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February 28, 2018

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Division of Environmental Remediation
Remedial Bureau D
625 Broadway, 12th Floor
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Subject: 2017 Annual Report, Groundwater Monitoring Program
Former IBM Facility, Owego, New York

Reference: 6NYCRR Part 373 Hazardous Waste Management Permit
No. 7-4930-00095/00005

Dear Ms. LaClair:

Attached is the 2017 Annual Report for the Groundwater Monitoring Program at the former IBM facility in Owego, New York. This report is being submitted in accordance with the facility's Part 373 Permit and Groundwater Monitoring Plan. An EDD for the data in this report is also being submitted to NYENVDATA.

Should you have any questions concerning this report, please contact me at 703-257-2582 or by email at brandon.ashby@ibm.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "B. Ashby".

Brandon Ashby, P.G., R.E.M.
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Attachment

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**2017 ANNUAL REPORT
GROUNDWATER MONITORING PROGRAM
FORMER IBM FACILITY
OWEGO, NEW YORK
6NYCRR PART 373 PERMIT No. 7-4930-00095/00005**

Prepared for:

**IBM Corporate Environmental Affairs
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February 28, 2018

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**Professional Geologist Certification
2017 Annual Report
Groundwater Monitoring Program
Former IBM Facility
Owego, New York**

**6NYCRR Part 373 Permit No. 7-4930-00095/00005
Site #754006**

February 28, 2018

As the person with primary responsibility for the performance of the geological services and activities associated with the captioned report, I certify that I have reviewed the document entitled "*2017 Annual Report, Groundwater Monitoring Program, Former IBM Facility, Owego, New York*" prepared pursuant to Modules II.H (Corrective Action Program) and III.D (Reporting Requirements for Groundwater Monitoring) of 6NYCRR Part 373 Hazardous Waste Management Permit No. 7-4930-00095/00005 dated March 30, 2010. This report is dated February 28, 2018 and was prepared for IBM Corporation by Groundwater Sciences Corporation and Groundwater Sciences, P.C.

I certify that the associated geological services and this report have been prepared under my direct supervision. To the best of my knowledge, all such information contained in this report is complete and accurate.

This report bears the seal of a professional geologist. No alterations may be made to the information contained in this report unless made in accordance with Title 8, Article 145, Section 7209 of New York State Education Law.

Signature: Charles A. Rine Date: 2-28-2018

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Table of Contents

1	INTRODUCTION	1
1.1	Regulatory Reference	1
1.2	Organization of Report	1
1.3	Background Information.....	2
1.4	Overview of Site Hydrogeology	2
2	GROUNDWATER MONITORING PROGRAM.....	4
2.1	Groundwater Extraction Wells	4
2.1.1	Summary of Significant Maintenance Activities	4
2.1.2	Pumping Volumes.....	7
2.1.3	Evaluation of Treatment Efficiency.....	7
2.2	Groundwater Monitoring Wells.....	7
2.2.1	Groundwater Elevation Measurements.....	7
2.2.2	Monitoring Well Inspections and Dedicated Equipment.....	8
2.2.3	Groundwater Sampling	8
2.2.3.1	Groundwater Chemistry Results.....	9
2.2.3.2	Volatile Organic Compounds in Groundwater	9
2.2.3.3	Quality Control Results for Environmental Blanks	12
3	EVALUATION OF HYDROGEOLOGY AND HYDROGEOCHEMISTRY	13
3.1	Groundwater Extraction.....	13
3.1.1	Northern Part of the Site	13
3.1.1.1	Parking Lot 001 Area.....	13
3.1.1.2	Tank Farm Area	14
3.1.2	Southern Part of the Site	14
3.2	Hydrogeology	14
3.2.1	Tank Farm Area	14
3.2.2	Parking Lot 001 Area.....	15
3.2.3	Southern Areas.....	16
3.2.3.1	Waste Management, Western Boundary, and Southern Boundary Areas	16
3.2.3.2	Tower View Drive and Mirror Lake Areas.....	17
3.3	Hydrogeochemistry.....	17
3.3.1	Chemicals of Concern.....	17
3.3.1.1	Chlorinated Ethanes	17
3.3.1.2	Chlorinated Ethenes	18
3.3.1.3	Other Compounds	18
3.3.1.4	Standardization of Chlorinated Ethane and Ethene Concentrations	18
3.3.2	Tank Farm Area and Parking Lot 001 Area.....	19

3.3.2.1	Alluvial Zone Chemistry.....	19
3.3.2.2	Till/Bedrock Zone Chemistry	20
3.3.3	Southern Areas.....	21
3.3.3.1	Alluvial Zone Chemistry.....	21
3.3.3.2	Till/Bedrock Zone Chemistry	22
3.3.4	Graphical and Statistical Evaluations	23
3.3.4.1	Concentration vs. Time.....	23
3.3.4.2	Statistical Tests for Trend	23
3.3.5	CVOC Mass Removal.....	27
3.3.6	Maps of Total CVOCs, 111-TCA, and TCE.....	27

Tables

Table 2-1.	Analytical Parameters for the Groundwater Monitoring Program	11
Table 3-1.	Statistical Evaluation of Trends in Water Quality (2007-2017)	26

Figures

Figure 1-1	Site Location Map
Figure 1-2	Groundwater Elevation Contour Map, Till/bedrock zone, Third and Fourth Quarters 2017
Figure 1-3	Groundwater Elevation Contour Map, Alluvium/Sand & Gravel, Third and Fourth Quarters 2017
Figure 3-1	TCA-Series Isoconcentration Contour Map, Alluvium/Sand & Gravel (Alluvial Zone), Third and Fourth Quarters 2017
Figure 3-2	TCE-Series Isoconcentration Contour Map, Alluvium/Sand & Gravel (Alluvial Zone), Third and Fourth Quarters 2017
Figure 3-3	TCA-Series Isoconcentration Contour Map, Till/Bedrock Zone, Third and Fourth Quarters 2017
Figure 3-4	TCE-Series Isoconcentration Contour Map, Till/Bedrock Zone, Third and Fourth Quarters 2017
Figure 3-5	Methylene Chloride Isoconcentration Contour Map, Till/Bedrock Zone, Fourth Quarter 2017
Figure 3-6	Total Volatile Organic Compounds, Concentration in Groundwater (ug/l), Third and Fourth Quarters 2017
Figure 3-7	1,1,1-Trichloroethane Concentration Map, Third and Fourth Quarters 2017
Figure 3-8	Trichloroethene Concentration Map, Third and Fourth Quarters 2017

Third Quarter 2017 groundwater elevations were measured on July 17, 2017 in the Waste Management Area, Southern and Western Boundary Areas, and Tower View Drive / Mirror Lake Area in the southern part of the Site.

Fourth Quarter 2017 groundwater elevations were measured on October 2, 2017 in the Tank Farm Area and Parking Lot 001 Area in the northern part of the Site.

Third Quarter 2017 groundwater sampling occurred in July 2017 in the Waste Management Area, Southern and Western Boundary Areas, and Tower View Drive / Mirror Lake Area in the southern part of the Site.

Fourth Quarter 2017 groundwater sampling occurred in October 2017 in the Tank Farm Area and Parking Lot 001 Area in the northern part of the Site.

Appendices

- Appendix A Extraction Well Pumping Volumes (Table A-1) and VOC Mass Removal Calculations (Table A-2)
- Appendix B Table B-1: Well Specifications, Corrective Action Monitoring Program
 Table B-2a: Hydraulic Effectiveness Monitoring Wells
 Table B-2b: Contaminant Reduction Monitoring Wells
- Appendix C 2017 Groundwater Elevation Data and 2017 Well Inspection Summary with Dedicated Equipment Assignments
- Appendix D 2017 Sampling Plan - Groundwater Monitoring Program
- Appendix E Chains of Custody - 2017
- Appendix F 2017 Groundwater Analytical Chemistry Data for Extraction and Monitoring Wells
- Appendix G Statistical Summary of Groundwater Chemistry Data, 1993-2017
- Appendix H 2017 Quality Control Analytical Chemistry Data for Environmental Blanks
- Appendix I Mann-Kendall Trend Test Results from ProUCL v. 5.1

Plates

- Plate 1-1 Well Location Map - Corrective Action Monitoring Program
- Plate 3-1 Time vs. Concentration Graphs for Quarterly Monitoring Wells

1 INTRODUCTION

This report has been prepared by Groundwater Sciences Corporation (GSC) for the International Business Machines Corporation (IBM). Its purpose is to satisfy the annual reporting requirements for IBM's former Owego, New York facility (the "Site"), located approximately one mile southeast of the village of Owego, New York (Figure 1-1).

1.1 Regulatory Reference

This annual report is being submitted to the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation in accordance with Modules II.H (Corrective Action Program) and III.D (Reporting Requirements for Groundwater Monitoring) of the Site's 6NYCRR Part 373 Hazardous Waste Management Permit (Part 373 Permit) No. 7-4930-00095/00005, with an effective date of March 30, 2010. Groundwater monitoring data generated from January 1 to December 31, 2017, including groundwater extraction volumes, groundwater elevations, and analytical chemistry data, is presented in this report. Groundwater monitoring data generated between January 1 and June 30, 2017 was also presented in the 2017 Semiannual Data Report previously submitted to NYSDEC on August 14, 2017. In accordance with the Module II.H.3 requirements, contaminant levels and the effectiveness of the corrective measures program are evaluated in this report.

1.2 Organization of Report

This report is organized as follows. Section 1.3 provides background on the Groundwater Monitoring Program and Section 1.4 provides an overview of the Site's hydrogeologic setting. Section 2 discusses the groundwater sampling and related data collected during 2017 for the Groundwater Monitoring Program, including extraction well pumping data and quality control (QC) analytical chemistry data. Section 3 evaluates the groundwater extraction, hydrogeology, and groundwater chemistry in various areas of the Site, including the Tank Farm Area and the Parking Lot 001 Area (P001 Area) in the northern part of the Site, and the former Waste Management Area, Tower View Drive and Mirror Lake Areas, Southern Boundary Area and Western Boundary Area in the southern part of the Site. These areas and all active monitoring and extraction wells are shown on Plate 1-1.

1.3 Background Information

IBM submitted a Resource Conservation and Recovery Act (RCRA) Post-Closure Permit Application to NYSDEC and the United States Environmental Protection Agency (USEPA) in June 1987 for the former Waste Management Area at the Site. As required by RCRA regulations, IBM established a quarterly Groundwater Monitoring Program for the Site, including the former Waste Management Area. The groundwater monitoring network and its operation, maintenance, and reporting conditions were subsequently incorporated into the Site's Part 373 Permit, which required the preparation of Groundwater Monitoring Plan (GMP). The GMP was approved by NYSDEC in March 1995 and has been revised several times in the past 23 years as extraction wells and monitoring wells have been added or removed, and the site-specific list of analytical parameters has been changed. The GMP describes the corrective action groundwater monitoring network in detail, including the groundwater treatment process, wells, sampling frequencies, analytical parameters, and semiannual and annual reporting requirements.

1.4 Overview of Site Hydrogeology

The hydrogeology of the former IBM Owego Site consists of three primary geologic zones or units: (1) bedrock, consisting of shale and siltstone of the Devonian West Falls Group; (2) unconsolidated sediments of glacial origin (till) consisting of a dense mixture of clay, silt, sand, gravel, and boulders; and (3) other unconsolidated sediments of various depositional origins, including alluvium, glaciolacustrine silt, glaciofluvial sands and gravels (outwash) and fill. The bedrock is weathered to varying degrees on its upper surface, and this zone of weathered bedrock is very thin or absent in some areas. The till and other unconsolidated sediments are discontinuous units that vary greatly in thickness and hydraulic conductivity across the Site. Where they are present, the alluvium and glaciofluvial deposits (primarily outwash sands and gravels) form the principal shallow water-transmitting unit and are referred to in this report as the alluvial zone. The upper part of the bedrock, including the interface between the weathered bedrock and the fine-grained unconsolidated sediments (including the bottom of the till) typically transmits water and is referred to in this report as the till/bedrock zone. The till typically exhibits a very low hydraulic conductivity and is not an important water-transmitting unit.

Groundwater elevation contour maps were constructed for the till/bedrock zone using July 2017 data from the southern part of the Site and October 2017 data from the northern part of the Site (Figure 1-2). Similar maps were published in the 2017 Semiannual Data Report using January and June 2017 data from the till/bedrock zone. Except where influenced by the extraction wells, groundwater flow in the till/bedrock zone is generally from northeast to southwest across the Site toward Barnes Creek, which flows into the Susquehanna River. The Susquehanna River is located approximately 800 feet southwest of the Site's southern boundary, as shown on Figure 1-1.

Groundwater elevation contour maps were also constructed for the alluvial zone using July 2017 data from the southern part of the site and October 2017 data from the northern part of the site (Figure 1-3). These maps show the discontinuous nature of the alluvial zone, where groundwater flow is strongly influenced by the extraction wells in the P001 Area and former Waste Management Area. The alluvial zone is generally absent in the Tank Farm Area and in the northern portions of the former Waste Management Area and in the Tower View Drive and Mirror Lake Areas.

2 GROUNDWATER MONITORING PROGRAM

Quarterly field activities for the groundwater monitoring program consist of groundwater elevation measurements, groundwater sampling, and well inspections. These activities were performed in accordance with the GMP by qualified field personnel from GSC.

2.1 Groundwater Extraction Wells

The Site's groundwater extraction and treatment system consists of six extraction wells and a packed-column air stripping tower designed to remove volatile organic compounds (VOCs) from groundwater. As shown on Plate 1-1, the extraction wells are located in three areas:

1. In the Tank Farm Area, extraction well 415 pumps from the till/bedrock zone.
2. In the Parking Lot 001 Area, extraction well 413 pumps from till/bedrock zone, and extraction well 414 pumps from both the alluvial and till/bedrock zones. Extraction well 416 was installed in June 2015 and began pumping from the till/bedrock zone in August 2015.
3. In the Waste Management Area, extraction well 404 pumps from both the alluvial and till/bedrock zones and extraction well 405 pumps primarily from the alluvial zone. Wells 404 and 405 have multiple screened intervals.

Except for brief periods of testing and maintenance, the system has operated continuously since April 1990. About 4.6 billion gallons of groundwater have been extracted and treated since 1985.

2.1.1 Summary of Significant Maintenance Activities

The following significant maintenance activities were performed on the groundwater monitoring wells, extraction wells, and treatment system in 2017:

1. A new submersible pump and motor were installed in well 405 on January 6.
2. Flow meters for wells 413, 414, 415 and 416 were cleaned on February 6.
3. A broken pump motor wire in well 415 was repaired on February 8.

4. Flow meters for wells 413, 414, 415 and 416 were cleaned on March 3.
5. The air stripper blower bearings and heating system at the GTF were serviced, and upgraded LED lighting was installed on March 7.
6. The submersible pump and motor in well 414 were replaced on March 17.
7. The submersible pump head in well 415 was replaced on April 5.
8. The submersible pump head and motor in well 416 were replaced on April 5.
9. Flow meters for all site extraction wells were cleaned on April 5.
10. Flow meters for wells 413, 414, 415 and 416 were cleaned on May 15.
11. The variable frequency drive and submersible water level transducer in well 404 were replaced on May 15 and 16.
12. A leaking pitless adapter seal in well 414 was repaired on June 1.
13. Piping modifications within the well 415 Hot Box enclosure were performed on June 6. The Powerhouse (Building 301) sump flow meter, instrumentation and sampling port were moved from Building 002 to the well 415 enclosure for improved operator access. The 415 flow meter and related piping were cleaned at that time and sections of the original Powerhouse sump piping were flushed and removed from Building 002.
14. The submersible pump in extraction well 415 was replaced on June 9 due to fouling of the pump with iron.
15. Flow meters for wells 413, 414, 415 and 416 were calibrated on June 20.
16. The submersible pump and motor in well 405 were replaced June 30.
17. The flow meters for wells 404 and 405 were calibrated on August 9. The groundwater treatment system totalizer meter (F003) was also calibrated at that time.

18. Routine maintenance was performed on wells 413, 414, and 416 on August 30. This work included cleaning the flow meters, jetting the discharge lines, and redeveloping and cleaning the wells by brushing and air-lifting.
19. The pump in extraction well 416 was replaced on August 30.
20. The submersible pump in well 415 was replaced and the flow meter was cleaned on August 30.
21. The GTF was shut down on September 20 and 21 to inspect the air stripper and conduct repairs on the stripping tower, blower ducts, and GTF building roof.
22. Modifications were made to the well 415 Hot Box concrete containment berm on October 11 to eliminate issues with rainwater intrusion and surface runoff from the visitor parking lot.
23. Additional repairs to the GTF stripper blower duct and building roof were performed on October 18 and 24.
24. The pump in extraction well 414 was replaced on November 8.
25. GTF was shut down from November 13 to November 15 to complete replacement of the air stripper duct work.
26. The Powerhouse sump pump in Building 301 was off several times during the weeks of November 13 and 20 for troubleshooting and piping repairs due to line blockage discovered near the sump location. The Powerhouse sump piping and 415 discharge piping and tunnel conveyance line were flushed with potable water on November 22 as part of those repair efforts.
27. The flow meters for wells 413, 414, 415 and 416 were cleaned on December 15.
28. The pump in well 416 was replaced on December 20.
29. Repairs were made on December 27 to the heating system in the GTF building.

2.1.2 Pumping Volumes

The pumping volume at each extraction well is recorded electronically. Table A-1 in Appendix A shows metered monthly pumping volumes in 2017 for the extraction wells in the Waste Management Area (wells 404 and 405), Parking Lot 001 Area (wells 412, 413, and 416) and Tank Farm Area (well 415). The volume of groundwater extracted in 2017 was 122.2 million gallons (Mgal), slightly less than the average annual flow during the previous 16 years (126.7 Mgal). This decline can be attributed, in part, to shutdowns that occurred for well maintenance activities, as described in Section 2.1.1.

2.1.3 Evaluation of Treatment Efficiency

Treatment efficiency for the groundwater treatment system was calculated by comparing concentrations of VOCs in the GTF influent with the concentrations of VOCs in the treated effluent discharged from the air stripping tower. The influent and effluent were sampled monthly in 2017 in accordance with the Site's National Pollutant Discharge Elimination System (NPDES) Permit Number NY0244597. No EPA Method 624 VOCs were detected in any of the monthly effluent samples collected in 2017, resulting in a removal efficiency of 100 percent.

2.2 Groundwater Monitoring Wells

The Site's Corrective Action Monitoring Program consists of 142 wells. Physical specifications for the monitoring and extraction wells used in 2017 are listed on Table B-1 of Appendix B.

2.2.1 Groundwater Elevation Measurements

Groundwater elevations were measured in 140 of the 142 wells listed on Table B-2a of Appendix B. (Extraction wells 404 and 405 are not accessible for manual groundwater elevation measurements.) These include 130 on-Site wells, four off-Site wells (540, 541, 542, 543) in the Route 17C interchange area south of the Southern Boundary Area, and six off-Site wells (521, 522, 524, 529, 532, 534) on the Moore Tire property located west of the P001 Area.

Groundwater elevations were calculated by subtracting the measured depth to water from the surveyed elevation of the measuring point listed in Appendix C. The designated measuring point for most wells is the top of the inner well casing (i.e., "TOC Elevation"). Groundwater elevations

were measured quarterly on February 27, June 12, July 17, and October 2, 2017. The tabulated groundwater elevation data for 2017 are presented in Appendix C. Groundwater elevation data for prior years has been published in previous annual reports and is maintained in an Access database.

2.2.2 Monitoring Well Inspections and Dedicated Equipment

In addition to the inspection performed when each monitoring well was sampled, a comprehensive annual inspection of the well field was performed during the February and June 2017 sampling events. This inspection included the following items: (1) measurement of depth to well bottom and comparison of this depth to the reference depth to determine the need for redevelopment, (2) assessment of the legibility of the well tag and visibility of the survey mark, (3) determination of whether the well standpipe needs to be painted and whether the location should be cleared of brush/weeds, (4) assessment of the condition of the well seal, and (5) description of dedicated equipment (if any) and the condition of the bailer cable.

The well inspection summary table in Appendix C also shows the type of sampling device used in each well. Polyethylene diffusion bag (PDB) sampling devices are used in many monitoring wells and significantly reduce the volume of purge water generated during groundwater sampling. The PDB samplers are typically set at the midpoint of the water column in each well.

2.2.3 Groundwater Sampling

Table B-2b of Appendix B lists the wells that are required by the GMP to be sampled and analyzed quarterly, semiannually, or annually. Other wells not listed on Table B-2b of the GMP were sampled voluntarily, including the groundwater extraction wells.

The 2017 sampling schedule for the groundwater monitoring program is summarized in Appendix D. For wells sampled semiannually, a staggered quarterly sampling arrangement was approved by NYSDEC, whereby the sampling events in the northern and southern parts of the Site are scheduled in alternating quarters so as to evenly distribute the sampling field work over the course of the year.

The quarterly sampling events for 2017 occurred on February 28 to March 3, June 12 to 15, July 17 to 20, and October 2 to 5. All groundwater samples collected during 2017 were analyzed by

Eurofins Lancaster Laboratories Environmental (NYSDOH ELAP #10670). Copies of the completed chains of custody (COCs) for 2017 are included in Appendix E of this report.

None of the wells that were scheduled to be sampled in the northern part of the Site during the first and third quarters was dry. (Well 114 in the Tank Farm Area was dry in June and October, but it is not routinely sampled). Of the wells that were scheduled to be sampled in the southern part of the Site during the first and third quarters, only well 620 in the Tower View Drive Area had insufficient water for collecting groundwater samples.

The remainder of this section discusses the analytical results for samples collected in 2017 from groundwater monitoring wells and extraction wells, and for field QA/QC samples.

2.2.3.1 Groundwater Chemistry Results

Chemistry data generated from groundwater monitoring activities is maintained in a database by GHD, Inc. (GHD). This database contains groundwater analytical chemistry and field quality control (QC) data from 1993 to the present. Analytical chemistry data generated by the laboratory is transmitted to GHD and GSC electronically. The data is periodically reviewed for outliers, new high or low concentrations, and missing data.

A summary printout of the groundwater analytical chemistry data for all samples collected in 2017 from monitoring wells and extraction wells is presented in Appendix F. This summary includes results for pH, temperature, turbidity, and specific conductance measured in the field at the time of sampling. The summary data presented in Appendix F are shown in alphanumeric ascending order by sample location, and chronologically by sample date for each location.

2.2.3.2 Volatile Organic Compounds in Groundwater

The principal chemicals detected and of concern at the Site are chlorinated ethanes and ethenes. These and other chlorinated volatile organic compounds (CVOCs) are discussed further in Section 3.3.1. Twelve CVOCs were detected in groundwater in 2017 at concentrations greater than the applicable New York State Groundwater Quality Standard (NYSGQS).

Table 2-1 lists the 16 parameters analyzed in groundwater for the Site's Groundwater Monitoring Program together with the NYSGQS for each parameter, the maximum concentration of each

parameter measured in 2017, and the monitoring well and extraction well where the maximum concentrations were detected. Dichlorodifluoromethane (Freon 12) has not been detected at concentrations greater than its NYSGQS (5 micrograms per liter (ug/L)) since 2007 and trichloromethane (chloroform) has not been detected at concentrations greater than its NYSGQS (7 ug/L) since 2008. Freon 11 has not been detected in any groundwater sample since January 2006.

Minimum, median, and maximum concentrations for the monitoring wells and extraction wells during the 25-year period from 1993 to 2017 are summarized in Appendix G.

Table 2-1. Analytical Parameters for the Groundwater Monitoring Program*			
Parameter	NYSGQS (ug/L)	Maximum Concentration Measured in a Monitoring Well in 2017	Maximum Concentration Measured in an Extraction Well in 2017
<i>Detected at a concentration greater than the NYSGQS:</i>			
1,1,1-Trichloroethane (111-TCA)	5	3,300 ug/L @ 609	1,600 ug/L @ 415
1,1-Dichloroethane (11-DCA)	5	2,000 ug/L @ 609	1,400 ug/L @ 414
1,1-Dichloroethene (11-DCE)	5	530 ug/L @ 128	1,100 ug/L @ 415
Tetrachloroethene (PCE)	5	16 ug/L @ 610	18 ug/L @ 415
Trichloroethene (TCE)	5	660 ug/L @ 612	1,600 ug/L @ 415
cis-1,2-Dichloroethene (c12-DCE)	5	460 ug/L @ 128	2,700 ug/L @ 415
Vinyl chloride	2	35 ug/L @ 378	170 ug/L @ 415
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5	420 ug/L @ 609	130 ug/L @ 415
1,2-Dichloro-1,2,2-trifluoroethane (Freon 123a)	5	47 ug/L @ 609	30 ug/L @ 414
Methylene chloride (DCM)	5	8.7 ug/L @ 612	Not detected
1,2-Dichloroethane	0.6	2.3 ug/L @ 612	2.6 ug/L @ 415
1,1,2-Trichloroethane	1	5.8 ug/L @ 128	6.5 ug/L @ 415
<i>Not detected at a concentration greater than the NYSGQS:</i>			
Dichlorodifluoromethane (Freon 12)	5	1.5 ug/L @ 382	1.2 ug/L @ 404
Chloroethane	5	3.9 ug/L @ 521	2.1 ug/L @ 416
Trichloromethane (Chloroform)	7	1.4 ug/L @ 183	1.6 ug/L @ 404
Trichlorofluoromethane (Freon 11)	5	Not detected	Not detected
*from Table 1-1 of <i>Groundwater Monitoring Plan, Former IBM Facility, Owego, New York</i> (December 2006). NYSGQS = New York State Groundwater Quality Standard (from 6 NYCRR Part 703.5, Table 1, Class GA) ug/L = micrograms per liter			

2.2.3.3 Quality Control Results for Environmental Blanks

Environmental blanks, consisting of equipment rinse blanks and trip blanks, were collected and analyzed in 2017 for quality control purposes. The analytical chemistry data for these environmental blank samples is presented in Appendix H.

Trip blanks were prepared by the laboratory for each sampling round using analyte-free deionized (DI) water for each cooler containing samples for CVOC analysis. The purpose of the trip blanks is to detect contamination encountered or generated during sample transportation or storage. A trip blank was the first item placed into each cooler by the laboratory and accompanied the sample containers from the laboratory to the field sampling locations and back to the laboratory. Sixteen trip blanks were collected in 2017 and the analytical results for these trip blanks are presented in Appendix H. Groundwater samples associated with each trip blank can be determined by noting the “Sample Date” of the trip blank in Appendix H and cross-checking this date with the trip blanks listed on the COCs in Appendix E. All trip blank labels begin with the letters “OTB” in the “Sample Identification” section of the COC.

Equipment rinse blanks were collected to confirm the efficiency of decontamination procedures by rinsing non-dedicated equipment such as water level indicators with analyte-free deionized water and catching the rinse water in sample bottles for analysis. Sixteen equipment rinse blanks were collected in 2017 from water level indicators and the analytical results for these blanks are presented in Appendix H.

Seven CVOCs on the Site’s parameter list (Table 2-1) were detected in environmental blanks in 2017. Six of these CVOCs were detected at estimated concentrations (“J” qualified) greater than or equal to the method detection limit (0.1 ug/L) but equal to or less than the limit of quantitation (0.5 ug/L). TCE was detected at concentrations of 0.7 to 1.8 ug/L in eight equipment rinse blanks collected in 2017 from water level indicators; these detections may be traced to the space where the DI rinse water was being stored. In addition to changing the storage location of the DI water, water level indicators will continue to be thoroughly cleaned with an Alconox solution followed by a DI water rinse before collecting equipment rinse blanks. None of the groundwater analytical chemistry results from monitoring wells required qualification based on the detections of CVOCs in environmental blanks.

3 EVALUATION OF HYDROGEOLOGY AND HYDROGEOCHEMISTRY

This section evaluates the groundwater monitoring data collected during 2017. Current data are presented in the form of potentiometric and isoconcentration contour maps and are also evaluated in the context of historical trends. As required by the Site's Part 373 Permit, this evaluation includes a delineation of the limits of hydraulic control in areas with sufficient data for such delineation.

3.1 Groundwater Extraction

As noted in Section 2.1.2, Table A-1 of Appendix A contains a table of volumes pumped in 2017 from the Site's groundwater extraction wells. Details of this pumping data are discussed below.

3.1.1 Northern Part of the Site

Hydraulic control and contaminant removal in the northern part of the Site is accomplished by the operation extraction wells in the Tank Farm Area and P001 Area.

3.1.1.1 Parking Lot 001 Area

Plate 1-1 and Figure 1-2 show the locations of the three extraction wells (413, 414, and 416) in the P001 Area. The monthly flow from each of these wells is shown on Table A-1 of Appendix A. The combined monthly flow from the P001 extraction wells in 2017 ranged from 222,000 to 458,000 gallons.

Well 416 pumped approximately 160,000 gallons in 2017 at an average rate of 0.3 gallons per minute (gpm). With an average total CVOC concentration of 1,533 ug/L from quarterly samples, pumping from well 416 removed an estimated two pounds of CVOCs in 2017.

Extraction wells 413 and 414 were pumped at monthly average rates of 5.0 gpm and 2.0 gpm, respectively, in 2017. However, the higher total CVOC concentrations from the combined alluvial and till/bedrock zones at well 414 (maximum 2,476 ug/L) relative to total CVOC concentrations from the till/bedrock zone at well 413 (maximum 223 ug/L) resulted in well 414 removing three times more mass in 2017, estimated at 17 pounds for well 414 versus 5 pounds for well 413 (based on quarterly sampling data).

3.1.1.2 Tank Farm Area

Tank Farm Area extraction well 415 (Figure 1-2) pumped from the till/bedrock zone at an average rate of approximately 0.8 gpm in 2017. Compared to the other extraction wells at the Site, the volume extracted from well 415 is low and accounted for about 0.3% of groundwater extraction in 2017. However, the concentration of total CVOCs in well 415 was high (ranging from 5,600 to 8,400 ug/L) relative to all of the other extraction wells and, consequently, the total CVOC mass recovered by well 415 (about 25 pounds in 2017) was comparable to the combined CVOC mass recovered by the three P001 Area extraction wells.

3.1.2 Southern Part of the Site

Wells 404 and 405 extract groundwater in the southern part of the Site (Figure 1-3) and accounted for more than 96% of the groundwater volume pumped in 2017. The monthly flow from each of these wells is shown on Table A-1 of Appendix A and the combined monthly flow ranged from 7.4 to 10.7 Mgal in 2017 with an average pumping rate of nearly 225 gpm for the year.

3.2 Hydrogeology

As explained in Section 1.2 and shown on Plate 1-1, the Tank Farm Area is located in the northeastern part of the Site and the P001 Area is located in the northwestern part of the Site. The former Waste Management Area, Tower View Drive and Mirror Lake Areas, Western Boundary Area, and Southern Boundary Area are all located in the southern part of the Site. The hydrogeology of the northern and southern parts of the Site is discussed separately in the following sections.

3.2.1 Tank Farm Area

The geologic units in the Tank Farm Area consist primarily of till overlying bedrock, with some localized areas of fill. The monitoring wells in this area are screened in the fill, till, till/bedrock zone, or shallow bedrock. The shallow water-bearing “alluvial zone” unit present to the west of the Tank Farm Area appears to be absent in the Tank Farm Area. As a result, the till/bedrock zone is the most important water-transmitting unit in the Tank Farm Area and extraction well 415 is screened in that unit.

The groundwater flow divide shown on Figure 1-2 for the till/bedrock zone in the Parking Lot 001 and Tank Farm Areas on October 2, 2017 delineates the area where groundwater is captured by extraction well 415. Outside this area of capture, the direction of groundwater flow in the till/bedrock zone is generally to the west toward the P001 Area and to the southwest toward the Tower View Drive and Mirror Lake Areas.

3.2.2 Parking Lot 001 Area

The P001 Area is underlain by a bedrock valley originating as a closed depression in the bedrock surface with its deepest point situated between till/bedrock zone wells 393 and 395 (Figure 1-2). Subsurface investigations in the early 1990s determined that the buried bedrock valley extends westward from this depression, passing through a narrow throat at bedrock well 378 on Lakeview Parkway, and opening up off-Site to the southwest of well 378 beneath the Moore Tire property. This bedrock valley was confirmed by seismic refraction conducted during geophysical investigations in November 2017. In the P001 Area, this bedrock valley contains four hydrogeological units, from lowermost to uppermost: (1) weathered bedrock, (2) till, (3) sand, silt, and gravel, and (4) fill, which is more than 20 feet thick in some places. The primary water-bearing units in the P001 Area are the till/bedrock zone (straddling units 1 and 2) and the alluvial zone (unit 3).

Detailed groundwater elevation contour maps have been constructed semiannually since 1993 for both the till/bedrock zone and the alluvial zone in the P001 Area. Figure 1-2 shows the groundwater elevation contours for the till/bedrock zone in the P001 Area constructed from groundwater elevation data collected on October 2, 2017. The generalized direction of groundwater flow in the till/bedrock zone is indicated by the flow arrows on this map, and the hydraulic influence of P001 Area extraction wells 413 and 414 in the till/bedrock zone is apparent. Figure 1-2 also shows a groundwater flow divide in the vicinity of Lake View Parkway. On the eastern side of this flow divide, groundwater flow in the till/bedrock zone is captured by the P001 Area extraction wells. On the western side of the divide, groundwater flows to the southwest across the Moore Tire property and back onto the Site in the northern part of the former Waste Management Area.

The location of this groundwater flow divide in the till/bedrock zone fluctuates in response to variability in pumping rates of the P001 Area extraction wells. During periods of reduced pumping,

the flow divide lies farther east of the property line between the Site and the Moore Tire and Owego Bowl properties, and closer to the P001 Area extraction wells.

Figure 1-3 shows the groundwater elevation contours for the alluvial zone in the P001 Area on October 2, 2017. Extraction well 414 is the only well influencing groundwater flow in the alluvial zone in the P001 Area. The groundwater flow divide in the alluvial zone during the fourth quarter of 2017 was situated near or west of Lake View Parkway. Groundwater in the alluvial zone east of the flow divide is captured by extraction well 414. Groundwater in the alluvial zone west of the flow divide flows to the southwest through a zone of coarse alluvium extending across the center of the Moore Tire property and back onto the Site north of Building 352.

3.2.3 Southern Areas

Weathered bedrock and till overlie competent bedrock in the southern part of the Site. In the southern and central portions of the southern part of the Site, the till is overlain by relatively permeable outwash sand and gravel and, in some areas, by low-permeability glaciolacustrine silt. The entire area is covered by a surficial layer of post-glacial alluvium. This surficial alluvium is different from the deeper “alluvial zone” discussed elsewhere in this report.

3.2.3.1 Waste Management, Western Boundary, and Southern Boundary Areas

As shown on Figure 1-2, groundwater flow in the till/bedrock zone in the northern part of the former Waste Management Area is to the south and southwest toward extraction well 404. Flow in the till/bedrock zone of the Southern Boundary Area is generally to the northeast and north toward extraction well 404. The limit of groundwater capture by extraction well 404 in the till/bedrock zone may extend off-Site to the south of the railroad tracks, although there are no off-Site wells screened in the till/bedrock zone in that area.

An alluvial zone consisting primarily of sand and gravel overlies the till in the Southern Boundary Area. As shown on Figure 1-3, horizontal gradients in the alluvial zone of the Southern Boundary Area are very low (less than 0.01) in the vicinity of the railroad tracks. These low gradients are indicated by groundwater elevations ranging from 798.20 feet to 798.79 feet over an area of several acres at wells 101, 323, 319, 322, 318, 625 and 356. The southern limit of capture by extraction

wells 404 and 405 in the alluvial zone is indicated by the groundwater flow divide located north of wells 101 and 323, and running through well 627 on Figure 1-3.

3.2.3.2 Tower View Drive and Mirror Lake Areas

The direction of groundwater flow in the till/bedrock zone in the Tower View Drive and Mirror Lake Areas of the Site on July 17, 2017 is shown by the flow arrows on Figure 1-2. In these areas, groundwater generally flows to the southwest toward extraction well 404 in the former Waste Management Area. Groundwater flow in the limited alluvial zone through the Tower View Drive Area (Figure 1-3) also is generally to the southwest toward extraction well 404 and extraction well 405, which pumps primarily from sand and gravel in the alluvial zone.

3.3 Hydrogeochemistry

This section presents an analysis of the chemical concentration data collected in 2017, including an assessment of trends at specific locations.

3.3.1 Chemicals of Concern

As noted in Section 2.2.3.1.1, the chemicals of concern at the Site include chlorinated ethanes, chlorinated ethenes, and several other CVOCs.

3.3.1.1 Chlorinated Ethanes

The chlorinated ethanes present in groundwater at the Site are 1,1,1-trichloroethane (111-TCA), 1,1-dichloroethane (11-DCA), and chloroethane. 111-TCA is a primary solvent that was used in many industrial applications. 111-TCA degrades to 11-DCA anaerobically by biologically-mediated reductive dechlorination under methanogenic conditions. 111-TCA also degrades to 1,1-dichloroethene (11-DCE, an ethene) by dehydrohalogenation, which is an abiotic elimination reaction common in groundwater. Under conditions favorable to sequential reductive dechlorination, 11-DCE may degrade further to chloroethene (vinyl chloride, VC) and 11-DCA may degrade to chloroethane (CEA). Biodegradation of 11-DCE to VC requires sulfate-reducing or methanogenic (i.e., anaerobic) conditions that may exist in some areas of the Site. An alternative source of 11-DCA in groundwater is as an impurity in the manufacture of 111-TCA, where 11-DCA was used as an intermediate, rather than from degradation of 111-TCA.

3.3.1.2 Chlorinated Ethenes

The chlorinated ethenes present in groundwater at the Site are trichloroethene (TCE), cis-1,2-dichloroethene (c12-DCE), 11-DCE, and VC. Like 111-TCA, TCE is a primary solvent that was used in various industrial applications. TCE degrades preferentially to c12-DCE or to trans-1,2-dichloroethene under conditions favorable to biologically-mediated reductive dechlorination. As noted in Section 3.3.1.1, 11-DCE (an ethene) is created by abiotic dehydrohalogenation of 111-TCA (an ethane). VC is created by sequential reductive dechlorination of both c12-DCE and 11-DCE.

3.3.1.3 Other Compounds

Other compounds present in groundwater at the Site include methylene chloride (dichloromethane, DCM), Freon 113 (1,1,2-trichloro-1,2,2-trifluoroethane), and Freon 123a (1,2-dichloro-1,2,2-trifluoroethane), which is created by the reductive dechlorination of Freon 113 in groundwater. In 2017, Freon 113 and Freon 123a were detected in limited areas of both the alluvial and till/bedrock zones with the highest concentrations in the till/bedrock zone at monitoring well 609 in the central part of the P001 Area and at extraction well 415 in the Tank Farm Area as listed on Table 2-1.

In the case of methylene chloride, which degrades both aerobically and anaerobically and is rarely transported beyond the immediate vicinity of a source zone, its distribution is limited to a few wells in the Tank Farm Area and P001 Area.

3.3.1.4 Standardization of Chlorinated Ethane and Ethene Concentrations

As noted above, degradation of 111-TCA and TCE, the principal groundwater contaminants at the Site, can occur biotically or abiotically under either aerobic or anaerobic conditions. Due to the complexity of possible degradation pathways and rates, characterizing the spatial and temporal changes in concentrations of chlorinated ethanes and ethenes can be difficult if one only examines the individual chemical species (i.e., 111-TCA, 11-DCA, 11-DCE, TCE, c12-DCE, VC, etc.). Therefore, rather than preparing separate isoconcentration contour maps and concentration vs. time trend graphs for each chemical species, this report presents chemical concentration maps showing a standardized sum of specific related CVOC concentrations adjusted to account for the loss of chlorine ions via mechanisms such as anaerobic biodegradation and abiotic dehydrogenation. As

explained below, this standardization procedure was performed by expressing the concentrations of CVOCs related through chemical degradation in terms of the parent chemicals 111-TCA and TCE.

The standardized TCA-series concentration was calculated by multiplying concentrations of 11-DCA, 11-DCE, and chloroethane by the ratio of the molecular weight of 111-TCA to the molecular weight of each degradation product, and then summing the products. In this way, all of the dissolved concentrations of 111-TCA, 11-DCA, 11-DCE, and chloroethane in groundwater for a particular sample were expressed as a total TCA-series concentration, thereby approximating the concentration of 111-TCA which theoretically could have been measured if 111-TCA had not been degraded. (Note: Although 11-DCE is an ethene compound, it was included in the TCA-series group of CVOCs because its source at the Site is believed to be primarily from degradation of 111-TCA, an ethane compound).

The same procedure was performed for the ethene compounds such that TCE, c12-DCE, and vinyl chloride concentrations were expressed as a total TCE-series concentration.

The formulas for calculating these series concentrations are shown on Figures 3-1 through 3-4, which are sets of isoconcentration contour maps for these standardized TCA-series and TCE-series parameters. The isoconcentration contour limits shown on these maps are based on the NYSGQS, which is 5 ug/L for all of the TCA-series and TCE-series parameters except vinyl chloride, for which the NYSGQS is 2 ug/L. The isoconcentration contour intervals are 5, 50, 500, and 5000 ug/L, in keeping with the order-of-magnitude convention for showing concentrations of CVOC plumes in plan view.

3.3.2 Tank Farm Area and Parking Lot 001 Area

The following discussion focuses on the groundwater chemistry of the alluvial and till/bedrock zones in the Tank Farm Area and Parking Lot 001 Area in the northern part of the Site.

3.3.2.1 Alluvial Zone Chemistry

Figures 3-1 and 3-2 are isoconcentration contour maps showing the distribution of TCA- and TCE-series parameters in the alluvial zone, which includes sand and gravel units of glacial origin, as well as the geologically-more recent alluvium. These figures do not show isoconcentration contours east

of the P001 Area and in the Tank Farm Area because the alluvial zone is generally absent or not well-defined in those areas. (As noted in Section 3.2.1, fill and till lie directly on top of bedrock in most of the Tank Farm Area.) Figures 3-1 and 3-2 show plumes of both TCA- and TCE-series parameters centered on an area of concentrations historically greater than 1,000 ug/L, but now less than 500 ug/L in the vicinity of wells 325 and 613. These same constituents also are present in on-Site wells 398, 602, 603, and 608 in the extreme western portion of the P001 Area north of Building 352 and southwest of the Moore Tire property. East of the groundwater flow divide shown on Figures 3-1 and 3-2, the TCA- and TCE-series plumes are captured by P001 Area extraction well 414. The groundwater flow divides on Figures 3-1 and 3-2 are the same as the divides shown on the groundwater elevation contour map for the alluvial zone (Figure 1-3).

3.3.2.2 Till/Bedrock Zone Chemistry

Figures 3-3 and 3-4 are isoconcentration contour maps showing the distribution of TCA- and TCE-series parameters in the till/bedrock zone. These figures show TCA-series and TCE-series plumes in the northern part of the Site extending from the Tank Farm Area source westward toward the P001 Area extraction wells and across Lakeview Parkway onto the Moore Tire property west of the P001 Area extraction wells. Plume concentrations greater than 500 ug/L in the Tank Farm Area are captured by extraction well 415. P001 Area extraction wells 413, 414, and 416 intercept groundwater plumes in the till/bedrock zone between the extraction well 415 capture zone and the western groundwater flow divide near Lake View Parkway. These flow divides are identical to those shown on the groundwater elevation contour map for the till/bedrock zone (Figure 1-2).

The off-Site portion of the plume west of the P001 Area and near Moore Tire is not being effectively captured by on-site groundwater extraction from the till/bedrock zone. Concentration trends for contaminants of concern in this area have been flat or increasing in recent years. Beginning in late 2017, IBM began assessing options to address the off-Site portion of this plume, including supplementing, enhancing, and/or replacing the existing groundwater extraction wells in the P001 Area, and evaluating the feasibility of *in situ* remedial alternatives in the Tank Farm source area. These activities will continue in 2018 and the findings of the preliminary remedial assessment will be provided to NYSDEC for comment prior to further assessment or implementation of remedial measures.

Figure 3-5 shows the distribution of methylene chloride in October 2017 in the till/bedrock zone. Methylene chloride was detected in only a few wells shown on Figure 3-5. The maximum concentration of methylene chloride detected in 2017 was 8.7 ug/L at monitoring well 612 and the small methylene chloride plume that remains appears to be captured by extraction well 414, where methylene chloride was not detected.

3.3.3 Southern Areas

The following discussion focuses on the groundwater chemistry of the alluvial and till/bedrock zones in the southern part of the Site, including the former Waste Management Area, Southern Boundary and Western Boundary Areas, Tower View Drive and Mirror Lake Area. Methylene chloride was not detected in the southern part of the Site and therefore was not contoured separately.

3.3.3.1 Alluvial Zone Chemistry

Figures 3-1 and 3-2 are isoconcentration contour maps showing the distribution of TCA- and TCE-series parameters in July 2017 in the alluvial zone of the former Waste Management Area, Southern Boundary and Western Boundary Areas. East of these areas, Figures 3-1 and 3-2 show the distribution of TCA- and TCE-series parameters in July 2017 in the alluvial zone of the Tower View Drive and Mirror Lake Areas.

Figure 3-1 shows a TCA-series plume in the central part of the former Waste Management Area where several surface impoundments for treating manufacturing process wastes were located. (These surface impoundments were removed in the late 1980s.) TCA-series parameters were also detected at monitoring wells 101, 318, 319, 323, 625, and 627 in the Southern Boundary Area. However, TCA-series parameters were not detected farther south in off-Site wells 540, 541, and 542 in July 2017.

Figure 3-2 shows a TCE-series plume in the central part of the former Waste Management Area where the surface impoundments were located. In contrast to the TCA-series plume, Figure 3-2 shows a plume with TCE-series concentrations ranging from 1.2 ug/L at well 101 to 110 ug/L at well 318 in the Southern Boundary Area. The northern part of this plume is captured by extraction well 404. Unlike the TCA-series plume, TCE-series parameters were detected off-Site in the

alluvial zone, south of the Southern Boundary Area in the Route 17C interchange, where concentrations of CVOCs greater than 1 ug/L but less than the NYSGQS were detected at wells 541, 542, and 543 in July 2017, as shown on Figure 3-2.

Figure 3-1 shows a TCA-series plume with the highest concentrations in the central Tower View Drive and Mirror Lake Areas. TCA-series concentrations at well 621 (200 ug/L, Figure 3-1) on the north side of Tower View Drive and at well 623 on Lake View Parkway (74 ug/L, Figure 3-1), together with groundwater flow directions shown on Figure 1-3, suggest that this plume is captured by extraction wells 404 and 405 in the former Waste Management Area. The southern limit of the TCA-series plume in the Tower View Drive and Mirror Lake Areas lies north of shallow monitoring well 374 on the north side of Mirror Lake (Figure 3-1), where concentrations are typically at or below the limits of detection (0.1 ug/L for individual CVOC species). Well 374 monitors a shallow alluvial unit that is different from the alluvial zone outwash unit monitored by other wells in the southern part of the Site.

Detections of TCE-series constituents in the Tower View Drive and Mirror Lake Areas were limited to two wells, as shown on Figure 3-2: well 309 (9.8 ug/L) which monitors the lower part of the till, and well 621 (2.2 ug/L), which is screened in the alluvial zone. These detections are insufficient for interpolating or inferring a connection to the TCE-series plumes in the former Waste Management Area (Figure 3-2).

3.3.3.2 Till/Bedrock Zone Chemistry

Figures 3-3 and 3-4 show the TCA- and TCE-series isoconcentration contours for the till/bedrock zone in the southern areas. With regard to the distribution of TCA-series parameters in the southern part of the Site, Figure 3-3 shows two apparent plume source areas: (1) off-Site west of Barnes Creek near wells 160 and 162, and (2) on-Site in the northern part of the former Waste Management Area near well 148 east of Building 352 and northeast of Buildings 350/351 (designated “Old WTP” on the maps). The source of the off-Site plume west of Barnes Creek is the former Robintech/Compudyne site at 1200 Taylor Road (NYSDEC Site Code 754007), now owned by Sanmina-SCI. The presence of 111-TCA, TCE and their degradation products at the Sanmina-SCI site is unrelated to the former IBM Owego site and has been attributed to a former chemical storage area located beneath a portion of Sanmina-SCI’s main manufacturing building. A third apparent

source area lies on-Site to the east in the Tower View Drive and Mirror Lake Areas. Figure 3-3 shows this apparent source area near the southern end of Building 002. The TCA-series plumes in the Tower View Drive and Mirror Lake Areas, and in the former Waste Management Area merge south of the Old WTP, and are ultimately captured by extraction well 404 (Figure 3-3).

The TCE-series isoconcentration contour map for the till/bedrock zone in the western part of the southern areas is shown on Figure 3-4. Consistent with the map showing the distribution of TCA-series parameters (Figure 3-3), Figure 3-4 shows a plume with concentrations greater than 100 ug/L being drawn onto the Site from the west at monitoring wells 160 and 162 and a plume centered on the Old WTP. Detections of TCE-series parameters in the Southern Boundary Area south of extraction well 404 were less than the NYSGQS in 2017. Detections of TCE-series parameters in the Tower View Drive and Mirror Lake Areas (Figure 3-4) were also less than the NYSGQS, except at well 619 between Buildings 101 and 201, which is the same apparent source area as the TCA-series plume shown on Figure 3-3 for the till/bedrock zone.

3.3.4 Graphical and Statistical Evaluations

In addition to evaluating the maximum concentrations of individual CVOCs in groundwater relative to groundwater standards (Table 2-1), trends in the concentration of CVOCs in groundwater were evaluated graphically using plots of concentration vs. time, and statistically, using non-parametric tests.

3.3.4.1 Concentration vs. Time

Graphs of TCA- and TCE-series concentrations versus time for key monitoring and extraction wells for the years 2000 through 2017 are shown on Plate 3-1. The monitoring wells are located near the boundaries of the Site in the P001 Area, Tank Farm Area, Southern Boundary Area, former Waste Management Area, and off-Site in the Moore Tire Area. They represent wells that are sampled quarterly in accordance with the sampling plan presented in Appendix D.

3.3.4.2 Statistical Tests for Trend

Concentration trends in many of the wells shown on Plate 3-1 are apparent by inspection of the concentration vs. time graphs. To determine whether the observed graphical trends in chemical

concentrations over time are statistically significant, groundwater analytical chemistry data was evaluated using a non-parametric statistical test, as specified in Section 7.3.3 of the Groundwater Monitoring Plan. This statistical test for trend, the Mann-Kendall test, is based on the concept that a lack of trend should correspond to a time-series plot fluctuating randomly about a constant mean level, without a visually apparent upward or downward pattern. If an increasing trend really exists, then the sample taken first from any randomly selected pair of measurements should have a lower concentration, on average, than the measurement collected at a later time. The Mann-Kendall test does not require that the data be normally distributed and is valid even where data are missing, tied, or censored at the reporting limit (e.g., “not detected at limit X”).

ProUCL version 5.1, a statistical software package, was used to identify statistically significant trends at a significance level of $\alpha = 0.05$, which corresponds to a confidence limit of 95%. ProUCL was created for USEPA to address statistical issues described in various CERCLA and RCRA guidance documents. The period used for trend analysis was 10 years (as many as 40 quarterly samples) from January 2008 to October 2017. This period was chosen because a change in analytical laboratory occurred at the beginning of 2008 and the reporting limit in undiluted samples was lowered to 0.5 ug/L.

The test results for concentration trends at 19 wells are summarized on Table 3-1 and the ProUCL output is shown in Appendix I. The TCA-series and TCE-series trends were tested separately for each well. As shown on Table 3-1, the concentration trend in 16 of the 38 tests is indeterminate, meaning that a statistically increasing or decreasing trend could not be confirmed.

In the P001 Area, concentrations of TCE-series parameters are increasing over the 10-year test period at till/bedrock zone monitoring well 393 near Lake View Parkway and at extraction wells 413 and 414. The concentration trend for TCA-series parameters at well 393 is also increasing over the same period.

In the Tank Farm Area, concentrations of both TCA-series and TCE-series parameters are decreasing at extraction well 415 (based on nearly nine years of data since the well began pumping in March 2009).

In the off-Site Moore Tire Area, concentrations of TCA- and TCE-series parameters are indeterminate at alluvial zone monitoring wells 529, 532, and 534, and are increasing at till/bedrock zone monitoring well 522. Since most of the detections at wells 529 and 534 are less than 1 ug/L, and there are many non-detects, the results reported by the Mann-Kendall test are not meaningful for assessing concentration trends in these wells.

In the Southern Boundary Area, concentrations of both TCA- and TCE-series parameters in the alluvial zone are decreasing at monitoring wells 625 and 322 near the Site's southern property boundary; these trends are easily confirmed by inspection of the corresponding concentration vs. time graphs on Plate 3-1. The TCA-series trend at well 319 is also decreasing. At well 323 farther to the north, concentrations of TCA-series and TCE-series parameters are indeterminate over the 10-year test period, and there appears to be significant seasonal variation in concentration. North of well 625, concentrations of TCE-series parameters are increasing at well 318. Concentrations of TCE-series parameters are also increasing at well 319.

In the Waste Management Area, the long-term trend in both TCA-series and TCE-series concentrations is decreasing at extraction well 404, which pumps from both the alluvial zone and from the till/bedrock zone. These trends are apparent by inspection. The graphical concentration trends at alluvial zone extraction well 405 (Plate 3-1) are statistically confirmed to be decreasing for TCE-series parameters and indeterminate for TCA-series parameters.

**Table 3-1. Statistical Evaluation of Trends in Water Quality
at Quarterly Monitoring Wells (2008-2017)**

Site Area	Well	TCA-Series Trend	TCE-Series Trend	Hydrogeologic Zone Monitored
P001 Area (Monitoring)	393	Increasing	Increasing	Till/Bedrock
	399	None**	None**	Alluvial
	606	Decreasing	Decreasing	Alluvial
	607	None	Decreasing	Till/Bedrock
P001 Area (Extraction)	413	None	Increasing	Till/Bedrock
	414	Decreasing	Increasing	Alluvial & Till/Bedrock
	416^	None	None	Till/Bedrock
Tank Farm Area (Extraction)	415*	Decreasing	Decreasing	Till/Bedrock
Moore Tire Area (Off-Site Monitoring)	522	Increasing	Increasing	Till/Bedrock
	529	None**	None**	Alluvial
	532	None	None**	Alluvial
	534	None**	None**	Alluvial
Southern Boundary Area (Monitoring)	318	None	Increasing	Alluvial
	319	Decreasing	Increasing	Alluvial
	322	Decreasing	Decreasing	Alluvial
	323	None	None	Alluvial
	625	Decreasing	Decreasing	Alluvial
Waste Management Area (Extraction)	404	Decreasing	Decreasing	Alluvial & Till/Bedrock
	405	None	Decreasing	Alluvial

The Mann-Kendall test was used to evaluate concentration trends at a significance level of $\alpha = 0.05$.

"None" means that the concentration trend is indeterminate.

^ Nine quarters of data was available for extraction well 416, which replaced extraction well 412 in mid-2015.

* Nearly nine years of data (35 quarters) from 2009-2017 was available for extraction well 415.

** The Mann-Kendall test result is not meaningful because most detections are less than 1 ug/L and there are many non-detects relative to the number of detections.

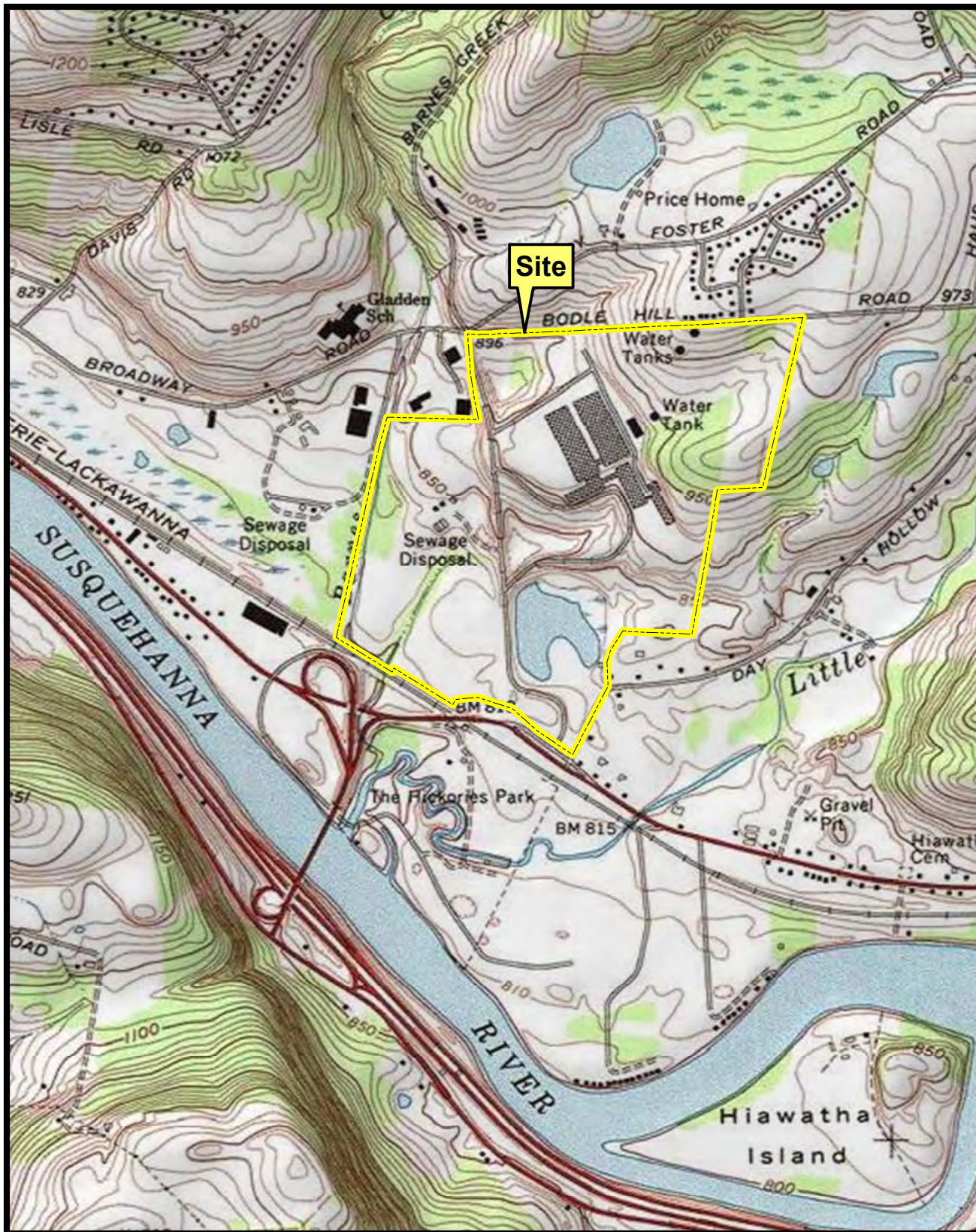
3.3.5 CVOC Mass Removal

Table A-2 in Appendix A shows the dissolved mass of CVOCs pumped by the groundwater extraction wells during 2017 and subsequently removed via the Site's packed-column air stripping tower. The total CVOC mass was calculated by multiplying the monthly GTF influent concentration from NPDES compliance sampling by the monthly volume of groundwater pumped through the air stripping tower. [Note: The volume pumped through the air stripper (129.5 Mgal) differs slightly (by about 5%) from the total volume pumped from the extraction wells (122.7 Mgal) due to metering differences.] Based on these calculations, the total CVOC mass removed from groundwater in 2017 was 327 pounds, and the cumulative total CVOC mass removed since 1998 is 7,155 pounds.

3.3.6 Maps of Total CVOCs, 111-TCA, and TCE

As required by the GMP, Figure 3-6 shows the total concentration in groundwater of CVOCs on the Site's parameter list for each well, as specified on Table 1-1 of the GMP and Module II, Table II-3 of the Part 373 Permit. The map shows results for wells in northern areas that were sampled during the fourth quarter of 2017 and for wells in southern areas that were sampled during the third quarter of 2017. The total CVOC value posted at each well has been rounded to two significant figures (or to one significant figure if less than 1 ug/L).

As required by the GMP, Figures 3-7 and 3-8 show the distribution of 111-TCA and TCE, respectively, and not the sum of their transformation series component CVOCs. The approximate boundaries of both the alluvial and till/bedrock zone plumes at a limit of the NYSGQS (5 ug/L) are not shown on these maps. However, these boundaries would be similar to the plume limits shown on the TCA- and TCE-series isoconcentration maps (Figures 3-1 through 3-4) because 111-TCA and TCE are significant contributors to the total CVOC concentration at most of the monitoring wells.



Portion of the Apalachin, NY
 USGS 7.5-Minute Quadrangle
 Copyright © 2013 National Geographic Society, i-cubed

Figure 1-1



Site Location Map



Scale (feet)
 0 500 1,000 2,000

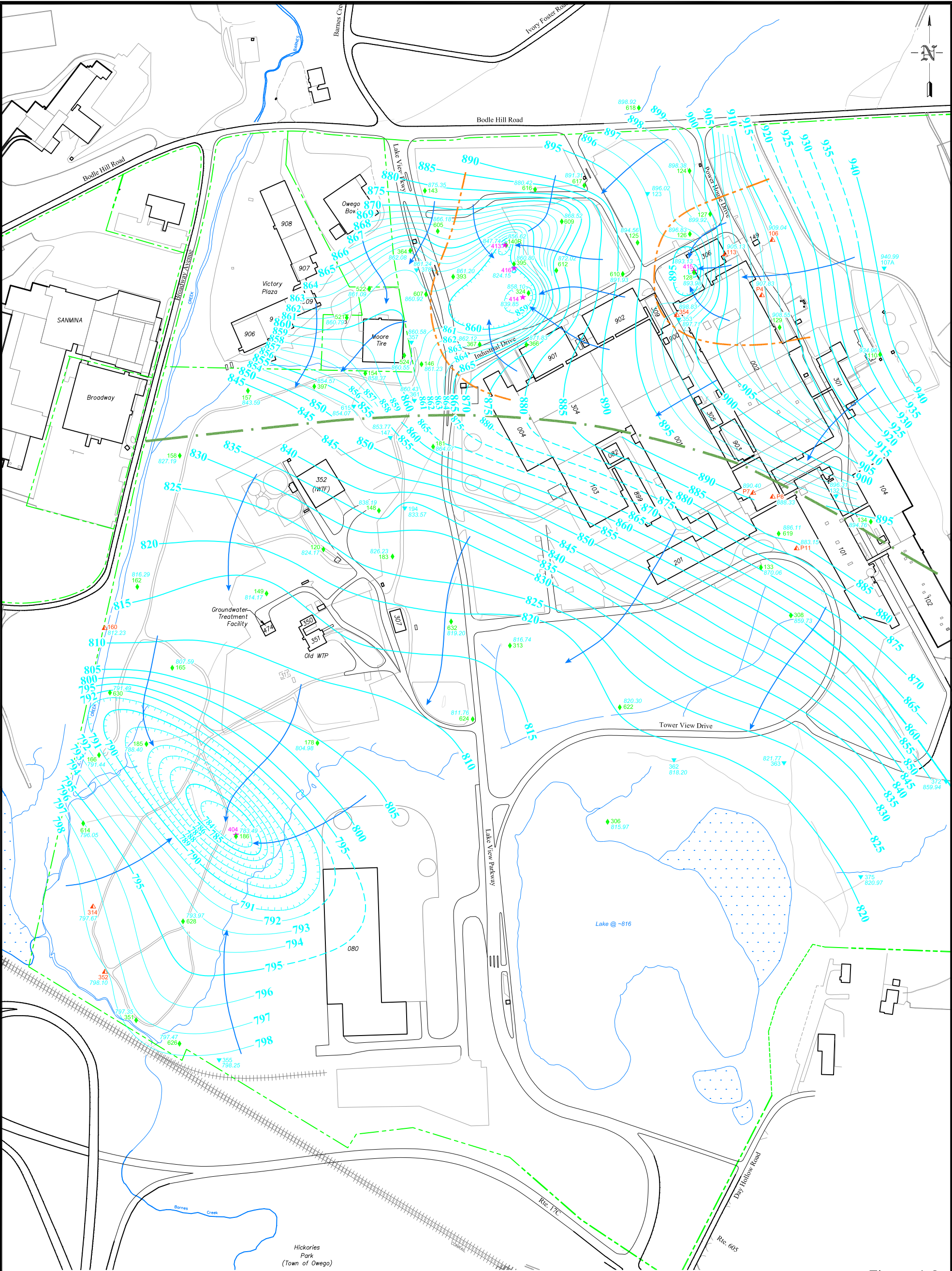


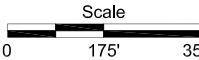
Figure 1-2

LEGEND

- ▼ - Bedrock monitoring well
- ▲ - Till monitoring well
- ◆ - Till/Bedrock zone monitoring well
- ★ - Extraction well
- - - Property Line
- Wetland
- - Direction of Groundwater Flow
- 798.25 - Groundwater Elevation (feet amsl)
- 795 - Groundwater Elevation Contour (feet amsl)
- - - Inferred Groundwater Elevation Contour
- - - Groundwater Flow Divide
- - - Line of Separation Between Northern and Southern Sampling Events

Northern Area wells measured October 2, 2017; Southern Area wells measured July 17, 2017.

Note: Some wells that monitor the lower till were used to construct this map.



Groundwater Elevation Contour Map
Till/Bedrock Zone
Third and Fourth Quarters, 2017

DRAWN BY: MHM
CHECKED & APPROVED BY: CAR/SMF

DATE: 2/20/18

DRAWING NO.
93004-072-V2

 **GROUNDWATER SCIENCES CORPORATION**

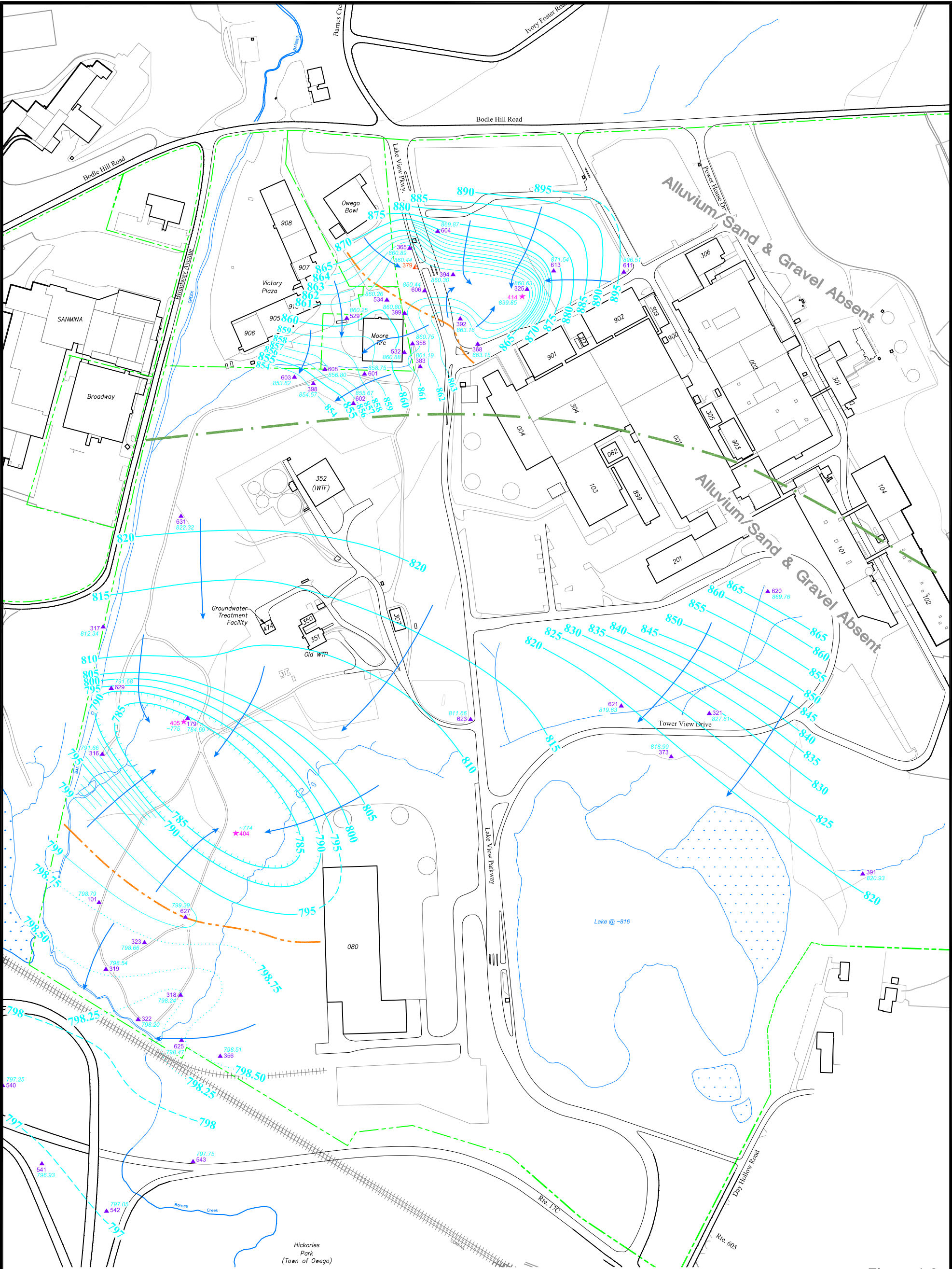


Figure 1-3

- ▲

- Alluvial zone monitoring well

▲

- Till monitoring well

★

- Extraction well

- Property Line

- Line of Separation Between Northern and Southern Sampling Events

- Wetland
- 795.91

- Groundwater Elevation (feet amsl)

800

- Groundwater Elevation Contour (feet amsl)

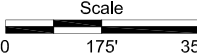
- Supplemental Groundwater Elevation Contour

- Direction of Groundwater Flow

- Groundwater Flow Divide

Note: Groundwater elevations for wells P1, P2, 161, 163, 386, 387 and 374 were not used because these wells monitor a shallow alluvial unit that is different from the outwash unit monitored by other wells in the southern areas.

Northern Area wells measured October 2, 2017; Southern Area wells measured July 17, 2017.



Owego, New York

Groundwater Elevation Contour Map
Alluvium/Sand & Gravel (Alluvial Zone)
Third and Fourth Quarters, 2017

DRAWN BY: MHM

DATE: 2/20/18

DRAWING NO.
93004-073-W2

GROUNDWATER SCIENCES CORPORATION

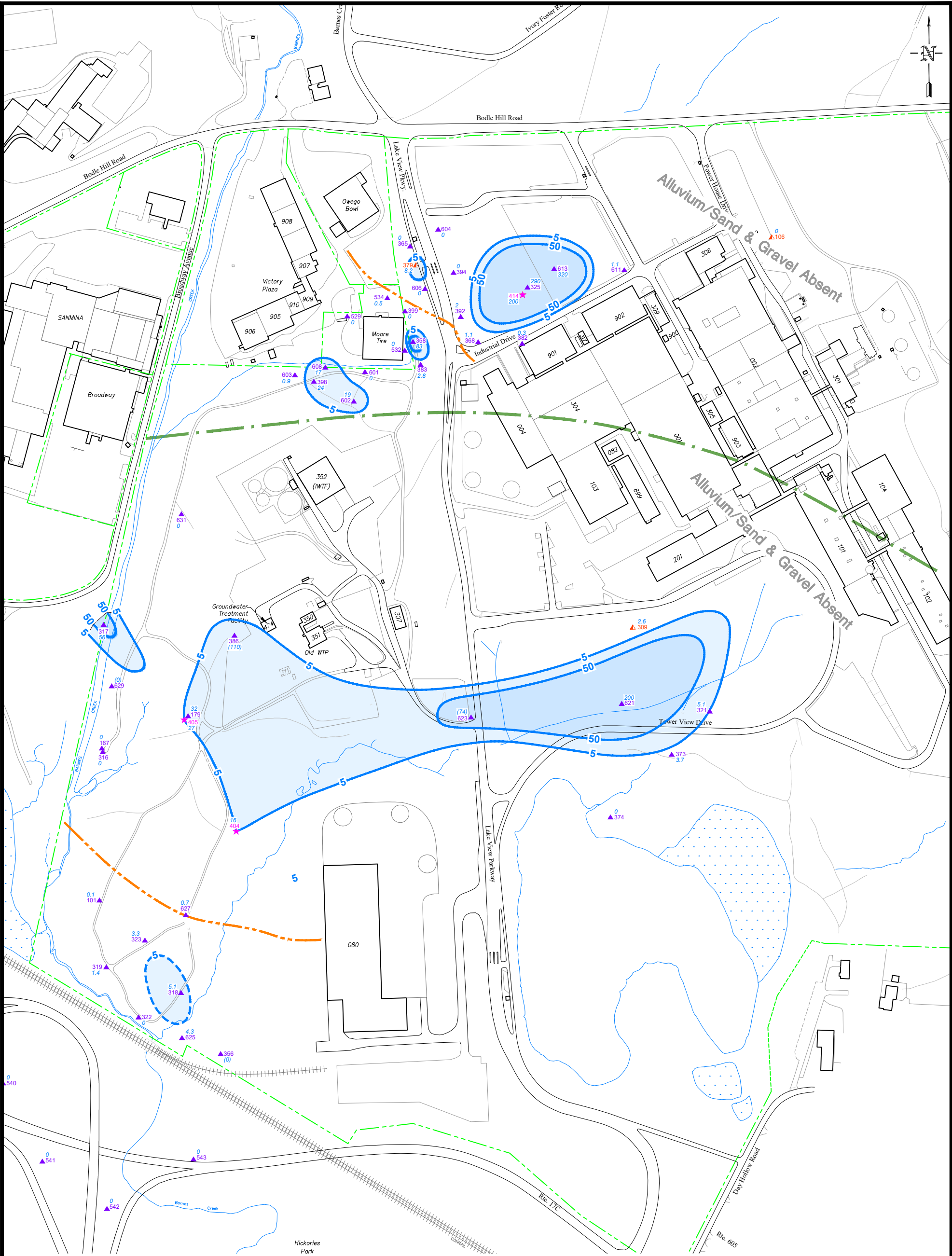


Figure 3-1

- ▲ - Alluvial zone monitoring well
- ▲ - Till monitoring well
- ★ - Extraction well
- 220 - TCA-Series Concentration (ug/l)
- (72) - Previous sampling result (for wells sampled annually)
- Wetland

- 50 - TCA-Series Concentration Contour (ug/l)
- 5-50 ug/l
- 50-500 ug/l
- >500 ug/l
- Groundwater Flow Divide
- Property Line
- Line of Separation Between Northern and Southern Sampling Events

Calculation:

$$\text{TCA Series} = \text{TCA} + 1,1\text{-DCA} \left(\frac{133.42}{98.97} \right) + 1,1\text{-DCE} \left(\frac{133.42}{96.95} \right) + \text{CEA} \left(\frac{133.42}{64.52} \right)$$

where

- TCA = 1,1,1-Trichloroethane
- 1,1-DCA = 1,1-Dichloroethane
- 1,1-DCE = 1,1-Dichloroethene
- CEA = Chloroethane

Notes: Wells 106, 309 and 379, which monitor the upper till, were also used to construct this map. Values shown have been rounded to two significant figures or one significant figure if less than 1 ug/l.

Extraction well 414 pumps from the alluvial and till/bedrock zones.



TCA-Series Isoconcentration Contour Map
Alluvium/Sand & Gravel (Alluvial Zone)
Third and Fourth Quarters, 2017

DRAWN BY: MHM

DATE: 2/20/17

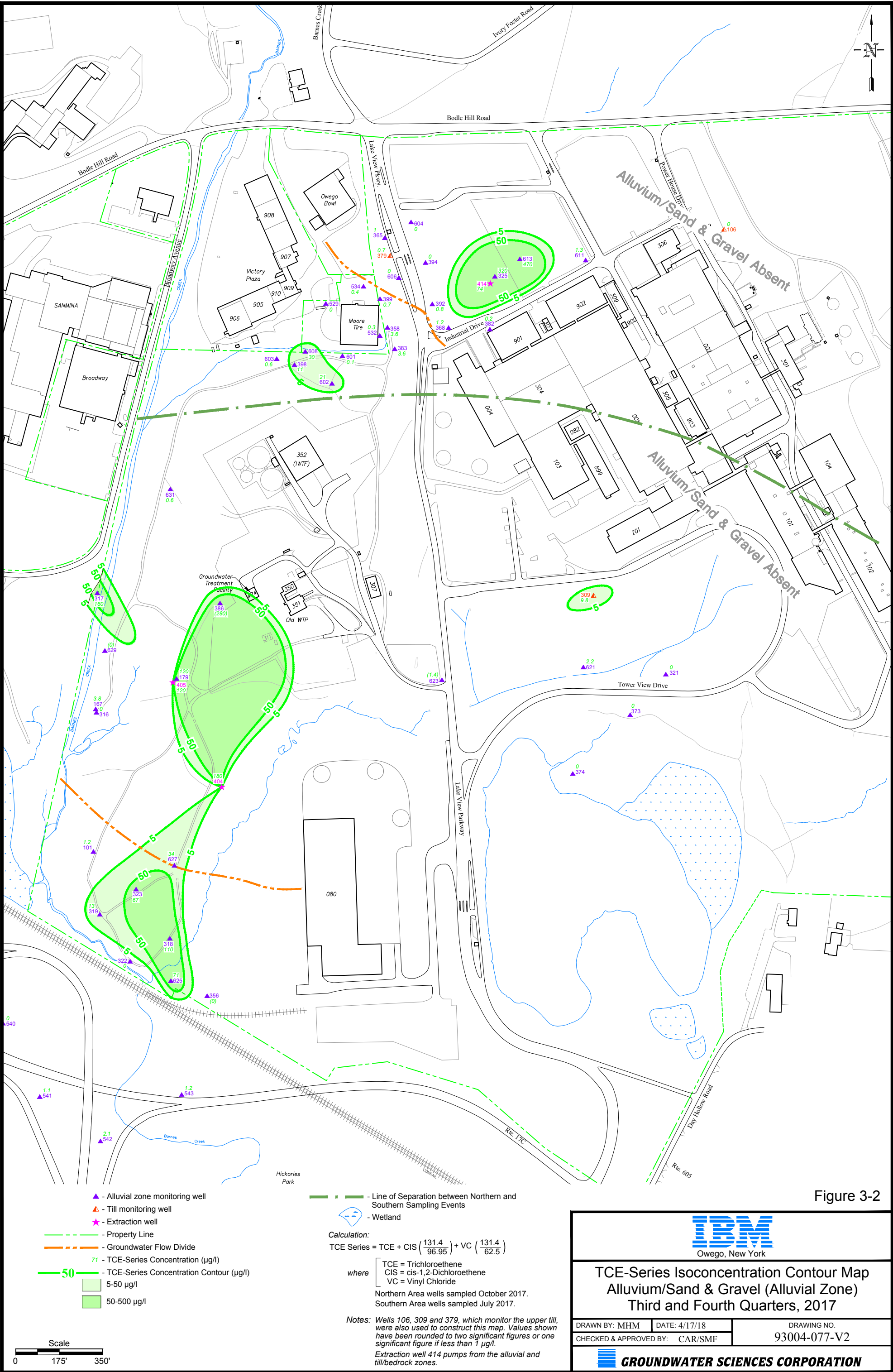
DRAWING NO.

CHECKED & APPROVED BY: CAR/SMF

93004-076-V2



GROUNDWATER SCIENCES CORPORATION



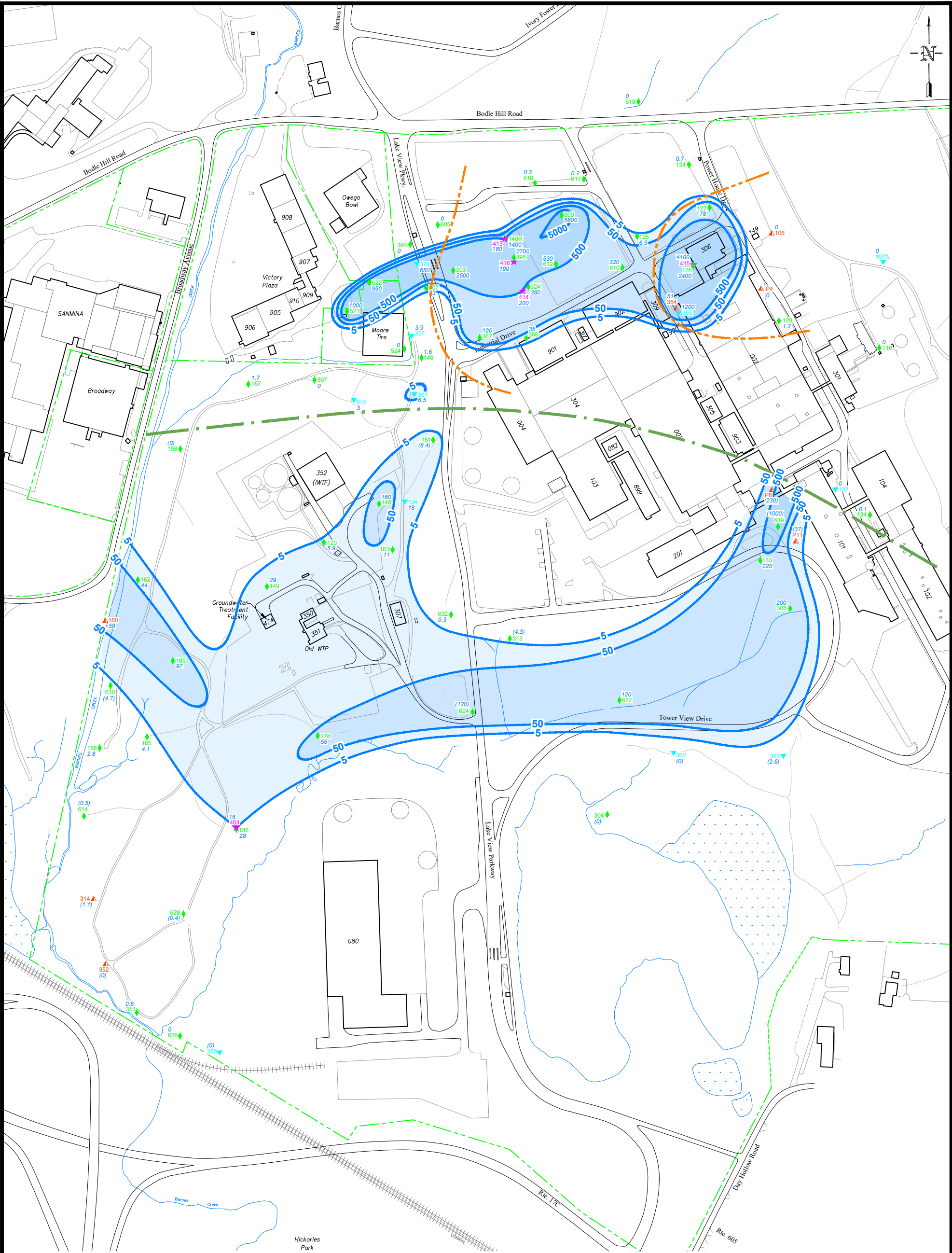


Figure 3-3

▼ - Bedrock monitoring well
◆ - Till/Bedrock zone monitoring well
▲ - Till monitoring well
★ - Extraction well
14 - TCA-Series Concentration (µg/l)
(0.5) - Previous sampling result (from wells sampled annually)
- Wetland

50 - TCA-Series Concentration Contour (µg/l)
5-50 µg/l
50-500 µg/l
500-5000 µg/l
>5000 µg/l


--- Groundwater Flow Divide
--- Property Line
--- Line of Separation Between Northern and Southern Sampling Events

Calculation:
$$TCA\ Series = TCA + 1,1-DCA \left(\frac{133.42}{98.97} \right) + 1,1-DCE \left(\frac{133.42}{96.95} \right) + CEA \left(\frac{133.42}{64.52} \right)$$

where
TCA = 1,1,1-Trichloroethane
1,1-DCA = 1,1-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
CEA = Chloroethane

Notes: Some wells that monitor the lower till or the bedrock were used to construct this map. Values shown have been rounded to two significant figures or one significant figure if less than 1 µg/l.
Extraction well 414 pumps from the alluvial and till/bedrock zones.


Northern Area wells sampled October 2017.
Southern Area wells sampled July 2017.



Owego, New York

TCA-Series Isoconcentration Contour Map
Till/Bedrock Zone
Third and Fourth Quarters, 2017

DRAWN BY: MHM	DATE: 2/20/18	DRAWING NO.
CHECKED & APPROVED BY: CAR/SMF		93004-075-T2



GROUNDWATER SCIENCES CORPORATION

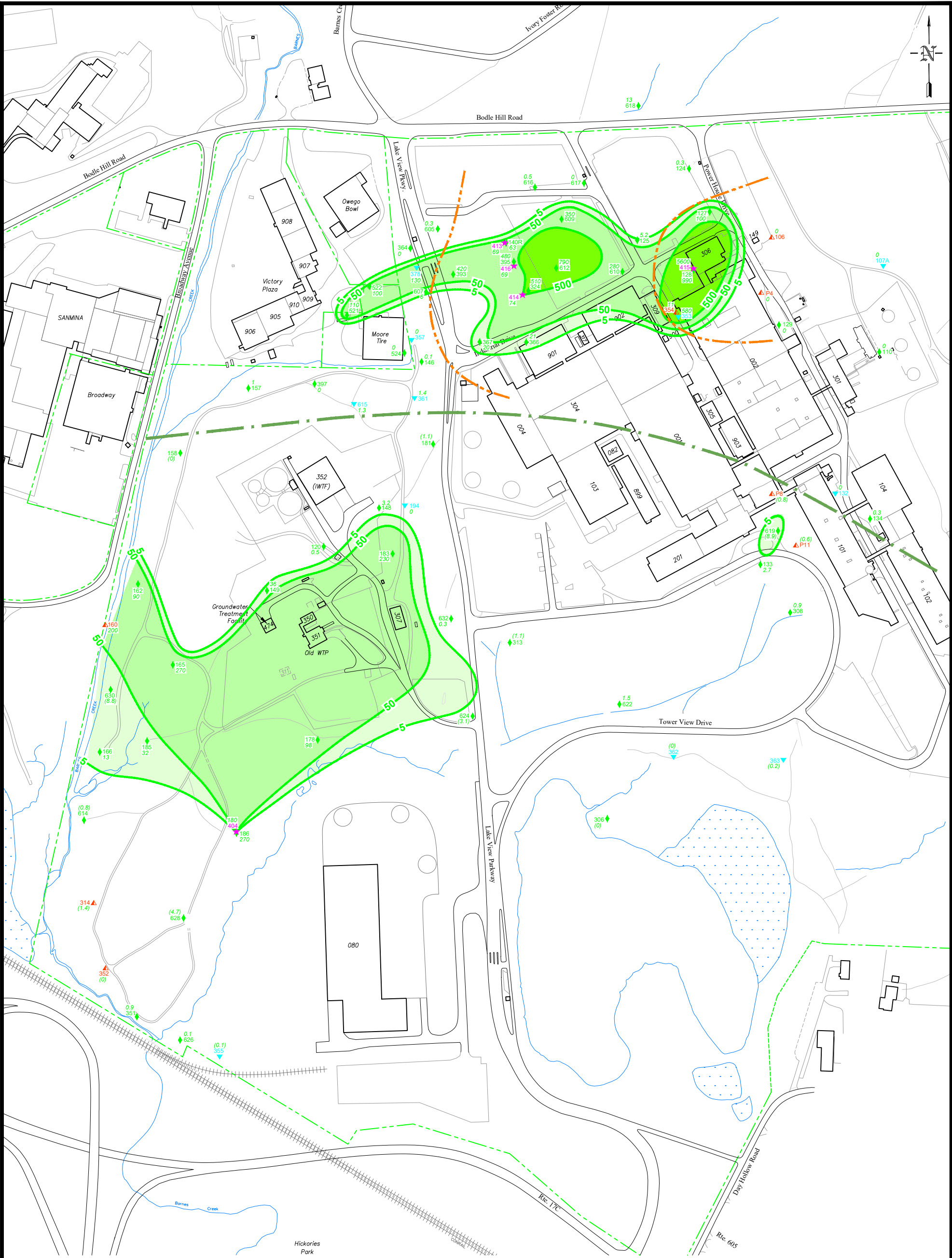


Figure 3-4

- ▲ - Bedrock monitoring well
 - ◆ - Till/Bedrock zone monitoring well
 - ▲ - Till monitoring well
 - ★ - Extraction well
 - - - Property Line
 - 22 - TCE-Series Concentration (µg/l)
 - (12) - Previous sampling result (for wells sampled annually)
 - 50 - TCE-Series Concentration Contour (µg/l)
 - 5-50 µg/l
 - 50-500 µg/l
 - >500 µg/l
- Scale
- 0 175' 350'

- - - Line of Separation between Northern and Southern Sampling Events

- - - Groundwater Flow Divide

Wetland

Calculation:


$$\text{TCE Series} = \text{TCE} + \text{CIS} \left(\frac{131.4}{96.95} \right) + \text{VC} \left(\frac{131.4}{62.5} \right)$$

where

- TCE = Trichloroethene
- CIS = cis-1,2-Dichloroethene
- VC = Vinyl Chloride

Northern Area wells sampled October 2017.
Southern Area wells sampled July 2017.


Notes: Some wells that monitor the lower till or the bedrock were used to construct this map. Values shown have been rounded to two significant figures or one significant figure if less than 1 µg/l.
Extraction well 414 pumps from the alluvial and till/bedrock zones.



Owego, New York

TCE-Series Isoconcentration Contour Map
Till/Bedrock Zone
Third and Fourth Quarters, 2017

DRAWN BY: MHM	DATE: 2/20/18	DRAWING NO.
CHECKED & APPROVED BY: CAR/SMF		93004-074-T2



GROUNDWATER SCIENCES CORPORATION

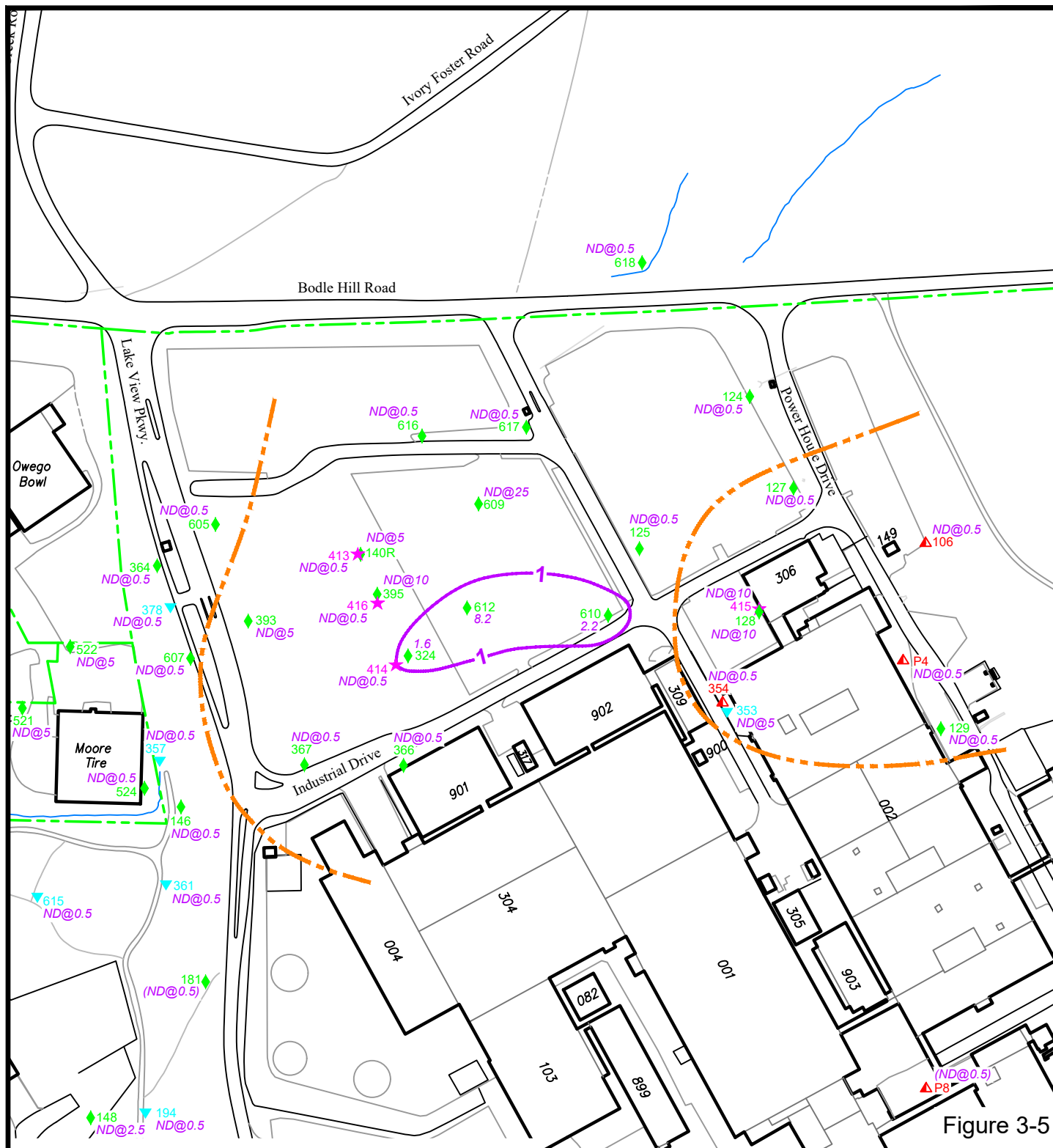
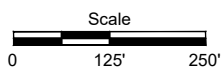
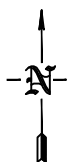


Figure 3-5

LEGEND

- ▼ - Bedrock monitoring well
- ◆ - Till/Bedrock zone monitoring well
- ▲ - Till monitoring well
- ★ - Extraction well
- 1 — DCM Concentration Contour (ug/l)
- 1.6 - DCM Concentration (ug/l)
- ND@"X" - Not Detected at Laboratory Detection Limit "X"
- - - Groundwater Flow Divide
- - - Property Line



Methylene Chloride Concentration Contour Map Till/Bedrock Zone Fourth Quarter, 2017

DRAWN BY: MHM DATE: 2/20/18

CHECKED & APPROVED BY: SMF

DRAWING NO.

93004-081-J1



GROUNDWATER SCIENCES CORPORATION

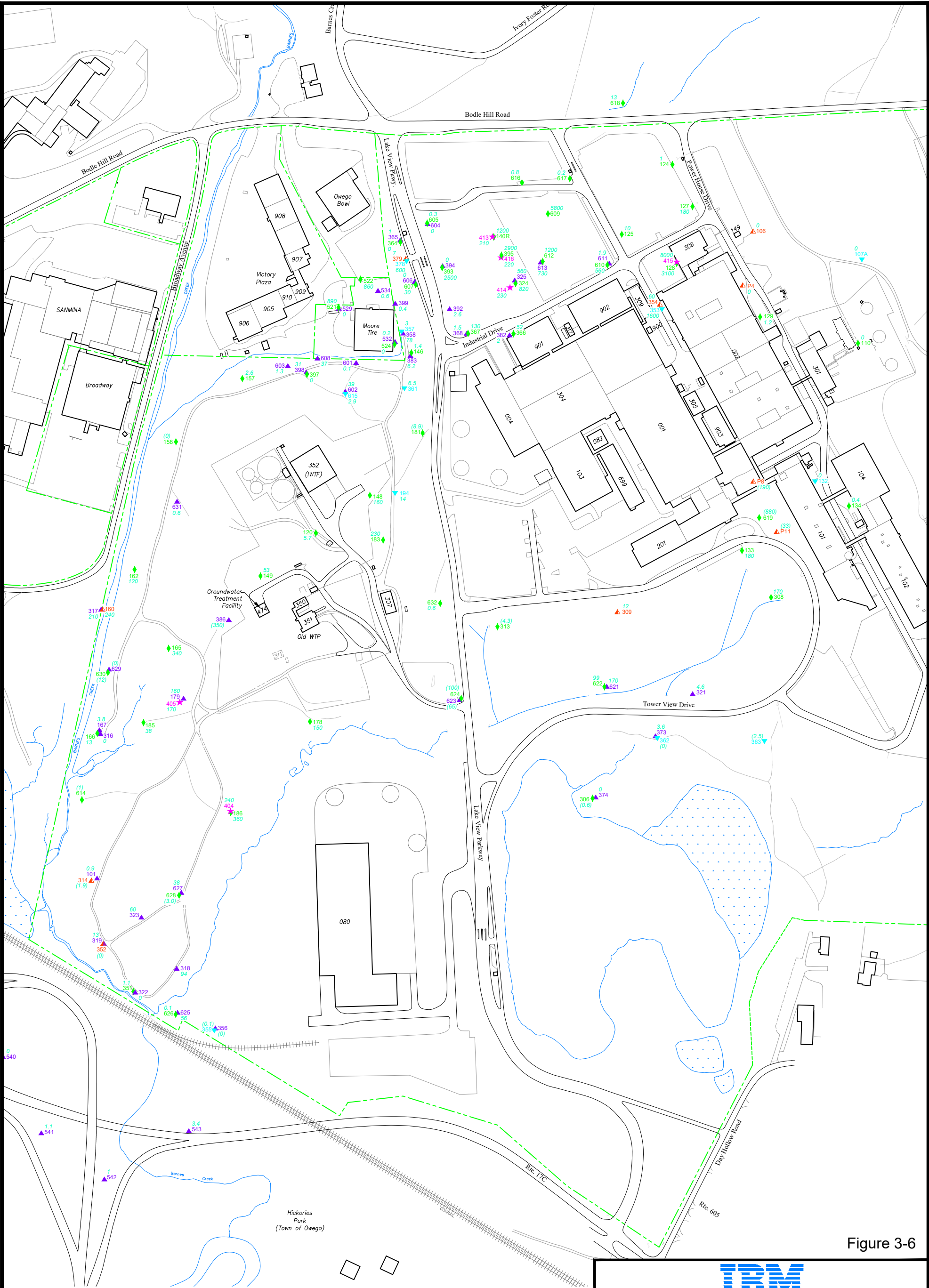
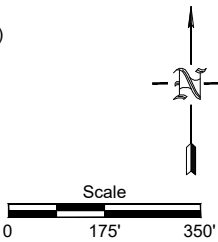


Figure 3-6

LEGEND

- ▼ - Bedrock monitoring well
- ▲ - Alluvial zone monitoring well
- ◆ - Till/Bedrock zone monitoring well
- ▲ - Till monitoring well
- ★ - Extraction well
- 150 - Total VOCs Concentration (µg/l)
- (32) - Previous Sampling Result (for wells sampled annually)
- - Property Line
- - Wetland

Northern Area wells sampled October 2017; Southern Area wells sampled July 2017.
Note: Values shown have been rounded to two significant figures or one significant figure if less than 1 µg/l.



Total Volatile Organic Compounds (VOCs)
Concentration in Groundwater (ug/l)
Third and Fourth Quarters, 2017

DRAWN BY: MHM DATE: 2/20/18
CHECKED & APPROVED BY: CAR

DRAWING NO.
93004-078-S1

 **GROUNDWATER SCIENCES CORPORATION**

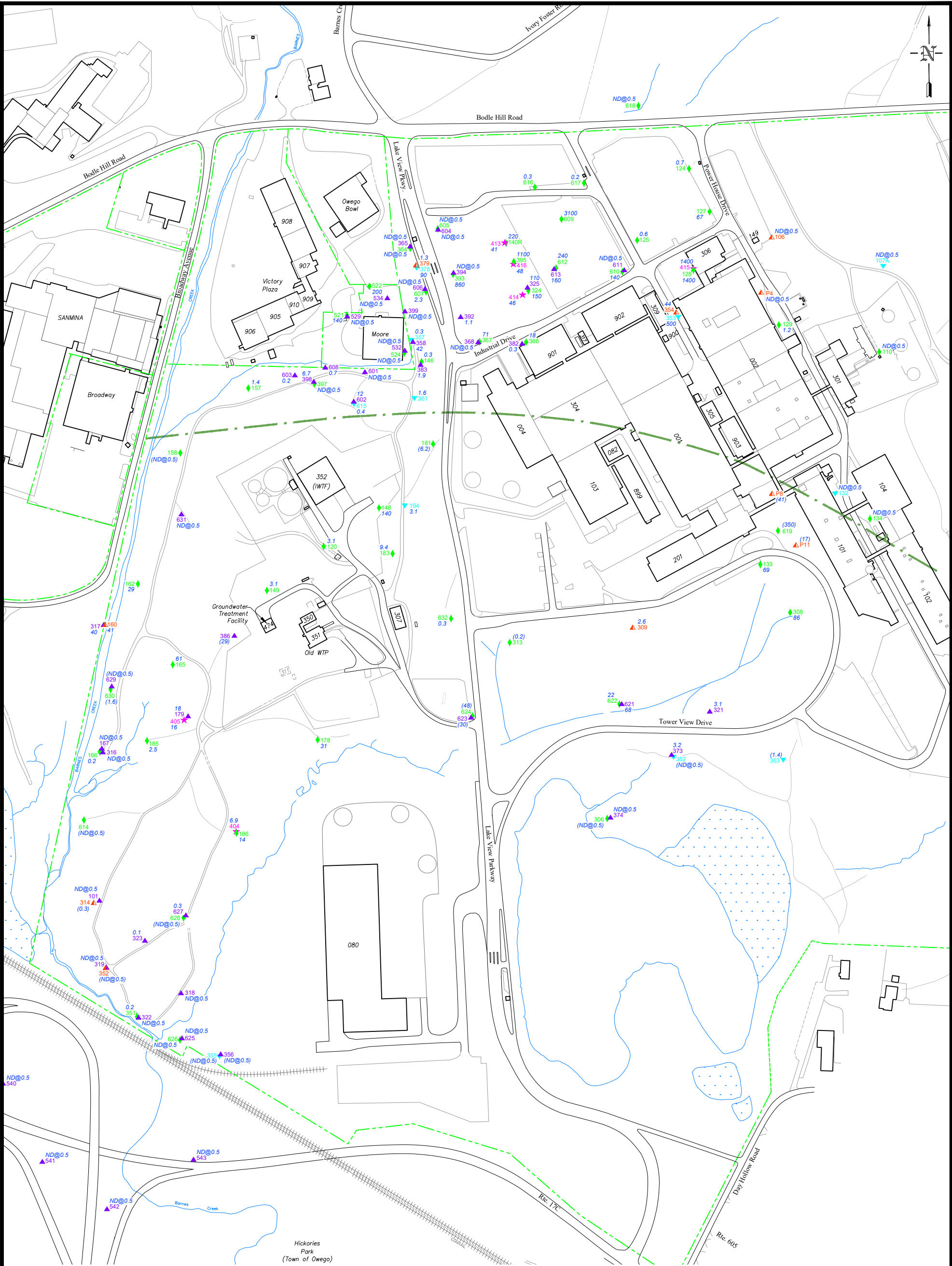


Figure 3-7

- 69 - 1,1,1-Trichloroethane Concentration (ug/l)

ND@0.5 - Not Detected at Laboratory Detection Limit "X"

(17) - Previous sampling result (for wells sampled annually)

- Bedrock monitoring well

- Alluvial zone monitoring well

- Till/Bedrock zone monitoring well

- Till monitoring well

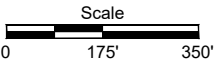
- Extraction well
- Property Line

- Site Area Boundary

- Wetland

Northern Area wells sampled October 2017; Southern Area wells sampled July 2017.

Note: Values shown have been rounded to two significant figures or one significant figure if less than 1 ug/l.



Owego, New York

1,1,1-Trichloroethane Concentrations
Third and Fourth Quarters, 2017

DRAWN BY: MHM

DATE: 2/20/18

CHECKED & APPROVED BY: CAR

DRAWING NO.
93004-027-V1

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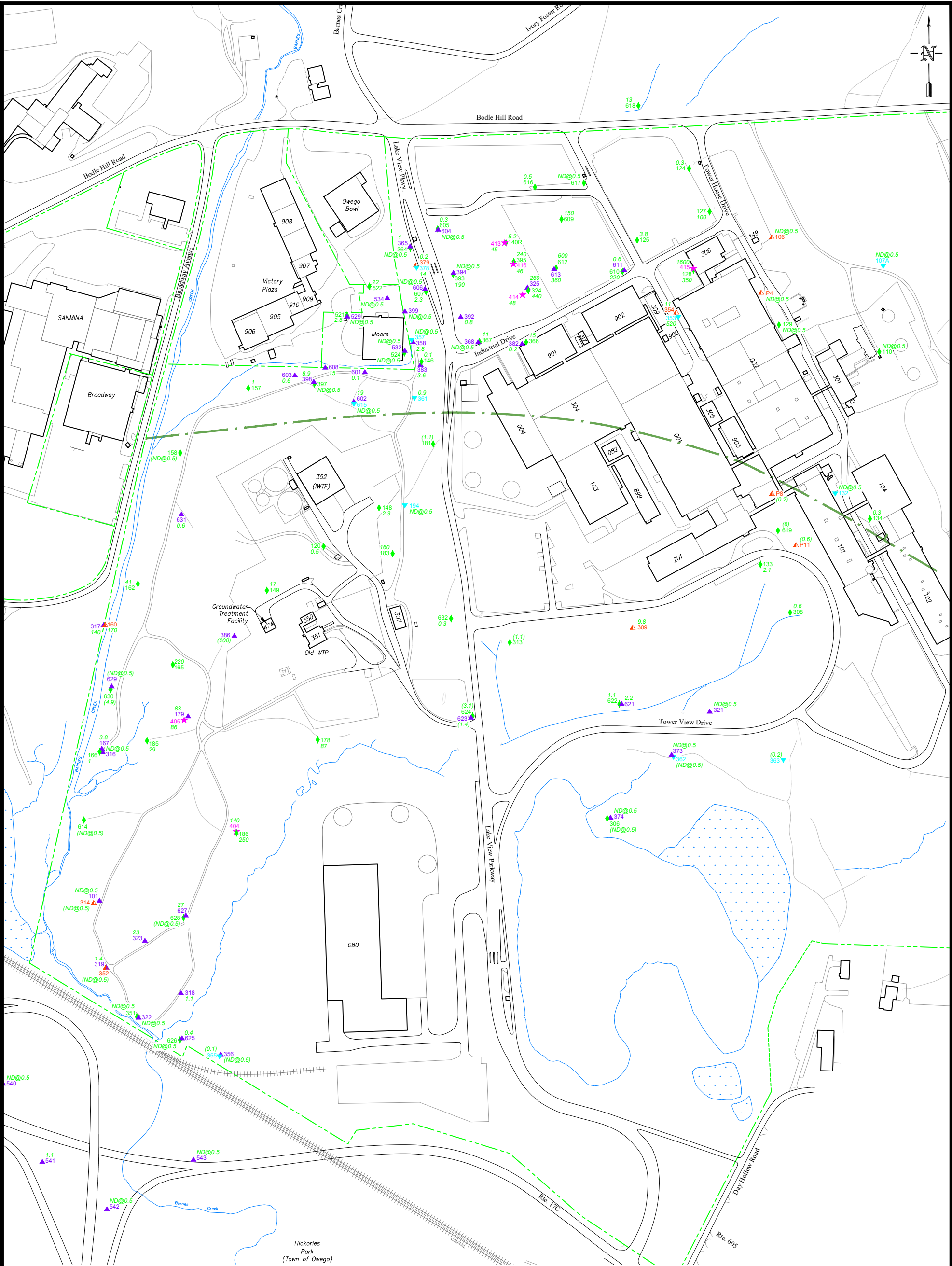


Figure 3-8

- 220 - Trichloroethene Concentration (ug/l)

ND@0.5 - Not Detected at Laboratory Detection Limit "X"

(220) - Previous sampling result (for wells sampled annually)

▼

 - Bedrock monitoring well

▲

 - Alluvial zone monitoring well

◆

 - Till/Bedrock zone monitoring well

▲

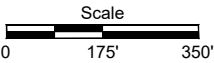
 - Till monitoring well


★

 - Extraction well
- - Property Line
- - Site Area Boundary
- Wetland

Northern Area wells sampled October 2017; Southern Area wells sampled July 2017.

Note: Values shown have been rounded to two significant figures or one significant figure if less than 1 ug/l.





Owego, New York


Trichloroethene Concentrations
Third and Fourth Quarters, 2017

DRAWN BY: MHM

DATE: 2/20/18

CHECKED & APPROVED BY: CAR

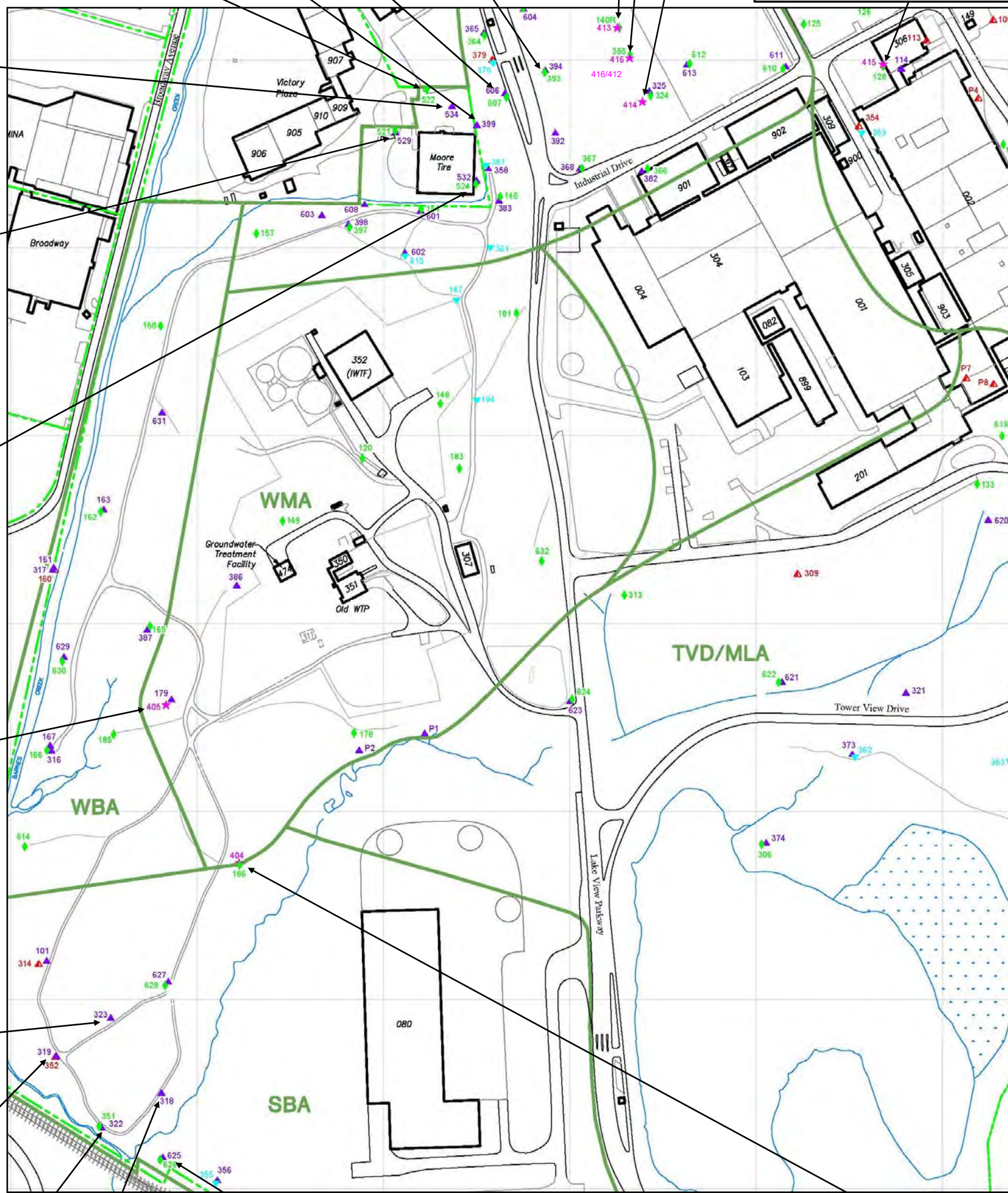
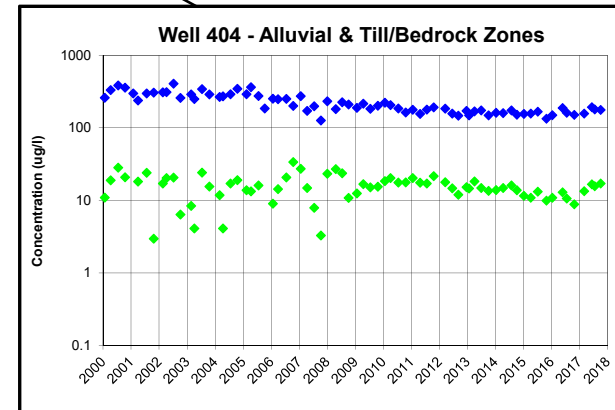
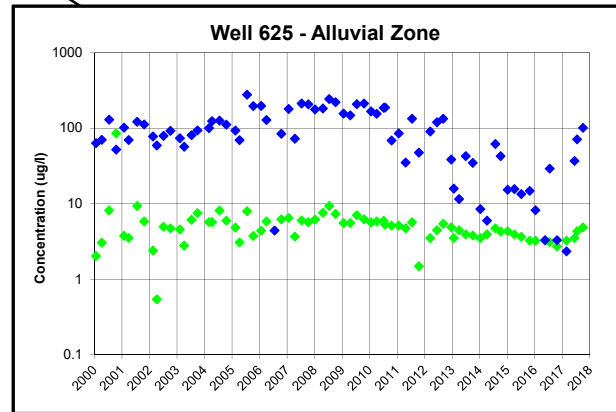
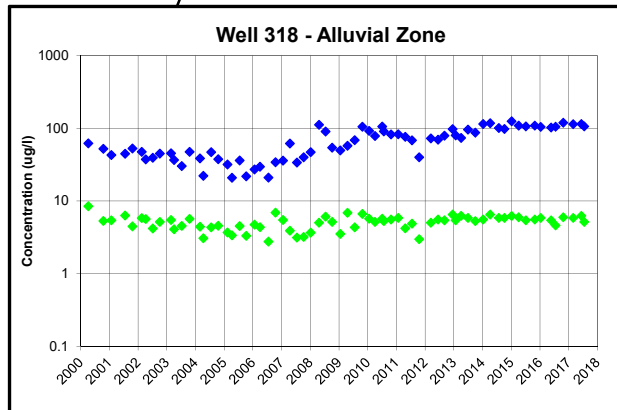
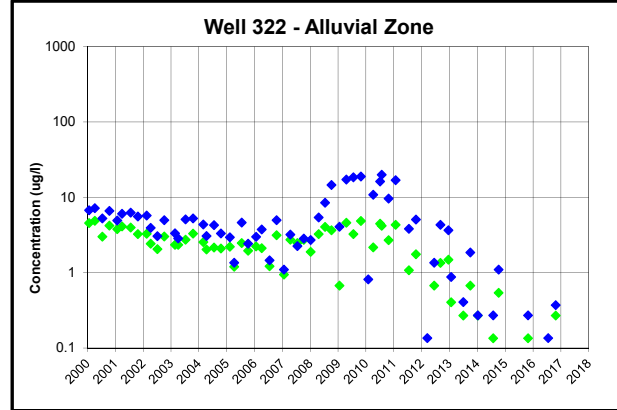
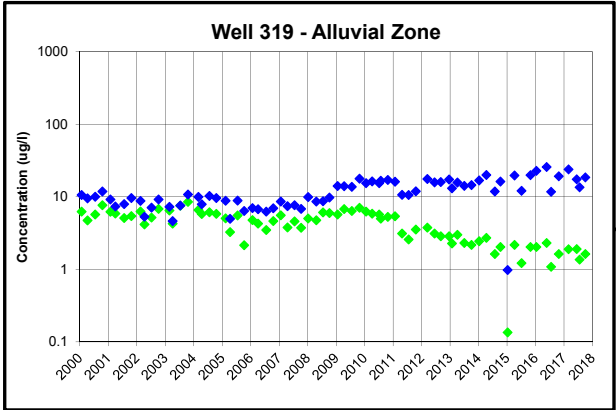
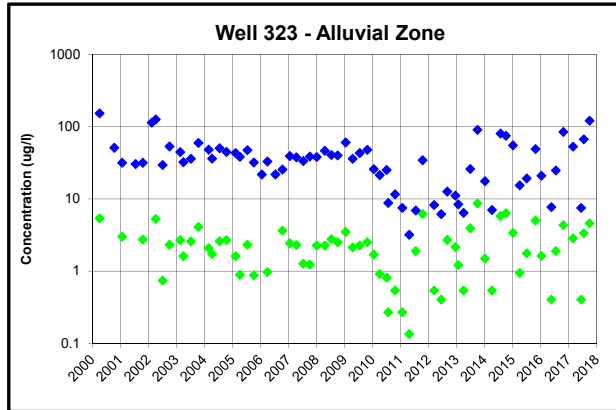
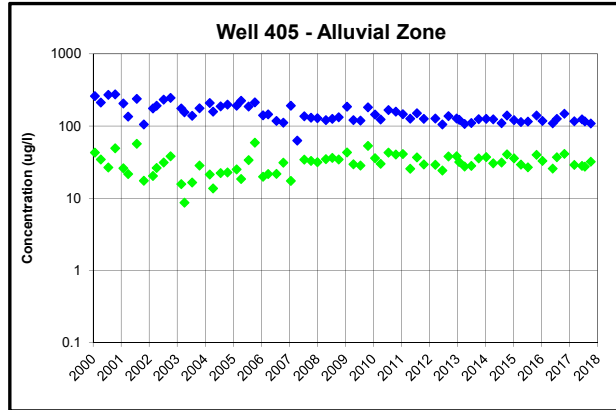
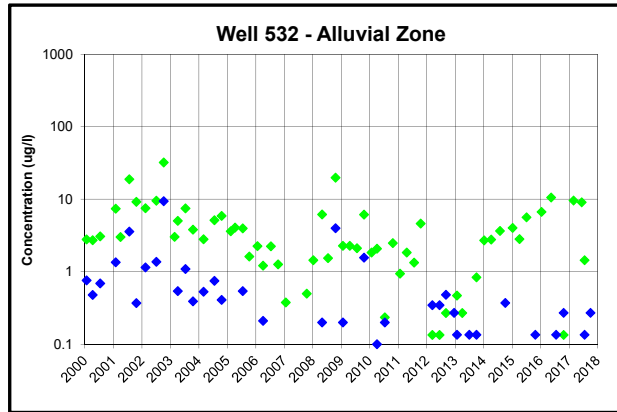
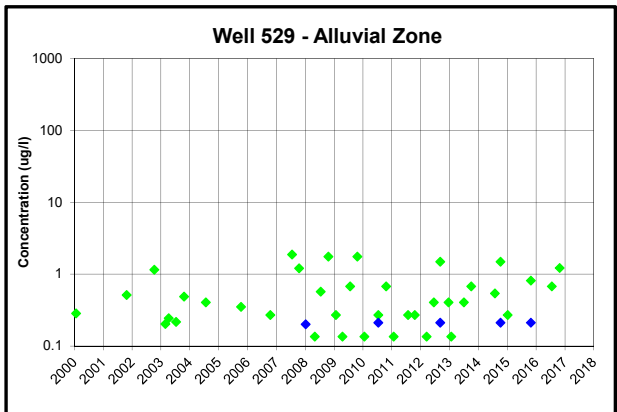
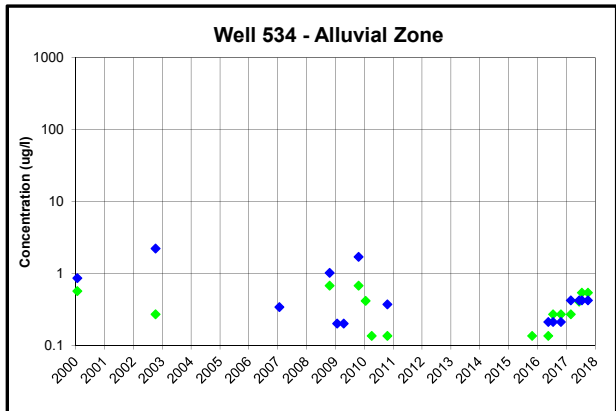
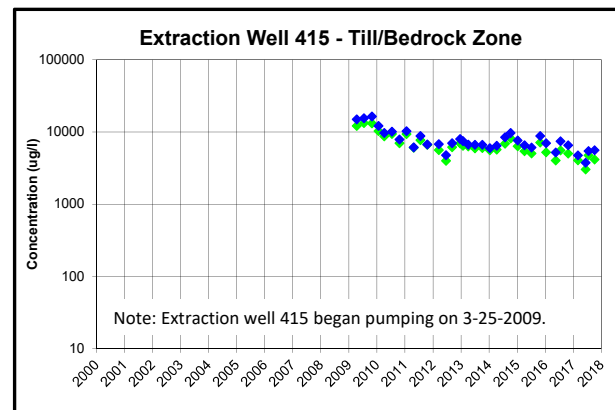
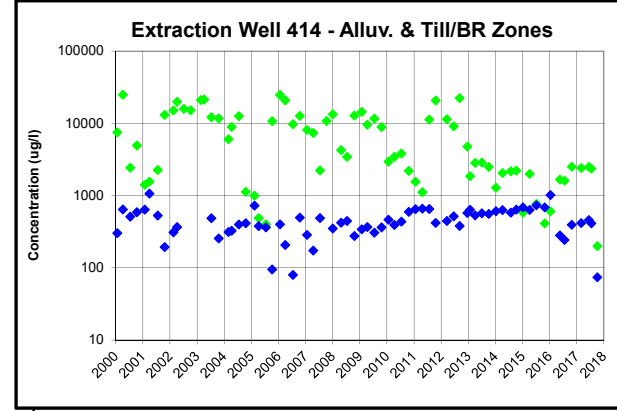
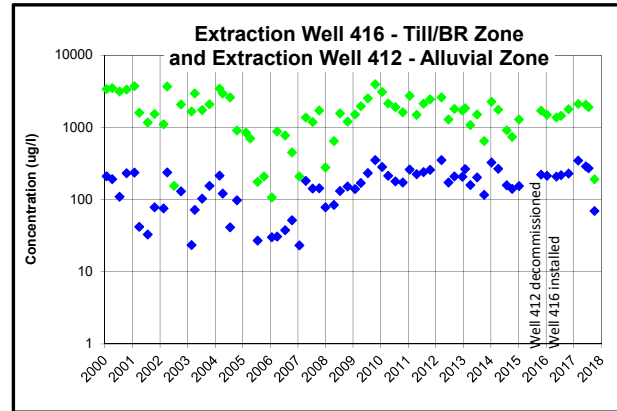
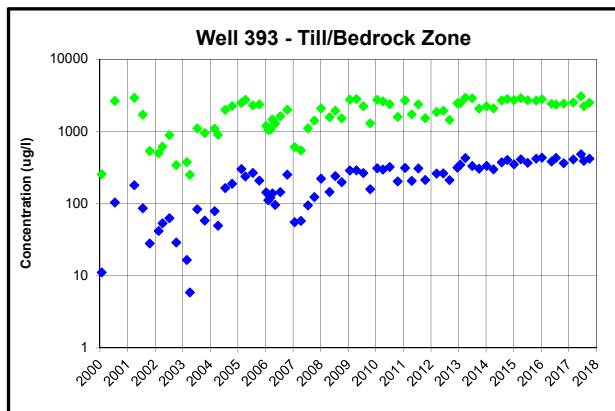
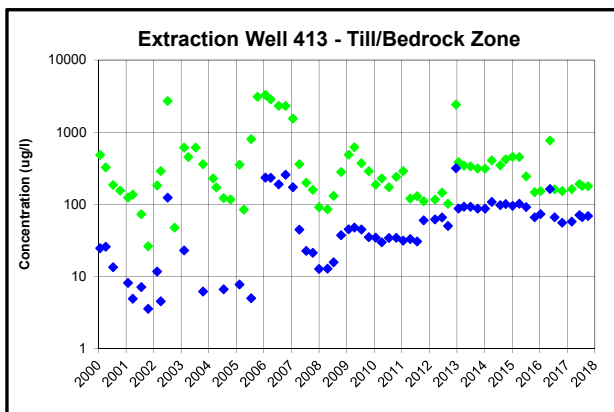
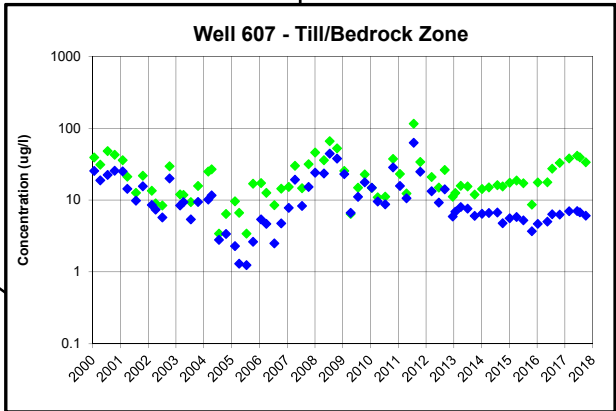
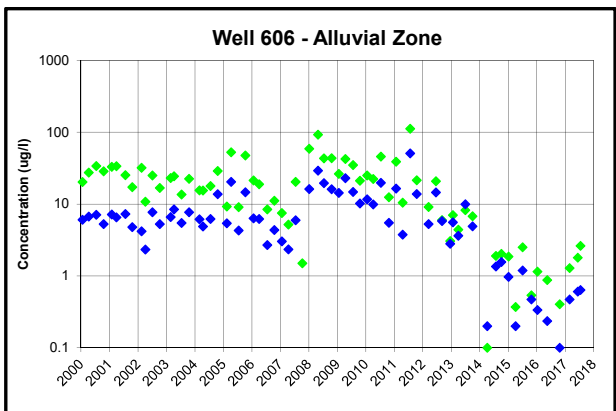
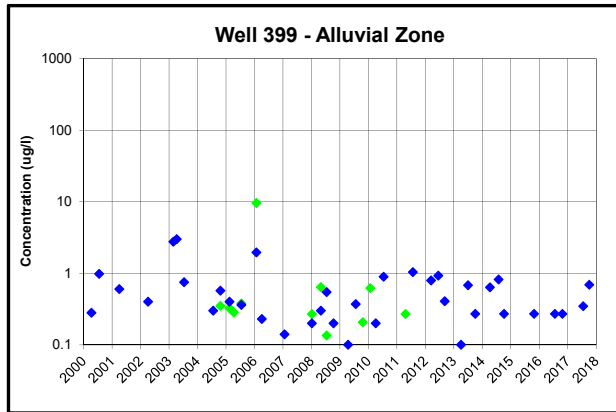
DRAWING NO. 93004-028-V1



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◆ TCA-Series

◆ TCE-Series



◆ TCA-Series

◆ TCE-Series

Plate 3-1

Former IBM Facility
Owego, New York

Concentration vs. Time Graphs
for Quarterly Monitoring Wells

DRAWN BY: CAR DATE: 2/8/18 DRAWING NO.
CHECKED AND APPROVED BY: CAR 93004-XLSX-2018

GROUNDWATER SCIENCES CORPORATION

APPENDIX A

TABLE A-1: EXTRACTION WELL PUMPING VOLUMES TABLE A-2: VOC MASS REMOVAL CALCULATIONS January 2017 – December 2017

Table A-1: 2017 Extraction Well Pumping Volumes (gallons)
Former IBM Facility, Owego, New York

Month	Waste Management Area		Parking Lot 001 Area			Tank Farm Area	Site Total
	404	405	414	413	416	415	
Jan-17	4,845,329	5,574,729	37,798	223,611	13,886	36,627	10,731,980
Feb-17	4,677,832	5,465,002	79,608	271,184	11,579	36,757	10,541,963
Mar-17	5,202,563	5,483,022	121,938	310,628	8,218	36,042	11,162,412
Apr-17	4,940,674	5,945,589	137,611	305,006	15,734	46,508	11,391,122
May-17	4,897,408	6,122,761	109,863	289,043	19,386	44,409	11,482,870
Jun-17	5,112,956	5,673,663	112,401	247,823	15,935	35,192	11,197,970
Jul-17	4,904,959	5,589,456	77,372	181,300	10,920	33,230	10,797,237
Aug-17	4,754,296	5,332,825	66,901	177,061	12,264	27,445	10,370,792
Sep-17	4,451,168	4,163,050	76,226	185,016	12,862	34,052	8,922,373
Oct-17	4,629,300	2,776,441	60,318	149,829	12,119	27,620	7,655,627
Nov-17	4,482,538	3,081,118	81,775	137,484	9,499	29,751	7,822,164
Dec-17	4,508,319	5,356,390	75,422	158,013	17,257	26,616	10,142,019
						Total	122,218,527

**Figures in italics were calculated from totalizer readings of flow meters.*

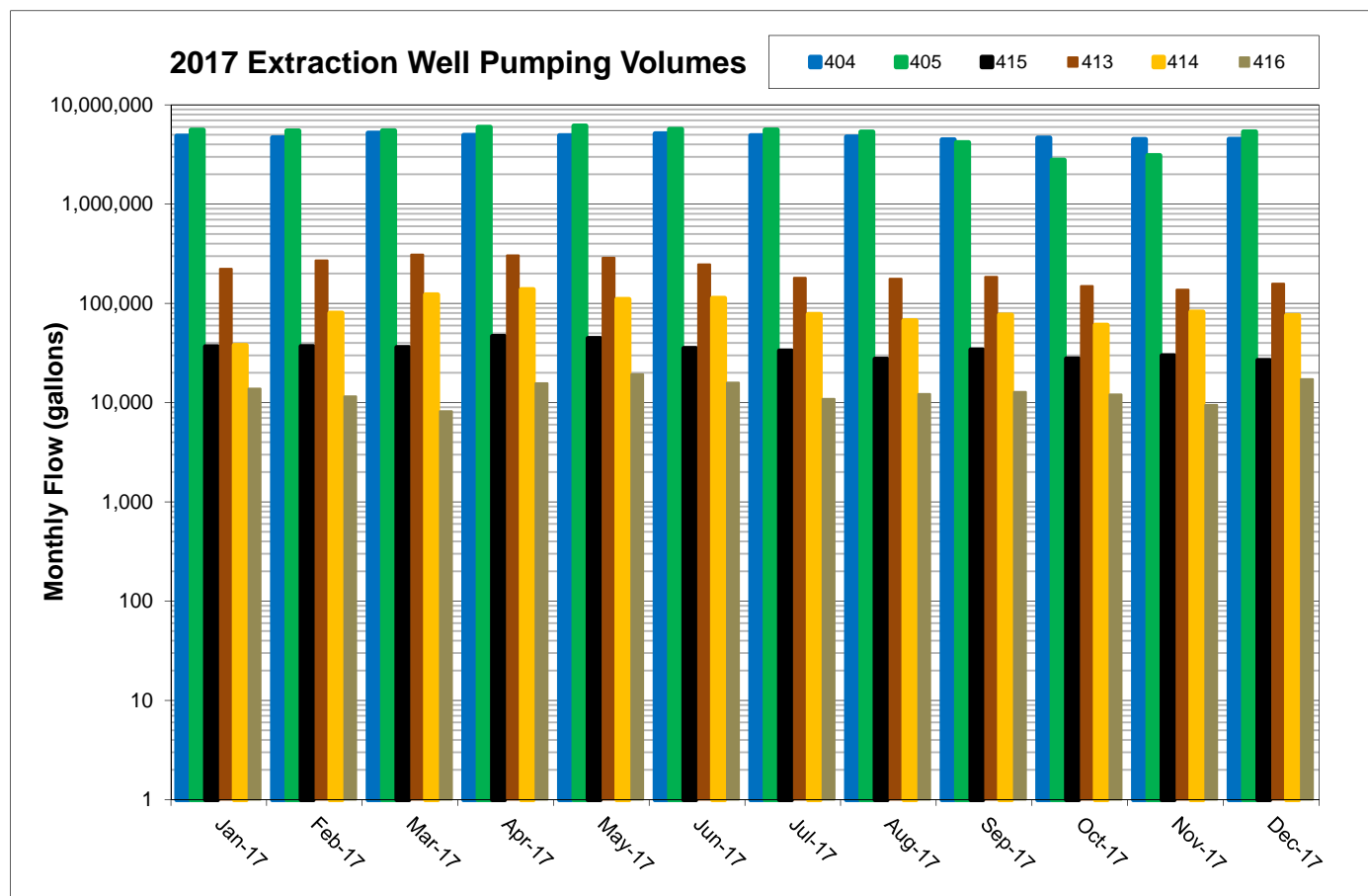


Table A-2: 2017 VOC Mass Removal Calculations
Former IBM Facility, Owego, New York

Chemical Concentrations (ug/l)														
Location	Period	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Chloroethane	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1,2-Dichloro-1,2,2-Trifluoroethane (Freon 123a)	Other VOCs	Volume Pumped (gallons)	
Well 404	Qtr 1	0.1	120.0	27.0	0.3	5.8	4.5	1.1	0.0	32.0	7.2	1.0	14,725,724	
	Qtr 2	0.2	150.0	31.0	0.3	7.1	5.8	1.3	0.0	40.0	9.3	2.8	14,951,038	
	Qtr 3	0.2	140.0	29.0	0.2	6.9	5.1	1.4	0.0	43.0	8.1	1.3	14,110,423	
	Qtr 4	0.2	140.0	27.0	0.2	7.8	5.4	1.5	0.0	40.0	7.7	1.1	13,620,157	
Well 405	Qtr 1	0.4	87.0	22.0	0.0	16.0	5.6	3.9	0.0	50.0	3.2	0.2	16,522,753	
	Qtr 2	0.4	94.0	22.0	0.0	16.0	4.9	4.0	0.0	35.0	3.6	0.8	17,742,013	
	Qtr 3	0.3	86.0	22.0	0.0	16.0	4.0	4.4	0.0	31.0	2.4	0.1	15,085,331	
	Qtr 4	0.3	80.0	21.0	0.0	20.0	3.7	5.2	0.0	23.0	1.6	0.1	11,213,949	
Well 413	Qtr 1	0.1	38.0	13.0	1.1	38.0	80.0	12.0	0.3	3.9	1.5	0.1	805,423	
	Qtr 2	0.2	47.0	16.0	1.3	42.0	95.0	15.0	0.3	4.0	1.7	0.2	841,871	
	Qtr 3	0.2	43.0	16.0	1.0	41.0	87.0	16.0	0.2	4.2	1.6	0.1	543,377	
	Qtr 4	0.2	45.0	16.0	1.1	41.0	86.0	15.0	0.3	4.8	1.6	0.1	445,326	
Well 414	Qtr 1	1.9	290.0	76.0	11.0	550.0	1300.0	68.0	1.7	72.0	26.0	0.0	239,345	
	Qtr 2	2.1	310.0	90.0	12.0	490.0	1400.0	81.0	1.8	59.0	30.0	0.0	359,875	
	Qtr 3	2.3	280.0	81.0	9.8	490.0	1300.0	75.0	1.3	53.0	26.0	0.0	220,499	
	Qtr 4	0.2	48.0	17.0	1.2	46.0	100.0	13.0	0.3	5.5	1.9	0.1	217,515	
Well 415	Qtr 1	13.0	1400.0	2200.0	170.0	1200.0	1100.0	980.0	0.0	130.0	0.0	6.3	109,426	
	Qtr 2	9.7	1100.0	1800.0	96.0	1000.0	850.0	640.0	0.0	84.0	6.8	4.5	126,109	
	Qtr 3	14.0	1600.0	2600.0	140.0	1600.0	1200.0	1100.0	0.0	130.0	8.2	8.1	94,727	
	Qtr 4	18.0	1600.0	2700.0	150.0	1400.0	1100.0	920.0	0.0	110.0	8.2	9.0	83,987	
Well 416	Qtr 1	1.1	220.0	80.0	8.8	530.0	1100.0	67.0	1.9	55.0	20.0	0.0	33,683	
	Qtr 2	0.0	140.0	97.0	8.4	600.0	1000.0	75.0	2.1	46.0	13.0	0.0	51,055	
	Qtr 3	0.0	130.0	93.0	7.3	590.0	890.0	79.0	1.5	42.0	11.0	0.0	36,045	
	Qtr 4	0.2	46.0	16.0	0.8	48.0	100.0	5.1	0.3	4.6	1.6	0.2	38,875	
Power House Sump	Qtr 1	0.0	0.1	0.0	0.2	29.0	38.0	3.7	0.3	12.0	1.9	0.0	143,124	
	Qtr 2	0.0	0.0	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	129,926	
	Qtr 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	121,348	
	Qtr 4	0.0	0.2	0.0	0.2	45.0	72.0	4.4	0.3	9.6	2.0	0.0	114,564	
Totals													122,727,489 gallons	
Pounds of Chemicals Removed														
Location	Period	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Chloroethane	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1,2-Dichloro-1,2,2-Trifluoroethane (Freon 123a)	Other VOCs	Total VOCs Removed (pounds)	Pounds Removed (January - December
Well 404	Qtr 1	0.01	14.76	3.32	0.04	0.71	0.55	0.14	0.00	3.93	0.89	0.12	24.47	109.4
	Qtr 2	0.02	18.73	3.87	0.04	0.89	0.72	0.16	0.00	4.99	1.16	0.35	30.94	
	Qtr 3	0.02	16.50	3.42	0.02	0.81	0.60	0.16	0.00	5.07	0.95	0.15	27.71	
	Qtr 4	0.02	15.92	3.07	0.02	0.89	0.61	0.17	0.00	4.55	0.88	0.13	26.26	
Well 405	Qtr 1	0.06	12.00	3.04	0.00	2.21	0.77	0.54	0.00	6.90	0.44	0.03	25.98	88.2
	Qtr 2	0.06	13.93	3.26	0.00	2.37	0.73	0.59	0.00	5.19	0.53	0.12	26.77	
	Qtr 3	0.04	10.83	2.77	0.00	2.02	0.50	0.55	0.00	3.90	0.30	0.01	20.93	
	Qtr 4	0.03	7.49	1.97	0.00	1.87	0.35	0.49	0.00	2.15	0.15	0.01	14.50	
Well 413	Qtr 1	0.00	0.26	0.09	0.01	0.26	0.54	0.08	0.00	0.03	0.01	0.00	1.26	4.6
	Qtr 2	0.00	0.33	0.11	0.01	0.30	0.67	0.11	0.00	0.03	0.01	0.00	1.57	
	Qtr 3	0.00	0.20	0.07	0.00	0.19	0.39	0.07	0.00	0.02	0.01	0.00	0.95	
	Qtr 4	0.00	0.17	0.06	0.00	0.15	0.32	0.06	0.00	0.02	0.01	0.00	0.78	
Well 414	Qtr 1	0.00	0.58	0.15	0.02	1.10	2.60	0.14	0.00	0.14	0.05	0.00	4.79	16.9
	Qtr 2	0.01	0.93	0.27	0.04	1.47	4.21	0.24	0.01	0.18	0.09	0.00	7.44	
	Qtr 3	0.00	0.52	0.15	0.02	0.90	2.39	0.14	0.00	0.10	0.05	0.00	4.27	
	Qtr 4	0.00	0.09	0.03	0.00	0.08	0.18	0.02	0.00	0.01	0.00	0.00	0.42	
Well 415	Qtr 1	0.01	1.28	2.01	0.16	1.10	1.01	0.90	0.00	0.12	0.00	0.01	6.58	24.7
	Qtr 2	0.01	1.16	1.90	0.10	1.05	0.90	0.67	0.00	0.09	0.01	0.00	5.89	
	Qtr 3	0.01	1.27	2.06	0.11	1.27	0.95	0.87	0.00	0.10	0.01	0.01	6.64	
	Qtr 4	0.01	1.12	1.89	0.11	0.98	0.77	0.65	0.00	0.08	0.01	0.01	5.62	
Well 416	Qtr 1	0.00	0.06	0.02	0.00	0.15	0.31	0.02	0.00	0.02	0.01	0.00	0.59	2.1
	Qtr 2	0.00	0.06	0.04	0.00	0.26	0.43	0.03	0.00	0.02	0.01	0.00	0.84	
	Qtr 3	0.00	0.04	0.03	0.00	0.18	0.27	0.02	0.00	0.01	0.00	0.00	0.55	
	Qtr 4	0.00	0.01	0.01	0.00	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.07	
Power House Sump	Qtr 1	0.00	0.00	0.00	0.00	0.03	0.05	0.00	0.00	0.01	0.00	0.00	0.10	0.2
	Qtr 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Qtr 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Qtr 4	0.00	0.00	0.00	0.00	0.04	0.07	0.00	0.00	0.01	0.00	0.00	0.13	
Totals													246.1 pounds	

APPENDIX B

**TABLE B-1: WELL SPECIFICATIONS, CORRECTIVE ACTION
MONITORING PROGRAM**

**TABLE B-2a: HYDRAULIC EFFECTIVENESS MONITORING
WELLS FOR GROUNDWATER ELEVATION
MEASUREMENTS**

**TABLE B-2b: CONTAMINANT REDUCTION MONITORING
WELLS FOR GROUNDWATER SAMPLING**

Table B-1: Well Specifications
Corrective Action Monitoring Program

Well	Northing (grid feet)	Easting (grid feet)	Current M.P. Elevation (ft amsl)	Current Ground Surface Elevation (ft amsl)	Depth to Bedrock (ft bgs)	Bedrock Elevation (ft amsl)	Screened Depth Interval (ft bgs)	Baseline Depth to Bottom from M.P. (ft)	Baseline Elevation of Bottom (ft amsl)	Well Diameter (in)	Screen Length (ft)	Well Construction Material	Geologic Unit Monitored	Site Area	Up, Down, or Side Gradient
101	764601.1	916596.6	814.01	811.2	NE	NE	30 - 40	40.95	773.06	6	10	S, 25 slot	Outwash Sand	SBA	DG
106	767106.1	919136.5	914.91	912.9	11.6	901.2	6.3 - 11.6	13.12	901.79	4	5.3	PVC	Till*	TFA	UG
107A	767000.3	919557.6	961.80	960.3	NL	NL	NL	64.96	896.84	2	NL	PVC	Bedrock	TFA	UG
110	766674.6	919542.5	946.88	947.9	15.5	931.3	14.3 - 19.6	20.11	926.77	4	5.3	PVC	Till/Bedrock	TFA	UG
113	767051.4	918957.9	914.83	912.1	25	887.0	4.9 - 10.2	12.72	902.11	4	5.3	PVC	Till	TFA	DG
114	766976.5	918889.9	916.13	913.4	22	891.6	9.4 - 14.7	16.65	899.48	4	5.3	PVC	Fill	TFA	DG
120	765939.9	917443.6	846.20	844.7	24	820.7	20 - 25	39.58	806.62	6	5	OH	Till/Bedrock	WMA	DG
123	765871.9	919093.3	903.96	904.5	18	886.0	19 - 23	21.89	882.07	4	4	PVC	Bedrock	TFA	DG
124	767366.9	918823.9	911.43	908.5	20	888.4	19 - 23	25.14	886.29	4	4	PVC	Till/Bedrock	TFA	SG
125	767096.6	918627.9	905.36	905.7	24	881.3	22 - 26	24.86	880.50	4	4	PVC	S & G/Bedrock	TFA	DG
126	767128.9	918825.2	908.95	909.4	22	886.9	21 - 25	23.90	885.05	4	4	PVC	Till/Bedrock	TFA	DG
127	767204.2	918901.6	909.65	909.8	18	891.2	17 - 21	19.54	890.11	4	4	PVC	S & G/Bedrock	TFA	DG
128	766984.2	918840.7	914.23	912.5	22	890.5	20 - 24	24.86	889.37	2	4	PVC, 10-slot	Till/Bedrock	TFA	DG
129	766776.9	919163.6	912.10	912.0	7.5	906.4	6 - 10	8.35	903.75	4	4	PVC	Till/Bedrock	TFA	DG
132	766141.1	919376.3	915.31	912.0	14	898.1	14 - 18	21.20	894.11	4	4	PVC	Bedrock	TFA	DG
133	767281.5	918665.9	897.22	894.3	26	867.5	24 - 28	31.50	865.72	4	4	PVC	Till/Bedrock	TVD/MLA	DG
134	766044.5	919507.4	916.46	913.9	36	876.5	35 - 39	42.89	873.57	4	4	PVC	Till/Bedrock	TFA	DG
140R	767086.4	918134.6	889.17	886.9	41.5	845.5	38 - 43	45.14	844.00	2	5	PVC, 20-slot	Till/Bedrock	NBT/P001	DG
143	767292.3	917826.1	884.81	885.5	19.5	866.5	17 - 21	29.05	855.76	4	4	PVC	Till/Bedrock	NBT/P001	DG
146	766637.9	917813.3	868.04	865.6	22	843.6	20 - 24	25.86	842.18	4	4	PVC	Till/Bedrock	NBT/P001	DG
147	766361.6	917695.9	871.57	868.9	20	848.5	20 - 24	27.28	844.29	4	4	PVC	Bedrock	WMA	DG
148	766085.9	917652.8	857.87	854.6	32	823.1	29 - 34	34.91	822.96	4	5	PVC	Till/Bedrock	WMA	DG
149	765773.6	917229.3	834.27	831.6	29	802.5	27 - 31	33.57	800.70	4	4	PVC	Till/Bedrock	WMA	DG
154	766603.6	917601.3	861.70	860.2	21	839.2	14 - 24	25.56	836.14	2	10	PVC, 10-slot	Till/Bedrock	NBT/P001	DG
157	766538.0	917158.9	854.13	852.7	16	836.6	9 - 19	20.02	834.11	4	10	PVC	Till/Bedrock	NBT/P001	DG
158	766293.2	916902.0	838.28	836.2	37	799.1	28 - 38	39.76	798.52	4	10	PVC	Till/Bedrock	WBA	SG
160	765642.6	916618.6	824.31	821.6	60	761.4	49.5 - 59.5	58.46	765.85	4	10	PVC	Basal Till	WBA	SG
161	765648.6	916615.3	824.96	821.8	NE	NE	10 - 20	22.74	802.22	4	10	PVC	Alluvial silt and gravel	WBA	SG
162	765798.6	916741.9	825.50	823.7	47	776.5	39 - 49	50.43	775.07	4	10	PVC	Till/Bedrock	WBA	SG
163	765802.6	916749.6	825.40	823.8	NE	NE	15 - 25	25.49	799.91	4	10	PVC	Alluvial silt and gravel	WBA	SG
165	765493.3	916873.7	817.50	815.6	40	775.4	31 - 41	44.21	773.29	4	10	PVC	Till/Bedrock	WBA	SG
166	765164.2	916597.5	813.71	812.0	87	724.5	78 - 88	90.56	723.15	4	10	PVC	Till/Bedrock	WBA	SG
167	765175.2	916605.7	813.26	811.7	NE	NE	14 - 24	25.52	787.74	4	10	PVC	Silt	WBA	SG
178	765209.7	917421.0	812.22	809.2	32	776.8	30 - 35	36.38	775.84	4	5	PVC, 10 slot	Gravel/Bedrock	WMA	DG
179	765297.4	916931.4	818.32	815.6	NE	NE	66 - 70	71.51	746.81	4	4	PVC, 8 slot	Outwash Sand	WMA	DG
181	766327.2	917857.1	894.65	893.2	37	855.7	34 - 39	40.60	854.05	4	5	PVC	Till/Bedrock	WMA	DG
183	765912.9	917704.1	851.83	848.9	25	823.9	22 - 27	30.50	821.33	4	5	PVC	Till/Bedrock	WMA	DG
185	765206.1	916776.3	815.54	813.0	89	723.9	71 - 91	94.20	721.34	4	20	PVC	S & G/Bedrock	WBA	DG
186	764857.7	917114.0	820.32	817.8	92	725.9	64 - 94	96.27	724.05	4	30	PVC	S & G/Bedrock	SBA	DG
194	766096.0	917750.2	862.70	861.4	36	824.3	48 - 110	113.37	749.33	5	62	S/OH	Bedrock	WMA	DG
306	764912.6	918514.9	821.04	817.8	58	760.1	40 - 60	62.50	758.54	4	20	PVC	S & G/Bedrock	TVD/MLA	DG
308	765690.7	919205.9	876.26	873.1	25	847.9	17 - 27	29.99	846.27	4	10	PVC	Till/Bedrock	TVD/MLA	DG
309	765632.1	918611.4	874.69	872.4	27	845.1	22 - 27	32.17	842.52	4	5	PVC	Till	TVD/MLA	DG
313	765577.1	918146.7	849.79	847.3	35	812.0	31 - 35	39.50	810.29	4	4	PVC	Till/Bedrock*	TVD/MLA	DG
314	764592.4	916575.0	813.82	811.1	98	713.0	93 - 98	100.43	713.39	4	5	PVC	Basal Till	SBA	DG
316	765161.3	916608.8	813.46	812.0	NE	NE	38 - 48	48.99	764.47	4	10	PVC	Glaciolac., vf sand, silt, clay	WBA	DG
317	765642.2	916612.3	823.00	820.6	NE	NE	35 - 45	47.16	775.84	4	10	PVC	Outwash S & G	WBA	DG
318	764251.6	916904.6	814.19	811.9	NE	NE	36 - 46	47.32	766.87	4	10	PVC	Outwash S & G	SBA	DG
319	764348.5	916622.4	806.89	804.3	NE	NE	33 - 43	45.23	761.66	4	10	PVC	Outwash Sand	SBA	DG
321	765315.2	918902.2	853.72	852.1	NE	NE	29 - 39	39.56	814.16	4	10	PVC	S & G/Till	TVD/MLA	DG
322	764159.2	916744.3	806.20	803.8	NE	NE	34 - 44	45.74	760.46	4	10	PVC	Outwash S & G	SBA	DG
323	764450.0	916768.0	813.67	811.6	NE	NE	35 - 45	47.35	766.32	4	10	PVC	Outwash Sand	SBA	DG
324	766906.2	918216.7	892.60	890.8	50.0	840.8	41.5 - 51.5	53.36	839.24	2	10	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
325	766916.7	918213.5	892.08	890.6	NE	NE	35 - 40	42.54	849.54	2	5	PVC, 10 slot	Alluvial Gravel	NBT/P001	DG
351	764164.5	916737.6	805.62	804.1	86	718.1	83.5 - 88.5	90.40	715.22	2	5	PVC	Till/Bedrock	SBA	DG
352	764346.6	916619.9	806.48	804.6	84.8	719.8	80 - 85	87.41	719.07	2	5	PVC	Basal Till	SBA	DG
353	766807.8	918783.5	912.87	913.3	23	890.3	24 - 29	28.57	884.30	2	5	PVC	Bedrock	TFA	DG
354	766823.0	918775.7	912.85	913.4	NE	NE	13 - 18	17.25	895.60	2	5	PVC	Till	TFA	DG
355	764015.2	917050.3	813.42	811.3	89.5	721.8	90.5 - 95.5	97.90	715.52	2	5	PVC	Bedrock	SBA	DG
356	764020.7	917054.5	813.31	811.5	NE	NE	63.2 - 68.2	70.32	742.99	2	5	PVC	Outwash S & G	SBA	DG
357	766720.9	917775.4	863.89	862.0	24.5	837.3	27.5 - 32.5	34.51	829.38	2	5	PVC	Bedrock	NBT/P001	DG
358	766711.3	917781.0	864.08	861.8	NE	NE	9.5 - 14.5	17.64	846.44	2	5	PVC	Alluvial S & G	NBT/P001	DG
361	766501.5	917786.6	868.42	865.8	28	837.8	28 - 33	35.39	833.03	2	5	PVC	Bedrock	NBT/P001	DG
362	765146.5	918765.3	832.69	829.8	58	771.8	58.5 - 63.5	66.64	766.05	2	5	PVC	Bedrock	TVD/MLA	DG

Table B-1: Well Specifications
Corrective Action Monitoring Program

Well	Northing (grid feet)	Easting (grid feet)	Current M.P. Elevation (ft amsl)	Current Ground Surface Elevation (ft amsl)	Depth to Bedrock (ft bgs)	Bedrock Elevation (ft amsl)	Screened Depth Interval (ft bgs)	Baseline Depth to Bottom from M.P. (ft)	Baseline Elevation of Bottom (ft amsl)	Well Diameter (in)	Screen Length (ft)	Well Construction Material	Geologic Unit Monitored	Site Area	Up, Down, or Side Gradient
363	765135.4	919180.1	855.07	852.5	38.5	814.0	38.5 - 43.5	45.53	809.54	2	5	PVC	Bedrock	TVD/MLA	DG
364	767066.3	917771.0	897.68	896.0	60.5	835.5	58.5 - 63.5	65.23	832.45	2	5	PVC	Till/Bedrock	NBT/P001	SG
365	767072.2	917770.3	898.00	896.2	NE	NE	39 - 44	45.84	852.16	2	5	PVC	Alluvial S & G	NBT/P001	SG
366	766711.7	918208.6	912.48	910.7	37.2	873.5	36 - 41	42.99	869.49	2	5	PVC	Till/Bedrock	NBT/P001	DG
367	766712.8	918032.6	910.08	908.3	67	841.9	66 - 71	72.48	837.60	2	5	PVC	Till/Bedrock	NBT/P001	DG
368	766710.2	918027.1	910.15	908.1	NE	NE	42.5 - 47.5	49.32	860.83	2	5	PVC	Alluvial f. Sand, Silt, G	NBT/P001	DG
372	765064.9	919791.2	904.96	903.5	58	845.5	58.5 - 63.5	65.82	839.14	2	5	PVC	Bedrock	TVD/MLA	SG
373	765151.7	918758.2	832.19	829.5	NE	NE	33 - 43	45.70	786.49	2	10	PVC	Outwash S & G	TVD/MLA	DG
374	764914.9	918527.1	821.25	818.6	NE	NE	8 - 18	20.54	800.71	2	10	PVC	Sand & Gravel	TVD/MLA	DG
375	764705.6	919469.4	833.00	831.4	38	793.4	38.5 - 43.5	45.58	787.42	2	5	PVC	Bedrock	TVD/MLA	SG
378	766993.8	917794.6	900.02	898.0	65.5	832.5	69.5 - 74.5	77.19	822.83	2	5	PVC	Bedrock	NBT/P001	DG
379	767000.4	917792.4	899.66	897.9	NE	NE	45 - 50	51.91	847.75	2	5	PVC	Till	NBT/P001	DG
382	766704.2	918193.3	912.59	910.4	NE	NE	15 - 20	22.58	890.01	2	5	PVC	Fill	NBT/P001	DG
383	766625.0	917810.0	867.39	864.6	NE	NE	9 - 14	16.99	850.40	2	5	PVC	Alluvial Silt & f. Sand	NBT/P001	DG
386	765601.5	917106.5	882.26	819.4	NE	NE	9.5 - 14.5	17.46	804.80	2	5	PVC	Alluvial S & G	WMA	DG
387	765481.8	916866.0	817.59	815.1	NE	NE	7.5 - 12.5	15.52	802.07	2	5	PVC	Alluvial S&G & Silt	WBA	DG
391	764709.2	919481.7	833.75	831.5	NE	NE	18 - 28	30.18	803.57	2	10	PVC	Outwash S & G	TVD/MLA	SG
392	766805.5	917961.4	895.98	893.8	NE	NE	33 - 43	44.98	851.00	2	10	PVC, 10 slot	Alluvial S&G & Silt	NBT/P001	DG
393	766967.9	917932.7	892.55	890.4	59	831.5	58 - 63	65.05	827.50	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
394	766972.3	917934.2	892.29	890.3	NE	NE	35 - 45	46.79	845.50	2	10	PVC, 10 slot	Alluvial S&G & Silt	NBT/P001	DG
395	767015.6	918162.0	890.04	887.7	59.5	828.6	57.5 - 62.5	65.07	824.97	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
397	766554.2	917409.1	865.79	863.6	34	829.6	32.5 - 37.5	39.69	826.10	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
398	766561.0	917406.4	865.37	863.3	NE	NE	6 - 16	18.07	847.30	2	10	PVC, 10 slot	Alluvial S&G & Silt	NBT/P001	DG
399	766826.6	917750.8	867.33	865.6	NE	NE	4 - 14	16.54	850.79	2	10	PVC, 10 slot	Alluvial S&G & Silt	NBT/P001	DG
404	764862.8	917113.2	NA	NA	92	725.8	37 - 55 - 87	42 - 65 - 92	NA	10	5	S, 6 slot S, 6 slot S, 10 slot	Alluvial Zone Alluvial Zone / Till Till/Bedrock Zone	WMA	DG
405	765284.0	916916.7	NA	NA	86.5	728.5	53 - 82	63 - 87	NA	10	10	S, 8 slot S, 10 slot	Alluvial Zone Till	WMA	DG
413	767086.5	918127.5	889.16	886.7	28.5	843.6	24 - 34	NA	NA	6	10	S, 60 slot	Till/Bedrock Zone	NBT/P001	DG
414	766889.8	918195.1	893.11	891.0	50	841.3	37 - 57	NA	NA	6	20	S, 20 slot	Alluvial & Till/Bedrock Zones	NBT/P001	DG
415	766989.0	918841.0	914.38	912.0	25	887.5	23 - 28	35.40	878.98	6	5	SS, 35 slot	Till/Bedrock Zone	TFA	DG
416	767004.4	918161.1	890.58	888.1	59	829.1	53.5 - 63.5	71.00	819.58	6	10	SS, 50 slot	Till/Bedrock Zone	NBT/P001	DG
521	766813.4	917531.5	863.78	861.6	36	825.6	33.5 - 38.5	41.13	822.65	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
522	766922.5	917616.3	864.46	862.3	28	834.3	26.5 - 31.5	34.08	830.38	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
524	766671.0	917748.5	866.28	864.1	31	833.1	28.5 - 33.5	36.17	830.11	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
529	766807.5	917532.6	863.93	861.8	NE	NE	6 - 12.5	14.90	849.03	2	6.5	PVC, 10 slot	All. Silt, Sand, Gravel	NBT/P001	DG
532	766678.4	917750.1	866.34	864.0	NE	NE	6 - 14	16.58	849.76	2	8	PVC, 10 slot	All. Silt, Sand, Gravel	NBT/P001	DG
534	766876.5	917684.3	862.88	863.4	NE	NE	4 - 14	13.34	849.54	2	10	PVC, 10 slot	All. Silt, Sand, Gravel	NBT/P001	DG
540	763910.4	916233.3	810.55	808.2	>52	<756.2	39 - 49	51.06	759.49	2	10	PVC, 10 slot	Outwash Sand	SBA	DG
541	753614.5	916380.7	812.11	809.6	>56	<753.6	42.5 - 52.5	55.07	757.04	2	10	PVC, 10 slot	Outwash S & G	SBA	DG
542	763435.0	916624.5	806.40	804.0	>80	<724.0	32 - 42	44.65	761.75	2	10	PVC, 10 slot	Outwash S & G	SBA	DG
543	763621.1	916951.9	823.64	820.6	>56	<764.6	41 - 51	54.30	769.34	2	10	PVC, 10 slot	Outwash S & G	SBA	DG
601	766597.3	917599.5	862.08	860.0	NE	NE	3 - 13	15.56	846.52	2	10	PVC, 10 slot	Alluvial S&G/Silt	NBT/P001	DG
602	766485.9	917557.5	862.15	860.1	NE	NE	5 - 17	19.54	842.61	2	12	PVC, 10 slot	Alluvial Silt & Sand	NBT/P001	DG
603	766585.3	917334.9	864.18	861.9	NE	NE	5.75 - 15.75	17.95	846.23	2	10	PVC, 10 slot	Alluvial S&G	NBT/P001	DG
604	767135.5	917876.0	885.48	885.8	NE	NE	14 - 24	21.88	863.60	2	10	PVC, 10 slot	Alluvial Silt & Sand	NBT/P001	DG
605	767139.6	917874.6	885.23	900.6	45.5	842.0	43 - 48	45.73	839.50	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
606	766911.5	917826.6	900.06	900.6	NE	NE	43 - 48	47.36	852.70	2	5	PVC, 10 slot	Alluvial S&G and Silt	NBT/P001	DG
607	766901.8	917830.3	900.46	900.9	58	842.9	55.5 - 60.5	60.06	840.40	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
608	766614.6	917449.8	861.51	859.1	NE	NE	4 - 14	16.77	844.74	2	10	PVC, 10 slot	All. Silt, Sand, Gravel	NBT/P001	DG
609	767176.0	918342.1	895.16	895.5	49.5	846.0	47 - 52	51.66	843.50	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
610	766978.1	918572.3	909.10	909.7	30.5	879.2	28 - 33	32.40	876.70	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
611	766982.3	918579.3	909.11	909.7	NE	NE	4 - 14	13.41	895.70	2	10	PVC, 10 slot	Fill/All. Sand & Silt	NBT/P001	DG
612	766991.4	918321.7	903.93	904.5	56.1	848.4	54 - 59	56.64	847.29	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
613	766986.7	918314.2	903.94	904.5	NE	NE	32 - 42	41.63	862.31	2	10	PVC, 10 slot	All. Sand, Silt, Gravel	NBT/P001	DG
614	764906.7	916538.0	811.80	809.2	101	708.2	97.5 - 102.5	105.42	706.38	2	5	PVC, 10 slot	Till/Bedrock	WBA	DG
615	766479.4	917558.0	862.69	860.5	33	827.5	38 - 43	46.07	816.62	2	5	PVC, 10 slot	Bedrock	NBT/P001	DG
616	767296.7	918241.6	888.18	885.2	26.5	858.7	23.5 - 28.5	31.56	856.62	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
617	767312.2	918427.0	895.77	896.1	35	861.1	32.5 - 37.5	37.34	858.43	2	5	PVC, 10 slot	Till/Bedrock	NBT/P001	DG
618	767604.5	918632.7	909.29	906.2	24	879.4	21 - 26	28.86	880.43	2	5	PVC, 10 slot	Till/Bedrock	TFA	UG
619	765999.4	919160.0	896.45	896.8	13.5	883.3	10 - 15	15.07	881.38	2	5	PVC, 10 slot	Till/Bedrock	TVD/MLA	DG
620	765775.4	919122.9	887.16	884.2	NE	NE	4.5 - 14.5	17.56	869.60	2	10	PVC, 10 slot	All. Sand, Silt, Gravel	TVD/MLA	DG
621	765343.7	918569.7	841.97	840.0	NE	NE	25 - 35	37.41	804.56	2	10	PVC, 10 slot	Outwash Silt&Gravel	TVD/MLA	DG

Table B-1: Well Specifications
Corrective Action Monitoring Program

Well	Northing (grid feet)	Easting (grid feet)	Current M.P. Elevation (ft amsl)	Current Ground Surface Elevation (ft amsl)	Depth to Bedrock (ft bgs)	Bedrock Elevation (ft amsl)	Screened Depth Interval (ft bgs)	Baseline Depth to Bottom from M.P. (ft)	Baseline Elevation of Bottom (ft amsl)	Well Diameter (in)	Screen Length (ft)	Well Construction Material	Geologic Unit Monitored	Site Area	Up, Down, or Side Gradient
622	765344.6	918560.8	842.11	840.0	42	798.0	39 - 44	46.53	795.58	2	5	PVC, 10 slot	Till/Bedrock	TVD/MLA	DG
623	765292.6	918000.3	852.67	850.7	NE	NE	42 - 52	54.59	798.08	2	10	PVC, 10 slot	Outwash Sand&Gravel	TVD/MLA	DG
624	765299.7	918006.4	853.46	851.5	60.5	791.0	52 - 57	64.39	789.07	2	5	PVC, 10 slot	Till/Bedrock	TVD/MLA	DG
625	764081.1	916908.4	808.77	806.8	NE	NE	32 - 42	44.58	764.19	2	10	PVC, 10 slot	Outwash Sand	SBA	DG
626	764076.2	916901.0	808.60	804.5	86.5	718.0	84.5 - 89.5	92.41	716.19	2	5	PVC, 10 slot	Till/Bedrock	SBA	DG
627	764545.6	916922.9	812.96	811.2	NE	NE	38 - 48	50.91	762.05	2	10	PVC, 10 slot	Outwash Sand	SBA	DG
628	764537.3	916914.3	812.43	810.9	95.5	715.4	93 - 98	100.50	711.93	2	5	PVC, 10 slot	Till/Bedrock	SBA	DG
629	765410.2	916642.9	818.39	816.2	NE	NE	38 - 48	51.45	766.94	2	10	PVC, 10 slot	Silt, f. Sand, Gravel	WBA	SG
630	765399.8	916638.6	817.63	815.5	88	727.5	85.5 - 90.5	93.55	724.08	2	5	PVC, 10 slot	Till/Bedrock	WBA	SG
631	766060.3	916906.3	829.38	828.0	NE	NE	24 - 29	31.53	797.85	2	5	PVC, 10 slot	Outwash Sand&Gravel	WBA	UG
632	765667.6	917925.0	853.24	850.8	34	816.8	31 - 36	39.34	813.90	2	5	PVC, 10 slot	Till/Bedrock	WMA	DG
P01	765207.2	917610.9	810.62	808.7	NE	NE	5 - 10	11.23	799.39	2	5	PVC	S & G	WMA	DG
P02	765162.9	917434.9	809.61	807.8	NE	NE	5 - 10	10.49	799.12	2	5	PVC	S & G	WMA	DG
P04	766897.6	919096.5	914.73	913.6	19.5	894.1	14 - 19	20.31	894.42	2	5	PVC	Till	TFA	DG
P07	766152.6	919063.9	894.47	895.4	6.5	888.8	NL - NL	5.55	888.92	2	NL	S	Till*	TVD/MLA	DG
P08	766137.6	919137.3	894.70	895.3	9.5	886.3	NL - NL	8.73	885.97	2	NL	S	Till*	TVD/MLA	DG
P11	765943.1	919227.8	895.21	895.5	15.5	879.5	NL - NL	14.84	880.37	2	NL	S	Till*	TVD/MLA	DG

Key:

DG: Downgradient from source area	S&G: Sand and Gravel
ft amsl: Feet above mean sea level	S,SS: Steel, Stainless Steel
ft bgs: Feet below ground surface	SBA: Southern Boundary Area
Glaciolac.: Glaciolacustrine	SG: Side gradient to source area
NBT/P001: Northwest Bedrock Trough/ Parking Lot 001 Area	TFA: Tank Farm Area
M.P.: Measurement point	TVD/MLA: Tower View Drive/Mirror Lake Area
NA: Not available or not accessible	UG: Upgradient from source area
NE: Not encountered	WBA: Western Boundary Area
NL: No log available	WMA: Waste Management Area
OH: Open hole completion	* Uncertain
PVC: Polyvinyl chloride	

**Table B-2a: Hydraulic Effectiveness Monitoring Wells
for Groundwater Elevation Measurements**

Well	M.P. Elev. (ft amsl)	Planar Coordinates		Site Area	List "A"	List "B"
		Northing	Easting			
101	814.01	764601.1	916596.6	SBA	X	
106	914.91	767106.1	919136.5	TFA		X
107A	961.80	767000.3	919557.6	TFA		X
110	946.88	766674.6	919542.5	TFA		X
113	914.83	767051.4	918957.9	TFA		X
114	916.13	766976.5	918889.9	TFA		X
120	846.20	765939.9	917443.6	WMA	X	
123	903.96	765871.9	919093.3	TFA		X
124	911.43	767366.9	918823.9	TFA		X
125	905.36	767096.6	918627.9	TFA		X
126	908.95	767128.9	918825.2	TFA		X
127	909.65	767204.2	918901.6	TFA		X
128	914.23	766984.2	918840.7	TFA		X
129	912.10	766776.9	919163.6	TFA		X
132	915.31	766141.1	919376.3	TFA		X
133	897.22	767281.5	918665.9	TVD/ML	X	
134	916.46	766044.5	919507.4	TFA		X
140R	889.17	767086.4	918134.6	NBT/P001		X
143	884.81	767292.3	917826.1	NBT/P001		X
146	868.04	766637.9	917813.3	NBT/P001		X
147	871.57	766361.6	917695.9	WMA	X	
148	857.87	766085.9	917652.8	WMA	X	
149	834.27	765773.6	917229.3	WMA	X	
154	861.70	766603.6	917601.3	NBT/P001		X
157	854.13	766538.0	917158.9	NBT/P001		X
158	838.28	766293.2	916902.0	WBA	X	
160	824.31	765642.6	916618.6	WBA	X	
161	824.96	765648.6	916615.3	WBA	X	
162	825.50	765798.6	916741.9	WBA	X	
163	825.40	765802.6	916749.6	WBA	X	
165	817.50	765493.3	916873.7	WBA	X	
166	813.71	765164.2	916597.5	WBA	X	
167	813.26	765175.2	916605.7	WBA	X	
178	812.22	765209.7	917421.0	WMA	X	
179	818.32	765297.4	916931.4	WMA	X	
181	894.65	766327.2	917857.1	WMA	X	
183	851.83	765912.9	917704.1	WMA	X	
185	815.54	765206.1	916776.3	WBA	X	
186	820.32	764857.7	917114.0	SBA	X	
194	862.70	766096.0	917750.2	WMA	X	
306	821.04	764912.6	918514.9	TVD/ML	X	
308	876.26	765690.7	919205.9	TVD/ML	X	
309	874.69	765632.1	918611.4	TVD/ML	X	
313	849.79	765577.1	918146.7	TVD/ML	X	
314	813.82	764592.4	916575.0	SBA	X	
316	813.46	765161.3	916608.8	WBA	X	
317	823.00	765642.2	916612.3	WBA	X	
318	814.19	764251.6	916904.6	SBA	X	
319	806.89	764348.5	916622.4	SBA	X	
321	853.72	765315.2	918902.2	TVD/ML	X	
322	806.20	764159.2	916744.3	SBA	X	
323	813.67	764450.0	916768.0	SBA	X	
324	892.60	766906.2	918216.7	NBT/P001		X
325	892.08	766916.7	918213.5	NBT/P001		X
351	805.62	764164.5	916737.6	SBA	X	
352	806.48	764346.6	916619.9	SBA	X	
353	912.87	766807.8	918783.5	TFA		X
354	912.85	766823.0	918775.7	TFA		X
355	813.42	764015.2	917050.3	SBA	X	
356	813.31	764020.7	917054.5	SBA	X	
357	863.89	766720.9	917775.4	NBT/P001		X
358	864.08	766711.3	917781.0	NBT/P001		X
361	868.42	766501.5	917786.6	NBT/P001		X
362	832.69	765146.5	918765.3	TVD/ML	X	
363	855.07	765135.4	919180.1	TVD/ML	X	
364	897.68	767066.3	917771.0	NBT/P001		X
365	898.00	767072.2	917770.3	NBT/P001		X
366	912.48	766711.7	918208.6	NBT/P001		X
367	910.08	766712.8	918032.6	NBT/P001		X
368	910.15	766710.2	918027.1	NBT/P001		X
372	904.96	765064.9	919791.2	TVD/ML	X	
373	832.19	765151.7	918758.2	TVD/ML	X	
374	821.25	764914.9	918527.1	TVD/ML	X	
375	833.00	764705.6	919469.4	TVD/ML	X	
378	900.02	766993.8	917794.6	NBT/P001		X
379	899.66	767000.4	917792.4	NBT/P001		X

**Table B-2a: Hydraulic Effectiveness Monitoring Wells
for Groundwater Elevation Measurements**

Well	M.P. Elev. (ft amsl)	Planar Coordinates		Site Area	List "A"	List "B"
		Northing	Easting			
382	912.59	766704.2	918193.3	NBT/P001		X
383	867.39	766625.0	917810.0	NBT/P001		X
386	822.26	765601.5	917106.5	WMA	X	
387	817.59	765481.8	916866.0	WBA	X	
391	833.75	764709.2	919481.7	TVD/ML	X	
392	895.98	766805.5	917961.4	NBT/P001		X
393	892.55	766967.9	917932.7	NBT/P001		X
394	892.29	766972.3	917934.2	NBT/P001		X
395	890.04	767015.6	918162.0	NBT/P001		X
397	865.79	766554.2	917409.1	NBT/P001		X
398	865.37	766561.0	917406.4	NBT/P001		X
399	867.33	766826.6	917750.8	NBT/P001		X
413	889.16	767086.5	918127.5	NBT/P001		X
414	893.11	766889.8	918195.1	NBT/P001		X
415	914.38	766989.0	918841.0	TFA		X
416	890.58	767004.4	918161.1	NBT/P001		X
521	863.78	766813.4	917531.5	MT		X
522	864.46	766922.5	917616.3	MT		X
524	866.28	766671.0	917748.5	MT		X
529	863.93	766807.5	917532.6	MT		X
532	866.34	766678.4	917750.1	MT		X
534	862.88	766876.5	917684.3	MT		X
540	810.55	763910.4	916233.3	SBA	X	
541	812.11	753614.5	916380.7	SBA	X	
542	806.40	763435.0	916624.5	SBA	X	
543	823.64	763621.1	916951.9	SBA	X	
601	862.08	766597.3	917599.5	NBT/P001		X
602	862.15	766485.9	917557.5	NBT/P001		X
603	864.18	766585.3	917334.9	NBT/P001		X
604	885.48	767135.5	917876.0	NBT/P001		X
605	885.23	767139.6	917874.6	NBT/P001		X
606	900.06	766911.5	917826.6	NBT/P001		X
607	900.46	766901.8	917830.3	NBT/P001		X
608	861.51	766614.6	917449.8	NBT/P001		X
609	895.16	767176.0	918342.1	NBT/P001		X
610	909.10	766978.1	918572.3	NBT/P001		X
611	909.11	766982.3	918579.3	NBT/P001		X
612	903.93	766991.4	918321.7	NBT/P001		X
613	903.94	766986.7	918314.2	NBT/P001		X
614	811.80	764906.7	916538.0	WBA	X	
615	862.69	766479.4	917558.0	NBT/P001		X
616	888.18	767296.7	918241.6	NBT/P001		X
617	895.77	767312.2	918427.0	NBT/P001		X
618	909.29	767604.5	918632.7	TFA		X
619	896.45	765999.4	919160.0	TVD/ML	X	
620	887.16	765775.4	919122.9	TVD/ML	X	
621	841.97	765343.7	918569.7	TVD/ML	X	
622	842.11	765344.6	918560.8	TVD/ML	X	
623	852.67	765292.6	918000.3	TVD/ML	X	
624	853.46	765299.7	918006.4	TVD/ML	X	
625	808.77	764081.1	916908.4	SBA	X	
626	808.60	764076.2	916901.0	SBA	X	
627	812.96	764545.6	916922.9	SBA	X	
628	812.43	764537.3	916914.3	SBA	X	
629	818.39	765410.2	916642.9	WBA	X	
630	817.63	765399.8	916638.6	WBA	X	
631	829.38	766060.3	916906.3	WBA	X	
632	853.24	765667.6	917925.0	WMA	X	
P01	810.62	765207.2	917610.9	WMA	X	
P02	809.61	765162.9	917434.9	WMA	X	
P04	914.73	766897.6	919096.5	TFA		X
P07	894.47	766152.6	919063.9	TVD/ML	X	
P08	894.70	766137.6	919137.3	TVD/ML	X	
P11	895.21	765943.1	919227.8	TVD/ML	X	

Planar coordinates are relative to the New York State grid and are expressed in feet.

Lists "A" and "B" are to be alternated as follows:

In Year 1, List "A" wells shall be measured in the first and third quarters; List "B" wells in the second and fourth quarters. In Year 2, List "A" wells shall be measured in the second and fourth quarters; List "B" wells in the first and third quarters. Years 3, 5, 7, etc. shall be the same as Year 1 and Years 4, 6, 8, etc. shall be the same as Year 2.

Key:

MT = Moore Tire Area (off-site)
NBT/P001 = NW Bedrock Trough/P001 Area
SBA = Southern Boundary Area
TFA = Tank Farm Area

TVD/MLA = Tower View Drive/Mirror Lake Area
WBA = Western Boundary Area
WMA = Waste Management Area

**Table B-2b: Contaminant Reduction Monitoring Wells
for Groundwater Sampling**

Well	Site Area	Site Region	Sampling Frequency	List "A"	List "B"
107A*	TFA	North	Q	X	X
110	TFA	North	S		X
124	TFA	North	S		X
125	TFA	North	S		X
127	TFA	North	S		X
128	TFA	North	A		X
129	TFA	North	S		X
132	TFA	North	A		X
134	TFA	North	S		X
353	TFA	North	A		X
354	TFA	North	A		X
618	TFA	North	S		X
P04	TFA	North	A		X
521	MT	North	S		X
522	MT	North	Q	X	X
524	MT	North	S		X
529	MT	North	Q	X	X
532	MT	North	Q	X	X
534	MT	North	Q	X	X
140R	NBT/P001	North	A		X
146	NBT/P001	North	S		X
157	NBT/P001	North	S		X
324	NBT/P001	North	S		X
325	NBT/P001	North	S		X
357	NBT/P001	North	S		X
358	NBT/P001	North	A		X
378	NBT/P001	North	S		X
383	NBT/P001	North	S		X
392	NBT/P001	North	S		X
393	NBT/P001	North	Q	X	X
394	NBT/P001	North	S		X
397	NBT/P001	North	A		X
398	NBT/P001	North	S		X
399	NBT/P001	North	Q	X	X
603	NBT/P001	North	S		X
604	NBT/P001	North	S		X
605	NBT/P001	North	A		X
606	NBT/P001	North	Q	X	X
607	NBT/P001	North	Q	X	X
608	NBT/P001	North	S		X
609	NBT/P001	North	A		X
610	NBT/P001	North	S		X
611	NBT/P001	North	S		X
612	NBT/P001	North	S		X
613	NBT/P001	North	S		X
615	NBT/P001	North	A		X
616	NBT/P001	North	S		X
617	NBT/P001	North	S		X
101	SBA	South	S	X	
186	SBA	South	S	X	
314	SBA	South	A	X	
318	SBA	South	Q	X	X
319	SBA	South	Q	X	X
322	SBA	South	Q	X	X
323	SBA	South	Q	X	X
351	SBA	South	S	X	
352	SBA	South	A	X	
355	SBA	South	A	X	
356	SBA	South	A	X	
625	SBA	South	Q	X	X
626	SBA	South	S	X	
627	SBA	South	S	X	
540	SBA	South	S	X	
541	SBA	South	S	X	
542	SBA	South	S	X	
543	SBA	South	S	X	
133	TVD/MLA	South	S	X	
306	TVD/MLA	South	A	X	
308	TVD/MLA	South	S	X	
309	TVD/MLA	South	S	X	
313	TVD/MLA	South	A	X	
321	TVD/MLA	South	S	X	
362	TVD/MLA	South	A	X	
363	TVD/MLA	South	A	X	
373	TVD/MLA	South	S	X	
374	TVD/MLA	South	S	X	

**Table B-2b: Contaminant Reduction Monitoring Wells
for Groundwater Sampling**

Well	Site Area	Site Region	Sampling Frequency	List "A"	List "B"
619	TVD/MLA	South	A	X	
620	TVD/MLA	South	S	X	
621	TVD/MLA	South	S	X	
622	TVD/MLA	South	S	X	
P08	TVD/MLA	South	A	X	
P11	TVD/MLA	South	A	X	
158	WBA	South	A	X	
160	WBA	South	S	X	
162	WBA	South	S	X	
163	WBA	South	A	X	
165	WBA	South	S	X	
166	WBA	South	S	X	
167	WBA	South	S	X	
185	WBA	South	S	X	
316	WBA	South	S	X	
317	WBA	South	S	X	
614	WBA	South	A	X	
631	WBA	South	S	X	
120	WMA	South	S	X	
148	WMA	South	S	X	
149	WMA	South	S	X	
178	WMA	South	S	X	
179	WMA	South	S	X	
181	WMA	South	A	X	
183	WMA	South	S	X	
194	WMA	South	S	X	
403	WMA	South	S	X	
632	WMA	South	S	X	

Key:

MT = Moore Tire Area (off-site)
 NBT/P001 = NW Bedrock Trough/P001 Area
 SBA = Southern Boundary Area
 TFA = Tank Farm Area
 TVD/MLA = Tower View Drive/Mirror Lake Area
 WBA = Western Boundary Area
 WMA = Waste Management Area
 A = Annual
 S = Semiannual
 Q = Quarterly
 * Site-wide upgradient well to be sampled quarterly.

X = Analyze all samples for volatile organic compounds by SW846 Method 8260C.

Lists "A" and "B" are to be alternated as follows:

In Year 1, List "A" wells shall be sampled in the first and third quarters; List "B" wells in the second and fourth quarters. In Year 2, List "A" wells shall be sampled in the second and fourth quarters; List "B" wells in the first and third quarters. Years 3, 5, 7, etc. shall be the same as Year 1 and Years 4, 6, 8, etc. shall be the same as Year 2. All listed monitoring wells are hydraulic effectiveness monitoring wells. Refer to Table B-2a for a complete list and schedule of groundwater elevation measurements.

APPENDIX C

GROUNDWATER ELEVATION DATA January 1, 2017 - December 31, 2017

2017 WELL INSPECTION SUMMARY WITH DEDICATED EQUIPMENT ASSIGNMENTS

Groundwater Elevation Data

Well ID	Date of Measurement	Top of Casing Elevation (ft amsl)	Depth to Water (ft below TOC)	Groundwater Elevation (ft amsl)
101	2/27/2017	814.01	13.54	800.47
120	2/27/2017	846.20	19.75	826.45
133	2/27/2017	897.22	26.20	871.02
147	2/27/2017	871.57	15.92	855.65
148	2/27/2017	857.87	18.53	839.34
149	2/27/2017	834.27	17.90	816.37
158	2/27/2017	838.28	9.20	829.08
160	2/27/2017	824.31	10.26	814.05
161	2/27/2017	824.96	10.76	814.20
162	2/27/2017	825.50	8.00	817.50
163	2/27/2017	825.40	8.99	816.41
165	2/27/2017	817.50	6.27	811.23
166	2/27/2017	813.71	22.38	791.33
167	2/27/2017	813.26	7.67	805.59
178	2/27/2017	812.22	6.50	805.72
179	2/27/2017	818.32	35.60	782.72
181	2/27/2017	894.65	29.20	865.45
183	2/27/2017	851.83	23.15	828.68
185	2/27/2017	815.54	27.70	787.84
186	2/27/2017	820.32	37.93	782.39
194	2/27/2017	862.70	27.40	835.30
306	2/27/2017	821.04	4.03	817.01
308	2/27/2017	876.26	12.76	863.50
309	2/27/2017	874.69	27.40	847.29
313	2/27/2017	849.79	30.80	818.99
314	2/27/2017	813.82	14.60	799.22
316	2/27/2017	813.46	21.90	791.56
317	2/27/2017	823.00	8.87	814.13
318	2/27/2017	814.19	13.85	800.34
319	2/27/2017	806.89	6.44	800.45

Groundwater Elevation Data

Well ID	Date of Measurement	Top of Casing Elevation (ft amsl)	Depth to Water (ft below TOC)	Groundwater Elevation (ft amsl)
321	2/27/2017	853.72	24.20	829.52
322	2/27/2017	806.20	5.70	800.50
323	2/27/2017	813.67	13.38	800.29
351	2/27/2017	805.62	6.73	798.89
352	2/27/2017	806.48	7.28	799.20
355	2/27/2017	813.42	12.81	800.61
356	2/27/2017	813.31	12.35	800.96
362	2/27/2017	832.69	13.24	819.45
363	2/27/2017	855.07	31.70	823.37
372	2/27/2017	904.96	42.90	862.06
373	2/27/2017	832.19	11.95	820.24
374	2/27/2017	821.25	4.70	816.55
375	2/27/2017	833.00	10.52	822.48
386	2/27/2017	822.26	8.57	813.69
387	2/27/2017	817.59	5.54	812.05
391	2/27/2017	833.75	11.34	822.41
540	2/27/2017	810.55	9.68	800.87
541	2/27/2017	812.11	11.18	800.93
542	2/27/2017	806.40	5.45	800.95
543	2/27/2017	823.64	22.68	800.96
614	2/27/2017	811.80	14.48	797.32
619	2/27/2017	896.45	9.86	886.59
620	2/27/2017	887.16	17.25	869.91
621	2/27/2017	841.97	19.62	822.35
622	2/27/2017	842.11	18.99	823.12
623	2/27/2017	852.67	39.84	812.83
624	2/27/2017	853.46	40.46	813.00
625	2/27/2017	808.77	7.99	800.87
626	2/27/2017	808.60	8.92	799.68
627	2/27/2017	812.96	14.04	798.92

Groundwater Elevation Data

Well ID	Date of Measurement	Top of Casing Elevation (ft amsl)	Depth to Water (ft below TOC)	Groundwater Elevation (ft amsl)
628	2/27/2017	812.43	18.14	794.29
629	2/27/2017	818.39	26.72	791.67
630	2/27/2017	817.63	26.21	791.42
631	2/27/2017	829.38	5.75	823.63
632	2/27/2017	853.24	32.70	820.54
P01	2/27/2017	810.62	2.02	808.60
P02	2/27/2017	809.61	3.85	805.76
P07	2/27/2017	894.47	3.92	890.55
P08	2/27/2017	894.70	4.91	889.79
P11	2/27/2017	895.21	9.90	885.31
106	6/12/2017	914.91	1.64	913.27
107A	6/12/2017	961.80	15.54	946.26
110	6/12/2017	946.88	6.01	940.87
113	6/12/2017	914.83	7.28	907.55
114	6/12/2017	916.13	DRY	<902.6
123	6/12/2017	903.96	3.95	900.01
124	6/12/2017	911.43	5.71	905.72
125	6/12/2017	905.36	7.64	897.72
126	6/12/2017	908.95	7.73	901.22
127	6/12/2017	909.65	3.90	905.75
128	6/12/2017	914.23	17.64	896.59
129	6/12/2017	912.10	2.70	909.40
132	6/12/2017	915.31	17.38	897.93
134	6/12/2017	916.46	19.08	897.38
140R	6/12/2017	889.17	30.98	858.19
143	6/12/2017	884.81	5.59	879.22
146	6/12/2017	868.04	5.28	862.76
154	6/12/2017	861.70	2.33	859.37
157	6/12/2017	854.13	9.18	844.95
324	6/12/2017	892.60	32.42	860.18

Groundwater Elevation Data

Well ID	Date of Measurement	Top of Casing Elevation (ft amsl)	Depth to Water (ft below TOC)	Groundwater Elevation (ft amsl)
325	6/12/2017	892.08	28.65	863.43
353	6/12/2017	912.87	12.62	900.25
354	6/12/2017	912.85	10.78	902.07
357	6/12/2017	863.89	2.20	861.69
358	6/12/2017	864.08	2.26	861.82
361	6/12/2017	868.42	5.86	862.56
364	6/12/2017	897.68	33.91	863.77
365	6/12/2017	898.00	35.55	862.45
366	6/12/2017	912.48	38.37	874.11
367	6/12/2017	910.08	45.26	864.82
368	6/12/2017	910.15	43.47	866.68
378	6/12/2017	900.02	37.22	862.80
379	6/12/2017	899.66	37.66	862.00
382	6/12/2017	912.59	11.13	901.46
383	6/12/2017	867.39	4.60	862.79
392	6/12/2017	895.98	31.80	864.18
393	6/12/2017	892.55	29.73	862.82
394	6/12/2017	892.29	30.45	861.84
395	6/12/2017	890.04	27.66	862.38
397	6/12/2017	865.79	9.50	856.29
398	6/12/2017	865.37	9.25	856.12
399	6/12/2017	867.33	4.66	862.67
413	6/12/2017	889.16	41.35	847.81
414	6/12/2017	893.11	47.91	845.20
415	6/12/2017	914.38	18.40	895.98
416	6/12/2017	890.58	66.44	824.14
521	6/12/2017	863.78	1.78	862.00
522	6/12/2017	864.46	2.05	862.41
524	6/12/2017	866.28	4.68	861.60
529	6/12/2017	863.93	3.05	860.88

Groundwater Elevation Data

Well ID	Date of Measurement	Top of Casing Elevation (ft amsl)	Depth to Water (ft below TOC)	Groundwater Elevation (ft amsl)
532	6/12/2017	866.34	4.77	861.57
534	6/12/2017	862.88	2.10	860.78
540	6/12/2017	810.55	14.30	796.25
541	6/12/2017	812.11	16.47	795.64
542	6/12/2017	806.40	10.57	795.83
543	6/12/2017	823.64	26.45	797.19
601	6/12/2017	862.08	2.60	859.48
602	6/12/2017	862.15	4.52	857.63
603	6/12/2017	864.18	8.47	855.71
604	6/12/2017	885.48	13.76	871.72
605	6/12/2017	885.23	16.97	868.26
606	6/12/2017	900.06	38.17	861.89
607	6/12/2017	900.46	37.96	862.50
608	6/12/2017	861.51	3.61	857.90
609	6/12/2017	895.16	24.72	870.44
610	6/12/2017	909.10	14.77	894.33
611	6/12/2017	909.11	11.25	897.86
612	6/12/2017	903.93	31.96	871.97
613	6/12/2017	903.94	30.90	873.04
615	6/12/2017	862.69	6.77	855.92
616	6/12/2017	888.18	5.78	882.40
617	6/12/2017	895.77	4.95	890.82
618	6/12/2017	909.29	4.44	904.85
P04	6/12/2017	914.73	5.30	909.43
101	7/17/2017	814.01	15.22	798.79
120	7/17/2017	846.20	22.03	824.17
133	7/17/2017	897.22	27.16	870.06
147	7/17/2017	871.57	17.80	853.77
148	7/17/2017	857.87	19.68	838.19
149	7/17/2017	834.27	20.10	814.17

Groundwater Elevation Data

Well ID	Date of Measurement	Top of Casing Elevation (ft amsl)	Depth to Water (ft below TOC)	Groundwater Elevation (ft amsl)
158	7/17/2017	838.28	11.09	827.19
160	7/17/2017	824.31	12.08	812.23
161	7/17/2017	824.96	12.64	812.32
162	7/17/2017	825.50	9.21	816.29
163	7/17/2017	825.40	10.20	815.20
165	7/17/2017	817.50	9.91	807.59
166	7/17/2017	813.71	22.27	791.44
167	7/17/2017	813.26	7.87	805.39
178	7/17/2017	812.22	7.24	804.98
179	7/17/2017	818.32	33.63	784.69
181	7/17/2017	894.65	30.58	864.07
183	7/17/2017	851.83	25.60	826.23
185	7/17/2017	815.54	27.14	788.40
186	7/17/2017	820.32	36.83	783.49
194	7/17/2017	862.70	29.13	833.57
306	7/17/2017	821.04	5.07	815.97
308	7/17/2017	876.26	16.53	859.73
309	7/17/2017	874.69	28.58	846.11
313	7/17/2017	849.79	33.05	816.74
314	7/17/2017	813.82	16.15	797.67
316	7/17/2017	813.46	21.80	791.66
317	7/17/2017	823.00	10.66	812.34
318	7/17/2017	814.19	15.95	798.24
319	7/17/2017	806.89	8.35	798.54
321	7/17/2017	853.72	26.11	827.61
322	7/17/2017	806.20	8.00	798.20
323	7/17/2017	813.67	15.01	798.66
351	7/17/2017	805.62	8.27	797.35
352	7/17/2017	806.48	8.38	798.10
355	7/17/2017	813.42	15.17	798.25

Former Owego, New York Facility
Groundwater Elevation Data

1/24/2018

Well ID	Date of Measurement	Top of Casing Elevation (ft amsl)	Depth to Water (ft below TOC)	Groundwater Elevation (ft amsl)
356	7/17/2017	813.31	14.80	798.51
362	7/17/2017	832.69	14.49	818.20
363	7/17/2017	855.07	33.30	821.77
372	7/17/2017	904.96	45.02	859.94
373	7/17/2017	832.19	13.20	818.99
374	7/17/2017	821.25	5.66	815.59
375	7/17/2017	833.00	12.03	820.97
386	7/17/2017	822.26	11.51	810.75
387	7/17/2017	817.59	9.11	808.48
391	7/17/2017	833.75	12.82	820.93
540	7/17/2017	810.55	13.30	797.25
541	7/17/2017	812.11	15.18	796.93
542	7/17/2017	806.40	9.35	797.05
543	7/17/2017	823.64	25.89	797.75
614	7/17/2017	811.80	15.75	796.05
619	7/17/2017	896.45	10.34	886.11
620	7/17/2017	887.16	17.40	869.76
621	7/17/2017	841.97	22.34	819.63
622	7/17/2017	842.11	21.81	820.30
623	7/17/2017	852.67	41.01	811.66
624	7/17/2017	853.46	41.70	811.76
625	7/17/2017	808.77	10.30	798.47
626	7/17/2017	808.60	11.13	797.47
627	7/17/2017	812.96	13.57	799.39
628	7/17/2017	812.43	18.46	793.97
629	7/17/2017	818.39	26.71	791.68
630	7/17/2017	817.63	26.14	791.49
631	7/17/2017	829.38	7.06	822.32
632	7/17/2017	853.24	34.04	819.20
P01	7/17/2017	810.62	2.38	808.24

Groundwater Elevation Data

Well ID	Date of Measurement	Top of Casing Elevation (ft amsl)	Depth to Water (ft below TOC)	Groundwater Elevation (ft amsl)
P02	7/17/2017	809.61	4.77	804.84
P07	7/17/2017	894.47	4.07	890.40
P08	7/17/2017	894.70	6.37	888.33
P11	7/17/2017	895.21	12.06	883.15
106	10/2/2017	914.91	5.87	909.04
107A	10/2/2017	961.80	20.81	940.99
110	10/2/2017	946.88	11.92	934.96
113	10/2/2017	914.83	9.70	905.13
114	10/2/2017	916.13	DRY	<902.6
123	10/2/2017	903.96	7.94	896.02
124	10/2/2017	911.43	13.05	898.38
125	10/2/2017	905.36	10.80	894.56
126	10/2/2017	908.95	12.12	896.83
127	10/2/2017	909.65	9.73	899.92
128	10/2/2017	914.23	20.25	893.98
129	10/2/2017	912.10	3.55	908.55
132	10/2/2017	915.31	19.00	896.31
134	10/2/2017	916.46	21.70	894.76
140R	10/2/2017	889.17	32.55	856.62
143	10/2/2017	884.81	9.46	875.35
146	10/2/2017	868.04	6.81	861.23
154	10/2/2017	861.70	3.33	858.37
157	10/2/2017	854.13	10.54	843.59
324	10/2/2017	892.60	34.50	858.10
325	10/2/2017	892.08	31.45	860.63
353	10/2/2017	912.87	15.16	897.71
354	10/2/2017	912.85	14.02	898.83
357	10/2/2017	863.89	3.31	860.58
358	10/2/2017	864.08	3.33	860.75
361	10/2/2017	868.42	7.99	860.43

Groundwater Elevation Data

Well ID	Date of Measurement	Top of Casing Elevation (ft amsl)	Depth to Water (ft below TOC)	Groundwater Elevation (ft amsl)
364	10/2/2017	897.68	35.60	862.08
365	10/2/2017	898.00	37.11	860.89
366	10/2/2017	912.48	40.65	871.83
367	10/2/2017	910.08	47.96	862.12
368	10/2/2017	910.15	47.00	863.15
378	10/2/2017	900.02	38.78	861.24
379	10/2/2017	899.66	39.22	860.44
382	10/2/2017	912.59	12.64	899.95
383	10/2/2017	867.39	6.20	861.19
392	10/2/2017	895.98	32.80	863.18
393	10/2/2017	892.55	31.35	861.20
394	10/2/2017	892.29	31.99	860.30
395	10/2/2017	890.04	29.24	860.80
397	10/2/2017	865.79	11.22	854.57
398	10/2/2017	865.37	10.80	854.57
399	10/2/2017	867.33	6.53	860.80
413	10/2/2017	889.16	41.42	847.74
414	10/2/2017	893.11	53.26	839.85
415	10/2/2017	914.38	21.25	893.13
416	10/2/2017	890.58	66.43	824.15
521	10/2/2017	863.78	2.99	860.79
522	10/2/2017	864.46	3.37	861.09
524	10/2/2017	866.28	5.73	860.55
529	10/2/2017	863.93	3.68	860.25
532	10/2/2017	866.34	5.46	860.88
534	10/2/2017	862.88	2.62	860.26
540	10/2/2017	810.55	17.92	792.63
541	10/2/2017	812.11	20.13	791.98
542	10/2/2017	806.40	13.90	792.50
543	10/2/2017	823.64	29.26	794.38

Groundwater Elevation Data

Well ID	Date of Measurement	Top of Casing Elevation (ft amsl)	Depth to Water (ft below TOC)	Groundwater Elevation (ft amsl)
601	10/2/2017	862.08	3.33	858.75
602	10/2/2017	862.15	6.48	855.67
603	10/2/2017	864.18	10.36	853.82
604	10/2/2017	885.48	15.61	869.87
605	10/2/2017	885.23	19.05	866.18
606	10/2/2017	900.06	39.62	860.44
607	10/2/2017	900.46	39.54	860.92
608	10/2/2017	861.51	4.71	856.80
609	10/2/2017	895.16	26.64	868.52
610	10/2/2017	909.10	17.17	891.93
611	10/2/2017	909.11	12.60	896.51
612	10/2/2017	903.93	31.91	872.02
613	10/2/2017	903.94	32.40	871.54
615	10/2/2017	862.69	8.62	854.07
616	10/2/2017	888.18	7.76	880.42
617	10/2/2017	895.77	4.46	891.31
618	10/2/2017	909.29	10.37	898.92
P04	10/2/2017	914.73	6.90	907.83

2017 Well Inspection Summary with Dedicated Equipment Assignments

Well ID	2017 Depth to Bottom (ft)	Well Tag Condition	Reference Point Visible?	Standpipe Paint Condition	Sanitary Seal Condition	Dedicated Equipment Type
101	40.90	Good	Yes	Re-Paint	Good	PDB
106	13.17	Good	Yes	Good	Good	PDB
107A	64.53	Good	Yes	Good	Good	PDB
110	21.16	Good	Yes	Manhole	Good	PDB
113	12.67	Good	Yes	Good	Good	*
114	13.35	Good	Yes	Good	Good	*
120	39.25	Good	Yes	Good	Good	PDB
123	21.83	Good	Yes	Manhole	Good	*
124	25.32	Good	Yes	Good	Good	PDB
125	24.20	Good	Yes	Manhole	Good	PDB
126	23.86	Good	Yes	Manhole	Good	*
127	19.11	Good	Yes	Manhole	Good	PDB
128	24.70	Good	Yes	Good	Good	PDB
129	7.45	Good	Yes	Manhole	Good	PDB
132	21.24	Good	Yes	Good	Good	PDB
133	31.47	Good	Yes	Good	Good	PDB
134	42.83	Good	Yes	Good	Good	PDB
140R	44.95	Good	Yes	Good	Godd	PDB
143	28.91	Good	Yes	Manhole	Good	*
146	25.92	Good	Yes	Good	Good	PDB
147	27.27	Good	Yes	Good	Good	*
148	34.91	Good	Yes	Good	Good	PDB
149	33.06	Good	Yes	Good	Good	PDB
154	25.40	Good	Yes	Good	Good	*
157	19.77	Good	Yes	Re-Paint	Good	PDB
158	39.33	Good	Yes	Re-Paint	Good	PDB
160	58.40	Good	Yes	Re-Paint	Good	PDB
161	22.64	Good	Yes	Re-Paint	Good	*
162	50.43	Good	Yes	Re-Paint	Good	PDB
163	25.27	Good	Yes	Re-Paint	Good	PDB
165	43.85	Good	Yes	Re-Paint	Good	PDB
166	90.46	Good	Yes	Re-Paint	Good	PDB
167	25.24	Good	Yes	Re-Paint	Good	PDB
178	36.25	Good	Yes	Re-Paint	Good	PDB
179	71.30	Good	Yes	Re-Paint	Good	PDB
181	40.61	Good	Yes	Good	Good	PDB
183	30.70	Good	Yes	Good	Good	PDB
185	94.08	Good	Yes	Re-Paint	Good	2" SP/Line
186	95.65	Good	Yes	Re-Paint	Good	2" SP/Line
194	111.33	Good	Yes	Good	Good	2" SP/Line

2017 Well Inspection Summary with Dedicated Equipment Assignments

Well ID	2017 Depth to Bottom (ft)	Well Tag Condition	Reference Point Visible?	Standpipe Paint Condition	Sanitary Seal Condition	Dedicated Equipment Type
306	62.32	Good	Yes	Good	Good	2" SP/Line
308	29.97	Good	Yes	Good	Good	PDB
309	32.13	Good	Yes	Good	Good	PDB
313	39.89	Good	Yes	Good	Good	PDB
314	100.17	Good	Yes	Re-Paint	Good	PDB
316	48.85	Good	Yes	Re-Paint	Good	PDB
317	47.00	Good	Yes	Re-Paint	Good	PDB
318	47.23	Good	Yes	Re-Paint	Good	PDB
319	44.52	Good	Yes	Re-Paint	Good	PDB
321	39.50	Good	Yes	Good	Good	PDB
322	45.04	Good	Yes	Re-Paint	Good	PDB
323	46.92	Good	Yes	Re-Paint	Good	PDB
324	53.68	Good	Yes	Good	Good	PDB
325	42.50	Good	Yes	Good	Good	PDB
351	90.15	Good	Yes	Re-Paint	Good	Ded. 2" SP
352	87.19	Good	Yes	Re-Paint	Good	Ded. 2" SP
353	28.42	Good	Yes	Manhole	Good	PDB
354	17.14	Good	Yes	Manhole	Good	Bailer-3'
355	97.89	Good	Yes	Good	Good	PDB
356	70.04	Good	Yes	Good	Good	PDB
357	34.40	Good	Yes	Re-Paint	Good	PDB
358	17.09	Good	Yes	Re-Paint	Good	PDB
361	35.24	Good	Yes	Good	Good	PDB
362	66.48	Good	Yes	Good	Good	PDB
363	45.33	Good	Yes	Good	Good	PDB
364	65.10	Good	Yes	Good	Good	PDB
365	45.70	Good	Yes	Good	Good	PDB
366	42.85	Good	Yes	Good	Good	Bailer-3'
367	72.33	Good	Yes	Good	Good	PDB
368	48.70	Good	Yes	Good	Good	Bailer-3'
372	65.40	Good	Yes	Good	Good	*
373	45.60	Good	Yes	Good	Good	PDB
374	20.85	Good	Yes	Good	Good	PDB
375	45.60	Good	Yes	Re-Paint	Good	*
378	77.14	Good	Yes	Good	Good	PDB
379	52.55	Good	Yes	Good	Good	PDB
382	22.38	Good	Yes	Good	Good	PDB
383	16.72	Good	Yes	Good	Good	PDB
386	17.32	Good	Yes	Good	Good	PDB
387	15.40	Good	Yes	Re-Paint	Good	PDB

2017 Well Inspection Summary with Dedicated Equipment Assignments

Well ID	2017 Depth to Bottom (ft)	Well Tag Condition	Reference Point Visible?	Standpipe Paint Condition	Sanitary Seal Condition	Dedicated Equipment Type
391	30.20	Good	Yes	Good	Good	*
392	46.13	Good	Yes	Good	Good	PDB
393	64.91	Good	Yes	Good	Good	Ded. 2" SP
394	47.31	Good	Yes	Good	Good	PDB
395	64.40	Good	Yes	Good	Good	PDB
397	39.86	Good	Yes	Good	Good	PDB
398	18.53	Good	Yes	Good	Good	PDB
399	16.55	Good	Yes	Good	Good	PDB
404	NA	Good	Yes	Good	NA	Tap
405	NA	Good	Yes	Good	NA	Tap
406	NA	Good	Yes	Good	NA	Tap
413	NA	Good	Yes	Good	NA	Tap
414	NA	Good	Yes	Good	NA	Bailer-3'
415	NA	Good	Yes	Good	NA	Tap
416	NA	Good	Yes	Good	N	Tap
521	39.49	Good	Yes	Manhole	Good	PDB
522	33.97	Replace	Yes	Good	Good	PDB
524	36.08	Good	Yes	Good	Good	PDB
529	13.75	Good	Yes	Manhole	Good	PDB
532	17.15	Good	Yes	Good	Good	PDB
534	13.00	Good	Yes	Manhole	Good	PDB
540	50.82	Good	Yes	Good	None	PDB
541	54.91	Good	Yes	Good	None	PDB
542	43.97	Good	Yes	Good	None	PDB
543	54.14	Good	Yes	Re-Paint	None	PDB
601	15.41	Good	Yes	Good	Good	PDB
602	19.34	Good	Yes	Re-Paint	Good	PDB
603	17.75	Good	Yes	Good	Good	PDB
604	22.01	Good	Yes	Manhole	Good	PDB
605	46.36	Good	Yes	Manhole	Good	PDB
606	47.38	Good	Yes	Manhole	Good	PDB
607	59.65	Good	Yes	Manhole	Good	PDB
608	16.61	No	Yes	Re-Paint	Good	PDB
609	52.33	Good	Yes	Manhole	Good	PDB
610	32.04	Good	Yes	Manhole	Good	PDB
611	13.34	Good	Yes	Manhole	Good	Peristaltic
612	56.94	Good	Yes	Manhole	Good	PDB
613	41.48	Good	Yes	Manhole	Good	PDB
614	105.10	Good	Yes	Re-Paint	Good	PDB
615	45.93	Good	Yes	Re-Paint	Good	PDB

2017 Well Inspection Summary with Dedicated Equipment Assignments

Well ID	2017 Depth to Bottom (ft)	Well Tag Condition	Reference Point Visible?	Standpipe Paint Condition	Sanitary Seal Condition	Dedicated Equipment Type
616	31.40	Good	Yes	Good	Good	PDB
617	37.14	Good	Yes	Manhole	Good	PDB
618	28.70	Good	Yes	Good	Good	PDB
619	14.92	Good	Yes	Manhole	Good	PDB
620	17.42	Good	Yes	Good	Good	Peristaltic
621	37.14	Good	Yes	Good	Good	PDB
622	46.40	Good	Yes	Good	Good	PDB
623	54.40	Good	Yes	Good	Good	PDB
624	64.20	Replace	Yes	Re-Paint	Good	PDB
625	44.26	Good	Yes	Good	Good	PDB
626	92.08	Good	Yes	Good	Good	PDB
627	50.80	Good	Yes	Re-Paint	Good	PDB
628	100.58	Good	Yes	Re-Paint	Good	PDB
629	51.24	Good	Yes	Re-Paint	Good	PDB
630	93.36	Good	Yes	Re-Paint	Good	PDB
631	31.35	Good	Yes	Re-Paint	Good	PDB
632	39.15	Good	Yes	Good	Good	PDB
P01	11.15	Good	Yes	Re-Paint	Good	*
P02	10.33	Good	Yes	Re-Paint	Good	*
P04	20.39	Good	Yes	Good	Good	PDB
P07	5.22	Good	Yes	Manhole	Good	*
P08	8.70	Good	Yes	Manhole	Good	PDB
P11	14.52	Good	Yes	Manhole	Good	PDB

Key:

* Not sampled (water level measurement only)

Ded. 2" SP = Dedicated 2-inch diameter submersible pump

Length of bailer in feet is indicated where a bailer is used

PDB = Polyethylene diffusion bag sampling device

APPENDIX D

2017 SAMPLING PLAN

GROUNDWATER MONITORING PROGRAM

**Appendix D - Former Owego, New York Facility
2017 Groundwater Sampling Plan**

Well	Site Area	Site Region	Southern (Annual)	Northern (Semiannual)	Southern (Semiannual)	Northern (Annual)	Sampling Frequency	Program	Unit Monitored
			1st Quarter 2017	2nd Quarter 2017	3rd Quarter 2017	4th Quarter 2017			
101	SBA	South	X		X		S	GMP	Outwash Sand
106	TFA	North				X	A	V	Till?
107A	TFA	North	X	X	X	X	Q	GMP	Bedrock
110	TFA	North		X		X	S	GMP	Till/Bedrock
120	WMA	South	X		X		S	GMP	Till/Bedrock
124	TFA	North		X		X	S	GMP	Till/Bedrock
125	TFA	North		X		X	S	GMP	Sand & Gravel/Bedrock
127	TFA	North		X		X	S	GMP	Sand & Gravel/Bedrock
128	TFA	North				X	A	GMP	Till/Bedrock
129	TFA	North		X		X	S	GMP	Till/Bedrock
132	TFA	North				X	A	GMP	Bedrock
133	TVD/MLA	South	X		X		S	GMP	Till/Bedrock
134	TFA	North		X		X	S	GMP	Till/Bedrock
140R	NBT/P001	North				X	A	GMP	Till/Bedrock
146	NBT/P001	North		X		X	S	GMP	Till/Bedrock
148	WMA	South	X		X		S	GMP	Till/Bedrock
149	WMA	South	X		X		S	GMP	Till/Bedrock
157	NBT/P001	North		X		X	S	GMP	Till/Bedrock
158	WBA	South	X				A	GMP	Till/Bedrock
160	WBA	South	X		X		S	GMP	Basal Till
162	WBA	South	X		X		S	GMP	Till/Bedrock
163	WBA	South	X				A	GMP	Alluvial Silt and Gravel
165	WBA	South	X		X		S	GMP	Till/Bedrock
166	WBA	South	X		X		S	GMP	Till/Bedrock
167	WBA	South	X		X		S	GMP	Silt
178	WMA	South	X		X		S	GMP	Gravel/Bedrock
179	WMA	South	X		X		S	GMP	Outwash Sand
181	WMA	South	X				A	GMP	Till/Bedrock
183	WMA	South	X		X		S	GMP	Till/Bedrock
185	WBA	South	X		X		S	GMP	Sand & Gravel/Bedrock
186	SBA	South	X		X		S	GMP	Sand & Gravel/Bedrock
194	WMA	South	X		X		S	GMP	Bedrock
306	TVD/MLA	South	X				A	GMP	Sand & Gravel/Bedrock
308	TVD/MLA	South	X		X		S	GMP	Till/Bedrock
309	TVD/MLA	South	X		X		S	GMP	Till
313	TVD/MLA	South	X				A	GMP	Till/Bedrock?
314	SBA	South	X				A	GMP	Basal Till
316	WBA	South	X		X		S	GMP	Glaciolac., vf sand, silt, clay
317	WBA	South	X		X		S	GMP	Outwash Sand & Gravel
318	SBA	South	X	X	X	X	Q	GMP	Outwash Sand & Gravel
319	SBA	South	X	X	X	X	Q	GMP	Outwash Sand
321	TVD/MLA	South	X		X		S	GMP	Sand & Gravel/Till
322	SBA	South	X	X	X	X	Q	GMP	Outwash Sand & Gravel
323	SBA	South	X	X	X	X	Q	GMP	Outwash Sand
324	NBT/P001	North		X		X	S	GMP	Till/Bedrock
325	NBT/P001	North		X		X	S	GMP	Alluvial Gravel
351	SBA	South	X		X		S	GMP	Till/Bedrock
352	SBA	South	X				A	GMP	Basal Till
353	TFA	North				X	A	GMP	Bedrock
354	TFA	North				X	A	GMP	Till
355	SBA	South	X				A	GMP	Bedrock
356	SBA	South	X				A	GMP	Outwash Sand & Gravel
357	NBT/P001	North		X		X	S	GMP	Bedrock
358	NBT/P001	North				X	A	GMP	Alluvial Sand & Gravel
361	NBT/P001	North				X	A	V	Bedrock
362	TVD/MLA	South	X				A	GMP	Bedrock
363	TVD/MLA	South	X				A	GMP	Bedrock
364	NBT/P001	North				X	A	V	Till/Bedrock
365	NBT/P001	North				X	A	V	Alluvial Sand & Gravel
366	NBT/P001	North				X	A	V	Till/Bedrock
367	NBT/P001	North		X		X	S	V	Till/Bedrock
368	NBT/P001	North		X		X	S	V	Alluvial Silt, Sand, Gravel
373	TVD/MLA	South	X		X		S	GMP	Outwash Sand & Gravel
374	TVD/MLA	South	X		X		S	GMP	Sand & Gravel
378	NBT/P001	North	X	X	X	X	Q	GMP	Bedrock
379	NBT/P001	North				X	A	V	Till
382	NBT/P001	North				X	A	V	Fill
383	NBT/P001	North		X		X	S	GMP	Alluvial Silt & f. Sand
386	WMA	South	X				A	V	Alluvial Sand & Gravel

Appendix D - Former Owego, New York Facility 2017 Groundwater Sampling Plan

Well	Site Area	Site Region	Southern (Annual)	Northern (Semiannual)	Southern (Semiannual)	Northern (Annual)	Sampling Frequency	Program	Unit Monitored
			1st Quarter 2017	2nd Quarter 2017	3rd Quarter 2017	4th Quarter 2017			
387	WBA	South	X				A	V	Alluvial Silt, Sand, Gravel
392	NBT/P001	North		X		X	S	GMP	Alluvial Silt, Sand, Gravel
393	NBT/P001	North	X	X	X	X	Q	GMP	Till/Bedrock
394	NBT/P001	North		X		X	S	GMP	Alluvial Silt, Sand, Gravel
395	NBT/P001	North				X	A	V	Till/Bedrock
397	NBT/P001	North				X	A	GMP	Till/Bedrock
398	NBT/P001	North		X		X	S	GMP	Alluvial Silt, Sand, Gravel
399	NBT/P001	North	X	X	X	X	Q	GMP	Alluvial Silt, Sand, Gravel
404	WMA	South	X	X	X	X	Q	V	Silt, Sand & Gravel
405	WMA	South	X	X	X	X	Q	V	Sand & Gravel/Till/Bedrock
413	NBT/P001	North	X	X	X	X	Q	V	Till/Bedrock
414	NBT/P001	North	X	X	X	X	Q	V	Alluvial Sand & Gravel/Till/Bedrock
415	TFA	North	X	X	X	X	Q	V	Till/Bedrock
416	NBT/P001	North	X	X	X	X	Q	V	Till/Bedrock
521	MT	North	X	X	X	X	Q	GMP	Till/Bedrock
522	MT	North	X	X	X	X	Q	GMP	Till/Bedrock
524	MT	North	X	X	X	X	Q	GMP	Till/Bedrock
529	MT	North	X	X	X	X	Q	GMP	Alluvial Silt, Sand, Gravel
532	MT	North	X	X	X	X	Q	GMP	Alluvial Silt, Sand, Gravel
534	MT	North	X	X	X	X	Q	GMP	Alluvial Silt, Sand, Gravel
540	SBA	South	X		X		S	GMP	Outwash Sand & Gravel
541	SBA	South	X		X		S	GMP	Outwash Sand & Gravel
542	SBA	South	X		X		S	GMP	Outwash Sand & Gravel
543	SBA	South	X		X		S	GMP	Outwash Sand & Gravel
601	NBT/P001	North		X		X	S	V	Alluvial Silt, Sand, Gravel
602	NBT/P001	North		X		X	S	V	Alluvial Silt & Sand
603	NBT/P001	North		X		X	S	GMP	Alluvial Sand & Gravel
604	NBT/P001	North		X		X	S	GMP	Alluvial Silt & Sand
605	NBT/P001	North				X	A	GMP	Till/Bedrock
606	NBT/P001	North	X	X	X	X	Q	GMP	Alluvial Silt, Sand, Gravel
607	NBT/P001	North	X	X	X	X	Q	GMP	Till/Bedrock
608	NBT/P001	North		X		X	S	GMP	Alluvial Silt, Sand, Gravel
609	NBT/P001	North		X		X	S	GMP	Till/Bedrock
610	NBT/P001	North		X		X	S	GMP	Till/Bedrock
611	NBT/P001	North		X		X	S	GMP	Fill/Alluvial Sand & Silt
612	NBT/P001	North		X		X	S	GMP	Till/Bedrock
613	NBT/P001	North		X		X	S	GMP	Alluvial Silt, Sand, Gravel
614	WBA	South	X				A	GMP	Till/Bedrock
615	NBT/P001	North				X	A	GMP	Bedrock
616	NBT/P001	North		X		X	S	GMP	Till/Bedrock
617	NBT/P001	North		X		X	S	GMP	Till/Bedrock
618	TFA	North		X		X	S	GMP	Till/Bedrock
619	TVD/MLA	South	X				A	GMP	Till/Bedrock
620	TVD/MLA	South	X		X		S	GMP	Alluvial Sand & Gravel/Till
621	TVD/MLA	South	X		X		S	GMP	Outwash Sand & Gravel
622	TVD/MLA	South	X		X		S	GMP	Till/Bedrock
623	TVD/MLA	South	X				A	V	Fill/Alluvial Sand & Silt
624	TVD/MLA	South	X				A	V	Till/Bedrock
625	SBA	South	X	X	X	X	Q	GMP	Outwash Sand & Gravel
626	SBA	South	X		X		S	GMP	Till/Bedrock
627	SBA	South	X		X		S	GMP	Outwash Sand & Gravel
628	SBA	South	X				A	V	Till/Bedrock
629	WBA	South	X				A	V	Outwash Silt, Sand, Gravel
630	WBA	South	X				A	V	Till/Bedrock
631	WBA	South	X		X		S	GMP	Outwash Sand & Gravel
632	WMA	South	X		X		S	GMP	Till/Bedrock
P04	TFA	North				X	A	GMP	Till
P08	TVD/MLA	South	X				A	GMP	Till?
P11	TVD/MLA	South	X				A	GMP	Till?
Sample Count:			80	53	58	71	Total:	191	

Key:

X Collect sample
Q Quarterly frequency
S Semiannual frequency
A Annual frequency

GMP Groundwater Monitoring Program Well
V Voluntary Sampling Well

MT: Moore Tire Area (off-site)
NBT/P001: NW Bedrock Trough/P001 Area
SBA: Southern Boundary Area (some off-site)
TFA: Tank Farm Area
TVD/MLA: Tower View Drive/Mirror Lake Area
WBA: Western Boundary Area
WMA: Waste Management Area

APPENDIX E

CHAINS OF CUSTODY

2017

COC # 16833

Client Information				Matrix		Analyses Requested										For Lab Use Only	
Client IBM CEP Owegy				Acid # 6811		Preservation Code										SCR#	
Project Name 1st Gw Sample				SSOW # 93004.30													
IBM PM K. Whalen				Project State NY		<div style="display: flex; justify-content: space-between;"> <div> H = HCl N = HNO₃ S = H₂SO₄ </div> <div> T = Thiosulfate B = NaOH O = Other </div> </div>											
P.O. # CAR93004.29				Sampler IRONIS													
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input checked="" type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/installs OU: <u>Routine</u> (Endicott Non-Routine only)																	
2		Collected		3													
Sample Identification		Date Time		Grab													
OTB170225AR		2/28/17 6:30		X													
00363170228P		6:50															
00366170228P		7:30															
00374170228P		7:25															
00373170228P		7:38															
00362170228P		7:50															
00625170228P		8:14															
00626170228P		8:24															
00355170228P		8:41															
00356170228P		8:51															
7 Turnaround Time Requested (TAT) (please circle) Standard Rush (Rush TAT is subject to Lancaster Laboratories approval and surcharges.) Date results are needed: <u>10 Days</u> Rush results requested by (please circle) E-mail Phone E-mail: Phone:																	
8 Data Package Options (please circle if required) Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A Type III (Reduced NJ) MA MCP NY ASP B Type VI (Raw Data Only) CT RCP SDG Complete? Yes No																	
Site-specific QC: (MS/MSD/Dup)? Yes No (If yes, indicate QC sample and submit replicate volume.)																	
Temperature upon receipt: <u>1.0</u> °C																	

X 1/15/DEC B

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The white copy should accompany samples to Eurolins Lancaster. **Page 38 of 42** The yellow copy should be retained by the client.

Issued by Dept. 40 Management

7052

COC # 16834

1 Laboratories				4 Matrix		5 Analyses Requested		6 For Lab Use Only	
Client Information Client: <u>IBM CEP Owego</u> Account # <u>0911</u> Project Name: <u>1st GW Sampling</u> SSOW # <u>93004.30</u> IBM PM # <u>K. Whalen</u> Project State <u>NY</u> Phone # <u>93004.09</u> Sampler <u>J. Conis</u>				<input type="checkbox"/> Sediment <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air		Preservation Code H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other		SCR# _____ Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other	
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs OU: <u>Routine</u> (Endicott Non-Routine only)				Composite Soil Water Oil Total # of Containers <u>3000 Plus from 13/08/09</u>		Remarks _____			
2 Sample Identification				3 Collected		7 Turnaround Time Requested (TAT) (please circle) (Rush TAT is subject to Lancaster Laboratories approval and surcharges.) Rush results are needed: <u>10/15/09</u> Rush results requested by (please circle) E-mail Phone E-mail: _____ Phone: _____		8 Data Package Options (please circle if required) Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A Type III (Reduced NJ) MA MCP NY ASP B Type VI (Raw Data Only) CT RCP SDG Complete? Yes No	
Date Time Grab <u>09/30/17 02:28 P</u> <u>8:44</u> <u>X</u> <u>09/30/17 02:28 P</u> <u>9:01</u> <u>X</u> <u>09/30/17 02:28 P</u> <u>9:34</u> <u>X</u> <u>09/30/17 02:28 P</u> <u>9:48</u> <u>X</u> <u>09/30/17 02:28 P</u> <u>10:02</u> <u>X</u> <u>09/30/17 02:28 P</u> <u>10:17</u> <u>X</u> <u>09/30/17 02:28 P</u> <u>10:39</u> <u>X</u> <u>09/30/17 02:28 P</u> <u>10:45</u> <u>X</u> <u>09/30/17 02:28 P</u> <u>11:03</u> <u>X</u> <u>09/30/17 02:28 P</u> <u>11:19</u> <u>X</u>				Date Time Date Time Date Time Date Time <u>3/1/17</u> <u>7:00</u> _____ _____ _____ _____ Date Time Date Time Date Time Date Time _____ _____ _____ _____ _____ _____ Date Time Date Time Date Time Date Time _____ _____ _____ _____ _____ _____		Received by Date Time Received by Date Time Received by Date Time _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____			
Site-specific QC (MS/MSD/Dup)? Yes No				Temperature upon receipt <u>10</u> °C					
Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 The white copy should accompany samples to Eurofins Lancaster. Page 39 of 42 The yellow copy should be retained by the client.									



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Acct. # 6911

For Eurofins Lancaster Laboratories use only
Group # 1771408 Sample # 8862984-8863013
(Instructions on reverse side correspond with circled numbers.)

IBM Chain of Custody

COC # 16835

1 Client Information				4 Matrix		5 Analyses Requested		For Lab Use Only	
Client: <u>IBM CEP Owego</u> Acct. # <u>6911</u>						Preservation Code		SCR#	
Project Name: <u>1st Gw Sample</u> SSOW # <u>93004.30</u>								Preservation Codes	
IBM PM: <u>R Whalen</u> Project State: <u>NY</u>								H = HCl T = Thiosulfate	
P.O. # <u>CAR 93004.29</u> Sampler: <u>J. Conis</u>								N = HNO ₃ B = NaOH	
								S = H ₂ SO ₄ O = Other	
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M				Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/>				Remarks	
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs				Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>					
OU: <u>12 routine</u> (Endicott Non-Routine only)				Composite <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/>					
2 Sample Identification				3 Grab					
Date				Time					
<u>0053170228P</u>				<u>1213</u>					
<u>00391170228P</u>				<u>1246</u>					
<u>0060170228P</u>				<u>1304</u>					
<u>00317170228P</u>				<u>1350</u>					
<u>0053170228P</u>				<u>1341</u>					
<u>0053170228P</u>				<u>1358</u>					
<u>0060170228P</u>				<u>1403</u>					
<u>0060170228P</u>				<u>1437</u>					
<u>00543170228P</u>				<u>1504</u>					
<u>00543170228P</u>				<u>1537</u>					
7 Turnaround Time Requested (TAT) (please circle)				8 Date		Time		9	
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush				<u>3/17</u>		<u>7:00P</u>			
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)									
Date results are needed: <u>10 days</u>									
Rush results requested by (please circle) E-mail Phone									
E-mail: Phone:									
8 Data Package Options (please circle if required)				Site-specific QC (MS/MSD/Dup)?				Temperature upon receipt <u>1.0</u> °C	
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
Type III (Reduced NJ) MA MCP NY ASP B									
Type VI (Raw Data Only) CT RCP									
SDG Complete? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				(If yes, indicate QC sample and submit triplicate volume.)					

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Acct. # 6911

For Eurofins Lancaster Laboratories use only
Group # 1772422 Sample # 8865338-67
(Instructions on reverse side correspond with circled numbers.)

IBM Chain of Custody

COC # 16836

1 Client Information				4 Matrix		5 Analyses Requested		For Lab Use Only	
Client: <u>IBM CEP Owego</u> Acct. # <u>6911</u>						Preservation Code		SCR#	
Project Name: <u>1st Gw Sample</u> SSOW # <u>93004.30</u>								Preservation Codes	
IBM PM: <u>R Whalen</u> Project State: <u>NY</u>								H = HCl T = Thiosulfate	
P.O. # <u>CAR 93004.29</u> Sampler: <u>J. Conis</u>								N = HNO ₃ B = NaOH	
								S = H ₂ SO ₄ O = Other	
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M				Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/>				Remarks	
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs				Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>					
OU: <u>12 routine</u> (Endicott Non-Routine only)				Composite <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/>					
2 Sample Identification				3 Grab					
Date				Time					
<u>005170228P</u>				<u>1530</u>					
<u>00541170228P</u>				<u>1554</u>					
<u>00541170228P</u>				<u>1614</u>					
<u>00614170301P</u>				<u>216</u>					
<u>0053170301P</u>				<u>233</u>					
<u>00541170301P</u>				<u>246</u>					
<u>0008170301P</u>				<u>804</u>					
<u>00106170301P</u>				<u>839</u>					
<u>00107A170301P</u>				<u>843</u>					
<u>00106170301P</u>				<u>916</u>					
7 Turnaround Time Requested (TAT) (please circle)				8 Date		Time		9	
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush				<u>3/17</u>		<u>17:00</u>			
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)									
Date results are needed: <u>10 days</u>									
Rush results requested by (please circle) E-mail Phone									
E-mail: Phone:									
8 Data Package Options (please circle if required)				Site-specific QC (MS/MSD/Dup)?				Temperature upon receipt <u>1.6</u> °C	
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
Type III (Reduced NJ) MA MCP NY ASP B									
Type VI (Raw Data Only) CT RCP									
SDG Complete? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				(If yes, indicate QC sample and submit triplicate volume.)					

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Acct. # 6911

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Group # 177472 Sample # 836533847
Instructions on reverse side correspond with circled numbers.

COC # 16837

1 Client Information				4 Matrix		5 Analyses Requested		For Lab Use Only																																																																																																				
Client: IBM CEP Oswego Project Name: 1st GW Supply IBM PM: R. Whalen P.O. #: CAR 93004.09 SOW #: 93004.30 Project State: NY Supplier: J20N13				Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Total # of Containers: 13/133		Preservation Code HCL <input type="checkbox"/> T <input type="checkbox"/> HNO3 <input type="checkbox"/> B <input type="checkbox"/> H2SO4 <input type="checkbox"/> O <input type="checkbox"/>		SCR# Preservation Codes H = HCL T = Thiosulfate N = HNO3 B = NaOH S = H2SO4 O = Other																																																																																																				
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs OU: Routine (Endicott Non-Routine only)								Remarks																																																																																																				
2 Sample Identification <table border="1"> <thead> <tr> <th>Sample</th> <th>Date</th> <th>Time</th> <th>Grab</th> <th>Composite</th> <th>Soil</th> <th>Water</th> <th>Oil</th> <th>Total # of Containers</th> </tr> </thead> <tbody> <tr><td>00316170301P</td><td>3/1/17</td><td>931</td><td>X</td><td></td><td></td><td></td><td></td><td>X</td></tr> <tr><td>00167170301P</td><td></td><td>941</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00170301WLID</td><td></td><td>1008</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00181170301P</td><td></td><td>1029</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00630170301P</td><td></td><td>1049</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00118170301P</td><td></td><td>1104</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00100170301P</td><td></td><td>1131</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00386170301P</td><td></td><td>1140</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00178170301P</td><td></td><td>1233</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00602170301P</td><td></td><td>1251</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>				Sample	Date	Time	Grab	Composite	Soil	Water	Oil	Total # of Containers	00316170301P	3/1/17	931	X					X	00167170301P		941							00170301WLID		1008							00181170301P		1029							00630170301P		1049							00118170301P		1104							00100170301P		1131							00386170301P		1140							00178170301P		1233							00602170301P		1251												
Sample	Date	Time	Grab	Composite	Soil	Water	Oil	Total # of Containers																																																																																																				
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00630170301P		1049																																																																																																										
00118170301P		1104																																																																																																										
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00386170301P		1140																																																																																																										
00178170301P		1233																																																																																																										
00602170301P		1251																																																																																																										
7 Turnaround Time Requested (TAT) (please circle) Standard Rush (Rush TAT is subject to Lancaster Laboratories approval and surcharges.) Date results are needed: 10 Days Rush results requested by (please circle) E-mail Phone E-mail: Phone:				Date: 3/3/17 Time: 1700 Received by:		Date: Time: Received by:		Date: Time: Received by:																																																																																																				
8 Data Package Options (please circle if required) Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A Type III (Reduced NJ) MA MCP NY ASP B Type VI (Raw Data Only) CT RCP SDG Complete? Yes No				Site-specific QC (MS/MSD/Dup)? Yes No (If yes, indicate QC sample and submit triplicate volume.)		Temperature upon receipt: 1.6 °C		Date: 3/3/17 Time: 0930 Received by:																																																																																																				

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Acct. # 6911

For Eurofins Lancaster Laboratories use only
Group # 177472 Sample # 836533847
Instructions on reverse side correspond with circled numbers.

COC # 16839

1 Client Information				4 Matrix		5 Analyses Requested		For Lab Use Only																																																																																																				
Client: IBM CEP Oswego Project Name: 1st GW Supply IBM PM: R. Whalen P.O. #: CAR 93004.09 SOW #: 93004.30 Project State: NY Supplier: J20N13				Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Total # of Containers: 13/133		Preservation Code HCL <input type="checkbox"/> T <input type="checkbox"/> HNO3 <input type="checkbox"/> B <input type="checkbox"/> H2SO4 <input type="checkbox"/> O <input type="checkbox"/>		SCR# Preservation Codes H = HCL T = Thiosulfate N = HNO3 B = NaOH S = H2SO4 O = Other																																																																																																				
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs OU: Routine (Endicott Non-Routine only)								Remarks																																																																																																				
2 Sample Identification <table border="1"> <thead> <tr> <th>Sample</th> <th>Date</th> <th>Time</th> <th>Grab</th> <th>Composite</th> <th>Soil</th> <th>Water</th> <th>Oil</th> <th>Total # of Containers</th> </tr> </thead> <tbody> <tr><td>00628170301P</td><td>3/1/17</td><td>1304</td><td>X</td><td></td><td></td><td></td><td></td><td>X</td></tr> <tr><td>00318170301P</td><td></td><td>1333</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00305170301P</td><td></td><td>1339</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00319170301P</td><td></td><td>1357</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00101170301P</td><td></td><td>1413</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00312170301P</td><td></td><td>1426</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00179170301P</td><td></td><td>1414</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00333170301P</td><td></td><td>1507</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00387170301P</td><td></td><td>1523</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>00165170301P</td><td></td><td>1539</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>				Sample	Date	Time	Grab	Composite	Soil	Water	Oil	Total # of Containers	00628170301P	3/1/17	1304	X					X	00318170301P		1333							00305170301P		1339							00319170301P		1357							00101170301P		1413							00312170301P		1426							00179170301P		1414							00333170301P		1507							00387170301P		1523							00165170301P		1539												
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7 Turnaround Time Requested (TAT) (please circle) Standard Rush (Rush TAT is subject to Lancaster Laboratories approval and surcharges.) Date results are needed: 10 Days Rush results requested by (please circle) E-mail Phone E-mail: Phone:				Date: 3/3/17 Time: 1700 Received by:		Date: Time: Received by:		Date: Time: Received by:																																																																																																				
8 Data Package Options (please circle if required) Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A Type III (Reduced NJ) MA MCP NY ASP B Type VI (Raw Data Only) CT RCP SDG Complete? Yes No				Site-specific QC (MS/MSD/Dup)? Yes No (If yes, indicate QC sample and submit triplicate volume.)		Temperature upon receipt: 1.6 °C		Date: 3/3/17 Time: 0930 Received by:																																																																																																				

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(1) Client Information				(4) Matrix	(5) Analyses Requested				For Lab Use Only			
Client: IBM CFP Owerd Acct # 11				Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>	Preservation Code [Table with columns for various preservation codes]				SCR# Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other			
Project Name: 1st GW Sample SSOW # 93CPH.3P												
IBM PW: R Whalen Project State: NY												
P.O.#: CAR 93CPH.3P Sampler: Treonis												
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/installs OU: 12 routine (Endicott Non-Routine only)				Total # of Containers SDG Form 131B-2					Remarks			
(2) Sample Identification		(3) Collected			Composite	Soil	Water	Oil			Grab	
Date	Time	Date	Time									
OTB 170301 DW	3/17/93	X				Gw					X	Imp Black Imp Black Egyp Black
0063170301 P	3/17/93											
00630170301 P	3/17/93											
00633170301 P	3/17/93											
00634170301 P	3/17/93											
OTB 170302 SW	3/17/93											
CEG 170302 WL ID	3/17/93											
00183170301 P	3/17/93											
00158170301 P	3/17/93											
00631170301 P	3/17/93											
(7) Turnaround Time Requested (TAT) (please circle) Standard Rush (Rush TAT is subject to Lancaster Laboratories approval and surcharges.) Date results are needed: 10 Days Rush results requested by (please circle) E-mail Phone E-mail: Phone:				Requested by: [Signature] Date: 3/17/93 Time: 1000P	Reinquished by: [Signature] Date: Time:	Reinquished by: [Signature] Date: Time:	Reinquished by: [Signature] Date: Time:	Reinquished by: [Signature] Date: Time:	Reinquished by: [Signature] Date: Time:	Reinquished by: [Signature] Date: Time:		
(8) Data Package Options (please circle if required) Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A Type III (Reduced NJ) MA MCP NY ASP B Type VI (Raw Data Only) CT RCP SDG Complete? Yes No				Site-specific QC (MS/MSD/Dup)? Yes No		Temperature upon receipt 2.7 °C						

1 Client Information				4 Matrix		5 Analyses Requested										For Lab Use Only			
Client: IBM CEP Oswego Project Name: 1st Qtr GWS sampling BM: K Whalen P.O.#: CAR93004.39				Acct #: 0911 SSOW #: 93004.30 Project State: NY Sampler: JR2012		Preservation Code H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other										SCR# Preservation Codes Remarks			
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine investigation <input type="checkbox"/> Non-Routine Upgrades/Installs OU: Routine (Endicott Non-Routine only)				Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Water <input type="checkbox"/>		Total # of Containers: 3 8/15/02 From 12/12/02													
2 Sample Identification			3 Collected		Composite	Soil	Water	Oil	Total # of Containers										
Date	Time	Grab																	
00162 17 0300P	3/11/17	9:37	X						3	X									
00163 17 0300P		9:48																	
00149 17 0300P		10:03																	
00194 17 0300P		11:37																	
00393 17 0300P		11:12																	
00185 17 0300P		13:10																	
00186 17 0300P		13:18																	
00351 17 0300P		14:19																	
00352 17 0300P		14:56																	
00500 17 0300P	3/3	5:51	✓																
7 Turnaround Time Requested (TAT) (please circle) <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush (Rush TAT is subject to Lancaster Laboratories approval and surcharges.) Date results are needed: 10/15/17 Rush results requested by (please circle) E-mail Phone E-mail: Phone:				Date Received by: 3/3/17 Date Retested by: 3/3/17 Date Retested by: 3/3/17 Date Retested by: 3/3/17		Time Received by: 1000P Time Retested by: 1000P Time Retested by: 1000P Time Retested by: 1000P		Date Received by: 3/4/17 Date Retested by: 3/4/17 Date Retested by: 3/4/17 Date Retested by: 3/4/17		Time Received by: 1000P Time Retested by: 1000P Time Retested by: 1000P Time Retested by: 1000P		Date Received by: 3/4/17 Date Retested by: 3/4/17 Date Retested by: 3/4/17 Date Retested by: 3/4/17		Time Received by: 1000P Time Retested by: 1000P Time Retested by: 1000P Time Retested by: 1000P					
8 Data Package Options (please circle if required) Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A Type III (Reduced NJ) MA MCP NY ASP B Type VI (Raw Data Only) CT RCP				Site-specific QC (MS/MSD/Dup)? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, indicate QC sample and submit triplicate volume.)		Temperature upon receipt 2.5 °C													

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Site: **5806-41**

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7052 02

14 DEC

★ 2145 DEC 2

* NYSD E C B

7052 1215

4 NOV 5 DEC 7

7052 1215

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Client Information						Matrix		Analyses Requested								For Lab Use Only		
Client: TRMCEP Owego Project Name: 2nd Q/Gw Sample BIA PM: Breaker Abby P#: 93004.39				Area #: 6011 SSOW #: 93004.39 Project State: NY County: JK.		<input type="checkbox"/> Sediment <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface	<input type="checkbox"/> <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air	Preservation Code								SCR#		
For Compliance: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																		
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installations														Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other				
OU: Routine (Endicott Non-Routine only)														Remarks				
Sample Identification			Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers								
Date	Time																	
00612 170614P	6/14/17	038	X				GW			2								
00613 170614P	↓	1250																
00617 170614P	↓	1306																
CES 170614 SWLID	6/15	747																
00609 170615P	↓	814																
00616 170615P	↓	833																
00604 170615P	↓	848																
00304 170615P	↓	912																
00351 170615P	↓	928																
00393 170615P	↓	933																
Turnaround Time Requested (TAT) (please circle) Standard Rush						Relinquished by		Date	Time	Received by	Date	Time						
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)						Relinquished by		Date	Time	Received by	Date	Time						
Data results are needed: 10 days						Relinquished by		Date	Time	Received by	Date	Time						
E-mail:						Relinquished by		Date	Time	Received by	Date	Time						
Data Package Options (please circle if required) Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A Type III (Reduced NJ) MA MCP NY ASP B Type VI (Raw Data Only) CT RCP						Relinquished by		Date	Time	Received by	Date	Time						
SDG Complete? Yes No						Site-specific QC (MS/MSD/Dup)? Yes No				Temperature upon receipt 15 °C								
						(If yes, indicate QC sample and submit triplicate volumes.)												

~~★~~ 145 DEC 13

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Client Information			Matrix			Analyses Requested			For Lab Use Only				
Client TMCPCWego	Project # G711		<input type="checkbox"/> Sediment <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Polable <input type="checkbox"/> NPDES <input type="checkbox"/> Air	<input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil	Total # of Containers 2	Preservation Code			SCR#				
Project Name 2nd GOW Sampling	SSOW # 93094.30								Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other				
Address Island Ashby	Project State NY								Remarks				
For Compliance: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Signature V. Roni's												
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs OU: Routine (Endicott Non-Routine only)													
Sample Identification			Collected		Grab	Composite							
			Date	Time									
0039170615P			6/15/17	1046	X								
Turnaround Time Requested (TAT) (please circle) Standard Rush			Received by Date: 6/15/17 Time: 1030P		Received by Date: Time:		Received by Date: Time:		Received by Date: Time:				
Data results are needed: 10/25			Relinquished by Date: Time:		Relinquished by Date: Time:		Relinquished by Date: Time:		Relinquished by Date: 6/16/17 Time: 935				
Data Package Options (please circle if required) Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A Type III (Reduced NJ) MA MCP NY ASP B Type VI (Raw Data Only) CT RCP			Site-specific QC (MS/MSD/Dup)? Yes No		Temperature upon receipt 15 °C								

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Acct. # 1528481 For Eurofins Lancaster Laboratories Environmental use only
Group # 1528481 Sample # 0115503-32
Instructions on reverse side correspond with circled numbers.

COC # 018791

Client Information				Matrix		Analyses Requested		For Lab Use Only					
Client				Preservation Code		SCR#		Preservation Codes					
IBM CEP Owego 6911								H = HCl T = Thiosulfate					
Project Name: 3rd Qtr Gw Sample 93004.30								N = HNO ₃ B = NaOH					
Project State: NY								S = H ₂ SO ₄ O = Other					
P.O. # CAR 93004.30								Remarks					
For Compliance: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No													
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M													
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs													
OU: (Endicott Non-Routine only)													
Sample Identification		Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers	Analyses Requested	Preservation Code	SCR#	Remarks
Date	Time	Date	Time										
07/17/17	1550	7/17/17	1550	X			GW		3				
07/17/17	1557												
07/17/17	1618												
07/17/17	1619												
07/18/17	933	7/18	933										
07/18/17	731												
07/18/17	754												
07/18/17	807												
07/18/17	804												
07/18/17	841												
Turnaround Time Requested (TAT) (please circle)				Date		Time		Received by		Date		Time	
Standard				7/20/17		1600		Received by		Date		Time	
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)				Date		Time		Received by		Date		Time	
Date results are needed: 10 days				Date		Time		Received by		Date		Time	
E-mail:				Date		Time		Received by		Date		Time	
Data Package Options (please circle if required)				Site-specific QC (MS/MSD/Dup?)		Yes		No		Temperature upon receipt		1-31°C	
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A				Yes		No							
Type III (Reduced NJ) MA MCP NY ASP B													
Type VI (Raw Data Only) CT RCP													
SDG Complete? Yes No													

NY 5 DEC 13

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Acct. # 0011 For Eurofins Lancaster Laboratories Environmental use only
Group # 1528481 Sample # 0115303-332
Instructions on reverse side correspond with circled numbers.

COC # 018792

Client Information				Matrix		Analyses Requested		For Lab Use Only					
Client				Preservation Code		SCR#		Preservation Codes					
IBM CEP Owego 6911								H = HCl T = Thiosulfate					
Project Name: 3rd Qtr Gw Sample 93004.30								N = HNO ₃ B = NaOH					
Project State: NY								S = H ₂ SO ₄ O = Other					
P.O. # CAR 93004.30								Remarks					
For Compliance: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No													
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M													
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs													
OU: (Endicott Non-Routine only)													
Sample Identification		Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers	Analyses Requested	Preservation Code	SCR#	Remarks
Date	Time	Date	Time										
07/17/17	930	7/18/17	930	X			GW		3				
07/17/17	932												
07/17/17	951												
07/17/17	1005												
07/17/17	1030												
07/17/17	1033												
07/17/17	1046												
07/17/17													
07/17/17													
07/17/17													
07/17/17													
07/17/17													
Turnaround Time Requested (TAT) (please circle)				Date		Time		Received by		Date		Time	
Standard				7/20/17		1600		Received by		Date		Time	
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)				Date		Time		Received by		Date		Time	
Date results are needed: 10 days				Date		Time		Received by		Date		Time	
E-mail:				Date		Time		Received by		Date		Time	
Data Package Options (please circle if required)				Site-specific QC (MS/MSD/Dup?)		Yes		No		Temperature upon receipt		1-31°C	
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A				Yes		No							
Type III (Reduced NJ) MA MCP NY ASP B													
Type VI (Raw Data Only) CT RCP													
SDG Complete? Yes No													

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Acct. # 6911

For Eurofins Lancaster Laboratories Environmental use only
Group # 188081 Sample # 0115303-332
Instructions on reverse side correspond with circled numbers.

COC # 018793

Client Information				Matrix		Analyses Requested		For Lab Use Only		
Preservation Code								SCR#		
Client: <u>IBM CEP Owego</u> <u>6911</u>										
Project Name: <u>3rd Gt Gw Sample</u> <u>93004.30</u>										
Project State: <u>NY</u>										
Project Site: <u>Brandon Ashby</u>										
Sample: <u>CA293004.09</u> <u>IRONIS</u>										
For Compliance: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No										
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M										
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs										
OU: _____ (Endicott Non-Routine only)										
Sample Identification		Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers	Remarks
Date	Time									
07/17/17	11:58	X								
07/17/17	12:38									
07/17/17	13:55									
07/17/17	13:34									
07/17/17	13:57									
07/17/17	14:19									
07/17/17	14:33									
07/17/17	14:47									
07/17/17	15:00									
07/17/17	15:01									
Turnaround Time Requested (TAT) (please circle)										
Standard Rush										
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)										
Date results are needed: <u>10 Days</u>										
E-mail:										
Data Package Options (please circle if required)										
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A										
Type III (Reduced NJ) MA MCP NY ASP B										
Type VI (Raw Data Only) CT RCP										
SDG Complete? Yes No										
Site-specific QC (MS/MSD/Dup)?										
Yes No										
(If yes, indicate QC sample and submit triplicate volume.)										
Temperature upon receipt: <u>11.3</u> °C										

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Acct. # 6911

For Eurofins Lancaster Laboratories Environmental use only
Group # 188081 Sample # 0115333-332
Instructions on reverse side correspond with circled numbers.

COC # 018794

Client Information				Matrix		Analyses Requested		For Lab Use Only		
Preservation Code								SCR#		
Client: <u>IBM CEP Owego</u> <u>6911</u>										
Project Name: <u>3rd Gt Gw Sample</u> <u>93004.30</u>										
Project State: <u>NY</u>										
Project Site: <u>Brandon Ashby</u>										
Sample: <u>CA293004.09</u> <u>IRONIS</u>										
For Compliance: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No										
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M										
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs										
OU: _____ (Endicott Non-Routine only)										
Sample Identification		Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers	Remarks
Date	Time									
07/17/17	13:10	X								
07/17/17	15:55									
07/17/17	15:55									
07/17/17	15:38									
07/17/17	15:50									
07/17/17	15:14									
07/17/17	15:46									
07/17/17	15:59									
07/17/17	15:12									
07/17/17	15:47									
Turnaround Time Requested (TAT) (please circle)										
Standard Rush										
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)										
Date results are needed: <u>10 Days</u>										
E-mail:										
Data Package Options (please circle if required)										
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A										
Type III (Reduced NJ) MA MCP NY ASP B										
Type VI (Raw Data Only) CT RCP										
SDG Complete? Yes No										
Site-specific QC (MS/MSD/Dup)?										
Yes No										
(If yes, indicate QC sample and submit triplicate volume.)										
Temperature upon receipt: <u>3.1</u> °C										

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Client Information				Matrix		Analyses Requested		For Lab Use Only	
Client				Preservation Code		SCR#		Preservation Codes	
IBM CEP Oswego 6911								H = HCl T = Thiosulfate	
Project Name: 3rd Gw Supply 93004.30								N = HNO ₃ B = NaOH	
Project State: 13 Camden Ashby NY								S = H ₂ SO ₄ O = Other	
Project ID: CAR 93004.09								Remarks	
For Compliance: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No									
Check One:									
<input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M									
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs									
OU: (Endicott Non-Routine only)									
Sample Identification				Collected		Grab		Composite	
Date				Time					
0035170020				8:15		X			
00170720WLD				9:59					
00353170700				8:41					
003170720SYR				9:00					
00194170720				11:4					
00185170720				10:05					
00186170720				10:43					
Turnaround Time Requested (TAT) (please circle)				Standard		Rush			
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)									
Data results are needed: 10 Days									
E-mail:									
Data Package Options (please circle if required)									
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A									
Type III (Reduced NJ) MA MCP NY ASP B									
Type VI (Raw Data Only) CT RCP									
SDG Complete? Yes No									
Site-specific QC (MS/MSD/Dup)?				Yes No					
(If yes, indicate QC sample and submit triplicate volume.)									
Temperature upon receipt				39 °C					

* NYS DEC B

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Client Information				Matrix		Analyses Requested		For Lab Use Only	
Client				Preservation Code		SCR#		Preservation Codes	
IBM CEP Oswego 6911								H = HCl T = Thiosulfate	
Project Name: 3rd Gw Supply 93004.30								N = HNO ₃ B = NaOH	
Project State: 13 Camden Ashby NY								S = H ₂ SO ₄ O = Other	
Project ID: CAR 93004.09								Remarks	
For Compliance: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No									
Check One:									
<input type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M									
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs									
OU: (Endicott Non-Routine only)									
Sample Identification				Collected		Grab		Composite	
Date				Time					
003171003SYR				10:10		X			
00010171003P				14:10					
00134171003P				14:36					
00130171003P				14:49					
0500171003				15:37					
00171004WLD				7:03					
0009171004P				7:04					
00107171004P				7:40					
00110171004P				7:54					
00106171004P				8:08					
Turnaround Time Requested (TAT) (please circle)				Standard		Rush			
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)									
Data results are needed: 10 Days									
E-mail:									
Data Package Options (please circle if required)									
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A									
Type III (Reduced NJ) MA MCP NY ASP B									
Type VI (Raw Data Only) CT RCP									
SDG Complete? Yes No									
Site-specific QC (MS/MSD/Dup)?				Yes No					
(If yes, indicate QC sample and submit triplicate volume.)									
Temperature upon receipt				39 °C					

* NYS DEC B

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*XIPSECB

~~A~~ 1145 DEC B

Client Information				Matrix			Analyses Requested								For Lab Use Only						
Project Name IBM CEP Endicott 0911							Preservation Code H								SCR#						
SSOW # 93004.300															Preservation Codes T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other						
Project State NJ															Remarks						
Sampler J Ronis																					
For Compliance: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																					
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs																					
OU: _____ (Endicott Non-Routine only)																					
Sample Identification			Collected		Grab	Composite	Soil	Potable	Water	NPDES	Oil	Air	Total # of Containers								
Date	Time			Sediment										Ground	Surface						
00367171005P	10/5/17	7:03	X			Gw															
00368171005		7:42																			
00366171005		8:10																			
003171005 TAR		8:30																			
00382171005P		8:44																			
00393171005P		9:03																			
00394171005P		9:17																			
0EQ141005WLD		9:27																			
00004171005P		9:50																			
00005171005P		10:00																			
Turnaround Time Requested (TAT) (please circle) Standard Flush															Date						
(Flush TAT is subject to Laboratory's approval and surcharges.)															Time						
Date results are needed: 10/12/17															Received by						
E-mail:															Date						
Data Package Options (please circle if required)															Time						
Type I (Validation/NJ Reg)	TX TRRP-13		NY ASP A													Received by					
Type III (Reduced NJ)	MA MCP		NY ASP B													Date					
Type VI (Raw Data Only)	CT RCP															Time					
SDG Complete?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>															Received by					
Site-specific QC (MS/MSD/Dup)?															Date						
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>															Time						
(If yes, indicate QC sample and submit triplicate volume.)															Temperature upon receipt 2.1 °C						

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Client Information						Matrix		Analyses Requested								For Lab Use Only						
Call no: PM CEP Endcott 0711 Project Name: LHON Gw supply Address: Brenden Ashby City: CAR 93004.39 State: NJ Zip: 93004.39 Contact: T Ronis						Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Soil <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>		Preservation Code #1								SCR# Preservation Codes: H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other						
For Compliance: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs																Remarks						
OU: _____ (Endcott Non-Routine only)						Composite																
Sample Identification			Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers												
		Date	Time																			
001402171005P			10/5/17	1019	X		Gw			3	X											
00395171005P				1037																		
00394171005P				1054																		
00395171005P				1104																		
00415171005				1122																		
00413171005				1212																		
00414171005				1255																		
00416171005				1237																		
00404171005				1300																		
00405171005				1312																		
Turnaround Time Requested (TAT) (please circle) Standard Rush						Site-specific QC (MS/MSD/Dup)? Yes No		Date 10/6/17		Temp 80°F		Received by 		Date 10/17/17		Time 1015						
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.) Date results are needed: 10 Days						Requisitioned by 		Date 10/6/17		Time 800		Received by 		Date 10/17/17		Time 1015						
E-mail:						Requisitioned by 		Date 10/6/17		Time 800		Received by 		Date 10/17/17		Time 1015						
Data Package Options (please circle if required) Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A Type III (Reduced NJ) MA MCP NY ASP B Type VI (Raw Data Only) CT RCP						SDG Complete? Yes No		Temperature upon receipt 21 °C														

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Environmental

Acct. # 06911 For Eurofins Lancaster Laboratories Environmental use only
Group # 1839261 Sample # 93004.30
Instructions on reverse side correspond with circled numbers.

COC # 018800

Client Information				Matrix		Analyses Requested		For Lab Use Only	
Client: IBM CEP Owego Project Name: HRT Gw Sample Location: Brandon Ashby P.O. #: CAR93004.29 For Compliance: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs OU: _____ (Endcott Non-Routine only)				Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Composite <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Total # of Containers: 8260C Plus Free 113/133		Preservation Code H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other		SCR# Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other Remarks	
Sample Identification				Collected					
				Date	Time	Grab	Composite		
003171003P				10/5/17	1530	X			
00333171003P					1547				
00318171003P					1601				
00329171003P					1612				
003171003P					1643				
00319171003P					1628				
001521003P				10/3	045				
00603171003P					700				
00397171003P					714				
00398171003P					725				
Turnaround Time Requested (TAT) (please circle)				Received by		Date		Time	
Standard				10/4/17		1700			
Date results are needed: 10/15/17				Received by		Date		Time	
E-mail:				Received by		Date		Time	
Data Package Options (please circle if required)				Received by		Date		Time	
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A				10/5/17		0940			
Type III (Reduced NJ) MA MCP NY ASP B									
Type VI (Raw Data Only) CT RCP									
SDG Complete? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				Site-specific QC (MS/MSD/Dup)?		Temperature upon receipt		1.4 °C	
				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					

NYSD ECR

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Page 38 of 43

IBM Chain of Custody



Lancaster Laboratories
Environmental

Acct. # 06911 For Eurofins Lancaster Laboratories Environmental use only
Group # 1839261 Sample # 93004.30
Instructions on reverse side correspond with circled numbers.

COC # 018901

Client Information				Matrix		Analyses Requested		For Lab Use Only	
Client: IBM CEP Owego Project Name: HRT Gw Sample Location: Brandon Ashby P.O. #: CAR93004.29 For Compliance: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Check One: <input type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs OU: _____ (Endcott Non-Routine only)				Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Composite <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Total # of Containers: 8260C Plus Free 113/133		Preservation Code H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other		SCR# Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ O = Other Remarks	
Sample Identification				Collected					
				Date	Time	Grab	Composite		
00005171003P				10/3/17	741	X			
00009171003P					754				
00008171003P					811				
00001171003P					824				
00357171003P					844				
00358171003P					858				
00504171003P					900				
00539171003P					921				
00146171003P					933				
00383171003P					936				
Turnaround Time Requested (TAT) (please circle)				Received by		Date		Time	
Standard				10/4/17		1700			
Date results are needed: 10/15/17				Received by		Date		Time	
E-mail:				Received by		Date		Time	
Data Package Options (please circle if required)				Received by		Date		Time	
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A				10/5/17		0940			
Type III (Reduced NJ) MA MCP NY ASP B									
Type VI (Raw Data Only) CT RCP									
SDG Complete? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				Site-specific QC (MS/MSD/Dup)?		Temperature upon receipt		1.4 °C	
				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					

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Page 39 of 43

Client Information				Matrix		Analyses Requested		For Lab Use Only																																																																																																																											
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APPENDIX F

**GROUNDWATER ANALYTICAL CHEMISTRY DATA
FOR EXTRACTION AND MONITORING WELLS**

January 1, 2017 – December 31, 2017

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	101	101	106	106	107A	107A
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	03/01/2017	07/19/2017	03/01/2017	10/04/2017	03/01/2017	06/13/2017
Laboratory Sample I.D.	8865362	9115358	8865345	9250790	8865346	9052931
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	7.82	8.16	8.08	7.65	8.41	8.28
SPECIFIC CONDUCTANCE	umhos/cm	403	435	657	690	334	359
TEMPERATURE	C	9.9	10.5	9	15.3	11.9	13
TURBIDITY	NTU	0.7	0.21	2.46	1.07	0.66	1.74

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	1	0.7	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.6	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	107A	107A	110	110	120	120
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	07/18/2017	10/04/2017	06/13/2017	10/04/2017	03/01/2017	07/19/2017
Laboratory Sample I.D.	9115325	9250788	9052932	9250789	8865354	9115352
Sample Comment Codes	P	P	P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	8.05	8.13	7.13	7.59	7.79	6.97
SPECIFIC CONDUCTANCE	umhos/cm	315	340	7830	2650	920	1356
TEMPERATURE	C	12.1	11.7	13.9	14.3	12.6	11.9
TURBIDITY	NTU	0.56	1.59	2.89	1.11	0.95	0.38

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	4	3.1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	2.7	1.8
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.3 J	0.3 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	0.3 J	ND@0.5	ND@0.5	ND@0.5	0.7	0.5 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	124	124	125	125	127	127
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	06/14/2017	10/04/2017	06/14/2017	10/04/2017	06/13/2017	10/04/2017
Laboratory Sample I.D.	9052968	9250792	9052969	9250795	9052933	9250794
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	6.67	7.07	7.76	7.85	7.4	7.23
SPECIFIC CONDUCTANCE	umhos/cm	1320	1310	4240	230	3890	4530
TEMPERATURE	C	15.2	13.7	14.8	16.4	15.4	16.3
TURBIDITY	NTU	2.09	1.35	1.72	0.77	1.54	1.07

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	0.4 J	0.7	1.4	0.6	33	67
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	27	4.3	2.3	3
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.6	0.4 J	3	4.8
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	0.3 J	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	2.9	0.7	0.9	1.4
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.2 J	ND@0.5	0.3 J	0.4 J
TRICHLOROETHENE	ug/L	0.3 J	0.3 J	6.1	3.8	64	100
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	0.5 J	0.2 J	ND@0.5	0.2 J

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	128	129	129	132	133	133
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/04/2017	06/13/2017	10/04/2017	10/03/2017	02/28/2017	07/18/2017
Laboratory Sample I.D.	9250791	9052930	9250787	9250784	8862996	9115330
Sample Comment Codes	P	P	P	P	P	P

Parameter **Units**

Indicator Parameters

PH	SU	6.86	9.9	9.15	7.37	7.13	7.2
SPECIFIC CONDUCTANCE	umhos/cm	6810	950	990	1030	8810	7386
TEMPERATURE	C	16.2	19	18.8	15.6	14.2	13.7
TURBIDITY	NTU	0.94	2.06	1.84	3.17	0.81	0.59

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	1400	0.1 J	1.2	ND@0.5	95	69
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	130	ND@0.5	ND@0.5	ND@0.5	2	1.5
1,1,2-TRICHLOROETHANE	ug/L	5.8 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	200	ND@0.5	ND@0.5	ND@0.5	96	93
1,1-DICHLOROETHENE	ug/L	530	ND@0.5	ND@0.5	ND@0.5	15	15
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@10	ND@0.5	ND@0.5	ND@0.5	1.4	1.5
1,2-DICHLOROETHANE (EDC)	ug/L	2 J	ND@0.5	ND@0.5	ND@0.5	0.4 J	0.3 J
CHLOROETHANE	ug/L	ND@10	ND@0.5	ND@0.5	ND@0.5	0.2 J	0.3 J
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@10	ND@0.5	ND@0.5	ND@0.5	0.1 J	0.1 J
CIS-1,2-DICHLOROETHENE	ug/L	460	ND@0.5	ND@0.5	ND@0.5	0.1 J	0.1 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@10	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@10	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	10	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	350	ND@0.5	ND@0.5	ND@0.5	2.5	2.1
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@10	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	8.5 J	ND@0.5	ND@0.5	ND@0.5	0.2 J	0.2 J

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	134	134	140R	146	146	148
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	06/13/2017	10/03/2017	10/05/2017	06/13/2017	10/03/2017	03/01/2017
Laboratory Sample I.D.	9052929	9250783	9253892	9052955	9247739	8865353
Sample Comment Codes	P	P	P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	8.17	7.48	6.71	7.26	7.32	7.74
SPECIFIC CONDUCTANCE	umhos/cm	371	482	1960	2610	3070	1060
TEMPERATURE	C	18.6	16.9	14.2	13.2	15.3	12.6
TURBIDITY	NTU	1.3	8.72	6.28	2.02	1.09	0.93

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	220	0.2 J	0.3 J	180
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	24	ND@0.5	ND@0.5	2.2 J
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@5	ND@0.5	ND@0.5	1 J
1,1-DICHLOROETHANE	ug/L	0.1 J	0.1 J	810	0.5 J	1	1.8 J
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	65	ND@0.5	ND@0.5	12
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	12	ND@0.5	ND@0.5	ND@2.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@5	ND@0.5	ND@0.5	ND@2.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	3.2 J	ND@0.5	ND@0.5	ND@2.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@5	ND@0.5	ND@0.5	ND@2.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	30	ND@0.5	ND@0.5	0.7 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@5	ND@0.5	ND@0.5	ND@2.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@5	ND@0.5	ND@0.5	ND@2.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@5	ND@0.5	ND@0.5	ND@2.5
TRICHLOROETHENE	ug/L	ND@0.5	0.3 J	5.2	ND@0.5	0.1 J	2.4 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@5	ND@0.5	ND@0.5	ND@2.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	8.3	ND@0.5	ND@0.5	ND@2.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	148	149	149	157	157	158
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	07/19/2017	03/02/2017	07/19/2017	06/14/2017	10/03/2017	03/02/2017
Laboratory Sample I.D.	9115353	8866907	9115354	9052957	9247727	8866903
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	6.75	7.41	7.25	6.39	7.28	7.21
SPECIFIC CONDUCTANCE	umhos/cm	875	1110	1119	370	1490	165
TEMPERATURE	C	13.6	11.5	11.6	11.8	13.6	10.4
TURBIDITY	NTU	0.2	0.87	0.32	1.17	0.79	1.17

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	140	3.3	3.1	0.2 J	1.4	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1.8 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	0.8 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	1.5 J	15	15	ND@0.5	0.2 J	ND@0.5
1,1-DICHLOROETHENE	ug/L	11	3.5	4	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@2.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@2.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@2.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@2.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.7 J	13	14	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@2.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@2.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@2.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	2.3 J	18	17	0.1 J	1	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@2.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@2.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	160	160	162	162	163	165
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	02/28/2017	07/18/2017	03/02/2017	07/19/2017	03/02/2017	03/01/2017
Laboratory Sample I.D.	8863006	9115314	8866905	9115348	8866906	8865367
Sample Comment Codes	P	P	P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	8.12	8.08	7.82	8.11	7.2	7.46
SPECIFIC CONDUCTANCE	umhos/cm	670	495	510	690	579	279
TEMPERATURE	C	4.7	16.9	9.1	16.1	9.2	4.5
TURBIDITY	NTU	1.04	0.77	1.28	0.36	0.8	0.73

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	39	41	19	29	ND@0.5	9.6
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@1	ND@1	ND@0.5	0.3 J	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@1	ND@1	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	3.1	3.5	1.7	3.3	ND@0.5	0.9
1,1-DICHLOROETHENE	ug/L	8.6	10	5.1	7.7	ND@0.5	2.9
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@1	ND@1	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@1	ND@1	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@1	ND@1	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@1	ND@1	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	18	20	11	36	ND@0.5	5.2
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@1	ND@1	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@1	ND@1	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@1	ND@1	0.2 J	0.2 J	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	130	170	81	41	ND@0.5	30
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@1	ND@1	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@1	ND@1	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	165	166	166	167	167	178
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	07/19/2017	03/01/2017	07/19/2017	03/01/2017	07/19/2017	03/01/2017
Laboratory Sample I.D.	9115349	8865347	9115340	8865349	9115341	8865356
Sample Comment Codes	P	P	P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	7.38	8.28	7.96	8.21	7.12	7.02
SPECIFIC CONDUCTANCE	umhos/cm	477	618	645	377	339	2660
TEMPERATURE	C	17.9	12.2	11.6	9.7	13.2	7.8
TURBIDITY	NTU	0.46	1.15	0.77	0.76	0.55	0.8

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	61	0.3 J	0.2 J	ND@0.5	ND@0.5	29
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.6	0.6	0.6	ND@0.5	ND@0.5	0.6
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	8	1.6	1.7	ND@0.5	ND@0.5	17
1,1-DICHLOROETHENE	ug/L	18	0.2 J	0.2 J	ND@0.5	ND@0.5	3.6
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	1.4	1.5	ND@0.5	ND@0.5	0.2 J
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.2 J
CIS-1,2-DICHLOROETHENE	ug/L	34	8.4	7.5	ND@0.5	ND@0.5	6.4
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.4 J
TRICHLOROETHENE	ug/L	220	1.1	1	3.7	3.8	70
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	1.2	0.7	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	178	179	179	181	183	183
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	07/19/2017	03/01/2017	07/19/2017	03/01/2017	03/02/2017	07/18/2017
Laboratory Sample I.D.	9115350	8865364	9115351	8865351	8866902	9115335
Sample Comment Codes	P	P	P	P	P	P

Parameter **Units**

Indicator Parameters

PH	SU	6.65	7.7	7.68	7.91	7.07	7.27
SPECIFIC CONDUCTANCE	umhos/cm	2017	443	480	1010	740	677
TEMPERATURE	C	17.3	10.5	14.7	13.7	12.3	13.1
TURBIDITY	NTU	0.33	0.65	0.27	0.79	0.87	0.51

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	31	24	18	6.2	11	9.4
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.6	4	17	ND@0.5	0.2 J	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	14	3.6	3.4	1.4	1.7	1.2
1,1-DICHLOROETHENE	ug/L	4.2	6.7	6.5	0.2 J	0.5	0.3 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	0.3 J	1.9	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.2 J	0.2 J	0.2 J	ND@0.5	1.4	1.4
CIS-1,2-DICHLOROETHENE	ug/L	7.9	13	25	ND@0.5	62	54
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	0.4 J	0.2 J	0.1 J	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	87	69	83	1.1	180	160
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	0.2 J	ND@0.5	0.3 J	0.1 J

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	185	185	186	186	194	194
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	03/02/2017	07/20/2017	03/02/2017	07/20/2017	03/02/2017	07/20/2017
Laboratory Sample I.D.	8866910	9115371	8866911	9115372	8866908	9115370
Sample Comment Codes						

Parameter	Units
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Indicator Parameters

PH	SU	7.14	7.9	7.11	7.11	7.32	7.75
SPECIFIC CONDUCTANCE	umhos/cm	990	1029	1290	2386	900	897
TEMPERATURE	C	10.6	12.2	9	12.4	12.3	12.2
TURBIDITY	NTU	7.09	4.22	6.75	3.21	260	57.9

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	2.2	2.5	2	14	0.2 J	3.1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	2.1	2.7	4.9	71	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	1.2	1	1.5	8.9	6.2	7.4
1,1-DICHLOROETHENE	ug/L	0.2 J	0.2 J	0.2 J	1.7	3.9	3.3
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.5 J	0.4 J	0.5	4.6	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	0.1 J	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.5 J	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.1 J	0.1 J	0.1 J	0.8	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	3.1	2.2	3.6	12	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	21	29	31	250	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	306	308	308	309	309	313
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	02/28/2017	02/28/2017	07/18/2017	02/28/2017	07/18/2017	02/28/2017
Laboratory Sample I.D.	8862986	8862995	9115329	8862997	9115331	8862998
Sample Comment Codes		P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	7.66	6.91	6.78	6.74	6.38	7.61
SPECIFIC CONDUCTANCE	umhos/cm	1500	2590	2820	6110	7905	1590
TEMPERATURE	C	7.3	12	13.1	12	12.7	12.5
TURBIDITY	NTU	4.02	0.64	1.47	0.69	0.59	0.7

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	72	86	2.7	2.6	0.2 J
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	1.6	1.9	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	43	75	ND@0.5	ND@0.5	2.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	6.1	7.8	ND@0.5	ND@0.5	0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	0.6	1	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	0.2 J	0.2 J	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	0.1 J	0.2 J	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	0.1 J	0.1 J	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.2 J	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	0.5 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	0.3 J	0.6	9.9	9.8	1.1
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	314	316	316	317	317	318
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	03/01/2017	03/01/2017	07/19/2017	02/28/2017	07/18/2017	03/01/2017
Laboratory Sample I.D.	8865363	8865348	9115339	8863007	9115313	8865359
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	8	8.42	8.23	7.96	8.03	7.91
SPECIFIC CONDUCTANCE	umhos/cm	301	467	503	573	464	373
TEMPERATURE	C	9.9	11.9	13.1	4.8	17.6	10
TURBIDITY	NTU	0.62	0.7	0.84	0.87	0.65	0.96

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	0.3 J	ND@0.5	ND@0.5	19	40	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1	ND@1	1.8
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1	ND@1	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.4 J	ND@0.5	ND@0.5	1.6	3.3	3.5
1,1-DICHLOROETHENE	ug/L	0.2 J	ND@0.5	ND@0.5	5.1	8.7	0.8
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1	ND@1	11
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1	ND@1	0.1 J
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1	ND@1	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1	ND@1	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	1	ND@0.5	ND@0.5	11	17	82
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1	ND@1	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1	ND@1	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1	0.2 J	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	73	140	1.3
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1	ND@1	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1	ND@1	0.6

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	318	318	318	319	319	319
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	06/13/2017	07/19/2017	10/02/2017	03/01/2017	06/13/2017	07/19/2017
Laboratory Sample I.D.	9052925	9115356	9247723	8865361	9052927	9115359
Sample Comment Codes	P	P	P	P	P	P

Parameter **Units**

Indicator Parameters

PH	SU	7.91	8.05	7.26	8.29	7.75	7.85
SPECIFIC CONDUCTANCE	umhos/cm	412	402	421	439	447	495
TEMPERATURE	C	11.2	10.3	10.4	8.4	10.5	11.8
TURBIDITY	NTU	3.52	0.45	0.97	0.77	1.03	0.29

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	3.4	3.2	3.5	0.4 J	0.7	0.7
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	3.7	2.9	2.9	1.3	1.2	0.8
1,1-DICHLOROETHENE	ug/L	0.9	0.9	0.8	0.1 J	0.2 J	0.2 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	12	8.5	9.1	2.2	2.3	1
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	83	77	77	12	11	8.6
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	0.3 J	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	1.1	1.1	1.1	1	1.6	1.4
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.3 J	0.2 J	0.3 J	3.1	0.4 J	0.2 J

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	319	321	321	322	322	322
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/02/2017	02/28/2017	07/18/2017	03/01/2017	06/13/2017	07/19/2017
Laboratory Sample I.D.	9247726	8862994	9115328	8865360	9052926	9115357
Sample Comment Codes	P	P	P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	7.79	6.91	6.69	7.46	7.45	7.48
SPECIFIC CONDUCTANCE	umhos/cm	467	1630	996	362	410	464
TEMPERATURE	C	12.4	12.4	11.8	8.4	10.3	11.2
TURBIDITY	NTU	0.92	0.87	1.59	0.79	1.67	0.33

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	3.2	3.1	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.8	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	1	1.4	1.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1.3	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	11	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	1.7	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.9	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	322	323	323	323	323	324
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/02/2017	03/01/2017	06/13/2017	07/19/2017	10/02/2017	06/15/2017
Laboratory Sample I.D.	9247724	8865365	9052928	9115360	9247722	9052977
Sample Comment Codes	P	P	P	P	P	P

Parameter **Units**

Indicator Parameters

PH	SU	7.38	6.98	7.12	6.81	6.67	6.49
SPECIFIC CONDUCTANCE	umhos/cm	500	280	176	218	273	5480
TEMPERATURE	C	12.4	10.4	10	10.6	11.2	13.7
TURBIDITY	NTU	1.11	0.56	1.18	0.34	1.21	1.92

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5	190
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	0.7	0.3 J	0.9	1.6	8.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	1.2 J
1,1-DICHLOROETHANE	ug/L	ND@0.5	1.8	0.3 J	1.9	2.7	85
1,1-DICHLOROETHENE	ug/L	ND@0.5	0.3 J	ND@0.5	0.5	0.7	100
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.3 J	1.3	0.6	0.8	1.6	1.1 J
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.7 J
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@2.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J	0.5 J
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	22	0.4 J	32	66	50
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@2.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	1.5 J
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	2 J
TRICHLOROETHENE	ug/L	ND@0.5	22	5.5	23	31	530
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@2.5
VINYL CHLORIDE	ug/L	ND@0.5	0.5 J	0.7	0.3 J	0.3 J	2.4 J

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	324	325	325	351	351	352
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/05/2017	06/15/2017	10/05/2017	03/02/2017	07/20/2017	03/02/2017
Laboratory Sample I.D.	9253894	9052978	9253895	8866912	9115366	8866913
Sample Comment Codes	P	P	P			

Parameter	Units
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Indicator Parameters

PH	SU	6.44	6.2	5.98	7.24	7.53	7.39
SPECIFIC CONDUCTANCE	umhos/cm	6850	5020	6440	676	701	442
TEMPERATURE	C	14.6	13.1	14.1	11.3	11.5	10.1
TURBIDITY	NTU	10.8	2.54	8.09	44	436	72.4

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	150	150	110	ND@0.5	0.2 J	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	5.5	10	4.6	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	1.3 J	0.9 J	0.9 J	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	79	69	61	0.1 J	0.2 J	ND@0.5
1,1-DICHLOROETHENE	ug/L	92	80	68	ND@0.5	0.1 J	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1 J	1.3 J	1 J	0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	0.6 J	0.6 J	0.6 J	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@2.5	ND@2.5	ND@2.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.5 J	ND@2.5	ND@2.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	49	48	40	0.2 J	0.5 J	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@2.5	ND@2.5	ND@2.5	0.1 J	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	1.6 J	1.9 J	2 J	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	2.1 J	6.8	5.1	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	440	390	260	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@2.5	ND@2.5	ND@2.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	2.1 J	2 J	2.5 J	0.4 J	0.1 J	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	353	354	355	356	357	357
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/04/2017	10/04/2017	02/28/2017	02/28/2017	06/13/2017	10/03/2017
Laboratory Sample I.D.	9250796	9250797	8862992	8862993	9052954	9247735
Sample Comment Codes	P		P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	8.14	7.71	8.09	8.07	7.73	7.58
SPECIFIC CONDUCTANCE	umhos/cm	0.67	124	269	184	1900	2290
TEMPERATURE	C	18.6	18	9.5	9	15.6	15.9
TURBIDITY	NTU	6.39	377	1.26	2.54	1.36	1.59

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	500	44	ND@0.5	ND@0.5	0.1 J	0.3 J
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@5	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	270	0.2 J	ND@0.5	ND@0.5	1.5	2.7
1,1-DICHLOROETHENE	ug/L	250	4.7	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	39	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@5	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	520	11	0.1 J	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	1.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	358	361	362	363	364	365
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/03/2017	10/03/2017	02/28/2017	02/28/2017	10/04/2017	10/04/2017
Laboratory Sample I.D.	9247736	9247741	8862989	8862985	9250805	9250806
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	7.03	6.94	7.26	6.39	7.29	6.71
SPECIFIC CONDUCTANCE	umhos/cm	3020	1060	422	5350	1870	2160
TEMPERATURE	C	15.6	15.8	9.3	11.3	11.9	12.4
TURBIDITY	NTU	0.79	1.22	1.28	1.91	0.96	0.81

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	42	1.6	ND@0.5	1.4	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1.2	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	24	3.1	ND@0.5	0.9	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	6.5	0.5 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.3 J	0.4 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	2.8	0.9	ND@0.5	0.2 J	ND@0.5	1
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	366	367	367	368	368	373
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/05/2017	06/14/2017	10/05/2017	06/14/2017	10/05/2017	02/28/2017
Laboratory Sample I.D.	9253884	9052965	9253882	9052966	9253883	8862988
Sample Comment Codes		P	P			P

Parameter	Units
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Indicator Parameters

PH	SU	6.76	6.6	6.37	6.67	6.48	7.14
SPECIFIC CONDUCTANCE	umhos/cm	1660	1950	2300	2960	3410	803
TEMPERATURE	C	13	14.6	12.7	14	12.8	9.2
TURBIDITY	NTU	41.8	1.41	0.95	269	580	1.01

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	18	90	71	ND@0.5	ND@0.5	4.3
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.4 J	3.8	3.1	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	0.1 J	0.1 J	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	8.7	13	12	0.1 J	0.8	0.8
1,1-DICHLOROETHENE	ug/L	4	24	23	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.7	1.3	1.2	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	0.1 J	0.1 J	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.3 J	0.7	0.6	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	4.5	5.8	5.2	0.1 J	0.4 J	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	15	12	11	ND@0.5	ND@0.5	0.1 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	0.8	0.8	0.3 J	0.3 J	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	373	374	374	378	378	378
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	07/17/2017	02/28/2017	07/17/2017	06/13/2017	07/18/2017	10/04/2017
Laboratory Sample I.D.	9115305	8862987	9115304	9052939	9115320	9250807
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	6.72	7.69	8.01	7.48	7.01	6.89
SPECIFIC CONDUCTANCE	umhos/cm	1023	530	411	1660	1822	1980
TEMPERATURE	C	12.4	7.4	18	16.3	12.8	11.7
TURBIDITY	NTU	1.8	1.99	0.75	3.34	0.8	0.78

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	3.2	ND@0.5	ND@0.5	690	130	90
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	95	5.5	6.7
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@2.5	ND@2.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.4 J	ND@0.5	ND@0.5	1000	450	390
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	89	22	22
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	23	8.4	9.1
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@2.5	ND@2.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	1.8 J	0.9 J	0.9
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@2.5	ND@2.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	120	46	36
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@2.5	ND@2.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@2.5	ND@2.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@2.5	ND@2.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	110	16	14
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@2.5	ND@2.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	35	23	31

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	379	382	383	383	386	387
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/04/2017	10/05/2017	06/13/2017	10/03/2017	03/01/2017	03/01/2017
Laboratory Sample I.D.	9250808	9253886	9052956	9247740	8865355	8865366
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	6.9	7.27	7.15	7.27	6.42	7.45
SPECIFIC CONDUCTANCE	umhos/cm	2100	470	2740	2800	700	284
TEMPERATURE	C	11.9	15.4	15.8	15.2	10.4	4.6
TURBIDITY	NTU	1.18	2.72	1.62	0.94	1.09	0.96

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	1.3	0.3 J	1.8	1.9	29	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.5 J	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	4.7	ND@0.5	0.4 J	0.5 J	36	ND@0.5
1,1-DICHLOROETHENE	ug/L	0.4 J	ND@0.5	0.2 J	0.2 J	21	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.2 J	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.4 J	ND@0.5	ND@0.5	ND@0.5	59	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	1.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	0.2 J	0.2 J	3.1	3.6	200	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	392	392	393	393	393	393
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	06/15/2017	10/05/2017	03/02/2017	06/13/2017	07/20/2017	10/03/2017
Laboratory Sample I.D.	9052979	9253887	8866909	9052922	9115368	9247749
Sample Comment Codes	P	P				

Parameter **Units**

Indicator Parameters

PH	SU	7.41	7.09	6.77	7.18	7.05	7.49
SPECIFIC CONDUCTANCE	umhos/cm	2190	2700	2960	2720	3031	3220
TEMPERATURE	C	12.3	12.6	11.6	15.7	12.5	13.7
TURBIDITY	NTU	1.58	2.54	18.5	31.8	62.7	38.3

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	0.6	1.1	880	1000	740	860
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	110	100	89	110
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@5	ND@5	ND@5	ND@5
1,1-DICHLOROETHANE	ug/L	0.4 J	0.7	1100	1400	1000	1100
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	99	120	100	110
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	21	25	19	20
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@5	ND@5	ND@5	ND@5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	1.7 J	1.8 J	1.3 J	1.6 J
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@5	ND@5	ND@5	ND@5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	130	150	130	140
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@5	ND@5	ND@5	ND@5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@5	ND@5	ND@5	ND@5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@5	ND@5	ND@5	ND@5
TRICHLOROETHENE	ug/L	0.5	0.8	190	230	180	190
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@5	ND@5	ND@5	ND@5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	20	23	16	18

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	394	394	395	397	398	398
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	06/15/2017	10/05/2017	10/05/2017	10/03/2017	06/14/2017	10/03/2017
Laboratory Sample I.D.	9052980	9253888	9253893	9247729	9052959	9247730
Sample Comment Codes	P	P	P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	6.79	6.61	7.16	7.6	6.77	7.06
SPECIFIC CONDUCTANCE	umhos/cm	3050	3940	2780	700	690	1490
TEMPERATURE	C	13.2	13.4	13.9	13.5	11.3	13.4
TURBIDITY	NTU	2.29	1.49	12	0.91	1.11	0.8

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	1100	ND@0.5	1.9	6.7
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	110	ND@0.5	ND@0.5	0.3 J
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@10	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	1100	ND@0.5	8.8	8.7
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	120	ND@0.5	3.1	4.2
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	21	ND@0.5	0.6	0.6
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@10	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@10	ND@0.5	0.4 J	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@10	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	150	ND@0.5	1.1	1.4
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@10	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@10	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@10	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	240	ND@0.5	2.5	8.9
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@10	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	17	ND@0.5	0.2 J	0.2 J

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	399	399	399	399	404	404
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW EXTR WELL	GW EXTR WELL
Sample Date	02/28/2017	06/13/2017	07/18/2017	10/03/2017	03/03/2017	06/12/2017
Laboratory Sample I.D.	8863005	9052934	9115316	9247745	8866921	9052914
Sample Comment Codes	P	P	P	P		

Parameter	Units
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Indicator Parameters

PH	SU	7.17	7.21	7.14	7.03	7.4	7.09
SPECIFIC CONDUCTANCE	umhos/cm	3280	2080	2311	4730	1260	1270
TEMPERATURE	C	5.3	14.7	17.8	17.2	10.2	12.9
TURBIDITY	NTU	0.91	2.34	0.56	0.93	11.2	6.88

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	5.8	7.1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	32	40
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	4.5	5.8
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	1.1	1.3
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	7.2	9.3
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.9	1.6
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.1 J	0.2 J	27	31
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	1.2
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J	0.2 J
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	120	150
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	0.1 J	0.2 J	0.3 J	0.3 J

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	404	404	405	405	405	405
Sample Description	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL
Sample Date	07/19/2017	10/05/2017	03/03/2017	06/12/2017	07/19/2017	10/05/2017
Laboratory Sample I.D.	9115361	9253900	8866922	9052915	9115362	9253901
Sample Comment Codes						

Parameter	Units
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Indicator Parameters

PH	SU	7.29	7.44	7.53	7.3	7.47	7.82
SPECIFIC CONDUCTANCE	umhos/cm	1380	1590	750	533	653	603
TEMPERATURE	C	11.7	12.4	8.4	11.1	11.5	13.1
TURBIDITY	NTU	1.51	4.42	1.16	2.94	1.28	2.08

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	6.9	7.8	16	16	16	20
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	43	40	50	35	31	23
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	5.1	5.4	5.6	4.9	4	3.7
1,1-DICHLOROETHENE	ug/L	1.4	1.5	3.9	4	4.4	5.2
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	8.1	7.7	3.2	3.6	2.4	1.6
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	1.3	1.1	0.2 J	0.2 J	0.1 J	0.1 J
CIS-1,2-DICHLOROETHENE	ug/L	29	27	22	22	22	21
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	0.6	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	0.2 J	0.2 J	0.4 J	0.4 J	0.3 J	0.3 J
TRICHLOROETHENE	ug/L	140	140	87	94	86	80
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.2 J	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	413	413	413	413	414	414
Sample Description	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL
Sample Date	03/03/2017	06/13/2017	07/19/2017	10/05/2017	03/03/2017	06/13/2017
Laboratory Sample I.D.	8866916	9052919	9115342	9253897	8866917	9052920
Sample Comment Codes						

Parameter	Units						
Indicator Parameters							
PH	SU	6.37	6.66	6.73	6.64	6.61	6.83
SPECIFIC CONDUCTANCE	umhos/cm	2930	2770	2810	3170	3680	3390
TEMPERATURE	C	12.8	15.8	15.6	13.9	12.7	15.9
TURBIDITY	NTU	23.1	2.44	4.12	4.73	52.6	17.2
Volatile Organics							
1,1,1-TRICHLOROETHANE	ug/L	38	42	41	41	550	490
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	3.9	4	4.2	4.8	72	59
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@5	ND@5
1,1-DICHLOROETHANE	ug/L	80	95	87	86	1300	1400
1,1-DICHLOROETHENE	ug/L	12	15	16	15	68	81
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1.5	1.7	1.6	1.6	26	30
1,2-DICHLOROETHANE (EDC)	ug/L	0.1 J	0.1 J	0.1 J	0.1 J	ND@5	ND@5
CHLOROETHANE	ug/L	0.3 J	0.3 J	0.2 J	0.3 J	1.7 J	1.8 J
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@5	ND@5
CIS-1,2-DICHLOROETHENE	ug/L	13	16	16	16	76	90
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@5	ND@5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@5	ND@5
TETRACHLOROETHENE	ug/L	0.1 J	0.2 J	0.2 J	0.2 J	1.9 J	2.1 J
TRICHLOROETHENE	ug/L	38	47	43	45	290	310
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@5	ND@5
VINYL CHLORIDE	ug/L	1.1	1.3	1	1.1	11	12

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	414	414	415	415	415	415
Sample Description	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL
Sample Date	07/19/2017	10/05/2017	03/03/2017	06/12/2017	07/18/2017	10/05/2017
Laboratory Sample I.D.	9115344	9253898	8866915	9052917	9115327	9253896
Sample Comment Codes						

Parameter	Units
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Indicator Parameters

PH	SU	6.88	6.75	6.85	6.96	7.23	6.66
SPECIFIC CONDUCTANCE	umhos/cm	3772	3110	5900	5140	5315	5100
TEMPERATURE	C	14.2	14	15.3	20.8	16.6	17
TURBIDITY	NTU	1.74	27.8	58.6	73.3	4.52	10

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	490	46	1200	1000	1600	1400
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	53	5.5	130	84	130	110
1,1,2-TRICHLOROETHANE	ug/L	ND@5	ND@0.5	6.3 J	4.5 J	6.1 J	6.5 J
1,1-DICHLOROETHANE	ug/L	1300	100	1100	850	1200	1100
1,1-DICHLOROETHENE	ug/L	75	13	980	640	1100	920
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	26	1.9	ND@25	6.8 J	8.2 J	8.2 J
1,2-DICHLOROETHANE (EDC)	ug/L	ND@5	0.1 J	ND@25	ND@10	2 J	2.5 J
CHLOROETHANE	ug/L	1.3 J	0.3 J	ND@25	ND@10	ND@10	ND@10
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@5	ND@0.5	ND@25	ND@10	ND@10	ND@10
CIS-1,2-DICHLOROETHENE	ug/L	81	17	2200	1800	2600	2700
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@5	ND@0.5	ND@25	ND@10	ND@10	ND@10
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@5	ND@0.5	ND@25	ND@10	ND@10	ND@10
TETRACHLOROETHENE	ug/L	2.3 J	0.2 J	13 J	9.7 J	14	18
TRICHLOROETHENE	ug/L	280	48	1400	1100	1600	1600
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@5	ND@0.5	ND@25	ND@10	ND@10	ND@10
VINYL CHLORIDE	ug/L	9.8	1.2	170	96	140	150

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	416	416	416	416	521	521
Sample Description	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW MON WELL	GW MON WELL
Sample Date	03/03/2017	06/13/2017	07/19/2017	10/05/2017	06/13/2017	07/18/2017
Laboratory Sample I.D.	8866920	9052921	9115343	9253899	9052937	9115318
Sample Comment Codes					P	P

Parameter **Units**

Indicator Parameters

PH	SU	7	7.21	6.73	6.73	7.33	7.32
SPECIFIC CONDUCTANCE	umhos/cm	3040	2790	2810	3070	2580	2396
TEMPERATURE	C	11.4	16.7	15.6	13.7	16.8	22.3
TURBIDITY	NTU	820	1000	4.12	388	2.29	1.35

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	530	600	590	48	160	150
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	55	46	42	4.6	15	13
1,1,2-TRICHLOROETHANE	ug/L	ND@5	ND@5	ND@5	0.1 J	ND@5	ND@5
1,1-DICHLOROETHANE	ug/L	1100	1000	890	100	740	660
1,1-DICHLOROETHENE	ug/L	67	75	79	5.1	34	36
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	20	13	11	1.6	13	11
1,2-DICHLOROETHANE (EDC)	ug/L	ND@5	ND@5	ND@5	0.1 J	ND@5	ND@5
CHLOROETHANE	ug/L	1.9 J	2.1 J	1.5 J	0.3 J	3.9 J	3.1 J
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@5	ND@5	ND@5	ND@0.5	ND@5	ND@5
CIS-1,2-DICHLOROETHENE	ug/L	80	97	93	16	34	38
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@5	ND@5	ND@5	ND@0.5	ND@5	ND@5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@5	ND@5	ND@5	ND@0.5	ND@5	ND@5
TETRACHLOROETHENE	ug/L	1.1 J	ND@5	ND@5	0.2 J	ND@5	ND@5
TRICHLOROETHENE	ug/L	220	140	130	46	4.7 J	5.9
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@5	ND@5	ND@5	ND@0.5	ND@5	ND@5
VINYL CHLORIDE	ug/L	8.8	8.4	7.3	0.8	30	23

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	521	522	522	522	522	524
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/03/2017	02/28/2017	06/13/2017	07/18/2017	10/03/2017	03/01/2017
Laboratory Sample I.D.	9247747	8863009	9052938	9115317	9247748	8865343
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	7.4	7.62	7.61	7.65	7.47	7.83
SPECIFIC CONDUCTANCE	umhos/cm	3100	3060	2500	2362	3020	2170
TEMPERATURE	C	19.2	6.7	19.4	21.3	18.2	10.6
TURBIDITY	NTU	1.01	1.63	4.64	0.5	0.85	0.75

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	140	190	250	230	200	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	11	17	31	27	24	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@5	ND@2.5	ND@2.5	ND@2.5	ND@5	ND@0.5
1,1-DICHLOROETHANE	ug/L	630	510	580	590	510	0.2 J
1,1-DICHLOROETHENE	ug/L	28	32	47	42	41	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	12	9.1	12	11	10	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@5	ND@2.5	ND@2.5	ND@2.5	ND@5	ND@0.5
CHLOROETHANE	ug/L	2.7 J	1.5 J	1.2 J	1.4 J	1.4 J	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@5	ND@2.5	ND@2.5	ND@2.5	ND@5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	40	38	54	47	43	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@5	ND@2.5	ND@2.5	ND@2.5	ND@5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@5	ND@2.5	ND@2.5	ND@2.5	ND@5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@5	ND@2.5	ND@2.5	ND@2.5	ND@5	ND@0.5
TRICHLOROETHENE	ug/L	2.5 J	17	32	28	22	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@5	ND@2.5	ND@2.5	ND@2.5	ND@5	ND@0.5
VINYL CHLORIDE	ug/L	24	9.6	10	11	10	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	524	524	524	529	529	529
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	06/13/2017	07/19/2017	10/03/2017	02/28/2017	06/13/2017	07/18/2017
Laboratory Sample I.D.	9052951	9115336	9247737	8863008	9052936	9115319
Sample Comment Codes	P	P	P	P	P	P

Parameter **Units**

Indicator Parameters

PH	SU	7.62	7.47	7.56	7.46	7.41	7.33
SPECIFIC CONDUCTANCE	umhos/cm	1920	2055	2300	8610	1700	1400
TEMPERATURE	C	15.7	16.3	16.2	6.4	19	23.3
TURBIDITY	NTU	3.08	0.46	1.33	1.16	6.18	0.63

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.2 J	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	529	532	532	532	532	534
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/03/2017	03/01/2017	06/13/2017	07/19/2017	10/03/2017	02/28/2017
Laboratory Sample I.D.	9247746	8865342	9052952	9115337	9247738	8863004
Sample Comment Codes	P	P	P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	7.6	7.33	7.24	7.24	7.27	6.32
SPECIFIC CONDUCTANCE	umhos/cm	1490	1380	1400	1574	1850	2660
TEMPERATURE	C	19.7	8.5	15	17.5	16.6	7.6
TURBIDITY	NTU	1.05	2.94	1.87	0.51	1.52	1.58

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	6.2	6.5	0.9	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	2.5	1.9	0.4 J	ND@0.5	0.2 J
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.1 J	0.2 J	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.2 J

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	534	534	534	540	540	541
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	06/13/2017	07/18/2017	10/03/2017	02/28/2017	07/18/2017	02/28/2017
Laboratory Sample I.D.	9052935	9115315	9247744	8863013	9115312	8865339
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	7.55	7.51	7.55	7.97	7.71	8.16
SPECIFIC CONDUCTANCE	umhos/cm	2240	2063	2700	830	708	720
TEMPERATURE	C	16.6	23.3	20	8.8	12.8	9.6
TURBIDITY	NTU	2.06	0.8	0.84	8.77	0.67	9.77

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.3 J	0.4 J	0.4 J	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	1.1
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.2 J	0.2 J	0.2 J	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	541	542	542	543	543	601
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	07/18/2017	02/28/2017	07/18/2017	02/28/2017	07/18/2017	06/14/2017
Laboratory Sample I.D.	9115309	8865340	9115310	8863012	9115311	9052963
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	7.61	7.92	7.75	7.04	7.09	6.96
SPECIFIC CONDUCTANCE	umhos/cm	669	1210	1191	2030	1545	2700
TEMPERATURE	C	13.1	8.5	15.5	10.9	12.7	14.8
TURBIDITY	NTU	0.69	1.6	0.8	1.03	0.63	0.92

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	1.3	1.1	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5	0.3 J
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	1.6	1.4	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	1.2	0.9	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	1.1	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	1	1	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	601	602	602	603	603	604
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/03/2017	06/14/2017	10/03/2017	06/14/2017	10/03/2017	06/15/2017
Laboratory Sample I.D.	9247734	9052964	9247732	9052958	9247728	9052976
Sample Comment Codes	P	P	P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	7.18	7.29	7.05	6.63	7.23	6.41
SPECIFIC CONDUCTANCE	umhos/cm	2310	830	2320	370	1190	2930
TEMPERATURE	C	16.5	13.5	14.2	11.4	13.9	13
TURBIDITY	NTU	0.73	1.04	0.83	0.76	0.99	0.74

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	0.5 J	12	0.2 J	0.2 J	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	0.4 J	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	0.1 J	3.1	0.3 J	0.5 J	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	2.4	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	0.2 J	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	1.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	0.1 J	1.5	19	0.4 J	0.6	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	604	605	606	606	606	606
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/05/2017	10/05/2017	02/28/2017	06/13/2017	07/18/2017	10/04/2017
Laboratory Sample I.D.	9253890	9253891	8863010	9052940	9115321	9250809
Sample Comment Codes	P	P	P	P	P	P

Parameter **Units**

Indicator Parameters

PH	SU	6.33	6.41	7.37	8.25	7.4	6.87
SPECIFIC CONDUCTANCE	umhos/cm	3770	287	1610	349	357	1060
TEMPERATURE	C	16.5	15.1	10.6	16	12.9	11.8
TURBIDITY	NTU	1.97	4.28	1.02	6.98	0.76	1.08

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	0.2 J	0.3 J	1.4	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	0.6	0.8	0.6	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.2 J	0.3 J	0.3 J	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.2 J	0.3 J	0.1 J	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	0.3 J	0.2 J	0.2 J	0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	607	607	607	607	608	608
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	02/28/2017	06/13/2017	07/18/2017	10/04/2017	06/14/2017	10/03/2017
Laboratory Sample I.D.	8863011	9052941	9115322	9250810	9052960	9247733
Sample Comment Codes	P	P	P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	7.11	7.39	7.6	7.35	7.13	7.11
SPECIFIC CONDUCTANCE	umhos/cm	2440	1680	136	164	1700	1940
TEMPERATURE	C	11.2	14.9	12.7	12.1	13	14.6
TURBIDITY	NTU	0.99	9.12	0.76	1.02	0.93	0.88

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	2.9	3.1	2.8	2.3	3.5	0.7
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	0.2 J	0.2 J	ND@0.5	0.2 J	0.2 J
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	24	26	25	21	5.7	9.1
1,1-DICHLOROETHENE	ug/L	1.9	2.2	2	2	2.4	2.8
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.3 J	0.4 J	0.4 J	0.3 J	0.3 J	0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	1.1	1.3	1.1	0.9	3.2	5.7
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	2.1	2.3	2.3	2.3	18	15
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	1.6	1.4	1.4	1.2	0.6	3.3

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	609	609	609	610	610	611
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	06/15/2017	07/18/2017	10/04/2017	06/14/2017	10/03/2017	06/13/2017
Laboratory Sample I.D.	9052974	9115324	9250800	9052967	9250782	9052923
Sample Comment Codes	P	P	P	P	P	

Parameter **Units**

Indicator Parameters

PH	SU	7.21	7.38	7.58	5.89	6.66	6.7
SPECIFIC CONDUCTANCE	umhos/cm	840	639	630	7450	2120	24550
TEMPERATURE	C	13.9	13.8	15.1	15.4	15.3	17.3
TURBIDITY	NTU	1.16	0.8	1.57	8.1	1.43	14.9

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	3300	3200	3100	38	140	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	420	380	360	1.5	6.6	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@25	ND@25	ND@25	0.4 J	1.9 J	ND@0.5
1,1-DICHLOROETHANE	ug/L	2000	1900	1900	9.7	38	0.8
1,1-DICHLOROETHENE	ug/L	100	98	110	19	93	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	47	43	40	ND@0.5	ND@2.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@25	ND@25	ND@25	0.1 J	0.6 J	ND@0.5
CHLOROETHANE	ug/L	ND@25	ND@25	ND@25	ND@0.5	ND@2.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@25	ND@25	ND@25	0.1 J	0.5 J	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	120	120	130	11	44	0.4 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@25	ND@25	ND@25	ND@0.5	ND@2.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@25	ND@25	ND@25	0.5	2.2 J	ND@0.5
TETRACHLOROETHENE	ug/L	ND@25	ND@25	ND@25	4.1	16	ND@0.5
TRICHLOROETHENE	ug/L	160	140	150	54	220	0.4 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@25	ND@25	ND@25	ND@0.5	ND@2.5	ND@0.5
VINYL CHLORIDE	ug/L	11 J	12 J	13 J	ND@0.5	ND@2.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	611	612	612	613	613	614
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/03/2017	06/14/2017	10/04/2017	06/14/2017	10/04/2017	03/01/2017
Laboratory Sample I.D.	9247750	9052970	9250801	9052971	9250802	8865341
Sample Comment Codes		P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	6.82	5.95	6.39	5.74	5.59	8.57
SPECIFIC CONDUCTANCE	umhos/cm	27820	7880	990	9090	11540	346
TEMPERATURE	C	19.3	16.6	15	15.1	14.5	10.2
TURBIDITY	NTU	875	0.95	1.55	1.29	3.29	1.07

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	260	240	170	160	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	7.3	6.1	4.4	3.8	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	2 J	1.9 J	1.3	1.2 J	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.8	110	110	59	59	0.3 J
1,1-DICHLOROETHENE	ug/L	ND@0.5	110	100	56	60	0.1 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@5	ND@5	1.1	ND@2.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	2.3 J	2.3 J	1.2	1.1 J	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	1.7 J	1.4 J	1.1	1 J	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@5	ND@5	0.4 J	ND@2.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.5	140	130	68	70	0.6
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@5	ND@5	ND@1	ND@2.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	8.7	8.2	3.4	3	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	3.9 J	3.4 J	10	9.3	ND@0.5
TRICHLOROETHENE	ug/L	0.6	660	600	360	360	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@5	ND@5	ND@1	ND@2.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	7.9	8.3	5.2	5.6	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	615	616	616	617	617	618
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/03/2017	06/15/2017	10/04/2017	06/14/2017	10/04/2017	06/13/2017
Laboratory Sample I.D.	9247731	9052975	9250804	9052972	9250803	9052942
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	7.61	6.47	6.87	7.25	7.65	7.16
SPECIFIC CONDUCTANCE	umhos/cm	2180	628	750	650	620	489
TEMPERATURE	C	13.6	13.7	19.2	15.8	19.8	14
TURBIDITY	NTU	0.68	0.92	0.88	1.17	1.42	3.89

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	0.4 J	0.3 J	0.3 J	0.3 J	0.2 J	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	1.7	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	0.5	0.5	ND@0.5	ND@0.5	17
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.6	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	618	619	621	621	622	622
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/03/2017	02/28/2017	02/28/2017	07/18/2017	02/28/2017	07/18/2017
Laboratory Sample I.D.	9247742	8863003	8862999	9115332	8863000	9115334
Sample Comment Codes	P	P	P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	7.52	7.41	6.56	6.51	7.16	6.74
SPECIFIC CONDUCTANCE	umhos/cm	560	2740	3040	2934	2680	2668
TEMPERATURE	C	14.3	10.1	12.5	12.7	12.5	12.4
TURBIDITY	NTU	1.24	1	1.23	0.81	0.69	0.67

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	350	74	68	30	22
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	30	3.4	3.5	0.7	0.3 J
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	410	90	87	75	70
1,1-DICHLOROETHENE	ug/L	ND@0.5	74	8.1	7.6	4.3	3.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	4.4 J	1.8	1.9	2	1.9
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	2.2 J	0.3 J	0.2 J	0.2 J	0.1 J
CHLOROETHANE	ug/L	ND@0.5	1.2 J	0.2 J	0.1 J	0.2 J	0.2 J
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@5	0.1 J	0.1 J	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@5	0.1 J	ND@0.5	0.1 J	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	13	6	2.3	2.2	1.5	1.1
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	1.4 J	ND@0.5	ND@0.5	0.1 J	0.2 J

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	623	624	625	625	625	625
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	03/02/2017	03/02/2017	02/28/2017	06/13/2017	07/18/2017	10/04/2017
Laboratory Sample I.D.	8866898	8866899	8862990	9052953	9115307	9250798
Sample Comment Codes	P	P	P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	6.79	6.79	7.92	7.72	7.48	7.55
SPECIFIC CONDUCTANCE	umhos/cm	2950	1770	940	780	708	840
TEMPERATURE	C	12.5	12.3	7.8	13.8	13.4	12.8
TURBIDITY	NTU	2.03	1.21	1.07	3.5	1.1	5.35

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	30	48	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.6	1.2	ND@0.5	0.6	1.5	3.9
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	30	45	2.4	2.6	3.1	3.3
1,1-DICHLOROETHENE	ug/L	2.5	4.6	ND@0.5	ND@0.5	0.1 J	0.3 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.6	0.8	2	7.6	11	13
1,2-DICHLOROETHANE (EDC)	ug/L	0.1 J	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.1 J	5.2	18	29
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	1.4	3.1	0.1 J	0.2 J	0.4 J	0.7
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	1	14	22	29

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	626	626	627	627	628	629
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	02/28/2017	07/18/2017	03/01/2017	07/19/2017	03/01/2017	03/02/2017
Laboratory Sample I.D.	8862991	9115308	8865357	9115355	8865358	8866896
Sample Comment Codes	P	P	P	P	P	P

Parameter Units

Indicator Parameters

PH	SU	7.53	7.42	6.78	6.44	7.13	7.68
SPECIFIC CONDUCTANCE	umhos/cm	397	438	406	291	119	406
TEMPERATURE	C	9.1	13.3	9.5	10.7	9.9	10.1
TURBIDITY	NTU	1.21	0.82	0.77	0.27	0.69	0.69

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	0.3 J	0.3 J	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	2.6	2.3	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	0.3 J	0.2 J	0.3 J	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.1 J	0.1 J	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	1.5	1.3	0.2 J	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.2 J	ND@0.5	1.2	1.1	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	0.1 J	5.8	5.4	0.8	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.7	0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	26	27	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	1.7	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	630	631	631	632	632	P04
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	03/02/2017	03/02/2017	07/19/2017	03/01/2017	07/19/2017	10/04/2017
Laboratory Sample I.D.	8866897	8866904	9115347	8865352	9115338	9250799
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units
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Indicator Parameters

PH	SU	7.86	7.01	7.11	6.96	6.69	7.13
SPECIFIC CONDUCTANCE	umhos/cm	691	432	481	4100	2343	860
TEMPERATURE	C	6.9	9.1	16.6	12.6	14.1	18.1
TURBIDITY	NTU	0.74	1.17	0.65	2.1	0.91	1.4

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	1.6	0.2 J	ND@0.5	6.1	0.3 J	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	1.4	ND@0.5	ND@0.5	0.2 J	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	0.9	ND@0.5	ND@0.5	0.2 J	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	2.9	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	4.9	2.2	0.6	5.5	0.3 J	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Sample Location	P08	P11
Sample Description	GW MON WELL	GW MON WELL
Sample Date	03/01/2017	02/28/2017
Laboratory Sample I.D.	8865344	8863002
Sample Comment Codes	P	P

Parameter	Units
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Indicator Parameters

PH	SU	8.09	7.46
SPECIFIC CONDUCTANCE	umhos/cm	5880	668
TEMPERATURE	C	11.3	10.5
TURBIDITY	NTU	0.87	1.73

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	41	17
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	10	0.7
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	130	14
1,1-DICHLOROETHENE	ug/L	7.6	0.5 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	3.2	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	0.2 J	ND@0.5
CHLOROETHANE	ug/L	0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.1 J	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.1 J	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	0.2 J	0.6
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.2 J	ND@0.5

Groundwater Analytical Chemistry Data
Owego, New York
January 1, 2017 - December 31, 2017

Reporting Conventions

Explanation of Reporting Conventions and Key to Comment Codes

NA	Not Analyzed
ND@X	Not Detected at Detection Limit X

Code	Explanation
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J	Estimated value: the result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).
P	Sampled with a passive diffusion bag (PDB) sampling device.

APPENDIX G

**STATISTICAL SUMMARY OF
GROUNDWATER CHEMISTRY DATA
1993 - 2017**

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,1,2-Trichloroethane	1,2-Dichloroethane
101	COUNT	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
101	MAXIMUM	ND	7.9	1.1	0.1	ND	140	65	0.6	1.5	0.8	ND	14	ND	0.06	ND	ND
101	MEDIAN	ND	ND	ND	ND	ND	0.73	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
101	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
106	COUNT	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
106	MAXIMUM	0.41	0.55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
106	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
106	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
110	COUNT	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
110	MAXIMUM	ND	ND	ND	ND	ND	0.1	ND	0.18	ND	ND	ND	ND	ND	ND	ND	ND
110	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
110	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
120	COUNT	54	54	54	54	54	54	54	54	54	53	54	54	54	54	54	54
120	MAXIMUM	75	4.9	12	ND	ND	3.3	0.15	ND	ND	ND	ND	ND	ND	ND	0.2	ND
120	MEDIAN	15.4	0.985	0.4	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
120	MINIMUM	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
124	COUNT	51	51	51	51	51	51	51	51	51	50	51	51	51	51	51	51
124	MAXIMUM	16	8	4	ND	ND	1.1	12	ND	ND	ND	19	ND	ND	ND	ND	ND
124	MEDIAN	0.4	ND	ND	ND	ND	0.39	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
124	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
125	COUNT	66	66	66	66	66	66	66	66	65	65	66	66	66	66	66	66
125	MAXIMUM	4100	490	650	0.1	19	2600	290	3.7	50	2.3	25	ND	ND	ND	2.9	ND
125	MEDIAN	275.5	121.5	74	ND	0.2	295.5	55.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
125	MINIMUM	0.5	0.7	ND	ND	ND	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
127	COUNT	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
127	MAXIMUM	2000	300	240	0.1	2.6	2015	141.6	18	4.3	ND	230	2.3	ND	ND	0.71	ND
127	MEDIAN	69	4.05	6.25	ND	ND	109.5	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
127	MINIMUM	ND	ND	ND	ND	ND	28.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
128	COUNT	41	41	41	41	41	41	41	41	40	39	41	41	41	41	41	41
128	MAXIMUM	30822	11199	6903	ND	40	560	22204	564	1895	283	19000	3.3	ND	ND	160	200
128	MEDIAN	14436	4847	3000	ND	ND	ND	11000	ND	390.5	ND	ND	ND	ND	ND	ND	ND
128	MINIMUM	180	93	190	ND	ND	ND	270	ND	ND	ND	ND	ND	ND	ND	ND	ND
129	COUNT	51	51	51	51	51	51	51	51	51	50	51	51	51	51	51	51
129	MAXIMUM	18	26	8	1	ND	25	0.32	0.2	ND	ND	0.37	ND	ND	ND	ND	0.21
129	MEDIAN	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
129	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
132	COUNT	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
132	MAXIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.1	ND	ND	ND	ND
132	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
132	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
133	COUNT	67	67	67	67	67	67	67	67	66	65	67	67	67	67	67	67
133	MAXIMUM	1106	350	56	0.4	ND	8.68	0.2	0.2	41	2.62	5.3	0.2	ND	ND	0.1	0.5
133	MEDIAN	180	95.9	14	ND	ND	ND	ND	ND	3.25	ND	ND	ND	ND	ND	ND	ND
133	MINIMUM	49	26	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
134	COUNT	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
134	MAXIMUM	0.2	0.2	ND	ND	ND	0.3	ND	ND	1.9	ND	ND	0.58	0.2	ND	ND	ND
134	MEDIAN	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
134	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
146	COUNT	63	63	63	63	63	63	63	63	63	62	63	63	63	63	63	63
146	MAXIMUM	14	5.3	2.22	0.6	ND	27	1.6	ND	1.9	2.4	0.34	ND	0.43	ND	ND	ND
146	MEDIAN	5.2	1.57	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
146	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
148	COUNT	52	52	52	52	52	52	52	52	52	51	52	52	52	52	52	52
148	MAXIMUM	980	8.9	190	ND	ND	4.52	0.9	ND	7	ND	ND	0.2	ND	ND	1.4	0.2
148	MEDIAN	281	ND	15.15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
148	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
149	COUNT	68	68	68	68	68	68	68	68	67	66	68	68	68	68	68	68
149	MAXIMUM	146	70	24	0.2	ND	353	85	0.4	ND	ND	0.59	ND	ND	ND	ND	0.2
149	MEDIAN	14.4	22.7	5.75	ND	ND	31.5	22	ND	ND	ND	ND	ND	ND	ND	ND	ND
149	MINIMUM	2.05	6.6	ND	ND	ND	8.5	6.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
157	COUNT	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
157	MAXIMUM	1.6	0.7	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
157	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
157	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
158	COUNT	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
158	MAXIMUM	1.4	ND	ND	ND	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
158	MEDIAN	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
158	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
160	COUNT	67	67	67	67	67	67	67	67	66	65	67	67	67	67	67	67
160	MAXIMUM	170	17.8	42.1	ND	1.2	540	59	0.1	8.8	12	2.1	0.58	ND	ND	ND	0.2
160	MEDIAN	59	1.1	12	ND	ND	180	15	ND	ND	ND	ND	ND	ND	ND	ND	ND
160	MINIMUM	0.34	ND	ND	ND	ND	12.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
162	COUNT	67	67	67	67	67	67	67	67	67	65	67	67	67	67	67	67
162	MAXIMUM	500	33	200	ND	15.7	1790	180	1	2.7	ND	7.2	1	ND	ND	0.1	0.4
162	MEDIAN	88.5	0.7	20	ND	ND	307	25.6	ND	ND	ND	ND	ND	ND	ND	ND	ND
162	MINIMUM	ND	ND	ND	ND	ND	38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
163	COUNT	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
163	MAXIMUM	0.8	ND	0.2	ND	ND	5.3	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
163	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
163	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
165	COUNT	62	62	62	62	62	62	62	62	61	61	62	62	62	62	62	62
165	MAXIMUM	122	25	31.4	0.3	0.4	370	100	2.6	3.96	0.2	3.8	0.2	0.51	ND	ND	0.2
165	MEDIAN	50	1.1	10.5	ND	ND	165	12	ND	ND	ND	ND	ND	ND	ND	ND	ND
165	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
166	COUNT	52	52	52	52	52	52	52	52	51	50	52	52	52	52	52	52
166	MAXIMUM	1.2	2.1	0.3	ND	ND	14.8	9.4	1.2	2.3	3.57	ND	ND	0.2	ND	ND	1.19
166	MEDIAN	0.49	0.86	ND	ND	ND	4.315	1.65	ND	0.68	0.585	ND	ND	ND	ND	ND	ND
166	MINIMUM	ND	ND	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
167	COUNT	54	54	54	54	54	54	54	54	53	52	54	54	54	54	54	54
167	MAXIMUM	1.5	ND	ND	ND	ND	17	ND	ND	ND	ND	ND	ND	0.33	ND	ND	ND
167	MEDIAN	ND	ND	ND	ND	ND	5.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
167	MINIMUM	ND	ND	ND	ND	ND	3.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
178	COUNT	66	66	66	66	66	66	66	66	66	65	66	66	66	66	66	66
178	MAXIMUM	120	20	19	ND	0.6	340	18	ND	1.1	0.2	1.2	0.4	ND	ND	ND	ND
178	MEDIAN	45.55	13	1.8	ND	ND	149.5	6.95	ND	ND	ND	ND	ND	ND	ND	ND	ND
178	MINIMUM	24	ND	ND	ND	ND	68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
179	COUNT	82	82	82	82	82	82	82	82	82	81	82	82	82	82	82	82
179	MAXIMUM	58.6	12	10	ND	0.7	440	219	1.8	140	11	ND	0.3	5.5	1	ND	0.1
179	MEDIAN	21	1.375	4.54	ND	ND	86.9	9.85	ND	3.2	ND	ND	ND	ND	ND	ND	ND
179	MINIMUM	8	ND	ND	ND	ND	27	1.99	ND	ND	ND	ND	ND	ND	ND	ND	ND
181	COUNT	33	33	33	33	33	33	33	33	33	32	33	33	33	33	33	33
181	MAXIMUM	22	3.8	2	0.39	ND	1.21	0.32	ND	0.41	0.66	ND	ND	ND	ND	ND	ND
181	MEDIAN	7	0.1	ND	ND	ND	0.41	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
181	MINIMUM	2.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
183	COUNT	58	58	58	58	58	58	58	58	58	57	58	58	58	58	58	58
183	MAXIMUM	25	1.8	0.8	ND	0.1	710	77	0.3	0.3	ND	0.5	2.39	ND	ND	ND	ND
183	MEDIAN	10	ND	ND	ND	ND	260.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
183	MINIMUM	ND	ND	ND	ND	ND	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
185	COUNT	75	75	75	75	75	75	75	75	75	74	75	75	75	75	75	75
185	MAXIMUM	8.8	3.5	0.81	ND	ND	180	35.1	0.1	6.9	2.1	ND	2.2	0.7	ND	ND	0.89
185	MEDIAN	2.9	0.8	ND	ND	ND	53	2.1	ND	2.57	0.3	ND	ND	ND	ND	ND	ND
185	MINIMUM	ND	ND	ND	ND	ND	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
186	COUNT	66	66	66	66	66	66	66	66	66	65	66	66	66	66	66	66
186	MAXIMUM	19	77	7.3	ND	0.27	351	108	0.51	128	222	1	6.2	4.44	ND	ND	0.45
186	MEDIAN	4.905	1.9	0.165	ND	ND	83.5	9.7	ND	14.65	1.3	ND	ND	ND	ND	ND	ND
186	MINIMUM	ND	ND	ND	ND	ND	ND	3.6	ND	ND	ND	ND	ND	ND	ND	ND	ND
194	COUNT	68	68	68	68	68	68	68	68	66	65	68	68	68	68	68	68
194	MAXIMUM	100	33	22	5.6	ND	0.3	0.41	0.2	0.98	0.2	0.3	ND	ND	ND	ND	ND
194	MEDIAN	24.05	20.9	2.745	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
194	MINIMUM	0.2	6.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
306	COUNT	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
306	MAXIMUM	0.67	0.2	ND	ND	0.2	0.6	ND	ND	ND	ND	ND	ND	0.5	ND	ND	ND
306	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
306	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
308	COUNT	67	67	67	67	67	67	67	67	65	64	67	67	67	67	67	67
308	MAXIMUM	611	198	99	0.8	ND	4.43	1.3	0.1	8.2	1.3	0.5	0.2	ND	ND	ND	0.5
308	MEDIAN	318	84	8.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
308	MINIMUM	45	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
309	COUNT	61	61	61	61	61	61	61	61	61	60	61	61	61	61	61	61
309	MAXIMUM	24	15	2.5	ND	ND	19	0.13	ND	0.65	ND	0.1	0.2	1.1	ND	ND	ND
309	MEDIAN	2.7	ND	ND	ND	ND	9.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
309	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
313	COUNT	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
313	MAXIMUM	15.5	2.7	0.93	ND	ND	51.6	ND	ND	0.33	ND	ND	0.5	ND	ND	ND	ND
313	MEDIAN	4.61	0.995	0.195	ND	ND	18.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
313	MINIMUM	ND	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
314	COUNT	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
314	MAXIMUM	0.77	0.57	0.3	ND	ND	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
314	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
314	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
316	COUNT	49	49	49	49	49	49	49	49	48	48	49	49	49	49	49	49
316	MAXIMUM	2.9	0.25	ND	ND	ND	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
316	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
316	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
317	COUNT	81	81	81	81	81	81	81	81	79	78	81	81	81	81	81	81
317	MAXIMUM	77.2	4.9	19	ND	0.3	244	27.3	ND	0.5	ND	0.61	0.1	ND	ND	ND	ND
317	MEDIAN	21.3	0.31	4	ND	ND	75	5	ND	ND	ND	ND	ND	ND	ND	ND	ND
317	MINIMUM	1.3	ND	ND	ND	ND	5.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
318	COUNT	102	102	102	102	102	102	102	102	101	100	102	102	102	102	102	102
318	MAXIMUM	3.6	7	2	ND	ND	48	90	0.8	17	37	ND	0.92	3.01	15	ND	0.22
318	MEDIAN	ND	3.46	0.62	ND	ND	15.05	12.55	0.1	5.3	11	ND	ND	ND	ND	ND	ND
318	MINIMUM	ND	0.32	ND	ND	ND	1	0.62	ND	0.7	ND	ND	ND	ND	ND	ND	ND
319	COUNT	107	107	107	107	107	107	107	107	106	105	107	107	107	107	107	107
319	MAXIMUM	9.7	5.1	4.2	ND	ND	30	14	3.1	3.6	3.7	ND	0.27	0.36	2	ND	0.2
319	MEDIAN	ND	2.5	0.34	ND	ND	4.38	2.8	ND	1.2	1.4	ND	ND	ND	ND	ND	ND
319	MINIMUM	ND	ND	ND	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
321	COUNT	68	68	68	68	68	68	68	68	66	65	68	68	68	68	68	68
321	MAXIMUM	9	3.5	0.68	ND	ND	17	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND
321	MEDIAN	2.705	1.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
321	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
322	COUNT	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107
322	MAXIMUM	ND	4.3	0.41	ND	0.18	0.92	13	1.05	9.7	18	ND	ND	2.6	4.5	ND	ND
322	MEDIAN	ND	1.8	ND	ND	ND	ND	2.8	ND	3.69	4.96	ND	ND	ND	ND	ND	ND
322	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
323	COUNT	99	99	99	99	99	99	99	99	99	98	99	99	99	99	99	99
323	MAXIMUM	0.2	5.3	1.1	ND	0.1	142	66	0.9	5.5	17.7	ND	0.3	2.14	1	ND	0.21
323	MEDIAN	ND	1.4	ND	ND	ND	30.3	1.76	ND	1.08	1.75	ND	ND	ND	ND	ND	ND
323	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
324	COUNT	70	70	70	70	70	70	70	70	69	69	70	70	70	70	70	70
324	MAXIMUM	8800	6919	1400	1.5	2.1	825	215	5.8	370	127	92	1	ND	ND	1.8	0.8
324	MEDIAN	425.5	215.5	120	ND	ND	500	44.5	ND	15.1	ND	ND	ND	ND	ND	ND	ND
324	MINIMUM	150	79	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
325	COUNT	54	54	54	54	54	54	54	54	54	53	54	54	54	54	54	54
325	MAXIMUM	1100	162	330	1	16	1400	122	4.3	19.1	1.7	15	0.6	ND	ND	1.3	0.7
325	MEDIAN	190	69	74.2	ND	4.6	410	38	ND	3.5	ND	2.05	ND	ND	ND	ND	ND
325	MINIMUM	85.9	41.3	26.7	ND	ND	250	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
351	COUNT	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
351	MAXIMUM	0.3	0.57	0.1	ND	ND	0.2	1.1	0.68	0.89	1.9	ND	ND	0.2	ND	ND	ND
351	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
351	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
352	COUNT	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
352	MAXIMUM	0.2	0.1	ND	ND	ND	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
352	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
352	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
353	COUNT	35	35	35	35	35	35	35	35	35	34	35	35	35	35	35	35
353	MAXIMUM	31000	5900	8500	ND	ND	4683	349	15	147	ND	368	2.8	ND	ND	8.4	ND
353	MEDIAN	20967	3138	2365	ND	ND	3426	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
353	MINIMUM	ND	270	210	ND	ND	520	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
354	COUNT	27	27	27	27	27	27	27	27	27	26	27	27	27	27	27	27
354	MAXIMUM	7300	190	2000	ND	50	2900	15.6	ND	3.7	ND	14	1	ND	ND	4.9	ND
354	MEDIAN	675	ND	83.4	ND	ND	123	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
354	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
355	COUNT	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
355	MAXIMUM	ND	ND	ND	ND	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
355	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
355	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
356	COUNT	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
356	MAXIMUM	ND	ND	ND	ND	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
356	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
356	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
357	COUNT	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
357	MAXIMUM	0.7	4.3	0.2	ND	ND	ND	ND	0.3	0.23	ND	0.29	ND	0.62	ND	ND	ND
357	MEDIAN	ND	0.175	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
357	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
358	COUNT	47	47	47	47	47	47	47	47	47	46	47	47	47	47	47	47
358	MAXIMUM	72	37	15	2	ND	35	3.36	1.1	2	3	0.27	0.2	0.33	2	ND	0.06
358	MEDIAN	13	17	5.6	ND	ND	10	0.99	ND	0.2	0.9	ND	ND	ND	ND	ND	ND
358	MINIMUM	5.9	6.3	0.87	ND	ND	1.56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
361	COUNT	34	34	34	34	34	34	34	34	34	33	34	34	34	34	34	34
361	MAXIMUM	6.4	7.4	0.8	0.16	ND	4.1	1.3	ND	0.2	ND	0.13	0.1	ND	ND	ND	ND
361	MEDIAN	2.1	1.315	ND	ND	ND	0.875	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
361	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
362	COUNT	32	32	32	32	32	32	32	32	32	31	32	32	32	32	32	32
362	MAXIMUM	0.54	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	ND	ND	ND
362	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
362	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
363	COUNT	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
363	MAXIMUM	8.6	5	1	ND	ND	0.69	ND	ND	ND	ND	ND	ND	0.84	ND	ND	ND
363	MEDIAN	1.81	0.72	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
363	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
364	COUNT	34	34	34	34	34	34	34	34	34	33	34	34	34	34	34	34
364	MAXIMUM	ND	ND	ND	ND	ND	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
364	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
364	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
365	COUNT	38	38	38	38	38	38	38	38	38	37	38	38	38	38	38	38
365	MAXIMUM	ND	ND	ND	ND	ND	14	0.51	ND	ND	ND	ND	ND	ND	ND	ND	ND
365	MEDIAN	ND	ND	ND	ND	ND	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
365	MINIMUM	ND	ND	ND	ND	ND	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
366	COUNT	35	35	35	35	35	35	35	35	33	32	35	35	35	35	35	35
366	MAXIMUM	180	39	37	ND	0.92	138	16	0.54	6.8	4	1.6	1	ND	0.38	ND	ND
366	MEDIAN	28.4	8.7	5.3	ND	ND	22	2.6	ND	0.28	0.91	ND	ND	ND	ND	ND	ND
366	MINIMUM	ND	3.61	ND	ND	ND	5.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
367	COUNT	54	54	54	54	54	54	54	54	54	52	54	54	54	54	54	54
367	MAXIMUM	144	13	24	0.1	ND	12	5.8	1.4	4.4	1.4	1.46	0.7	2.5	ND	0.2	0.1
367	MEDIAN	81.5	4.805	9.35	ND	ND	3	ND	ND	2.23	ND	ND	ND	ND	ND	ND	ND
367	MINIMUM	52	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
368	COUNT	48	48	48	48	48	48	48	48	47	47	48	48	48	48	48	48
368	MAXIMUM	31	53	15	4.6	0.2	71	32.2	7.5	0.6	2.1	0.45	0.81	0.84	ND	ND	ND
368	MEDIAN	ND	12	0.845	ND	ND	2.2	8.55	1	ND	0.4	ND	ND	ND	ND	ND	ND
368	MINIMUM	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
373	COUNT	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
373	MAXIMUM	22	3	0.77	ND	ND	0.9	0.1	ND	0.16	ND	ND	ND	ND	ND	ND	ND
373	MEDIAN	5.2	0.96	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
373	MINIMUM	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
374	COUNT	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
374	MAXIMUM	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7	ND	ND	ND
374	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
374	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
378	COUNT	94	94	94	94	94	94	94	94	93	92	94	94	94	94	94	94
378	MAXIMUM	989	1200	110	2.3	ND	150	120	36	95	30	1.4	1	0.62	25	0.1	0.1
378	MEDIAN	43.5	58.4	2.8	ND	ND	1.285	2.79	ND	0.78	ND	ND	ND	ND	ND	ND	ND
378	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
379	COUNT	36	36	36	36	36	36	36	36	36	35	36	36	36	36	36	36
379	MAXIMUM	117	32	1.8	ND	ND	0.3	2.97	1.1	2.8	2.8	ND	ND	ND	ND	ND	ND
379	MEDIAN	ND	ND	ND	ND	ND	ND	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
379	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
382	COUNT	32	32	32	32	32	32	32	32	32	31	32	32	32	32	32	32
382	MAXIMUM	0.7	ND	ND	ND	ND	0.3	ND	ND	ND	ND	ND	ND	3.4	ND	ND	ND
382	MEDIAN	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.765	ND	ND	ND
382	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
383	COUNT	63	63	63	63	63	63	63	63	63	62	63	63	63	63	63	63
383	MAXIMUM	15	4.4	3	0.4	ND	23	1.1	ND	0.53	0.2	0.22	ND	0.69	ND	ND	ND
383	MEDIAN	5.8	1.9	0.88	ND	ND	5.9	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND
383	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
386	COUNT	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
386	MAXIMUM	87	36	21	ND	0.1	207	269	0.8	6.9	4.08	ND	0.1	ND	ND	ND	0.2
386	MEDIAN	31.5	16.5	7.1	ND	ND	124.5	36.05	ND	0.35	ND	ND	ND	ND	ND	ND	ND
386	MINIMUM	14.9	6	ND	ND	ND	69.9	14	ND	ND	ND	ND	ND	ND	ND	ND	ND
387	COUNT	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
387	MAXIMUM	ND	ND	ND	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
387	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
387	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
392	COUNT	67	67	67	67	67	67	67	67	67	66	67	67	67	67	67	67
392	MAXIMUM	138	48	47	1.9	ND	280	25	1.7	4.5	3.2	1.2	0.6	ND	ND	0.4	ND
392	MEDIAN	21	6	3	ND	ND	45	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND
392	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
393	COUNT	99	99	99	99	99	99	99	99	99	98	99	99	99	99	99	99
393	MAXIMUM	1857	1400	120	2.7	ND	230	150	23	130	26	38.9	ND	0.2	ND	ND	0.2
393	MEDIAN	440	740	45	ND	ND	63	49.3	ND	43	4.22	ND	ND	ND	ND	ND	ND
393	MINIMUM	ND	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
394	COUNT	65	65	65	65	65	65	65	65	65	63	65	65	65	65	65	65
394	MAXIMUM	13	6.5	1.3	ND	ND	2.3	0.33	ND	0.31	ND	ND	ND	0.45	ND	ND	ND
394	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
394	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
395	COUNT	36	36	36	36	36	36	36	36	36	35	36	36	36	36	36	36
395	MAXIMUM	9514	10002	1665	2.7	ND	1307	507	20	314	42	683	ND	ND	ND	ND	ND
395	MEDIAN	2080.5	1462	110	ND	ND	186.5	118	ND	129.5	ND	ND	ND	ND	ND	ND	ND
395	MINIMUM	970	770	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
397	COUNT	26	26	26	26	26	26	26	26	26	25	26	26	26	26	26	26
397	MAXIMUM	ND	ND	ND	ND	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
397	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
397	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
398	COUNT	64	64	64	64	64	64	64	64	64	63	64	64	64	64	64	64
398	MAXIMUM	73	13	12	0.4	ND	17.6	2.2	0.6	1.6	0.99	0.55	0.14	0.12	ND	ND	ND
398	MEDIAN	13	7.2	3.95	ND	ND	3.95	0.42	ND	0.3	0.43	ND	ND	ND	ND	ND	ND
398	MINIMUM	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
399	COUNT	101	101	101	101	101	101	101	101	101	100	101	101	101	101	101	101
399	MAXIMUM	35	12	11	1.2	ND	14	1.1	0.3	1	1	0.51	ND	ND	ND	ND	0.2
399	MEDIAN	ND	ND	ND	ND	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
399	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
404	COUNT	108	108	108	108	108	108	108	108	106	105	108	108	108	108	108	108
404	MAXIMUM	24	13	3.5	1.5	0.2	440	35	0.7	96	24	ND	41	16.5	13.6	ND	0.1
404	MEDIAN	7.62	4.91	ND	ND	ND	229.5	20.05	ND	45	9.1	ND	1.8	ND	ND	ND	ND
404	MINIMUM	ND	ND	ND	ND	ND	98	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
405	COUNT	109	109	109	109	109	109	109	109	109	107	109	109	109	109	109	109
405	MAXIMUM	50	8.2	24	ND	0.8	395	50	0.3	220	14	87	17	9.8	ND	ND	0.1
405	MEDIAN	21	4.1	3.15	ND	ND	131	23	ND	73	3.3	ND	0.1	ND	ND	ND	ND
405	MINIMUM	ND	ND	ND	ND	ND	56	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
413	COUNT	111	111	111	111	111	111	111	111	109	108	111	111	111	111	111	111
413	MAXIMUM	1385	1521	69.6	11	1.7	220	101	5.1	86.7	22	22	9285	55	ND	19	2.2
413	MEDIAN	63	77	8.8	ND	ND	24	3.8	ND	2	0.265	ND	1.1	ND	ND	ND	ND
413	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
414	COUNT	108	108	108	108	108	108	108	108	107	106	108	108	108	108	108	108
414	MAXIMUM	12724	14000	520	11	6.5	810	580	38	911	330	28	2394	1.1	36	2.3	2.3
414	MEDIAN	1603.5	1250	115	ND	ND	270	83.05	ND	68	4.75	ND	ND	ND	ND	ND	ND
414	MINIMUM	4.57	1.98	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
415	COUNT	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
415	MAXIMUM	4300	4200	2500	1	65	2700	10000	510	490	42	50	1.5	ND	ND	32	2.9
415	MEDIAN	2200	1600	1300	ND	32	1500	3700	200	190	ND	ND	ND	ND	ND	10	ND
415	MINIMUM	1000	850	640	ND	9.7	700	1800	96	84	ND	ND	ND	ND	ND	ND	ND
416	COUNT	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
416	MAXIMUM	600	1100	110	4.2	1.1	220	97	9.8	55	20	ND	0.2	ND	ND	0.3	0.4
416	MEDIAN	400	850	75	1.9	ND	130	67	8	42	12	ND	ND	ND	ND	ND	ND
416	MINIMUM	48	100	5.1	0.3	ND	46	16	0.8	4.6	1.6	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
521	COUNT	76	76	76	76	76	76	76	76	74	73	76	76	76	76	76	76
521	MAXIMUM	160	740	36	51	ND	5.9	40	30	16	13	0.3	2.6	0.33	ND	ND	ND
521	MEDIAN	12.1	35.1	2.13	0.6	ND	ND	0.725	0.935	ND	ND	ND	ND	ND	ND	ND	ND
521	MINIMUM	ND	0.18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
522	COUNT	107	107	107	107	107	107	107	107	107	106	107	107	107	107	107	107
522	MAXIMUM	381	630	48	1.6	ND	32	54	18	36	12	0.4	ND	0.3	11	ND	ND
522	MEDIAN	59	139	8.7	ND	ND	0.56	7.1	0.57	2.5	ND	ND	ND	ND	ND	ND	ND
522	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
524	COUNT	60	60	60	60	60	60	60	60	60	59	60	60	60	60	60	60
524	MAXIMUM	ND	0.2	ND	ND	ND	0.2	ND	ND	0.58	ND	ND	ND	ND	ND	ND	ND
524	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
524	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
529	COUNT	95	95	95	95	95	95	95	95	95	94	95	95	95	95	95	95
529	MAXIMUM	1.06	4.9	0.36	0.43	ND	0.2	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND
529	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
529	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
532	COUNT	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
532	MAXIMUM	15	16.7	3.56	0.12	ND	8	1.04	0.3	0.46	0.96	0.23	ND	ND	ND	ND	ND
532	MEDIAN	1	0.75	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
532	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
534	COUNT	96	96	96	96	96	96	96	96	93	93	96	96	96	96	96	96
534	MAXIMUM	1.2	1.6	0.09	0.2	ND	2	1	0.22	ND	ND	0.37	ND	0.85	ND	ND	ND
534	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
534	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
540	COUNT	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
540	MAXIMUM	ND	ND	ND	ND	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
540	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
540	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
541	COUNT	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46
541	MAXIMUM	0.1	ND	ND	ND	ND	2.7	0.3	0.1	ND	ND	ND	ND	ND	ND	ND	ND
541	MEDIAN	ND	ND	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
541	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
542	COUNT	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
542	MAXIMUM	ND	ND	ND	ND	ND	0.2	ND	1.2	1.8	ND	ND	ND	ND	ND	ND	ND
542	MEDIAN	ND	ND	ND	ND	ND	ND	ND	0.44	ND	ND	ND	ND	ND	ND	ND	ND
542	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
543	COUNT	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57
543	MAXIMUM	1.8	1.36	1.8	ND	ND	8.5	17.4	ND	5.9	10	ND	0.94	1.18	1.8	ND	ND
543	MEDIAN	ND	0.2	ND	ND	ND	ND	3.93	ND	1.42	2.5	ND	ND	ND	ND	ND	ND
543	MINIMUM	ND	ND	ND	ND	ND	ND	0.9	ND	0.3	ND	ND	ND	ND	ND	ND	ND
601	COUNT	64	64	64	64	64	64	64	64	60	60	64	64	64	64	64	64
601	MAXIMUM	2.1	6.3	0.42	0.54	ND	0.86	0.15	ND	ND	0.57	0.4	ND	0.94	ND	ND	ND
601	MEDIAN	ND	1.195	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
601	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
602	COUNT	67	67	67	67	67	67	67	67	61	61	67	67	67	67	67	67
602	MAXIMUM	41	9.5	7.8	0.16	ND	90	6.1	ND	2.6	0.67	1.3	0.45	0.67	ND	ND	ND
602	MEDIAN	16	4.2	2.2	ND	ND	34	3.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
602	MINIMUM	0.2	ND	ND	ND	ND	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
603	COUNT	62	62	62	62	62	62	62	62	59	59	62	62	62	62	62	62
603	MAXIMUM	3.9	3.8	0.17	ND	ND	2.7	0.32	ND	ND	ND	ND	ND	ND	ND	ND	ND
603	MEDIAN	0.475	0.615	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
603	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
604	COUNT	52	52	52	52	52	52	52	52	49	49	52	52	52	52	52	52
604	MAXIMUM	ND	ND	ND	ND	ND	0.2	ND	ND	ND	ND	0.11	0.14	ND	ND	ND	ND
604	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
604	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
605	COUNT	45	45	45	45	45	45	45	45	42	42	45	45	45	45	45	45
605	MAXIMUM	0.1	ND	ND	ND	ND	1.8	0.1	ND	ND	ND	ND	ND	0.63	ND	ND	ND
605	MEDIAN	ND	ND	ND	ND	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
605	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
606	COUNT	109	109	109	109	109	109	109	109	101	101	109	109	109	109	109	109
606	MAXIMUM	50	23	22	0.35	ND	35	9.5	3.4	2.2	1.1	0.48	0.3	ND	ND	0.2	ND
606	MEDIAN	13	1.5	2.3	ND	ND	3	0.64	0.2	ND	ND	ND	ND	ND	ND	ND	ND
606	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
607	COUNT	107	107	107	107	107	107	107	107	102	102	107	107	107	107	107	107
607	MAXIMUM	71	26	21	0.2	ND	46	9.9	1.6	2.3	1	0.48	0.3	ND	ND	1.3	ND
607	MEDIAN	9.1	2.6	3.83	ND	ND	8.1	0.6	0.4	0.2	ND	ND	ND	ND	ND	ND	ND
607	MINIMUM	ND	ND	0.4	ND	ND	1.24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
608	COUNT	68	68	68	68	68	68	68	68	62	62	68	68	68	68	68	68
608	MAXIMUM	220	21	44	2.4	ND	140	7.32	6.6	3.2	1.46	0.51	0.2	ND	ND	ND	ND
608	MEDIAN	13.5	8.5	4.95	ND	ND	26.5	1.6	0.235	0.305	0.5	ND	ND	ND	ND	ND	ND
608	MINIMUM	0.6	2	1.8	ND	ND	4.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

		Concentrations in micrograms per liter (ug/L)															
Well Identifier	Statistical Measure	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
609	COUNT	47	47	47	47	47	47	47	47	41	41	47	47	47	47	47	47
609	MAXIMUM	25949	4664	319	2.3	28	480	356	16	1144	150	ND	ND	166	ND	0.65	16
609	MEDIAN	6736	2748	110	ND	ND	140	89	ND	480	ND	ND	ND	ND	ND	ND	ND
609	MINIMUM	226	186	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
610	COUNT	58	58	58	58	58	58	58	58	50	50	58	58	56	56	58	58
610	MAXIMUM	1200	182	250	0.3	68	1300	139.6	0.7	29	2	16	2.2	ND	ND	9.3	1.5
610	MEDIAN	220	68	100	ND	21	373.5	48.5	ND	8.35	ND	2.4	ND	ND	ND	ND	ND
610	MINIMUM	38	9.7	19	ND	ND	54	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
611	COUNT	52	52	52	52	52	52	52	52	49	49	52	52	52	52	52	52
611	MAXIMUM	9.9	23	1.3	0.12	0.26	6.5	5.1	0.4	ND	ND	0.14	ND	0.45	ND	ND	ND
611	MEDIAN	ND	2.49	ND	ND	ND	0.67	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
611	MINIMUM	ND	0.59	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
612	COUNT	67	67	67	67	67	67	67	67	59	59	67	67	67	67	67	67
612	MAXIMUM	2900	350	710	150	4.4	2700	310	120	33	2.4	86	2.1	ND	ND	4	3.3
612	MEDIAN	650	155	174	ND	ND	926	140	ND	ND	ND	10.6	ND	ND	ND	ND	ND
612	MINIMUM	4.66	ND	1.5	ND	ND	9.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
613	COUNT	70	70	70	70	70	70	70	70	62	62	70	70	70	70	70	70
613	MAXIMUM	2200	250	480	18	25	2200	220	29	39	2	44	1.2	32	ND	6.2	2
613	MEDIAN	591.5	140	145	ND	7.85	693.5	120	2.1	4.45	ND	5.55	ND	ND	ND	ND	ND
613	MINIMUM	101	54	51	ND	ND	259	66	ND	ND	ND	ND	ND	ND	ND	ND	ND
614	COUNT	34	34	34	34	34	34	34	34	33	33	34	34	34	34	34	34
614	MAXIMUM	0.85	0.95	0.2	ND	ND	0.54	1.3	ND	ND	ND	ND	ND	0.34	ND	ND	ND
614	MEDIAN	ND	ND	ND	ND	ND	ND	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND
614	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
615	COUNT	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
615	MAXIMUM	3.9	1.7	0.3	0.1	ND	0.2	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND
615	MEDIAN	0.4	0.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
615	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
616	COUNT	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
616	MAXIMUM	0.54	0.1	ND	ND	ND	18	ND	ND	1.7	ND	ND	ND	1.5	ND	ND	ND
616	MEDIAN	0.1	ND	ND	ND	ND	0.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
616	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
617	COUNT	51	51	51	51	51	51	51	51	50	50	51	51	51	51	51	51
617	MAXIMUM	4.5	0.45	0.13	ND	6.6	2.97	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
617	MEDIAN	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
617	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
618	COUNT	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
618	MAXIMUM	0.2	6.1	0.2	ND	ND	25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
618	MEDIAN	ND	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
618	MINIMUM	ND	ND	ND	ND	ND	3.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
619	COUNT	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30
619	MAXIMUM	9489	4040	623	3.3	ND	9.1	3	4.4	1659	17	193	0.1	68	ND	0.1	6.5
619	MEDIAN	1214.5	863	105	ND	ND	ND	ND	ND	56.1	ND	ND	ND	ND	ND	ND	ND
619	MINIMUM	320	380	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
620	COUNT	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
620	MAXIMUM	76	40	ND	ND	ND	ND	ND	ND	0.26	0.28	ND	ND	ND	ND	ND	ND
620	MEDIAN	3.85	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
620	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
621	COUNT	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
621	MAXIMUM	452	242	36	0.3	ND	296	81	ND	42	42	ND	7.5	ND	0.79	ND	0.3
621	MEDIAN	100	100	8.3	ND	ND	2.1	ND	ND	3.3	ND	ND	ND	ND	ND	ND	ND
621	MINIMUM	5.4	5.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
622	COUNT	61	61	61	61	61	61	61	61	60	60	61	61	61	61	61	61
622	MAXIMUM	438	242	35	0.3	ND	4.7	0.2	0.2	13	2.2	ND	0.3	ND	ND	ND	1
622	MEDIAN	104	94	6.9	ND	ND	1.6	ND	ND	1.62	ND	ND	ND	ND	ND	ND	ND
622	MINIMUM	18	42.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
623	COUNT	28	28	28	28	28	28	28	28	27	27	28	28	28	28	28	28
623	MAXIMUM	180	78	12	ND	ND	2.57	ND	0.97	2.9	1.3	ND	0.2	2.4	ND	ND	0.1
623	MEDIAN	59.25	35.3	2.5	ND	ND	1.4	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND
623	MINIMUM	26	18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
624	COUNT	29	29	29	29	29	29	29	29	27	27	29	29	29	29	29	29
624	MAXIMUM	273	94	19	0.1	0.52	4.8	ND	ND	5.7	2.7	ND	0.8	3.3	ND	ND	0.2
624	MEDIAN	78	47	4.7	ND	ND	2.95	ND	ND	1.2	0.2	ND	ND	ND	ND	ND	ND
624	MINIMUM	23	19	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
625	COUNT	114	114	114	114	114	114	114	114	113	112	114	114	114	114	114	114
625	MAXIMUM	75.2	7.8	3.53	ND	0.17	72	194	63	22	28	4.86	0.73	13.8	11	ND	0.1
625	MEDIAN	ND	3.5	ND	ND	ND	8.55	31.6	0.345	7.8	13.1	ND	ND	0.05	ND	ND	ND
625	MINIMUM	ND	ND	ND	ND	ND	ND	0.1	ND	ND	0.24	ND	ND	ND	ND	ND	ND
626	COUNT	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
626	MAXIMUM	1.1	0.2	ND	ND	ND	2.6	0.8	ND	ND	0.7	ND	0.2	ND	ND	ND	ND
626	MEDIAN	ND	ND	ND	ND	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
626	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
627	COUNT	53	53	53	53	53	53	53	53	51	51	53	53	53	53	53	53
627	MAXIMUM	2.3	7.8	1.9	ND	1.23	68	16	0.5	15	28	ND	2.6	0.23	ND	ND	2.9
627	MEDIAN	0.3	0.4	ND	ND	0.6	32.1	7.5	ND	3	2.6	ND	1	ND	ND	ND	ND
627	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
628	COUNT	36	36	36	36	36	36	36	36	34	34	36	36	36	36	36	36
628	MAXIMUM	1.4	1.24	0.63	ND	ND	6.9	9.2	1.7	0.51	1.58	0.13	ND	0.45	ND	ND	ND
628	MEDIAN	ND	0.07	ND	ND	ND	0.965	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND
628	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
629	COUNT	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
629	MAXIMUM	ND	ND	ND	ND	ND	0.28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
629	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
629	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
630	COUNT	35	35	35	35	35	35	35	35	34	34	35	35	35	35	35	35
630	MAXIMUM	15	1.4	4.2	ND	ND	32	11.3	ND	ND	ND	0.48	ND	ND	ND	ND	ND
630	MEDIAN	6.3	0.64	1.1	ND	ND	13	2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND
630	MINIMUM	0.8	ND	ND	ND	ND	1.4	0.65	ND	ND	ND	ND	ND	ND	ND	ND	ND
631	COUNT	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
631	MAXIMUM	1.1	0.26	ND	ND	ND	7.2	2.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
631	MEDIAN	0.2	ND	ND	ND	ND	2.47	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
631	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
632	COUNT	47	47	47	47	47	47	47	47	45	45	47	47	47	47	47	47
632	MAXIMUM	119	2.4	5	ND	ND	51.7	0.2	ND	0.79	ND	0.9	0.2	ND	ND	ND	ND
632	MEDIAN	32.1	0.5	0.6	ND	ND	25.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
632	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107A	COUNT	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
107A	MAXIMUM	1.14	0.48	ND	ND	ND	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107A	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107A	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
140R	COUNT	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
140R	MAXIMUM	220	830	65	4.1	ND	9	30	8.4	26	12	3.11	ND	ND	ND	ND	0.1
140R	MEDIAN	92	140	14	1.2	ND	4.8	3.8	1.2	9	2.4	ND	ND	ND	ND	ND	ND
140R	MINIMUM	32.3	41.5	3.83	ND	ND	3.4	1.45	ND	ND	ND	ND	ND	ND	ND	ND	ND
P04	COUNT	27	27	27	27	27	27	27	27	27	25	27	27	27	27	27	27
P04	MAXIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
P04	MEDIAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
P04	MINIMUM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Statistical Summary of Groundwater Chemistry Data
Former IBM Owego Site, 1993-2017**

Well Identifier	Statistical Measure	Concentrations in micrograms per liter (ug/L)															
		1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Chloroethane	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Freon 113	Freon 123a	Methylene Chloride	Chloroform	Dichlorodifluoromethane (Freon 12)	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloroethane	1,2-Dichloroethane
P08	COUNT	35	35	35	35	35	35	35	35	33	33	35	35	35	35	35	35
P08	MAXIMUM	12000	2200	2300	1.5	0.6	0.9	0.6	0.2	530	30	ND	1	0.1	6.7	ND	1
P08	MEDIAN	628	731	13	ND	ND	ND	ND	ND	15	2.4	ND	ND	ND	ND	ND	ND
P08	MINIMUM	31	96	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
P11	COUNT	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
P11	MAXIMUM	3500	900	97	0.5	0.55	0.65	ND	ND	53	8.8	1.3	0.5	28	ND	ND	0.1
P11	MEDIAN	74.55	87.85	2.12	ND	ND	ND	ND	ND	0.55	ND	ND	ND	ND	ND	ND	ND
P11	MINIMUM	12	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Key:

COUNT = Sample Count (including duplicate samples)
 MAXIMUM = Maximum Concentration (micrograms per liter)
 MEDIAN = Median Concentration (micrograms per liter)
 MINIMUM = Minimum Concentration (micrograms per liter)
 ND = Not Detected

APPENDIX H

**QUALITY CONTROL ANALYTICAL CHEMISTRY DATA
FOR ENVIRONMENTAL BLANKS
January 1, 2017 – December 31, 2017**

Quality Control Analytical Data for Environmental Blanks
Owego, New York
February 25, 2017 - December 31, 2017

Sample Location	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK
Sample Description	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND
Sample Date	02/28/2017	03/01/2017	03/02/2017	03/03/2017	06/12/2017	06/13/2017
Laboratory Sample I.D.	8863001	8865350	8866901	8866918	9052918	9052924

Parameter **Units**

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	0.1 J	0.1 J	0.1 J	0.1 J	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	0.3 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	0.4 J	0.4 J	0.4 J	0.8	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Quality Control Analytical Data for Environmental Blanks
Owego, New York
February 25, 2017 - December 31, 2017

Sample Location	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK
Sample Description	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND
Sample Date	06/14/2017	06/15/2017	07/17/2017	07/18/2017	07/19/2017	07/20/2017
Laboratory Sample I.D.	9052961	9052973	9115306	9115323	9115346	9115367

Parameter **Units**

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	0.3 J	ND@0.5	0.3 J	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	0.2 J	ND@0.5	0.2 J	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	0.5 J	ND@0.5	0.5 J	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.1 J	0.1 J	0.5	ND@0.5	0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	0.7	0.8	1.8	0.1 J	1.8	0.2 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Quality Control Analytical Data for Environmental Blanks
Owego, New York
February 25, 2017 - December 31, 2017

Sample Location	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	TRIP BLANK	TRIP BLANK
Sample Description	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	2/28-3/2	2/28-3/4
Sample Date	10/02/2017	10/03/2017	10/04/2017	10/05/2017	02/28/2017	02/28/2017
Laboratory Sample I.D.	9247725	9247743	9250786	9253889	8862984	8865338

Parameter **Units**

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	0.2 J	0.2 J	0.1 J	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.3 J	0.3 J	0.3 J	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.4 J	0.5 J	0.4 J	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.4 J	0.3 J
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	1.5	1.6	1.3	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Quality Control Analytical Data for Environmental Blanks
Owego, New York
February 25, 2017 - December 31, 2017

Sample Location	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
Sample Description	3/1-3/4	3/2-3/4	3/3-3/4	6/12-6/16	6/13-6/16	6/14-6/16
Sample Date	03/01/2017	03/02/2017	03/03/2017	06/12/2017	06/13/2017	06/14/2017
Laboratory Sample I.D.	8866895	8866900	8866919	9052913	9052950	9052962

Parameter **Units**

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	0.3 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Quality Control Analytical Data for Environmental Blanks
Owego, New York

February 25, 2017 - December 31, 2017

Sample Location	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
Sample Description	7/17-7/21	7/18-7/21	7/19-7/21	7/20-7/21	10/2-10/5	10/3-10/6
Sample Date	07/17/2017	07/18/2017	07/19/2017	07/20/2017	10/02/2017	10/03/2017
Laboratory Sample I.D.	9115303	9115333	9115345	9115369	9247721	9250781

Parameter **Units**

Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.2 J	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

Quality Control Analytical Data for Environmental Blanks
Owego, New York
February 25, 2017 - December 31, 2017

Sample Location	TRIP BLANK	TRIP BLANK
Sample Description	10/4-10/6	10/5-10/7
Sample Date	10/04/2017	10/05/2017
Laboratory Sample I.D.	9250793	9253885

Parameter	Units
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Volatile Organics

1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5

Quality Control Analytical Data for Environmental Blanks
Owego, New York
February 25, 2017 - December 31, 2017

Reporting Conventions

NA	Not Analyzed
ND@X	Not Detected at Detection Limit X

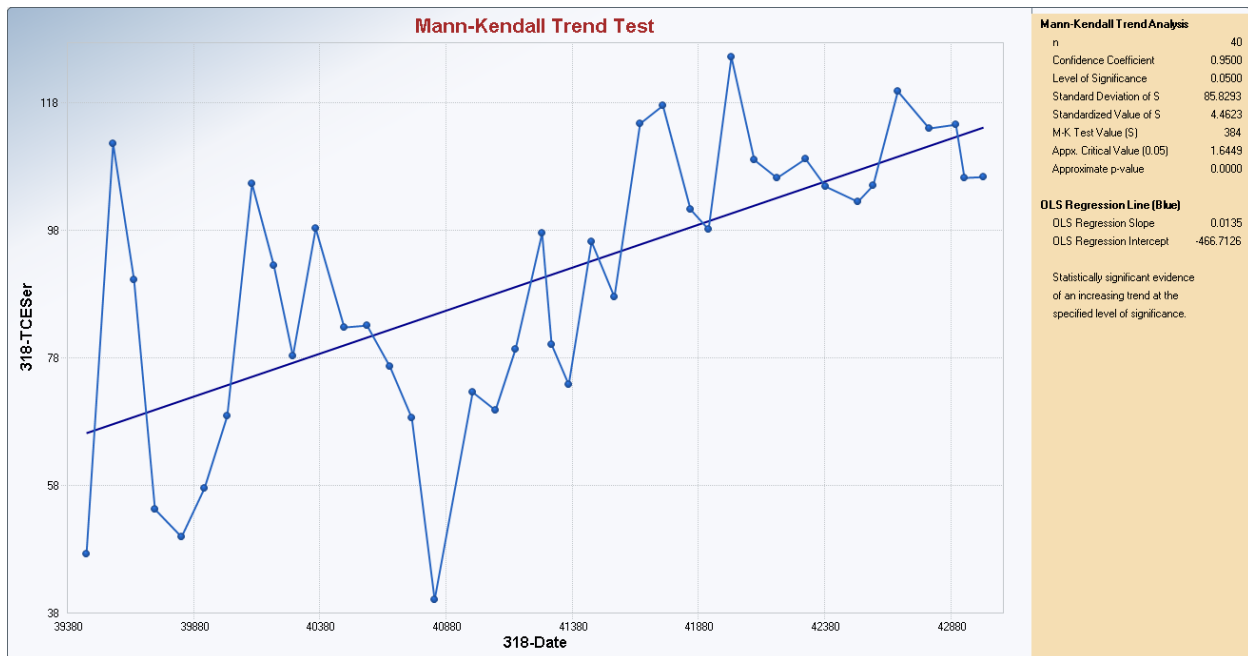
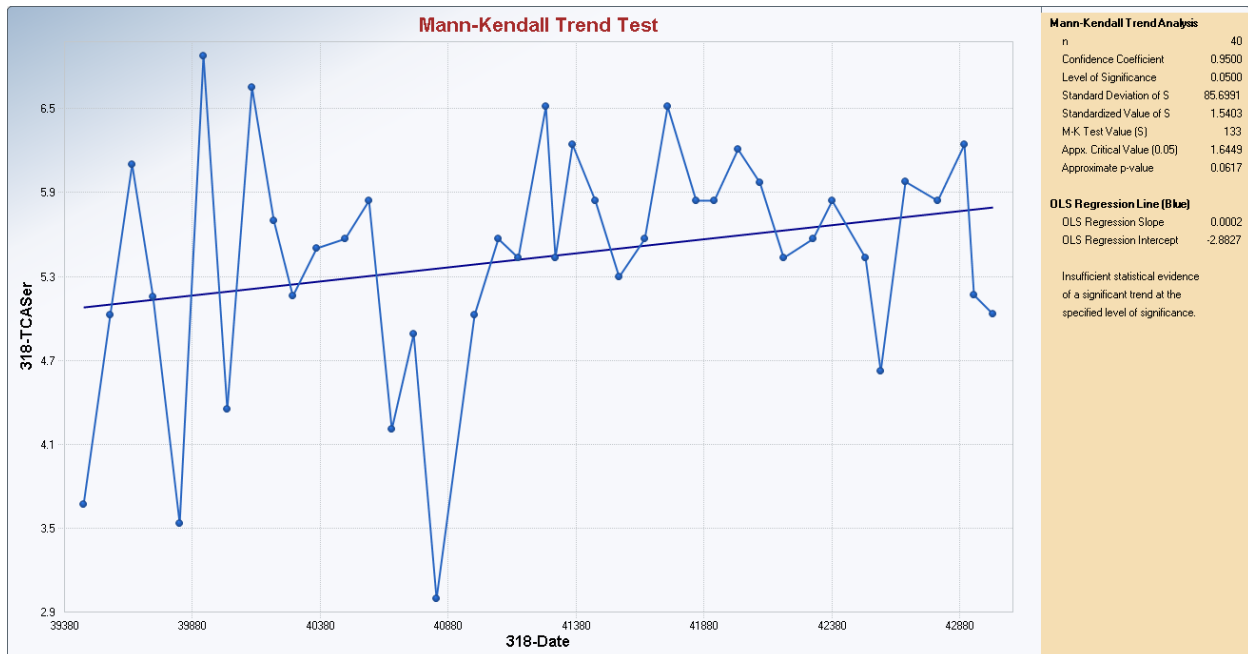
Code	Explanation
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J	Estimated value: the result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).
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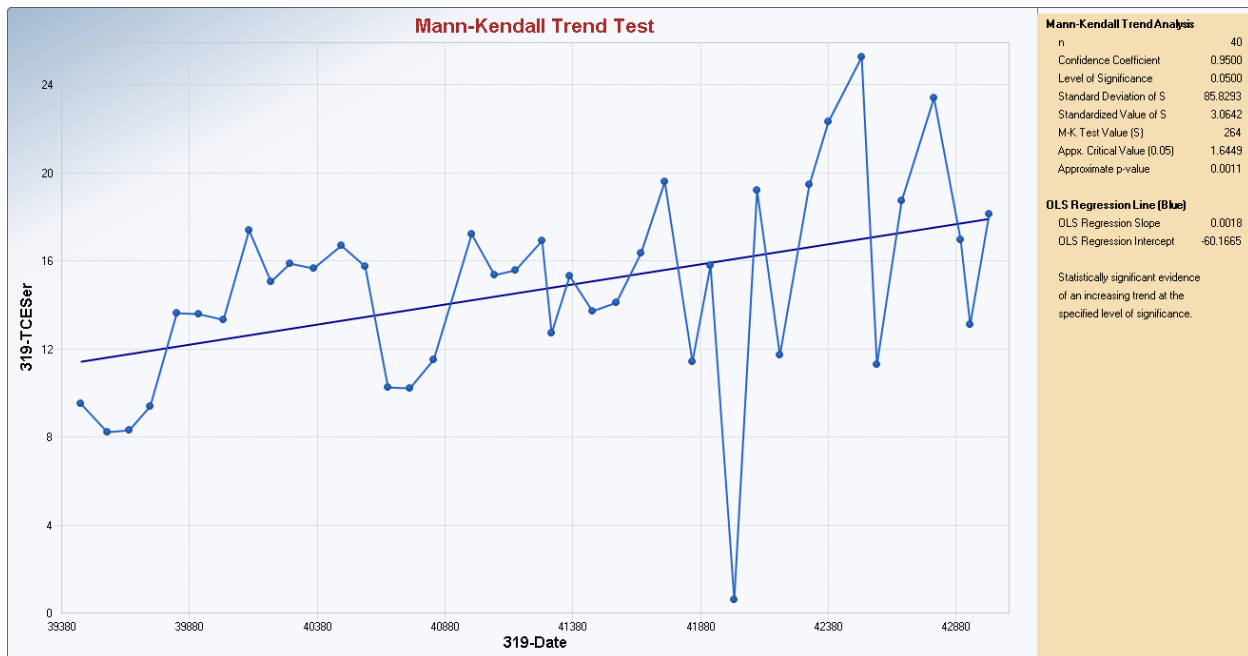
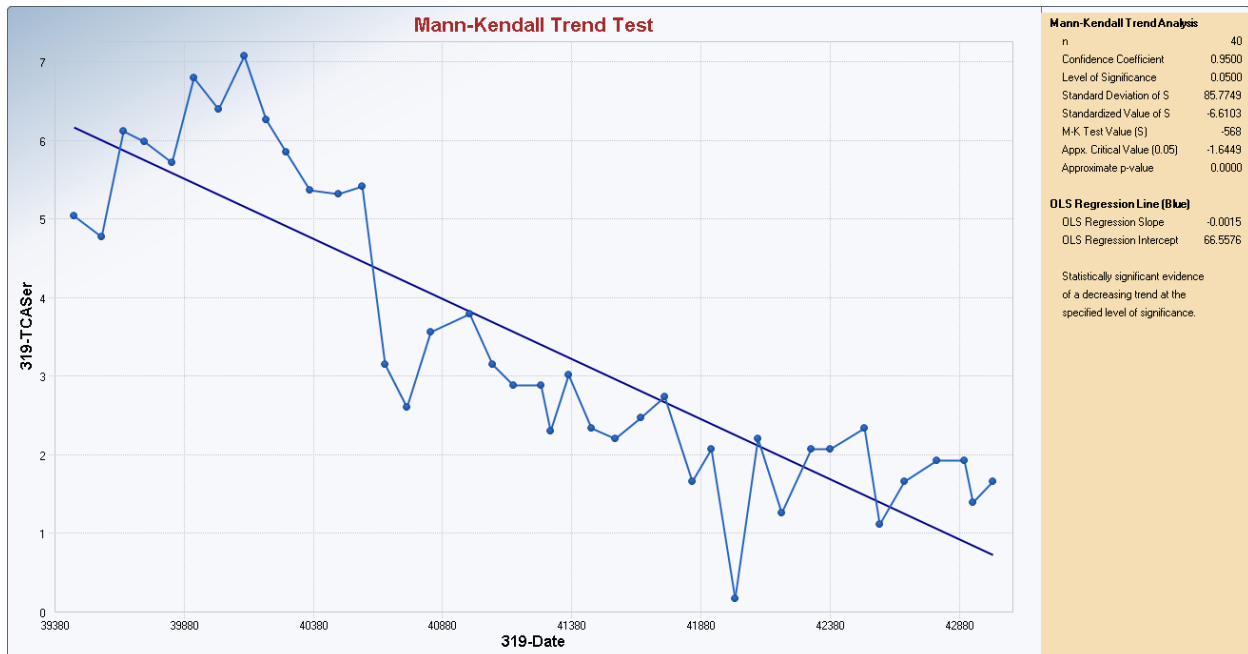
APPENDIX I

MANN-KENDALL TREND TEST RESULTS FROM ProUCL v. 5.1

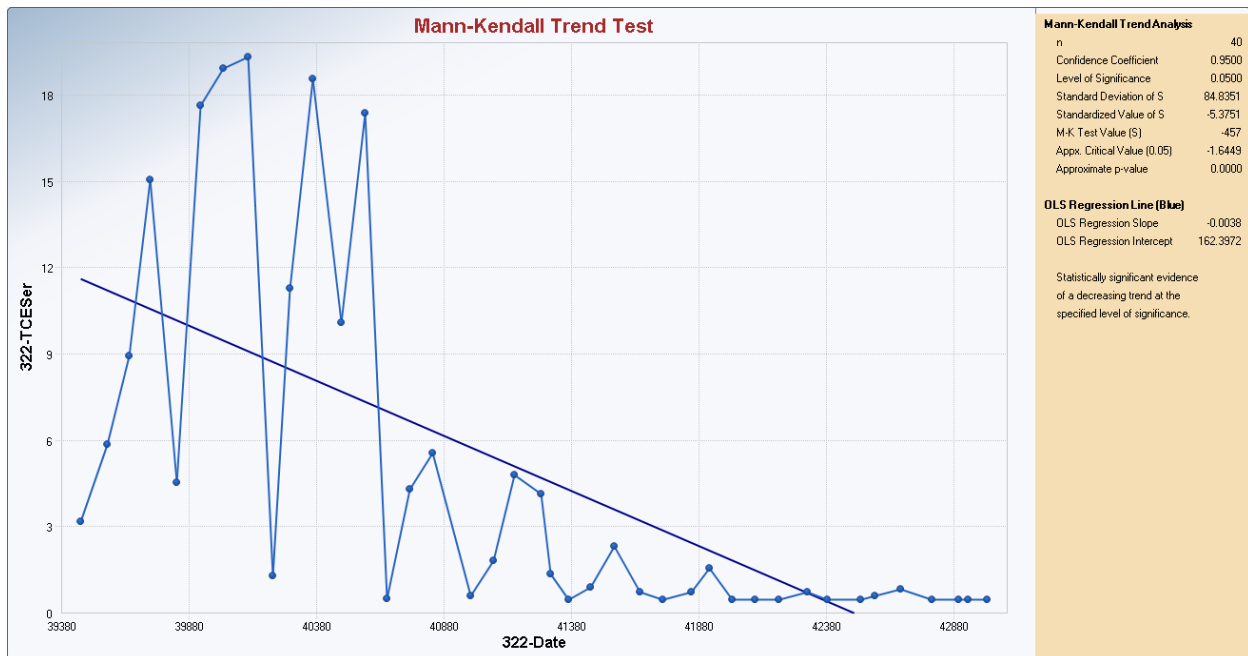
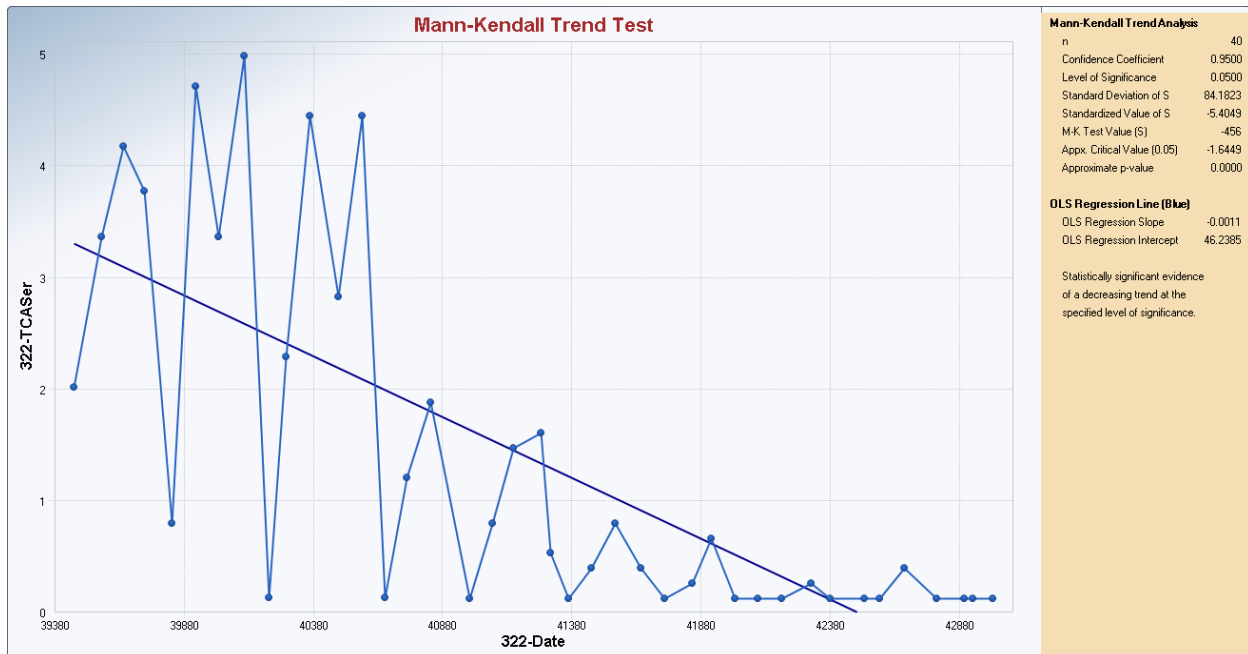
Well 318



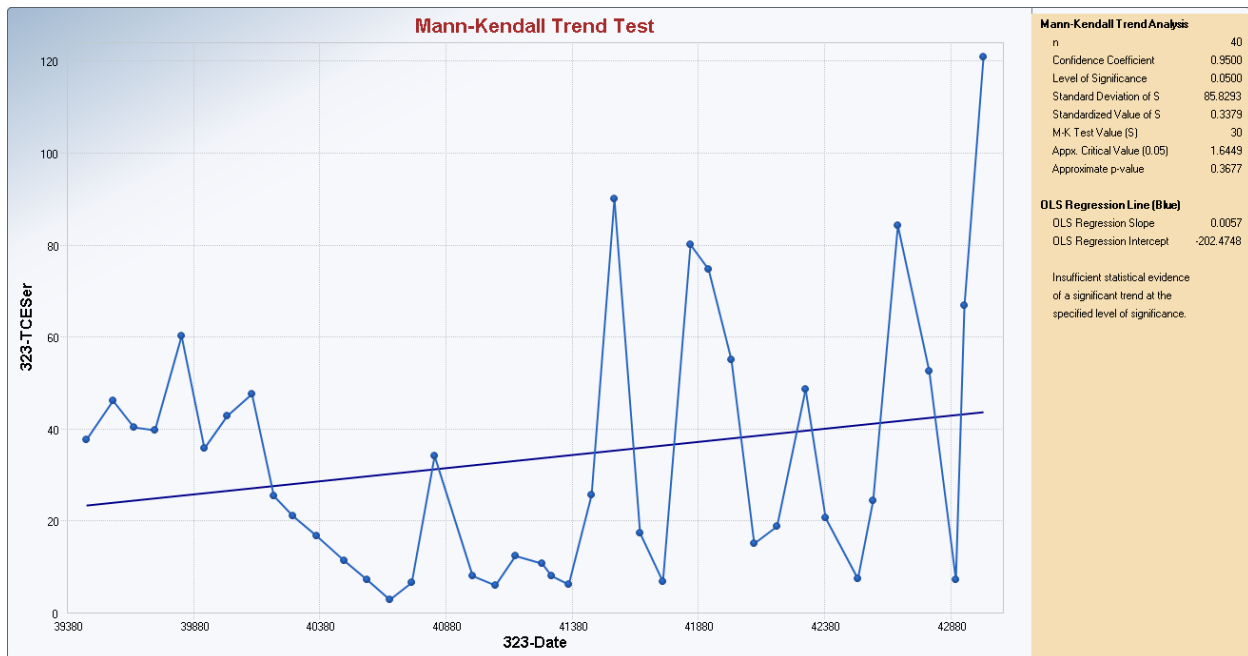
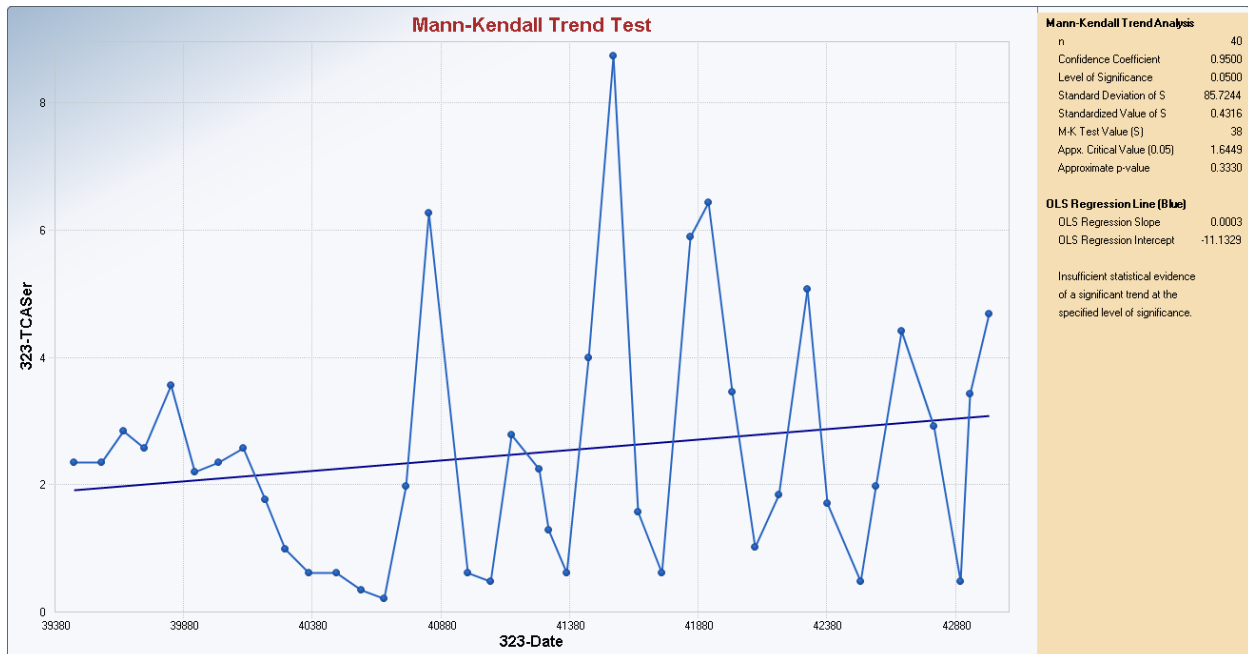
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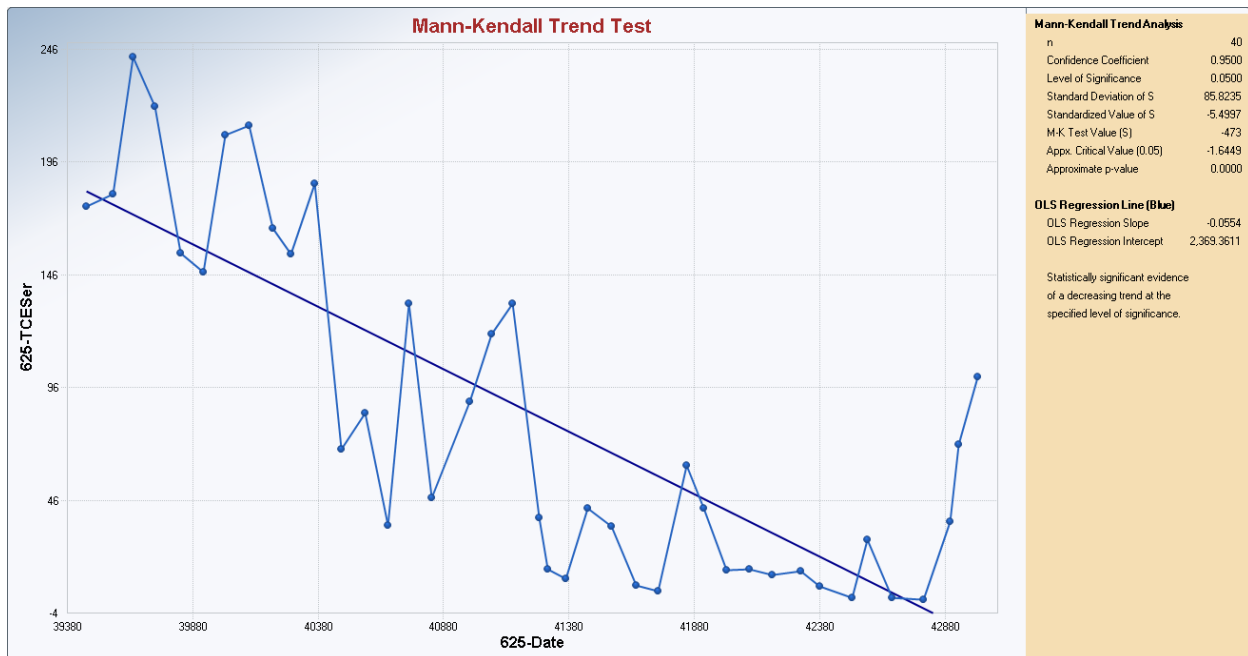
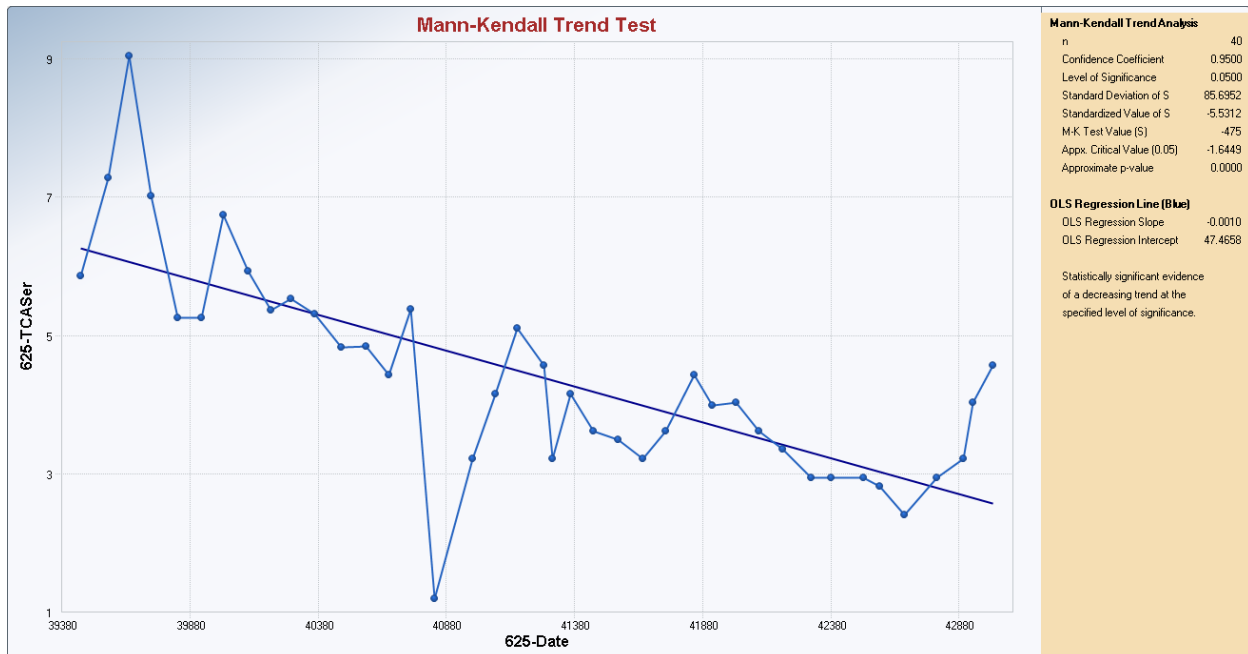
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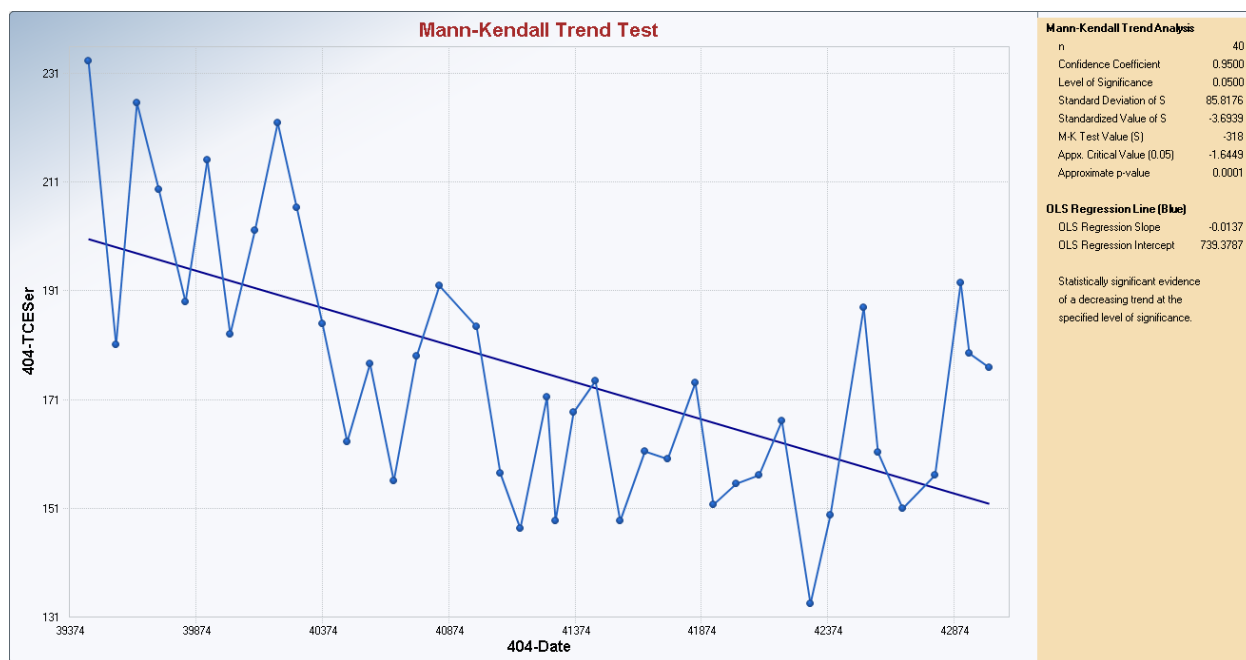
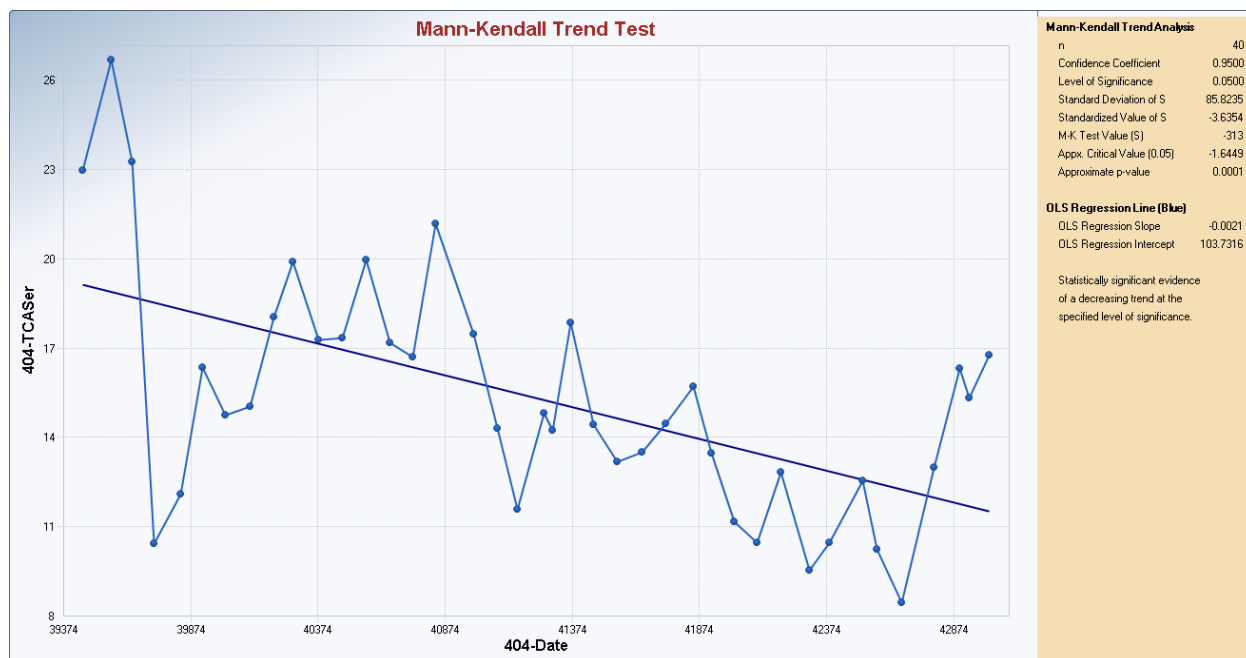
Well 323



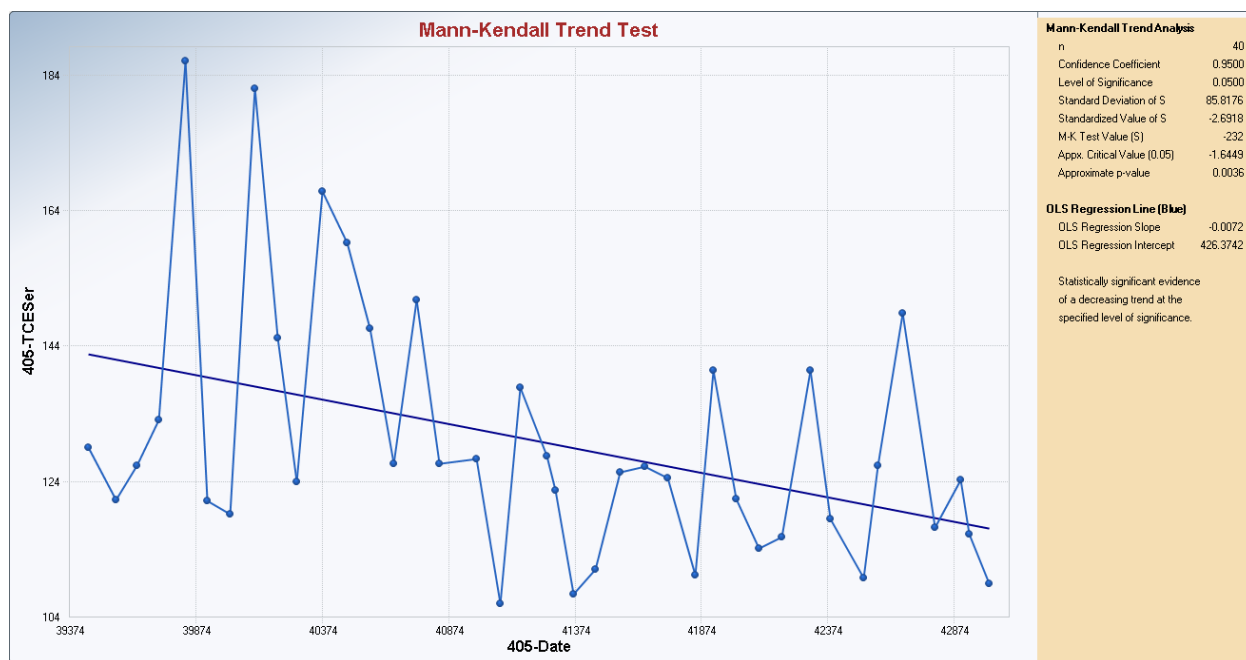
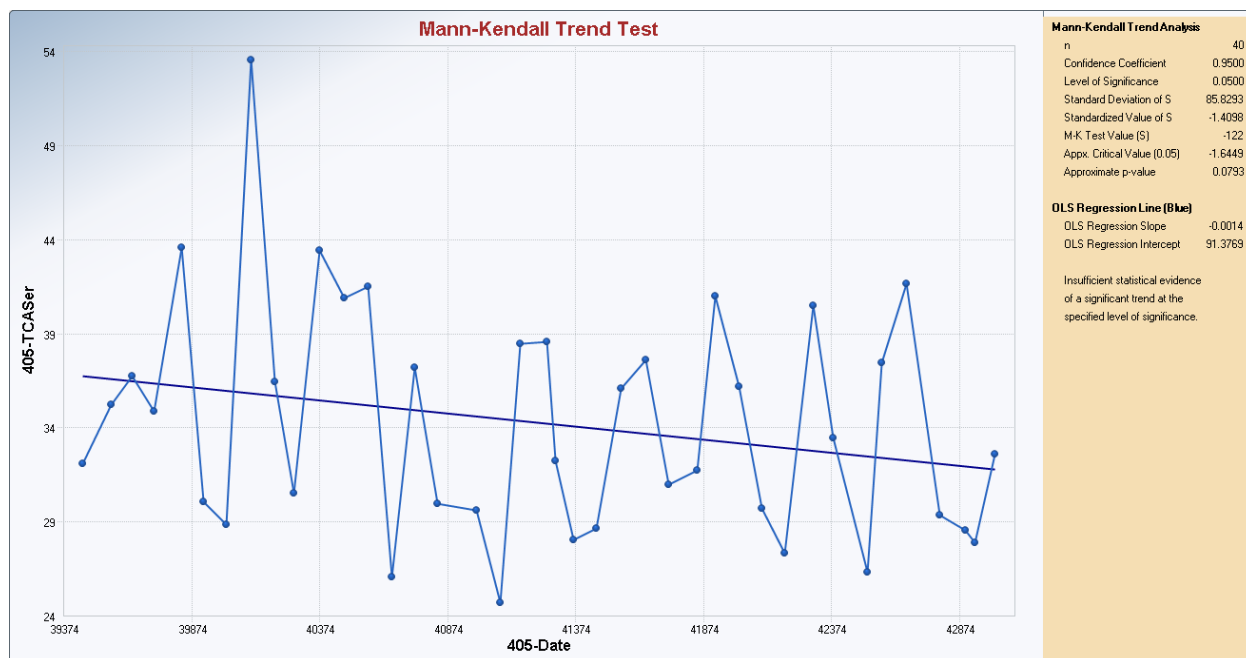
Well 625



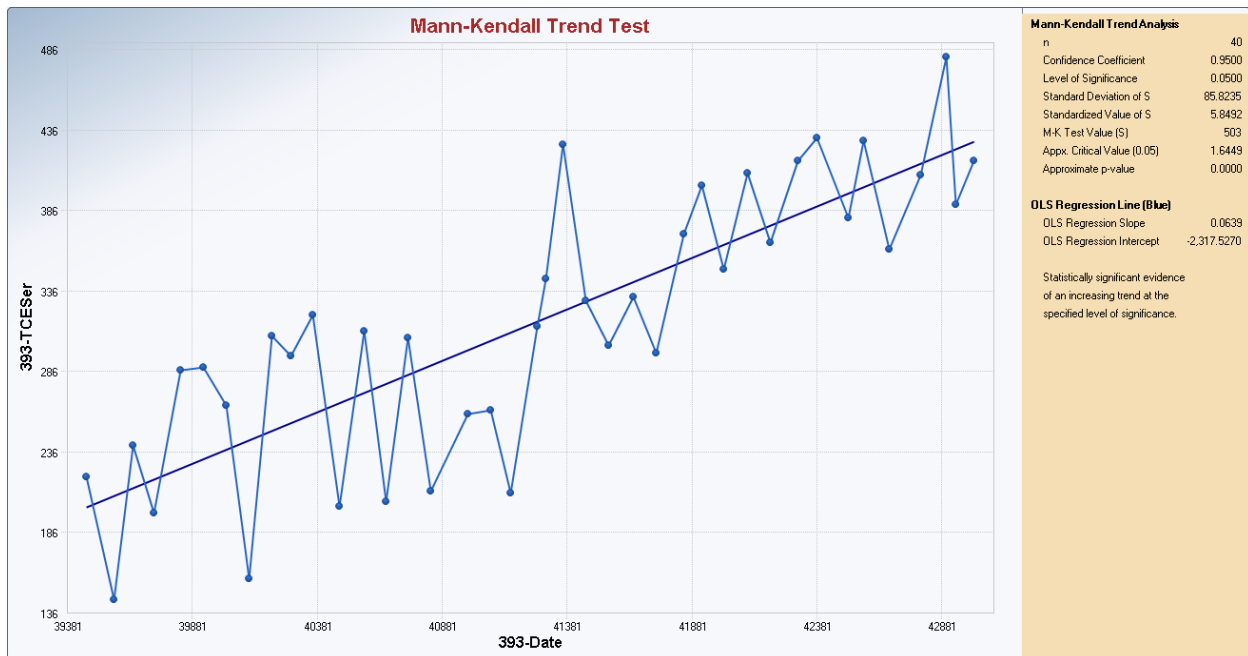
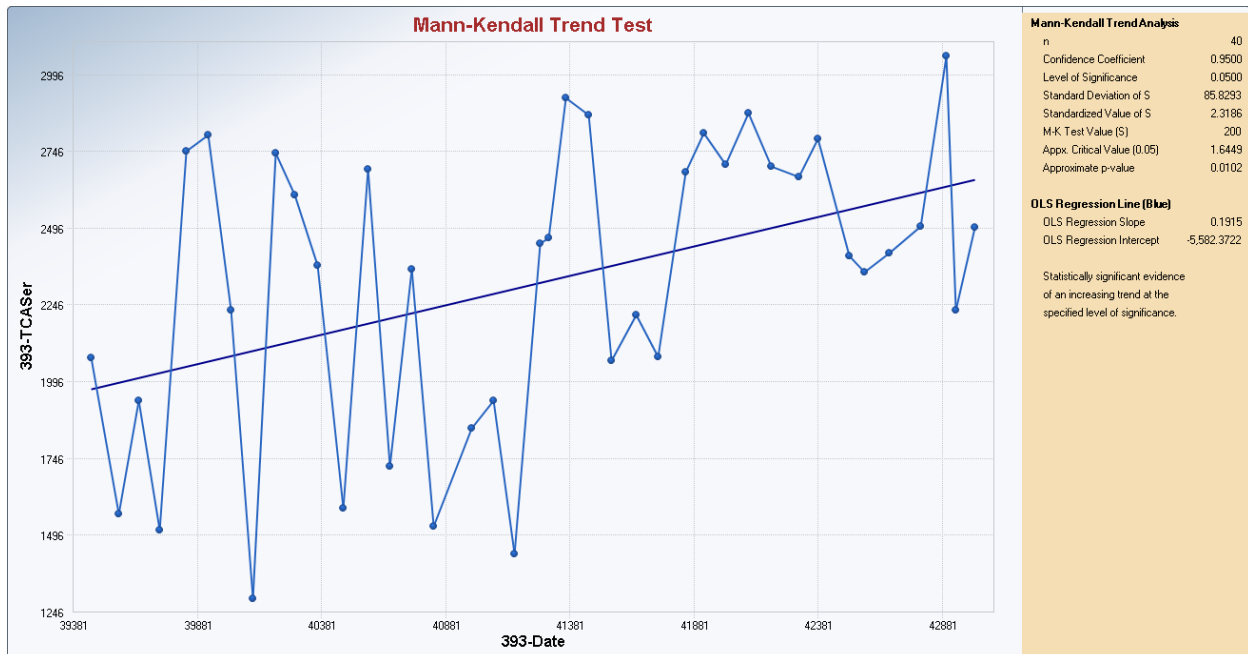
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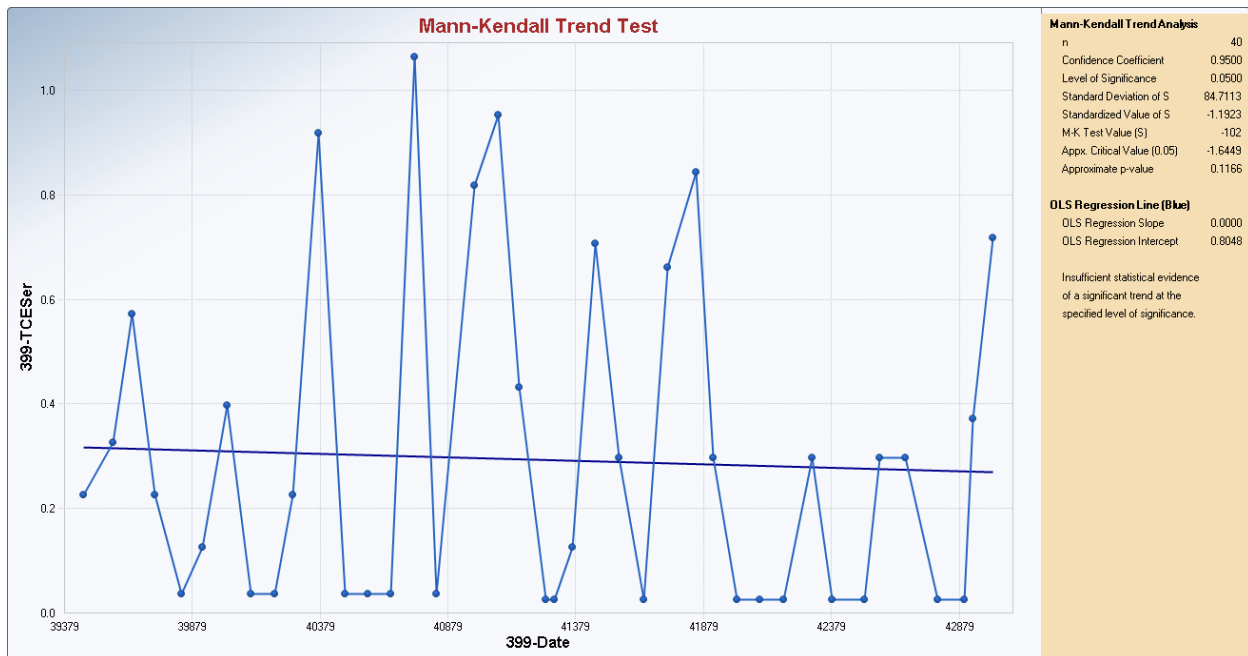
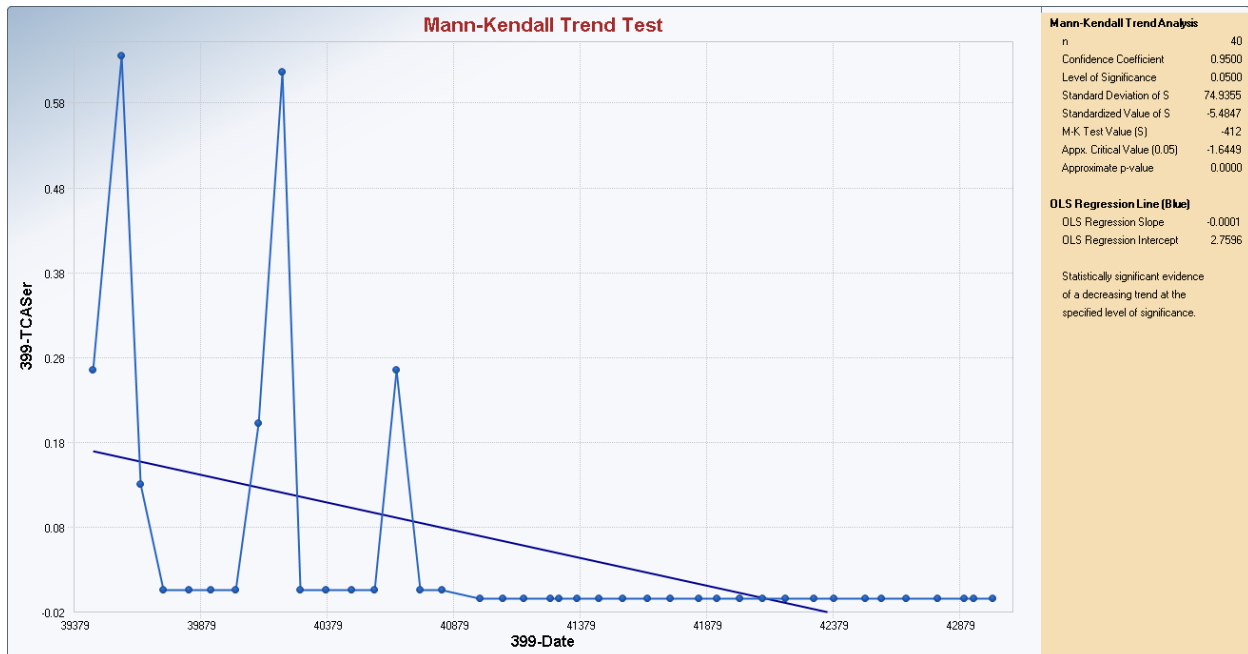
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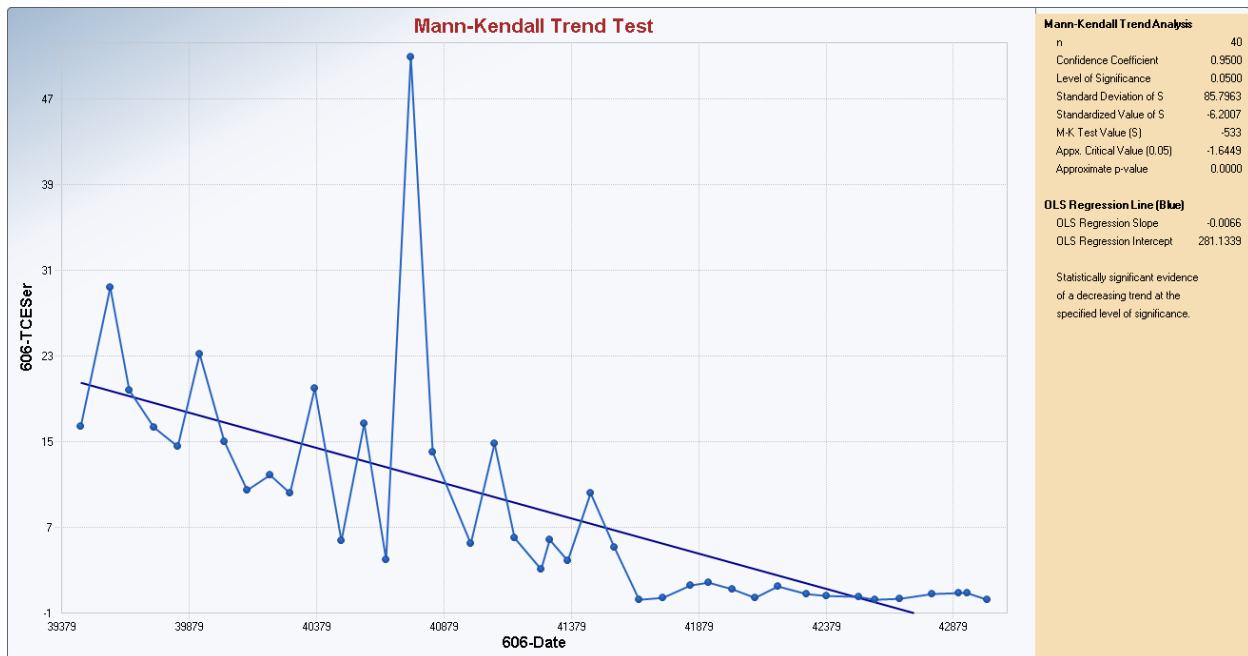
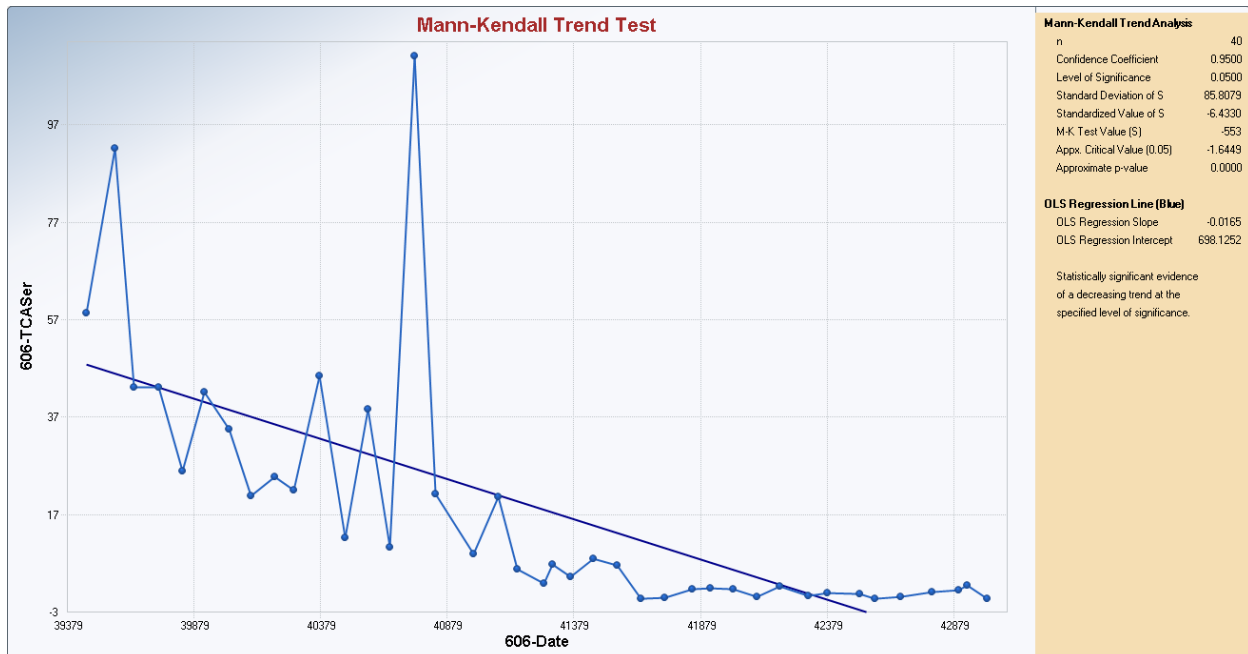
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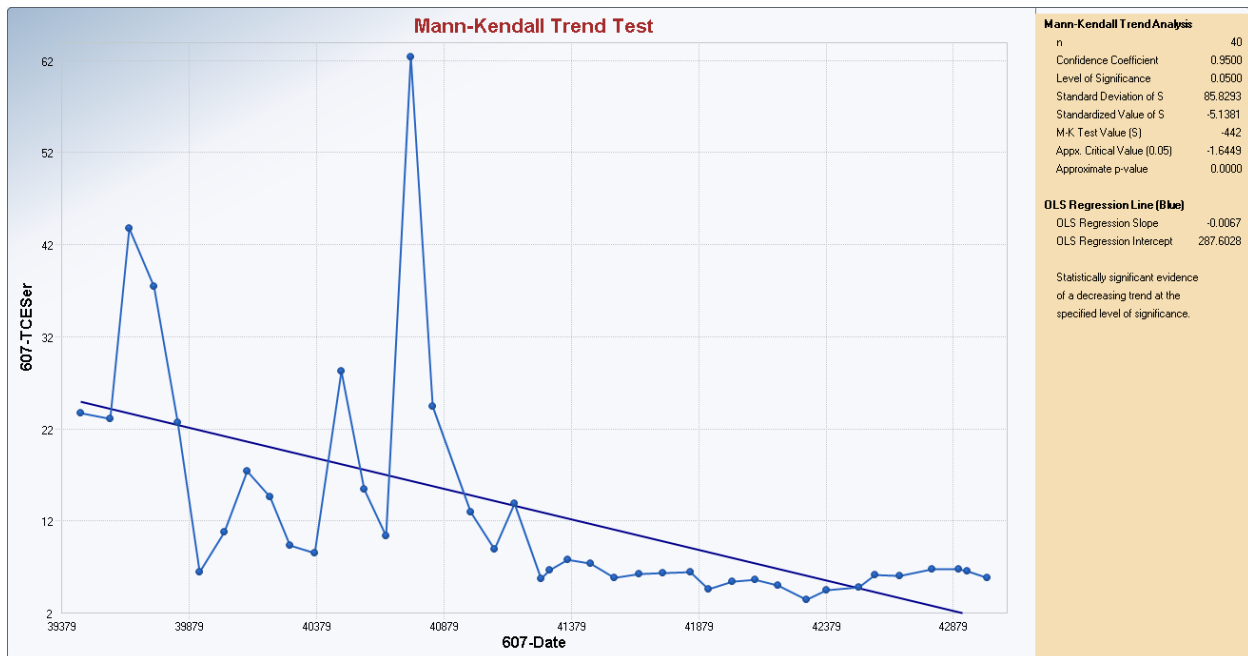
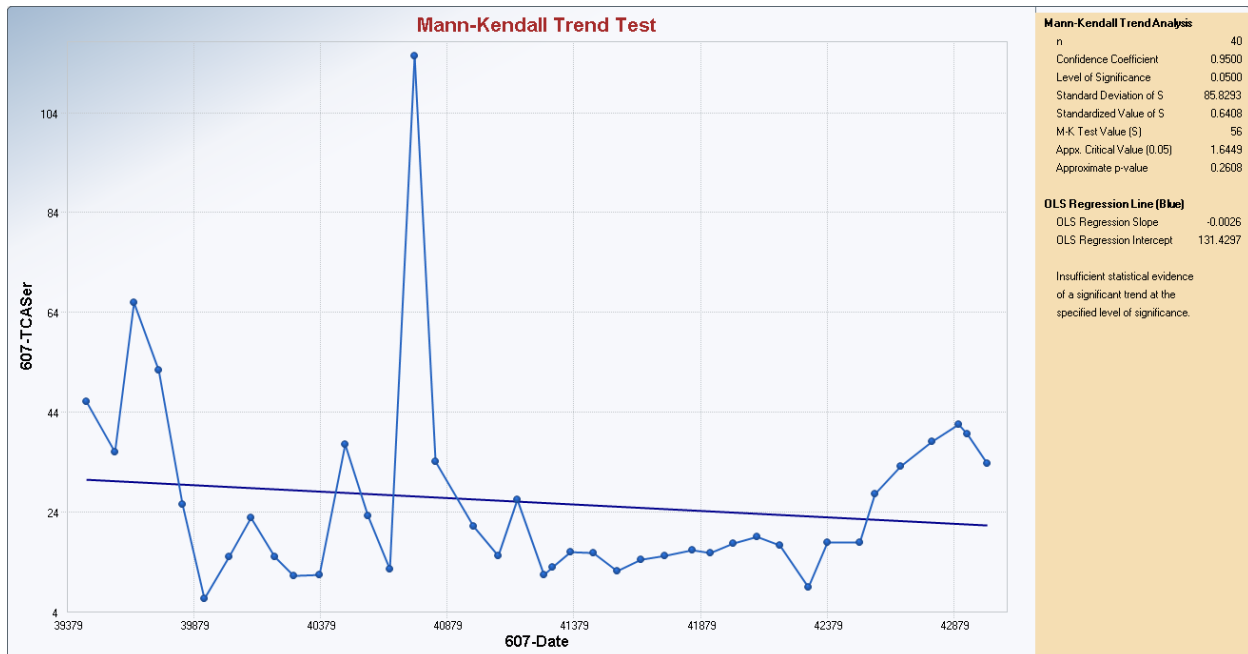
Well 399



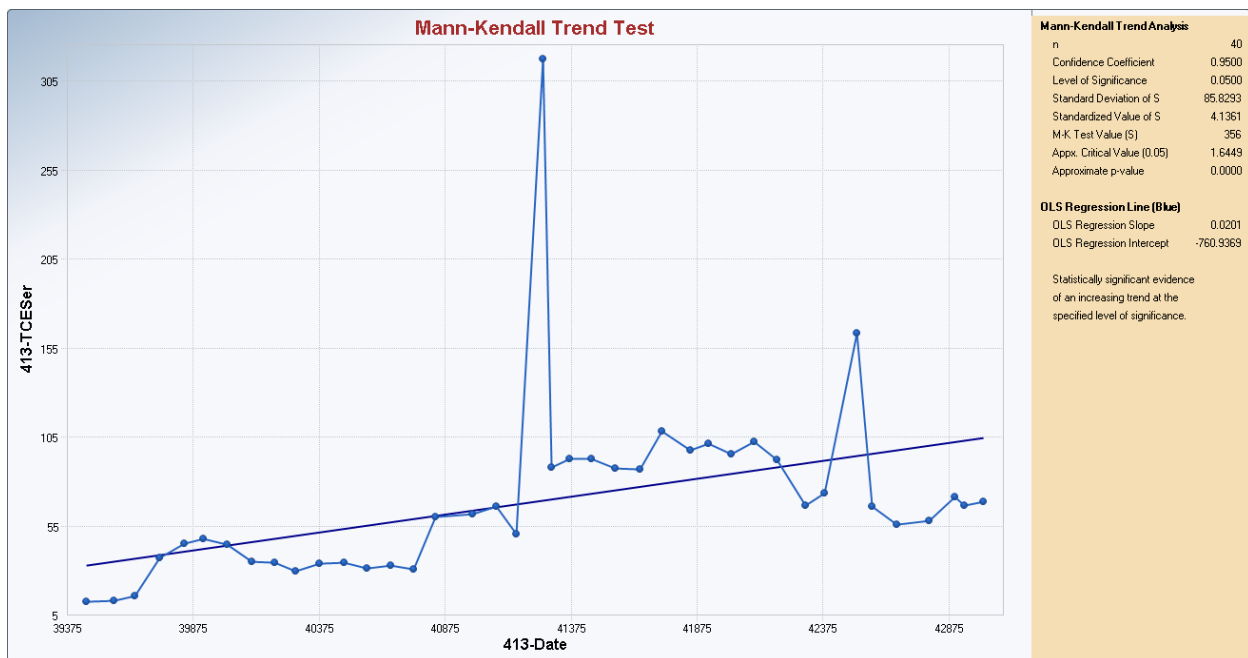
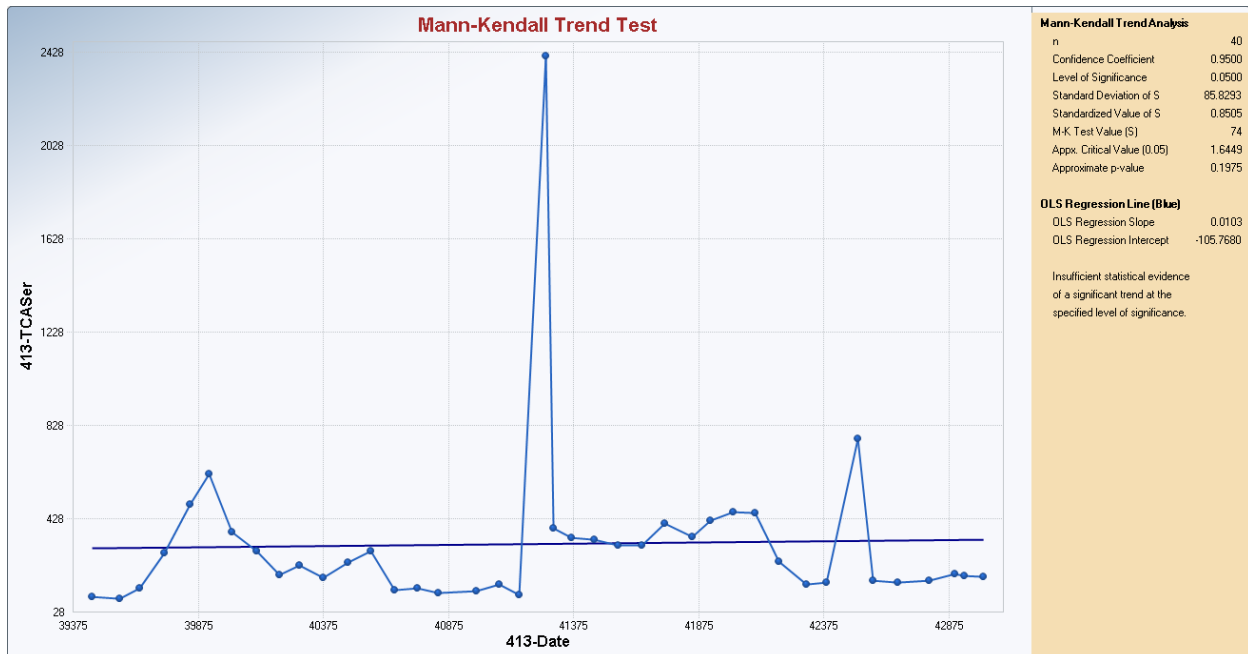
Well 606



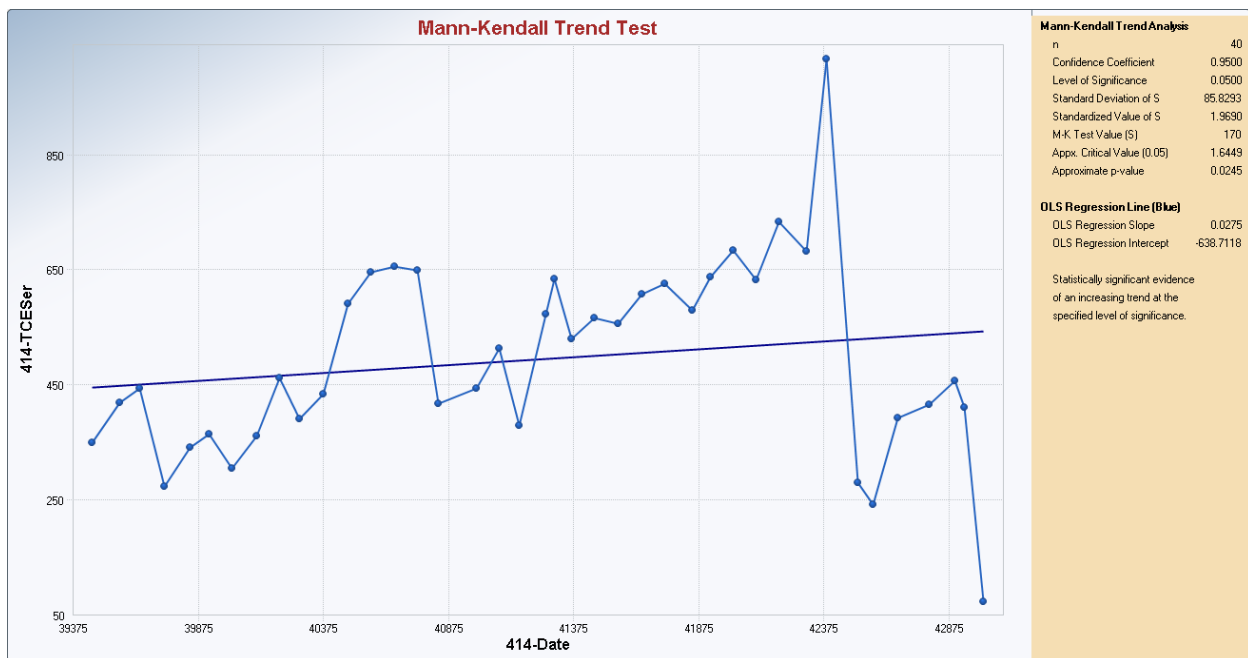
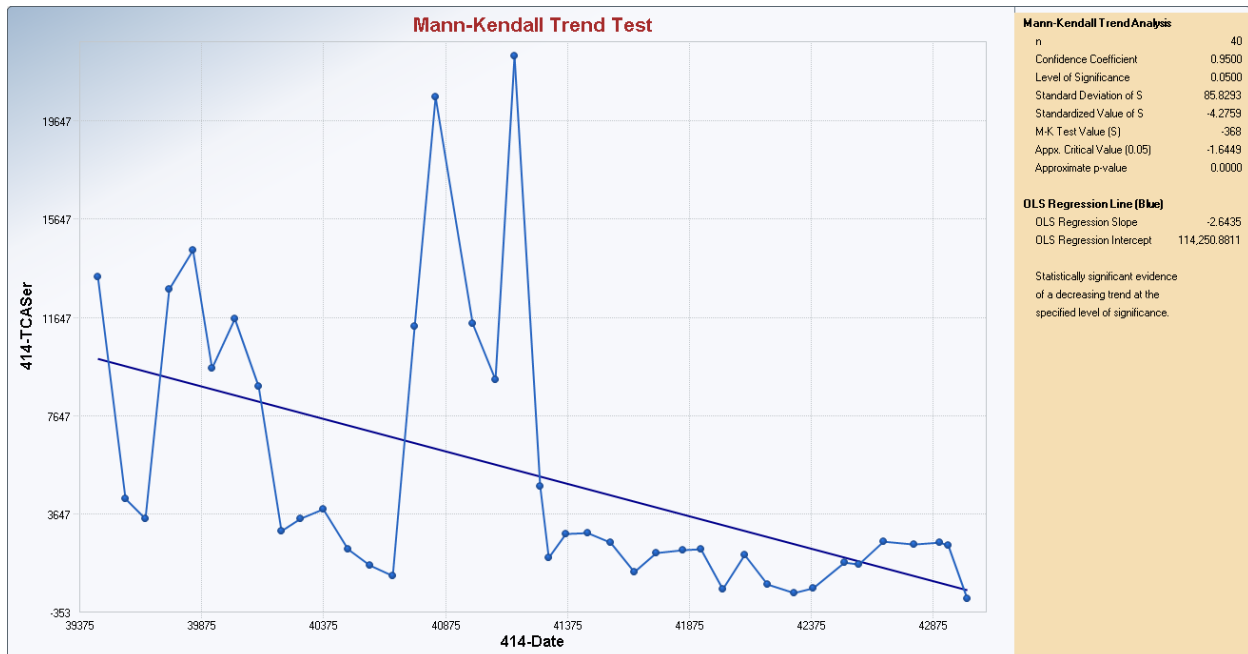
Well 607



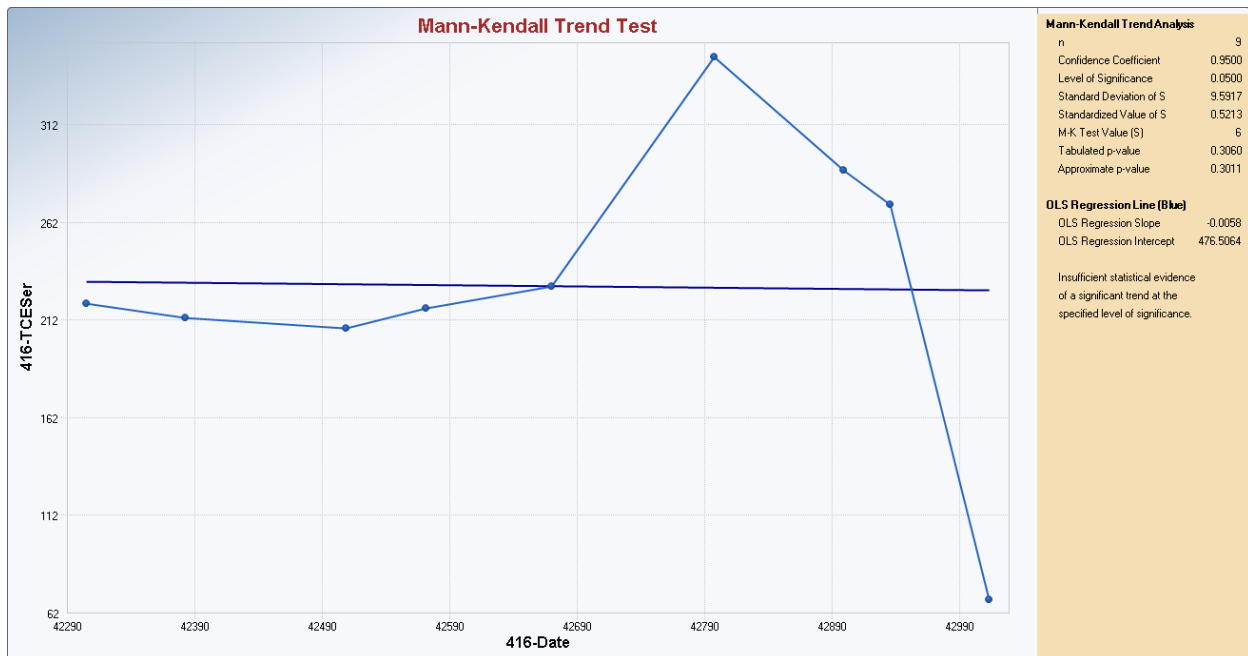
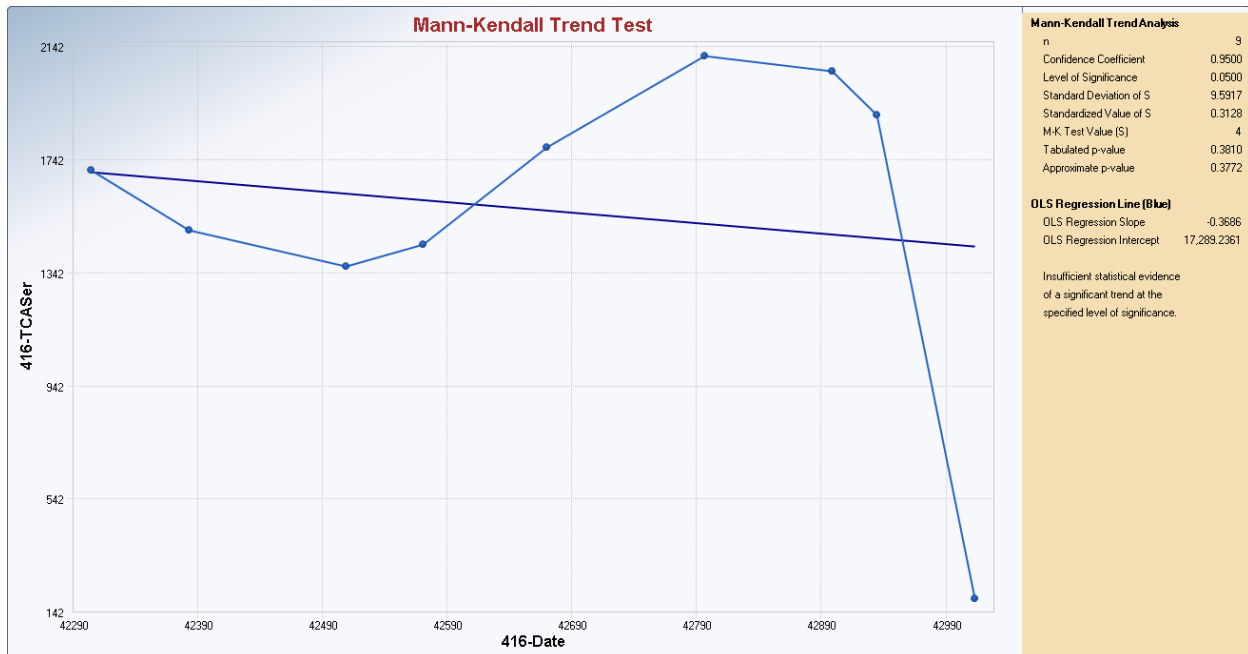
Extraction Well 413



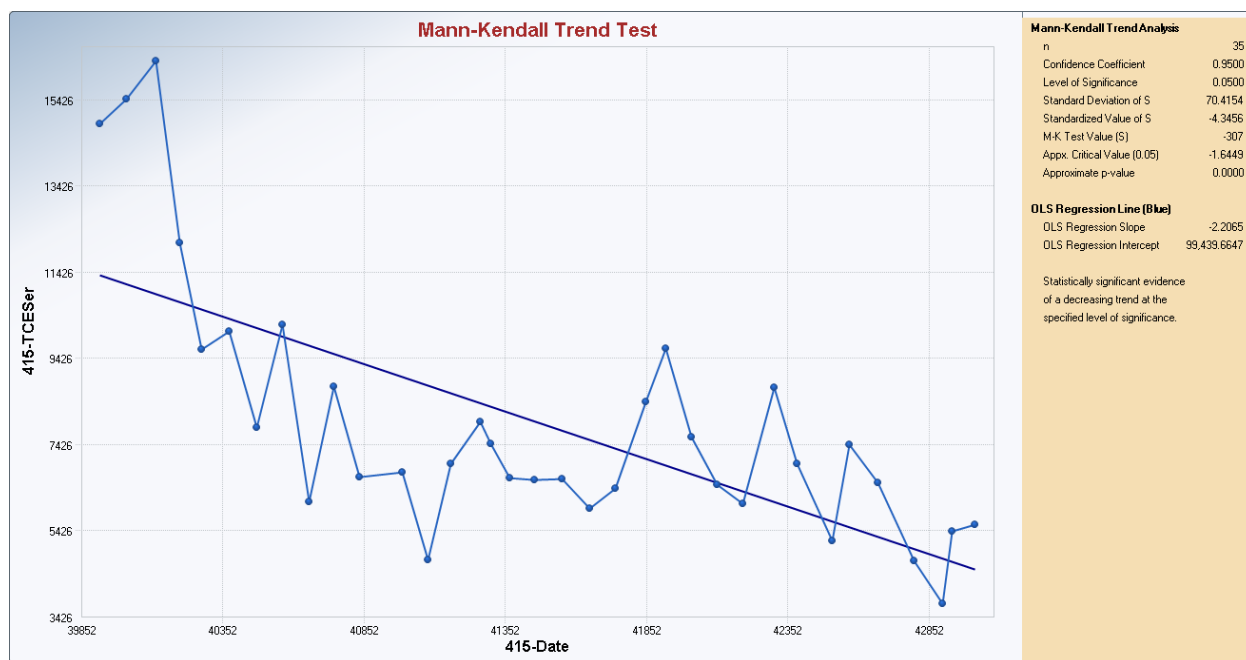
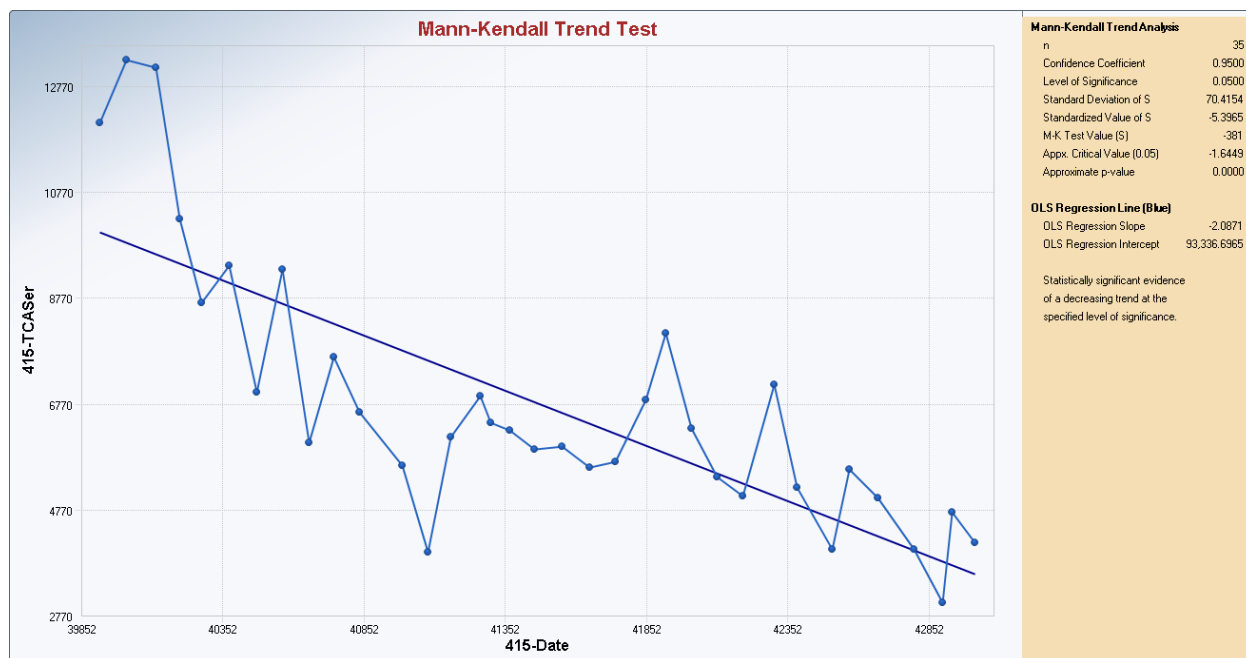
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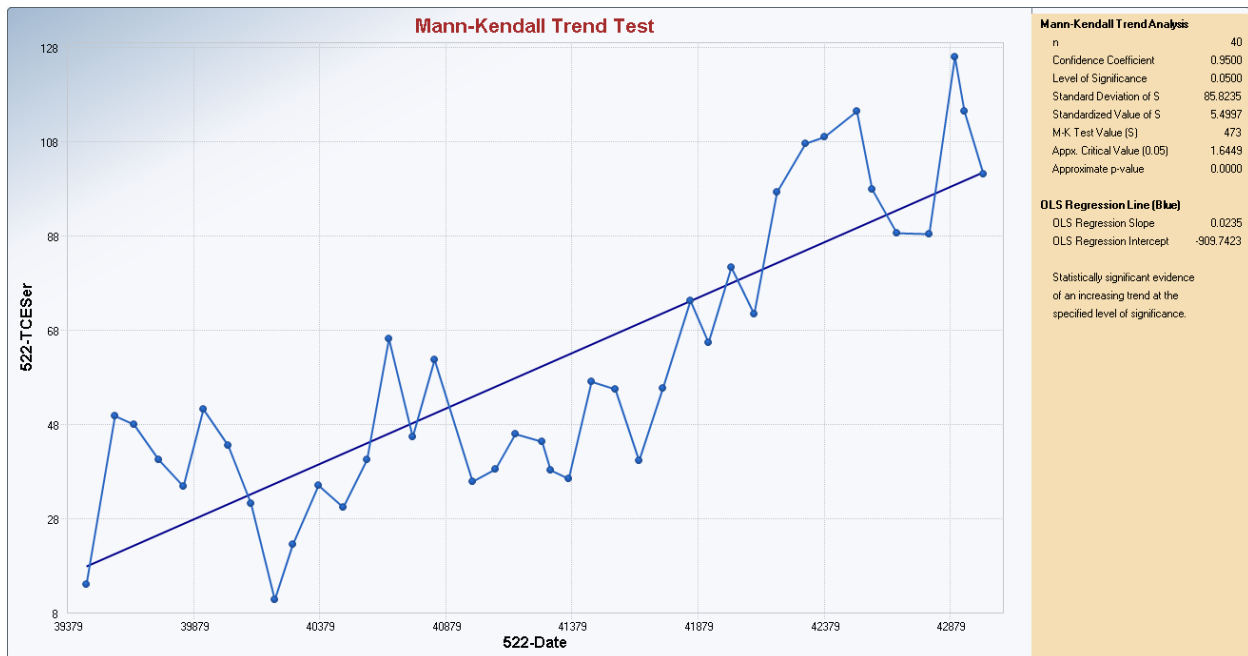
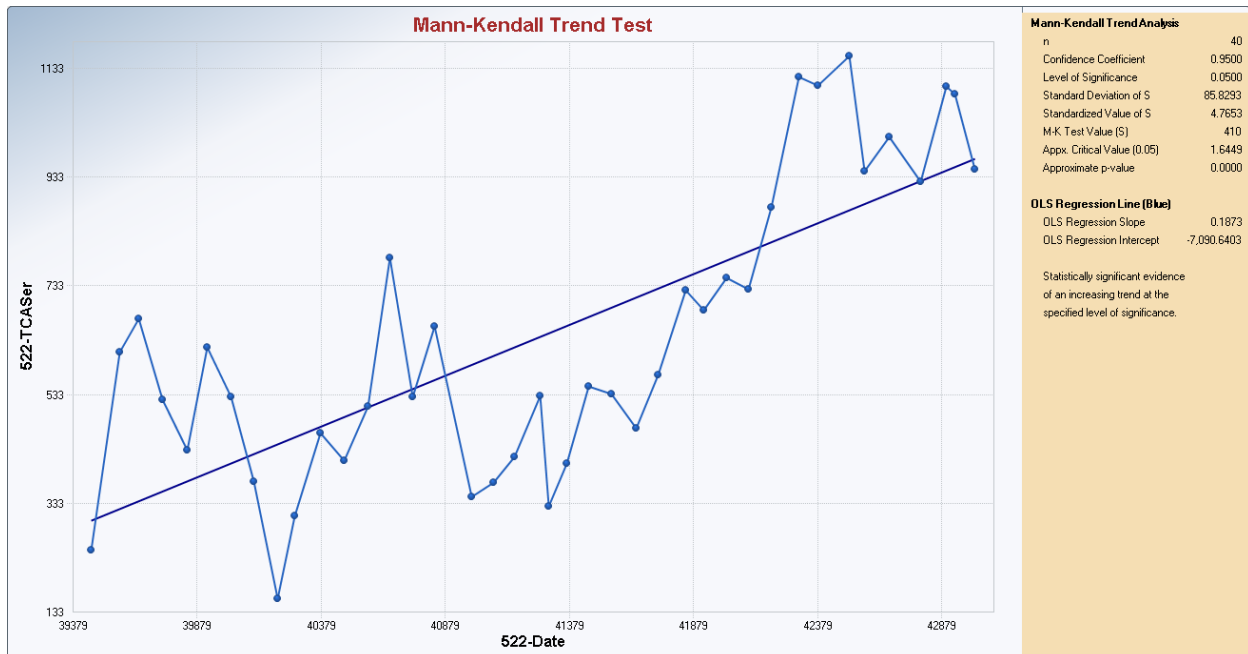
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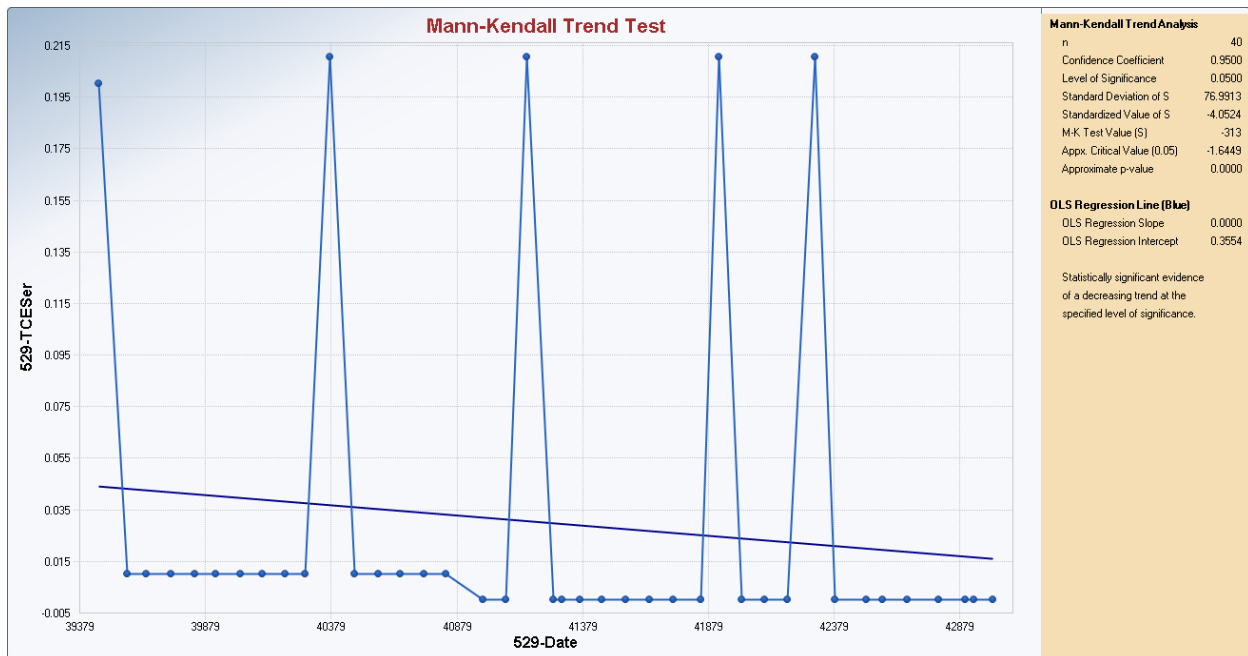
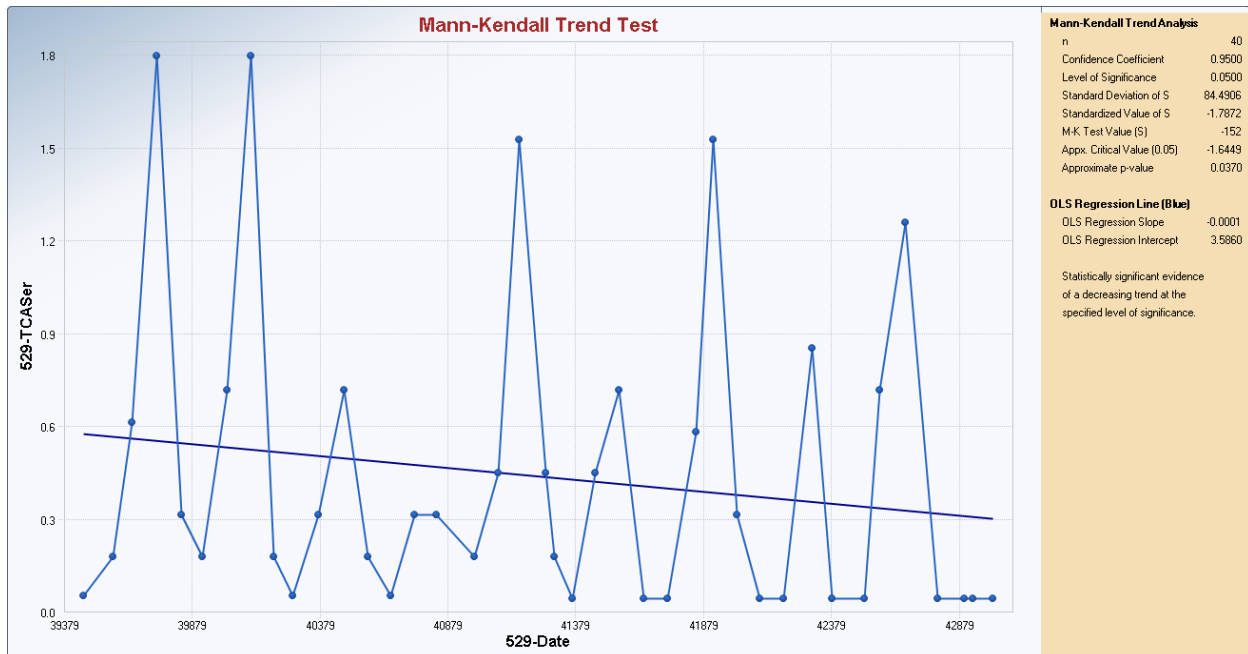
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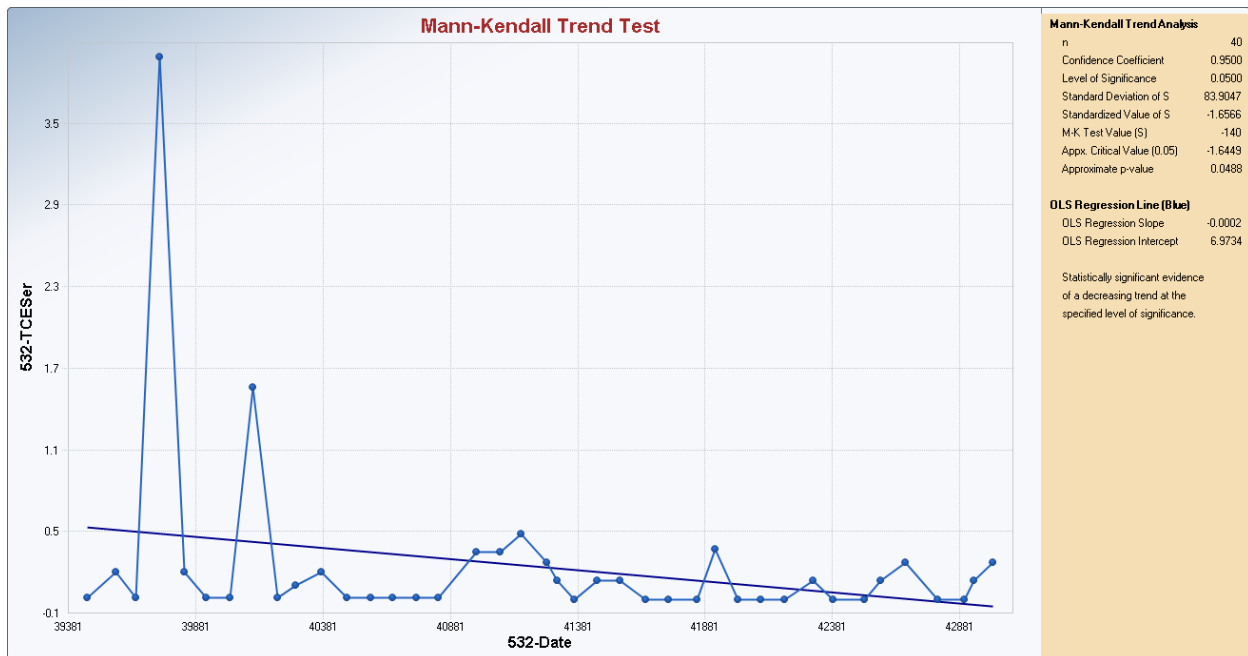
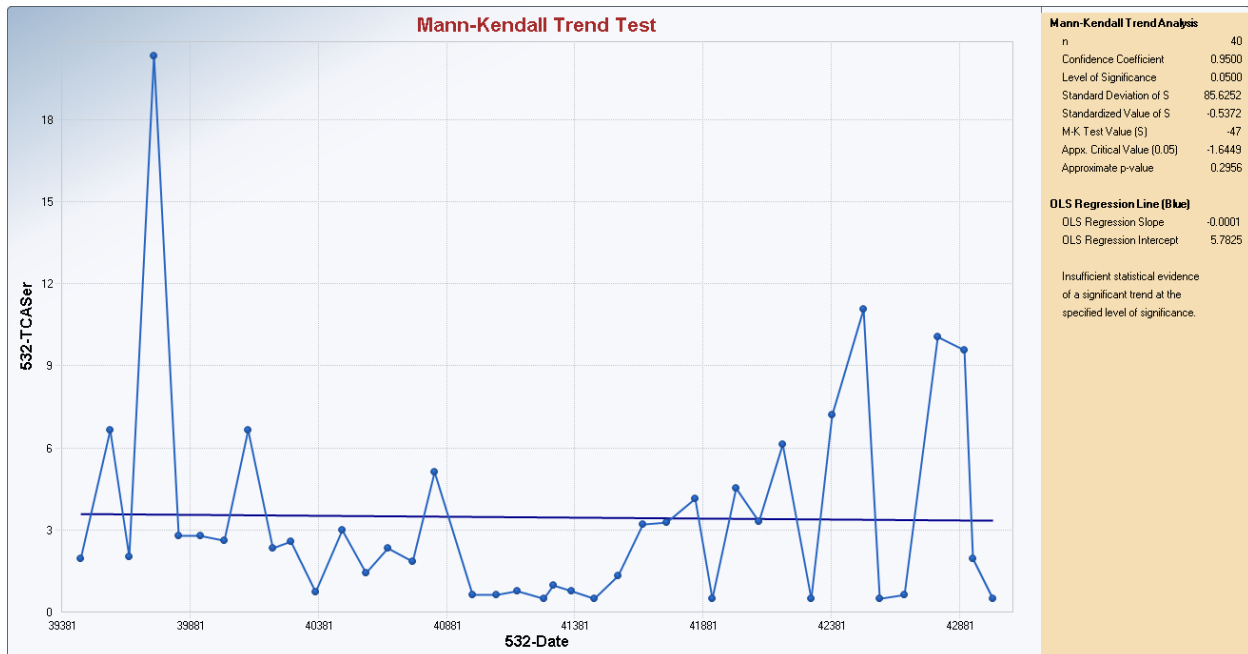
Well 522



Well 529



Well 532



Well 534

