 U
7439-89-6	IRON	mg/l	1.4	1.1	0.05 U
7439-92-1	LEAD	mg/l	0.01 U	0.01 U	0.01 U
7439-95-4	MAGNESIUM	mg/l	44.1	58.1	0.2 U
7439-96-5	MANGANESE	mg/l	0.036	0.032	0.00046 J
7439-97-6	MERCURY	mg/l	0.0002 U	0.0002 U	0.0002 U
7440-02-0	NICKEL	mg/l	0.013	0.0066 J	0.01 U
7440-09-7	POTASSIUM	mg/l	0.75	1.4	0.5 U
7782-49-2	SELENIUM	mg/l	0.025 U	0.025 U	0.025 U
7440-22-4	SILVER	mg/l	0.006 U	0.006 U	0.006 U
7440-23-5	SODIUM	mg/l	16.6	12.5	1 U
7440-28-0	THALLIUM	mg/l	0.02 U	0.02 U	0.02 U
7440-62-2	VANADIUM	mg/l	0.002 J	0.0022 J	0.005 U
7440-66-6	ZINC	mg/l	0.017	0.019	0.01 U

City of North Tonawanda NY1A8791 216 Payne Ave North Tonawanda, NY C/O Niagara County Refuse Site Validated Groundwater Sampling Event April 2016		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FIELDQC TB-11109668-041416-SG 480-98311-7 TALBUFF 480983111 WATER 4/14/2016 0:00 6/6/2016
CAS NO.	COMPOUND	UNITS:	
	VOLATILES		
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	1 U
79-34-5	1,1,2,2-TETRACHLOROETHANE	ug/l	1 U
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/l	1 U
79-00-5	1,1,2-TRICHLOROETHANE	ug/l	1 U
75-34-3	1,1-DICHLOROETHANE	ug/l	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	1 U
120-82-1	1,2,4-TRICHLOROBENZENE	ug/l	1 U
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	ug/l	1 U
106-93-4	1,2-DIBROMOETHANE	ug/l	1 U
95-50-1	1,2-DICHLOROBENZENE	ug/l	1 U
107-06-2	1,2-DICHLOROETHANE	ug/l	1 U
78-87-5	1,2-DICHLOROPROPANE	ug/l	1 U
541-73-1	1,3-DICHLOROBENZENE	ug/l	1 U
106-46-7	1,4-DICHLOROBENZENE	ug/l	1 U
591-78-6	2-HEXANONE	ug/l	5 U
67-64-1	ACETONE	ug/l	10 U
71-43-2	BENZENE	ug/l	1 U
75-27-4	BROMODICHLOROMETHANE	ug/l	1 U
75-25-2	BROMOFORM	ug/l	1 U
74-83-9	BROMOMETHANE	ug/l	1 U
75-15-0	CARBON DISULFIDE	ug/l	1 U
56-23-5	CARBON TETRACHLORIDE	ug/l	1 U
108-90-7	CHLOROBENZENE	ug/l	1 U
75-00-3	CHLOROETHANE	ug/l	1 U
67-66-3	CHLOROFORM	ug/l	1 U
74-87-3	CHLOROMETHANE	ug/l	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	1 U
10061-01-5	CIS-1,3-DICHLOROPROPENE	ug/l	1 U
110-82-7	CYCLOHEXANE	ug/l	1 U
124-48-1	DIBROMOCHLOROMETHANE	ug/l	1 U
75-71-8	DICHLORODIFLUOROMETHANE	ug/l	1 U
540-59-0	DICHLOROETHYLENES	ug/l	2 U
100-41-4	ETHYLBENZENE	ug/l	1 U
98-82-8	ISOPROPYLBENZENE (CUMENE)	ug/l	1 U
79-20-9	METHYL ACETATE	ug/l	2.5 U
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	ug/l	10 U
108-10-1	METHYL ISOBUTYL KETONE	ug/l	5 U
108-87-2	METHYLCYCLOHEXANE	ug/l	1 U
75-09-2	METHYLENE CHLORIDE	ug/l	1 U
100-42-5	STYRENE	ug/l	1 U
1634-04-4	TERT-BUTYL METHYL ETHER	ug/l	1 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	1 U
108-88-3	TOLUENE	ug/l	1 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	1 U
10061-02-6	TRANS-1,3-DICHLOROPROPENE	ug/l	1 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U
75-69-4	TRICHLOROFLUOROMETHANE	ug/l	1 U
75-01-4	VINYL CHLORIDE	ug/l	1 U
XYLENES	XYLENES, TOTAL	ug/l	2 U

City of North Tonawanda NY1A8791 216 Payne Ave North Tonawanda, NY C/O Niagara County Refuse Site Validated Groundwater Sampling Event April 2016		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FIELDQC TB-11109668-041416-SG 480-98311-7 TALBUFF 480983111 WATER 4/14/2016 0:00 6/6/2016
CAS NO.	COMPOUND	UNITS:	
	SEMIVOLATILES		
95-95-4	2,4,5-TRICHLOROPHENOL	ug/l	
88-06-2	2,4,6-TRICHLOROPHENOL	ug/l	
120-83-2	2,4-DICHLOROPHENOL	ug/l	
105-67-9	2,4-DIMETHYLPHENOL	ug/l	
51-28-5	2,4-DINITROPHENOL	ug/l	
121-14-2	2,4-DINITROTOLUENE	ug/l	
606-20-2	2,6-DINITROTOLUENE	ug/l	
91-58-7	2-CHLORONAPHTHALENE	ug/l	
95-57-8	2-CHLOROPHENOL	ug/l	
91-57-6	2-METHYLNAPHTHALENE	ug/l	
95-48-7	2-METHYLPHENOL (O-CRESOL)	ug/l	
88-74-4	2-NITROANILINE	ug/l	
88-75-5	2-NITROPHENOL	ug/l	
91-94-1	3,3'-DICHLOROBENZIDINE	ug/l	
99-09-2	3-NITROANILINE	ug/l	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	ug/l	
101-55-3	4-BROMOPHENYL PHENYL ETHER	ug/l	
59-50-7	4-CHLORO-3-METHYLPHENOL	ug/l	
106-47-8	4-CHLOROANILINE	ug/l	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	ug/l	
106-44-5	4-METHYLPHENOL (P-CRESOL)	ug/l	
100-01-6	4-NITROANILINE	ug/l	
100-02-7	4-NITROPHENOL	ug/l	
83-32-9	ACENAPHTHENE	ug/l	
208-96-8	ACENAPHTHYLENE	ug/l	
98-86-2	ACETOPHENONE	ug/l	
120-12-7	ANTHRACENE	ug/l	
1912-24-9	ATRAZINE	ug/l	
100-52-7	BENZALDEHYDE	ug/l	
56-55-3	BENZO(A)ANTHRACENE	ug/l	
50-32-8	BENZO(A)PYRENE	ug/l	
205-99-2	BENZO(B)FLUORANTHENE	ug/l	
191-24-2	BENZO(G,H,I)PERYLENE	ug/l	
207-08-9	BENZO(K)FLUORANTHENE	ug/l	
85-68-7	BENZYL BUTYL PHTHALATE	ug/l	
92-52-4	BIPHENYL (DIPHENYL)	ug/l	
111-91-1	BIS(2-CHLOROETHOXY) METHANE	ug/l	
111-44-4	BIS(2-CHLOROETHYL) ETHER	ug/l	
108-60-1	BIS(2-CHLOROISOPROPYL) ETHER	ug/l	
117-81-7	BIS(2-ETHYLHEXYL) PHTHALATE	ug/l	
105-60-2	CAPROLACTAM	ug/l	
86-74-8	CARBAZOLE	ug/l	
218-01-9	CHRYSENE	ug/l	
53-70-3	DIBENZ(A,H)ANTHRACENE	ug/l	
132-64-9	DIBENZOFURAN	ug/l	
84-66-2	DIETHYL PHTHALATE	ug/l	
131-11-3	DIMETHYL PHTHALATE	ug/l	
84-74-2	DI-N-BUTYL PHTHALATE	ug/l	
117-84-0	DI-N-OCTYLPHTHALATE	ug/l	
206-44-0	FLUORANTHENE	ug/l	
86-73-7	FLUORENE	ug/l	
118-74-1	HEXACHLOROBENZENE	ug/l	
87-68-3	HEXACHLOROBUTADIENE	ug/l	
77-47-4	HEXACHLOROCYCLOPENTADIENE	ug/l	
67-72-1	HEXACHLOROETHANE	ug/l	
193-39-5	INDENO(1,2,3-C,D)PYRENE	ug/l	
78-59-1	ISOPHORONE	ug/l	
91-20-3	NAPHTHALENE	ug/l	
98-95-3	NITROBENZENE	ug/l	
621-64-7	N-NITROSODI-N-PROPYLAMINE	ug/l	
86-30-6	N-NITROSODIPHENYLAMINE	ug/l	
87-86-5	PENTACHLOROPHENOL	ug/l	
85-01-8	PHENANTHRENE	ug/l	
108-95-2	PHENOL	ug/l	
129-00-0	PYRENE	ug/l	

City of North Tonawanda NY1A8791 216 Payne Ave North Tonawanda, NY C/O Niagara County Refuse Site Validated Groundwater Sampling Event April 2016		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FIELDQC TB-11109668-041416-SG 480-98311-7 TALBUFF 480983111 WATER 4/14/2016 0:00 6/6/2016
CAS NO.	COMPOUND	UNITS:	
	METALS		
7429-90-5	ALUMINUM	mg/l	
7440-36-0	ANTIMONY	mg/l	
7440-38-2	ARSENIC	mg/l	
7440-39-3	BARIUM	mg/l	
7440-41-7	BERYLLIUM	mg/l	
7440-43-9	CADMIUM	mg/l	
7440-70-2	CALCIUM	mg/l	
7440-47-3	CHROMIUM, TOTAL	mg/l	
7440-48-4	COBALT	mg/l	
7440-50-8	COPPER	mg/l	
7439-89-6	IRON	mg/l	
7439-92-1	LEAD	mg/l	
7439-95-4	MAGNESIUM	mg/l	
7439-96-5	MANGANESE	mg/l	
7439-97-6	MERCURY	mg/l	
7440-02-0	NICKEL	mg/l	
7440-09-7	POTASSIUM	mg/l	
7782-49-2	SELENIUM	mg/l	
7440-22-4	SILVER	mg/l	
7440-23-5	SODIUM	mg/l	
7440-28-0	THALLIUM	mg/l	
7440-62-2	VANADIUM	mg/l	
7440-66-6	ZINC	mg/l	

APPENDIX D
WATER LEVEL RECORDS

WATER LEVEL RECORD

PROJECT NAME: *NIAGARA COUNTY REFUSE SITE*

LOCATION: Wheatfield, New York

DATE: 04/05/2016 (MM DD YY)

CREW MEMBERS: Tony Manns

Observation Well	Time of Measurement	Top of Casing Elevation A	Depth to Water B	Water Level Elevation A-B
		feet	feet	feet
EAST "A"	1630	598.93	26.81	572.12
EAST "B"	1624	596.23	Dry	596.23
EAST "C"	1607	598.69	12.85	585.84
EAST "D"	1642	593.20	16.64	576.56
NCR-3S	1548	579.60	4.85	574.75
NCR-4S	1615	577.88	4.1	573.78
NCR-5S	1546	579.34	4.4	574.94
NCR-13S	1532	577.15	5.6	571.55

WET WELLS

Wet Well	Time of Measurement	Total Flow	Depth of Water
WW A	1525		2'5"
WW B	1619		1'5"
WW C	1556		1'9"
WW D	1546		1'2"

Total System Flow	Time of Measurement
8849000	1528

Water Level Meter:NF07165

FP-3D

WATER LEVEL RECORD

PROJECT NAME: *NIAGARA COUNTY REFUSE SITE*

LOCATION: Wheatfield, New York

DATE: 04-20-16 (MM DD YY)

CREW MEMBERS: Tony Manns

Observation Well	Time of Measurement	Top of Casing Elevation A	Depth to Water B	Water Level Elevation A-B
		feet	feet	feet
EAST "A"	1545	598.93	27.90	571.03
EAST "B"	1540	596.23	Dry	596.23
EAST "C"	1521	598.69	21.20	577.49
EAST "D"	1512	593.20	16.10	577.10
NCR-3S	1500	579.60	4.22	575.38
NCR-4S	1526	577.88	3.43	574.45
NCR-5S	1450	579.34	6.55	572.79
NCR-13S	1431	577.15	4.51	572.64

WET WELLS

Wet Well	Time of Measurement	Total Flow	Depth of Water
WW A	1419		2'1"
WW B	1533		1'7"
WW C	1505		1'9"
WW D	1440		1'1"

Total System Flow	Time of Measurement
9253000	1421

Water Level Meter:NF07164

FP-3D

WATER LEVEL RECORD

PROJECT NAME: *NIAGARA COUNTY REFUSE SITE*

LOCATION: Wheatfield, New York

DATE: 05/04/16 (MM DD YY)

CREW MEMBERS: Tony Manns

Observation Well	Time of Measurement	Top of Casing Elevation A	Depth to Water B	Water Level Elevation A-B
		feet	feet	feet
EAST "A"	1030	598.93	26.40	572.53
EAST "B"	1027	596.23	Dry	596.23
EAST "C"	1023	598.69	20.90	577.79
EAST "D"	1041	593.20	16.30	576.90
NCR-3S	1002	579.60	3.61	575.99
NCR-4S	1005	577.88	2.80	575.08
NCR-5S	0955	579.34	6.35	572.99
NCR-13S	0939	577.15	5.40	571.75

WET WELLS

Wet Well	Time of Measurement	Total Flow	Depth of Water
WW A	0933		2'8"
WW B	1020		2'2"
WW C	1015		1'3"
WW D	0942		1'2"

Total System Flow	Time of Measurement
9427000	0935

Water Level Meter:NF07164

FP-3D

WATER LEVEL RECORD

PROJECT NAME: *NIAGARA COUNTY REFUSE SITE*

LOCATION: Wheatfield, New York

DATE: 06/06/16 (MM DD YY)

CREW MEMBERS: Tony Manns

Observation Well	Time of Measurement	Top of Casing Elevation A	Depth to Water B	Water Level Elevation A-B
		feet	feet	feet
EAST "A"	1112	598.93	26.79	572.14
EAST "B"	1108	596.23	Dry	596.23
EAST "C"	1057	598.69	20.52	578.17
EAST "D"	1051	593.20	17.22	575.98
NCR-3S	1047	579.60	5.92	573.68
NCR-4S	1103	577.88	4.21	573.67
NCR-5S	1040	579.34	10.14	569.20
NCR-13S	1021	577.15	7.42	569.73

WET WELLS

Wet Well	Time of Measurement	Total Flow	Depth of Water
WW A	1018		2'7"
WW B	1105		1'8"
WW C	1044		1'7"
WW D	1031		1'6"

Total System Flow	Time of Measurement
9563000	1019

Water Level Meter:NF07164

FP-3D

APPENDIX E
MONTHLY INSPECTION LOGS

MONTHLY INSPECTION LOG

PROJECT NAME: Niagara County Refuse Site

LOCATION: Wheatfield, NY

DATE: 4/27/2016
(MM DD YY)

INSPECTOR(S): Tony Manns

Item	*Inspect For*	*Action Required*	*Comments*
1 Perimeter collection System/Off-Site Forcemain			
☑ Manholes	- cover on securely	None	Good
☑	- condition of cover	None	Good
☑	- condition of inside of manhole	None	Good
☑	- flow conditions	None	Good
☑ Wet Wells	- cover on securely	None	Good
☑	- condition of cover	None	Good
☑	- condition of inside of wet well	None	Good
2 Landfill Cap			
☑ Vegetated Soil Cover	- erosion	None	None
☑	- bare areas	None	None
☑	- washouts	None	none
☑	- leachate seeps	None	None
☑	- length of vegetation	None	Good
☑	- dead/dying vegetation	None	None

FORM 1

MONTHLY INSPECTION LOG

PROJECT NAME: Niagara County Refuse Site

LOCATION: Wheatfield, NY

DATE: 4/27/2016 (MM DD YY)

INSPECTOR(S): Tony Manns

Item	*Inspect For*	*Action Required*	*Comments*
2 Landfill Cap (continued)			
☑ Access Roads	- bare areas, dead/dying veg.	None	None
☑	- erosion	None	None
☑	- potholes or puddles	None	None
☑	- obstruction	None	None
3 Wetlands (Area "F")	- dead/dying vegetation	None	None
	- change in water budg n	None	None
	- general conditions of wetlands	None	Good
4 Other Site Systems			
☑ Perimeter Fence	- integrity of fence	None	Good
☑	- integrity of gates	None	Good
☑	- integrity of locks	None	Good
☑	- placement and condition of signs	None	Good

FORM 1

MONTHLY INSPECTION LOG

PROJECT NAME: Niagara County Refuse Site

LOCATION: Wheatfield, NY

DATE: 4/27/2016 (MM DD YY)

INSPECTOR(S): Tony Manns

Item	*Inspect For*	*Action Required*	*Comments*
4 Other Site Systems (continued)			
☑ Drainage Ditches/ Swale Outlets	- sediment buildup	None	None
	- erosion	None	None
	- condition of erosion protection	None	Good
	- flow obstructions	None	None
	- dead/dying vegetation	None	None
	- cable concrete/gabion mats and riprap	None	Good
☑ Culverts	- sediment build-up	None	None
	- erosion	None	None
	- condition of erosion protection	None	Good
	- flow obstructions	None	None
☑ Gas Vents	- intact/damage	None	Intact
☑ Wells	- locks secure	None	Yes

FORM 1

MONTHLY INSPECTION LOG

PROJECT NAME: Niagara County Refuse Site

LOCATION: Wheatfield, NY

DATE: 5/24/2016
(MM DD YY)

INSPECTOR(S): Tony Manns

Item	*Inspect For*	*Action Required*	*Comments*
1 Perimeter collection System/Off-Site Forcemain			
☑ Manholes	- cover on securely	None	Good
☑	- condition of cover	None	Good
☑	- condition of inside of manhole	None	Good
☑	- flow conditions	None	Good
☑ Wet Wells	- cover on securely	None	Good
☑	- condition of cover	None	Good
☑	- condition of inside of wet well	None	Good
2 Landfill Cap			
☑ Vegetated Soil Cover	- erosion	None	None
☑	- bare areas	None	None
☑	- washouts	None	none
☑	- leachate seeps	None	None
☑	- length of vegetation	None	Good
☑	- dead/dying vegetation	None	None

FORM 1

MONTHLY INSPECTION LOG

PROJECT NAME: Niagara County Refuse Site

LOCATION: Wheatfield, NY

DATE: 5/24/2016 (MM DD YY)

INSPECTOR(S): Tony Manns

Item	*Inspect For*	*Action Required*	*Comments*
2 Landfill Cap (continued)			
☑ Access Roads	- bare areas, dead/dying veg.	None	None
☑	- erosion	None	None
☑	- potholes or puddles	None	None
☑	- obstruction	None	None
3 Wetlands (Area "F")	- dead/dying vegetation	None	None
	- change in water budg n	None	None
	- general conditions of wetlands	None	Good
4 Other Site Systems			
☑ Perimeter Fence	- integrity of fence	None	Good
☑	- integrity of gates	None	Good
☑	- integrity of locks	None	Good
☑	- placement and condition of signs	None	Good

FORM 1

MONTHLY INSPECTION LOG

PROJECT NAME: Niagara County Refuse Site

LOCATION: Wheatfield, NY

DATE: 5/24/2016 (MM DD YY)

INSPECTOR(S): Tony Manns

Item	*Inspect For*	*Action Required*	*Comments*
4 Other Site Systems (continued)			
☑ Drainage Ditches/ Swale Outlets	- sediment buildup	None	None
	- erosion	None	None
	- condition of erosion protection	None	Good
	- flow obstructions	None	None
	- dead/dying vegetation	None	None
	- cable concrete/gabion mats and riprap	None	Good
☑ Culverts	- sediment build-up	None	None
	- erosion	None	None
	- condition of erosion protection	None	Good
	- flow obstructions	None	None
☑ Gas Vents	- intact/damage	None	Intact
☑ Wells	- locks secure	None	Yes

FORM 1

MONTHLY INSPECTION LOG

PROJECT NAME: Niagara County Refuse Site

LOCATION: Wheatfield, NY

DATE: 6/28/2016
(MM DD YY)

INSPECTOR(S): Tony Manns

Item	*Inspect For*	*Action Required*	*Comments*
1	Perimeter collection System/Off-Site Forcemain		
	Manholes - cover on securely	None	Good
	Manholes - condition of cover	None	Good
	Manholes - condition of inside of manhole	None	Good
	Manholes - flow conditions	None	Good
	Wet Wells - cover on securely	None	Good
	Wet Wells - condition of cover	None	Good
	Wet Wells - condition of inside of wet well	None	Good
2	Landfill Cap		
	Vegetated Soil Cover - erosion	None	None
	Vegetated Soil Cover - bare areas	None	None
	Vegetated Soil Cover - washouts	None	none
	Vegetated Soil Cover - leachate seeps	None	None
	Vegetated Soil Cover - length of vegetation	None	Good
	Vegetated Soil Cover - dead/dying vegetation	None	None

MONTHLY INSPECTION LOG

PROJECT NAME: Niagara County Refuse Site

LOCATION: Wheatfield, NY

DATE: 6/28/2016
(MM DD YY)

INSPECTOR(S): Tony Manns

Item	*Inspect For*	*Action Required*	*Comments*
2 Landfill Cap (continued)			
☐ Access Roads	- bare areas, dead/dying veg.	None	None
☐	- erosion	None	None
☐	- potholes or puddles	None	None
☐	- obstruction	None	None
3 Wetlands (Area "F")	- dead/dying vegetation	None	None
	- change in water budg n	None	None
	- general conditions of wetlands	None	Good
4 Other Site Systems			
☐ Perimeter Fence	- integrity of fence	None	Good
☐	- integrity of gates	None	Good
☐	- integrity of locks	None	Replaced gate lock
☐	- placement and condition of signs	None	Replaced gate sign

FORM 1

MONTHLY INSPECTION LOG

PROJECT NAME: Niagara County Refuse Site

LOCATION: Wheatfield, NY

DATE: 6/28/2016 (MM DD YY)

INSPECTOR(S): Tony Manns

Item	*Inspect For*	*Action Required*	*Comments*
4 Other Site Systems (continued)			
☐ Drainage Ditches/ Swale Outlets	- sediment buildup	None	None
	- erosion	None	None
	- condition of erosion protection	None	Good
	- flow obstructions	None	None
	- dead/dying vegetation	None	Grass is in need of some rain.
	- cable concrete/gabion mats and riprap	None	Good
☐ Culverts	- sediment build-up	None	None
	- erosion	None	None
	- condition of erosion protection	None	Good
	- flow obstructions	None	None
☐ Gas Vents	- intact/damage	None	Intact
☐ Wells	- locks secure	None	Yes

APPENDIX F

MAINTENANCE RECORD LOGS

MAINTENANCE RECORD LOG

PROJECT NAME: *Niagara County Refuse Site* LOCATION: Wheatfield, New York

CREW MEMBERS: Tony Manns Britt Gebhardt

1. Date 6/7/2016
   Time 1030
   Scheduled/Unscheduled:
   Type of Maintenance Performed: Pump Maintenance on Wet Well A
2. Company Performing Maintenance GHD Services, Inc.
   Name:
   Address:
   Contact Name:
3. Methods Used:

Pulled the pump out of well

Performed Maitenance on pump.

Description of Material Removed:

Problems/Comments:

Cut frayed ends off hose.

DATE INSPECTOR INSPECTOR'S SIGNATURE

FORM 2

MAINTENANCE RECORD LOG

PROJECT NAME: *Niagara County Refuse Site* LOCATION: Wheatfield, New York

CREW MEMBERS: Tony Manns

1. Date 6/13/2016
   Time 0935
   Scheduled/Unscheduled:
   Type of Maintenance Performed: Pump Maintenance on Wet Well D
2. Company Performing Maintenance GHD Services, Inc.
   Name:
   Address:
   Contact Name:
3. Methods Used:

Pulled the pump out of well

Performed Maitenance on pump.

Description of Material Removed:

Problems/Comments:

Cut frayed ends off hose.

Replaced clamps.

DATE INSPECTOR INSPECTOR'S SIGNATURE

FORM 2

MAINTENANCE RECORD LOG

PROJECT NAME: *Niagara County Refuse Site* LOCATION: Wheatfield, New York

CREW MEMBERS: Tony Manns

1. Date 6/16/2016
   Time 1115
   Scheduled/Unscheduled:
   Type of Maintenance Performed: Pump Maintenance on Wet Well C
2. Company Performing Maintenance GHD Services, Inc.
   Name:
   Address:
   Contact Name:
3. Methods Used:

Pulled the pump out of well

Performed Maitenance on pump.

Description of Material Removed:

Problems/Comments:

Cut frayed ends off hose.

Replaced clamps.

DATE INSPECTOR INSPECTOR'S SIGNATURE

FORM 2

MAINTENANCE RECORD LOG

PROJECT NAME: *Niagara County Refuse Site* LOCATION: Wheatfield, New York

CREW MEMBERS: Tony Manns

1. Date 6/17/2016
   Time 1025
   Scheduled/Unscheduled:
   Type of Maintenance Performed: Pump Maintenance on Wet Well B
2. Company Performing Maintenance GHD Services, Inc.
   Name:
   Address:
   Contact Name:
3. Methods Used:

Pulled the pump out of well

Performed Maitenance on pump.

Description of Material Removed:

Problems/Comments:

Cut frayed ends off hose.

Replaced clamps.

DATE INSPECTOR INSPECTOR'S SIGNATURE

FORM 2

APPENDIX G

COMPACT DISK CONTAINING REPORT