Sanborn, Head & Associates, Inc.
20 Foundry Street
Concord, NH 03301
603-229-1900

LETTER OF TRANSMITTAL

To: Ms. Bridget Boyd
NYS Dept. of Health
Bureau of Environmental Exposure Investigation
Empire State Plaza, Corning Tower, Rm 1787
Albany, NY 12237

Telephone No.:

Fax No.:

Date: November 13, 2015
Job #: 2755.07
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SANBORN, HEAD & ASSOCIATES, INC.

Daniel B. Carr, P.E., P.G.

(IF ENCLOSURES ARE NOT AS NOTED, PLEASE NOTIFY US IMMEDIATELY)

8976 Wellington Road
Manassas, VA 20109

November 13, 2015

Alex Czuhanich
Engineering Geologist
New York State Department of Environmental Conservation
Division of Environmental Remediation Bureau E
625 Broadway, 12th Floor
Albany, NY 12233-7017

Re: Transmittal of Annual Report – Soil Vapor Monitoring Through August 2015
Comprehensive Operations, Maintenance and Monitoring Program
Order on Consent Index # A7-0502-0104, Site # 704014

Dear Mr. Czuhanich:

Enclosed with this transmittal letter please find our Annual Soil Vapor Monitoring Data Report, that has been prepared in accordance with the requirements set forth in the referenced Order on Consent.

Should you have any questions concerning this submittal, please contact me at (703) 257-2587.

Sincerely,

M. E. Meyers

Mitchell E. Meyers
Program Manager

cc: K. Lynch, NYSDEC Region 7
D. Tuohy, NYSDEC – Albany (transmittal only)
B. Boyd, NYSDOH – Troy
C. Edwards, Broome County Health Department
C. Pelto, Huron

SANBORN HEAD

Building Trust. Engineering Success.

Annual Report

Soil Vapor Monitoring through August 2015

Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

Prepared for IBM Corporate Environmental Affairs
File No. 2755.07
November 2015

SANBORN HEAD
Building Trust. Engineering Success.

Mr. Mitchell E. Meyers
IBM Corporate Environmental Affairs
8976 Wellington Road
Manassas, Virginia 20109

November 13, 2015
File No. 2755.07

Re: Annual Report
Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

Dear Mr. Meyers:

We have enclosed our report summarizing soil vapor monitoring conducted in the Village of Endicott and the Town of Union, New York, through August 2015. The monitoring is being conducted as a component of the Comprehensive Operations, Maintenance, and Monitoring Plan (COM&M Plan). The work is part of IBM's required activities under Administrative Order on Consent #A7-0502-0104 (Order) as agreed upon between IBM and the New York Department of Environmental Conservation (NYSDEC).

We understand that this report will be submitted to the NYSDEC as a part of required deliverables under the Order. Thank you for the opportunity to be of service on this important project.

Very truly yours,
SANBORN, HEAD & ASSOCIATES, INC.

Daniel B. Carr, P.E., P.G.
Principal and Senior Vice President

Erica M. Bradstreet, P.G.
Project Manager

EMB/DBC: emb

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1.0 INTRODUCTION

This Annual Report for the Endicott Soil Vapor Monitoring Program (Annual Report) summarizes the findings of the routine soil vapor monitoring program that has been completed through August 2015 under IBM's Comprehensive Operations, Maintenance and Monitoring Plan (COM&M Plan). The objective of the program is to monitor for changes in the presence of certain volatile organic compounds (VOCs) that drove decisions for installation of engineered systems to address potential for vapors to enter human occupied structures.

Sanborn Head & Associates, Inc. (Sanborn Head) prepared this report for IBM's submittal to the New York Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH), collectively the "Agencies", as a component of deliverables that IBM agreed to provide under the COM&M Plan. Sanborn Head's services and this document are subject to the limitations outlined in the text and Appendix A.

1.1 Background

IBM has installed and is maintaining "ventilation systems" in buildings within certain areas of the Village of Endicott and Town of Union, New York. The limits of properties offered ventilation systems, or the geographic limits of ventilation, are shown on Figure 1. These limits were established through work conducted under an Agency approved action plan through a program of concurrent sampling of indoor air, substructure soil vapor, and ambient air at representative properties, also known as the Groundwater Vapor Project (GVP). The findings of sampling in the first four months of 2003 largely established the present limits of ventilation, which was confirmed through sampling conducted during two subsequent heating seasons. The soil vapor monitoring program began in August 2004.

Trichloroethene (TCE) is the primary VOC found in soil vapor within the largest contiguous ventilation area, and the compound that drove the bulk of ventilation decisions. Other compounds including the chlorinated ethane 1,1,1-Trichloroethane (TCA), tetrachloroethene (PCE), and their biochemical breakdown products were also found in this area, but at lower frequencies of detection and generally at lower concentrations and a very small proportion of the decisions to mitigate structures.

Since July 2004, IBM has substantially expanded extraction and treatment of VOC-containing groundwater, which has altered groundwater levels and flow directions and induced changes in groundwater levels and water quality, especially beneath the largest ventilation area shown on Figure 1. Re-injection of clean water into the subsurface was started in November 2008. Through June 30, 2015, about 146.3 million gallons (MG) was extracted from wells situated in the central portion of the plume[1] and about 132 MG was then re-injected.

[1] Groundwater Sciences Corporation, October 13, 2015, Semiannual Groundwater Data Summary Report (January 1, 2015 – June 30, 2015).

1.2 Scope of Work

Since the submittal of the last Annual Report[2], routine sampling has been conducted in February and August 2015, in accordance with the approved routine monitoring program. A letter report submitted in April 2015[3] reported data from February 2015. This report is intended to put into larger context sampling results from these monitoring events in 2015.

Certain additional monitoring was conducted at the discretion of IBM, as outlined in the table below. The monitoring was focused in areas of increased groundwater injection, and or increased depth to groundwater. Discretionary sampling included implants EN10-11D and EN10-17D. In both February and August 2015, water was drawn into the sample tubing during purging or sample collection from EN10-11D and collection of an adequate volume of gas was not possible.

Sampling Round	Implants Included in Routine Monitoring	Implants where Voluntary Non-Routine Monitoring was Conducted	Rationale
February 2015	10	4	■ **EN04-2S/D:** Groundwater Injection Monitoring ■ **EN10-41S/D**: OU#4 Vapor Monitoring
August 2015	68	3	■ **EN10-17D:** Secondary water table-depth implant installed after significant water level drop ■ **EN10-41S/D:** OU#4 Vapor Monitoring
October 2015	0	2	■ **EN04-31S, EN10-41S**: Re-sampling Canisters leaked during shipment back to the lab after August 2015 monitoring and were not analyzed.

All of the data were tabulated and reviewed and used to prepare graphical summaries depicting groundwater and soil vapor data for TCE as presented in Appendix B.2. A tabular summary of soil vapor data recorded during the last 24 months is provided on compact disc in Appendix C.

1.3 Climatic and Groundwater Conditions during the Monitoring Period

The sampling was conducted under a variety of climatic conditions and under conditions of variable groundwater levels. Climatic and groundwater level measurements recorded during the period were reviewed as a context for the findings discussed in Section 2.0.

1.3.1 Climatic Conditions

Figure 2 depicts the deviation from average monthly precipitation as a context for the soil vapor monitoring program acknowledging that subsurface vapor transport is influenced by

[2] Sanborn, Head & Associates, Inc. November 14, 2014, Annual Report – Soil Vapor Monitoring through August 2014.

[3] Sanborn, Head & Associates, Inc. April 30, 2015, Semiannual Data Report – Soil Vapor Monitoring through February 2015.

soil moisture conditions which are in turn influenced by infiltration and precipitation. As shown by the plot below-average precipitation was recorded for several years prior to the start of the Groundwater Vapor Project in 2002. Substantially wetter than average conditions were recorded starting in late 2003 through 2007 and in 2011 through 2014. Overall, 2015 to date has seen above average precipitation, primarily due to a particularly wet June. Most other months, including July and August nearest to when the latest sampling was conducted, exhibited below average precipitation. The climatologic data are included as Appendix B.1.

1.3.2 Groundwater Level Conditions

Table 1 provides the construction details for the monitoring implants along with groundwater level conditions at the time of their installation, as well as in August 2012. A comparison of water levels recorded for May 2015 against those time periods indicates:

- Water levels generally remain higher than those recorded in 2004 when many of the monitoring points were installed, by over 2 feet in places ;
- Locations continuing to exhibit higher groundwater levels include those adjacent to injection points, as well as many locations located south of East Main Street; and
- Twenty-two implants are near wells exhibiting water levels within 1 foot of what was recorded during installation in 2004.

1.4 Quality Assurance/Quality Control (QA/QC) for the Monitoring Period

QA/QC measures include field screening of gas samples, and laboratory testing of quality assurance samples including duplicates, equipment blanks, and laboratory control samples. Data collected during the period were considered usable and met the project data quality objectives. A brief analysis of field duplicate relative percent difference (RPD) and average reporting limit (RL) is presented in the table below.

	February 2015	August 2015
Range of RPD (%)	0 to 3.3%	2 to 200%
Location RPD >30%	N/A	EN04-9D, EN04-30D, EN04-34S
Average TCE RL	4.8 µg/m^3	4.3 µg/m^3

About 67% of the duplicate analytical results exhibited RPD or precision within the data quality objectives established for the monitoring program. For the locations exhibiting duplicate imprecision, TCE results more consistent with recent observations are shown on the time series plots included in Appendix B.2.

2.0 DATA AND FINDINGS

Overall, the data from sampling of soil vapor monitoring points continue to support the geographic limits of ventilation as conservative and protective and substantially diminished vapor intrusion potential.

A systematic review of the groundwater quality data depicted on the graphical plots in Appendix B.2 indicates that approximately 75% of monitoring locations, TCE source concentrations in groundwater have been substantially diminished under conditions of pumping and re-injection. Samples of subsurface gas from the downgradient limit of monitoring now exhibit a presence of TCE that is diminished by orders of magnitude compared to observations recorded when monitoring began. As discussed below, the data recorded in 2014 and 2015 indicate substantially similar vapor concentrations that support that TCE concentrations have been reduced to the point where we believe that vapor intrusion potential has likely been largely diminished over the majority of the mitigation area. The rate of further improvement may be slower due to the diminishing returns driven by diffusion under lower concentration gradients.

2.1 Graphical Comparison of TCE Vapor Concentrations – 2004 and 2015

Plan view graphics prepared to aid in communicating TCE soil vapor concentrations are included as Figure 3. Views 3A and 3B were generated based on data recorded during the first three months of sampling after vapor implants were installed in August 2004. Views 3C and 3D represent data recorded about 11 years later through October 2015. The images continue to support an overall lower presence of TCE in vapor both at foundation and water table depth since establishment of the limits of ventilation. A review of the images provided as Figure 3 indicates:

- TCE concentrations at foundation depth are lower by an order of magnitude or more at most locations;
- Of the 28 locations included in regular monitoring since 2004, about one-third of samples from foundation depth and two-thirds from water table depth are now indicating TCE concentrations at least an order of magnitude below those recorded in 2004;
- The data for monitoring locations constructed between 2004 and 2006 indicate steady or declining concentrations.

A comparison of this Figure 3 with that included in the 2014 annual report indicates similar order of magnitude TCE concentrations with only marginally lower concentrations in samples from near water table depth. This observation is consistent with expectations of diminishing rates of VOC mass transfer driven by diffusion.

Importantly, it is noted that the data from 2014 and 2015 now indicate that the potential for actionable vapor intrusion has likely been substantially diminished over the majority of the mitigation area. Facts that support this assertion include:

- The data from the majority of foundation depth implants now indicate concentrations within ½ an order of magnitude or below the 100 µg/m^3 TCE threshold in gas samples collected from subslab and foundation depth that was used to support blanket ventilation decisions (>500 µg/m^3). It is important to note that the 100 µg/m^3 threshold was established as the concentration in subsurface gas where only traces of TCE were believed likely to be detectable in indoor air in the majority of structures at or near detection limits at least an order of magnitude below present standards that have been since established by NYSDOH as protective of health for residential exposures.

  Acknowledging the widely spaced monitoring locations the data suggests that vapor intrusion potential may be largely diminished beneath about 80% of the primary mitigation area. The highest concentrations that remain are generally located beneath paved parking lot areas where there are no buildings.

- As important, the data derived from sampling of implants near water table depth indicate substantially reduced concentrations; with 11 locations producing samples exhibiting less than 100 µg/m^3, compared to only 4 locations when sampling began. Again acknowledging the widely spaced locations, the data suggests that vapor intrusion potential may be largely diminished beneath at least two-thirds of the primary ventilation area.

- Our experience in over a decade of vapor intrusion investigation and mitigation suggests that the changes in concentration may actually under-predict reductions in vapor intrusion potential which is driven by rates of mass transfer not concentrations.

3.0 CONCLUSIONS

IBM has successfully implemented a program of soil vapor monitoring for over 11 years since establishment of the limits of ventilation. The data continue to support the limits of ventilation as conservative in that all of the monitoring locations near the ventilation limits have exhibited only trace concentrations, or a stable or declining VOC presence. Overall, the data continue to indicate a declining VOC presence in soil vapor that that we believe is attributable to both natural processes and IBM's remediation efforts. We recommend that soil vapor monitoring continue at the schedule implemented since 2011.

TABLE

TABLE 1
Summary of Soil Vapor Monitoring Implants Installations
Annual Report - Soil Vapor Monitoring Through August 2015
Endicott, New York

Location Designation [1]	Installation Date	Implant Type [2]		Subsurface Conditions at Installation					Completion Details	Groundwater Conditions At Installation			August 2012 Groundwater Conditions		
		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well [3]	Date Recorded/ Depth to Water Table [4]	Date Recorded/ Depth to Water Table [4]	Nominal Implant Depth (ft. bgs)	Inferred Stratum Screened		Vadose Zone Between Shallow and Deep Implants [6] (ft)	Distance Above Water Table [5] (ft)	Saturated Screened Interval [7] (ft)	Distance Above Water Table [5] (ft)	Saturated Screened Interval [7] (ft)	Difference [8] (ft)
EN04-1S	Jul-04		X	EN-094	7/26/04 28.47	1/24/07	8	Fill Over Sand	0-1' Concrete Surface Seal 1-6.8 Bentonite Seal 6.8-8.5' Sand Filter Pack 8-8.5' Screened Interval	13.5	5.5	10.5	6.3	9.7	-0.8
EN04-1D	Jul-04						23	Sand	0-1' Concrete Surface Seal 1-22' Bentonite Seal 22-23' Glass Bead Filter Pack 22.5-23' Screened Interval						
EN04-2S	Jul-04	X		EN-450	8/5/04 25.17		8	Fill	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	11	5.2	4.8	4.7	5.3	0.5
EN04-2D	Jul-04						20	Sand & Gravel	0-1' Concrete Surface Seal 1-19' Bentonite Seal 19-20' Glass Bead Filter Pack 19.5-20' Screened Interval						
EN04-3S	Jul-04		X	EN-203	7/26/04 24.86		8	Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	10	5.9	10.1	5.2	10.8	0.7
EN04-3D	Jul-04						19	Sand	0-1' Concrete Surface Seal 1-18' Bentonite Seal 18-19' Glass Bead Filter Pack 18.5-19' Screened Interval						
EN04-4S	Jul-04		X	EN-022	8/5/04 22.98		8	Fill	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	8	6	0	5.6	0.4	0.4
EN04-4D	Jul-04						17	Gravel	0-1' Concrete Surface Seal 1-16' Bentonite Seal 16-17' Glass Bead Filter Pack 16.5-17' Screened Interval						
EN04-5S	Jul-04		X	EN-459A	8/18/04 40.01		8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	25	5	10	8.9	6.1	-3.9
EN04-5D	Jul-04						34	Sand	0-1' Concrete Surface Seal 1-33' Bentonite Seal 33-34' Glass Bead Filter Pack 33.5-34' Screened Interval						
EN04-6S	Jul-04		X	EN-310	7/29/04 <28		8	Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	18	1	0	1	0	0
EN04-6D	Jul-04						27	Sand & Gravel	0-1' Concrete Surface Seal 1-26' Bentonite Seal 26-27' Glass Bead Filter Pack 26.5-27' Screened Interval						
EN04-7S	Jul-04	X		EN-311	7/28/04 43.7		8	Sand Over Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	25	9.7	1.3	10.2	0.8	-0.5
EN04-7D	Jul-04						34	Poorly Sorted Sand	0-1' Concrete Surface Seal 1-33' Bentonite Seal 33-34' Glass Bead Filter Pack 33.5-34' Screened Interval						
EN04-9S	Jul/Aug-02	X		EN-279	11/3/03 26.23		8	Well Sorted Sand	0-2' Concrete Surface Seal 2-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	11	6	2.1	>8.1	0.0	<-2.1
EN04-9D	Jul/Aug-02						20	Well Sorted Sand	0-2' Concrete Surface Seal 2-19' Bentonite Seal 19-20' Glass Bead Filter Pack 19.5-20' Screened Interval						

TABLE 1
Summary of Soil Vapor Monitoring Implants Installations
Annual Report - Soil Vapor Monitoring Through August 2015
Endicott, New York

Location Designation [1]	Installation Date	Implant Type [2]		Subsurface Conditions at Installation					Completion Details	Groundwater Conditions At Installation			August 2012 Groundwater Conditions		
		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well [3]	Date Recorded/ Depth to Water Table [4]	Date Recorded/ Depth to Water Table [4]	Nominal Implant Depth (ft. bgs)	Inferred Stratum Screened		Vadose Zone Between Shallow and Deep Implants [6] (ft)	Distance Above Water Table [5] (ft)	Saturated Screened Interval [7] (ft)	Distance Above Water Table [5] (ft)	Saturated Screened Interval [7] (ft)	Difference [8] (ft)
EN04-10S	Jul/Aug-02	X		EN-077	11/3/04 26.18		8	Gravel	0-2' Concrete Surface Seal 2-6.5' Bentonite Seal 6.5-7.5' Glass Bead Filter Pack 7-7.5' Screened Interval	11.2	6.3	1.3	5.8	1.8	0.5
EN04-10D	Jul/Aug-02						20	Well Sorted Sand	0-2' Concrete Surface Seal 2-18.7' Bentonite Seal 18.7-19.7' Glass Bead Filter Pack 19.2-19.7' Screened Interval						
EN04-11S	Jul-04	X		EN-215A	7/29/04 28.17		8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8.5' Sand Filter Pack 8-8.5' Screened Interval	11.5	7.2	7.2	5.1	9.3	2.1
EN04-11D	Jul-04						21	Well Sorted Sand	0-1' Concrete Surface Seal 1-20' Bentonite Seal 20-21' Glass Bead Filter Pack 20.5-21' Screened Interval						
EN10-11D	May-10			EN-215	5/12/10 34		30	Sand & Gravel	0-1' Concrete Surface Seal 1-3' Sand 3-5' Bentonite Chips 5-10' Sand 10-18' Grout 18-25.6' Sand 25.6-29 Powdered Bentonite 29-30' Glass Bead Filter Pack 29.5-30' Screened Interval	22	4	15.2	NA	19.5	4.3
EN04-12S	Jul-04	X		EN-214A	7/30/04 25.18		8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	10	6.2	11.8	6.57	11.4	-0.4
EN04-12D	Jul-04						19	Sand & Gravel	0-1' Concrete Surface Seal 1-18' Bentonite Seal 18-19' Glass Bead Filter Pack 18.5-19' Screened Interval						
EN04-13S	Jul-04	X		EN-449	7/29/04 36.05		8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	21	6	13.5	6.2	13.3	-0.2
EN04-13D	Jul-04						30	Sand & Gravel	0-1' Concrete Surface Seal 1-29' Bentonite Seal 29-30' Glass Bead Filter Pack 29.5-30' Screened Interval						
EN04-14S	Jul-04	X		EN-462	8/5/04 40.09		8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	25	5	4	5.5	3.5	-0.5
EN04-14D	Jul-04						34	Poorly Sorted Sand	0-1' Concrete Surface Seal 1-33' Bentonite Seal 33-34' Glass Bead Filter Pack 33.5-34' Screened Interval						
EN04-15S	Jul-04		X	EN-162	7/29/04 35.33		8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	21	5.3	6.2	5.4	6.1	-0.1
EN04-15D	Jul-04						30	Sand & Gravel	0-1' Concrete Surface Seal 1-29' Bentonite Seal 29-30' Glass Bead Filter Pack 29.5-30' Screened Interval						
EN04-16S	Jul-04	X		EN-206	7/27/04 39.54		8	Fill	0-1' Concrete Surface Seal 1-7.3' Bentonite Seal 7.3-8.5' Sand Filter Pack 8-8.5' Screened Interval	24.5	5.5	10.5	5.7	10.3	-0.2
EN04-16D	Jul-04						34	Sand & Gravel	0-1' Concrete Surface Seal 1-33' Bentonite Seal 33-34' Glass Bead Filter Pack 33.5-34' Screened Interval						

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EN04-17S	Jul-04	X		EN-401	7/29/04 35.5		8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	19	7.5	3.5	8.3	2.7	-0.8
EN04-17D	Jul-04						28	Sand & Gravel	0-1' Concrete Surface Seal 1-27' Bentonite Seal 27-28' Glass Bead Filter Pack 27.5-28' Screened Interval						
EN10-17D	May-10				5/13/10 38		34	Sand & Gravel	0-1' Concrete Surface Seal 1-3' Sand 3-5' Bentonite Chips 5-10' Sand 10-25' Grout 25-30' Sand 30-33' Powdered Bentonite 33-34' Glass Bead Filter Pack 33.5-34' Screened Interval	26	4	1	NA	2.7	1.7
EN04-18S	Jul-04		X	EN-217A	7/29/04 36.69		8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	22	5.9	5.3	6.1	5.1	-0.2
EN04-18D	Jul-04						31	Sand & Gravel	0-1' Concrete Surface Seal 1-30' Bentonite Seal 30-31' Glass Bead Filter Pack 30.5-31' Screened Interval						
EN04-19S	Jul-04	X		EN-426	7/26/04 35.39		8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	20.5	5.9	4.6	9.3	1.3	-3.4
EN04-19D	Jul-04						29.5	Sand & Gravel	0-1' Concrete Surface Seal 1-28.5' Bentonite Seal 28.5-29.5' Glass Bead Filter Pack 29-29.5' Screened Interval						
EN04-20S	Jul-04		X	EN-207	7/27/04 43.2		8	Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	25.5	7.7	4.3	8.0	4.0	-0.3
EN04-20I	Jul-04						24	Gravel	0-1' Concrete Surface Seal 1-23' Bentonite Seal 23-24' Glass Bead Filter Pack 23.5-24' Screened Interval	9.5					
EN04-20D	Jul-04						36	Sand	0-1' Concrete Surface Seal 1-20' Formation Material 20-33.5' Bentonite Seal 33.5-35.5' Glass Bead Filter Pack 35-35.5' Screened Interval						
EN04-21S	Jul-04		X	EN-468	10/14/04 34.43		7.5	Sand & Gravel	0-1' Concrete Surface Seal 1-6.5' Bentonite Seal 6.5-7.5' Glass Bead Filter Pack 7-7.5' Screened Interval	14.5	12	4	13.7	2.3	-1.7
EN04-21D	Jul-04						23	Sand & Gravel	0-1' Concrete Surface Seal 1-12' Formation Material 12-22' Bentonite Seal 22-23' Glass Bead Filter Pack 22.5-23' Screened Interval						
EN04-22S	Jul/Aug-02	X		EN-80* and EN-393*	7/27/04 18.75		8	Well Sorted Sand	0-2' Concrete Surface Seal 2-7.1' Bentonite Seal 7.1-7.5' Glass Bead Filter Pack 7.5-8' Screened Interval	7	2.8	6	3.1	5.7	-0.3
EN04-22D	Jul/Aug-02						16	Well Sorted Sand	0-2' Concrete Surface Seal 2-15' Bentonite Seal 15-16' Glass Bead Filter Pack 15.5-16' Screened Interval						

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Annual Report - Soil Vapor Monitoring Through August 2015
Endicott, New York

Location Designation [1]	Installation Date	Implant Type [2]		Subsurface Conditions at Installation					Completion Details	Groundwater Conditions At Installation			August 2012 Groundwater Conditions		
		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well [3]	Date Recorded/ Depth to Water Table [4]	Date Recorded/ Depth to Water Table [4]	Nominal Implant Depth (ft. bgs)	Inferred Stratum Screened		Vadose Zone Between Shallow and Deep Implants [6] (ft)	Distance Above Water Table [5] (ft)	Saturated Screened Interval [7] (ft)	Distance Above Water Table [5] (ft)	Saturated Screened Interval [7] (ft)	Difference [8] (ft)
EN04-23S	Jul-04		X	EN-174	7/30/04 26.48		8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	14	3.5	4.5	6.1	1.9	-2.6
EN04-23I	Jul-04						15	Well Sorted Sand	0-1' Concrete Surface Seal 1-14' Bentonite Seal 14-15' Glass Bead Filter Pack 14.5-15' Screened Interval	7					
EN04-23D	Jul-04						23	Well Sorted Sand	0-1' Concrete Surface Seal 1-22' Bentonite Seal 22-23' Glass Bead Filter Pack 22.5-23' Screened Interval						
EN04-24S	Jul-04		X	EN-65	7/29/04 22.89		8	Fill	0-1' Concrete Surface Seal 1-6.5' Bentonite Seal 6.5-8.5' Sand Filter Pack 8-8.5' Screened Interval	9.5	3.9	17.8	6.4	15.3	-2.5
EN04-24D	Jul-04						19	Poorly Sorted Sand	0-1' Concrete Surface Seal 1-18' Bentonite Seal 18-19' Glass Bead Filter Pack 18.5-19' Screened Interval						
EN04-25S	Aug-04		X	EN-395	7/29/04 18.88		8	Fill	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	8.5	1.4	5	2.7	3.7	-1.3
EN04-25D	Aug-04						17.5	Sand & Gravel	0-1' Concrete Surface Seal 1-16.5' Bentonite Seal 16.5-17.5' Glass Bead Filter Pack 17-17.5' Screened Interval						
EN04-26S	Jul-04	X		EN-304	7/30/04 17.39		8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	5	3.4	6.6	3.9	6.1	-0.5
EN04-26D	Jul-04						14	Sand & Gravel	0-1' Concrete Surface Seal 1-13' Bentonite Seal 13-14' Glass Bead Filter Pack 13.5-14' Screened Interval						
EN04-27S	Jul-04		X	EN-417A	7/29/04 8.91		8	Fill	0-1' Concrete Surface Seal 1-6' Bentonite Seal 6-7' Glass Bead Filter Pack 6.5-7' Screened Interval	-	0.9	14	NM	NM	NM
EN07-28S	Jun-07		X	EN-387A	6/5/2007 22		7	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	11	3	9.5	5.8	6.7	-2.8
EN07-28I	Jun-07						10	Sand & Gravel	0-1' Concrete Surface Seal 1-9' Bentonite Seal 9-10' Glass Bead Filter Pack 9.5-10' Screened Interval						
EN07-28D	Jun-07						19	Well Sorted Sand	0-1' Concrete Surface Seal 1-18' Bentonite Seal 18-19' Glass Bead Filter Pack 18.5-19' Screened Interval						
EN05-29S	4/18/2005	X		EN-437	8/5/04 23.87		7.5	Well Sorted Sand	0-1' Concrete Surface Seal 1-5.5' Bentonite Seal 5.5-7.5' Glass Bead Filter Pack 7-7.5' Screened Interval	11	3.9	11.1	6.5	8.5	-2.6
EN05-29I	4/18/2005						12.5	Well Sorted Sand	0-1' Concrete Surface Seal 1-11' Bentonite Seal 11-12.5' Glass Bead Filter Pack 12-12.5' Screened Interval						
EN04-29D	Jul-04						20	Well Sorted Sand	0-1' Concrete Surface Seal 1-19' Bentonite Seal 19-20' Glass Bead Filter Pack 19.5-20' Screened Interval						

TABLE 1
Summary of Soil Vapor Monitoring Implants Installations
Annual Report - Soil Vapor Monitoring Through August 2015
Endicott, New York

Location Designation [1]	Installation Date	Implant Type [2]		Subsurface Conditions at Installation					Completion Details	Groundwater Conditions At Installation			August 2012 Groundwater Conditions		
		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well [3]	Date Recorded/ Depth to Water Table [4]	Date Recorded/ Depth to Water Table [4]	Nominal Implant Depth (ft. bgs)	Inferred Stratum Screened		Vadose Zone Between Shallow and Deep Implants [6] (ft)	Distance Above Water Table [5] (ft)	Saturated Screened Interval [7] (ft)	Distance Above Water Table [5] (ft)	Saturated Screened Interval [7] (ft)	Difference [8] (ft)
EN04-30S	Jul-04	X		EN-438	8/5/04 26.02		9	Well sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	11	6	8	3.2	10.8	2.8
EN04-30D	Jul-04						20	Well Sorted Sand	0-1' Concrete Surface Seal 1-19' Bentonite Seal 19-20' Glass Bead Filter Pack 19.5-20' Screened Interval						
EN04-31S	Aug-04		X	EN-453	8/25/04 19.48		10	Well sorted Sand	0-1' Concrete Surface Seal 1-9' Bentonite Seal 9-10 Glass Bead Filter Pack 9.5-10' Screened Interval	8	0.5	12	0.3	12.2	0.2
EN04-31D	Aug-04						19	Well Sorted Sand	0-1' Concrete Surface Seal 1-18' Bentonite Seal 18-19' Glass Bead Filter Pack 18.5-19' Screened Interval						
EN04-32S	Aug-04		X	EN-457A	8/23/04 21.36		8	Well sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	9	3.4	5	2.9	5.5	0.5
EN04-32D	Aug-04						18	Sand	0-1' Concrete Surface Seal 1-17' Bentonite Seal 17-18' Glass Bead Filter Pack 17.5-18' Screened Interval						
EN05-33S	Apr-05	X		EN-162	4/19/04 34.36		7.5	Well Sorted Sand	0-1' Concrete Surface Seal 1-5.8' Bentonite Seal 5.8-7.5' Glass Bead Filter Pack 7-7.5' Screened Interval	22.5	2.3	6.2	3.3	5.2	-1.0
EN05-33I21	Apr-05						21.5	Well Sorted Sand	0-1' Concrete Surface Seal 1-19' Bentonite Seal 19-21.5' Glass Bead Filter Pack 21-21.5' Screened Interval						
EN05-33I29	Apr-05						29	Poorly Sorted Sand and Gravel	0-1' Concrete Surface Seal 1-27.7' Bentonite Seal 27.7-29' Glass Bead Filter Pack 28.5-29' Screened Interval						
EN05-33D	Apr-05						32	Well Sorted Sand	0-1' Concrete Surface Seal 1-30' Bentonite Seal 30-32' Glass Bead Filter Pack 31.5-32' Screened Interval						
EN05-34S	Apr-05	X		EN-304	4/18/2004 16.67		8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	4	3.2	6.6	NM	NM	NM
EN05-34I	Apr-05						11	Well Sorted Sand	0-1' Concrete Surface Seal 1-10' Bentonite Seal 10-11' Glass Bead Filter Pack 10.5-11' Screened Interval						
EN05-34D	Apr-05						13.5	Well Sorted Sand	0-1' Concrete Surface Seal 1-12' Bentonite Seal 12-13.5' Glass Bead Filter Pack 13-13.5' Screened Interval						
EN06-35S	Jan-06		X	EN-460A	8/11/04 40.2		8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7.2' Bentonite Seal 7.2-8.5' Glass Bead Filter Pack 7.5-8' Screened Interval	25.3	6.2	10	10.0	6.2	-3.8
EN06-35I16	Jan-06						16	Poorly Sorted Sand and Gravel	8.5-14.7' Bentonite Seal 14.7-16.6' Glass Bead Filter Pack 15.5-16' Screened Interval						
EN06-35I24	Jan-06						24	Well Sorted Sand	16.6-22.3' Bentonite Seal 22.3-24.3' Glass Bead Filter Pack 23.5-24' Screened Interval						
EN06-35D	Jan-06						34	Poorly Sorted Sand and Gravel	24.3-33.3' Bentonite Seal 33.3-34.3' Glass Bead Filter Pack 33.8-34.3' Screened Interval						

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EN06-36S	Jan-06		X	EN-459A	8/18/04 40.01		8	Well Sorted Sand	0-1' Concrete Surface Seal 1-6.9' Bentonite Seal 6.9-8.6' Sand Filter Pack 7.5-8.0' Screened Interval	23.8	7	10	10.9	6.1	-3.9
EN06-36I12	Jan-06						12	Poorly Sorted Sand and Gravel	8.6-10.5 Bentonite Seal 10.5-11.5' Glass Bead Filter Pack 11.5-12.' Screened Interval						
EN06-36I22	Jan-06						22	Well Sorted Sand	12.5-20.9' Bentonite Seal 20.9-22.5' Glass Bead Filter Pack 21.5-22.' Screened Interval						
EN06-36D	Jan-06						33	Poorly Sorted Sand and Gravel	22.5-31.8' Bentonite Seal 31.8-34' Glass Bead Filter Pack 32.5-33' Screened Interval						
EN06-37S	Jan-06		X	EN-394	7/27/04 22.3		8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	12	1.3	3.2	2.0	2.5	-0.7
EN06-37I	Jan-06						12	Well Sorted Sand	0-1' Concrete Surface Seal 1-11' Bentonite Seal 11-12' Glass Bead Filter Pack 11.5-12' Screened Interval						
EN06-37D	Jan-06						21	Well Sorted Sand	0-1' Concrete Surface Seal 1-20' Bentonite Seal 20-21' Glass Bead Filter Pack 20.5-21' Screened Interval						

Notes:
1. This table is intended to summarize implant depths, subsurface conditions , completion details, and quarterly sampling schedule for routine monitoring of soil vapor implants used as part of IBM's Comprehensive Operations, Maintenance and Monitoring program in Endicott, New York.

2. Remediation Progress Monitoring implants are intended to monitor ongoing groundwater remediation activities within and on the boundary of the area where IBM is currently remediating groundwater. Ventilation Progress Perimeter Monitoring implants are intended to monitor conditions at or near the limits of the Ventilation Area.

3. The "nearby monitoring wells" field identifies the monitoring well used to characterize groundwater quality proximate to the implant location, typically within 20 feet horizontally. Entries flagged with an asterisk are well locations more remote from the implant location.

4. The "depth to water table" field is based on depth to water measurements recorded from top of well casing (TOC) as measured by SHA and GSC personnel between July 26 and August 5, 2004 and by Sanborn Head on April 18 and 19, 2005. Water levels indicated by an asterisk are nominal water levels based on monitoring wells more than approximately 20 feet from the soil vapor implant.

5. The "Distance Above Water Table" field reflects the approximate vertical distance between the deep implant and the water table at the time of implant installation and in May 2012. During implant installation, drilling depths were generally targeted to 5' above the water table based on current available information. The actual separation will vary with fluctuations in water level conditions and may be greater or less.

6. The "Vadose Zone Between Shallow and Deep Implants" field identifies the thickness of unsaturated soils between the implants and represents to the distance between the top of the glass bead filter pack of the deeper implant and the bottom of the implant screen of the shallow implant.

7. The "Saturated Screened Interval" field lists the approximate thickness of upper aquifer that the well is screened across which is based on boring and well completion logs provided by others and the depth to water table recorded around the time of implant installation and in May 2008. The actual saturated screen interval will vary with fluctuations in groundwater levels.

8. The "Difference" field calculates the change in saturated screened interval from around the time of implant installation to August 2012. A negative number indicates the water table has dropped at that location. The change in saturated thickness was used to calculate an updated distance above water table for the deep implant at each location.

FIGURES

Notes

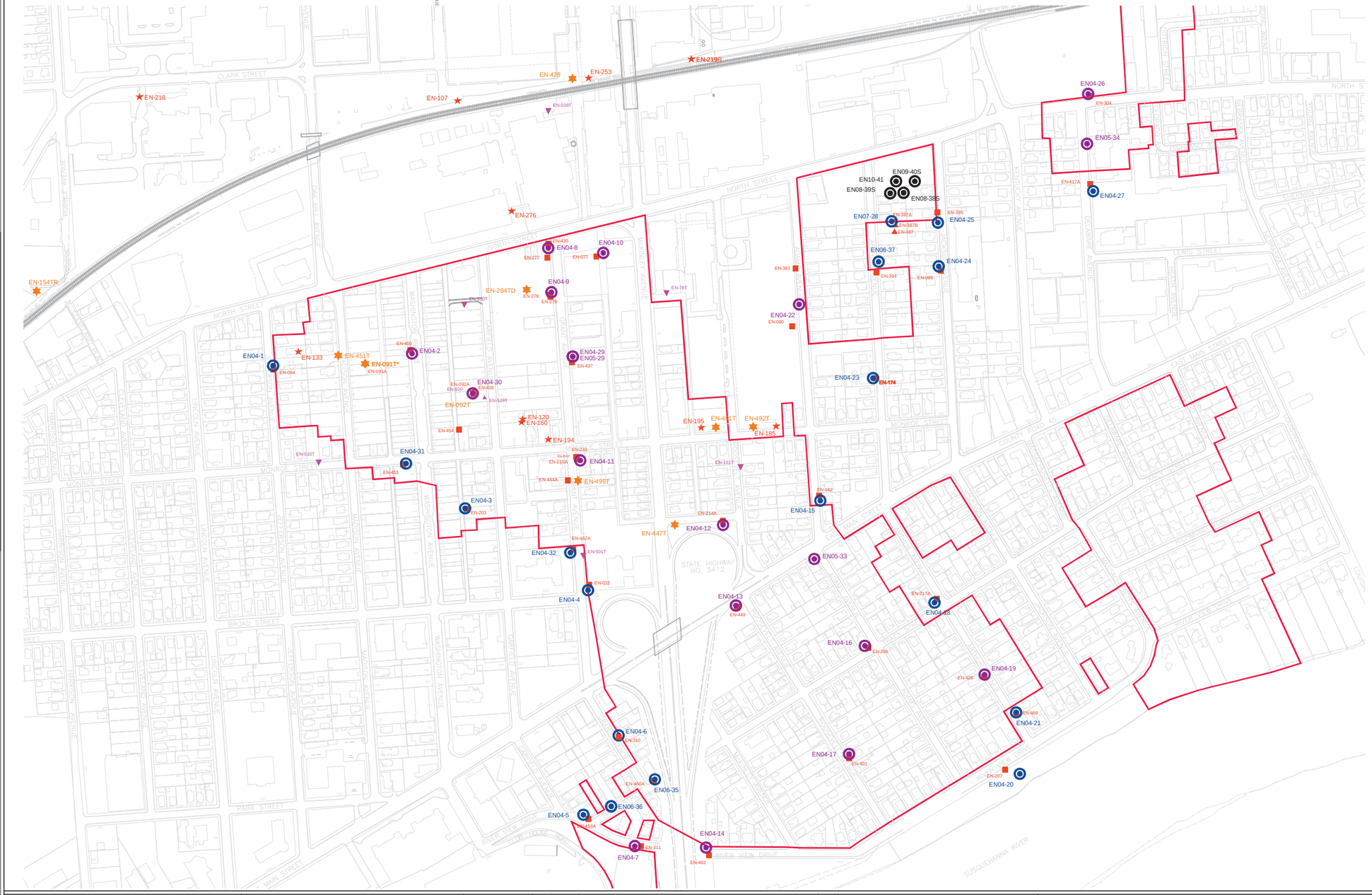
1. This figure is intended to depict soil vapor monitoring locations that have been established and maintained as part of the Comprehensive Operations, Maintenance & Monitoring Program. The locations of the soil vapor monitoring implants are based on taped measurements relative to physical features in the field and are accurate only to the degree implied by the method used.

2. The base map information presented below is adapted from four AutoCAD drawings entitled "Endicott2000.dwg", "Union2000.dwg", "Unionеast.dwg", and "Endicottpln.dwg". The drawings were provided by the Broome County mapping division and were received by Sanborn Head on October 10, 2002. The building outlines and other site features are based on an AutoCAD drawing entitled "9_03_base.dwg" provided by Groundwater Sciences Corporation (GSC) of Harrisburg, Pennsylvania to Sanborn Head in September 2003. The locations of groundwater monitoring and recovery wells are based on an AutoCAD drawing by GSC submitted to Sanborn Head on 05/17/2004 entitled "2007N006.dwg". The well locations are reportedly based on field surveys performed in 2003 and 2004. For wells installed in July and August 2004, well locations are based on northing and easting coordinates provided on draft well logs provided to Sanborn Head on 09/21/2004. Well locations installed since that time are based on drawings provided by GSC.

3. The limits of ventilation shown in red encompass properties where IBM has offered to install a ventilation system. The ventilation areas were identified under the review of the New York State Departments of Environmental Conservation and Health based on results of sampling foundation level soil vapor, substructure soil vapor, indoor air, and outdoor air completed between November 2002 and March 2005.

Legend

- Limits of Ventilation
- Mailing address, arrow indicates facing street
- EN04-1 — Soil Vapor Monitoring Location - Perimeter Monitoring
- EN04-1 — Soil Vapor Monitoring Location - Remediation Progress Monitoring
- EN08-1 — Soil Vapor Monitoring Location - OU# 4
- EN09-1 — Proposed Soil Gas Monitoring Implant
- EN-400 — Upper Aquifer Monitoring Well
- EN-428 — Upper Aquifer Interceptor Extraction Well
- EN-510T — Upper Aquifer Injection Well



SANBORN HEAD

GRAPHICAL SCALE
150' 75' 0 150' 300'

NO.	DATE	DESCRIPTION	BY

Drawn By: E. Wright
Designed By: E. Bosse
Reviewed By: D. Carr
Project Mgr: E. Bosse
Pic: D. Carr
Date: November 2015

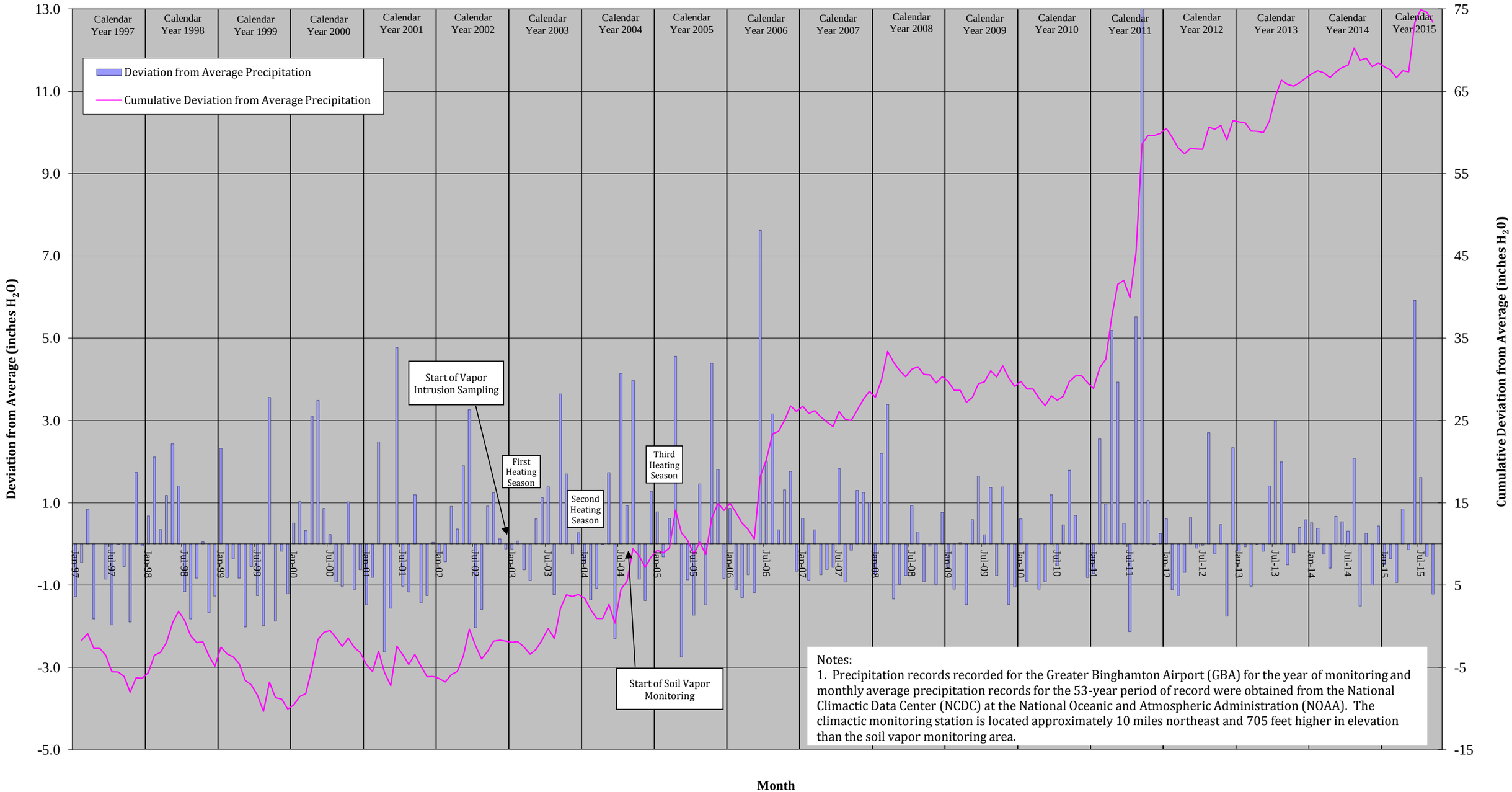
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance & Monitoring Program
Endicott, New York

Soil Vapor Implant Location Plan

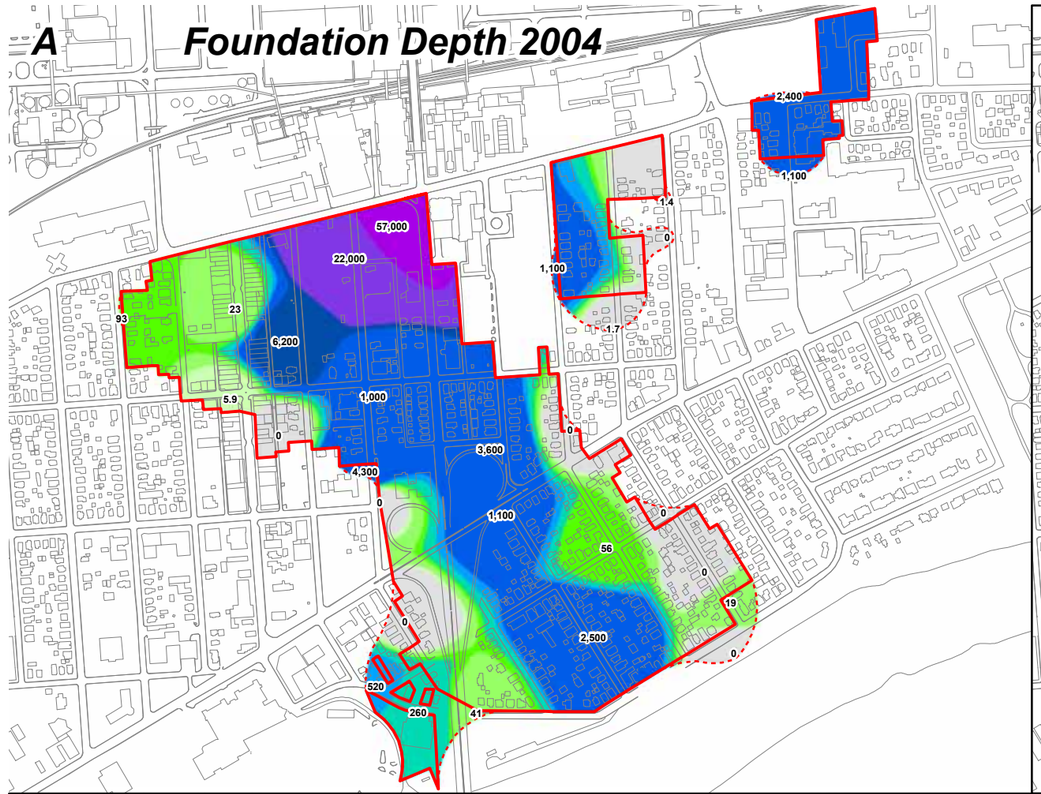
Project Number: 2755.07

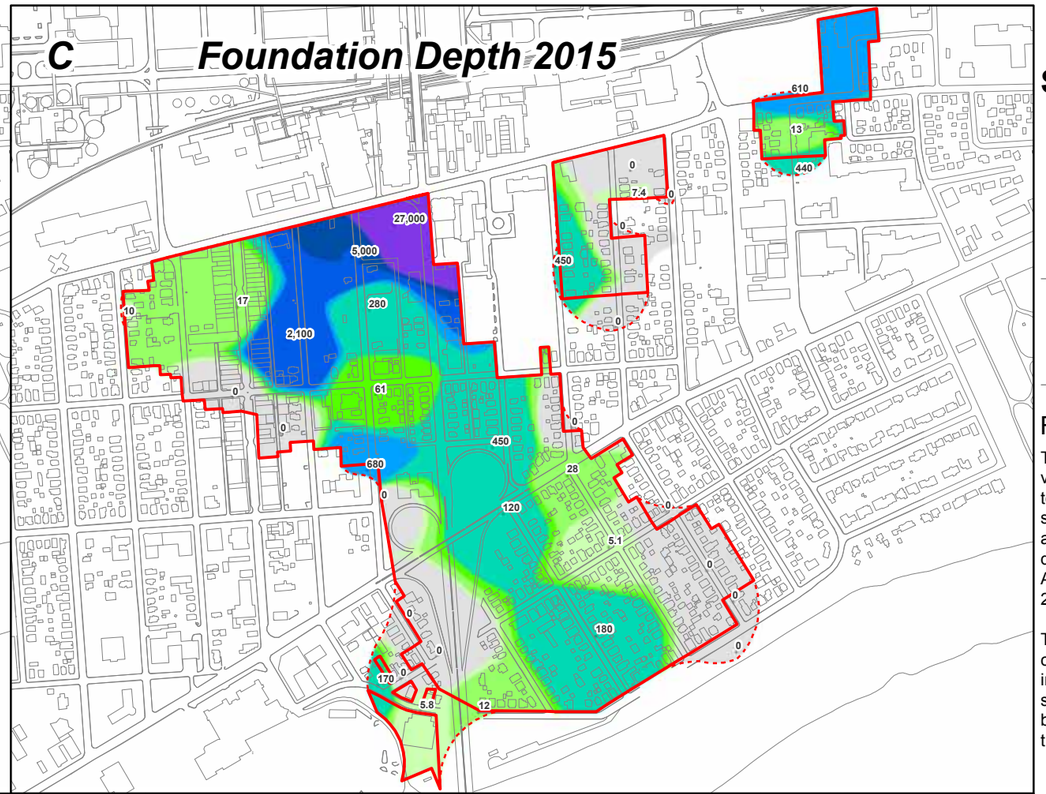
Figure Number: 1

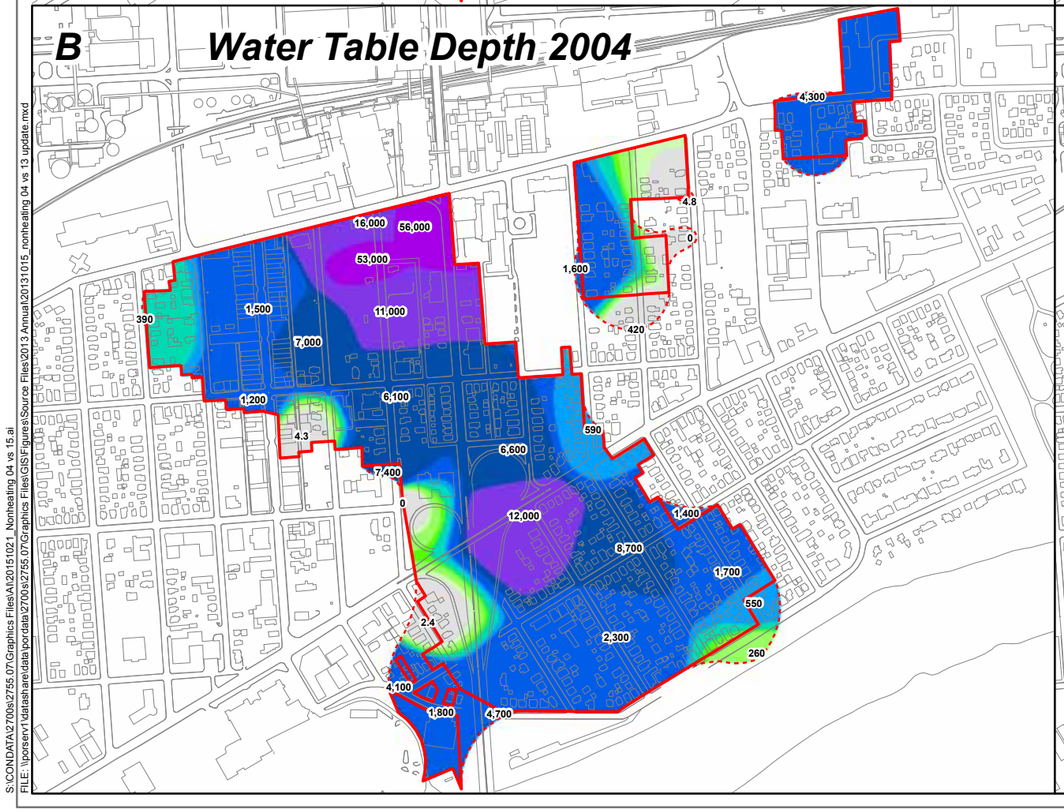
Figure 2
Historical Precipitation Records
Annual Report - Soil Vapor Monitoring through August 2015
Endicott, New York



Notes:
1. Precipitation records recorded for the Greater Binghamton Airport (GBA) for the year of monitoring and monthly average precipitation records for the 53-year period of record were obtained from the National Climactic Data Center (NCDC) at the National Oceanic and Atmospheric Administration (NOAA). The climactic monitoring station is located approximately 10 miles northeast and 705 feet higher in elevation than the soil vapor monitoring area.







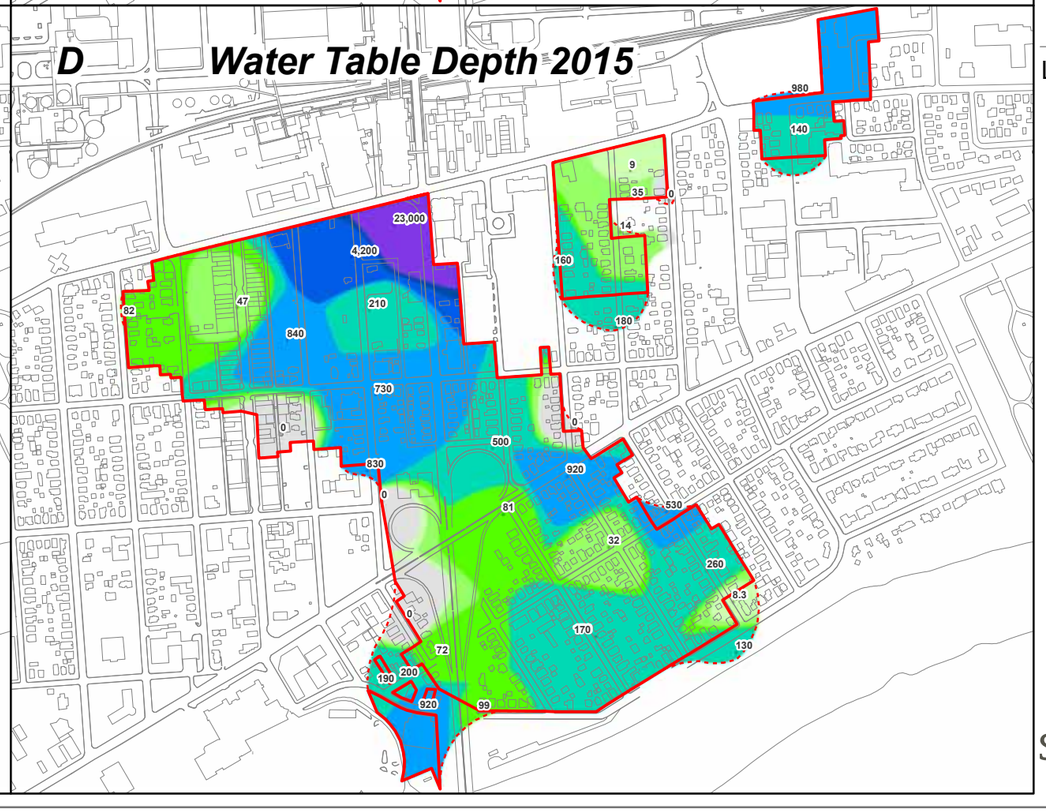


Figure 3

Comparisons of TCE Soil Vapor Concentrations Non Heating Season

Annual Report - Soil Vapor Monitoring Through August 2015

IBM

Endicott, New York

Drawn By:	C. LaVack
Designed By:	E. Bosse
Reviewed By:	D. Carr
Project No:	2755.07
Date:	November 2015

Figure Narrative

These figures depict TCE concentrations in soil vapor samples at different times and are intended to aid in communicating general temporal trends in soil vapor concentrations consistent with the available data. The non heating season images display an average of the data recorded between August and October 2004 compared to August 2015.

The images were created using uniform and consistent spatial statistical algorithms and are intended not as absolute indicators of the limits of soil vapor concentrations at a given time but a basis of comparison between data from different times.

Legend

340 — Soil Vapor Implant Location - TCE concentrations in micrograms per cubic meter (µg/m³)

Limits of Ventilation

µg/m³
0 - 5
5 - 10
10 - 50
50 - 100
100 - 500
500 - 1,000
1,000 - 5,000
5,000 - 10,000
10,000 - 50,000
50,000 - 100,000

N W E S

400 200 0 400 800 Feet

SANBORN HEAD

S:\CONDATA\2700s\2755.07\Graphics Files\A\20151021_Nonheating 04 vs 15.ai
FILE: \\porserv1\data\share\data\projdata\2700s\2755.07\Graphics Files\GIS Figures\Source Files\2013 Annual\20131015_nonheating 04 vs 13 update.mxd

APPENDIX A

LIMITATIONS

APPENDIX A
LIMITATIONS

1. The conclusions described in this report are based in part on the data obtained from a finite number of soil vapor, ambient air, soil, and groundwater samples from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further investigation is initiated. If variations or other latent conditions then appear evident, it may be necessary to re-evaluate the conclusions of this report.

2. The conclusions contained in this report are based in part upon various types of chemical data as well as historical and hydrogeologic information developed by previous investigators. While Sanborn Head has reviewed that data available to us at the time the report was prepared and information as stated in this report, any of Sanborn Head's interpretations and conclusions that have relied on that information will be contingent on its validity. Sanborn Head has not performed an independent assessment of the reliability of the data; should additional chemical data, historical information, or hydrogeologic information become available in the future, such information should be reviewed by Sanborn Head and the interpretations and conclusions presented herein may be modified accordingly.

3. Sampling and quantitative laboratory testing was performed by others as part of the investigation as noted within the report. Where such analyses have been conducted by an outside laboratory, unless otherwise stated in the report, Sanborn Head has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.

APPENDIX B

FIELD SAMPLING & LABORATORY ANALYSIS

APPENDIX B.1

CLIMATOLOGIC DATA

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 09/2014

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.206 Lon. -75.98
Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							Date
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC Depth	1800 UTC Water Equiv	2400 LST Snow Fall	2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 5-second Dir	max 2-minute Speed	max 2-minute Dir	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	79	66	73	8	67	69	0	8	0529	1838	BR	0	M	0.0	0.00	28.27	29.98	4.9	21	5.4	15	230	10	210	01
02	83	63	73	9	67	69	0	8	0530	1836	RA	0	M	0.0	0.66	28.17	29.87	7.7	23	8.5	45	290	31	290	02
03	76	61	69	5	57	61	0	4	0531	1835	BR	0	M	0.0	0.00	28.32	30.05	2.9	30	5.7	17	330	14	350	03
04	80	58	69	5	61	64	0	4	0532	1833		0	M	0.0	0.00	28.43	30.14	6.1	21	6.5	17	220	14	230	04
05	83*	65	74*	11	65	68	0	9	0533	1831	BR	0	M	0.0	0.00	28.38	30.07	7.2	21	7.4	22	200	15	210	05
06	79	58	69	6	62	64	0	4	0534	1830	RA BR	0	M	0.0	T	28.24	29.95	4.7	27	7.6	25	250	18	350	06
07	70	54	62	-1	50	55	3	0	0535	1828		0	M	0.0	0.00	28.40	30.16	4.3	34	6.5	16	300	12	300	07
08	72	46	59	-4	50	54	6	0	0536	1826		0	M	0.0	0.00	28.54	30.29	6.8	13	7.8	26	130	18	140	08
09	68	54	61	-1	55	58	4	0	0537	1825		0	M	0.0	0.00	28.49	30.21	7.5	14	8.2	18	150	15	140	09
10	72	58	65	3	58	61	0	0	0538	1823		0	M	0.0	0.00	28.34	30.04	8.5	17	8.8	25	200	17	190	10
11	76	55	66	5	59	61	0	1	0539	1821	RA BR	0	M	0.0	0.16	28.16	29.88	6.2	25	12.3	30	190	22	220	11
12	55	45	50	-11	45	48	15	0	0540	1819	RA BR	0	M	0.0	0.01	28.43	30.20	7.6	35	8.1	21	010	15	360	12
13	60	43	52	-9	48	49	13	0	0541	1818	RA BR	0	M	0.0	0.40	28.41	30.17	1.1	18	8.7	26	310	16	300	13
14	61	45	53	-7	42	47	12	0	0542	1816		0	M	0.0	0.00	28.51	30.27	5.1	35	6.9	20	330	15	350	14
15	64	45	55	-5	45	50	10	0	0544	1814	RA BR	0	M	0.0	0.06	28.44	30.17	3.1	22	4.6	14	220	12	250	15
16	62	47	55	-5	48	51	10	0	0545	1812	RA BR	0	M	0.0	0.44	28.30	30.04	4.3	30	5.2	18	270	14	270	16
17	64	44	54	-5	44	49	11	0	0546	1811	BR	0	M	0.0	0.00	28.29	30.03	2.7	27	4.4	16	280	12	260	17
18	66	43	55	-4	47	50	10	0	0547	1809	BR	0	M	0.0	0.00	28.31	30.07	4.5	33	5.6	22	350	17	360	18
19	61	37*	49*	-9	41	45	16	0	0548	1807		0	M	0.0	0.00	28.53	30.29	2.6	12	5.4	19	170	14	170	19
20	69	52	61	3	55	58	4	0	0549	1805		0	M	0.0	0.00	28.40	30.12	11.2	19	11.4	28	190	17	190	20
21	75	55	65	7	58	60	0	0	0550	1803	RA	0	M	0.0	0.01	28.07	29.74	7.4	21	9.5	29	270	23	260	21
22	56	43	50	-7	43	47	15	0	0551	1802	RA BR	0	M	0.0	0.03	28.20	29.98	9.1	29	9.5	29	280	21	290	22
23	67	40	54	-3	45	49	11	0	0552	1760		0	M	0.0	0.00	28.55	30.34	1.9	28	4.9	16	280	12	280	23
24	70	47	59	3	50	54	6	0	0553	1758		0	M	0.0	0.00	28.74	30.51	5.7	13	6.2	18	140	14	130	24
25	64	49	57	1	49	52	8	0	0554	1756		0	M	0.0	0.00	28.64	30.38	3.7	06	4.8	13	040	9	060	25
26	73	50	62	6	52	55	3	0	0555	1755		0	M	0.0	0.00	28.54	30.28	7.2	36	7.7	17	010	15	350	26
27	78	50	64	9	53	57	1	0	0556	1753	BR	0	M	0.0	0.00	28.53	30.26	4.2	35	4.9	16	360	13	340	27
28	78	50	64	9	55	60	1	0	0557	1751	BR	0	M	0.0	0.00	28.43	30.14	0.9	29	2.6	12	280	9	270	28
29	74	56	65	11	56	59	0	0	0558	1749	BR	0	M	0.0	0.00	28.25	29.96	2.4	15	3.1	13	170	9	160	29
30	72	54	63	9	58	59	2	0	0560	1748	TSRA RA BR	0	M	0.0	0.14	28.20	29.92	4.8	14	5.5	19	110	15	120	30
	70.2	51.1	60.7		52.8	56.1	5.4	1.3	<-----Monthly Averages | Totals----->			M	0.0	1.91	28.38	30.12	1.6	23	6.8	<Monthly Average				
	1.8	0.4	1.1	<----------Departure From Normal---------->											-1.71									

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	161	-33	227	-30
Cooling:	38	7	340	-39

Greatest 24-hr Precipitation: 0.66 Date: 02
Greatest 24-hr Snowfall: 0.0 Date: M
Greatest Snow Depth: 0 Date: M

	Sea Level Pressure	Date	Time (LST)
Maximum	30.57	24	0953
Minimum	29.59	21	1653

Number of Days with -------->
Max Temp >=90: 0
Max Temp <=32: 5
Thunderstorms : 1

Min Temp <=32: 0
Min Temp <=0 : 0
Heavy Fog : 0

Precipitation >=.01 inch: 9
Precipitation >=.10 inch: 5
Snowfall >=1.0 inch : 0

*** EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.**

Data Version: VER3

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 10/2014

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.206 Lon. -75.98
Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							Date
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC Depth	1800 UTC Water Equiv	2400 LST Snow Fall	2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 5-second Dir	max 2-minute Speed	max 2-minute Dir	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	69	54	62	8	56	58	3	0	0601	1746	RA BR	0	M	0.0	T	28.31	30.05	4.8	09	5.9	16	100	13	090	01
02	68	53	61	8	54	M	4	0	0602	1744	BR	0	M	0.0	0.00	M	M	3.2	15	3.9	10	210	8	210	02
03	68	52	60	7	53	56	5	0	0603	1743	RA	0	M	0.0	T	28.22	29.90	11.7	16	11.9	32	150	23	150	03
04	56	39	48	-4	47	49	17	0	0604	1741	RA BR	0	M	0.0	0.31	27.90	29.62	6.3	22	10.2	32	150	22	150	04
05	51	33	42	-10	33	38	23	0	0605	1739		0	M	0.0	0.00	28.06	29.83	8.2	23	8.4	22	220	17	250	05
06	63	40	52	0	39	46	13	0	0606	1737		0	M	0.0	T	28.19	29.93	11.7	17	11.9	32	160	23	160	06
07	64	54	59	8	47	52	6	0	0607	1736	RA	0	M	0.0	0.05	28.18	29.89	10.7	19	11.2	30	170	20	210	07
08	63	47	55	4	44	49	10	0	0608	1734	RA	0	M	0.0	0.13	28.07	29.81	11.2	25	12.5	36	250	29	260	08
09	61	41	51	0	35	43	14	0	0609	1732		0	M	0.0	T	28.22	29.98	7.7	27	8.9	31	260	24	260	09
10	58	38	48	-2	35	42	17	0	0611	1731		0	M	0.0	0.00	28.34	30.10	2.8	28	6.1	16	290	13	240	10
11	57	42	50	0	38	43	15	0	0612	1729		0	M	0.0	0.00	28.35	30.12	4.4	36	6.4	21	350	15	340	11
12	58	31	45	-5	34	40	20	0	0613	1728	BR	0	M	0.0	0.00	28.48	30.26	2.1	19	4.6	14	240	9	180	12
13	59	47	53	4	49	52	12	0	0614	1726		0	M	0.0	T	28.46	30.21	9.4	18	9.6	23	180	16	180	13
14	73*	59	66*	17	59	62	0	1	0615	1724		0	M	0.0	0.00	28.36	30.07	13.2	17	13.5	37	180	21	160	14
15	68	60	64	15	61	63	1	0	0616	1723	RA BR	0	M	0.0	1.94	28.20	29.88	7.5	14	10.4	32	150	24	250	15
16	68	52	60	12	55	57	5	0	0617	1721	RA BR	0	M	0.0	0.53	27.97	29.67	5.4	20	7.2	22	220	15	250	16
17	64	50	57	9	48	52	8	0	0619	1720	RA	0	M	0.0	T	27.94	29.64	9.8	22	10.1	27	220	18	220	17
18	59	42	51	3	46	48	14	0	0620	1718	RA	0	M	0.0	0.07	27.91	29.64	8.3	29	10.2	27	270	20	270	18
19	42	31	37*	-10	29	34	28	0	0621	1716	SN	0	M	T	0.01	28.21	30.00	10.2	32	11.2	30	340	23	350	19
20	51	32	42	-5	33	39	23	0	0622	1715		0	M	0.0	T	28.22	29.97	6.3	20	6.7	21	210	14	200	20
21	54	46	50	3	45	47	15	0	0623	1713	RA	0	M	0.0	T	28.14	29.89	1.8	15	4.6	12	180	9	020	21
22	50	43	47	0	44	46	18	0	0624	1712	RA BR	0	M	0.0	0.04	28.28	30.04	12.1	36	13.0	27	350	21	350	22
23	47	42	45	-1	41	43	20	0	0626	1710	RA BR	0	M	0.0	0.01	28.17	29.92	15.6	34	15.7	31	340	24	330	23
24	58	42	50	4	39	44	15	0	0627	1709		0	M	0.0	0.00	28.15	29.91	11.2	33	11.5	28	320	21	330	24
25	62	39	51	5	40	45	14	0	0628	1708	RA VCTS	0	M	0.0	0.10	28.04	29.74	7.6	25	9.3	34	340	23	340	25
26	49	41	45	0	37	42	20	0	0629	1706		0	M	0.0	0.10	27.95	29.71	10.2	29	10.8	41	340	29	330	26
27	57	36	47	2	35	42	18	0	0631	1705		0	M	0.0	0.00	28.22	29.98	3.8	26	6.9	22	270	16	280	27
28	72	49	61	16	44	53	4	0	0632	1703	RA	0	M	0.0	T	28.17	29.89	7.9	20	8.5	27	210	18	220	28
29	64	45	55	11	44	48	10	0	0633	1702	RA	0	M	0.0	T	28.16	29.89	5.5	29	6.4	24	280	20	280	29
30	46	36	41	-3	33	38	24	0	0634	1701		0	M	0.0	T	28.25	30.02	5.9	31	6.7	18	320	14	350	30
31	47	29*	38	-6	31	36	27	0	0635	1659	BR	0	M	0.0	0.00	28.22	29.97	2.8	09	4.8	14	060	10	060	31
	58.9	43.4	51.1		42.8	46.9	13.6	0.0	<-----Monthly Averages | Totals----->			M	T	3.29	28.17	29.90	3.0	24	9.0	<Monthly Average				
	2.1	3.3	2.6		<----------Departure From Normal---------->										-0.04									

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	423	-92	650	-122
Cooling:	1	-1	341	-40

Greatest 24-hr Precipitation: 2.47 Date: 15-16
Greatest 24-hr Snowfall: T Date: 19
Greatest Snow Depth: 0 Date: M

Sea Level	Pressure	Date	Time (LST)
Maximum	30.32	12	0854
Minimum	29.53	18	0541

Number of Days with -------->
Max Temp >=90: 0
Max Temp <=32: 0
Thunderstorms : 0

Min Temp <=32: 4
Min Temp <=0 : 0
Heavy Fog : 0

Precipitation >=.01 inch: 11
Precipitation >=.10 inch: 6
Snowfall >=1.0 inch : 0

*** EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.**

Data Version: VER3

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 11/2014

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.206 Lon. -75.98
Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							Date
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC Depth	1800 UTC Water Equiv	2400 LST Snow Fall	2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 5-second Dir	max 2-minute Speed	max 2-minute Dir	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	45	35	40	-3	32	36	25	0	0637	1658		0	M	T	T	28.17	29.95	12.5	36	13.1	34	010	24	360	01
02	40	28	34	-9	23	30	31	0	0638	1657	SN	0	M	T	T	28.27	30.07	16.1	34	17.5	43	360	32	350	02
03	57	29	43	0	19	36	22	0	0639	1656		0	M	0.0	0.00	28.34	30.12	9.6	29	11.0	33	280	22	290	03
04	62	48	55	13	25	42	10	0	0640	1654		0	M	0.0	0.00	28.31	30.04	9.5	21	9.7	27	210	20	220	04
05	58	42	50	8	32	42	15	0	0642	1653	RA	0	M	0.0	0.01	28.30	30.06	8.5	26	9.7	27	280	18	270	05
06	45	39	42	0	37	40	23	0	0643	1652	RA BR	0	M	0.0	0.19	28.11	29.82	2.7	08	6.6	22	340	16	330	06
07	39	30	35	-6	32	33	30	0	0644	1651	RA SN BR	0	M	0.2	0.16	28.01	29.79	9.7	32	10.3	28	330	21	330	07
08	42	27	35	-6	25	31	30	0	0645	1650		T	M	0.0	0.00	28.14	29.90	7.1	21	8.6	23	210	16	210	08
09	47	36	42	1	30	36	23	0	0647	1649	RA	0	M	0.0	T	28.14	29.92	4.2	24	5.8	21	250	15	270	09
10	58	38	48	8	31	40	17	0	0648	1648		0	M	0.0	0.00	28.29	30.06	7.1	18	7.8	23	160	15	170	10
11	61	41	51	11	41	46	14	0	0649	1647		0	M	0.0	0.00	28.22	29.95	9.2	17	9.4	28	190	17	160	11
12	55	33	44	4	37	42	21	0	0650	1646	RA	0	M	0.0	0.02	28.19	29.97	4.8	29	8.7	29	310	18	340	12
13	35	28	32	-7	26	30	33	0	0652	1645	SN BR	0	M	1.1	0.06	28.29	30.06	2.8	31	3.9	19	310	14	320	13
14	33	21	27	-12	19	25	38	0	0653	1644	SN	1	M	0.3	0.01	28.27	30.07	9.8	30	10.2	24	310	18	280	14
15	36	22	29	-10	18	25	36	0	0654	1643	SN BR	T	M	0.2	0.01	28.46	30.29	3.9	27	5.8	18	280	13	270	15
16	36	26	31	-7	21	28	34	0	0655	1642	SN	0	M	0.0	0.00	28.40	30.17	6.8	19	7.1	22	220	15	220	16
17	37	30	34	-4	32	M	31	0	0656	1641	RA FZRA SN BR	1	M	1.1	0.69	27.96	29.68	4.9	20	9.2	27	280	20	280	17
18	31	14	23	-14	6	16	42	0	0658	1640	SN	T	M	T	T	27.99	29.82	16.5	26	16.8	37	280	26	260	18
19	24	10*	17*	-20	5	15	48	0	0659	1640	SN	T	M	T	T	28.25	30.06	10.6	21	11.9	28	270	20	250	19
20	32	20	26	-11	11	22	39	0	0700	1639	SN	0	M	T	T	28.07	29.88	11.3	24	12.6	28	260	22	260	20
21	27	16	22	-14	11	18	43	0	0701	1638	SN HZ	0	M	0.3	T	28.41	30.28	8.6	28	9.8	24	310	18	310	21
22	38	16	27	-9	16	25	38	0	0702	1637	RA	0	M	0.0	0.11	28.46	30.25	11.4	21	11.6	29	220	21	220	22
23	48	37	43	7	31	39	22	0	0704	1637	RA	0	M	0.0	0.02	28.31	30.05	8.0	18	9.4	23	160	17	150	23
24	66*	46	56*	21	49	53	9	0	0705	1636	RA BR	0	M	0.0	0.28	27.85	29.55	13.5	19	15.1	40	190	26	200	24
25	56	33	45	10	26	36	20	0	0706	1636		0	M	0.0	0.00	28.15	29.94	11.2	25	12.3	40	260	30	250	25
26	33	26	30	-4	26	M	35	0	0707	1635	SN HZ	0	M	9.0	0.50	28.32	30.07	6.2	36	6.9	22	360	18	360	26
27	27	19	23	-11	23	27	42	0	0708	1635	SN BR HZ	7	M	1.3	0.03	28.20	30.00	4.9	30	5.4	16	300	12	310	27
28	25	15	20	-14	13	22	45	0	0709	1634	SN BR	7	M	0.2	T	28.35	30.17	6.5	30	7.2	27	290	18	300	28
29	31	13	22	-11	15	23	43	0	0710	1634		5	M	0.0	0.00	28.38	30.18	7.8	17	8.2	23	190	15	190	29
30	46	31	39	6	30	38	26	0	0712	1633	RA	3	M	0.0	0.01	28.24	30.00	8.9	18	9.7	22	170	15	220	30
	42.3	28.3	35.3		24.7	32.0	29.5	0.0	<-----Monthly Averages | Totals----->				M	13.7	2.10	28.23	30.00	4.6	25	9.7	<Monthly Average				
	-2.8	-3.1	-3.0	<----------Departure From Normal---------->											-1.20										

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	885	82	1535	-40
Cooling:	0	0	341	-40

Greatest 24-hr Precipitation: 0.69 Date: 17
Greatest 24-hr Snowfall: 9.0 Date: 26
Greatest Snow Depth: 1 Date: 28+

	Sea Level Pressure	Date	Time (LST)
Maximum	30.45	21	2353
Minimum	29.42	24	1453

Number of Days with -------->
Max Temp >=90: 0
Max Temp <=32: 7
Thunderstorms : 0

Min Temp <=32: 19
Min Temp <=0 : 0
Heavy Fog : 0

Precipitation >=.01 inch: 14
Precipitation >=.10 inch: 6
Snowfall >=1.0 inch : 4

*** EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.**

Data Version: VER3

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 12/2014

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.206 Lon. -75.98
Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							Date
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC Depth	1800 UTC Water Equiv	2400 LST Snow Fall	2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 5-second Dir	max 2-minute Speed	max 2-minute Dir	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	49	25	37	5	M	M	28	0	0713	1633	BR	0	M	0.0	T	28.41	M	9.0	32	11.9	28	310	20	350	01
02	34	19	27	-5	21	25	38	0	0714	1633	RA FZRA SN BR	0	M	0.4	0.24	28.68	30.47	6.4	13	11.2	28	170	21	150	02
03	39	29	34	2	32	35	31	0	0715	1633	RA SN BR	T	M	T	0.05	28.27	30.06	8.4	24	11.6	32	280	22	280	03
04	32	22	27	-4	17	24	38	0	0716	1632		0	M	0.0	0.00	28.54	30.38	3.3	30	6.8	20	340	15	330	04
05	34	18	26	-5	24	27	39	0	0717	1632	RA SN BR UP	0	M	T	0.25	28.64	30.44	8.5	15	9.0	20	150	15	150	05
06	35	28	32	2	32	M	33	0	0718	1632	RA SN BR	0	M	T	0.63	28.43	30.24	5.2	36	9.2	31	360	24	360	06
07	31	18	25	-5	15	22	40	0	0719	1632		0	M	0.0	0.00	28.74	30.59	10.9	01	11.6	32	020	25	010	07
08	27	15	21	-9	14	20	44	0	0720	1632	SN	0	M	T	T	28.71	30.51	9.6	13	11.1	26	140	20	140	08
09	34	27	31	2	30	31	34	0	0720	1632	RA FZRA SN BR UP	0	M	1.0	0.30	28.32	30.07	7.5	01	11.2	29	340	21	340	09
10	33	25	29	0	26	M	36	0	0721	1632	SN BR	2	M	6.7	0.35	27.99	29.75	13.9	33	14.3	37	330	25	340	10
11	25	21	23	-6	20	22	42	0	0722	1632	SN BR UP	8	M	2.8	0.16	27.93	29.74	8.5	29	8.8	20	270	15	270	11
12	28	21	25	-3	22	24	40	0	0723	1632	SN BR	7	M	T	T	28.17	30.00	8.5	32	8.6	24	340	18	340	12
13	31	27	29	1	28	M	36	0	0724	1632	FG+ FZFG BR	7	M	T	0.01	28.21	30.00	8.3	32	8.6	27	330	20	330	13
14	35	29	32	4	31	M	33	0	0725	1633	SN BR	5	M	0.1	0.03	28.17	29.96	6.5	31	7.0	20	310	14	320	14
15	33	30	32	5	31	M	33	0	0725	1633	BR	4	M	T	T	28.27	30.07	3.2	33	5.5	19	350	13	320	15
16	38	31	35	8	35	M	30	0	0726	1633	RA FG+ FG BR	2	M	0.0	0.06	28.17	29.92	8.8	16	9.2	21	150	17	150	16
17	39	30	35	8	34	34	30	0	0727	1633	RA SN BR	1	M	0.1	0.10	28.09	29.86	8.0	27	9.3	30	300	20	270	17
18	30	27	29	3	25	27	36	0	0727	1634	BR	T	M	0.1	T	28.19	29.99	11.4	30	11.6	31	280	23	280	18
19	27	21	24	-2	21	22	41	0	0728	1634	SN BR	T	M	0.4	0.02	28.28	30.11	10.2	33	10.3	25	320	18	340	19
20	26	24	25	-1	20	23	40	0	0728	1634	BR HZ	T	M	T	T	28.43	30.25	3.7	34	4.5	16	020	13	340	20
21	28	24	26	0	20	24	39	0	0729	1635		T	M	0.0	0.00	28.48	30.31	0.6	30	2.1	10	130	7	140	21
22	36	26	31	6	27	30	34	0	0730	1635	RA BR	T	M	T	0.03	28.44	30.23	8.1	16	8.2	23	170	17	160	22
23	41	35	38	13	38	38	27	0	0730	1636	RA BR	T	M	0.0	0.11	28.29	30.06	10.2	14	10.3	20	150	16	140	23
24	55	41	48*	23	45	M	17	0	0730	1637	RA BR	0	M	0.0	0.60	28.02	29.71	12.2	15	12.5	24	160	17	180	24
25	56*	36	46	21	32	37	19	0	0731	1637	RA	0	M	0.0	0.07	27.96	29.78	15.7	27	16.7	44	250	30	240	25
26	42	34	38	14	27	33	27	0	0731	1638		0	M	0.0	0.00	28.40	30.18	5.6	26	7.1	20	300	15	290	26
27	48	34	41	17	32	37	24	0	0731	1638		0	M	0.0	0.00	28.37	30.13	7.3	20	7.6	23	180	17	190	27
28	47	27	37	13	32	35	28	0	0732	1639	RA BR	0	M	0.0	0.25	28.17	29.96	5.3	28	8.1	20	320	15	350	28
29	30	21	26	2	20	24	39	0	0732	1640	SN	0	M	T	T	28.38	30.19	5.7	31	7.0	17	280	13	010	29
30	22	17	20	-4	13	17	45	0	0732	1641	SN BR	1	M	1.4	0.03	28.51	30.35	3.9	32	5.5	17	350	14	250	30
31	21	13*	17*	-6	6	14	48	0	0732	1641	SN	1	M	0.1	0.01	28.42	30.23	8.6	27	9.7	22	270	17	260	31
	35.0	25.6	30.3		25.7	M	34.5	0.0	<-----Monthly Averages | Totals----->				M	13.1	3.30	28.33	30.11	2.7	29	9.2	<Monthly Average				
	1.7	4.4	3.0		<----------Departure From Normal---------->										0.47										

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	1069	-101	2604	-141
Cooling:	0	0	341	-40

Greatest 24-hr Precipitation: 0.86 Date: 05-06
Greatest 24-hr Snowfall: 6.7 Date: 10
Greatest Snow Depth: 1 Date: 11

Sea Level	Pressure	Date	Time (LST)
Maximum	30.66	07	2131
Minimum	29.38	24	2353

Number of Days with -------->
Max Temp >=90: 0
Max Temp <=32: 13
Thunderstorms : 0

Min Temp <=32: 26
Min Temp <=0 : 0
Heavy Fog : 2

Precipitation >=.01 inch: 19
Precipitation >=.10 inch: 10
Snowfall >=1.0 inch : 4

*** EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.**

Data Version: VER3

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 01/2015

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.206 Lon. -75.98
Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							Date
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC Depth	1800 UTC Water Equiv	2400 LST Snow Fall	2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 5-second Dir	max 2-minute Speed	max 2-minute Dir	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	30	16	23	0	7	19	42	0	0733	1643		T	M	0.0	0.00	28.15	29.96	13.1	23	13.4	30	210	22	210	01
02	30	24	27	4	19	24	38	0	0733	1643	SN BR	T	M	1.0	0.03	28.33	30.19	8.6	28	8.9	28	290	22	280	02
03	36	19	28	5	23	26	37	0	0733	1644	RA FZRA BR UP	1	M	2.0	0.77	28.54	30.32	9.8	15	10.8	30	160	21	160	03
04	50*	34	42*	19	39	M	23	0	0733	1645	SN BR	1	M	T	0.07	27.98	29.74	7.8	23	11.4	44	250	29	260	04
05	34	8	21	-2	6	15	44	0	0733	1646	SN	T	M	T	T	28.30	30.16	13.1	30	13.7	43	310	28	280	05
06	14	8	11	-12	5	9	54	0	0733	1647	SN BR HZ	T	M	0.9	0.08	28.35	30.15	4.3	24	6.0	15	260	13	260	06
07	12	-1	6	-16	-1	M	59	0	0732	1648	SN BLSN	1	M	0.9	0.04	28.15	30.03	13.0	29	15.4	38	320	26	330	07
08	13	-4	5*	-17	-3	3	60	0	0732	1649		1	M	T	T	28.38	30.22	9.8	22	10.9	26	180	18	180	08
09	21	9	15	-7	5	13	50	0	0732	1650	SN BR HZ BLSN	1	M	0.7	0.05	28.11	29.95	13.8	24	15.6	36	240	29	260	09
10	12	2	7	-15	-3	5	58	0	0732	1651		1	M	0.0	0.00	28.48	30.37	10.9	24	11.4	23	260	18	250	10
11	30	8	19	-3	3	16	46	0	0732	1652	SN	1	M	T	T	28.63	30.46	7.8	20	8.5	22	190	15	210	11
12	32	19	26	4	26	M	39	0	0731	1653	SN BR	2	M	3.7	0.46	28.44	30.24	3.3	31	7.6	30	340	24	340	12
13	19	-2	9	-13	-2	3	56	0	0731	1655	SN BR	3	M	T	T	28.71	30.60	8.2	36	9.2	26	360	21	360	13
14	23	-5*	9	-13	5	9	56	0	0730	1656	BR	3	M	0.0	0.00	28.52	30.36	3.3	16	5.4	14	150	10	150	14
15	24	6	15	-7	10	16	50	0	0730	1657	BR HZ	3	M	T	0.00	28.25	30.04	3.6	24	6.0	17	230	14	220	15
16	27	7	17	-5	10	M	48	0	0730	1658	SN	3	M	0.9	0.01	28.11	29.95	10.1	30	12.7	37	350	25	330	16
17	23	2	13	-9	4	11	52	0	0729	1659		3	M	0.0	0.00	28.40	30.22	6.4	18	8.3	25	160	17	180	17
18	38	21	30	8	27	30	35	0	0728	1700	RA BR	3	M	0.0	0.01	28.07	29.83	6.0	20	8.3	22	140	16	150	18
19	32	24	28	6	23	26	37	0	0728	1702	SN BR	3	M	0.7	0.01	28.02	29.82	9.7	29	9.9	29	290	20	300	19
20	25	11	18	-4	13	18	47	0	0727	1703		3	M	T	T	28.14	29.96	7.2	32	8.0	20	270	14	360	20
21	24	3	14	-8	9	13	51	0	0727	1704	SN BR	3	M	0.1	0.02	28.29	30.12	1.6	11	2.6	9	140	8	140	21
22	27	15	21	-1	17	20	44	0	0726	1705	SN BR	3	M	0.2	0.01	28.40	30.25	4.0	32	5.8	17	320	14	340	22
23	29	11	20	-2	16	20	45	0	0725	1706	BR	3	M	0.0	0.00	28.39	30.16	5.5	22	6.7	16	220	13	220	23
24	35	25	30	8	24	26	35	0	0724	1708	SN BR HZ	3	M	0.2	0.02	27.81	29.55	3.9	30	6.7	24	340	18	340	24
25	30	8	19	-3	12	18	46	0	0724	1709	SN	3	M	T	T	27.95	29.79	9.4	32	11.8	34	310	23	310	25
26	17	6	12	-10	7	11	53	0	0723	1710	SN BR	3	M	1.6	0.17	28.12	29.93	7.5	06	7.8	16	070	13	020	26
27	16	7	12	-10	4	10	53	0	0722	1712		5	M	T	0.00	28.04	29.87	12.0	34	12.7	29	330	23	360	27
28	22	7	15	-7	2	11	50	0	0721	1713		5	M	0.0	0.00	28.30	30.18	11.2	33	11.4	31	330	22	330	28
29	30	3	17	-5	7	15	48	0	0720	1714	SN BR	5	M	1.2	0.09	28.31	30.09	9.2	17	9.9	32	190	22	190	29
30	26	8	17	-5	14	M	48	0	0719	1715	SN BR	7	M	1.9	0.09	28.14	29.98	11.3	31	12.8	33	320	24	320	30
31	15	2	9	-14	1	7	56	0	0718	1717	SN HZ	8	M	0.1	T	28.36	30.21	10.4	32	11.4	38	310	28	320	31
	25.7	9.7	17.7		10.6	M	47.1	0.0	<-----Monthly Averages | Totals----->				M	16.1	1.93	28.27	30.09	4.4	27	9.7	<Monthly Average				
	-3.0	-6.0	-4.5	<----------Departure From Normal---------->											-0.52										

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	1460	133	4064	-8
Cooling:	0	0	0	0

Greatest 24-hr Precipitation: 0.81 Date: 03-04
Greatest 24-hr Snowfall: 3.7 Date: 12
Greatest Snow Depth: 1 Date: 31

Sea Level	Pressure	Date	Time (LST)
Maximum	30.69	13	1110
Minimum	29.39	24	1539

Number of Days with -------->
Max Temp >=90: 0
Max Temp <=32: 26
Thunderstorms : 0

Min Temp <=32: 30
Min Temp <=0 : 4
Heavy Fog : 0

Precipitation >=.01 inch: 16
Precipitation >=.10 inch: 3
Snowfall >=1.0 inch : 6

*** EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.**

Data Version: VER3

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 02/2015

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.206 Lon. -75.98
Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							Date
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC Depth	1800 UTC Water Equiv	2400 LST Snow Fall	2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 5-second Dir	max 2-minute Speed	max 2-minute Dir	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	24	11	18	-5	16	19	47	0	0717	1718	SN BR	8	M	1.9	0.15	28.31	30.10	0.2	07	6.6	17	110	15	110	01
02	25	4	15	-8	12	M	50	0	0716	1719	SN BR BLSN	13	M	8.8	0.38	27.84	29.65	2.2	01	13.4	38	320	26	320	02
03	20	0	10	-13	2	9	55	0	0715	1721	SN BR	14	M	0.1	T	28.30	30.17	8.0	25	9.0	21	270	17	250	03
04	32	16	24	1	18	22	41	0	0714	1722	SN BR	15	M	5.0	0.23	28.25	30.04	7.7	21	8.8	28	330	20	330	04
05	24	-1	12	-11	4	9	53	0	0713	1723	SN BR UP BLSN	17	M	1.5	0.06	28.26	30.11	11.4	32	12.1	33	300	23	350	05
06	20	-3	9	-14	0	7	56	0	0712	1724	SN	17	M	T	T	28.28	30.12	8.8	25	9.3	28	270	20	270	06
07	28	13	21	-2	15	20	44	0	0711	1726	SN BR	16	M	0.8	0.06	28.21	30.01	3.4	20	5.6	14	230	10	210	07
08	39*	27	33*	9	23	30	32	0	0709	1727	RA SN BR UP	15	M	0.8	0.11	28.04	29.81	5.6	15	6.1	16	160	12	170	08
09	28	19	24	0	20	M	41	0	0708	1728	SN BR UP	15	M	2.4	0.32	28.15	29.95	1.4	09	5.9	23	130	18	140	09
10	23	16	20	-4	16	18	45	0	0707	1730	BR	16	M	0.0	0.00	28.31	30.14	10.4	35	10.5	21	010	16	340	10
11	29	13	21	-3	16	19	44	0	0706	1731	SN BR	16	M	0.7	0.04	28.22	29.99	2.6	19	5.0	14	180	12	210	11
12	27	0	14	-10	12	16	51	0	0704	1732	SN BR UP HZ	16	M	0.7	0.06	28.01	29.82	9.7	31	12.0	34	330	24	320	12
13	8	-2	3	-21	-6	1	62	0	0703	1733	SN BR UP HZ	16	M	0.8	0.05	28.26	30.12	7.4	31	9.6	25	280	18	300	13
14	19	2	11	-14	9	M	54	0	0702	1735	SN BR	16	M	4.3	0.28	27.90	29.68	4.6	21	10.6	38	320	26	320	14
15	6	-7	0	-25	-7	-2	65	0	0700	1736	SN BR UP HZ BLSN	20	M	0.2	0.01	28.10	30.00	17.8	32	17.9	39	330	28	330	15
16	8	-7	1	-24	-8	-1	64	0	0659	1737	SN BR UP BLSN	19	M	0.1	T	28.33	30.19	7.8	33	8.8	26	310	20	320	16
17	19	0	10	-15	0	7	55	0	0658	1739	SN BR HZ	18	M	0.1	0.01	28.07	29.90	1.2	05	4.5	12	280	9	250	17
18	22	0	11	-14	5	10	54	0	0656	1740	SN BR UP	18	M	1.1	0.06	27.98	29.78	3.4	23	6.1	32	290	23	290	18
19	10	-7	2	-24	-4	3	63	0	0655	1741	SN BR BLSN	19	M	0.9	0.03	28.00	29.85	13.2	30	13.8	37	290	23	310	19
20	9	-10	0*	-26	-11	-2	65	0	0653	1742		19	M	0.0	0.00	28.33	30.24	8.7	28	10.4	28	290	22	290	20
21	20	-1	10	-16	3	M	55	0	0652	1744	SN BR HZ	18	M	2.4	0.16	28.37	30.19	9.9	17	10.2	32	190	21	180	21
22	32	19	26	0	18	22	39	0	0650	1745	SN BR	18	M	0.1	T	28.34	30.16	3.3	30	4.7	24	330	16	320	22
23	20	-7	7	-19	-5	2	58	0	0649	1746	SN HZ BLSN	18	M	0.1	T	28.48	30.35	11.3	31	12.0	31	340	25	340	23
24	18	-10*	4	-23	-10	3	61	0	0647	1747		18	M	0.0	0.00	28.23	30.03	8.7	19	9.8	29	180	21	180	24
25	25	7	16	-11	2	12	49	0	0646	1749	SN	18	M	T	T	27.99	29.84	6.0	29	9.7	30	270	22	280	25
26	17	6	12	-15	2	8	53	0	0644	1750	SN BR	17	M	0.1	T	28.21	30.05	5.6	36	6.8	15	310	13	360	26
27	16	1	9	-18	-1	6	56	0	0643	1751	BR UP	17	M	T	T	28.53	30.42	6.9	32	7.6	20	340	15	350	27
28	21	-3	9	-19	-3	7	56	0	0641	1752		17	M	0.0	0.00	28.84	30.73	2.8	25	3.9	12	260	9	250	28
	21.0	3.4	12.2		4.9	M	52.4	0.0	<-----Monthly Averages | Totals----->				M	32.9	2.01	28.22	30.04	3.9	29	9.0	<Monthly Average				
	-11.1	-14.0	-12.5				<----------Departure From Normal---------->								-0.30									

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	1468	341	5532	333
Cooling:	0	0	0	0

Greatest 24-hr Precipitation: 0.51 Date: 01-02
Greatest 24-hr Snowfall: 8.8 Date: 02
Greatest Snow Depth: 2 Date: 15

	Sea Level Pressure	Date	Time (LST)
Maximum	30.80	28	1140
Minimum	29.41	02	1153

Number of Days with -------->
Max Temp >=90: 0
Max Temp <=32: 27
Thunderstorms : 0

Min Temp <=32: 28
Min Temp <=0 : 15
Heavy Fog : 0

Precipitation >=.01 inch: 16
Precipitation >=.10 inch: 7
Snowfall >=1.0 inch : 8

*** EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.**

Data Version: VER3

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 03/2015

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.206 Lon. -75.98
Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							Date
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC Depth	1800 UTC Water Equiv	2400 LST Snow Fall	2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 5-second Dir	max 2-minute Speed	max 2-minute Dir	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	22	9	16	-12	12	M	49	0	0640	1753	SN BR	17	M	3.4	0.37	28.61	30.39	6.9	17	7.3	20	200	14	180	01
02	26	15	21	-7	13	19	44	0	0638	1755	SN BR UP HZ BLSN	19	M	0.3	0.01	28.36	30.20	11.3	31	12.1	37	280	25	300	02
03	28	9	19	-10	13	16	46	0	0636	1756	SN BR	18	M	2.2	0.34	28.36	30.12	7.7	18	9.4	32	170	22	170	03
04	38	27	33	4	27	30	32	0	0635	1757	BR	21	M	0.0	0.00	28.03	29.83	5.3	29	7.6	20	280	15	280	04
05	29	4	17	-12	5	11	48	0	0633	1758	SN BR	20	M	T	T	28.33	30.20	10.4	33	10.6	33	340	23	350	05
06	21	-3*	9*	-20	-2	7	56	0	0631	1759		20	M	0.0	0.00	28.56	30.42	5.0	24	5.8	16	260	13	260	06
07	29	12	21	-9	12	18	44	0	0630	1801	SN BR	20	M	0.7	0.03	28.30	30.10	7.6	23	8.1	23	260	18	250	07
08	37	27	32	2	20	27	33	0	0628	1802	SN BR HZ	21	M	0.2	0.01	28.25	30.05	6.9	29	8.2	36	320	26	280	08
09	43	27	35	5	20	29	30	0	0626	1803		20	M	0.0	0.00	28.35	30.15	6.0	26	7.1	19	240	16	240	09
10	47	26	37	6	28	33	28	0	0625	1804	RA BR	19	M	0.0	0.11	28.38	30.13	5.7	17	6.2	24	200	16	180	10
11	49*	34	42*	11	32	M	23	0	0623	1805	BR	17	M	0.0	0.00	28.25	30.04	8.7	29	9.9	27	290	20	320	11
12	35	20	28	-3	10	24	37	0	0621	1807		14	M	0.0	0.00	28.63	30.48	11.9	34	12.6	35	350	25	340	12
13	42	19	31	-1	9	24	34	0	0620	1808		12	M	0.0	0.00	28.66	30.44	7.2	17	7.8	23	190	17	160	13
14	39	32	36	4	33	35	29	0	0618	1809	RA BR UP	11	M	0.0	0.09	28.18	29.90	4.2	19	8.1	31	280	22	280	14
15	34	29	32	0	27	30	33	0	0616	1810	SN BR UP BLSN	10	M	0.4	0.02	28.10	29.90	12.7	31	13.8	36	290	24	330	15
16	45	25	35	2	29	34	30	0	0615	1811		9	M	0.0	0.00	28.15	29.90	4.1	23	5.5	16	250	13	250	16
17	44	22	33	0	26	M	32	0	0613	1812	RA SN BR HZ	7	M	0.1	0.06	27.99	29.77	11.1	31	13.1	41	350	29	340	17
18	27	18	23	-10	12	M	42	0	0611	1813	SN BR UP	7	M	2.9	0.11	28.26	30.08	12.2	32	12.5	34	340	24	340	18
19	30	15	23	-11	5	18	42	0	0609	1815		8	M	0.0	0.00	28.47	30.30	5.4	35	7.1	21	350	15	340	19
20	28	21	25	-9	18	M	40	0	0608	1816	SN BR HZ	6	M	1.2	0.07	28.40	30.19	7.0	15	7.5	19	180	14	190	20
21	38	25	32	-3	27	30	33	0	0606	1817	RA SN BR	7	M	0.6	0.10	28.19	29.96	4.3	25	8.5	30	340	22	340	21
22	26	13	20	-15	10	17	45	0	0604	1818	SN BR UP	7	M	0.7	0.02	28.28	30.11	10.7	32	11.5	30	320	22	330	22
23	22	13	18	-17	5	13	47	0	0603	1819	SN BR	7	M	0.6	0.01	28.43	30.26	8.5	34	9.4	27	320	20	340	23
24	34	10	22	-14	6	18	43	0	0601	1820		7	M	0.0	0.00	28.51	30.35	3.2	36	4.3	14	010	9	010	24
25	40	19	30	-6	21	27	35	0	0559	1821	RA BR UP	7	M	0.0	0.10	28.44	30.21	9.6	17	10.0	28	180	21	180	25
26	38	32	35	-2	34	M	30	0	0557	1823	RA BR	5	M	T	0.39	28.09	29.83	2.9	32	7.0	25	330	17	290	26
27	36	24	30	-7	25	29	35	0	0556	1824	SN BR	4	M	0.1	T	28.02	29.81	8.2	33	8.8	24	360	21	350	27
28	24	14	19	-18	9	16	46	0	0554	1825	SN	4	M	T	T	28.18	30.01	11.3	33	11.7	30	350	24	360	28
29	37	13	25	-13	9	21	40	0	0552	1826		4	M	0.0	0.00	28.38	30.17	4.4	24	6.9	24	190	15	190	29
30	43	29	36	-2	25	31	29	0	0551	1827	SN BR	2	M	0.9	0.08	28.04	29.80	10.3	25	13.2	39	190	25	280	30
31	33	26	30	-9	24	27	35	0	0549	1828	SN BR	3	M	0.5	0.07	28.06	29.83	3.9	30	4.8	15	270	12	360	31
	34.3	19.5	26.9		17.5	M	37.7	0.0	<-----Monthly Averages | Totals----->			M	14.8	1.99		28.30	30.09	4.0	29	8.9	<Monthly Average				
	-6.8	-5.1	-5.9	<----------Departure From Normal---------->											-1.00										

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	1170	173	6702	506
Cooling:	0	0	0	0

Greatest 24-hr Precipitation: 0.39 Date: 26
Greatest 24-hr Snowfall: 3.4 Date: 01
Greatest Snow Depth: 2 Date: 08+

Sea Level Pressure	Date	Time (LST)
Maximum 30.66	01	0053
Minimum 29.57	17	0453

Number of Days with -------->
Max Temp >=90: 0
Max Temp <=32: 7
Thunderstorms : 0

Min Temp <=32: 30
Min Temp <=0 : 1
Heavy Fog : 0

Precipitation >=.01 inch: 18
Precipitation >=.10 inch: 3
Snowfall >=1.0 inch : 4

*** EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.**

Data Version: VER3

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 04/2015

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.206 Lon. -75.98
Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							Date
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC Depth	1800 UTC Water Equiv	2400 LST Snow Fall	2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 5-second Dir	max 2-minute Speed	max 2-minute Dir	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	39	23*	31	-8	16	26	34	0	0547	1829		2	M	0.0	0.00	28.27	30.10	4.9	32	7.0	26	310	15	320	01
02	62	29	46	7	29	40	19	0	0545	1830	RA	1	M	0.0	T	28.26	29.99	11.1	20	11.7	29	220	21	210	02
03	61	40	51	11	46	48	14	0	0544	1832	RA BR	T	M	0.0	0.30	28.04	29.75	2.1	29	6.9	26	360	22	350	03
04	40	28	34	-6	25	31	31	0	0542	1833	RA SN BR	T	M	0.7	0.23	28.12	29.93	12.2	31	13.0	41	340	28	330	04
05	33	26	30*	-11	27	29	35	0	0540	1834	SN BR	1	M	1.6	0.15	28.37	30.18	1.9	25	2.4	23	310	15	280	05
06	63	28	46	5	33	41	19	0	0539	1835	RA BR	1	M	0.0	0.01	28.41	30.19	4.0	20	6.9	35	260	25	250	06
07	49	39	44	2	40	42	21	0	0537	1836	RA BR	0	M	0.0	0.13	28.45	30.22	4.9	05	5.7	14	100	12	090	07
08	39	34	37	-5	34	35	28	0	0535	1837	TSRA RA BR UP	0	M	0.0	0.58	28.45	30.22	11.3	14	12.6	34	170	23	160	08
09	40	34	37	-5	35	M	28	0	0534	1838	RA BR UP	0	M	0.0	0.63	28.38	30.16	13.4	15	14.0	34s	160	24	140	09
10	55	36	46	3	41	43	19	0	0532	1839	RA BR	0	M	0.0	0.26	28.07	29.81	7.6	20	11.1	31	150	23	270	10
11	43	33	38	-5	29	34	27	0	0530	1841	RA	0	M	0.0	0.01	28.26	30.06	9.2	30	9.8	31	330	21	300	11
12	63	30	47	3	27	39	18	0	0529	1842		0	M	0.0	0.00	28.50	30.27	3.3	23	4.9	15	250	12	260	12
13	74*	43	59*	15	38	49	6	0	0527	1843	RA BR	0	M	0.0	0.05	28.39	30.12	9.0	19	11.2	36	220	22	190	13
14	60	42	51	6	33	43	14	0	0525	1844	RA BR	0	M	0.0	0.17	28.41	30.17	4.9	33	6.1	33	350	24	340	14
15	59	40	50	5	22	38	15	0	0524	1845		0	M	0.0	0.00	28.53	30.29	8.9	34	9.5	33	010	22	360	15
16	67	34	51	6	25	40	14	0	0522	1846	RA	0	M	0.0	0.04	28.55	30.31	8.2	17	9.3	28	170	20	180	16
17	61	49	55	9	48	51	10	0	0521	1847	RA BR	0	M	0.0	0.12	28.27	30.00	5.6	26	8.1	20	320	16	330	17
18	72	44	58	12	37	47	7	0	0519	1848		0	M	0.0	0.00	28.28	30.01	7.2	31	10.4	35	340	25	340	18
19	65	36	51	4	26	40	14	0	0518	1849	RA	0	M	0.0	0.00	28.38	30.11	7.7	13	9.7	37	140	28	140	19
20	58	41	50	3	45	47	15	0	0516	1851	TSRA RA BR	0	M	0.0	0.74	27.98	29.67	17.0	14	17.4	44	150	35	130	20
21	55	41	48	1	34	41	17	0	0514	1852	RA BR	0	M	0.0	0.42	27.90	29.65	9.0	26	10.7	37	270	25	260	21
22	49	32	41	-7	34	37	24	0	0513	1853	RA BR	0	M	0.3	0.33	27.91	29.65	6.3	25	8.4	29	310	22	270	22
23	36	29	33	-15	23	29	32	0	0511	1854	SN BR	0	M	0.1	0.03	27.98	29.76	10.7	29	11.1	29	290	23	280	23
24	34	28	31	-18	21	27	34	0	0510	1855	SN	T	M	0.1s	T	28.13	29.92	10.4	31	10.9	29	290	21	290	24
25	49	26	38	-11	24	32	27	0	0508	1856		0	M	0.0	0.00	28.10	29.85	7.2	34	8.4	23	330	17	350	25
26	48	31	40	-9	28	35	25	0	0507	1857		0	M	0.0	0.00	27.99	29.75	7.1	34	7.9	22	350	17	350	26
27	48	38	43	-7	35	39	22	0	0506	1858	RA	0	M	0.0	0.01	28.02	29.78	10.3	33	10.7	27	340	21	350	27
28	61	39	50	0	39	45	15	0	0504	1860		0	M	0.0	T	28.12	29.86	11.1	33	11.5	30	360	23	340	28
29	66	45	56	6	37	46	9	0	0503	1901		0	M	0.0	0.00	28.04	29.75	8.8	34	9.6	28	360	20	330	29
30	68	42	55	4	36	46	10	0	0501	1901		0	M	0.0	0.00	28.04	29.77	4.8	06	6.7	21	030	15	040	30
	53.9	35.3	44.6		32.2	39.3	20.1	0.0	<-----Monthly Averages | Totals----->			M	M	4.21s		28.22	29.98	2.1	28	9.5	<Monthly Average				
	-0.3	-0.6	-0.5	<----------Departure From Normal---------->											0.78										

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	603	0	7305	506
Cooling:	0	-4	0	-4

Greatest 24-hr Precipitation: 1.13s Date: 20-21
Greatest 24-hr Snowfall: M Date: M
Greatest Snow Depth: M Date: M

Sea Level	Pressure	Date	Time (LST)
Maximum	30.45	16	0656
Minimum	29.51	21	0033

Number of Days with -------->
Max Temp >=90: 0
Max Temp <=32: 0
Thunderstorms : 2

Min Temp <=32: 11
Min Temp <=0 : 0
Heavy Fog : 0

Precipitation >=.01 inch: 18
Precipitation >=.10 inch: 12
Snowfall >=1.0 inch : 2

*** EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.**

Data Version: VER3

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 05/2015

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.206 Lon. -75.98
Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							Date
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC Depth	1800 UTC Water Equiv	2400 LST Snow Fall	2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 5-second Dir	max 2-minute Speed	max 2-minute Dir	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	62	47	55	4	43	48	10	0	0500	1902		0	M	0.0	T	28.19	29.93	0.7	24	5.3	19	050	14	050	01
02	69	46	58	7	36	47	7	0	0459	1903		0	M	0.0	0.00	28.25	29.98	6.1	33	6.7	27	280	18	280	02
03	74	47	61	9	36	49	4	0	0457	1904		0	M	0.0	0.00	28.33	30.07	3.5	25	5.5	22	270	16	270	03
04	80	53	67	15	41	54	0	2	0456	1905	RA	0	M	0.0	T	28.40	30.12	6.8	24	9.8	30	240	21	230	04
05	74	56	65	13	48	55	0	0	0455	1906	RA BR	0	M	0.0	0.06	28.48	30.22	6.7	35	7.0	24	350	18	350	05
06	66	51	59	6	48	52	6	0	0454	1907	RA	0	M	0.0	0.15	28.52	30.26	2.1	19	4.4	18	170	13	170	06
07	77	49	63	10	51	57	2	0	0452	1908		0	M	0.0	0.00	28.44	30.16	3.7	20	5.0	19	240	14	240	07
08	85*	60	73	20	53	61	0	8	0451	1909	HZ	0	M	0.0	0.00	28.38	30.09	4.2	21	5.3	17	170	13	260	08
09	80	61	71	17	55	62	0	6	0450	1911		0	M	0.0	0.00	28.43	30.15	9.4	19	10.0	23	190	16	180	09
10	84	60	72	18	59	63	0	7	0449	1912	BR	0	M	0.0	0.00	28.41	30.12	5.2	21	9.4	24	180	17	220	10
11	84	62	73	19	61	65	0	8	0448	1913		0	M	0.0	0.00	28.32	29.99	8.4	19	9.1	24	250	17	240	11
12	74	49	62	7	52	57	3	0	0447	1914	RA	0	M	0.0	0.04	28.16	29.86	10.7	28	13.2	36	310	26	350	12
13	49	41	45*	-10	39	43	20	0	0445	1915	RA BR	0	M	0.0	T	28.38	30.18	9.7	31	10.6	30	330	21	320	13
14	64	36	50	-5	32	43	15	0	0444	1916		0	M	0.0	0.00	28.61	30.38	3.2	34	5.5	19	360	14	010	14
15	71	43	57	1	42	50	8	0	0443	1917	RA VCTS	0	M	0.0	0.05	28.48	30.21	6.2	17	7.3	22	140	16	220	15
16	74	53	64	8	60	61	1	0	0442	1918	RA BR VCTS	0	M	0.0	0.71	28.38	30.11	4.2	21	6.0	24	320	16	310	16
17	79	61	70	14	60	M	0	5	0441	1919	BR	0	M	0.0	0.00	28.43	30.15	1.8	30	4.2	14	250	9	300	17
18	81	60	71	14	63	65	0	6	0441	1920	TSRA RA BR VCTS	0	M	0.0	1.91	28.36	30.06	4.4	17	8.0	48	340	32	330	18
19	79	48	64	7	57	60	1	0	0440	1921	RA BR	0	M	0.0	0.01	28.20	29.89	6.6	29	9.6	34	350	24	350	19
20	52	40	46	-11	34	40	19	0	0439	1922	RA	0	M	0.0	T	28.23	29.99	10.1	32	11.2	31	310	21	320	20
21	56	41	49	-8	37	43	16	0	0438	1923		0	M	0.0	0.00	28.22	29.95	4.9	24	5.8	16	240	13	240	21
22	61	39	50	-8	34	43	15	0	0437	1924		0	M	0.0	0.00	28.23	30.02	9.2	31	10.4	30	340	23	340	22
23	62	32*	47	-11	28	40	18	0	0436	1925		0	M	0.0	0.00	28.58	30.36	5.3	27	6.5	21	270	15	250	23
24	75	48	62	4	37	50	3	0	0435	1926		0	M	0.0	0.00	28.54	30.28	5.8	23	7.0	17	270	14	260	24
25	82	60	71	12	52	60	0	6	0435	1927	RA	0	M	0.0	T	28.43	30.14	9.1	21	9.6	26	200	20	210	25
26	78	66	72	13	62	66	0	7	0434	1928	RA	0	M	0.0	T	28.41	30.13	7.1	21	7.9	23	210	16	220	26
27	77	66	72	13	64	66	0	7	0433	1928	RA	0	M	0.0	0.09	28.36	30.07	8.5	21	8.8	23	210	16	280	27
28	73	60	67	8	57	61	0	2	0433	1929	BR	0	M	0.0	0.00	28.45	30.19	6.3	29	9.2	25	300	20	270	28
29	79	50	65	5	54	59	0	0	0432	1930		0	M	0.0	0.00	28.53	30.24	3.9	16	5.6	16	200	12	200	29
30	82	65	74*	14	64	67	0	9	0432	1931	TS RA BR VCTS	0	M	0.0	0.10	28.36	30.06	9.2	21	9.5	24	190	17	210	30
31	67	53	60	0	56	57	5	0	0431	1932	RA BR	0	M	0.0	0.29	28.33	30.06	2.4	01	8.8	19	090	15	090	31
	72.6	51.7	62.1		48.9	54.8	4.9	2.4	<-----Monthly Averages | Totals----->				M	0.0	3.41	28.38	30.11	3.5	25	7.8	<Monthly Average				
	7.1	5.6	6.3	<----------Departure From Normal---------->											-0.16										

Greatest 24-hr Precipitation: 1.92 Date: 18-19
Greatest 24-hr Snowfall: 0.0 Date: M
Greatest Snow Depth: 0 Date: M

	Sea Level	Pressure	Date	Time (LST)
Maximum		30.47	14	0923
Minimum		29.77	12	1453

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	153	-152	7458	354
Cooling:	73	54	73	50

Number of Days with -------->
Max Temp >=90: 0
Max Temp <=32: 0
Min Temp <=32: 1
Min Temp <=0 : 0
Precipitation >=.01 inch: 10
Precipitation >=.10 inch: 5

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 06/2015

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.206 Lon. -75.98
Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							Date
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute		
												Depth	Water Equiv	Snow Fall	Water Equiv						Speed	Dir	Speed	Dir	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	57	51	54	-7	54	53	11	0	0431	1933	RA FG BR	0	M	0.0	0.39	28.33	30.08	3.4	31	6.1	15	130	13	130	01
02	58	49	54*	-7	49	M	11	0	0430	1933	BR	0	M	0.0	0.01	28.39	30.15	6.6	35	7.1	16	360	13	360	02
03	69	43	56	-5	48	M	9	0	0430	1934	BR	0	M	0.0	0.00	28.45	30.20	2.3	13	3.9	14	120	12	080	03
04	69	49	59	-3	51	55	6	0	0429	1935		0	M	0.0	T	28.45	30.18	7.0	16	7.7	21	150	15	150	04
05	77	55	66	4	57	60	0	1	0429	1936	RA VCTS	0	M	0.0	0.17	28.32	30.01	3.4	21	5.5	20	300	14	300	05
06	67	49	58	-4	50	55	7	0	0429	1936	RA BR	0	M	0.0	0.07	28.29	30.04	10.1	35	10.9	27	020	20	010	06
07	73	41*	57	-5	49	54	8	0	0428	1937		0	M	0.0	0.00	28.35	30.07	8.9	18	10.0	29	200	21	220	07
08	72	59	66	3	61	62	0	1	0428	1938	RA BR	0	M	0.0	1.23	28.10	29.79	9.4	19	9.5	29	210	21	200	08
09	70	55	63	0	59	60	2	0	0428	1938	RA BR VCTS	0	M	0.0	0.37	27.99	29.70	6.6	25	8.6	30	280	22	270	09
10	76	53	65	2	57	61	0	0	0428	1939	BR	0	M	0.0	0.00	28.12	29.83	8.7	22	9.2	28	220	18	230	10
11	79	62	71	7	58	62	0	6	0427	1939	BR	0	M	0.0	0.00	28.19	29.91	5.5	31	6.9	22	280	16	280	11
12	84*	59	72	8	62	65	0	7	0427	1940	TSRA RA BR VCTS	0	M	0.0	0.41	28.22	29.90	3.1	20	8.6	47	290	30	290	12
13	75	57	66	2	57	60	0	1	0427	1940	BR	0	M	0.0	0.02	28.27	30.01	5.2	35	6.5	23	310	16	360	13
14	78	58	68	4	62	64	0	3	0427	1941	RA BR	0	M	0.0	2.74	28.33	30.04	4.0	14	5.5	14	150	12	120	14
15	80	68	74*	9	68	69	0	9	0427	1941	RA BR	0	M	0.0	0.07	28.22	29.93	5.4	27	7.3	21	250	16	250	15
16	78	62	70	5	64	66	0	5	0427	1942	RA BR	0	M	0.0	0.36	28.20	29.92	5.9	29	9.1	28	350	20	330	16
17	73	56	65	0	55	59	0	0	0427	1942		0	M	0.0	0.00	28.38	30.11	1.0	03	5.0	15	010	12	010	17
18	68	60	64	-1	62	63	1	0	0427	1942	BR	0	M	0.0	T	28.27	29.97	5.8	17	6.4	14	160	10	180	18
19	73	54	64	-2	59	61	1	0	0428	1943	BR	0	M	0.0	0.00	28.25	29.98	6.4	34	8.0	22	340	17	350	19
20	70	51	61	-5	58	59	4	0	0428	1943	RA BR	0	M	0.0	0.62	28.30	30.00	7.7	15	8.5	19	140	15	150	20
21	80	63	72	6	64	66	0	7	0428	1943	RA BR	0	M	0.0	0.11	28.08	29.79	4.9	28	6.4	22	280	17	280	21
22	79	59	69	3	58	62	0	4	0428	1944		0	M	0.0	0.00	28.27	29.97	3.4	26	6.0	18	290	14	270	22
23	81	60	71	5	62	66	0	6	0428	1944	RA BR	0	M	0.0	0.23	28.13	29.83	8.7	26	12.3	35	250	25	260	23
24	73	55	64	-3	52	57	1	0	0429	1944		0	M	0.0	0.00	28.33	30.06	5.7	32	6.3	22	340	15	350	24
25	74	55	65	-2	55	59	0	0	0429	1944		0	M	0.0	0.00	28.33	30.04	2.7	25	5.8	15	280	12	280	25
26	74	55	65	-2	55	59	0	0	0429	1944	BR	0	M	0.0	0.00	28.30	30.02	4.8	04	6.5	19	340	14	040	26
27	63	52	58	-9	53	55	7	0	0430	1944	RA BR	0	M	0.0	1.01	28.30	30.00	12.7	12	13.6	36	150	28	120	27
28	63	52	58	-9	56	56	7	0	0430	1944	RA BR	0	M	0.0	0.82	28.00	29.71	2.3	17	7.0	32	120	24	120	28
29	71	54	63	-4	55	57	2	0	0430	1944	BR	0	M	0.0	0.01	28.15	29.89	5.9	28	6.8	20	280	16	280	29
30	72	58	65	-3	61	62	0	0	0431	1944	RA BR VCTS	0	M	0.0	1.10	28.19	29.88	8.0	15	8.7	23	160	16	160	30
	72.5	55.1	63.8		57.0	60.3	2.6	1.7	<-----Monthly Averages | Totals----->				M	0.0	9.75	28.25	29.96	1.6	23	7.7	<Monthly Average				
	-1.2	-0.1	-0.6	<----------Departure From Normal---------->											5.44										

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	77	-14	7535	340
Cooling:	50	-24	123	26

Greatest 24-hr Precipitation: 2.81 Date: 14-15
Greatest 24-hr Snowfall: 0.0 Date: M
Greatest Snow Depth: 0 Date: M

Sea Level	Pressure	Date	Time (LST)
Maximum	30.25	03	0753
Minimum	29.59	09	1054

Number of Days with -------->
Max Temp >=90: 0
Max Temp <=32: 0
Thunderstorms : 0
Min Temp <=32: 0
Min Temp <=0 : 0
Heavy Fog : 0
Precipitation >=.01 inch: 18
Precipitation >=.10 inch: 13
Snowfall >=1.0 inch : 0

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 07/2015

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.206 Lon. -75.98
Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							Date
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second		max 2-minute		
												Depth	Water Equiv	Snow Fall	Water Equiv						Speed	Dir	Speed	Dir	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	71	60	66	-2	59	61	0	1	0431	1944	RA BR	0	M	0.0	0.69	28.07	29.79	7.3	25	8.7	30	280	21	280	01
02	72	54	63	-5	53	57	2	0	0432	1944	BR	0	M	0.0	0.00	28.21	29.93	5.0	34	6.1	17	350	13	360	02
03	73	50	62	-6	48	55	3	0	0432	1944		0	M	0.0	0.00	28.27	29.99	1.0	13	3.5	23	200	9	190	03
04	65	59	62	-6	59	60	3	0	0433	1944	RA BR	0	M	0.0	0.37	28.25	29.98	4.5	18	5.1	18	170	13	160	04
05	77	57	67	-1	56	M	0	2	0434	1943	BR	0	M	0.0	0.00	28.40	30.14	2.0	28	3.7	15	300	12	330	05
06	76	56	66	-2	62	64	0	1	0434	1943	RA BR	0	M	0.0	0.01	28.41	30.12	5.4	15	5.8	17	150	13	160	06
07	81	68	75	7	67	69	0	10	0435	1943	RA BR HZ	0	M	0.0	0.10	28.27	29.96	7.8	21	8.6	22	200	16	220	07
08	73	59	66	-3	61	63	0	1	0436	1942	RA BR	0	M	0.0	0.07	28.28	30.00	5.5	31	7.6	21	320	16	340	08
09	70	57	64	-5	61	62	1	0	0436	1942	RA BR	0	M	0.0	0.22	28.23	29.94	2.0	26	5.8	24	300	16	330	09
10	76	56	66	-3	56	60	0	1	0437	1942	BR	0	M	0.0	T	28.30	30.04	5.9	34	7.0	19	330	14	340	10
11	79	55	67	-2	54	60	0	2	0438	1941	BR	0	M	0.0	0.00	28.40	30.12	3.7	32	4.4	16	310	13	310	11
12	79	58	69	0	59	63	0	4	0438	1941		0	M	0.0	0.00	28.35	30.05	1.5	26	2.8	14	290	9	290	12
13	81	61	71	2	61	65	0	6	0439	1940		0	M	0.0	0.00	28.19	29.86	4.4	17	5.4	19	140	14	160	13
14	76	63	70	1	64	65	0	5	0440	1940	TS TSRA RA BR VCTS	0	M	0.0	0.70	27.96	29.62	5.1	17	7.4	28	270	20	270	14
15	65	52	59*	-10	56	57	6	0	0441	1939	RA BR	0	M	0.0	T	28.07	29.82	8.8	33	9.3	23	350	20	350	15
16	74	49*	62	-7	51	56	3	0	0442	1938		0	M	0.0	0.00	28.34	30.08	4.2	01	5.6	17	010	13	360	16
17	73	53	63	-6	59	61	2	0	0442	1938		0	M	0.0	0.01	28.30	30.02	7.6	18	8.1	25	210	15	190	17
18	85	67	76	7	69	70	0	11	0443	1937	TSRA RA BR	0	M	0.0	0.57	28.19	29.90	5.0	21	6.4	29	300	21	300	18
19	86*	65	76*	7	68	70	0	11	0444	1936	TS TSRA RA BR VCTS	0	M	0.0	1.10	28.15	29.82	4.4	23	7.8	37	310	23	020	19
20	81	66	74	5	61	66	0	9	0445	1936	RA	0	M	0.0	T	28.07	29.75	3.6	31	5.7	18	270	13	270	20
21	80	60	70	1	59	63	0	5	0446	1935	RA VCTS	0	M	0.0	0.13	27.99	29.69	5.1	30	6.7	38	330	25	330	21
22	73	53	63	-6	50	56	2	0	0447	1934		0	M	0.0	0.00	28.12	29.84	7.0	30	7.8	27	290	18	350	22
23	73	53	63	-6	51	57	2	0	0448	1933		0	M	0.0	0.00	28.23	29.96	5.3	30	6.3	23	270	15	350	23
24	77	55	66	-3	52	58	0	1	0449	1932		0	M	0.0	0.00	28.27	29.99	2.9	30	3.8	16	290	12	340	24
25	78	56	67	-2	57	61	0	2	0450	1931	TSRA RA BR HZ	0	M	0.0	0.27	28.28	29.99	4.0	22	5.0	20	280	14	280	25
26	82	63	73	4	64	66	0	8	0451	1930	TS RA BR VCTS	0	M	0.0	0.62	28.25	29.96	4.5	22	6.4	31	270	22	260	26
27	83	61	72	3	62	66	0	7	0452	1930	BR	0	M	0.0	0.00	28.30	30.01	1.0	34	2.4	10	070	8	340	27
28	85	63	74	5	63	67	0	9	0453	1929		0	M	0.0	0.00	28.32	30.03	2.6	32	4.5	16	340	12	350	28
29	85	63	74	5	64	68	0	9	0454	1928		0	M	0.0	0.00	28.29	29.98	3.6	22	4.3	14	210	13	220	29
30	81	66	74	5	64	67	0	9	0455	1926	BR	0	M	0.0	0.29	28.17	29.86	5.5	26	7.8	22	250	16	260	30
31	79	60	70	1	57	62	0	5	0456	1925		0	M	0.0	0.00	28.17	29.86	5.9	25	6.9	18	290	14	260	31
	77.1	58.6	67.9		58.9	62.5	0.8	3.8	<-----Monthly Averages | Totals----->			M	0.0	5.15	28.23	29.93	2.4	26	6.0	<Monthly Average				
	-0.7	-1.0	-0.8	<----------Departure From Normal---------->											1.45										

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	24	0	24	0
Cooling:	119	-19	242	7

Greatest 24-hr Precipitation: 1.10 Date: 19-20
Greatest 24-hr Snowfall: 0.0 Date: M
Greatest Snow Depth: 0 Date: M

	Sea Level Pressure	Date	Time (LST)
Maximum	30.17	06	1159
Minimum	29.55	14	1753

Number of Days with -------->
Max Temp >=90: 0
Max Temp <=32: 0
Min Temp <=32: 0
Min Temp <=0 : 0
Precipitation >=.01 inch: 14
Precipitation >=.10 inch: 11

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 08/2015

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.206 Lon. -75.98
Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees							Date
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC Depth	1800 UTC Water Equiv	2400 LST Snow Fall	2400 LST Water Equiv	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	max 5-second Dir	max 2-minute Speed	max 2-minute Dir	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	76	62	69	0	56	61	0	4	0457	1924	RA	0	M	0.0	0.02	28.13	29.84	5.8	28	6.7	22	280	16	270	01
02	79	57	68	-1	56	61	0	3	0458	1923		0	M	0.0	0.00	28.18	29.88	7.2	23	7.8	20	210	15	230	02
03	79	63	71	2	60	64	0	6	0459	1922	TS RA VCTS	0	M	0.0	0.24	28.09	29.78	6.5	24	8.2	23	240	17	300	03
04	75	59	67	-2	59	62	0	2	0460	1921	RA	0	M	0.0	0.03	28.17	29.89	3.9	28	5.8	24	330	18	330	04
05	72	56	64	-5	54	59	1	0	0501	1920		0	M	0.0	0.00	28.23	29.96	6.7	30	7.8	22	320	16	300	05
06	70	53	62	-7	53	57	3	0	0502	1918		0	M	0.0	0.00	28.27	29.99	3.4	32	5.1	13	290	10	280	06
07	75	52	64	-5	53	58	1	0	0503	1917		0	M	0.0	0.00	28.25	29.97	5.0	05	5.7	16	100	10	020	07
08	77	55	66	-2	55	59	0	1	0504	1916		0	M	0.0	0.00	28.28	30.01	5.0	36	5.4	19	320	15	320	08
09	79	56	68	0	56	61	0	3	0505	1915		0	M	0.0	0.00	28.31	30.02	1.7	09	3.8	14	060	8	080	09
10	72	61	67	-1	61	63	0	2	0506	1913	RA BR	0	M	0.0	0.01	28.27	29.96	9.0	17	9.2	23	170	16	160	10
11	74	62	68	0	63	64	0	3	0507	1912	RA BR	0	M	0.0	1.33	28.09	29.80	3.0	28	8.1	22	180	15	280	11
12	72	55	64	-4	58	60	1	0	0508	1911	RA	0	M	0.0	0.08	28.19	29.92	7.1	31	7.5	26	330	18	320	12
13	73	51	62	-6	53	57	3	0	0509	1909		0	M	0.0	0.00	28.33	30.08	4.3	25	5.9	15	230	12	260	13
14	81	58	70	2	60	64	0	5	0510	1908		0	M	0.0	0.00	28.40	30.12	7.7	23	8.2	23	250	17	270	14
15	81	63	72	4	64	66	0	7	0511	1906	RA BR	0	M	0.0	0.12	28.40	30.12	6.1	25	6.6	19	240	15	280	15
16	83	60	72	4	64	68	0	7	0512	1905	RA BR	0	M	0.0	0.25	28.43	30.14	1.4	24	3.1	15	160	10	350	16
17	85	65	75	7	65	69	0	10	0513	1903		0	M	0.0	0.00	28.38	30.08	4.1	23	5.0	15	220	12	220	17
18	85*	66	76*	8	66	69	0	11	0514	1902	RA BR VCTS	0	M	0.0	0.10	28.30	30.00	3.3	19	5.3	37	250	29	250	18
19	82	67	75	8	67	69	0	10	0515	1859	RA	0	M	0.0	T	28.27	29.98	8.9	16	9.2	22	150	15	160	19
20	80	66	73	6	67	68	0	8	0516	1857	RA BR	0	M	0.0	0.90	28.23	29.93	9.3	17	11.7	30	150	21	150	20
21	73	58	66	-1	55	59	0	1	0517	1856		0	M	0.0	0.00	28.35	30.08	4.6	32	6.2	19	270	15	280	21
22	72	50	61	-6	54	57	4	0	0518	1854		0	M	0.0	0.00	28.43	30.15	4.8	36	5.4	16	360	13	360	22
23	74	56	65	-2	56	60	0	0	0519	1853		0	M	0.0	0.00	28.32	30.01	2.6	13	4.8	15	200	10	110	23
24	77	58	68	1	61	64	0	3	0520	1851		0	M	0.0	T	28.17	29.88	2.2	24	6.3	22	280	16	300	24
25	74	56	65	-1	55	M	0	0	0522	1850	BR	0	M	0.0	0.00	28.19	29.91	3.1	30	5.3	21	240	15	250	25
26	69	52	61	-5	53	56	4	0	0523	1848		0	M	0.0	0.00	28.28	30.01	4.8	28	5.2	14	270	12	270	26
27	67	55	61	-5	53	56	4	0	0524	1846		0	M	0.0	0.00	28.38	30.12	5.5	31	6.7	17	280	13	340	27
28	71	50*	61*	-5	53	56	4	0	0525	1845		0	M	0.0	0.00	28.46	30.21	1.2	24	2.6	10	250	8	260	28
29	78	52	65	0	56	60	0	0	0526	1843		0	M	0.0	0.00	28.44	30.16	1.9	21	4.8	17	230	13	250	29
30	79	60	70	5	62	65	0	5	0527	1842	BR	0	M	0.0	T	28.36	30.08	1.1	25	3.8	13	300	9	210	30
31	83	64	74	9	65	67	0	9	0528	1840	BR	0	M	0.0	0.00	28.33	30.04	3.8	31	6.3	19	320	14	330	31
	76.4	58.0	67.2		58.5	62.0	0.8	3.2	<-----Monthly Averages | Totals----->			M	0.0	3.08	28.29	30.01	2.2	26	6.2	<Monthly Average				
	-0.1	-0.3	-0.2	<----------Departure From Normal---------->											-0.37										

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	25	-14	49	-14
Cooling:	100	-13	342	-6

Greatest 24-hr Precipitation: 1.34 Date: 10-11
Greatest 24-hr Snowfall: 0.0 Date: M
Greatest Snow Depth: 0 Date: M

	Sea Level Pressure	Date	Time (LST)
Maximum	30.24	28	1121
Minimum	29.75	03	1742

Number of Days with -------->
Max Temp >=90: 0
Max Temp <=32: 0
Min Temp <=32: 0
Min Temp <=0 : 0
Precipitation >=.01 inch: 10
Precipitation >=.10 inch: 6

APPENDIX B.2

TIME SERIES PLOTS – FIGURES B.1 THROUGH B.38

Figure B.1
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

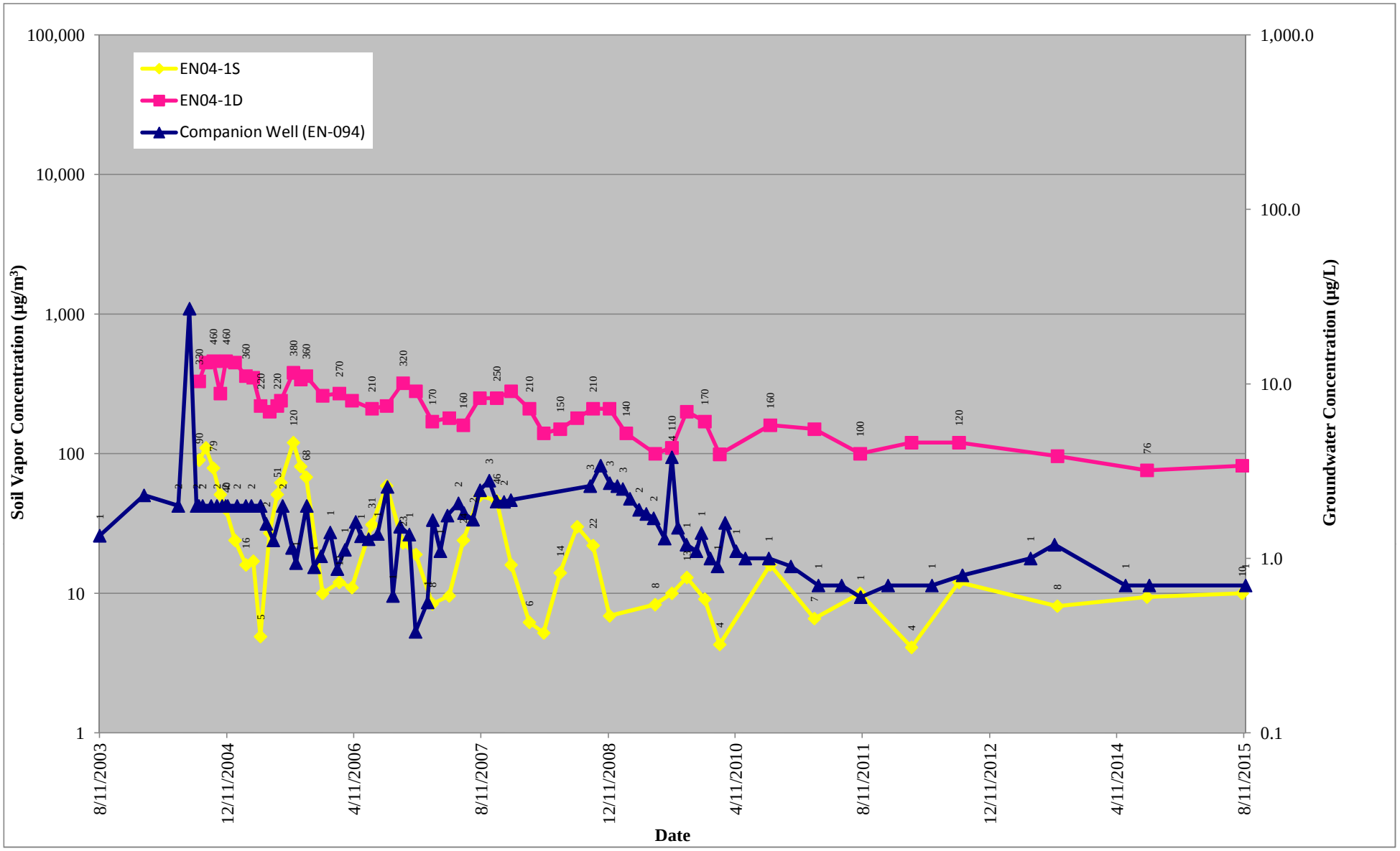


Figure B.2
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

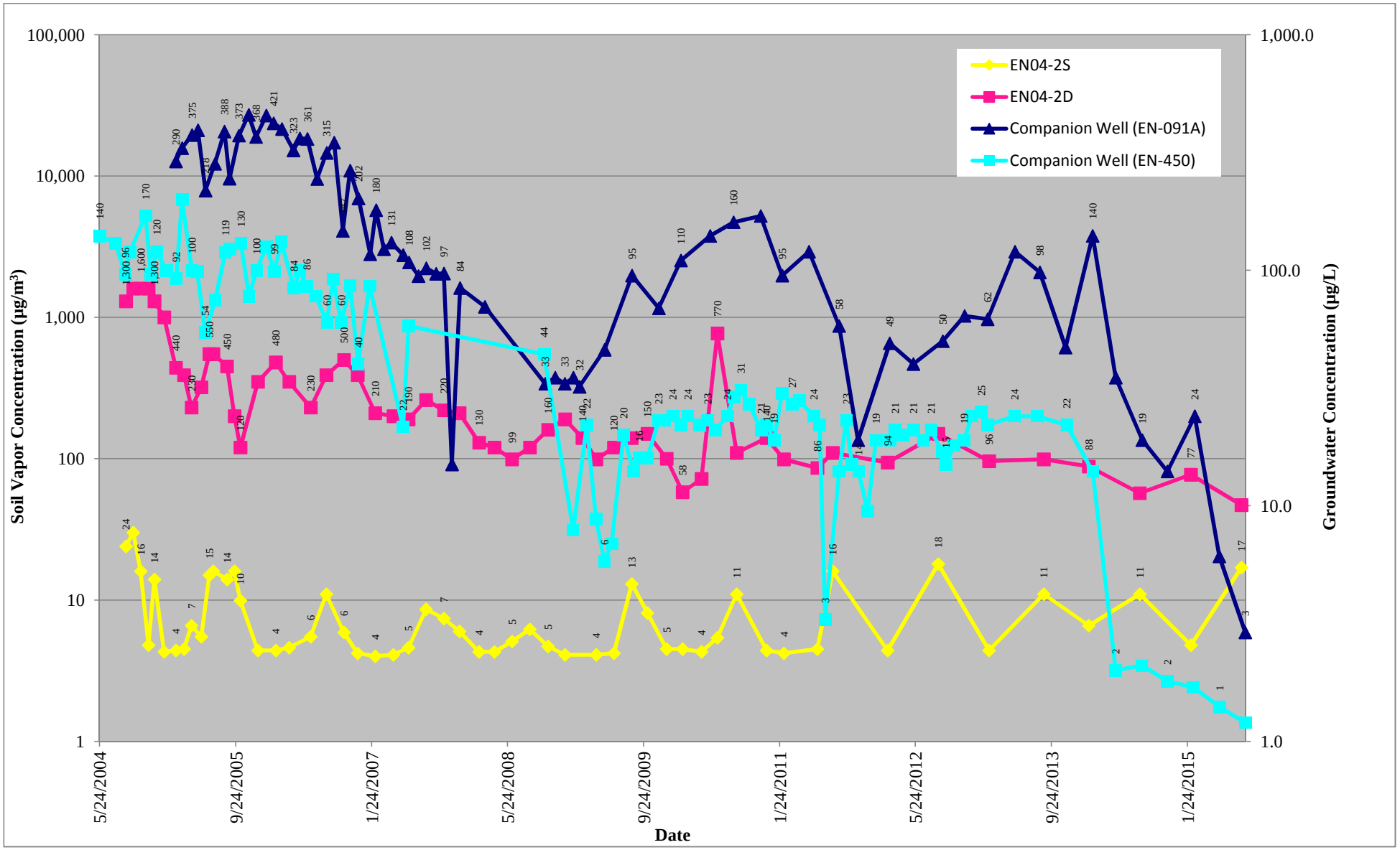


Figure B.3
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

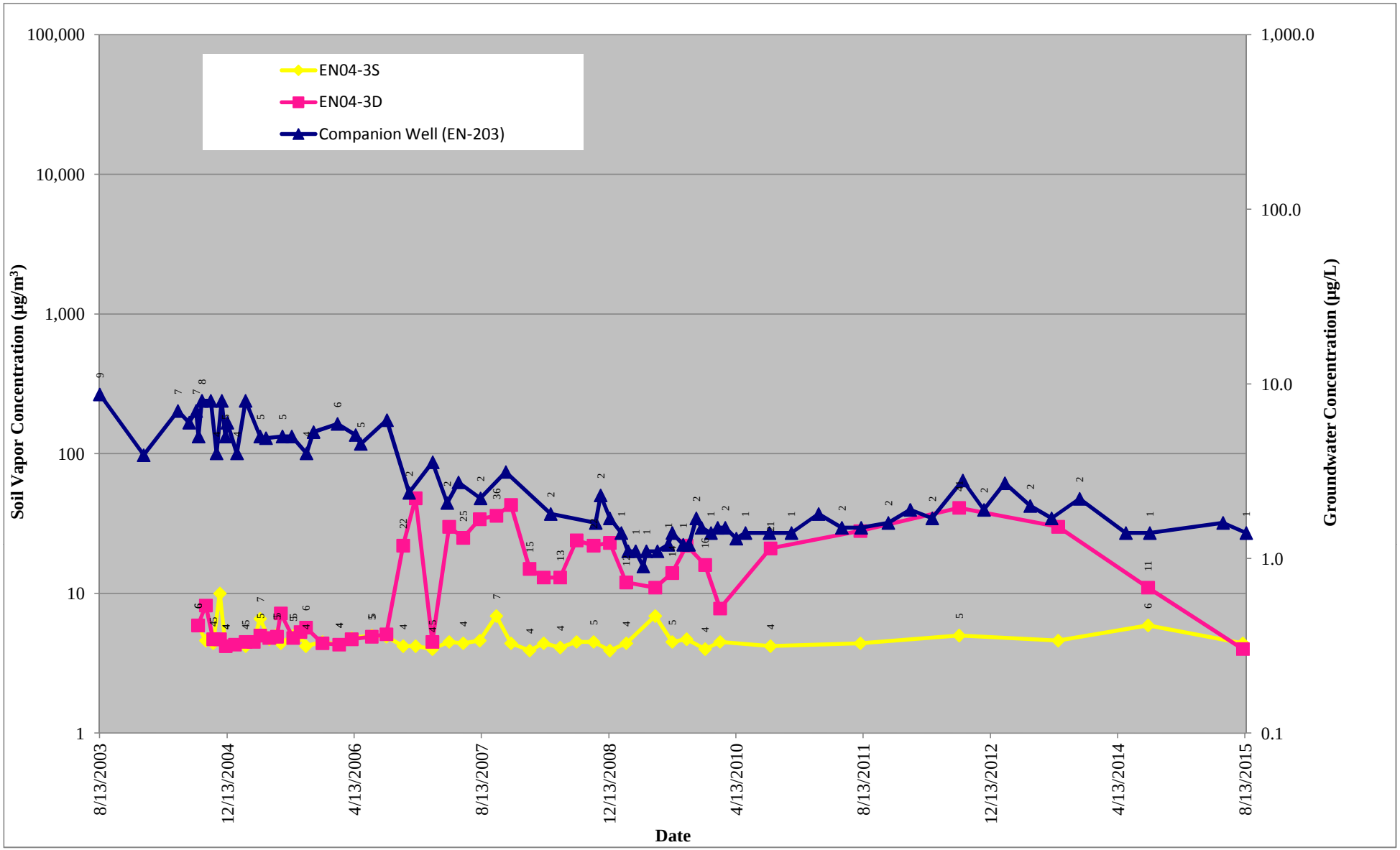
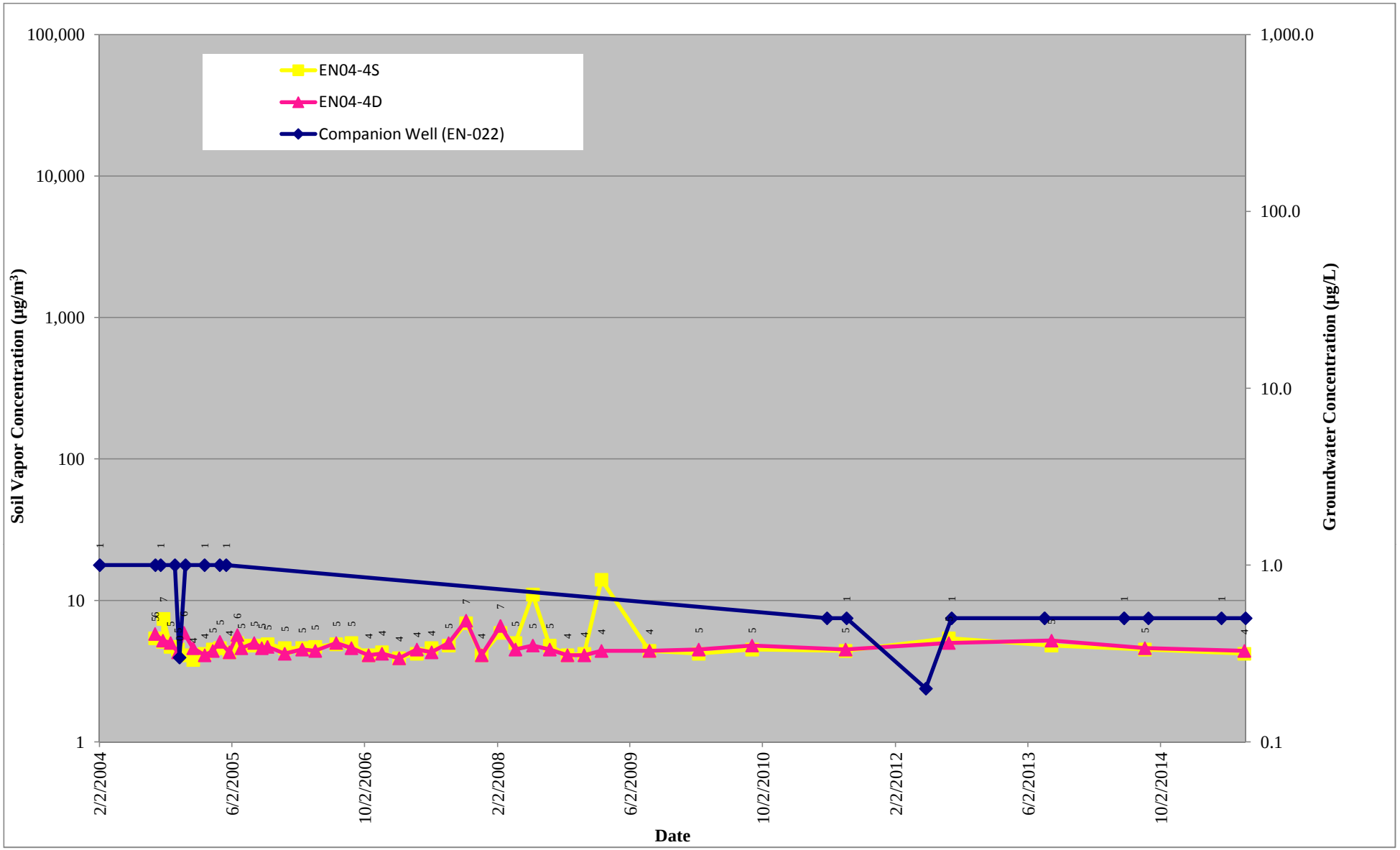


Figure B.4
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



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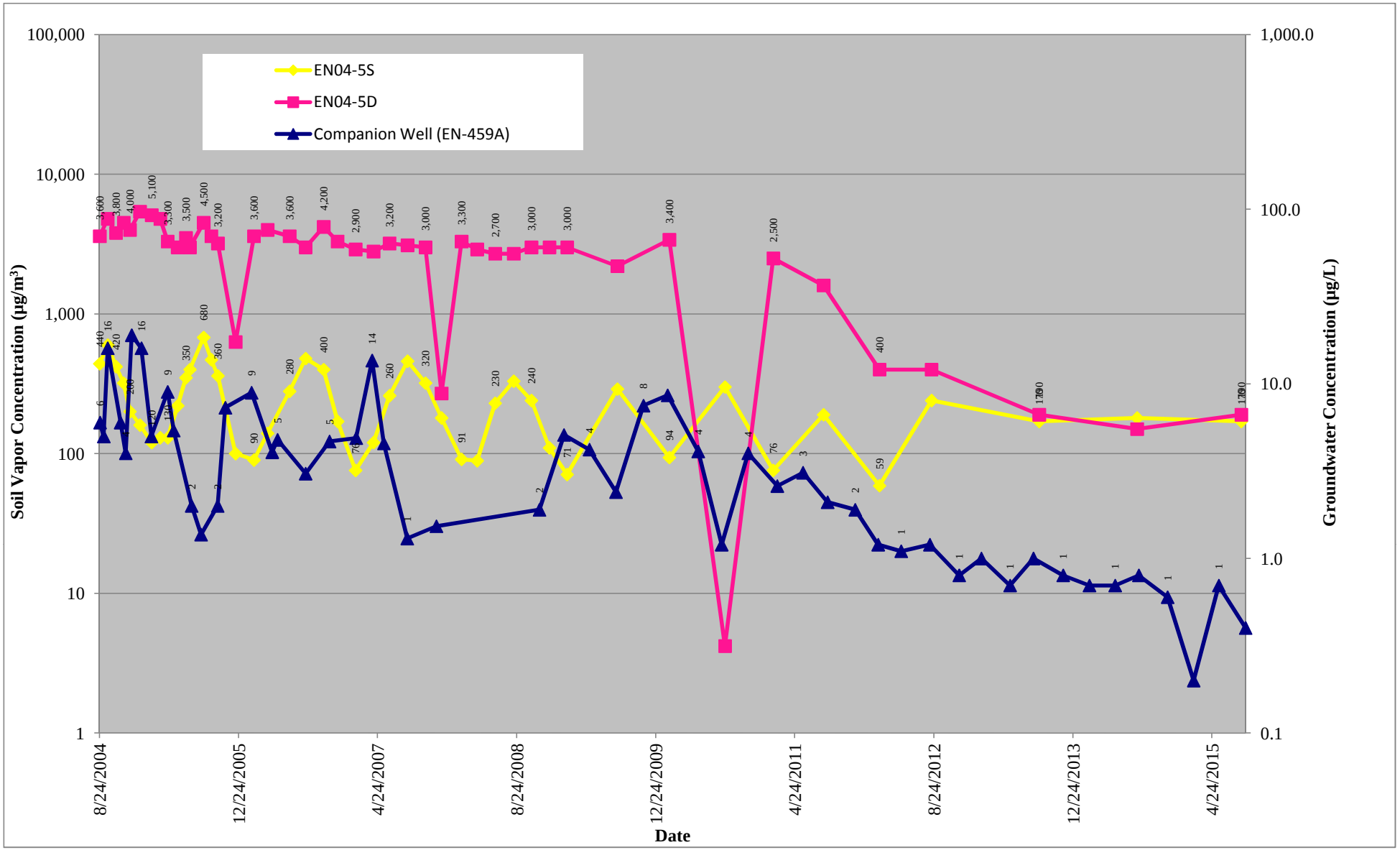

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Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
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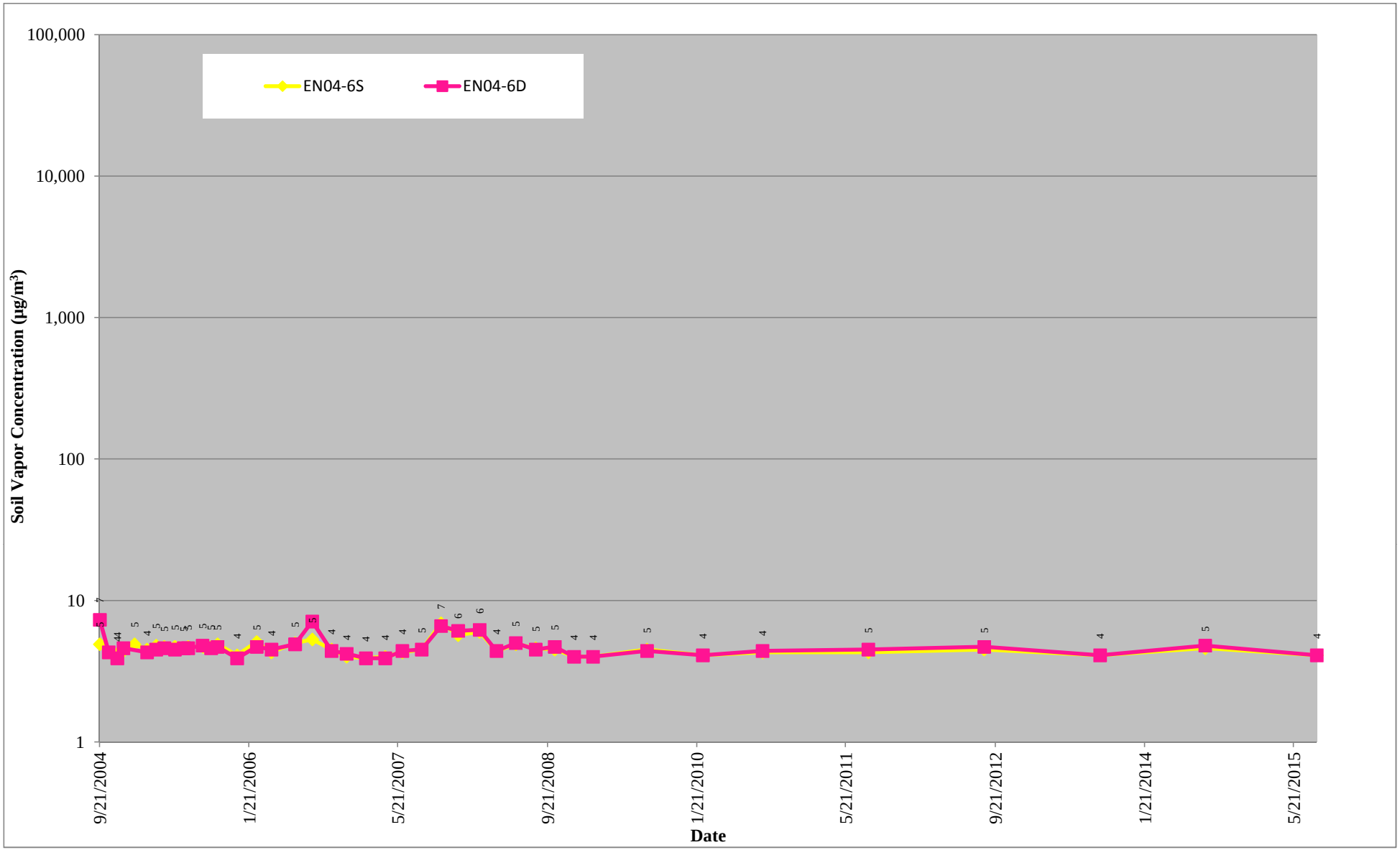

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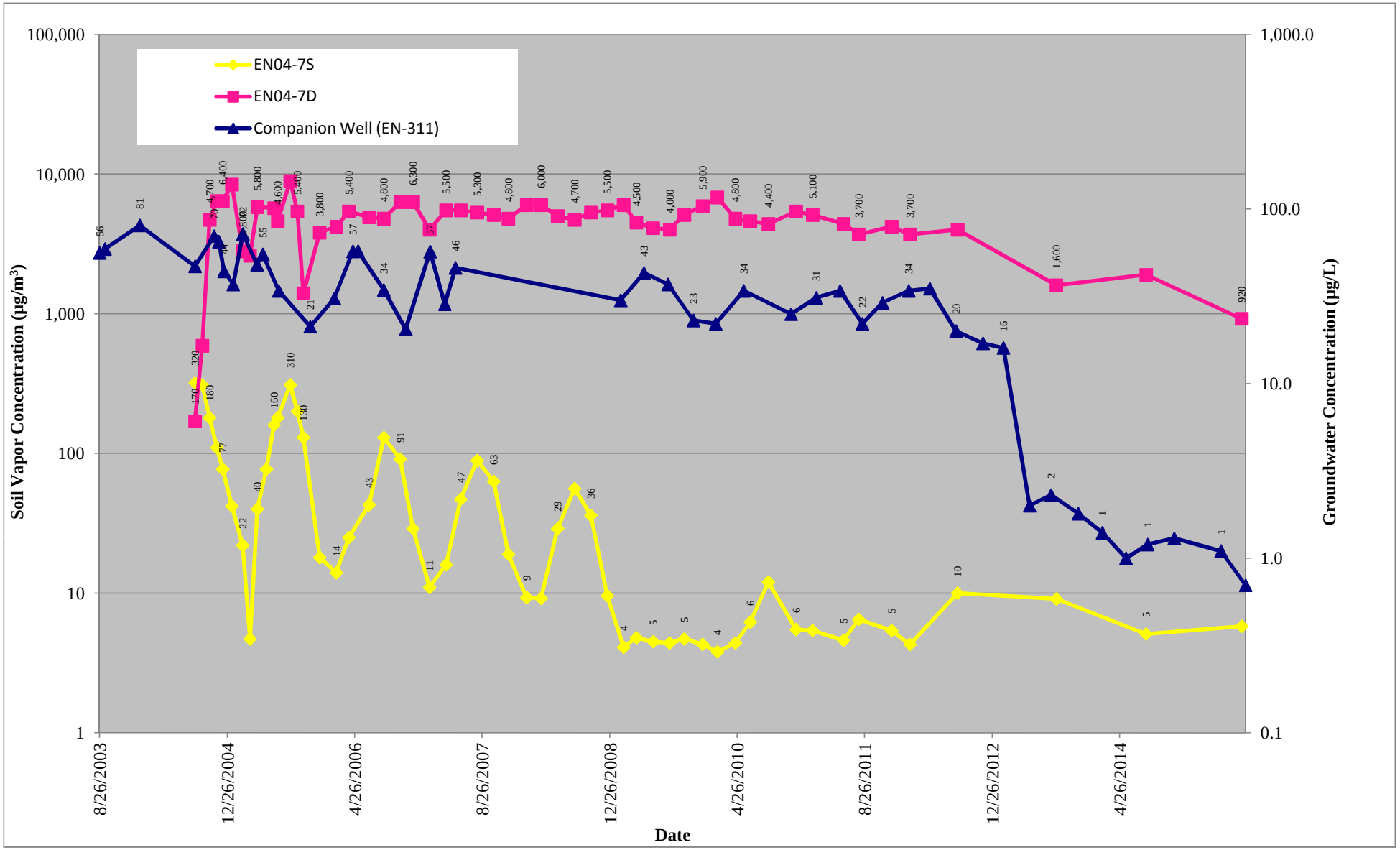

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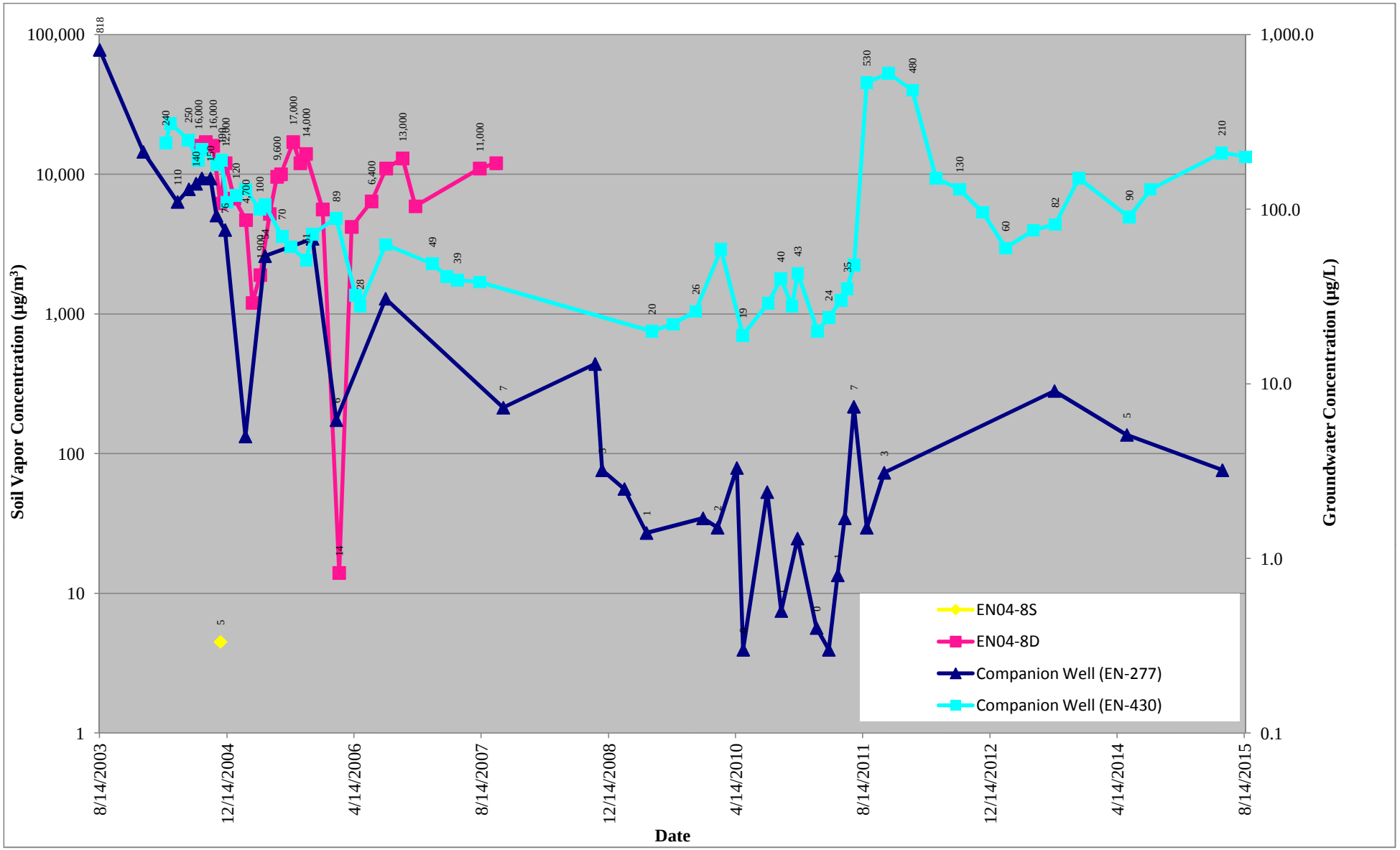

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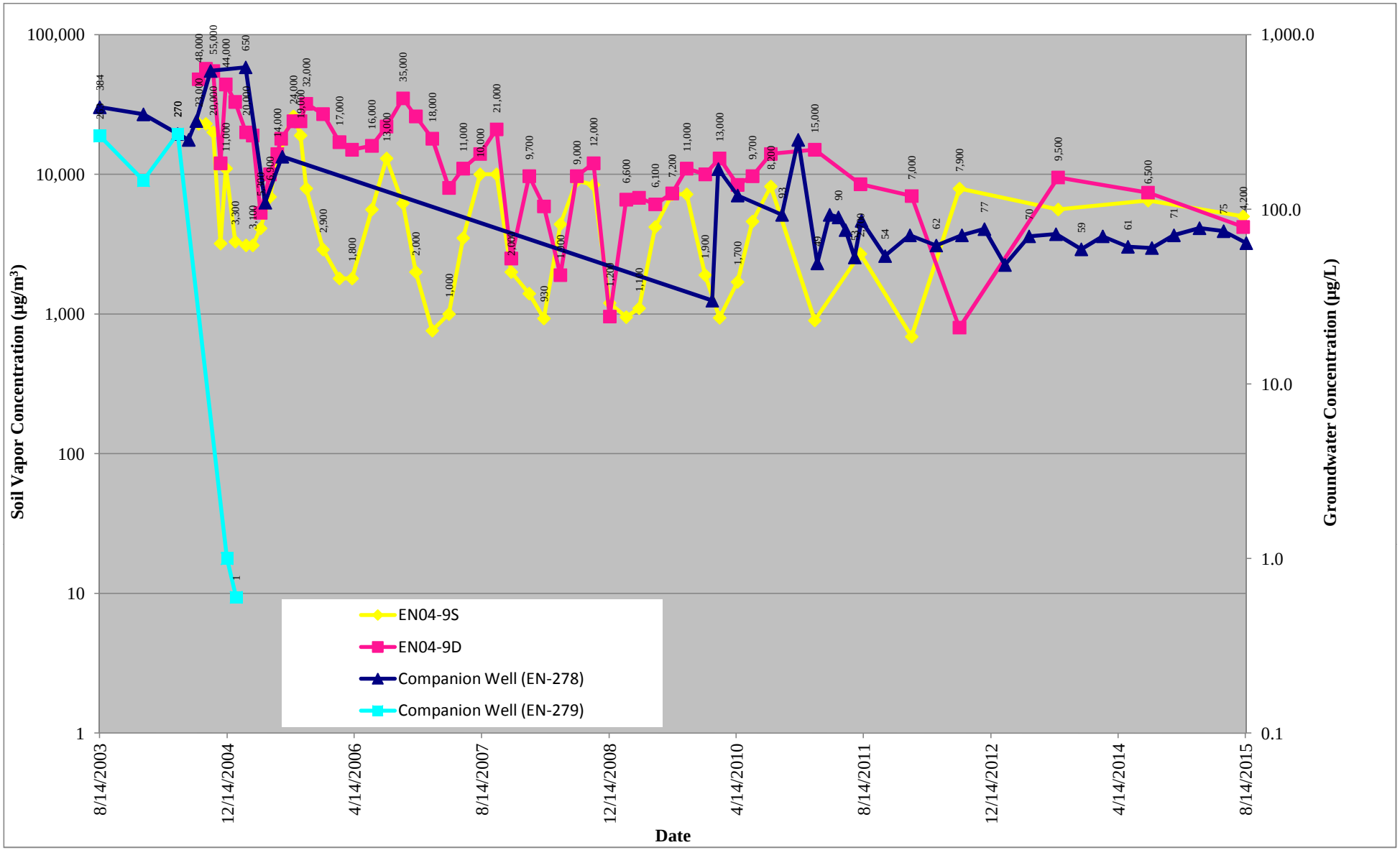
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



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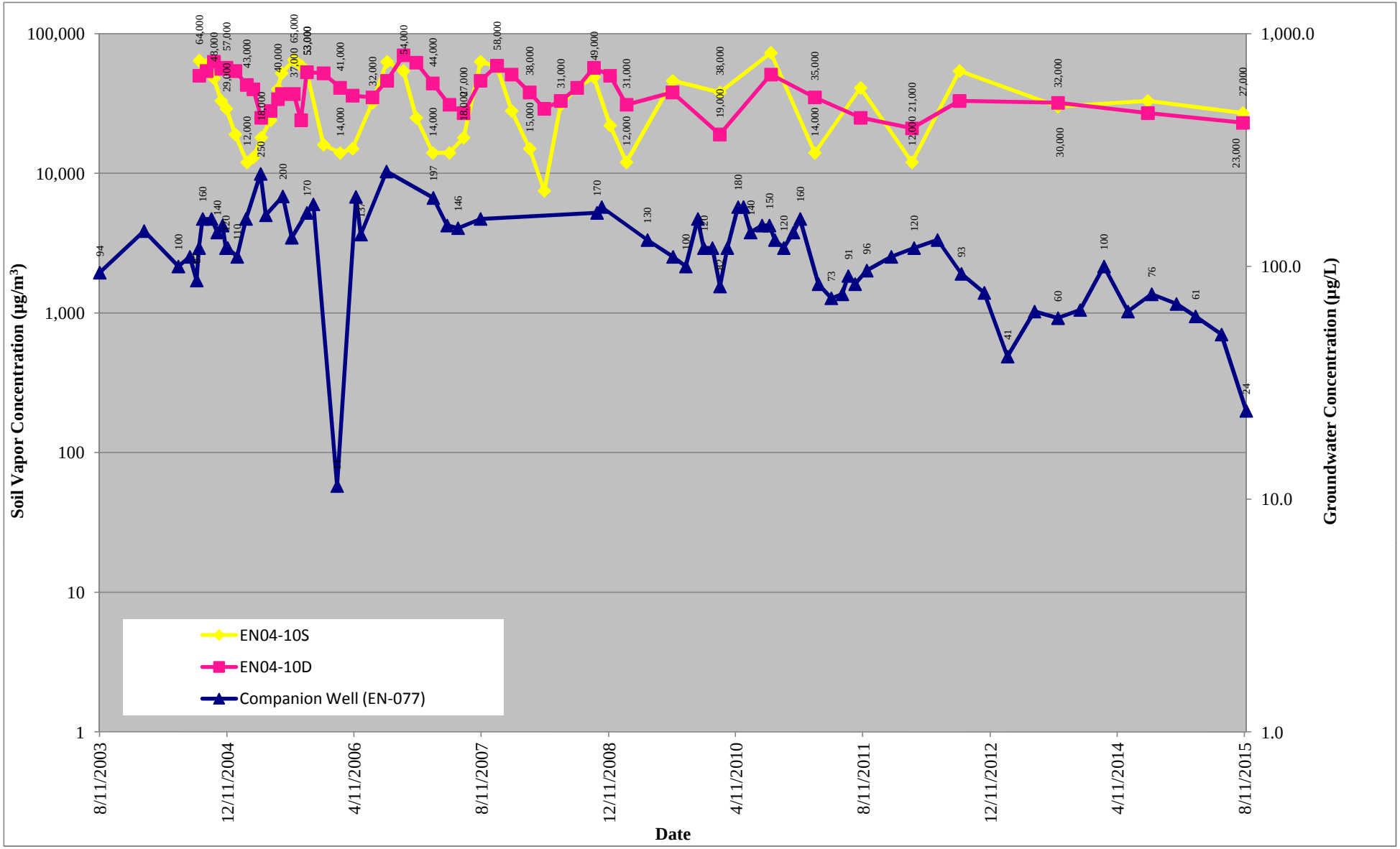
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



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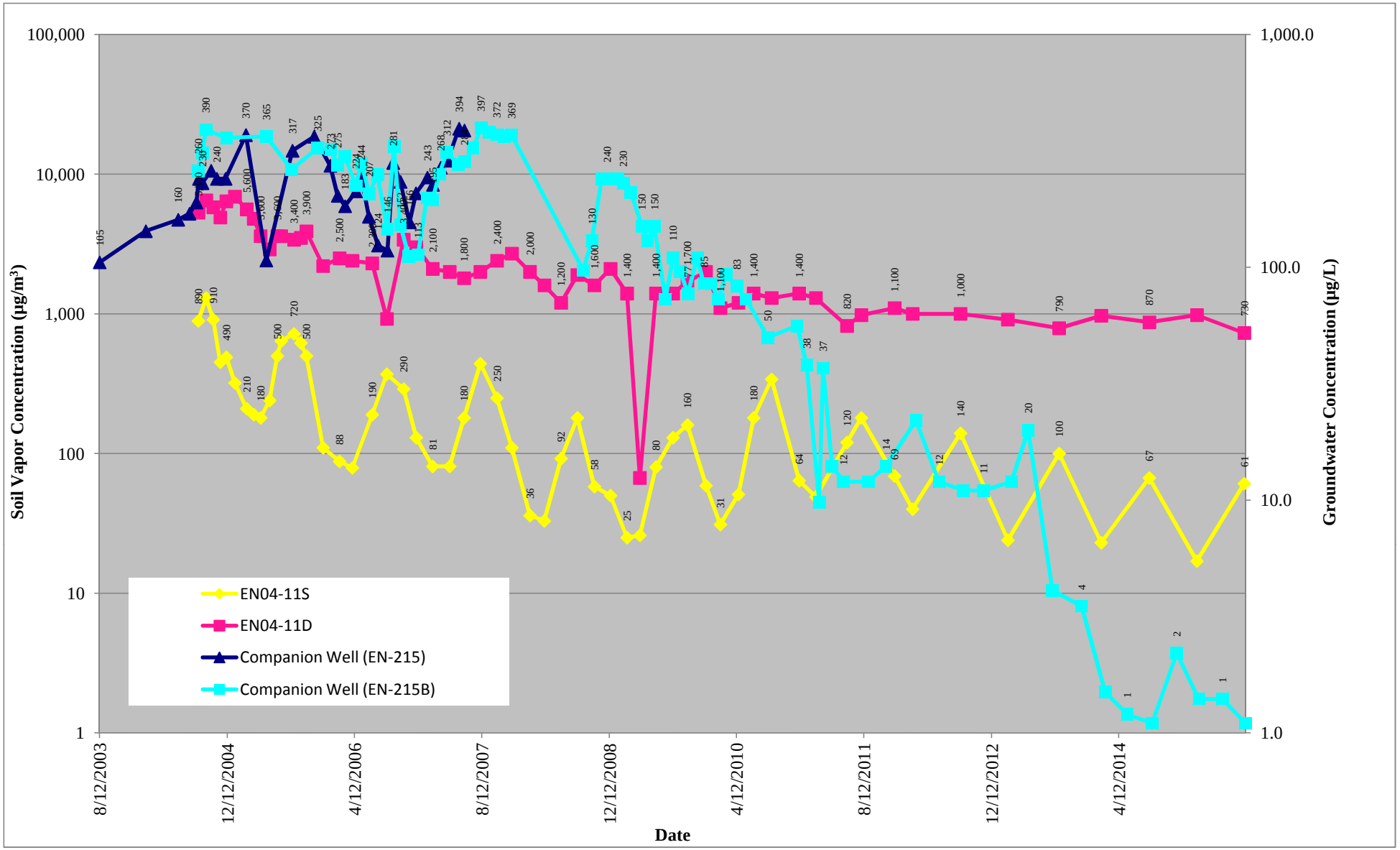
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



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Comprehensive Operations, Maintenance, Monitoring Program
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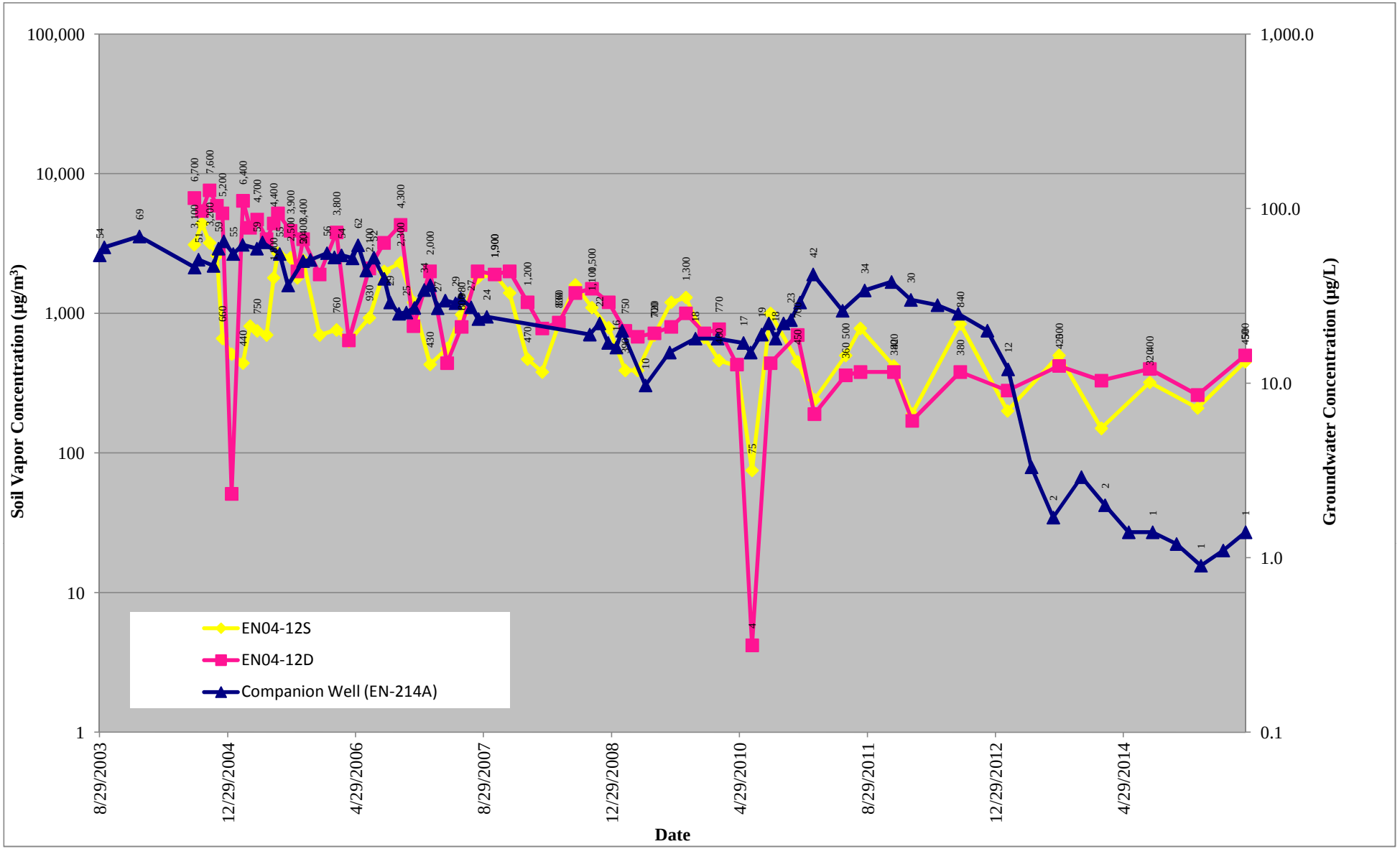

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TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
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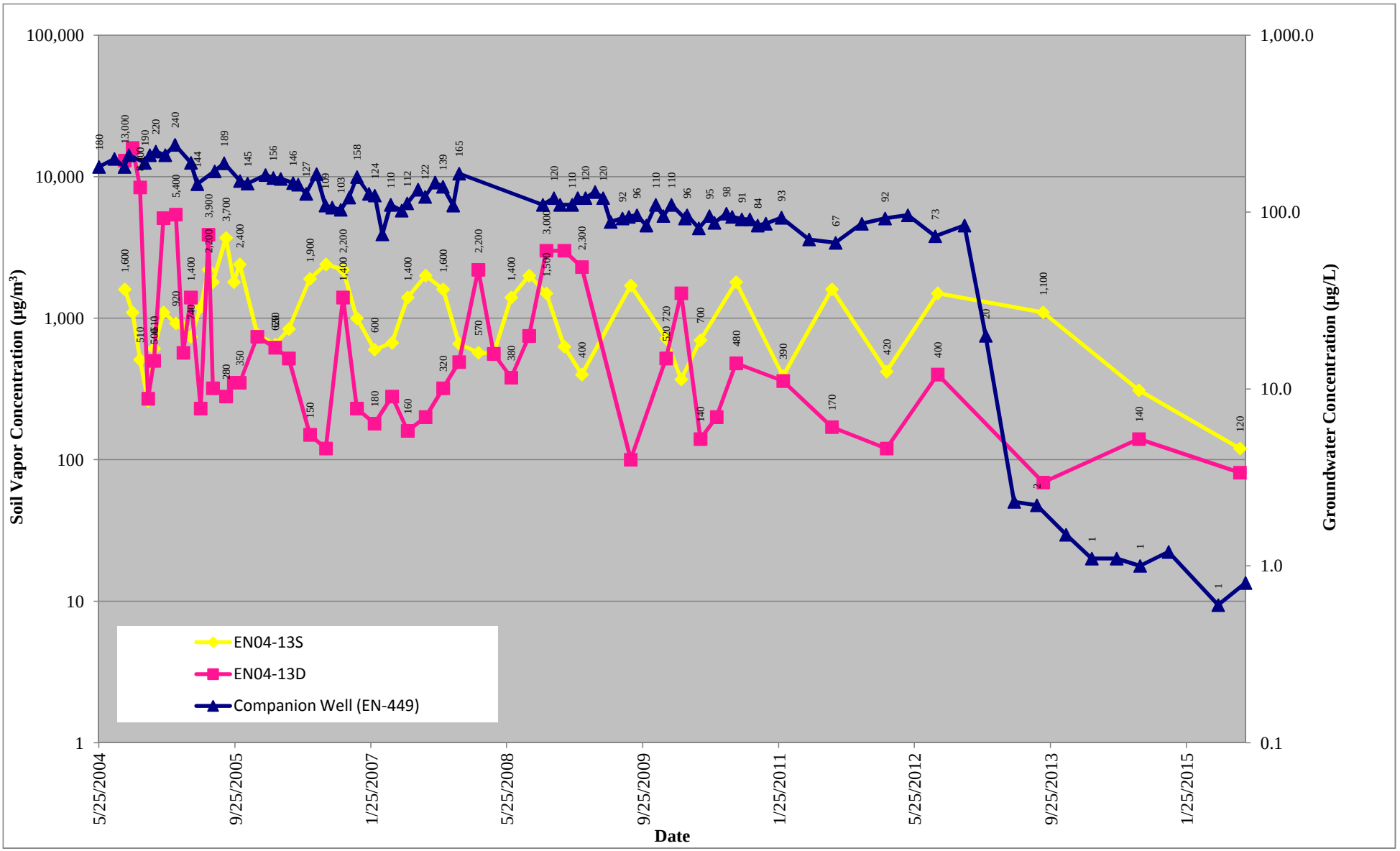
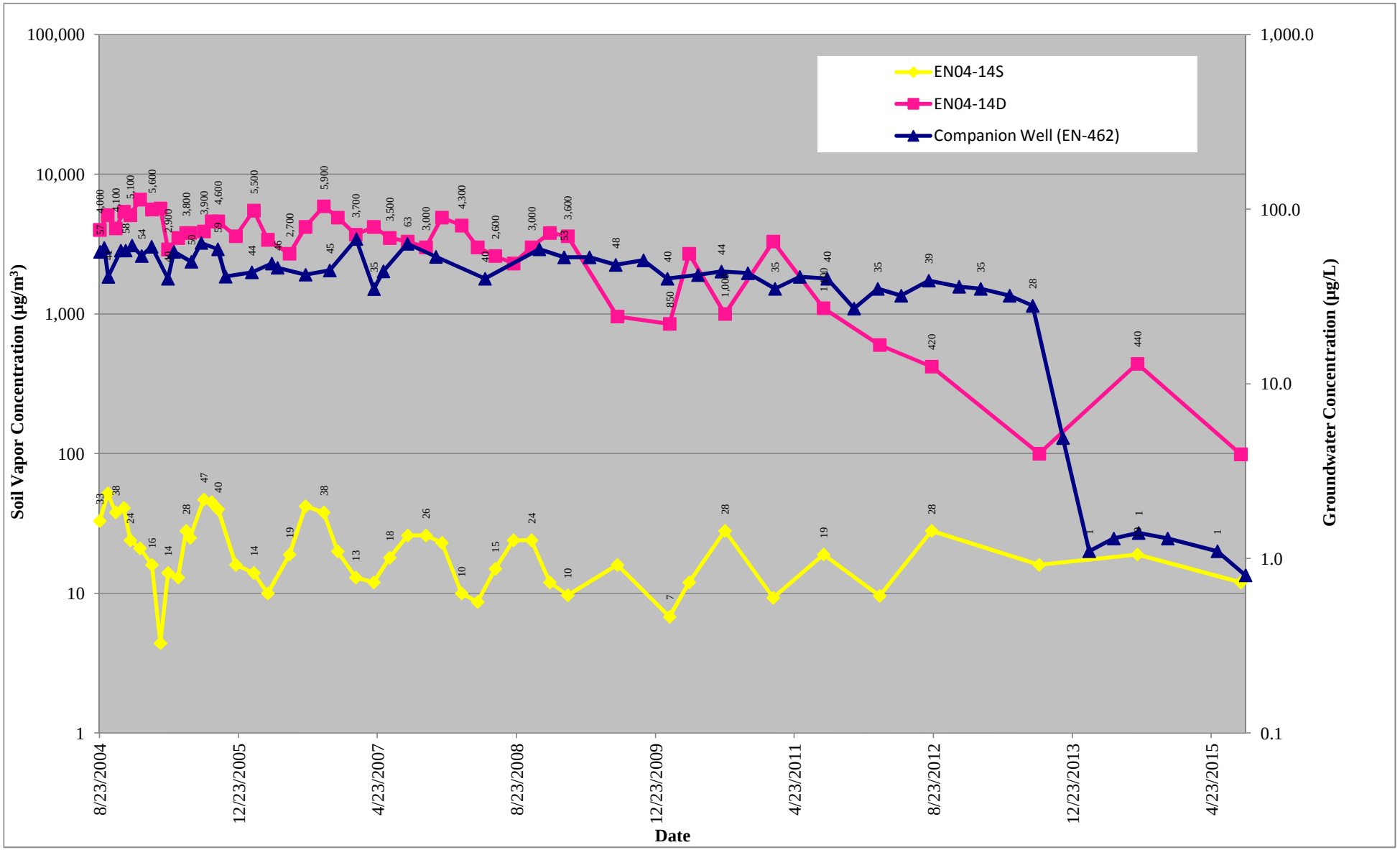


Figure B.14
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



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TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

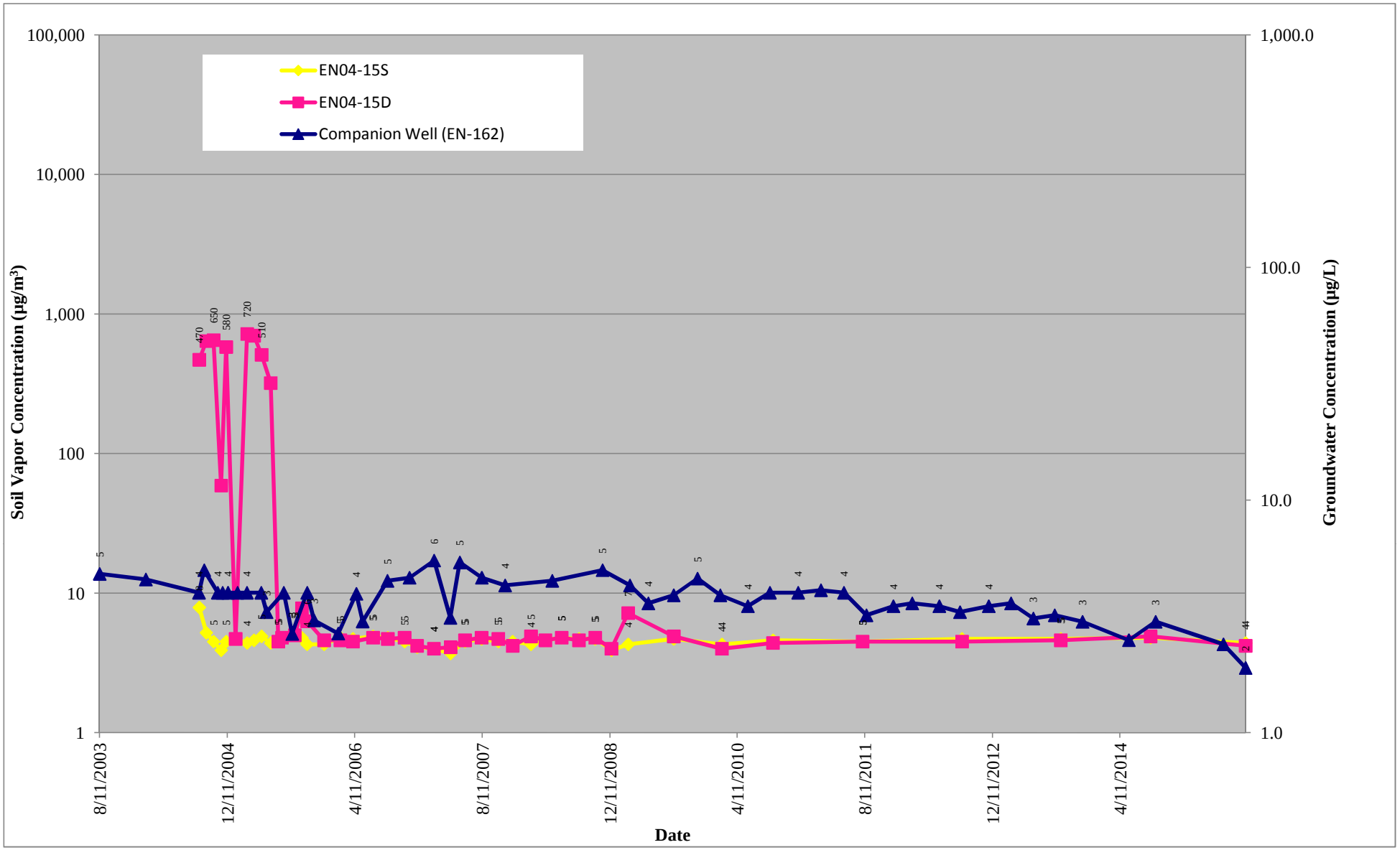
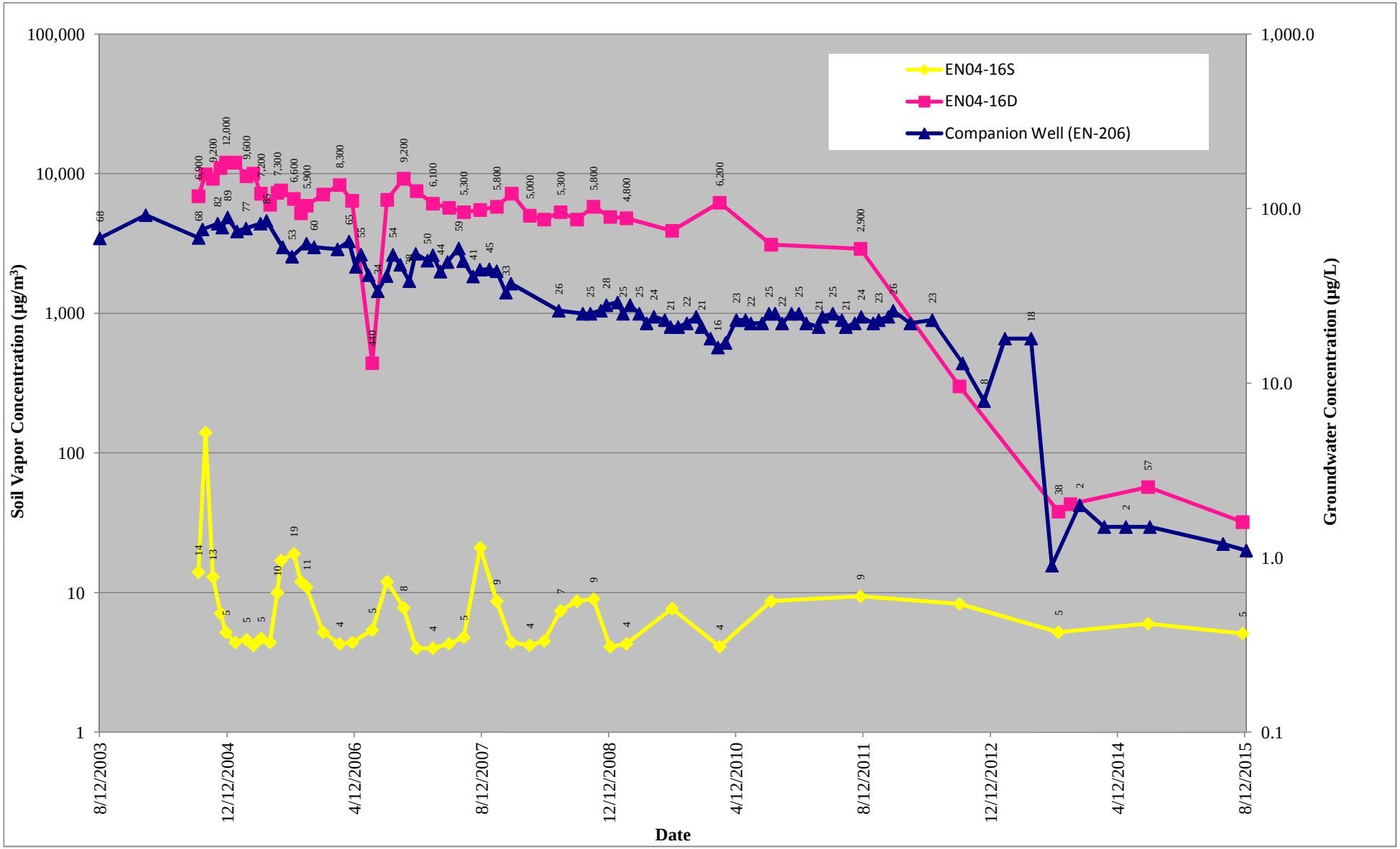


Figure B.16
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



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TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

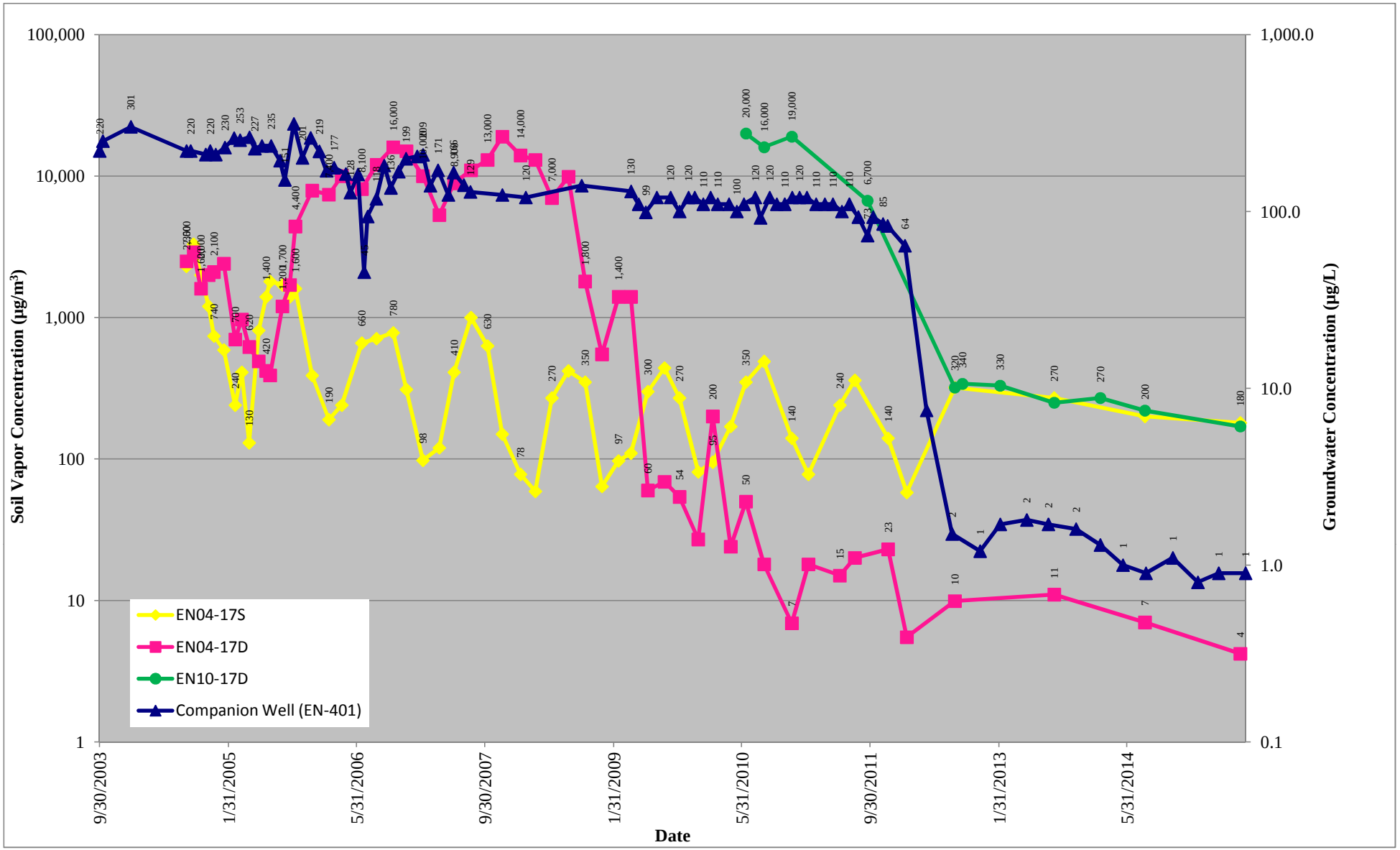

Figure B.18
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

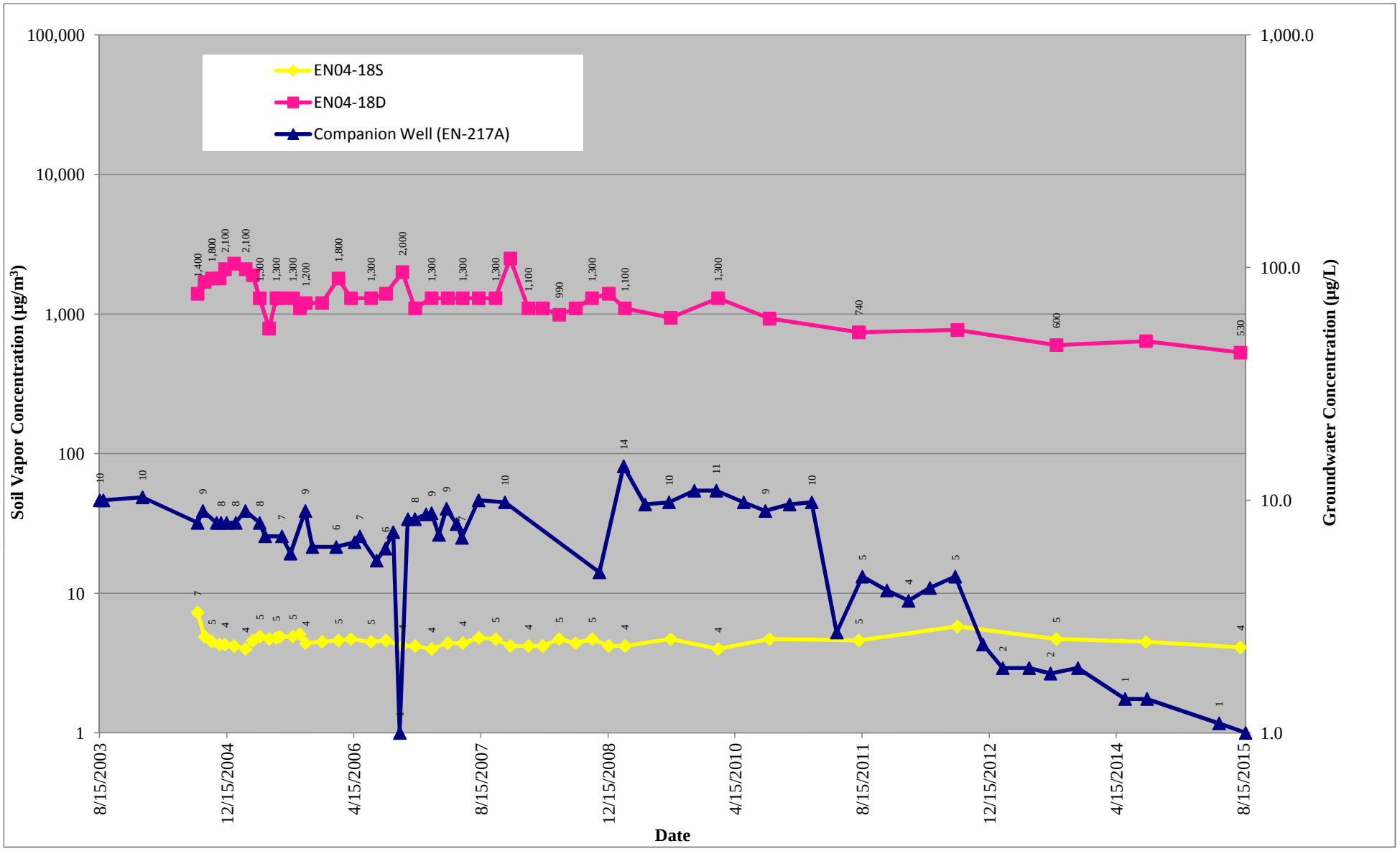

Figure B.19
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

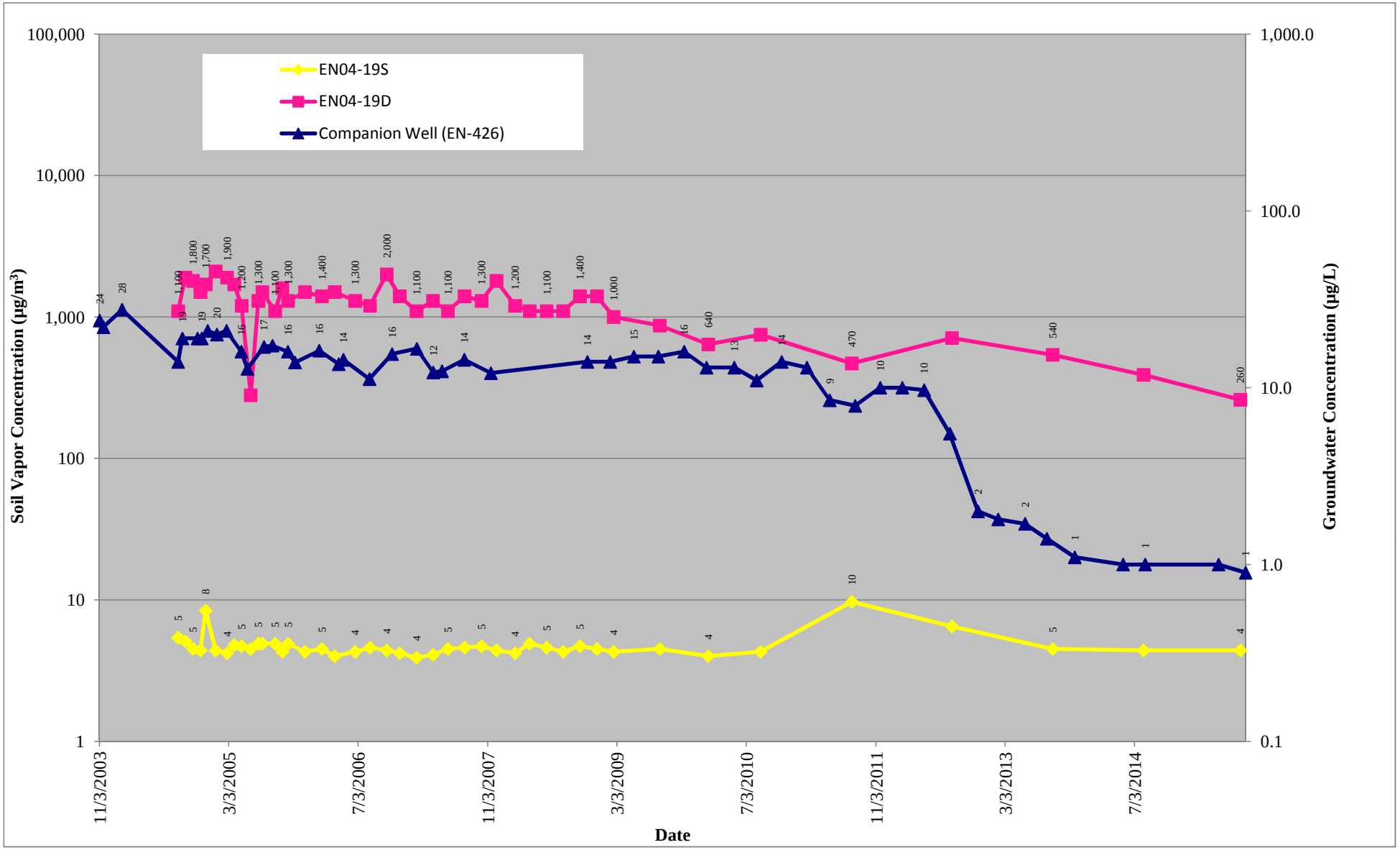

Figure B.20
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

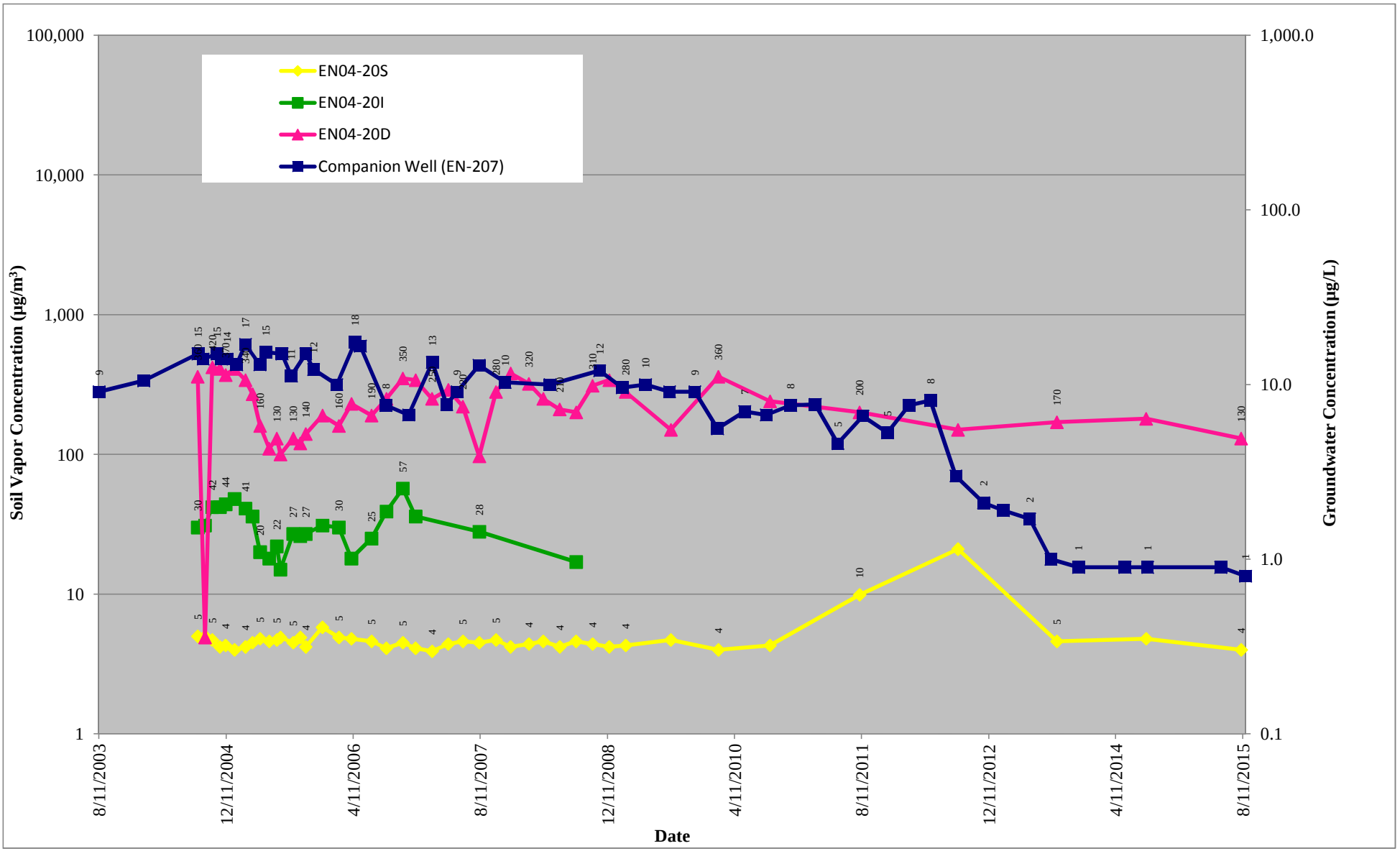

Figure B.21
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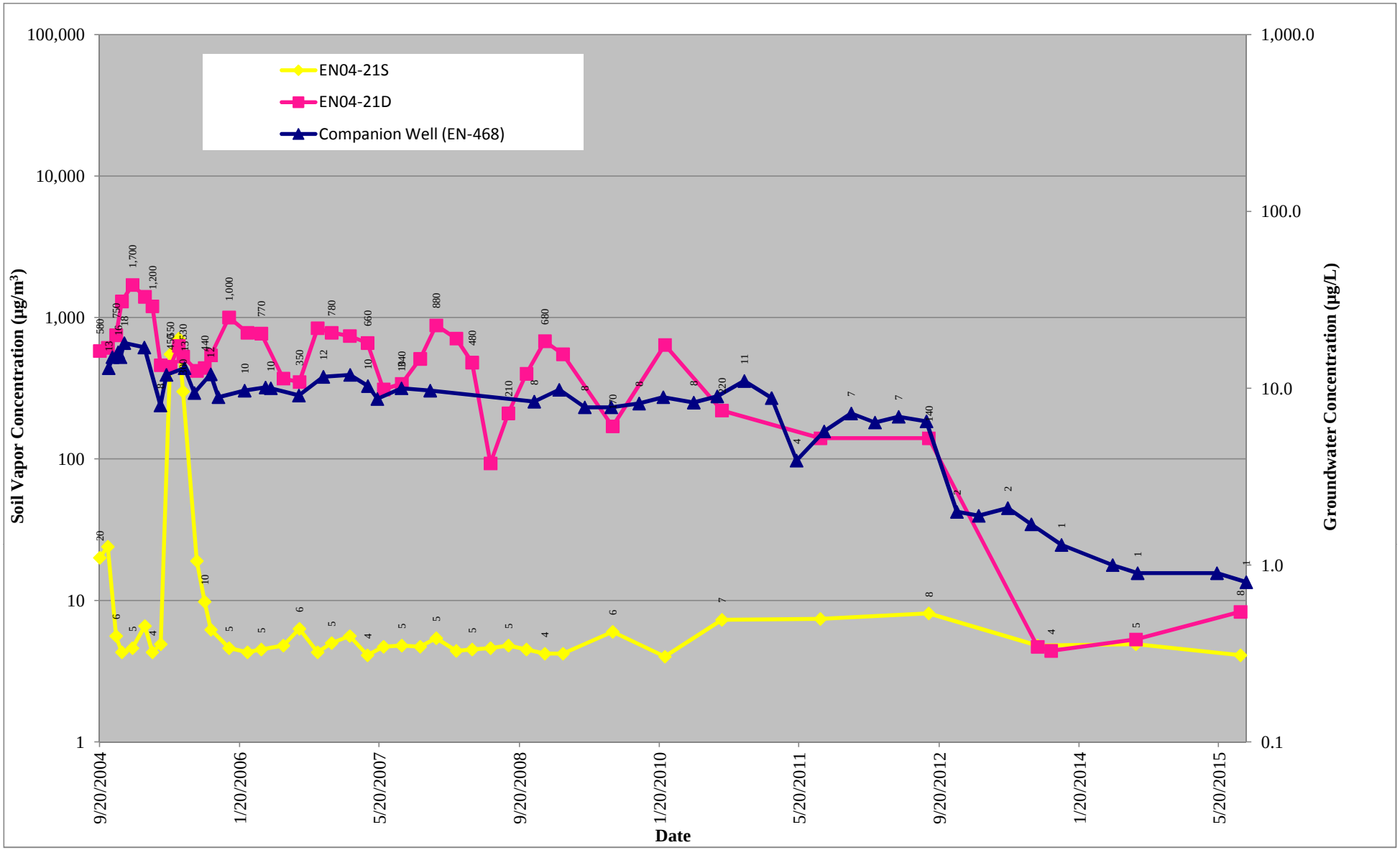
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



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TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

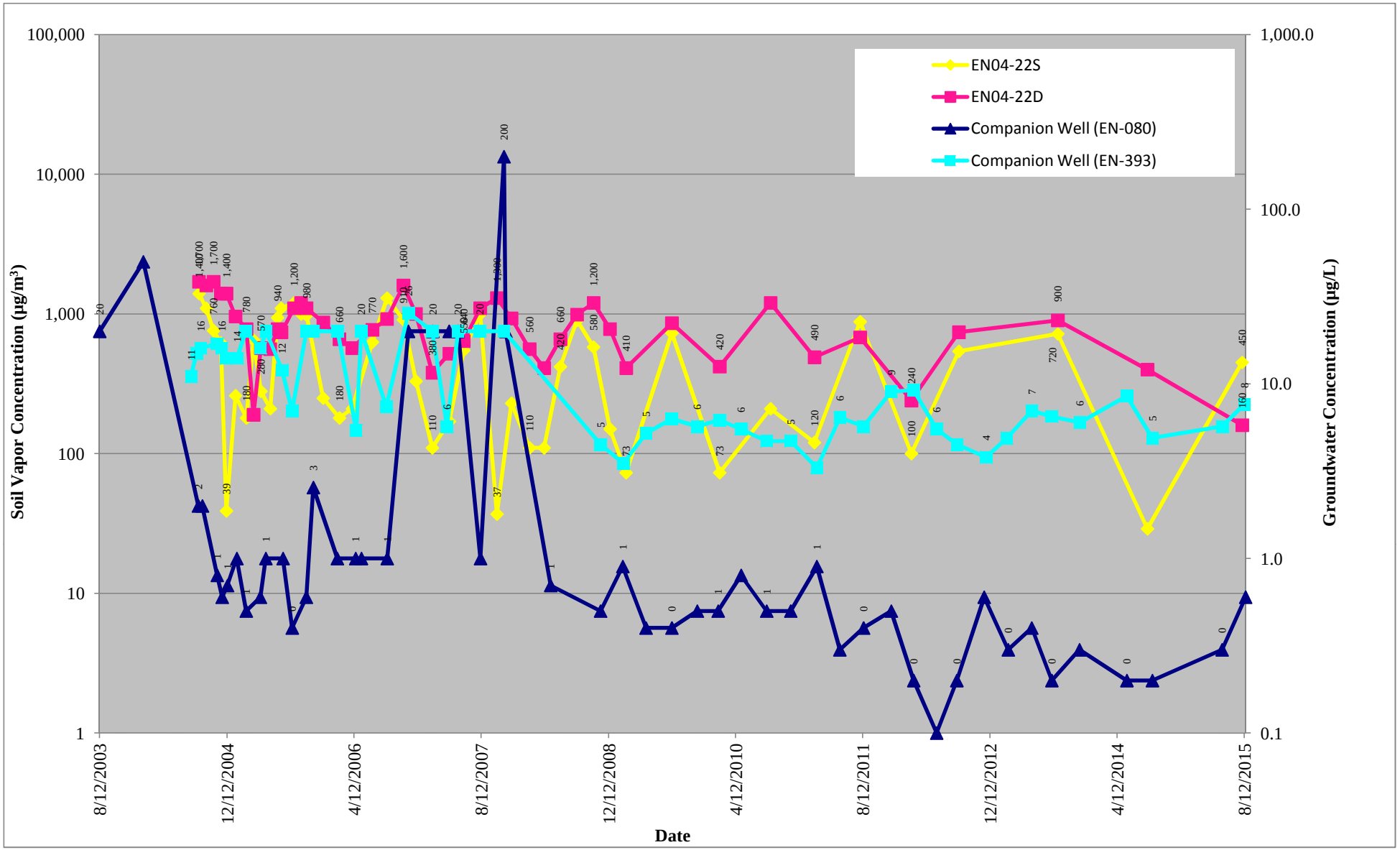

Figure B.23
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

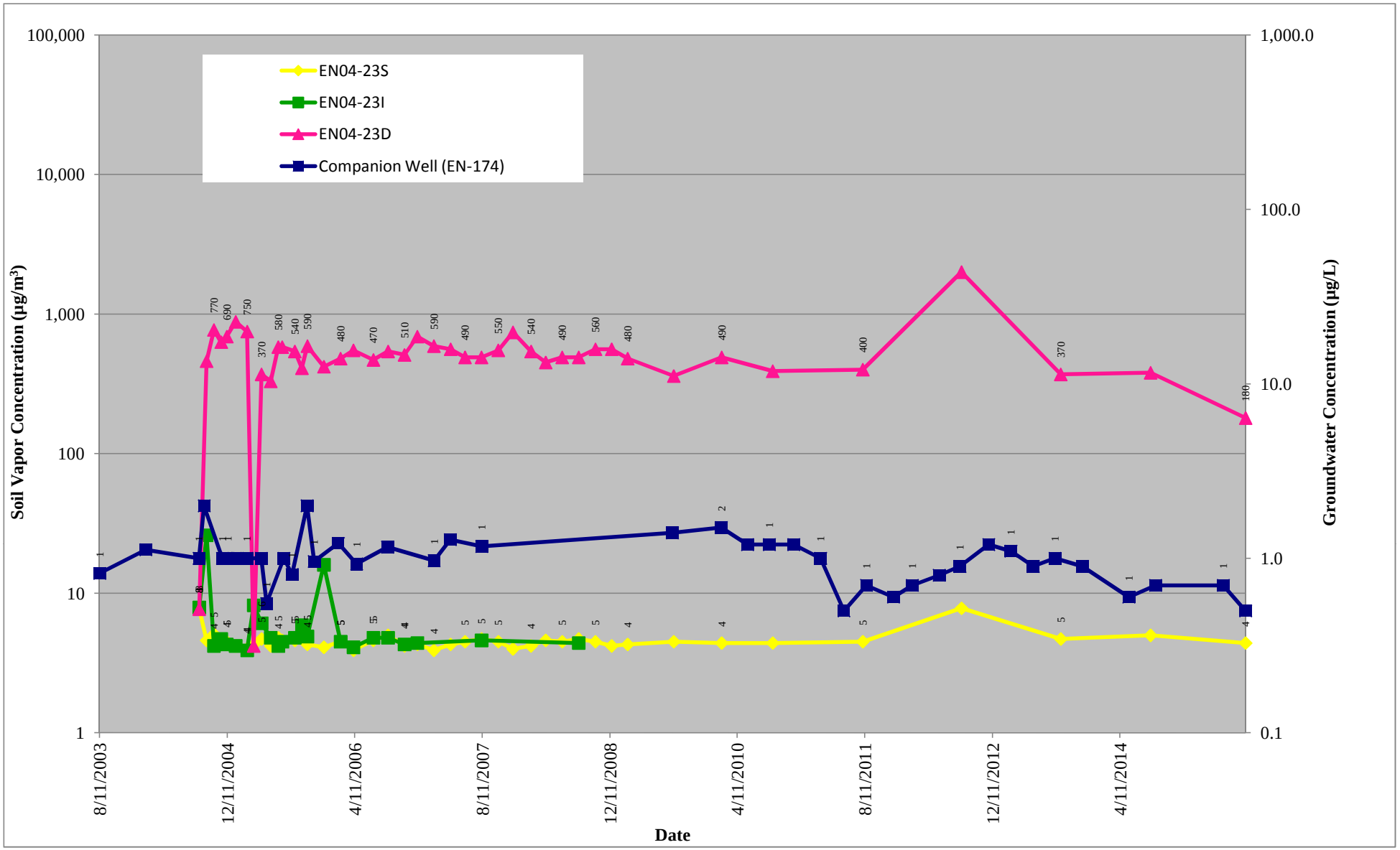

Figure B.24
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

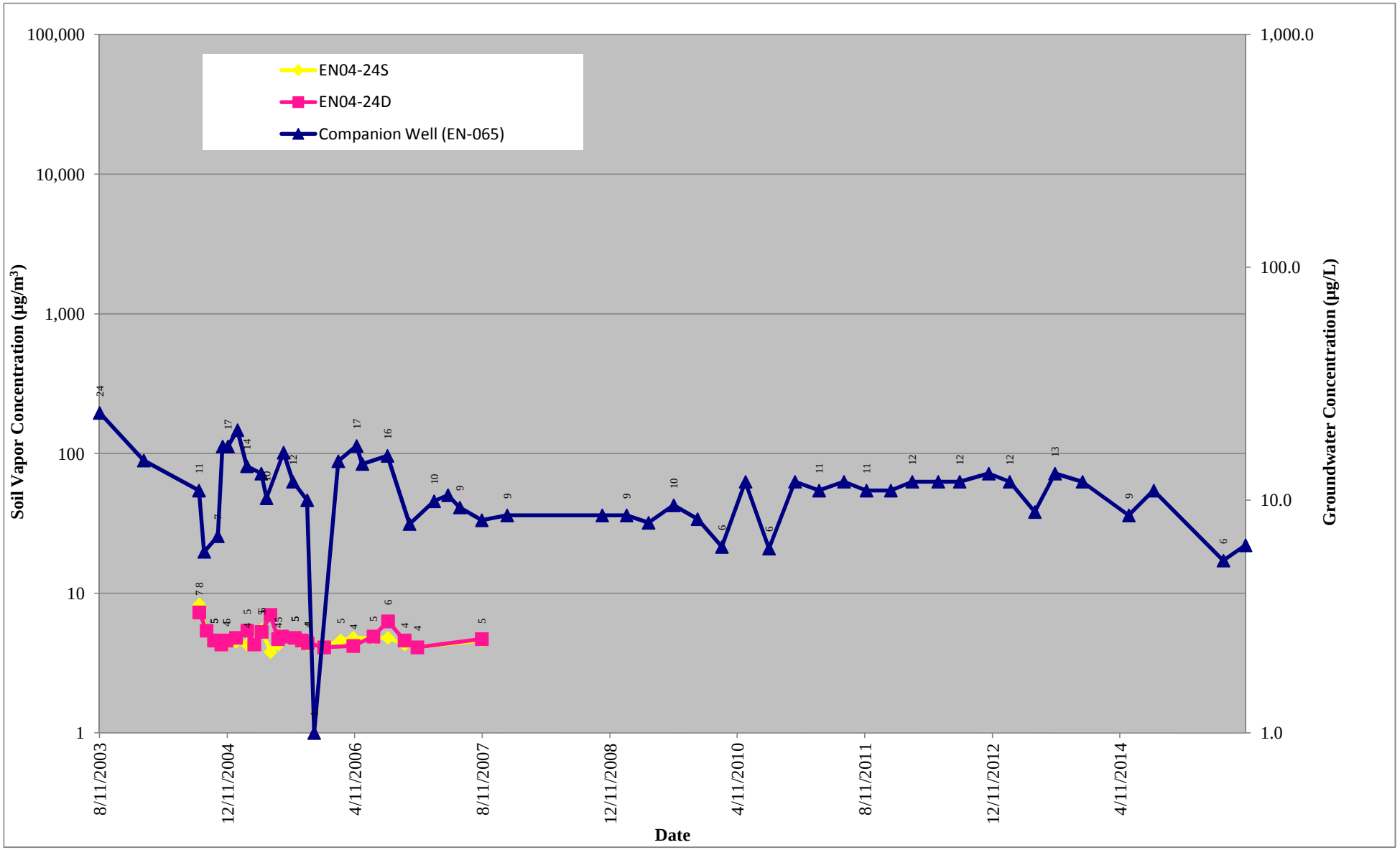

Figure B.25
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Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

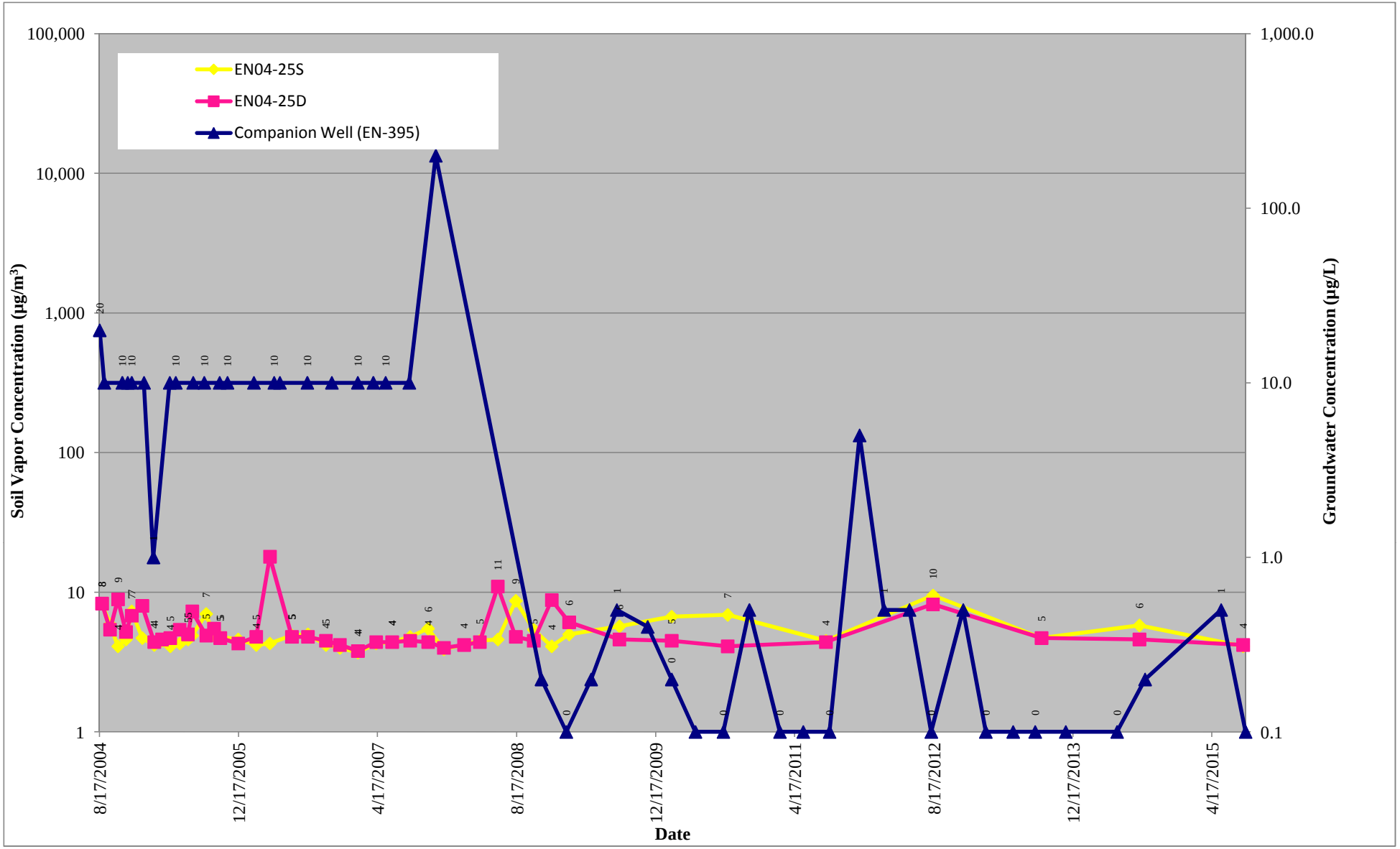


Figure B.26
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

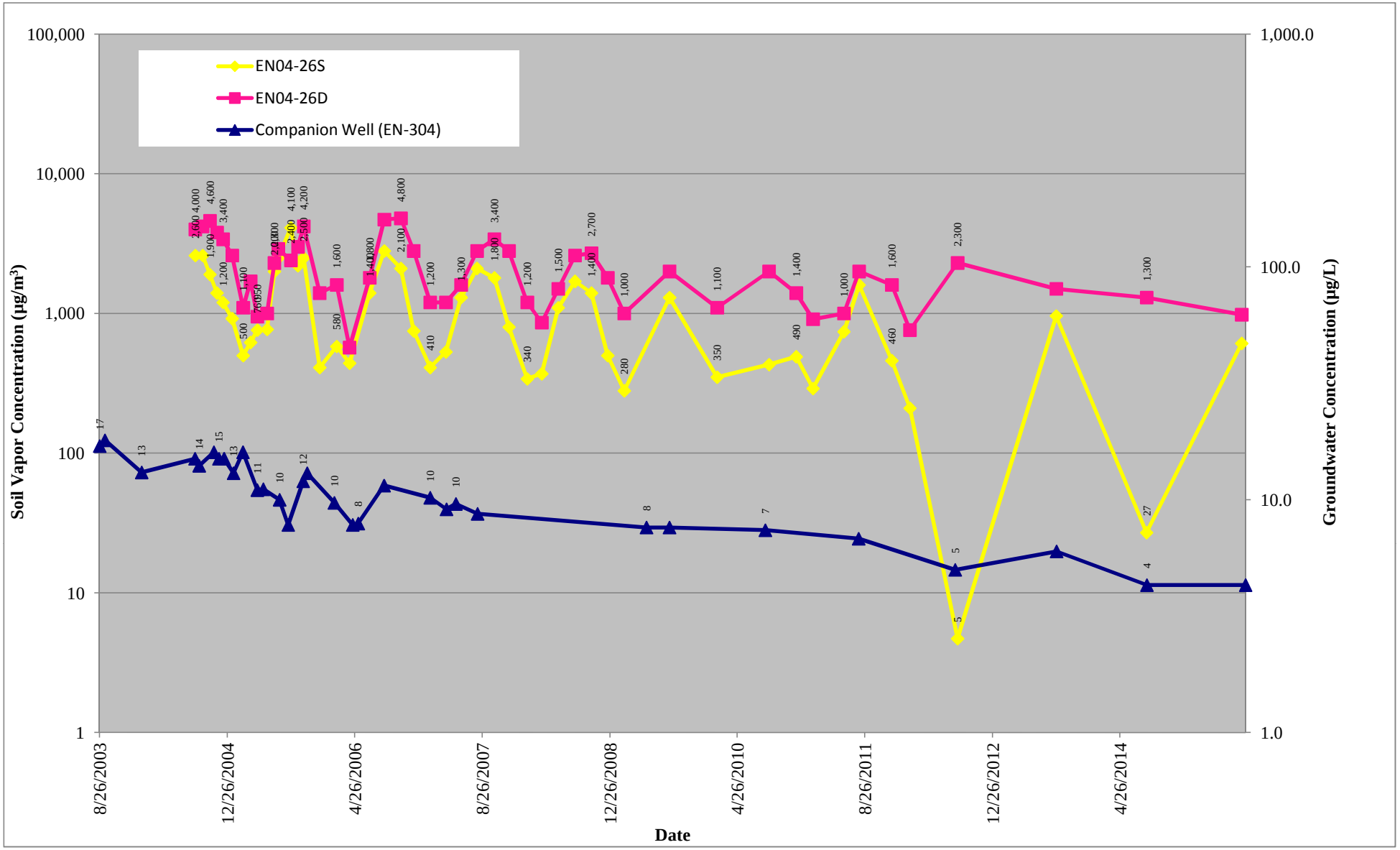
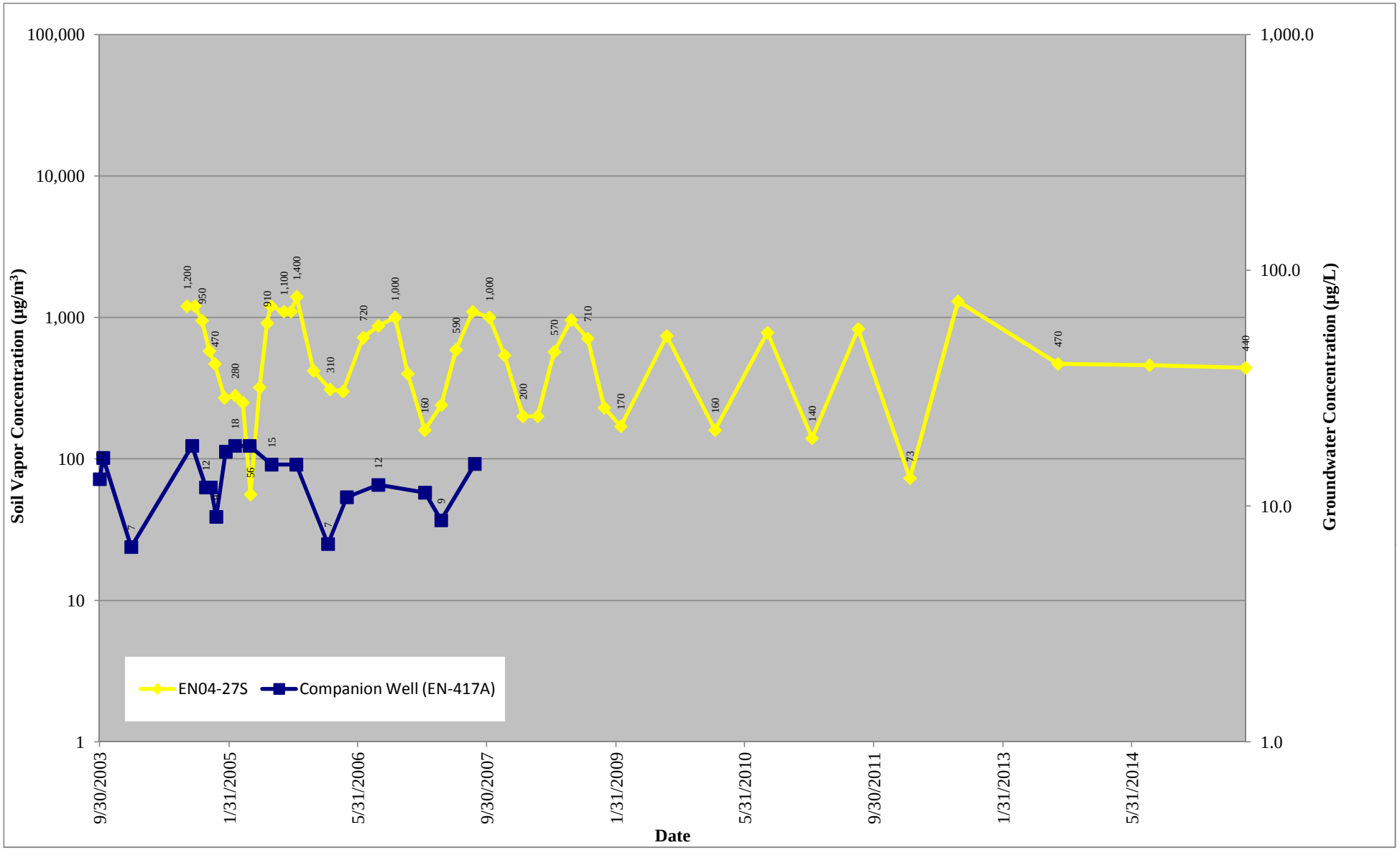


Figure B.27
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



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TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

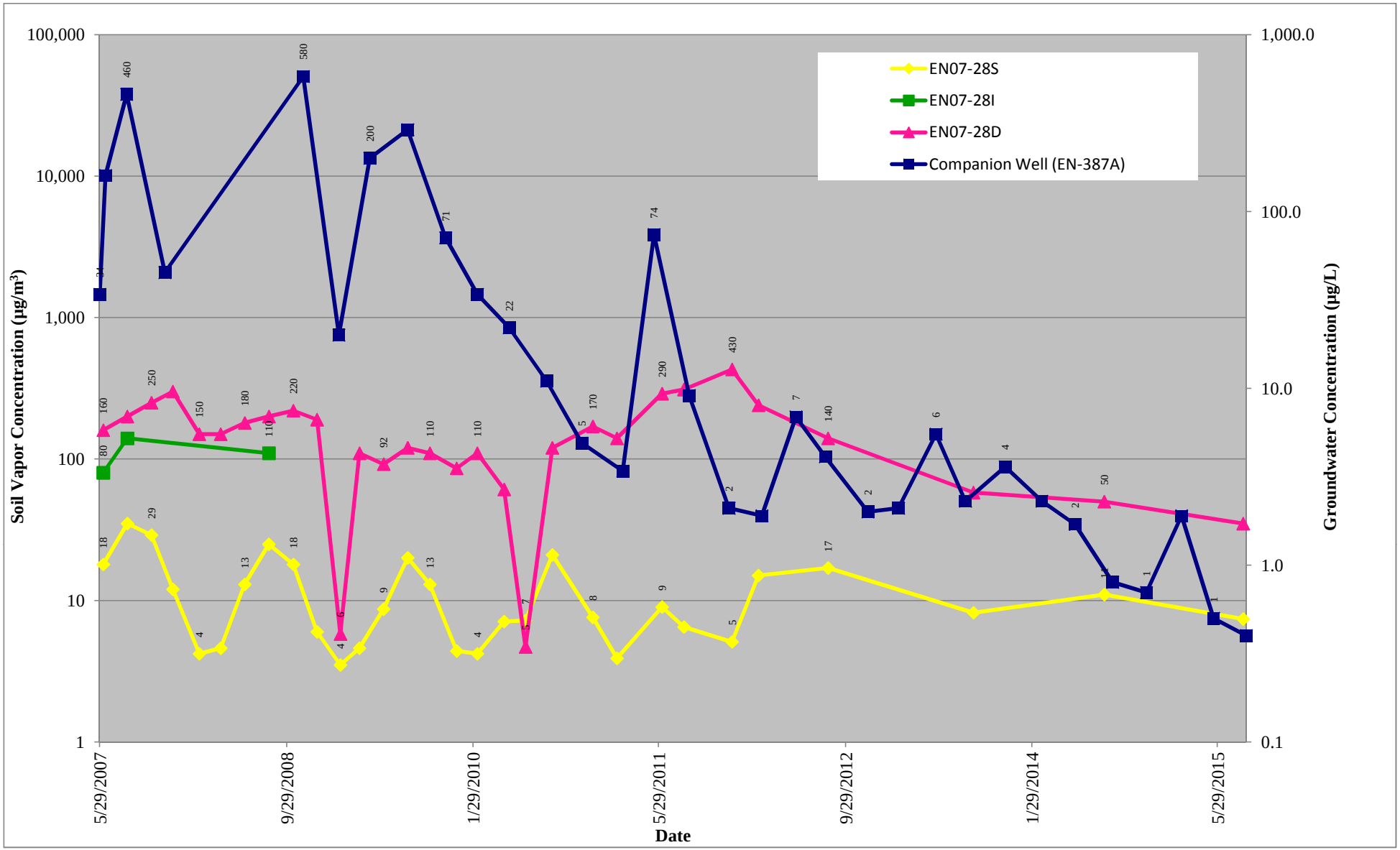


Figure B.29
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

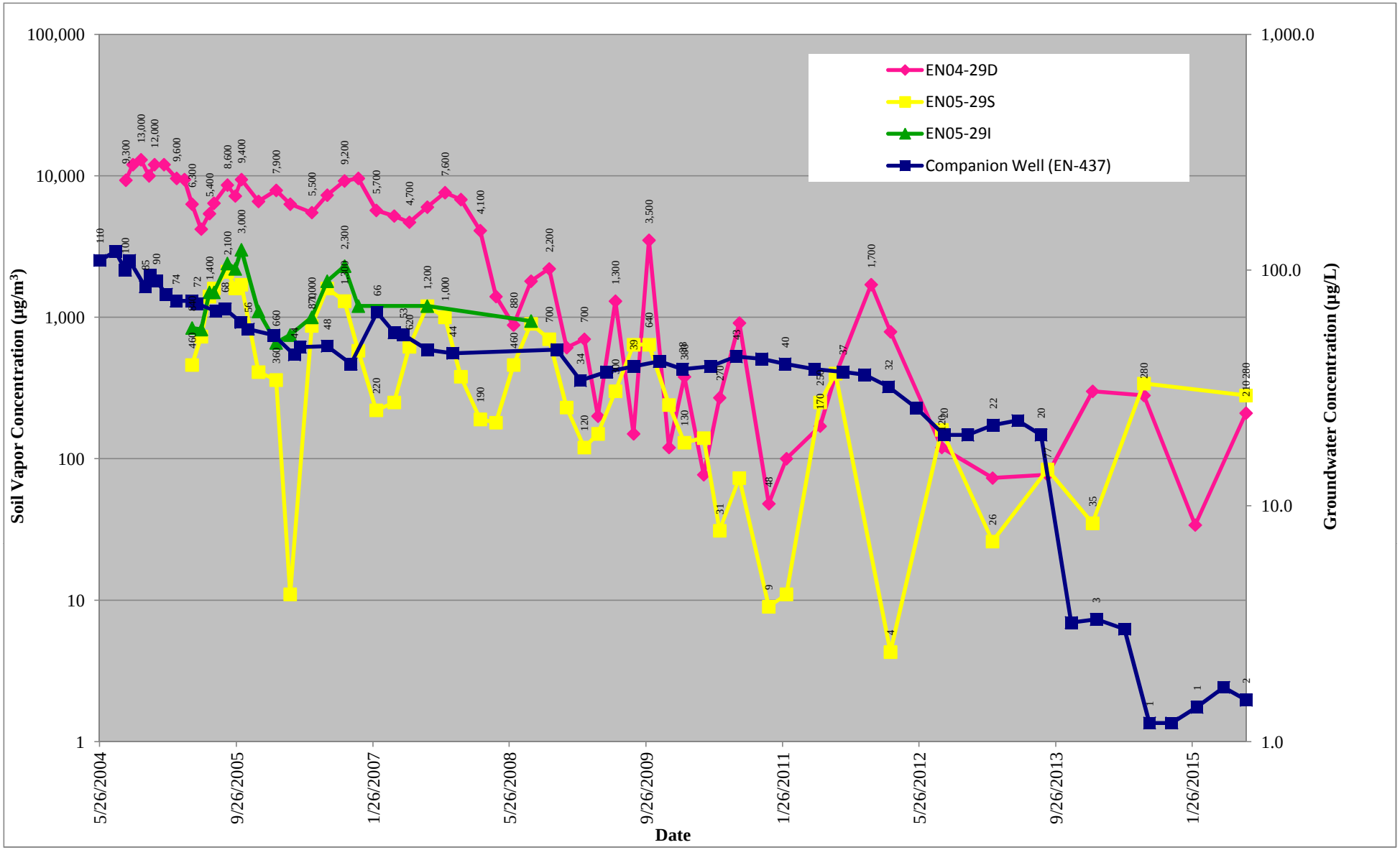
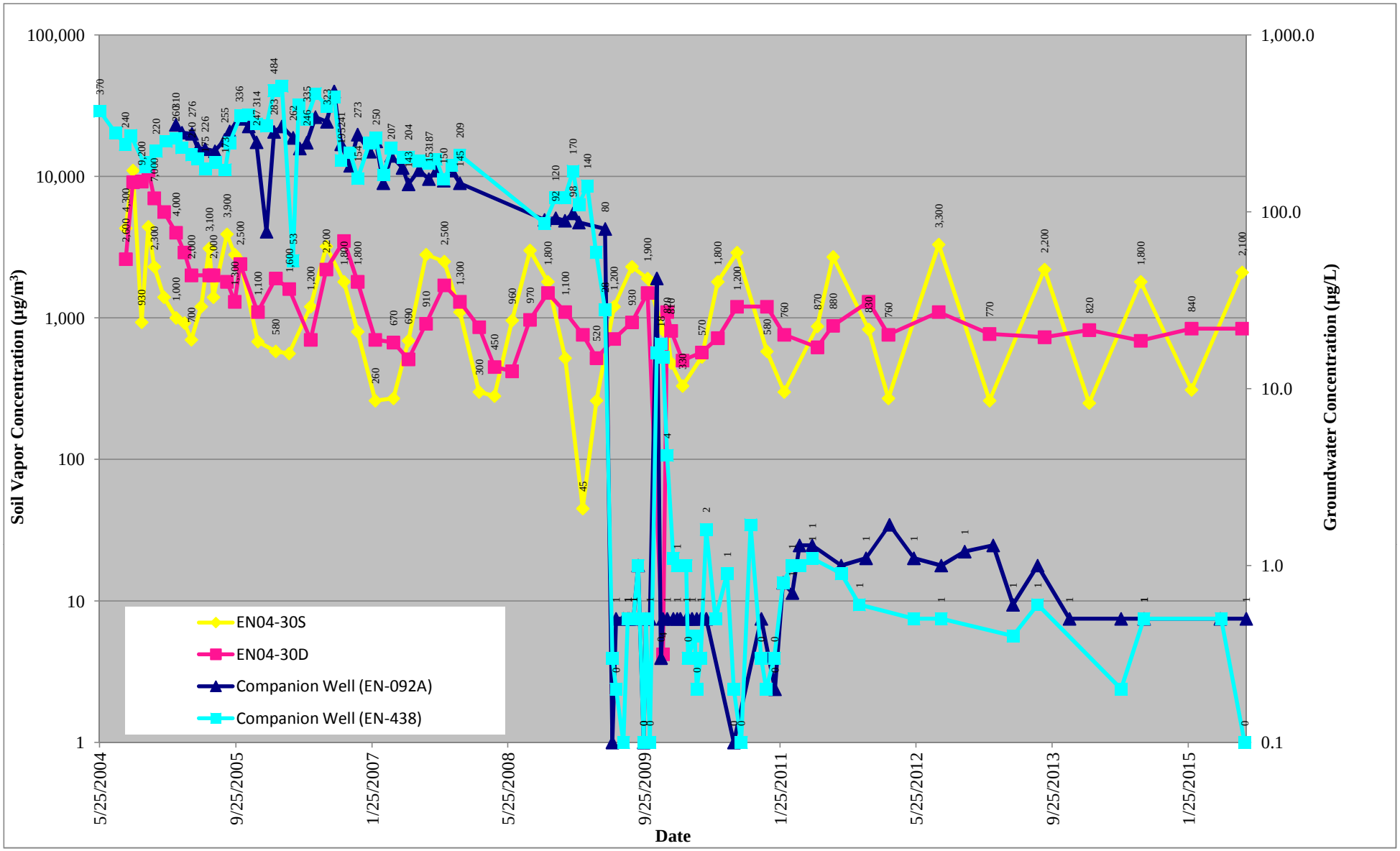


Figure B.30
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



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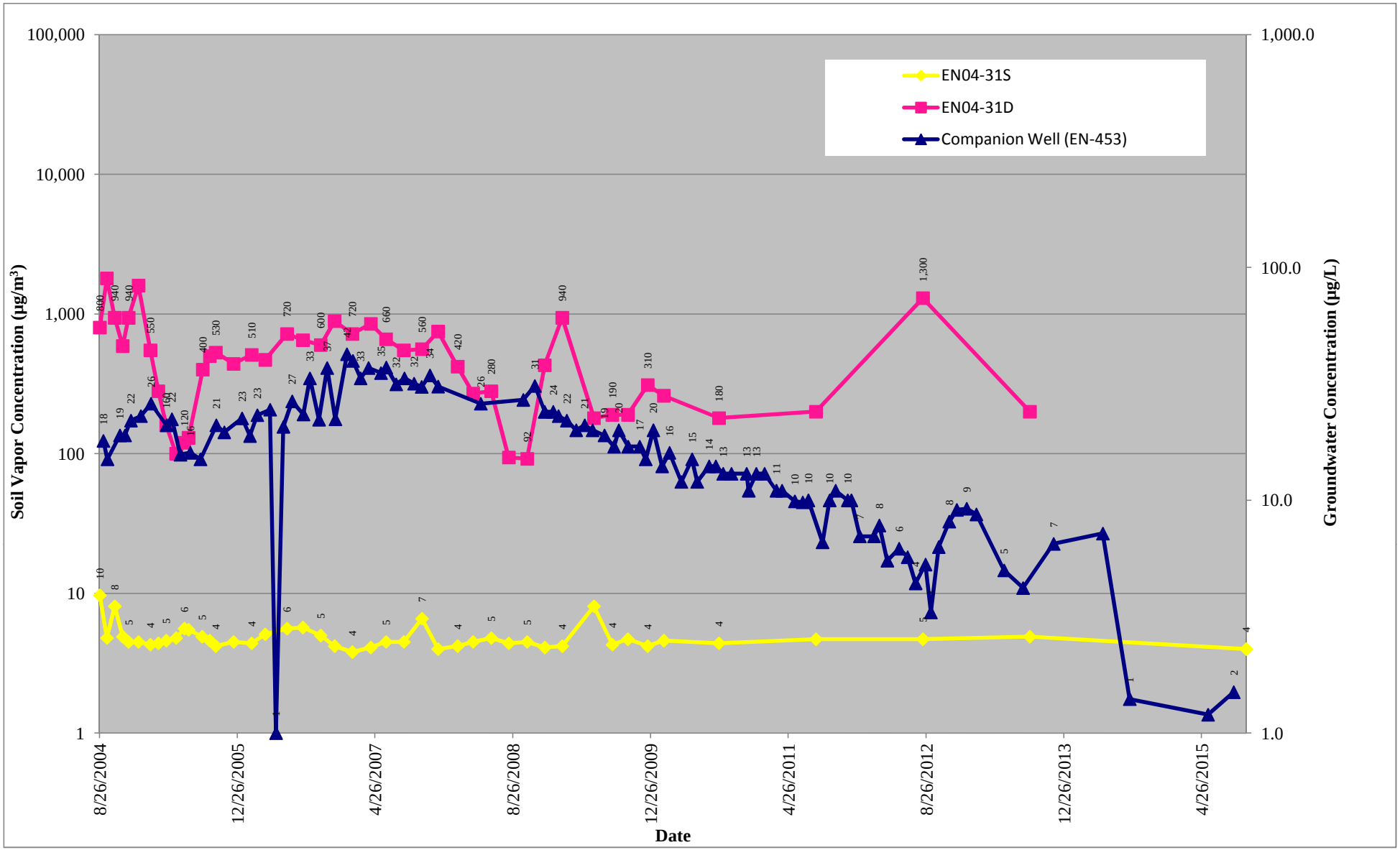
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



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TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

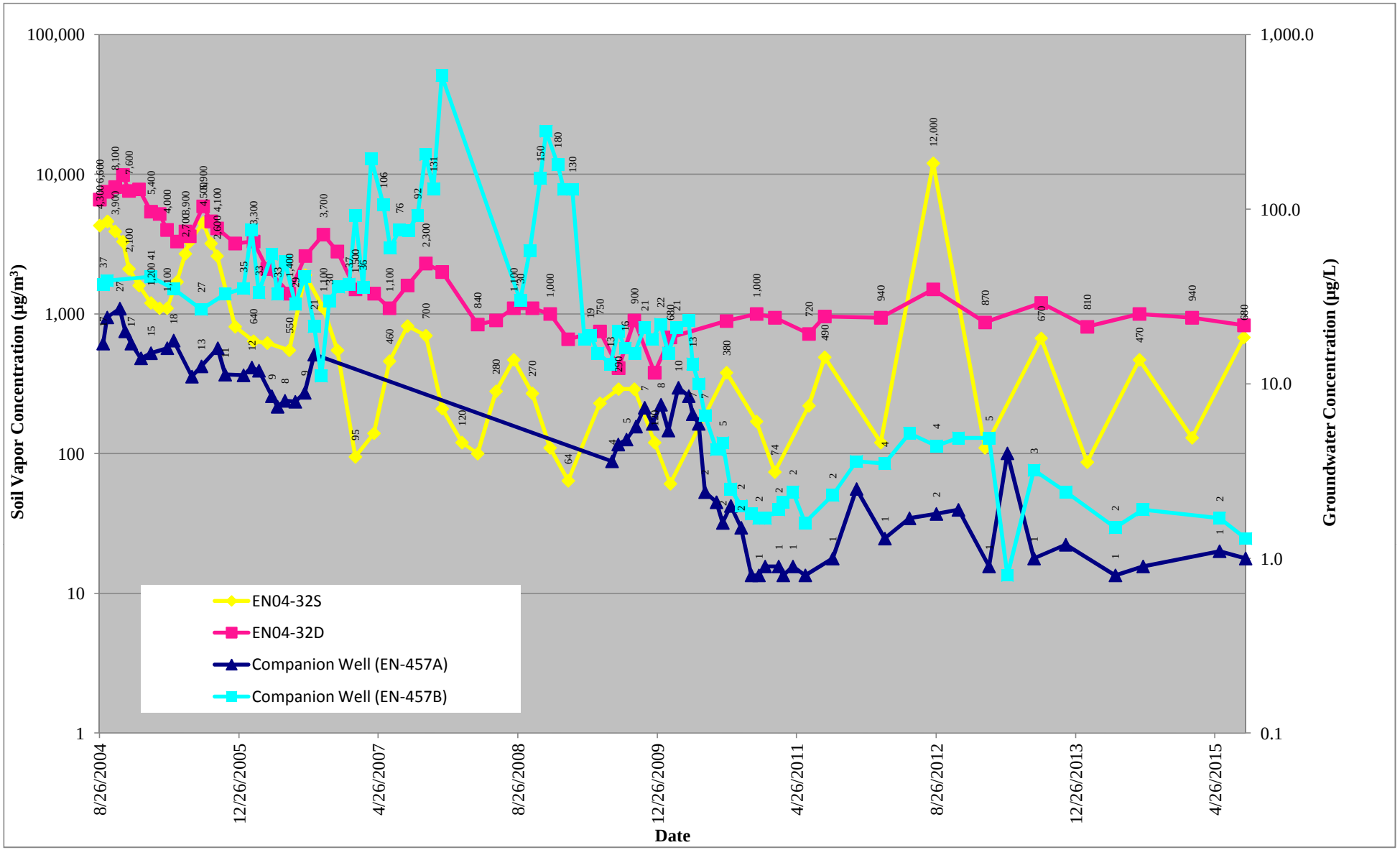
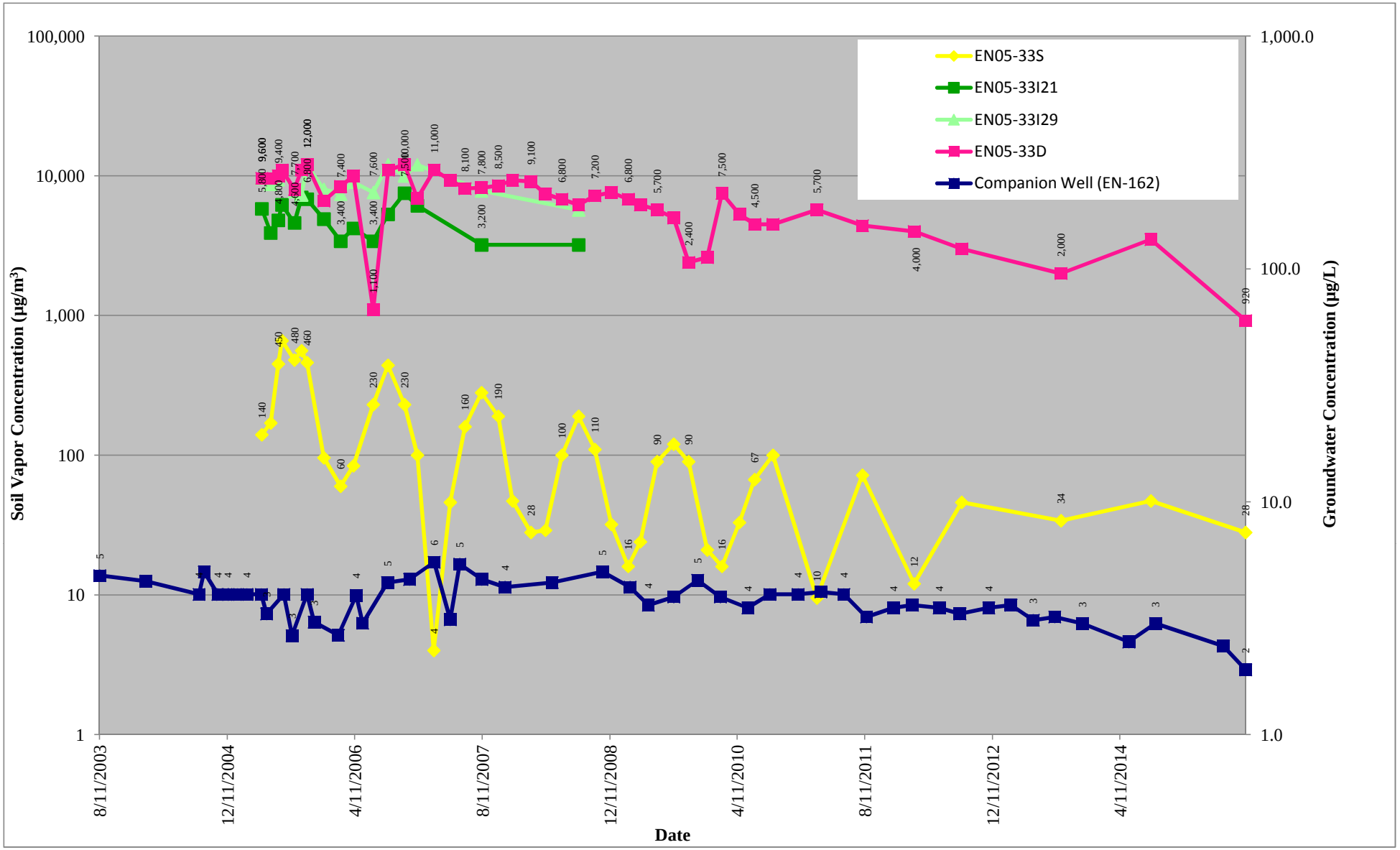


Figure B.33
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



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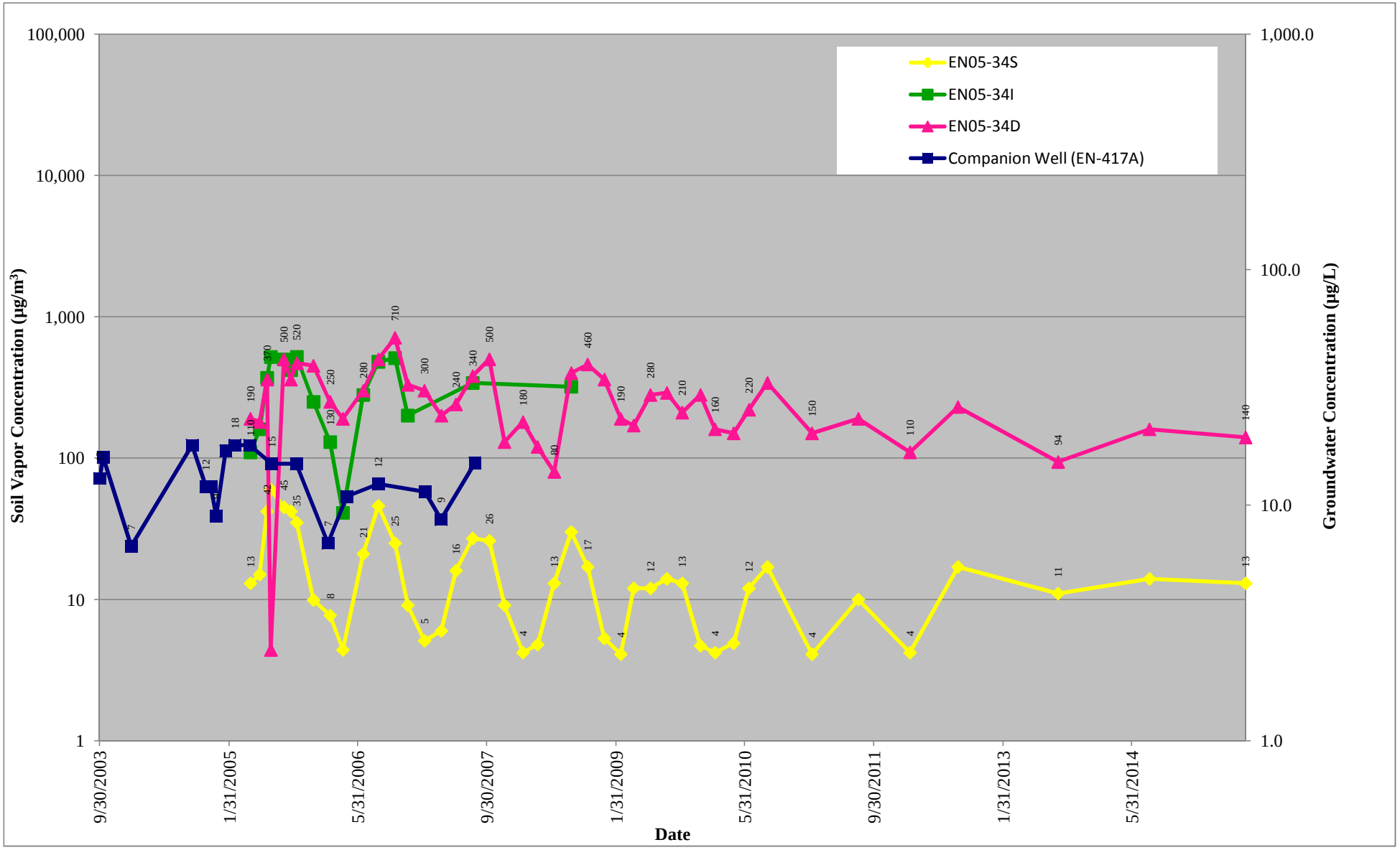
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



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TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

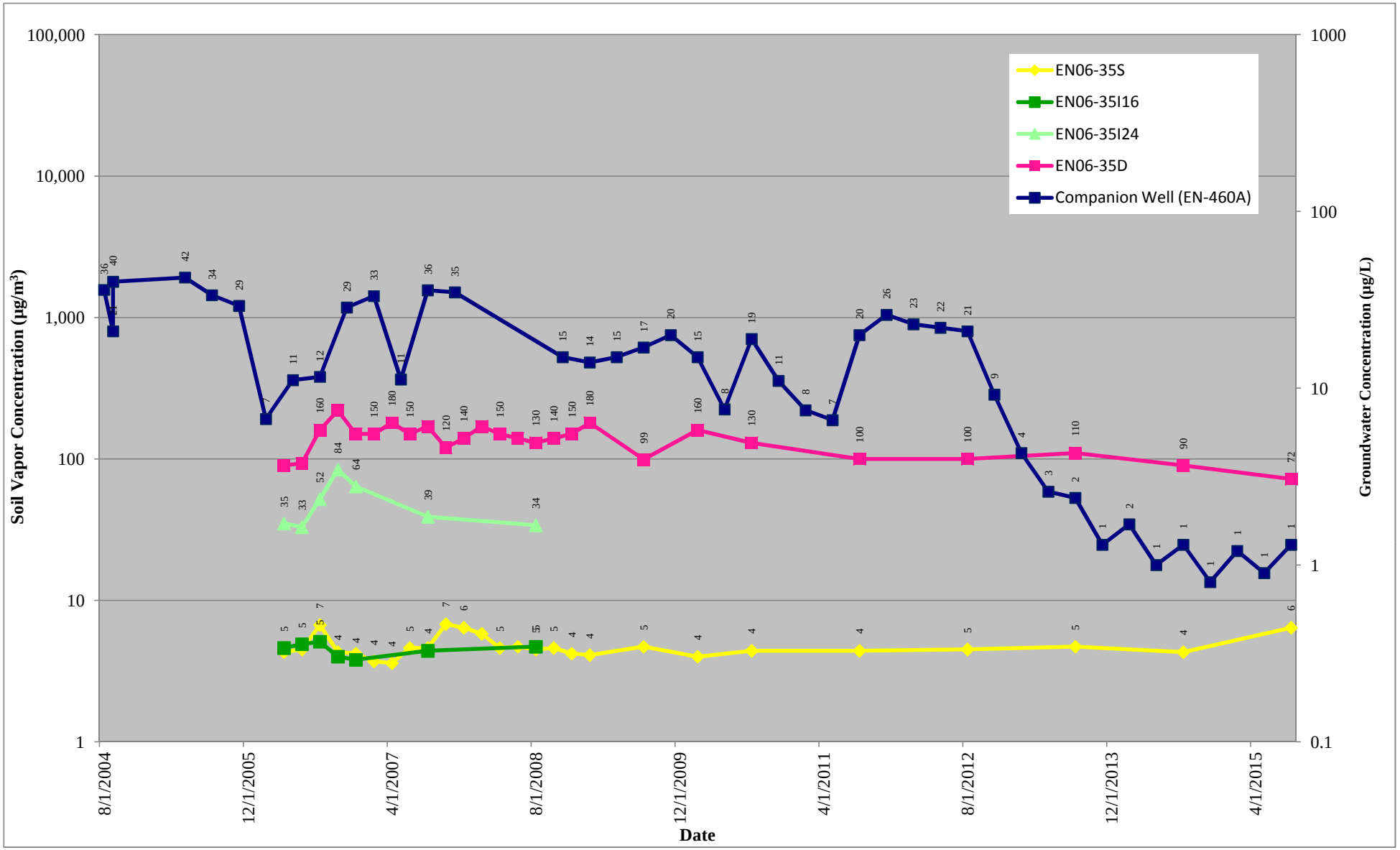

Figure B.36
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

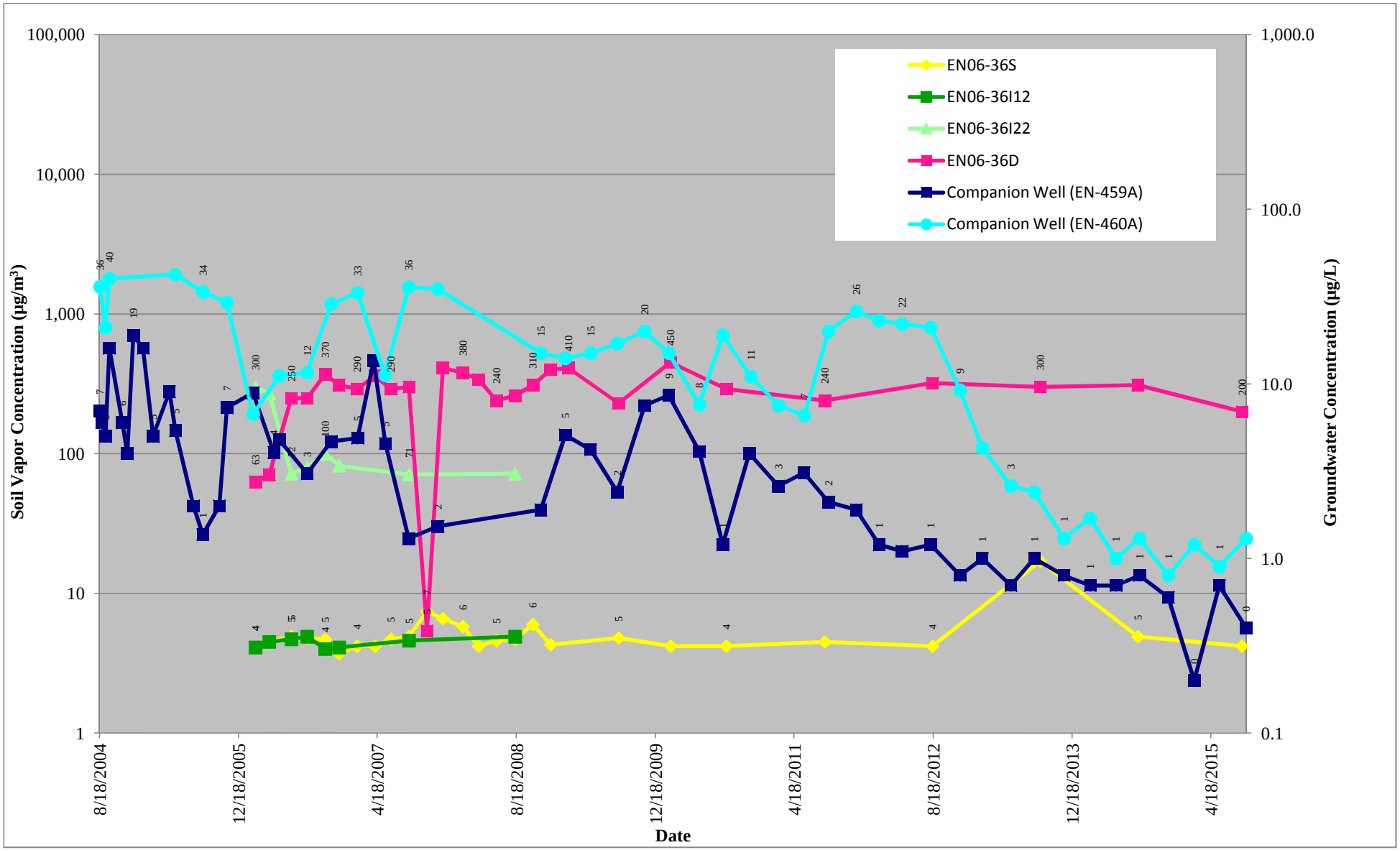

Figure B.37
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

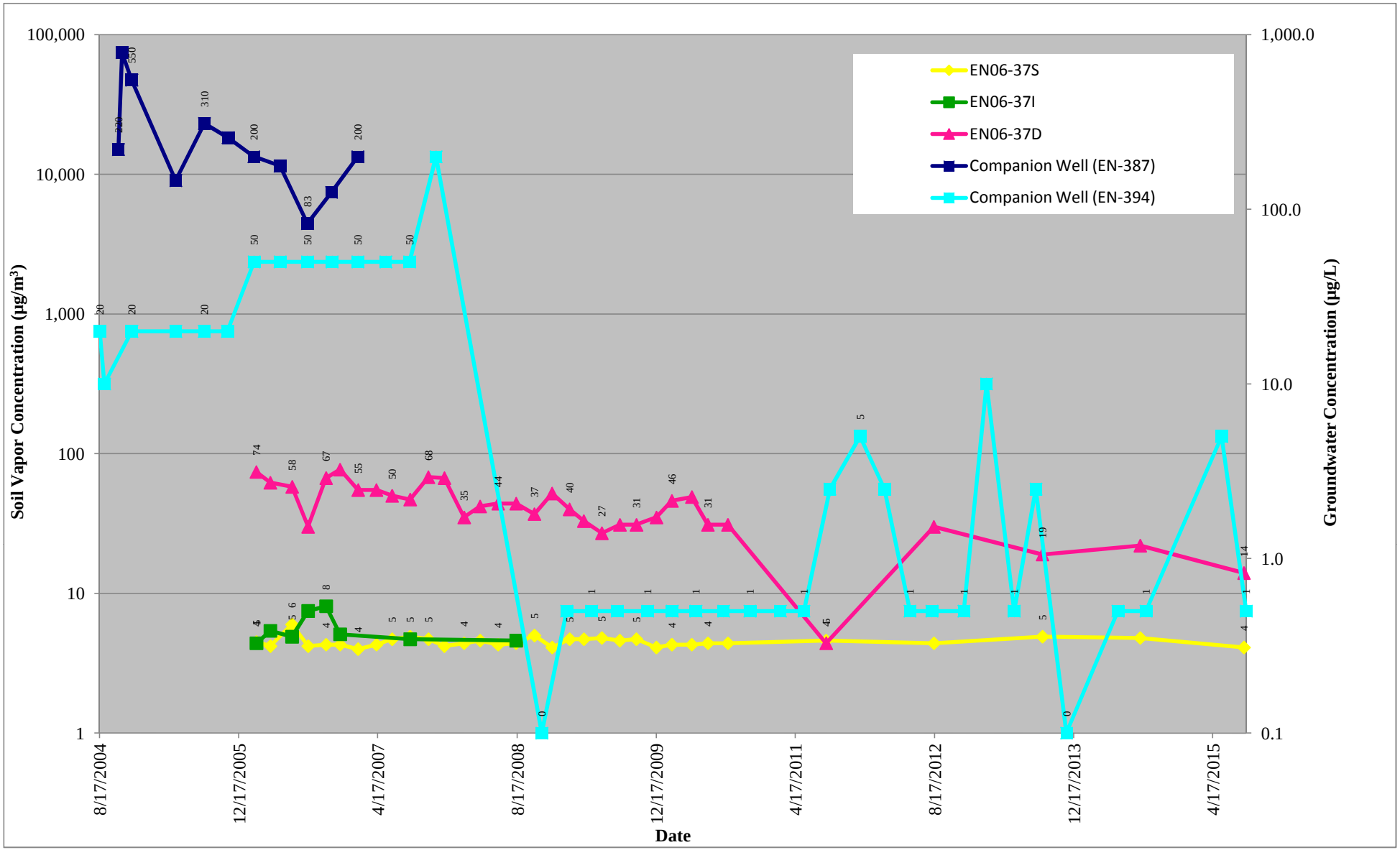

Figure B.38

PCE in Soil Vapor

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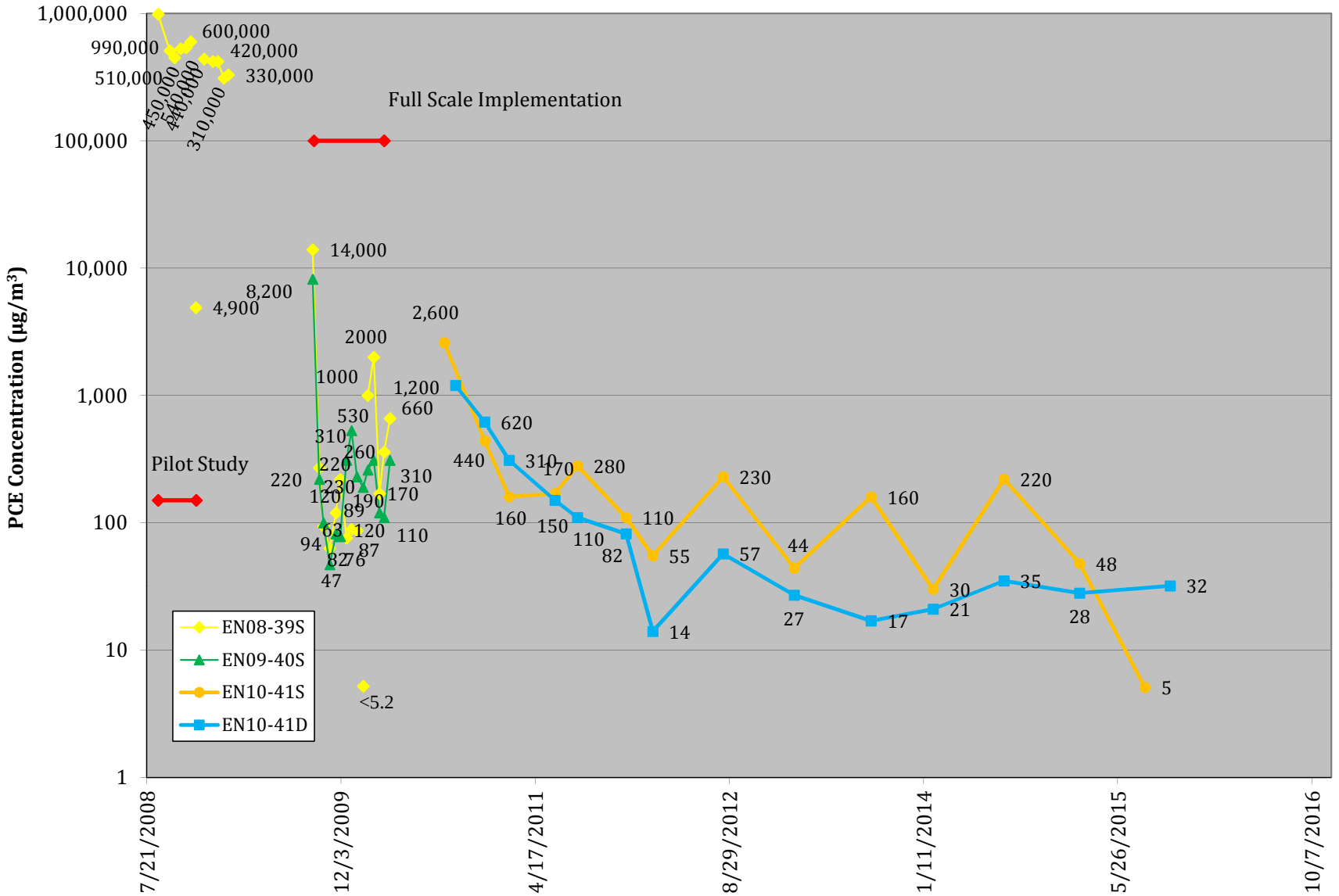
Comprehensive Operations, Maintenance, Monitoring Program

Endicott, New York



APPENDIX C

ANALYTICAL RESULTS AND LABORATORY DATA

APPENDIX C.1

TABLE C.1 – SUMMARY OF ANALYTICAL LABORATORY DATA 2013 - 2015

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

SV Mon Point Designation	Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O_2 (%)	CO_2 (%)	CH_4 (%)	Dilution Factor	SF_6 Applied?	He Applied?	Units of VOC Results	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl chloride	1,1,1-Trichloroethane	1,1-Dichloroethene	1,1-Dichloroethane	Chloroethane	Methylene chloride	Trifluorotrichloroethane (CFC-1
Designation **EN04-1**	EN04-1S	8	8/27/2013	EN041S082713	Summa Canister	20.1	0.6	0	1.67	No	No	ug/m3	< 5.7 U	- 8.1 -	< 3.3 U	< 3.3 U	< 2.1 U	< 4.6 U	< 3.3 U	< 3.4 U	< 8.8 U	< 29 U	< 6.4 U
Monitoring Well **EN-094**	EN04-1S	8	8/5/2014	EN041S08052014	Summa Canister	20.2	0.6	0	1.65	No	No	ug/m3	< 5.6 U	- 9.4 -	< 3.3 U	< 3.3 U	< 2.1 U	< 4.5 U	< 3.3 U	< 3.3 U	< 8.7 U	< 29 U	< 6.3 U
	EN04-1S	8	8/5/2015	EN041S080515	Summa Canister	19.5	0.6	0	1.52	N	N	ug/m3	< 5.2 U	- 10 -	< 3.0 U	< 3.0 U	< 1.9 U	- 5.0 -	< 3.0 U	< 3.1 U	< 8.0 U	< 26 U	< 5.8 U
	EN04-1D	23	8/27/2013	EN041D082713	Summa Canister	20	0.4	0	1.79	No	No	ug/m3	< 6.1 U	- 96 -	< 3.5 U	< 3.5 U	< 2.3 U	- 19 -	< 3.5 U	< 3.6 U	< 9.4 U	< 31 U	< 6.8 U
	EN04-1D	23	8/5/2014	EN041D08052014	Summa Canister	20.3	0.4	0	1.56	No	No	ug/m3	< 5.3 U	- 76 -	< 3.1 U	< 3.1 U	< 2.0 U	- 15 -	< 3.1 U	< 3.2 U	< 8.2 U	< 27 U	< 6.0 U
	EN04-1D	23	8/5/2015	EN041D080515	Summa Canister	19.4	0.3	0	1.46	N	N	ug/m3	< 5.0 U	- 82 -	< 2.9 U	< 2.9 U	< 1.9 U	- 16 -	< 2.9 U	< 3.0 U	< 7.7 U	< 25 U	< 5.6 U
Designation **EN04-2**	EN04-2S	8	2/12/2013	EN042S021213	Summa Canister	21.1	0.1	0	1.63	No	No	ug/m3	< 5.5 U	< 4.4 U	< 3.2 U	< 3.2 U	< 2.1 U	< 4.4 U	< 3.2 U	< 3.3 U	< 8.6 U	< 28 U	< 6.2 U
Monitoring Well **EN-450;EN-091A**	EN04-2S	8	8/27/2013	EN042S082713	Summa Canister	20	0.6	0	1.70	No	No	ug/m3	< 5.8 U	- 11 -	< 3.4 U	< 3.4 U	< 2.2 U	< 4.6 U	< 3.4 U	< 3.4 U	< 9.0 U	< 30 U	< 6.5 U
	EN04-2S	8	2/4/2014	EN042S02042014	Summa Canister	20.6	0.1	0	2.46	No	No	ug/m3	< 8.3 U	< 6.6 U	< 4.9 U	< 4.9 U	< 3.1 U	< 6.7 U	< 4.9 U	< 5.0 U	< 13 U	< 43 U	< 9.4 U
	EN04-2S	8	8/6/2014	EN042S08062014	Summa Canister	20	0.5	0	1.80	No	No	ug/m3	< 6.1 U	- 11 -	< 3.6 U	< 3.6 U	< 2.3 U	< 4.9 U	< 3.6 U	< 3.6 U	< 9.5 U	< 31 U	< 6.9 U
	EN04-2S	8	2/5/2015	EN042S020515	Summa Canister	20.7	0.3	0	1.79	No	No	ug/m3	< 6.1 U	< 4.8 U	< 3.5 U	< 3.5 U	< 2.3 U	< 4.9 U	< 3.5 U	< 3.6 U	< 9.4 U	< 31 U	< 6.8 U
	EN04-2S	8	8/5/2015	EN042S080515	Summa Canister	19.7	0.7	0	1.55	N	N	ug/m3	- 5.2 J	- 17 -	< 3.1 U	< 3.1 U	< 2.0 U	< 4.2 U	< 3.1 U	< 3.1 U	< 8.2 U	< 27 U	< 5.9 U
	EN04-2D	20	2/12/2013	EN042D021213	Summa Canister	21	0.2	0	1.62	No	No	ug/m3	- 18 -	- 96 -	< 3.2 U	< 3.2 U	< 2.1 U	- 13 -	< 3.2 U	< 3.3 U	< 8.5 U	< 28 U	< 6.2 U
	EN04-2D	20	8/27/2013	EN042D082713	Summa Canister	20	0.3	0	1.78	No	No	ug/m3	- 20 -	- 99 -	< 3.5 U	< 3.5 U	< 2.3 U	- 14 -	< 3.5 U	< 3.6 U	< 9.4 U	< 31 U	< 6.8 U
	EN04-2D	20	2/4/2014	EN042D02042014	Summa Canister	20.6	0.3	0	2.22	No	No	ug/m3	- 15 -	- 88 -	< 4.4 U	< 4.4 U	< 2.8 U	- 13 -	< 4.4 U	< 4.5 U	< 12 U	< 38 U	< 8.5 U
	EN04-2D	20	8/6/2014	EN042D08062014	Summa Canister	20.6	0.3	0	1.79	No	No	ug/m3	- 16 -	- 57 -	< 3.5 U	< 3.5 U	< 2.3 U	- 9.1 -	< 3.5 U	< 3.6 U	< 9.4 U	< 31 U	< 6.8 U
	EN04-2D	20	2/5/2015	EN042D020515	Summa Canister	20.7	0.2	0	1.47	No	No	ug/m3	- 16 -	- 77 -	< 2.9 U	< 2.9 U	< 1.9 U	- 9.6 -	< 2.9 U	< 3.0 U	< 7.8 U	< 26 U	< 5.6 U
	EN04-2D	20	8/5/2015	EN042D080515	Summa Canister	20.2	0.2	0	1.57	N	N	ug/m3	- 11 -	- 47 -	< 3.1 U	< 3.1 U	< 2.0 U	- 7.3 -	< 3.1 U	< 3.2 U	< 8.3 U	< 27 U	< 6.0 U
Designation **EN04-3**	EN04-3S	8	8/28/2013	EN043S082813	Summa Canister	20	0.2	0	1.71	No	No	ug/m3	< 5.8 U	< 4.6 U	< 3.4 U	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 9.0 U	< 30 U	< 6.6 U
Monitoring Well **EN-203**	EN04-3S	8	8/7/2014	EN043S08072014	Summa Canister	20.6	0.3	0	2.19	No	No	ug/m3	< 7.4 U	< 5.9 U	< 4.3 U	< 4.3 U	< 2.8 U	< 6.0 U	< 4.3 U	< 4.4 U	< 12 U	< 38 U	< 8.4 U
	EN04-3S	8	8/5/2015	EN043S080515	Summa Canister	20.1	0.2	0	1.64	N	N	ug/m3	< 5.6 U	< 4.4 U	< 3.2 U	< 3.2 U	< 2.1 U	< 4.5 U	< 3.2 U	< 3.3 U	< 8.6 U	< 28 U	< 6.3 U
	EN04-3D	19	8/28/2013	EN043D082813	Summa Canister	19.6	0.4	0	1.93	No	No	ug/m3	< 6.5 U	- 30 -	< 3.8 U	< 3.8 U	< 2.5 U	< 5.3 U	< 3.8 U	< 3.9 U	< 10 U	< 34 U	< 7.4 U
	EN04-3D Dup	19	8/28/2013	DU1042082813	Summa Canister	19.6	0.4	0	1.86	No	No	ug/m3	< 6.3 U	- 34 -	< 3.7 U	< 3.7 U	< 2.4 U	- 5.4 -	< 3.7 U	< 3.8 U	< 9.8 U	< 32 U	< 7.1 U
	EN04-3D	19	8/7/2014	EN043D08072014	Summa Canister	20.3	0.4	0	1.70	No	No	ug/m3	< 5.8 U	- 11 -	< 3.4 U	< 3.4 U	< 2.2 U	< 4.6 U	< 3.4 U	< 3.4 U	< 9.0 U	< 30 U	< 6.5 U
	EN04-3D	19	8/5/2015	EN043D080515	Summa Canister	20.4	0.1	0	1.50	N	N	ug/m3	< 5.1 U	< 4.0 U	< 3.0 U	< 3.0 U	< 1.9 U	< 4.1 U	< 3.0 U	< 3.0 U	< 7.9 U	< 26 U	< 5.7 U
Designation **EN04-4**	EN04-4S	8	8/27/2013	EN044S082713	Summa Canister	17.8	1.8	0	1.78	No	No	ug/m3	- 13 -	< 4.8 U	< 3.5 U	< 3.5 U	< 2.3 U	< 4.8 U	< 3.5 U	< 3.6 U	< 9.4 U	< 31 U	< 6.8 U
Monitoring Well **EN-022**	EN04-4S	8	8/5/2014	EN044S08052014	Summa Canister	18.5	1.9	0	1.69	No	No	ug/m3	< 5.7 U	< 4.5 U	< 3.4 U	< 3.4 U	< 2.2 U	< 4.6 U	< 3.4 U	< 3.4 U	< 8.9 U	< 29 U	< 6.5 U
	EN04-4S	8	8/5/2015	EN044S080515	Summa Canister	17.7	2.4	0	1.56	N	N	ug/m3	< 5.3 U	< 4.2 U	< 3.1 U	< 3.1 U	< 2.0 U	< 4.2 U	< 3.1 U	< 3.2 U	< 8.2 U	< 27 U	< 6.0 U
	EN04-4D	17	8/27/2013	EN044D082713	Summa Canister	17.9	1.4	0	1.72	No	No	ug/m3	< 5.8 U	- 5.2 -	< 3.4 U	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 9.1 U	< 30 U	< 6.6 U
	EN04-4D	17	8/5/2014	EN044D08052014	Summa Canister	18.7	1.4	0	1.70	No	No	ug/m3	< 5.8 U	< 4.6 U	< 3.4 U	< 3.4 U	< 2.2 U	< 4.6 U	< 3.4 U	< 3.4 U	< 9.0 U	< 30 U	< 6.5 U
	EN04-4D	17	8/5/2015	EN044D080515	Summa Canister	17.9	1.6	0	1.63	N	N	ug/m3	< 5.5 U	< 4.4 U	< 3.2 U	< 3.2 U	< 2.1 U	< 4.4 U	< 3.2 U	< 3.3 U	< 8.6 U	< 28 U	< 6.2 U
Designation **EN04-5**	EN04-5S	8	8/27/2013	EN045S082713	Summa Canister	18.5	1	0	1.68	No	No	ug/m3	< 5.7 U	- 170 -	< 3.3 U	< 3.3 U	< 2.1 U	- 9.7 -	< 3.3 U	< 3.4 U	< 8.9 U	< 29 U	< 6.4 U
Monitoring Well **EN-459A**	EN04-5S	8	8/5/2014	EN045S08052014	Summa Canister	18.7	2.2	0	1.82	No	No	ug/m3	< 6.2 U	- 180 -	< 3.6 U	< 3.6 U	< 2.3 U	- 11 -	< 3.6 U	< 3.7 U	< 9.6 U	< 32 U	< 7.0 U
	EN04-5S Dup	8	8/5/2014	DU383108052014	Summa Canister	18.7	2.2	0	1.80	No	No	ug/m3	< 6.1 U	- 130 -	< 3.6 U	< 3.6 U	< 2.3 U	- 7.5 -	< 3.6 U	< 3.6 U	< 9.5 U	< 31 U	< 6.9 U
	EN04-5S	8	8/5/2015	EN045S080515	Summa Canister	19.7	2.7	0	1.49	N	N	ug/m3	- 5.9 -	- 170 -	< 3.0 U	< 3.0 U	< 1.9 U	- 9.9 -	< 3.0 U	< 3.0 U	< 7.9 U	< 26 U	< 5.7 U
	EN04-5D	34	8/27/2013	EN045D082713	Summa Canister	17.6	2.5	0	1.69	No	No	ug/m3	< 5.7 U	- 190 -	< 3.4 U	< 3.4 U	< 2.2 U	- 53 -	< 3.4 U	< 3.4 U	< 8.9 U	< 29 U	< 6.5 U
	EN04-5D	34	8/5/2014	EN045D08052014	Summa Canister	19.8	1	0	1.70	No	No	ug/m3	< 5.8 U	- 150 -	< 3.4 U	< 3.4 U	< 2.2 U	- 47 -	< 3.4 U	< 3.4 U	< 9.0 U	< 30 U	< 6.5 U
	EN04-5D	34	8/5/2015	EN045D080515	Summa Canister	19.4	1	0	1.51	N	N	ug/m3	< 5.1 U	- 190 -	< 3.0 U	< 3.0 U	< 1.9 U	- 61 -	< 3.0 U	< 3.0 U	< 8.0 U	< 26 U	< 5.8 U
Designation **EN04-6**	EN04-6S	8	8/28/2013	EN046S082813	Summa Canister	19.1	1.4	0	1.54	No	No	ug/m3	< 5.2 U	< 4.1 U	< 3.0 U	< 3.0 U	< 2.0 U	< 4.2 U	< 3.0 U	< 3.1 U	< 8.1 U	< 27 U	< 5.9 U
Monitoring Well **EN-310**	EN04-6S	8	8/6/2014	EN046S08062014	Summa Canister	19.7	0.9	0	1.73	No	No	ug/m3	< 5.9 U	< 4.6 U	< 3.4 U	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 9.1 U	< 30 U	< 6.6 U
	EN04-6S Dup	8	8/6/2014	DU335108062014	Summa Canister	19.7	0.9	0	1.82	No	No	ug/m3	< 6.2 U	< 4.9 U	< 3.6 U	< 3.6 U	< 2.3 U	< 5.0 U	< 3.6 U	< 3.7 U	< 9.6 U	< 32 U	< 7.0 U
	EN04-6S	8	8/5/2015	EN046S080515	Summa Canister	19.4	1.9	0	1.52	N	N	ug/m3	< 5.2 U	< 4.1 U	< 3.0 U	< 3.0 U	< 1.9 U	< 4.1 U	< 3.0 U	< 3.1 U	< 8.0 U	< 26 U	< 5.8 U
	EN04-6D	27	8/28/2013	EN046D082813	Summa Canister	19.9	0.6	0	1.53	No	No	ug/m3	< 5.2 U	< 4.1 U	< 3.0 U	< 3.0 U	< 2.0 U	< 4.2 U	< 3.0 U	< 3.1 U	< 8.1 U	< 26 U	< 5.9 U
	EN04-6D	27	8/6/2014	EN046D08062014	Summa Canister	20.4	0.2	0	1.78	No	No	ug/m3	< 6.0 U	< 4.8 U	< 3.5 U	< 3.5 U	< 2.3 U	< 4.8 U	< 3.5 U	< 3.6 U	< 9.4 U	< 31 U	< 6.8 U
	EN04-6D	27	8/5/2015	EN046D080515	Summa Canister	20.5	0.5	0	1.53	N	N	ug/m3	< 5.2 U	< 4.1 U	< 3.0 U	< 3.0 U	< 2.0 U	< 4.2 U	< 3.0 U	< 3.1 U	< 8.1 U	< 26 U	< 5.9 U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

SV Mon Point Designation		Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O_2 (%)	CO_2 (%)	CH_4 (%)	Dilution Factor	SF_6 Applied?	He Applied?	Units of VOC Results	Tetrachloroethene				Trichloroethene				cis-1,2-Dichloroethene				trans-1,2-Dichloroethene				Vinyl chloride				1,1,1-Trichloroethane				1,1-Dichloroethene				1,1-Dichloroethane				Chloroethane				Methylene chloride				Trifluorotrichloroethane (CFC-1		
Designation	**EN04-7**	EN04-7S	8	8/27/2013	EN047S082713	Summa Canister	18.4	0.9	0	1.71	No	No	ug/m3	-	25	-		-	9.1	-		<	3.4	U		<	3.4	U		<	2.2	U		<	4.7	U		<	3.4	U		<	3.5	U		<	9.0	U		<	30	U		<	6.6	U	
Monitoring Well	**EN-311**	EN04-7S	8	8/5/2014	EN047S08052014	Summa Canister	19.5	1	0	2.48	No	No	ug/m3	-	17	-		-	1900	-		<	4.9	U		<	4.9	U		<	3.2	U		-	110	-		<	4.9	U		<	5.0	U		<	13	U		<	43	U		<	9.5	U	
		EN04-7S	8	8/5/2015	EN047S080515	Summa Canister	18.5	1.9	0	1.55	N	N	ug/m3	-	22	-		-	5.8	-		<	3.1	U		<	3.1	U		<	2.0	U		<	4.2	U		<	3.1	U		<	3.1	U		<	8.2	U		<	27	U		<	5.9	U	
		EN04-7D	34	8/27/2013	EN047D082713	Summa Canister	18.6	1.2	0	1.75	No	No	ug/m3	-	40	-		-	1600	-		-	4.1	-		<	3.5	U		<	2.2	U		-	59	-		<	3.5	U		<	3.5	U		<	9.2	U		<	30	U		<	6.7	U	
		EN04-7D	34	8/5/2014	EN047D08052014	Summa Canister	19.6	1.1	0	1.91	No	No	ug/m3	-	21	-		<	5.1	U		<	3.8	U		<	3.8	U		<	2.4	U		<	5.2	U		<	3.8	U		<	3.9	U		<	10	U		<	33	U		<	7.3	U	
		EN04-7D	34	8/5/2015	EN047D080515	Summa Canister	19.1	1	0	1.61	N	N	ug/m3	-	170	-		-	920	-		<	3.2	U		<	3.2	U		<	2.0	U		-	70	-		<	3.2	U		<	3.2	U		<	8.5	U		<	28	U		<	6.2	U	
Designation	**EN04-9**	EN04-9S	8	8/27/2013	EN049S082713	Summa Canister	15.2	2.2	0	9.66	No	No	ug/m3	-	180	-		-	5600	-		<	19	U		<	19	U		<	12	U		-	320	-		<	19	U		<	20	U		<	51	U		<	170	U		<	37	U	
Monitoring Well	**EN-278;EN-279**	EN04-9S	8	8/6/2014	EN049S08062014	Summa Canister	15.6	1.9	0	9.51	No	No	ug/m3	-	170	-		-	6500	-		<	19	U		<	19	U		<	12	U		-	290	-		<	19	U		<	19	U		<	50	U		<	160	U		<	36	U	
		EN04-9S	8	8/5/2015	EN049S080515	Summa Canister	16.4	2.2	0	6.20	N	N	ug/m3	-	120	-		-	5000	-		-	31	-		<	12	U		<	7.9	U		-	200	-		<	12	U		-	13	-		<	33	U		<	110	U		-	26		
		EN04-9D	20	8/27/2013	EN049D082713	Summa Canister	12.6	3.2	0	16.8	No	No	ug/m3	-	760	-		-	9500	-		-	670	-		<	33	U		<	21	U		-	1100	-		-	140	-		-	180	-		<	89	U		<	290	U		-	66		
		EN04-9D	20	8/6/2014	EN049D08062014	Summa Canister	11.9	3.7	0	9.19	No	No	ug/m3	-	580	-		-	7400	-		-	480	-		<	18	U		<	12	U		-	810	-		-	44	-		-	130	-		<	48	U		<	160	U		<	35	U	
		EN04-9D	20	8/5/2015	EN049D080515	Summa Canister	13.2	3.4	0	1.75	N	N	ug/m3	<	5.9	U		<	4.7	U		<	3.5	U		<	3.5	U		<	2.2	U		<	4.8	U		<	3.5	U		<	3.5	U		<	9.2	U		<	30	U		<	6.7	U	
		EN04-9D Dup	20	8/5/2015	DU3331080515	Summa Canister	13.2	3.4	0	6.69	N	N	ug/m3	-	360	-		-	4200	-		-	220	-		<	13	U		<	8.6	U		-	930	-		-	390	-		-	160	-		<	35	U		<	120	U		-	400		
Designation	**EN04-10**	EN04-10S	8	8/27/2013	EN0410S082713	Summa Canister	12.5	5.7	0	56.7	No	No	ug/m3	<	190	U		-	30000	-		-	3400	-		<	110	U		<	72	U		-	3700	-		-	130	-		-	1200	-		<	300	U		<	980	U		<	220	U	
Monitoring Well	**EN-077**	EN04-10S	8	8/6/2014	EN0410S08062014	Summa Canister	15.2	4	0	60.0	No	No	ug/m3	-	360	-		-	33000	-		-	2500	-		<	120	U		<	77	U		-	4100	-		-	130	-		-	870	-		<	320	U		<	1000	U		<	230	U	
		EN04-10S	8	8/5/2015	EN0410S080515	Summa Canister	13.7	5.3	0	61.2	N	N	ug/m3	-	310	-		-	27000	-		-	1700	-		<	120	U		<	78	U		-	2800	-		-	250	-		-	580	-		<	320	U		<	1100	U		<	230	U	
		EN04-10D	20	8/27/2013	EN0410D082713	Summa Canister	13.5	4.7	0	33.6	No	No	ug/m3	-	480	-		-	32000	-		-	4800	-		<	67	U		<	43	U		-	5100	-		-	250	-		-	1400	-		<	180	U		<	580	U		<	130	U	
		EN04-10D	20	8/6/2014	EN0410D08062014	Summa Canister	14.8	4.8	0	34.9	No	No	ug/m3	-	450	-		-	27000	-		-	3300	-		<	69	U		<	45	U		-	4200	-		-	150	-		-	960	-		<	180	U		<	610	U		<	130	U	
		EN04-10D	20	8/5/2015	EN0410D080515	Summa Canister	14.5	4.2	0	52.8	N	N	ug/m3	-	480	-		-	23000	-		-	2600	-		<	100	U		<	67	U		-	3500	-		-	410	-		-	810	-		<	280	U		<	920	U		-	300		
Designation	**EN04-11**	EN04-11S	8	2/12/2013	EN0411S021213	Summa Canister	20.4	0.1	0	1.55	No	No	ug/m3	<	5.2	U		-	24	-		<	3.1	U		<	3.1	U		<	2.0	U		-	4.4	-		<	3.1	U		<	3.1	U		<	8.2	U		<	27	U		<	5.9	U	
Monitoring Well	**EN-215;EN-215B**	EN04-11S	8	8/27/2013	EN0411S082713	Summa Canister	19.6	0.6	0	1.78	No	No	ug/m3	-	8.9	-		-	100	-		<	3.5	U		<	3.5	U		<	2.3	U		-	12	-		<	3.5	U		<	3.6	U		<	9.4	U		<	31	U		<	6.8	U	
		EN04-11S	8	2/4/2014	EN0411S02042014	Summa Canister	20.8	0.2	0	1.48	No	No	ug/m3	<	5.0	U		-	23	-		<	2.9	U		<	2.9	U		<	1.9	U		<	4.0	U		<	2.9	U		<	3.0	U		<	7.8	U		<	26	U		<	5.7	U	
		EN04-11S	8	8/7/2014	EN0411S08072014	Summa Canister	20.3	0.7	0	1.75	No	No	ug/m3	-	6.7	-		-	67	-		<	3.5	U		<	3.5	U		<	2.2	U		-	6.8	-		<	3.5	U		<	3.5	U		<	9.2	U		<	30	U		<	6.7	U	
		EN04-11S	8	2/5/2015	EN0411S020515	Summa Canister	21	0.2	0	1.39	No	No	ug/m3	<	4.7	U		-	17	-		<	2.8	U		<	2.8	U		<	1.8	U		<	3.8	U		<	2.8	U		<	2.8	U		<	7.3	U		<	24	U		<	5.3	U	
		EN04-11S	8	8/5/2015	EN0411S080515	Summa Canister	19.8	0.9	0	1.77	N	N	ug/m3	-	7.1	-		-	61	-		<	3.5	U		<	3.5	U		<	2.3	U		-	5.2	-		<	3.5	U		<	3.6	U		<	9.3	U		<	31	U		<	6.8	U	
		EN04-11S Dup	8	8/5/2015	DU3372080515	Summa Canister	19.8	0.9	0	1.74	N	N	ug/m3	<	5.9	U		-	57	-		<	3.4	U		<	3.4	U		<	2.2	U		-	5.6	-		<	3.4	U		<	3.5	U		<	9.2	U		<	30	U		<	6.7	U	
		EN04-11D	21	2/12/2013	EN0411D021213	Summa Canister	20.4	0.1	0	1.58	No	No	ug/m3	-	32	-		-	910	-		-	4.5	-		<	3.1	U		<	2.0	U		-	34	-		<	3.1	U		<	3.2	U		<	8.3	U		<	27	U		<	6.0	U	
		EN04-11D	21	8/27/2013	EN0411D082713	Summa Canister	19.9	0.2	0	1.83	No	No	ug/m3	-	28	-		-	790	-		<	3.6	U		<	3.6	U		<	2.3	U		-	24	-		<	3.6	U		<	3.7	U		<	9.6	U		<	32	U		<	7.0	U	
		EN04-11D	21	2/4/2014	EN0411D02042014	Summa Canister	20.8	0.6	0	1.54	No	No	ug/m3	-	30	-		-	970	-		-	4.8	-		<	3.0	U		<	2.0	U		-	55	-		<	3.0	U		<	3.1	U		<	8.1	U		<	27	U		<	5.9	U	
		EN04-11D	21	8/7/2014	EN0411D08072014	Summa Canister	20.2	0.4	0	1.65	No	No	ug/m3	-	34	-		-	870	-		-	4.0	-		<	3.3	U		<	2.1	U		-	44	-		<	3.3	U		<	3.3	U		<	8.7	U		<	29	U		<	6.3	U	
		EN04-11D	21	2/5/2015	EN0411D020515	Summa Canister	20.9	0.6	0	1.48	No	No	ug/m3	-	30	-		-	980	-		-	3.0	-		<	2.9	U		<	1.9	U		-	40	-		<	2.9	U		<	3.0	U		<	7.8	U		<	26	U		<	5.7	U	
		EN04-11D	21	8/5/2015	EN0411D080515	Summa Canister	19.8	0.3	0	1.56	N	N	ug/m3	-	29	-		-	730	-		-	3.6	-		<	3.1	U		<	2.0	U		-	34	-		<	3.1	U		<	3.2	U		<	8.2	U		<	27	U		<	6.0	U	
Designation	**EN04-12**	EN04-12S	8	2/12/2013	EN0412S021213	Summa Canister	20.1	0.4	0	1.71	No	No	ug/m3	<	5.8	U		-	200	-		<	3.4	U		<	3.4	U		<	2.2	U		-	8.1	-		<	3.4	U		<	3.5	U		<	9.0	U		<	30	U		<	6.6	U	
Monitoring Well	**EN-214A**	EN04-12S	8	8/27/2013	EN0412S082713	Summa Canister	18.3	2.2	0	1.73	No	No	ug/m3	<	5.9	U		-	500	-		<	3.4	U		<	3.4	U		<	2.2	U		-	14	-		<	3.4	U		<	3.5	U		<	9.1	U		<	30	U		<	6.6	U	
		EN04-12S	8	2/4/2014	EN0412S02042014	Summa Canister	20.3	1.7	0	1.39	No	No	ug/m3	<	4.7	U		-	150	-		<	2.8	U		<	2.8	U		<	1.8	U		-	6.7	-		<	2.8	U		<	2.8	U		<	7.3	U		<	24	U		<	5.3	U	
		EN04-12S	8	8/7/2014	EN0412S08072014	Summa Canister	19.1	2	0	1.47	No	No	ug/m3	<	5.0	U		-	320	-		<	2.9	U		<	2.9	U		<	1.9	U		-	8.6	-		<	2.9	U		<	3.0	U		<	7.8	U		<	26	U		<	5.6	U	
		EN04-12S	8	2/5/2015	EN0412S020515	Summa Canister	19.8	1.2	0	1.56	No	No	ug/m3	<	5.3	U		-	210	-		<	3.1	U		<	3.1	U		<	2.0	U		-	5.5	-		<	3.1	U		<	3.2	U		<	8.2	U		<	27	U		<	6.0	U	
		EN04-12S	8	8/5/2015	EN0412S080515	Summa Canister	17.3	3.3	0	1.45	N	N	ug/m3	<	4.9	U		-	450	-		<	2.9	U		<	2.9	U		<	1.8	U		-	15	-		<	2.9	U		<	2.9	U		<	7.6	U		<	25	U		<	5.6	U	
		EN04-12D	19	2/12/2013	EN0412D021213	Summa Canister	19.9	1	0	1.68	No	No	ug/m3	<	5.7	U		-	280	-		<	3.3	U		<	3.3	U		<	2.1	U		-	11	-		<	3.3	U		<	3.4	U		<	8.9	U		<	29	U		<	6.4	U	
		EN04-12D	19	8/27/2013	EN0412D082713	Summa Canister	17.9	2.7	0	1.76	No	No	ug/m3	<	6.0	U		-	420	-		<	3.5	U		<	3.5	U		<	2.2	U		-	11	-		<	3.5	U		<	3.6	U		<	9.3	U		<	30	U		<	6.7	U	
		EN04-12D	19	2/4/2014	EN0412D02042014	Summa Canister	19.9	2.3	0	1.61	No	No	ug/m3	<	5.5	U		-	330	-		<	3.2	U		<	3.2	U		<	2.0	U		-	15	-		<	3.2	U		<	3.2	U		<	8.5	U		<	28	U		<	6.2	U	
		EN04-12D	19	8/7/2014	EN0412D08072014	Summa Canister	19	2.4	0	1.58	No	No	ug/m3	<	5.4	U		-	400	-		<	3.1	U		<	3.1	U		<	2.0	U		-	12	-		<	3.1	U		<	3.2	U		<	8.3	U		<	27	U		<	6.0	U	
		EN04-12D	19	2/5/2015	EN0412D020515	Summa Canister	19.7	1.4	0	1.54	No	No	ug/m3	<	5.2	U		-	260	-		<	3.0	U		<	3.0	U		<	2.0	U		-	7.6	-		<	3.0	U		<	3.1	U		<	8.1	U		<	27	U		<	5.9	U	
		EN04-12D	19	8/5/2015	EN0412D080515	Summa Canister	17	3.4	0	1.43	N	N	ug/m3	<	4.8	U		-	500	-		<	2.8	U		<	2.8	U		<	1.8	U		-	14	-		<	2.8	U		<	2.9	U		<	7.5	U		<	25	U		<	5.5	U	

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

SV Mon Point Designation	Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O_2 (%)	CO_2 (%)	CH_4 (%)	Dilution Factor	SF_6 Applied?	He Applied?	Units of VOC Results	Tetrachloroethene			Trichloroethene			cis-1,2-Dichloroethene			trans-1,2-Dichloroethene			Vinyl chloride			1,1,1-Trichloroethane			1,1-Dichloroethene			1,1-Dichloroethane			Chloroethane			Methylene chloride			Trifluorotrichloroethane (CFC-1		
Designation **EN04-13**	EN04-13S	8	8/29/2013	EN0413S082913	Summa Canister	16.6	4.3	0	1.77	No	No	ug/m3	<	6.0	U	-	1100	-	<	3.5	U	<	3.5	U	<	2.3	U	-	140	-	<	3.5	U	<	3.6	U	<	9.3	U	<	31	U	<	6.8	U
Monitoring Well **EN-449**	EN04-13S	8	8/7/2014	EN0413S08072014	Summa Canister	18	3	0	1.55	No	No	ug/m3	<	5.2	U	-	310	-	<	3.1	U	<	3.1	U	<	2.0	U	-	50	-	<	3.1	U	<	3.1	U	<	8.2	U	<	27	U	<	5.9	U
	EN04-13S	8	8/4/2015	EN0413S080415	Summa Canister	17.5	3.4	0	1.55	N	N	ug/m3	<	5.2	U	-	120	-	<	3.1	U	<	3.1	U	<	2.0	U	-	12	-	<	3.1	U	<	3.1	U	<	8.2	U	<	27	U	<	5.9	U
	EN04-13D	30	8/29/2013	EN0413D082913	Summa Canister	19	1.9	0	1.80	No	No	ug/m3	<	6.1	U	-	69	-	<	3.6	U	<	3.6	U	<	2.3	U	-	5.9	-	<	3.6	U	<	3.6	U	<	9.5	U	<	31	U	<	6.9	U
	EN04-13D	30	8/7/2014	EN0413D08072014	Summa Canister	19.3	1.7	0	1.80	No	No	ug/m3	<	6.1	U	-	140	-	<	3.6	U	<	3.6	U	<	2.3	U	-	17	-	<	3.6	U	<	3.6	U	<	9.5	U	<	31	U	<	6.9	U
	EN04-13D	30	8/4/2015	EN0413D080415	Summa Canister	19.5	2.3	0	1.76	N	N	ug/m3	<	6.0	U	-	81	-	<	3.5	U	<	3.5	U	<	2.2	U	-	8.6	-	<	3.5	U	<	3.6	U	<	9.3	U	<	30	U	<	6.7	U
	EN04-13D Dup	30	8/4/2015	DU3297080415	Summa Canister	19.5	2.3	0	1.76	N	N	ug/m3	<	6.0	U	-	83	-	<	3.5	U	<	3.5	U	<	2.2	U	-	9.7	-	<	3.5	U	<	3.6	U	<	9.3	U	<	30	U	<	6.7	U
Designation **EN04-14**	EN04-14S	8	8/28/2013	EN0414S082813	Summa Canister	18.8	2.5	0	1.76	No	No	ug/m3	<	6.0	U	-	16	-	<	3.5	U	<	3.5	U	<	2.2	U	-	5.2	-	<	3.5	U	<	3.6	U	<	9.3	U	<	30	U	<	6.7	U
Monitoring Well **EN-462**	EN04-14S	8	8/7/2014	EN0414S08072014	Summa Canister	18.9	2.2	0	1.48	No	No	ug/m3	<	5.0	U	-	19	-	<	2.9	U	<	2.9	U	<	1.9	U	-	7.1	-	<	2.9	U	<	3.0	U	<	7.8	U	<	26	U	<	5.7	U
	EN04-14S	8	8/4/2015	EN0414S080415	Summa Canister	18.9	2.4	0	1.45	N	N	ug/m3	<	4.9	U	-	12	-	<	2.9	U	<	2.9	U	<	1.8	U	<	4.0	U	<	2.9	U	<	2.9	U	<	7.6	U	<	25	U	<	5.6	U
	EN04-14D	34	8/28/2013	EN0414D082813	Summa Canister	19.3	1.4	0	1.88	No	No	ug/m3	-	13	-	-	100	-	<	3.7	U	<	3.7	U	<	2.4	U	-	6.5	-	<	3.7	U	<	3.8	U	<	9.9	U	<	33	U	<	7.2	U
	EN04-14D	34	8/7/2014	EN0414D08072014	Summa Canister	19.4	1.1	0	1.44	No	No	ug/m3	-	6.3	-		440		-	2.8	-	<	2.8	U	<	1.8	U	-	24	-	<	2.8	U	<	2.9	U	<	7.6	U	<	25	U	-	7.5	
	EN04-14D	34	8/4/2015	EN0414D080415	Summa Canister	19.3	1.4	0	1.51	N	N	ug/m3	<	5.1	U	-	99	-	<	3.0	U	<	3.0	U	<	1.9	U	-	4.4	-	<	3.0	U	<	3.0	U	<	8.0	U	<	26	U	<	5.8	U
Designation **EN04-15**	EN04-15S	8	8/28/2013	EN0415S082813	Summa Canister	18.2	1.8	0	1.75	No	No	ug/m3	<	5.9	U	<	4.7	U	<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.5	U	<	9.2	U	<	30	U	<	6.7	U
Monitoring Well **EN-162**	EN04-15S	8	8/6/2014	EN0415S08062014	Summa Canister	18.8	1.5	0	1.78	No	No	ug/m3	<	6.0	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.4	U	<	31	U	<	6.8	U
	EN04-15S	8	8/4/2015	EN0415S080415	Summa Canister	18	1.9	0	1.62	N	N	ug/m3	<	5.5	U	<	4.4	U	<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	8.5	U	<	28	U	<	6.2	U
	EN04-15D	30	8/28/2013	EN0415D082813	Summa Canister	18.5	1.4	0	1.71	No	No	ug/m3	<	5.8	U	<	4.6	U	<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	9.0	U	<	30	U	<	6.6	U
	EN04-15D	30	8/6/2014	EN0415D08062014	Summa Canister	19	1.4	0	1.84	No	No	ug/m3	<	6.2	U	<	4.9	U	<	3.6	U	<	3.6	U	<	2.4	U	<	5.0	U	<	3.6	U	<	3.7	U	<	9.7	U	<	32	U	<	7.0	U
	EN04-15D	30	8/4/2015	EN0415D080415	Summa Canister	18	1.8	0	1.57	N	N	ug/m3	<	5.3	U	<	4.2	U	<	3.1	U	<	3.1	U	<	2.0	U	<	4.3	U	<	3.1	U	<	3.2	U	<	8.3	U	<	27	U	<	6.0	U
Designation **EN04-16**	EN04-16S	8	8/29/2013	EN0416S082913	Summa Canister	18	2.6	0	1.76	No	No	ug/m3	<	6.0	U	-	5.2	-	<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.3	U	<	30	U	<	6.7	U
Monitoring Well **EN-206**	EN04-16S	8	8/7/2014	EN0416S08072014	Summa Canister	18.6	2.2	0	1.74	No	No	ug/m3	<	5.9	U	-	6.0	-	<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	9.2	U	<	30	U	<	6.7	U
	EN04-16S	8	8/4/2015	EN0416S080415	Summa Canister	17.6	3.1	0	1.50	N	N	ug/m3	-	6.3	-	-	5.1	-	<	3.0	U	<	3.0	U	<	1.9	U	<	4.1	U	<	3.0	U	<	3.0	U	<	7.9	U	<	26	U	<	5.7	U
	EN04-16D	34	8/29/2013	EN0416D082913	Summa Canister	17.9	2.6	0	1.81	No	No	ug/m3	<	6.1	U	-	38	-	<	3.6	U	<	3.6	U	<	2.3	U	-	5.0	-	<	3.6	U	<	3.7	U	<	9.6	U	<	31	U	<	6.9	U
	EN04-16D	34	10/14/2013	EN0416D101413	Summa Canister	17.9	2.6	0	1.66			ug/m3	<	5.6	U	-	43	-	<	3.3	U	<	3.3	U	<	2.1	U	-	5.1	-	<	3.3	U	<	3.4	U	<	8.8	U	<	29	U	<	6.4	U
	EN04-16D	34	8/7/2014	EN0416D08072014	Summa Canister	18.1	2.7	0	1.67	No	No	ug/m3	<	5.7	U	-	57	-	<	3.3	U	<	3.3	U	<	2.1	U	-	8.6	-	<	3.3	U	<	3.4	U	<	8.8	U	<	29	U	<	6.4	U
	EN04-16D	34	8/4/2015	EN0416D080415	Summa Canister	17.5	2.9	0	1.50	N	N	ug/m3	<	5.1	U	-	32	-	<	3.0	U	<	3.0	U	<	1.9	U	-	5.6	-	<	3.0	U	<	3.0	U	<	7.9	U	<	26	U	<	5.7	U
Designation **EN04-17 EN10-17**	EN04-17S	8	8/28/2013	EN0417S082813	Summa Canister	19.7	1.1	0	1.74	No	No	ug/m3	<	5.9	U	-	270	-	<	3.4	U	<	3.4	U	<	2.2	U	-	6.7	-	<	3.4	U	<	3.5	U	<	9.2	U	<	30	U	<	6.7	U
Monitoring Well **EN-401**	EN04-17S	8	8/7/2014	EN0417S08072014	Summa Canister	19.7	1	0	1.71	No	No	ug/m3	-	7.3	-	-	200	-	<	3.4	U	<	3.4	U	<	2.2	U	-	7.1	-	<	3.4	U	<	3.5	U	<	9.0	U	<	30	U	<	6.6	U
	EN04-17S	8	8/4/2015	EN0417S080415	Summa Canister	19.8	1.1	0	1.50	N	N	ug/m3	-	17	-	-	180	-	<	3.0	U	<	3.0	U	<	1.9	U	-	5.9	-	<	3.0	U	<	3.0	U	<	7.9	U	<	26	U	<	5.7	U
	EN04-17D	28	8/28/2013	EN0417D082813	Summa Canister	19.6	1.2	0	1.76	No	No	ug/m3	<	6.0	U	-	11	-	<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.3	U	<	30	U	<	6.7	U
	EN04-17D	28	8/7/2014	EN0417D08072014	Summa Canister	20	0.7	0	1.74	No	No	ug/m3	<	5.9	U	-	7.0	-	<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	9.2	U	<	30	U	<	6.7	U
	EN04-17D	28	8/4/2015	EN0417D080415	Summa Canister	19.9	1.1	0	1.56	N	N	ug/m3	<	5.3	U	<	4.2	U	<	3.1	U	<	3.1	U	<	2.0	U	<	4.2	U	<	3.1	U	<	3.2	U	<	8.2	U	<	27	U	<	6.0	U
	EN10-17D	34	2/12/2013	EN1017D021213	Summa Canister	20.1	0.4	0	1.61	No	No	ug/m3	<	5.5	U	-	330	-	-	15	-	<	3.2	U	<	2.0	U	-	270	-	<	3.2	U	<	3.2	U	<	8.5	U	<	28	U	<	6.2	U
	EN10-17D	34	8/28/2013	EN1017D082813	Summa Canister	20.1	0.6	0	1.83	No	No	ug/m3	<	6.2	U	-	250	-	-	11	-	<	3.6	U	<	2.3	U	-	190	-	<	3.6	U	<	3.7	U	<	9.6	U	<	32	U	<	7.0	U
	EN10-17D	34	2/4/2014	EN1017D02042014	Summa Canister	20.6	1.1	0	1.50	No	No	ug/m3	<	5.1	U	-	270	-	-	15	-	<	3.0	U	<	1.9	U	-	260	-	<	3.0	U	-	3.5	-	<	7.9	U	<	26	U	<	5.7	U
	EN10-17D	34	8/7/2014	EN1017D08072014	Summa Canister	19.9	0.5	0	1.69	No	No	ug/m3	-	6.6	-	-	220	-	-	12	-	<	3.4	U	<	2.2	U	-	230	-	<	3.4	U	<	3.4	U	<	8.9	U	<	29	U	<	6.5	U
	EN10-17D	34	8/5/2015	EN1017D080515	Summa Canister	20.3	0.4	0	1.53	No	No	ug/m3	<	5.2	U	-	170	-	-	9.6	U	<	3.0	U	<	2.0	U	-	150	-	<	3.0	U	<	3.0	U	<	8.1	U	<	26	U	<	5.9	U
Designation **EN04-18**	EN04-18S	8	8/29/2013	EN0418S082913	Summa Canister	18.9	1.4	0	1.74	No	No	ug/m3	-	200	-	<	4.7	U	<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	9.2	U	<	30	U	<	6.7	U
Monitoring Well **EN-217A**	EN04-18S	8	8/7/2014	EN0418S08072014	Summa Canister	19.2	1.1	0	1.67	No	No	ug/m3	-	27	-	<	4.5	U	<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	8.8	U	<	29	U	<	6.4	U
	EN04-18S	8	8/4/2015	EN0418S080415	Summa Canister	18.6	1.4	0	1.53	N	N	ug/m3	<	5.2	U	<	4.1	U	<	3.0	U	<	3.0	U	<	2.0	U	<	4.2	U	<	3.0	U	<	3.1	U	<	8.1	U	<	26	U	<	5.9	U
	EN04-18D	31	8/29/2013	EN0418D082913	Summa Canister	19.3	0.6	0	1.70	No	No	ug/m3	-	7.7	-	-	600	-	-	3.6	-	<	3.4	U	<	2.2	U	-	41	-	<	3.4	U	<	3.4	U	<	9.0	U	<	30	U	<	6.5	U
	EN04-18D	31	8/7/2014	EN0418D08072014	Summa Canister	19.5	0.5	0	1.60	No	No	ug/m3	-	9.0	-	-	640	-	-	4.1	-	<	3.2	U	<	2.0	U	-	50	-	<	3.2	U	<	3.2	U	<	8.4	U	<	28	U	<	6.1	U
	EN04-18D	31	8/4/2015	EN0418D080415	Summa Canister	19.3	0.4	0	1.67	N	N	ug/m3	-	9.5	-	-	530	-	<	3.3	U	<	3.3	U	<	2.1	U	-	40	-	<	3.3	U	<	3.4	U	<	8.8	U	<	29	U	<	6.4	U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
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SV Mon Point Designation		Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O_2 (%)	CO_2 (%)	CH_4 (%)	Dilution Factor	SF_6 Applied?	He Applied?	Units of VOC Results	Tetrachloroethene		Trichloroethene		cis-1,2-Dichloroethene		trans-1,2-Dichloroethene		Vinyl chloride		1,1,1-Trichloroethane		1,1-Dichloroethene		1,1-Dichloroethane		Chloroethane		Methylene chloride		Trifluorotrichloroethane (CFC-1	
Designation	**EN04-19**	EN04-19S	8	8/28/2013	EN0419S082813	Summa Canister	18.9	1.3	0	1.67	No	No	ug/m3	<	5.7	U	<	4.5	U	<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	8.8	U	<	29	U	<	6.4	U
Monitoring Well	**EN-426**	EN04-19S	8	8/5/2014	EN0419S08052014	Summa Canister	19.3	1.4	0	1.62	No	No	ug/m3	<	5.5	U	<	4.4	U	<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	8.5	U	<	28	U	<	6.2	U
		EN04-19S	8	8/4/2015	EN0419S080415	Summa Canister	18.8	1.9	0	1.62	N	N	ug/m3	<	5.5	U	<	4.4	U	<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	8.5	U	<	28	U	<	6.2	U
		EN04-19D	29.5	8/28/2013	EN0419D082813	Summa Canister	18.6	0.9	0	1.71	No	No	ug/m3	<	5.8	U	-	540	-	-	4.3	-	<	3.4	U	<	2.2	U	-	42	-	<	3.4	U	<	3.5	U	<	9.0	U	<	30	U	<	6.6	U
		EN04-19D Dup	29.5	8/28/2013	DU34572082813	Summa Canister	18.6	0.9	0	1.73	No	No	ug/m3	<	5.9	U	-	520	-	-	4.7	-	<	3.4	U	<	2.2	U	-	39	-	<	3.4	U	<	3.5	U	<	9.1	U	<	30	U	<	6.6	U
		EN04-19D	29.5	8/5/2014	EN0419D08052014	Summa Canister	19.1	0.8	0	1.66	No	No	ug/m3	-	7.0	-	-	390	-	-	5.4	-	<	3.3	U	<	2.1	U	-	48	-	<	3.3	U	<	3.4	U	<	8.8	U	<	29	U	<	6.4	U
		EN04-19D	29.5	8/4/2015	EN0419D080415	Summa Canister	19.1	0.8	0	1.81	N	N	ug/m3	<	6.1	U	-	260	-	-	4.0	-	<	3.6	U	<	2.3	U	-	33	-	<	3.6	U	<	3.7	U	<	9.6	U	<	31	U	<	6.9	U
		EN04-19D Dup	29.5	8/4/2015	DU3298080415	Summa Canister	19.1	0.8	0	1.77	N	N	ug/m3	<	6.0	U	-	250	-	-	5.0	-	<	3.5	U	<	2.3	U	-	27	-	<	3.5	U	<	3.6	U	<	9.3	U	<	31	U	<	6.8	U
Designation	**EN04-20**	EN04-20S	8	8/28/2013	EN0420S082813	Summa Canister	19.2	1.4	0	1.72	No	No	ug/m3	-	7.5	-	<	4.6	U	<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	9.1	U	<	30	U	<	6.6	U
Monitoring Well	**EN-207**	EN04-20S	8	8/5/2014	EN0420S08052014	Summa Canister	20	0.9	0	1.78	No	No	ug/m3	<	6.0	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.4	U	<	31	U	<	6.8	U
		EN04-20S Dup	8	8/5/2014	DU383008052014	Summa Canister	20	0.9	0	1.83	No	No	ug/m3	<	6.2	U	<	4.9	U	<	3.6	U	<	3.6	U	<	2.3	U	<	5.0	U	<	3.6	U	<	3.7	U	<	9.6	U	<	32	U	<	7.0	U
		EN04-20S	8	8/4/2015	EN0420S080415	Summa Canister	19.5	1.6	0	1.48	N	N	ug/m3	<	5.0	U	<	4.0	U	<	2.9	U	<	2.9	U	<	1.9	U	<	4.0	U	<	2.9	U	<	3.0	U	<	7.8	U	<	26	U	<	5.7	U
		EN04-20D	36	8/28/2013	EN0420D082813	Summa Canister	19.5	0.8	0	1.80	No	No	ug/m3	<	6.1	U	-	170	-	<	3.6	U	<	3.6	U	<	2.3	U	-	9.6	-	<	3.6	U	<	3.6	U	<	9.5	U	<	31	U	<	6.9	U
		EN04-20D	36	8/5/2014	EN0420D08052014	Summa Canister	20.1	0.6	0	1.65	No	No	ug/m3	<	5.6	U	-	180	-	<	3.3	U	<	3.3	U	<	2.1	U	-	11	-	<	3.3	U	<	3.3	U	<	8.7	U	<	29	U	<	6.3	U
		EN04-20D	36	8/4/2015	EN0420D080415	Summa Canister	19.8	0.7	0	1.51	N	N	ug/m3	<	5.1	U	-	130	-	<	3.0	U	<	3.0	U	<	1.9	U	-	11	-	<	3.0	U	<	3.0	U	<	8.0	U	<	26	U	<	5.8	U
Designation	**EN04-21**	EN04-21S	7.5	8/28/2013	EN0421S082813	Summa Canister	15.5	3.4	0	1.80	No	No	ug/m3	<	6.1	U	<	4.8	U	<	3.6	U	<	3.6	U	<	2.3	U	<	4.9	U	<	3.6	U	<	3.6	U	<	9.5	U	<	31	U	<	6.9	U
Monitoring Well	**EN-468**	EN04-21S Dup	7.5	8/28/2013	DU8026082813	Summa Canister	15.5	3.4	0	1.77	No	No	ug/m3	<	6.0	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.3	U	<	31	U	<	6.8	U
		EN04-21S	7.5	8/5/2014	EN0421S08052014	Summa Canister	11.2	6.1	0	1.82	No	No	ug/m3	<	6.2	U	<	4.9	U	<	3.6	U	<	3.6	U	<	2.3	U	<	5.0	U	<	3.6	U	<	3.7	U	<	9.6	U	<	32	U	<	7.0	U
		EN04-21S	7.5	8/4/2015	EN0421S080415	Summa Canister	11.7	6.3	0	1.54	N	N	ug/m3	<	5.2	U	<	4.1	U	<	3.0	U	<	3.0	U	<	2.0	U	<	4.2	U	<	3.0	U	<	3.1	U	<	8.1	U	<	27	U	<	5.9	U
		EN04-21D	23	8/28/2013	EN0421D082813	Summa Canister	8	7.9	0	1.76	No	No	ug/m3	<	6.0	U	<	4.7	U	<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.3	U	<	30	U	<	6.7	U
		EN04-21D	23	10/14/2013	EN0421D101413	Summa Canister	8	7.9	0	1.65			ug/m3	<	5.6	U	<	4.4	U	<	3.3	U	<	3.3	U	<	2.1	U	<	4.5	U	<	3.3	U	<	3.3	U	<	8.7	U	<	29	U	<	6.3	U
		EN04-21D	23	8/5/2014	EN0421D08052014	Summa Canister	5.3	10	6.5	1.78	No	No	ug/m3	<	6.0	U	-	5.3	-	<	3.5	U	<	3.5	U	<	2.3	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.4	U	<	31	U	<	6.8	U
		EN04-21D	23	8/4/2015	EN0421D080415	Summa Canister	2.5	13.2	2.2	1.55	N	N	ug/m3	<	5.2	U	-	8.3	-	<	3.1	U	<	3.1	U	<	2.0	U	<	4.2	U	<	3.1	U	<	3.1	U	<	8.2	U	<	27	U	<	5.9	U
Designation	**EN04-22**	EN04-22S	8	8/28/2013	EN0422S082813	Summa Canister	14.1	4.1	0	1.71	No	No	ug/m3	-	6.7	-	-	720	-	-	89	-	-	13	-	<	2.2	U	-	60	-	<	3.4	U	<	3.5	U	<	9.0	U	<	30	U	-	14	
Monitoring Well	**EN-080;EN-393**	EN04-22S	8	8/6/2014	EN0422S08062014	Summa Canister	16	3.1	0	2.12	No	No	ug/m3	<	7.2	U	-	29	-	<	4.2	U	<	4.2	U	<	2.7	U	<	5.8	U	<	4.2	U	<	4.3	U	<	11	U	<	37	U	<	8.1	U
		EN04-22S	8	8/4/2015	EN0422S080415	Summa Canister	15.3	3.5	0	1.51	N	N	ug/m3	-	7.4	-	-	450	-	-	23	-	-	3.6	-	<	1.9	U	-	41	-	<	3.0	U	<	3.0	U	<	8.0	U	<	26	U	-	9.9	
		EN04-22D	16	8/28/2013	EN0422D082813	Summa Canister	14	4.3	0	1.64	No	No	ug/m3	-	9.0	-	-	900	-	-	160	-	-	22	-	<	2.1	U	-	76	-	<	3.2	U	-	3.9	-	<	8.6	U	<	28	U	-	14	
		EN04-22D	16	8/6/2014	EN0422D08062014	Summa Canister	15.9	3	0	1.92	No	No	ug/m3	<	6.5	U	-	400	-	-	40	-	-	6.5	-	<	2.4	U	-	34	-	<	3.8	U	<	3.9	U	<	10	U	<	33	U	-	15	
		EN04-22D	16	8/4/2015	EN0422D080415	Summa Canister	16.5	2.6	0	1.58	N	N	ug/m3	-	6.5	-	-	160	-	-	4.2	-	<	3.1	U	<	2.0	U	-	16	-	<	3.1	U	<	3.2	U	<	8.3	U	<	27	U	-	17	
Designation	**EN04-23**	EN04-23S	8	8/28/2013	EN0423S082813	Summa Canister	17.2	2.9	0	1.75	No	No	ug/m3	<	5.9	U	<	4.7	U	<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.5	U	<	9.2	U	<	30	U	<	6.7	U
Monitoring Well	**EN-174**	EN04-23S Dup	8	8/28/2013	DU1354082813	Summa Canister	17.2	2.9	0	1.82	No	No	ug/m3	<	6.2	U	<	4.9	U	<	3.6	U	<	3.6	U	<	2.3	U	<	5.0	U	<	3.6	U	<	3.7	U	<	9.6	U	<	32	U	<	7.0	U
		EN04-23S	8	8/6/2014	EN0423S08062014	Summa Canister	18.4	2	0	1.88	No	No	ug/m3	<	6.4	U	<	5.0	U	<	3.7	U	<	3.7	U	<	2.4	U	<	5.1	U	<	3.7	U	<	3.8	U	<	9.9	U	<	33	U	<	7.2	U
		EN04-23S	8	8/4/2015	EN0423S080415	Summa Canister	18.3	2.8	0	1.62	N	N	ug/m3	<	5.5	U	<	4.4	U	<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	8.5	U	<	28	U	<	6.2	U
		EN04-23D	23	8/28/2013	EN0423D082813	Summa Canister	18.4	1.3	0	1.69	No	No	ug/m3	-	15	-	-	370	-	-	54	-	-	5.3	-	<	2.2	U	<	4.6	U	<	3.4	U	-	9.2	-	<	8.9	U	<	29	U	<	6.5	U
		EN04-23D	23	8/6/2014	EN0423D08062014	Summa Canister	18.8	1.4	0	1.84	No	No	ug/m3	-	15	-	-	380	-	-	52	-	-	5.9	-	<	2.4	U	<	5.0	U	<	3.6	U	-	10	-	<	9.7	U	<	32	U	<	7.0	U
		EN04-23D	23	8/4/2015	EN0423D080415	Summa Canister	18.8	1.6	0	1.58	N	N	ug/m3	-	14	-	-	180	-	-	20	-	<	3.1	U	<	2.0	U	<	4.3	U	<	3.1	U	-	4.3	-	<	8.3	U	<	27	U	<	6.0	U
Designation	**EN04-25**	EN04-25S	8	8/28/2013	EN0425S082813	Summa Canister	15.1	3.7	0	1.76	No	No	ug/m3	-	5.9	U	<	4.7	U	<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.3	U	<	30	U	<	6.7	U
Monitoring Well	**EN-395**	EN04-25S	8	8/6/2014	EN0425S08062014	Summa Canister	16.2	3.3	0	2.18	No	No	ug/m3	<	7.4	U	<	5.8	U	<	4.3	U	<	4.3	U	<	2.8	U	<	5.9	U	<	4.3	U	<	4.4	U	<	12	U	<	38	U	<	8.4	U
		EN04-25S	8	8/4/2015	EN0425S080415	Summa Canister	16	3.7	0	1.52	N	N	ug/m3	<	5.2	U	<	4.1	U	<	3.0	U	<	3.0	U	<	1.9	U	<	4.1	U	<	3.0	U	<	3.1	U	<	8.0	U	<	26	U	<	5.8	U
		EN04-25D	17.5	8/28/2013	EN0425D082813	Summa Canister	17.6	1.8	0	1.74	No	No	ug/m3	<	5.9	U	<	4.7	U	<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	9.2	U	<	30	U	<	6.7	U
		EN04-25D	17.5	8/6/2014	EN0425D08062014	Summa Canister	20	0.6	0	1.71	No	No	ug/m3	<	5.8	U	<	4.6	U	<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	9.0	U	<	30	U	<	6.6	U
		EN04-25D	17.5	8/4/2015	EN0425D080415	Summa Canister	17.8	2.7	0	1.55	N	N	ug/m3	<	5.2	U	<	4.2	U	<	3.1	U	<	3.1	U	<	2.0	U	<	4.2	U	<	3.1	U	<	3.1	U	<	8.2	U	<	27	U	<	5.9	U
Designation	**EN04-26**	EN04-26S	8	8/26/2013	EN0426S082613	Summa Canister	19.4	1.5	0	3.05	No	No	ug/m3	-	17	-	-	960	-	<	6.0	U	<	6.0	U	<	3.9	U	-	57	-	<	6.0	U	<	6.2	U	<	16	U	<	53	U	<	12	U
Monitoring Well	**EN-304**	EN04-26S	8	8/6/2014	EN0426S08062014	Summa Canister	19.2	1.3	0	1.65	No	No	ug/m3	<	5.6	U	-	27	-	<	3.3	U	<	3.3	U	<	2.1	U	<	4.5	U	<	3.3	U	<	3.3	U	<	8.7	U	<	29	U	<	6.3	U
		EN04-26S	8	8/4/2015	EN0426S080415	Summa Canister	18.6	1.3	0	1.49	N	N	ug/m3	-	13	-	-	610	-	<	3.0	U	<	3.0	U	<	1.9	U	-	34	-	<	3.0	U	<	3.0	U	<	7.9	U	<	26	U	<	5.7	U
		EN04-26D	14	8/26/2013	EN0426D082613	Summa Canister	19.4	1.4	0	1.78	No	No	ug/m3	-	16	-	-	1500	-	<	3.5	U	<	3.5	U	<	2.3	U	-	64	-	<	3.5	U	<	3.6	U	<	9.4	U	<	31	U	<	6.8	U
		EN04-26D	14	8/6/2014	EN0426D08062014	Summa Canister	19.3	1	0	1.79	No	No	ug/m3	-	16	-	-	1300	-	<	3.5	U	-	3.5	U	<	2.3	U	-	68	-	<	3.5	U	<	3.6	U	<	9.4	U	<	31	U	-	7.2	
		EN04-26D	14	8/4/2015	EN0426D080415	Summa Canister	18.9	0.9	0	1.56	N	N	ug/m3	-	11	-	-	980	-	<	3.1	U	<	3.1	U	<	2.0	U	-	49	-	<	3.1	U	<	3.2	U	<	8.2	U	<	27	U	<	6.0	U

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SV Mon Point Designation		Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O_2 (%)	CO_2 (%)	CH_4 (%)	Dilution Factor	SF_6 Applied?	He Applied?	Units of VOC Results	Tetrachloroethene			Trichloroethene			cis-1,2-Dichloroethene			trans-1,2-Dichloroethene			Vinyl chloride			1,1,1-Trichloroethane			1,1-Dichloroethene			1,1-Dichloroethane			Chloroethane			Methylene chloride			Trifluorotrichloroethane (CFC-1		
Designation	**EN04-27**	EN04-27S	8	8/26/2013	EN0427S082613	Summa Canister	14.5	5.4	0	1.66	No	No	ug/m3	-	120	-	-	470	-	<	3.3	U	<	3.3	U	<	2.1	U	-	100	-	<	3.3	U	<	3.4	U	<	8.8	U	<	29	U	<	6.4	U
Monitoring Well	**EN-417A**	EN04-27S	8	8/6/2014	EN0427S08062014	Summa Canister	14.6	5	0	1.66	No	No	ug/m3	-	130	-	-	460	-	<	3.3	U	<	3.3	U	<	2.1	U	-	100	-	<	3.3	U	<	3.4	U	<	8.8	U	<	29	U	<	6.4	U
		EN04-27S	8	8/4/2015	EN0427S080415	Summa Canister	14.5	5	0	1.40	N	N	ug/m3	-	120	-	-	440	-	<	2.8	U	<	2.8	U	<	1.8	U	-	97	-	<	2.8	U	<	2.8	U	<	7.4	U	<	24	U	<	5.4	U
Designation	**EN07-28**	EN07-28S	7	8/29/2013	EN0728S082913	Summa Canister	19.9	0.6	0	1.54	No	No	ug/m3	-	210	-	-	8.2	-	<	3.0	U	<	3.0	U	<	2.0	U	<	4.2	U	<	3.0	U	<	3.1	U	<	8.1	U	<	27	U	<	5.9	U
Monitoring Well	**EN-387A**	EN07-28S	7	8/6/2014	EN0728S08062014	Summa Canister	19.8	0.5	0	1.76	No	No	ug/m3	-	280	-	-	11	-	<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.3	U	<	30	U	<	6.7	U
		EN07-28S	7	8/4/2015	EN0728S080415	Summa Canister	19.6	0.5	0	1.64	N	N	ug/m3	-	180	-	-	7.4	-	<	3.2	U	<	3.2	U	<	2.1	U	<	4.5	U	<	3.2	U	<	3.3	U	<	8.6	U	<	28	U	<	6.3	U
		EN07-28S Dup	7	8/4/2015	DU3336080415	Summa Canister	19.6	0.5	0	1.71	N	N	ug/m3	-	190	-	-	8.7	-	<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	9.0	U	<	30	U	<	6.6	U
		EN07-28D	19	8/29/2013	EN0728D082913	Summa Canister	13.5	5.3	0	1.60	No	No	ug/m3	-	1400	-	-	58	-	-	8.5	-	-	6.1	-	<	2.0	U	<	4.4	U	<	3.2	U	<	3.2	U	<	8.4	U	<	28	U	<	6.1	U
		EN07-28D	19	8/6/2014	EN0728D08062014	Summa Canister	13.4	4.7	0	1.82	No	No	ug/m3	-	1300	-	-	50	-	-	5.7	-	<	3.6	U	<	2.3	U	<	5.0	U	<	3.6	U	<	3.7	U	<	9.6	U	<	32	U	<	7.0	U
		EN07-28D	19	8/4/2015	EN0728D080415	Summa Canister	15.3	4.1	0.3	1.46	N	N	ug/m3	-	890	-	-	35	-	-	5.0	-	<	2.9	U	<	1.9	U	<	4.0	U	<	2.9	U	<	3.0	U	<	7.7	U	<	25	U	<	5.6	U
Designation	**EN04-29;EN05-29**	EN05-29S	8	2/12/2013	EN0429S021213	Summa Canister	20.4	0.4	0	1.58	No	No	ug/m3	<	5.4	U	-	26	-	<	3.1	U	<	3.1	U	<	2.0	U	<	4.3	U	<	3.1	U	<	3.2	U	<	8.3	U	<	27	U	<	6.0	U
Monitoring Well	**EN-437**	EN05-29S Dup	8	2/12/2013	DU3456021213	Summa Canister	20.4	0.4	0	1.64	No	No	ug/m3	<	5.6	U	-	24	-	<	3.2	U	<	3.2	U	<	2.1	U	<	4.5	U	<	3.2	U	<	3.3	U	<	8.6	U	<	28	U	<	6.3	U
		EN05-29S	8	8/27/2013	EN0529S082713	Summa Canister	17.7	2	0	1.67	No	No	ug/m3	<	5.7	U	-	84	-	<	3.3	U	<	3.3	U	<	2.1	U	-	8.5	-	<	3.3	U	<	3.4	U	<	8.8	U	<	29	U	<	6.4	U
		EN05-29S	8	2/4/2014	EN0529S02042014	Summa Canister	20.8	0.8	0	1.47	No	No	ug/m3	<	5.0	U	-	35	-	<	2.9	U	<	2.9	U	<	1.9	U	-	4.0	-	<	2.9	U	<	3.0	U	<	7.8	U	<	26	U	<	5.6	U
		EN05-29S	8	8/6/2014	EN0529S08062014	Summa Canister	18.5	2	0	1.61	No	No	ug/m3	<	5.5	U	-	340	-	<	3.2	U	<	3.2	U	<	2.0	U	-	34	-	<	3.2	U	<	3.2	U	<	8.5	U	<	28	U	<	6.2	U
		EN05-29S	8	8/5/2015	EN0429S080515	Summa Canister	16.7	2.6	0	1.54	N	N	ug/m3	<	5.2	U	-	280	-	<	3.0	U	<	3.0	U	<	2.0	U	-	31	-	<	3.0	U	<	3.1	U	<	8.1	U	<	27	U	<	5.9	U
		EN04-29D	20	2/12/2013	EN0429D021213	Summa Canister	20.5	0.3	0	1.62	No	No	ug/m3	<	5.5	U	-	73	-	<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	8.5	U	<	28	U	<	6.2	U
		EN04-29D	20	8/27/2013	EN0429D082713	Summa Canister	18	1.7	0	1.93	No	No	ug/m3	<	6.5	U	-	77	-	<	3.8	U	<	3.8	U	<	2.5	U	-	9.8	-	<	3.8	U	<	3.9	U	<	10	U	<	34	U	<	7.4	U
		EN04-29D Dup	20	8/27/2013	DU34647082713	Summa Canister	18	1.7	0	1.71	No	No	ug/m3	<	5.8	U	-	66	-	<	3.4	U	<	3.4	U	<	2.2	U	-	7.8	-	<	3.4	U	<	3.5	U	<	9.0	U	<	30	U	<	6.6	U
		EN04-29D	20	2/4/2014	EN0429D02042014	Summa Canister	20.5	0.7	0	2.48	No	No	ug/m3	<	8.4	U	-	300	-	<	4.9	U	<	4.9	U	<	3.2	U	-	20	-	<	4.9	U	<	5.0	U	<	13	U	<	43	U	<	9.5	U
		EN04-29D	20	8/6/2014	EN0429D08062014	Summa Canister	19.2	1.1	0	1.73	No	No	ug/m3	<	5.9	U	-	280	-	<	3.4	U	<	3.4	U	<	2.2	U	-	23	-	<	3.4	U	<	3.5	U	<	9.1	U	<	30	U	<	6.6	U
		EN04-29D Dup	20	8/6/2014	DU335608062014	Summa Canister	19.2	1.1	0	1.80	No	No	ug/m3	<	6.1	U	-	260	-	<	3.6	U	<	3.6	U	<	2.3	U	-	22	-	<	3.6	U	<	3.6	U	<	9.5	U	<	31	U	<	6.9	U
		EN04-29D	20	2/5/2015	EN0429D020515	Summa Canister	20.9	0.6	0	1.63	No	No	ug/m3	<	5.5	U	-	34	-	<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	8.6	U	<	28	U	<	6.2	U
		EN04-29D	20	8/5/2015	EN0429D080515	Summa Canister	17.4	2.5	0	1.60	N	N	ug/m3	<	5.4	U	-	210	-	<	3.2	U	<	3.2	U	<	2.0	U	-	19	-	<	3.2	U	<	3.2	U	<	8.4	U	<	28	U	<	6.1	U
Designation	**EN04-30**	EN04-30S	9	2/12/2013	EN0430S021213	Summa Canister	20.9	0.1	0	1.56	No	No	ug/m3	<	5.3	U	-	260	-	<	3.1	U	<	3.1	U	<	2.0	U	<	4.2	U	<	3.1	U	<	3.2	U	<	8.2	U	<	27	U	<	6.0	U
Monitoring Well	**EN-092A;EN-438**	EN04-30S	9	8/28/2013	EN0430S082813	Summa Canister	19.6	0.5	0	2.97	No	No	ug/m3	<	10	U	-	2200	-	<	5.9	U	<	5.9	U	<	3.8	U	-	16	-	<	5.9	U	<	6.0	U	<	16	U	<	52	U	<	11	U
		EN04-30S Dup	9	8/28/2013	DU9495082813	Summa Canister	19.6	0.5	0	2.70	No	No	ug/m3	<	9.2	U	-	2000	-	<	5.4	U	<	5.4	U	<	3.4	U	-	17	-	<	5.4	U	<	5.5	U	<	14	U	<	47	U	<	10	U
		EN04-30S	9	2/4/2014	EN0430S02042014	Summa Canister	20.9	0.1	0	2.32	No	No	ug/m3	<	7.9	U	-	250	-	<	4.6	U	<	4.6	U	<	3.0	U	<	6.3	U	<	4.6	U	<	4.7	U	<	12	U	<	40	U	<	8.9	U
		EN04-30S	9	8/7/2014	EN0430S08072014	Summa Canister	20	0.6	0	1.80	No	No	ug/m3	<	6.1	U	-	1800	-	<	3.6	U	<	3.6	U	<	2.3	U	-	14	-	<	3.6	U	<	3.6	U	<	9.5	U	<	31	U	<	6.9	U
		EN04-30S Dup	9	8/7/2014	DU1280708072014	Summa Canister	20	0.6	0	1.86	No	No	ug/m3	<	6.3	U	-	1800	-	<	3.7	U	<	3.7	U	<	2.4	U	-	14	-	<	3.7	U	<	3.8	U	<	9.8	U	<	32	U	<	7.1	U
		EN04-30S	9	2/5/2015	EN0430S020515	Summa Canister	21.1	0.2	0	1.66	No	No	ug/m3	<	5.6	U	-	310	-	<	3.3	U	<	3.3	U	<	2.1	U	<	4.5	U	<	3.3	U	<	3.4	U	<	8.8	U	<	29	U	<	6.4	U
		EN04-30S Dup	9	2/5/2015	DU3372020515	Summa Canister	21.1	0.2	0	1.63	No	No	ug/m3	<	5.5	U	-	300	-	<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	8.6	U	<	28	U	<	6.2	U
		EN04-30S	9	8/5/2015	EN0430S080515	Summa Canister	19.6	0.5	0	2.53	N	N	ug/m3	<	8.6	U	-	2100	-	<	5.0	U	<	5.0	U	<	3.2	U	-	19	-	<	5.0	U	<	5.1	U	<	13	U	<	44	U	<	9.7	U
		EN04-30D	20	2/12/2013	EN0430D021213	Summa Canister	20.6	0.4	0	1.55	No	No	ug/m3	-	31	-	-	770	-	-	3.3	-	<	3.1	U	<	2.0	U	-	96	-	<	3.1	U	<	3.1	U	<	8.2	U	<	27	U	<	5.9	U
		EN04-30D	20	8/28/2013	EN0430D082813	Summa Canister	19.3	0.8	0	1.62	No	No	ug/m3	-	26	-	-	730	-	-	4.6	-	<	3.2	U	<	2.1	U	-	110	-	<	3.2	U	<	3.3	U	<	8.5	U	<	28	U	<	6.2	U
		EN04-30D	20	2/4/2014	EN0430D02042014	Summa Canister	20.5	0.5	0	1.57	No	No	ug/m3	-	25	-	-	820	-	-	4.7	-	<	3.1	U	<	2.0	U	-	49	-	<	3.1	U	<	3.2	U	<	8.3	U	<	27	U	<	6.0	U
		EN04-30D	20	8/7/2014	EN0430D08072014	Summa Canister	19.6	0.9	0	1.66	No	No	ug/m3	-	30	-	-	690	-	-	3.8	-	<	3.3	U	<	2.1	U	-	82	-	<	3.3	U	-	5.7	-	<	8.8	U	<	29	U	<	6.4	U
		EN04-30D	20	2/5/2015	EN0430D020515	Summa Canister	20.3	0.6	0	1.45	No	No	ug/m3	-	28	-	-	840	-	-	3.0	-	<	2.9	U	<	1.8	U	-	37	-	<	2.9	U	-	18	-	<	7.6	U	<	25	U	<	5.6	U
		EN04-30D	20	8/5/2015	EN0430D080515	Summa Canister	18.3	0.9	0	2.00	N	N	ug/m3	-	60	-	-	840	-	-	5.9	-	<	4.0	U	<	2.6	U	-	100	-	<	4.0	U	-	17	-	<	10	U	<	35	U	<	7.7	U
		EN04-30D Dup	20	8/5/2015	DU3463080515	Summa Canister	18.3	0.9	0	1.50	N	N	ug/m3	<	5.1	U	<	4.0	U	<	3.0	U	<	3.0	U	<	1.9	U	<	4.1	U	<	3.0	U	<	3.0	U	<	7.9	U	<	26	U	<	5.7	U
Designation	**EN04-31**	EN04-31S	10	8/27/2013	EN0431S082713	Summa Canister	20.4	0.1	0	1.81	No	No	ug/m3	<	6.1	U	<	4.9	U	<	3.6	U	<	3.6	U	<	2.3	U	<	4.9	U	<	3.6	U	<	3.7	U	<	9.6	U	<	31	U	<	6.9	U
Monitoring Well	**EN-453**	EN04-31S	10	8/6/2014	EN0431S08062014	Summa Canister	20.9	0.1	0	1.77	No	No	ug/m3	<	6.0	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.3	U	<	31	U	<	6.8	U
		EN04-31S	10	10/1/2015	EN0431A100115	Summa Canister	NM	NM	NM	1.51	No	No	ug/m3	<	5.1	U	<	4.0	U	-	3.3	-	<	3.0	U	<	1.9	U	<	4.1	U	<	3.0	U	<	3.0	U	<	8.0	U	<	26	U	<	5.8	U
		EN04-31D	19	8/27/2013	EN0431D082713	Summa Canister	20.5	0.1	0	1.73	No	No	ug/m3	<	5.9	U	-	200	-	<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	9.1	U	<	30	U	<	6.6	U
		Water present - could not sample		8/7/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Water present - could not sample		8/5/2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

SV Mon Point Designation		Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O_2 (%)	CO_2 (%)	CH_4 (%)	Dilution Factor	SF_6 Applied?	He Applied?	Units of VOC Results	Tetrachloroethene			Trichloroethene			cis-1,2-Dichloroethene			trans-1,2-Dichloroethene			Vinyl chloride			1,1,1-Trichloroethane			1,1-Dichloroethene			1,1-Dichloroethane			Chloroethane			Methylene chloride			Trifluorotrichloroethane (CFC-1		
Designation	**EN04-32**	EN04-32S	8	2/12/2013	EN0432S021213	Summa Canister	20.3	0.3	0	1.60	No	No	ug/m3	<	5.4	U	-	110	-	<	3.2	U	<	3.2	U	<	2.0	U	-	8.0	-	<	3.2	U	<	3.2	U	<	8.4	U	<	28	U	<	6.1	U
Monitoring Well	**EN-457A;EN-457B**	EN04-32S	8	8/27/2013	EN0432S082713	Summa Canister	17.8	1.2	0	1.70	No	No	ug/m3	<	5.8	U	-	670	-	-	8.2	-	<	3.4	U	<	2.2	U	-	45	-	<	3.4	U	<	3.4	U	<	9.0	U	<	30	U	<	6.5	U
		EN04-32S	8	2/4/2014	EN0432S02042014	Summa Canister	20.6	0.6	0	1.62	No	No	ug/m3	<	5.5	U	-	87	-	<	3.2	U	<	3.2	U	<	2.1	U	-	5.5	-	<	3.2	U	<	3.3	U	<	8.5	U	<	28	U	<	6.2	U
		EN04-32S Dup	8	2/4/2014	DU336102042014	Summa Canister	20.6	0.6	0	1.75			ug/m3	<	5.9	U	-	100	-	<	3.5	U	<	3.5	U	<	2.2	U	-	5.8	-	<	3.5	U	<	3.5	U	<	9.2	U	<	30	U	<	6.7	U
		EN04-32S	8	8/5/2014	EN0432S08052014	Summa Canister	19.1	1	0	1.70	No	No	ug/m3	<	5.8	U	-	470	-	<	3.4	U	<	3.4	U	<	2.2	U	-	32	-	<	3.4	U	<	3.4	U	<	9.0	U	<	30	U	<	6.5	U
		EN04-32S	8	2/5/2015	EN0432S020515	Summa Canister	20.9	0.7	0	1.65	No	No	ug/m3	<	5.6	U	-	130	-	<	3.3	U	<	3.3	U	<	2.1	U	-	7.4	-	<	3.3	U	<	3.3	U	<	8.7	U	<	29	U	<	6.3	U
		EN04-32S	8	8/5/2015	EN0432S080515	Summa Canister	18.9	1.1	0	1.56	N	N	ug/m3	-	6.9	-	-	680	-	<	3.1	U	<	3.1	U	<	2.0	U	-	46	-	<	3.1	U	<	3.2	U	<	8.2	U	<	27	U	<	6.0	U
		EN04-32D	18	2/12/2013	EN0432D021213	Summa Canister	19.6	0.8	0	1.61	No	No	ug/m3	<	5.5	U	-	870	-	<	3.2	U	<	3.2	U	<	2.0	U	-	140	-	<	3.2	U	-	5.4	-	<	8.5	U	<	28	U	<	6.2	U
		EN04-32D	18	8/27/2013	EN0432D082713	Summa Canister	18	0.9	0	1.64	No	No	ug/m3	<	5.6	U	-	1200	-	<	3.2	U	<	3.2	U	<	2.1	U	-	120	-	<	3.2	U	-	4.9	-	<	8.6	U	<	28	U	-	7.4	
		EN04-32D	18	2/4/2014	EN0432D02042014	Summa Canister	19.9	1.1	0	1.65	No	No	ug/m3	<	5.6	U	-	810	-	<	3.3	U	<	3.3	U	<	2.1	U	-	50	-	<	3.3	U	<	3.3	U	<	8.7	U	<	29	U	<	6.3	U
		EN04-32D	18	8/5/2014	EN0432D08052014	Summa Canister	19.2	0.8	0	1.80	No	No	ug/m3	<	6.1	U	-	1000	-	<	3.6	U	<	3.6	U	<	2.3	U	-	67	-	<	3.6	U	-	4.0	-	<	9.5	U	<	31	U	<	6.9	U
		EN04-32D Dup	18	8/5/2014	DU333108052014	Summa Canister	19.2	0.8	0	1.73	No	No	ug/m3	<	5.9	U	-	1000		<	3.4	U	<	3.4	U	<	2.2	U	-	87	-	<	3.4	U	-	3.7	-	<	9.1	U	<	30	U	<	6.6	U
		EN04-32D	18	2/5/2015	EN0432D020515	Summa Canister	20.7	0.8	0	1.58	No	No	ug/m3	<	5.4	U	-	940	-	<	3.1	U	<	3.1	U	<	2.0	U	-	44	-	<	3.1	U	<	3.2	U	<	8.3	U	<	27	U	<	6.0	U
		EN04-32D	18	8/5/2015	EN0432D080515	Summa Canister	19	0.9	0	1.52	N	N	ug/m3	<	5.2	U	-	830	-	<	3.0	U	<	3.0	U	<	1.9	U	-	53	-	<	3.0	U	-	3.6	-	<	8.0	U	<	26	U	<	5.8	U
Designation	**EN05-33**	EN05-33S	7.5	8/29/2013	EN0533S082913	Summa Canister	19.7	0.9	0	1.70	No	No	ug/m3	-	13	-	-	34	-	<	3.4	U	<	3.4	U	<	2.2	U	-	4.9	-	<	3.4	U	<	3.4	U	<	9.0	U	<	30	U	<	6.5	U
Monitoring Well	**EN-162**	EN05-33S	7.5	8/7/2014	EN0533S08072014	Summa Canister	19.3	0.7	0	1.53	No	No	ug/m3	-	17	-	-	47	-	<	3.0	U	<	3.0	U	<	2.0	U	-	4.7	-	<	3.0	U	<	3.1	U	<	8.1	U	<	26	U	<	5.9	U
		EN05-33S	7.5	8/4/2015	EN0533S080415	Summa Canister	19.4	0.7	0	1.52	N	N	ug/m3	-	13	-	-	28	-	<	3.0	U	<	3.0	U	<	1.9	U	-	4.5	-	<	3.0	U	<	3.1	U	<	8.0	U	<	26	U	<	5.8	U
		EN05-33D	32	8/29/2013	EN0533D082913	Summa Canister	20	0.6	0	2.88	No	No	ug/m3	-	85	-	-	2000	-	<	5.7	U	<	5.7	U	<	3.7	U	-	96	-	<	5.8	U	<	15	U	<	50	U	<	11	U			
		EN05-33D	32	8/7/2014	EN0533D08072014	Summa Canister	19.6	0.5	0	4.05	No	No	ug/m3	-	200	-	-	3500	-	<	8.0	U	<	8.0	U	<	5.2	U	-	130	-	<	8.0	U	<	8.2	U	<	21	U	<	70	U	<	16	U
		EN05-33D	32	8/4/2015	EN0533D080415	Summa Canister	19.3	0.4	0	1.64	N	N	ug/m3	-	44	-	-	920	-	<	3.2	U	<	3.2	U	<	2.1	U	-	39	-	<	3.2	U	<	3.3	U	<	8.6	U	<	28	U	<	6.3	U
Designation	**EN05-34**	EN05-34S	8	8/26/2013	EN0534S082613	Summa Canister	19.6	1.4	0	1.63	No	No	ug/m3	<	5.5	U	-	11	-	<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	8.6	U	<	28	U	<	6.2	U
Monitoring Well	**EN-417A**	EN05-34S	8	8/6/2014	EN0534S08062014	Summa Canister	19.1	1.2	0	1.80	No	No	ug/m3	<	6.1	U	-	14	-	<	3.6	U	<	3.6	U	<	2.3	U	<	4.9	U	<	3.6	U	<	3.6	U	<	9.5	U	<	31	U	<	6.9	U
		EN05-34S	8	8/4/2015	EN0534S080415	Summa Canister	17.7	2.6	0	1.79	N	N	ug/m3	<	6.1	U	-	13	-	<	3.5	U	<	3.5	U	<	2.3	U	<	4.9	U	<	3.5	U	<	3.6	U	<	9.4	U	<	31	U	<	6.8	U
		EN05-34S Dup	8	8/4/2015	DU3829080415	Summa Canister	17.7	2.6	0	1.78	N	N	ug/m3	<	6.0	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.4	U	<	31	U	<	6.8	U
		EN05-34D	13.5	8/26/2013	EN0534D082613	Summa Canister	18.9	1.4	0	1.75	No	No	ug/m3	-	14	-	-	94	-	<	3.5	U	<	3.5	U	<	2.2	U	-	8.5	-	<	3.5	U	<	3.5	U	<	9.2	U	<	30	U	<	6.7	U
		EN05-34D	13.5	8/6/2014	EN0534D08062014	Summa Canister	18.9	1.2	0	1.80	No	No	ug/m3	-	27	-	-	160	-	<	3.6	U	<	3.6	U	<	2.3	U	-	19	-	<	3.6	U	<	3.6	U	<	9.5	U	<	31	U	-	9.0	
		EN05-34D	13.5	8/4/2015	EN0534D080415	Summa Canister	18.3	1.4	0	1.55	N	N	ug/m3	-	24	-	-	140	-	<	3.1	U	<	3.1	U	<	2.0	U	-	17	-	<	3.1	U	<	3.1	U	<	8.2	U	<	27	U	<	5.9	U
Designation	**EN06-35**	EN06-35S	8	8/28/2013	EN0635S082813	Summa Canister	19.4	1.2	0	1.76	No	No	ug/m3	<	6.0	U	<	4.7	U	<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.3	U	<	30	U	<	6.7	U
Monitoring Well	**EN-460**	EN06-35S Dup	8	8/28/2013	DU9534082813	Summa Canister	19.4	1.2	0	1.87	No	No	ug/m3	<	6.3	U	<	5.0	U	<	3.7	U	<	3.7	U	<	2.4	U	<	5.1	U	<	3.7	U	<	3.8	U	<	9.9	U	<	32	U	<	7.2	U
		EN06-35S	8	8/6/2014	EN0635S08062014	Summa Canister	19.8	1	0	1.61	No	No	ug/m3	<	5.5	U	<	4.3	U	<	3.2	U	<	3.2	U	<	2.0	U	<	4.4	U	<	3.2	U	<	3.2	U	<	8.5	U	<	28	U	<	6.2	U
		EN06-35S Dup	8	8/6/2014	DU336108062014	Summa Canister	19.8	1	0	1.77	No	No	ug/m3	<	6.0	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.3	U	<	31	U	<	6.8	U
		EN06-35S	8	8/5/2015	EN0635S080515	Summa Canister	19.5	1.7	0	2.38	N	N	ug/m3	<	8.1	U	<	6.4	U	<	4.7	U	<	4.7	U	<	3.0	U	<	6.5	U	<	4.7	U	<	4.8	U	<	12	U	<	41	U	<	9.1	U
		EN06-35S Dup	8	8/5/2015	DU3352080515	Summa Canister	19.5	1.7	0	1.63	N	N	ug/m3	<	5.5	U	<	4.4	U	<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	8.6	U	<	28	U	<	6.2	U
		EN06-35D	34	8/28/2013	EN0635D082813	Summa Canister	19.3	1.3	0	1.69	No	No	ug/m3	<	5.7	U	-	110	-	<	3.4	U	<	3.4	U	<	2.2	U	-	20	-	<	3.4	U	<	3.4	U	<	8.9	U	<	29	U	<	6.5	U
		EN06-35D	34	8/6/2014	EN0635D08062014	Summa Canister	19.4	0.8	0	1.64	No	No	ug/m3	<	5.6	U	-	90	-	<	3.2	U	<	3.2	U	<	2.1	U	-	12	-	<	3.2	U	<	3.3	U	<	8.6	U	<	28	U	<	6.3	U
		EN06-35D	34	8/5/2015	EN0635D080515	Summa Canister	19.6	1.2	0	1.52	N	N	ug/m3	<	5.2	U	-	72	-	<	3.0	U	<	3.0	U	<	1.9	U	-	15	-	<	3.0	U	<	3.1	U	<	8.0	U	<	26	U	<	5.8	U
Designation	**EN06-36**	EN06-36S	8	8/28/2013	EN0636S082813	Summa Canister	19.9	1.3	0	1.79	No	No	ug/m3	<	6.1	U	-	17	-	<	3.5	U	<	3.5	U	<	2.3	U	-	10	-	<	3.5	U	<	3.6	U	<	9.4	U	<	31	U	<	6.8	U
Monitoring Well	**EN-459A;EN-460A**	EN06-36S	8	8/5/2014	EN0636S08052014	Summa Canister	19.5	1.3	0	1.82	No	No	ug/m3	-	9.2	-	<	4.9	U	<	3.6	U	<	3.6	U	<	2.3	U	-	9.9	-	<	3.6	U	<	3.7	U	<	9.6	U	<	32	U	<	7.0	U
		EN06-36S	8	8/5/2015	EN0636S080515	Summa Canister	18.6	1.7	0	1.58	N	N	ug/m3	<	5.4	U	<	4.2	U	<	3.1	U	<	3.1	U	<	2.0	U	-	6.7	-	<	3.1	U	<	3.2	U	<	8.3	U	<	27	U	<	6.0	U
		EN06-36D	33	8/3/2011	EN0636D080311	Summa Canister	20.2	1.1	0	1.61	No	No	ug/m3	-	16	-	-	240	-	-	3.7	-	<	3.2	U	<	2.0	U	-	250	-	<	3.2	U	<	3.2	U	<	8.5	U	<	2.8	U	<	6.2	U
		EN06-36D	33	8/15/2012	EN0636D081512	Summa Canister	20.2	0.8	0	1.75	No	No	ug/m3	<	5.9	U	-	320	-	<	3.5	U	<	3.5	U	<	2.2	U	-	250	-	<	3.5	U	<	3.6	U	<	9.2	U	<	30	U	<	6.7	U
		EN06-36D	33	8/28/2013	EN0636D082813	Summa Canister	19.1	1.5	0	1.76	No	No	ug/m3	-	6.7	-	-	300	-	<	3.5	U	<	3.5	U	<	2.2	U	-	240	-	<	3.5	U	<	3.6	U	<	9.3	U	<	30	U	<	6.7	U
		EN06-36D	33	8/5/2014	EN0636D08052014	Summa Canister	19.9	1	0	1.71	No	No	ug/m3	-	5.8	U	-	310	-	<	3.4	U	<	3.4	U	<	2.2	U	-	270	-	<	3.4	U	<	3.5	U	<	9.0	U	<	30	U	<	6.6	U
		EN06-36D	33	8/5/2015	EN0636D080515	Summa Canister	19.5	1.1	0	1.55	N	N	ug/m3	<	5.2	U	-	200	-	<	3.1	U	<	3.1	U	<	2.0	U	-	160	-	<	3.1	U	<	3.1	U	<	8.2	U	<	27	U	<	5.9	U
Designation	**EN06-37**	EN06-37S	8	8/29/2013	EN0637S082913	Summa Canister	18.5	2.2	0	1.83	No	No	ug/m3	<	6.2	U	<	4.9	U	<	3.6	U	<	3.6	U	<	2.3	U	<	5.0	U	<	3.6	U	<	3.7	U	<	9.6	U	<	32	U	<	7.0	U
Monitoring Well	**EN-387;EN-394**	EN06-37S	8	8/6/2014	EN0637S08062014	Summa Canister	18.5	1.7	0	1.80	No	No	ug/m3	<	6.1	U	<	4.8	U	<	3.6	U	<	3.6	U	<	2.3	U	<	4.9	U	<	3.6	U	<	3.6	U	<	9.5	U	<	31	U	<	6.9	U
		EN06-37S	8	8/4/2015	EN0637S080415	Summa Canister	18.4	2.7	0	1.52	N	N	ug/m3	<	5.2	U	<	4.1	U	<	3.0	U	<	3.0	U	<	1.9	U	<	4.1	U	<	3.0	U	<	3.1	U	<	8.0	U	<	26	U	<	5.8	U
		EN06-37D	21	8/29/2013	EN0637D082913	Summa Canister	17.3	3.1	0	1.65	No	No	ug/m3	-	13	-	-	19	-	<	3.3	U	<	3.3	U	<	2.1	U	<	4.5	U	<	3.3	U	<	3.3	U	<	8.7	U	<	29	U	<	6.3	U
		EN06-37D	21	8/6/2014	EN0637D08062014	Summa Canister	17.1	2.4	0	1.73	No	No	ug/m3	-	16	-	-	22	-	<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	9.1	U	<	30	U	<	6.6	U
		EN06-37D	21	8/4/2015	EN0637D080415	Summa Canister	17.3	2.9	0	1.36	N	N	ug/m3	-	10	-	-	14	-	<	2.7	U	<	2.7	U	<	1.7	U	<	3.7	U	<	2.7	U	<	2.8	U	<	7.2	U	<	24	U	<	5.2	U
Designation	**EN10-41**	EN10-41S	8	2/13/2013	EN1041S021313	Summa Canister	16.6	0.9	0	1.75	No	No	ug/m3	-	44	-	<	4.7	U	<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.5	U	<	9.2	U	<	30	U	<	6.7	U
		EN10-41S	8	8/29/2013	EN1041S082913	Summa Canister	10.1	4.1	0	1.69	No	No	ug/m3	-	160	-	-	11	-	<	3.4	U	<	3.4	U	<	2.2	U	<	4.6	U	<	3.4	U	<	3.4	U	<	8.9	U	<	29	U	<	6.5	U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual Report - Soil Vapor Monitoring through August 2015
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

SV Mon Point Designation	Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O_2 (%)	CO_2 (%)	CH_4 (%)	Dilution Factor	SF_6 Applied?	He Applied?	Units of VOC Results	Tetrachloroethene			Trichloroethene			cis-1,2-Dichloroethene			trans-1,2-Dichloroethene			Vinyl chloride			1,1,1-Trichloroethane			1,1-Dichloroethene			1,1-Dichloroethane			Chloroethane			Methylene chloride			Trifluorotrichloroethane (CFC-1		
	EN10-41S Dup	8	8/29/2013	DU37423082913	Summa Canister	10.1	4.1	0	1.80	No	No	ug/m3	-	160	-	-	11	-	<	3.6	U	<	3.6	U	<	2.3	U	<	4.9	U	<	3.6	U	<	3.6	U	<	9.5	U	<	31	U	<	6.9	U
	EN10-41S	8	2/5/2014	EN1041S02052014	Summa Canister	15.7	2.4	0	1.57	No	No	ug/m3	-	30	-	<	4.2	U	<	3.1	U	<	3.1	U	<	2.0	U	<	4.3	U	<	3.1	U	<	3.2	U	<	8.3	U	<	27	U	<	6.0	U
	EN10-41S	8	8/6/2014	EN1041S08062014	Summa Canister	11.6	3.8	0	1.76	No	No	ug/m3	-	220	-	-	13	-	<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.6	U	<	9.3	U	<	30	U	<	6.7	U
	EN10-41S	8	8/4/2015	EN1041S080415	Summa Canister	12.4	4.4	0.3	1.51	No	No	ug/m3	<	5.1	U	<	4.0	U	<	3.0	U	<	3.0	U	<	1.9	U	<	4.1	U	<	3.0	U	<	3.0	U	<	8.0	U	<	26	U	<	5.8	U
	EN10-41D	23.5	2/13/2013	EN1041D021313	Summa Canister	18.3	0.3	0	1.62	No	No	ug/m3	-	27	-	-	9.6	-	<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	8.5	U	<	28	U	<	6.2	U
	EN10-41D	23.5	8/29/2013	EN1041D082913	Summa Canister	8.4	3.7	0	3.22	No	No	ug/m3	-	17	-	<	8.6	U	<	6.4	U	<	6.4	U	<	4.1	U	<	8.8	U	<	6.4	U	<	6.5	U	<	17	U	<	56	U	<	12	U
	EN10-41D	23.5	2/5/2014	EN1041D02052014	Summa Canister	18.3	2.2	0	1.68	No	No	ug/m3	-	21	-	-	8.6	-	<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	8.9	U	<	29	U	<	6.4	U
	EN10-41D	23.5	8/6/2014	EN1041D08062014	Summa Canister	8.6	3.6	0	1.82	No	No	ug/m3	-	35	-	-	13	-	<	3.6	U	<	3.6	U	<	2.3	U	<	5.0	U	<	3.6	U	<	3.7	U	<	9.6	U	<	32	U	<	7.0	U
	EN10-41D	23.5	10/1/2015	EN1041D100115	Summa Canister	NM	NM	NM	1.45	N	N	ug/m3	-	32	-	-	9.0	-	<	2.9	U	<	2.9	U	<	1.8	U	<	4.0	U	<	2.9	U	<	2.9	U	<	7.6	U	<	25	U	<	5.6	U

Notes:
1. This table is a summary of the findings of the program of long-term soil vapor monitoring conducted as part of the Comprehensive Operations, Management, and Monitoring Program associated with IBM's activities in Endicott, New York. The work is being conducted as a required component of Administrative Order on Consent executed by IBM and the State of New York on August 4, 2004. The long-term soil vapor monitoring program is being conducted in accordance with SHA's "Soil Vapor Monitoring Plan", of September 2004. Refer to the report text for additional details.

2. The vapor samples were collected on the dates noted using evacuated canisters. The samples were analyzed by Air Toxics LTD., of Folsom, California for the project-specific list of VOCs using EPA Compendium Method TO-15 standard (full-scan) methods at dilution factors noted. The data are reported by the laboratory with the following flags: B= analyte detected in the associated laboratory method blank, J=denotes an estimated value indicating that the compound was detected, but below the limit of quantitation. U = compound was not detected at the specified limit of quantitation. Vapor sampling during the time period noted in this table was performed by Sanborn Head.

3. This table is an abbreviated summary of the soil vapor monitoring. Data reported were collected in routine monitoring events during the 2013 to 2015 calendar years.

APPENDIX C.2

ANALYTICAL LABORATORY REPORTS

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2/24/2015
Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: IBM Endicott GVP
Project #: 2755.07
Workorder #: 1502194

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 2/11/2015 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1502194

Work Order Summary

CLIENT:	Ms. Erica Bradstreet Sanborn, Head & Associates 1715 W 13th Street Houston, TX 77008	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	713-869-2259	**P.O. #**	3304.00
FAX:		**PROJECT #**	2755.07 IBM Endicott GVP
DATE RECEIVED:	02/11/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	02/24/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	DU3372020515	TO-15	5.5 "Hg	4.9 psi
01AA	DU3372020515 Lab Duplicate	TO-15	5.5 "Hg	4.9 psi
02A	EB3330020515	TO-15	5.7 "Hg	5.1 psi
03A	EB3333020415	TO-15	4.1 "Hg	4.6 psi
04A	EN0411D020515	TO-15	2.8 "Hg	5.1 psi
05A	EN0411S020515	TO-15	1.4 "Hg	4.8 psi
06A	EN0412D020515	TO-15	4.5 "Hg	4.6 psi
07A	EN0412S020515	TO-15	3.7 "Hg	4.8 psi
08A	EN0429D020515	TO-15	5.1 "Hg	4.9 psi
09A	EN0429S020515	TO-15	3.5 "Hg	5.2 psi
10A	EN042D020515	TO-15	2.6 "Hg	4.9 psi
11A	EN042S020515	TO-15	5.1 "Hg	5.1 psi
12A	EN0430D020515	TO-15	2 "Hg	5.2 psi
13A	EN0430S020515	TO-15	5.7 "Hg	5.1 psi
14A	EN0432D020515	TO-15	4.5 "Hg	5 psi
15A	EN0432S020515	TO-15	3.5 "Hg	4.7 psi
16A	EN1041D020415	TO-15	5.5 "Hg	4.9 psi
17A	EN1041S020415	TO-15	4.9 "Hg	4.8 psi
18A	Lab Blank	TO-15	NA	NA
18B	Lab Blank	TO-15	NA	NA
19A	CCV	TO-15	NA	NA
19B	CCV	TO-15	NA	NA
20A	LCS	TO-15	NA	NA

Continued on next page

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WORK ORDER #: 1502194

Work Order Summary

CLIENT:	Ms. Erica Bradstreet Sanborn, Head & Associates 1715 W 13th Street Houston, TX 77008	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	713-869-2259	**P.O. #**	3304.00
FAX:		**PROJECT #**	2755.07 IBM Endicott GVP
DATE RECEIVED:	02/11/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	02/24/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
20AA	LCSD	TO-15	NA	NA
20B	LCS	TO-15	NA	NA
20BB	LCSD	TO-15	NA	NA

CERTIFIED BY:  DATE: 02/24/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1502194

Seventeen 1 Liter Summa Canister (100% Certified) samples were received on February 11, 2015. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DU3372020515

Lab ID#: 1502194-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.82	56	4.4	300

Client Sample ID: DU3372020515 Lab Duplicate

Lab ID#: 1502194-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.5	55	8.2	300

Client Sample ID: EB3330020515

Lab ID#: 1502194-02A

No Detections Were Found.

Client Sample ID: EB3333020415

Lab ID#: 1502194-03A

No Detections Were Found.

Client Sample ID: EN0411D020515

Lab ID#: 1502194-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.74	0.76	2.9	3.0
1,1,1-Trichloroethane	0.74	7.4	4.0	40
Trichloroethene	0.74	180	4.0	980
Tetrachloroethene	0.74	4.4	5.0	30

Client Sample ID: EN0411S020515

Lab ID#: 1502194-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.70	3.2	3.7	17

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0412D020515

Lab ID#: 1502194-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.77	1.4	4.2	7.6
Trichloroethene	0.77	49	4.1	260

Client Sample ID: EN0412S020515

Lab ID#: 1502194-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.78	1.0	4.2	5.5
Trichloroethene	0.78	39	4.2	210

Client Sample ID: EN0429D020515

Lab ID#: 1502194-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.82	6.3	4.4	34

Client Sample ID: EN0429S020515

Lab ID#: 1502194-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.76	2.6	4.1	14

Client Sample ID: EN042D020515

Lab ID#: 1502194-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.74	1.8	4.0	9.6
Trichloroethene	0.74	14	4.0	77
Tetrachloroethene	0.74	2.3	5.0	16

Client Sample ID: EN042S020515

Lab ID#: 1502194-11A

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN042S020515

Lab ID#: 1502194-11A

No Detections Were Found.

Client Sample ID: EN0430D020515

Lab ID#: 1502194-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.72	4.5	2.9	18
cis-1,2-Dichloroethene	0.72	0.77	2.9	3.0
1,1,1-Trichloroethane	0.72	6.8	4.0	37
Trichloroethene	0.72	160	3.9	840
Tetrachloroethene	0.72	4.2	4.9	28

Client Sample ID: EN0430S020515

Lab ID#: 1502194-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.83	58	4.5	310

Client Sample ID: EN0432D020515

Lab ID#: 1502194-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	8.2	4.3	44
Trichloroethene	0.79	180	4.2	940

Client Sample ID: EN0432S020515

Lab ID#: 1502194-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	1.3	4.5	7.4
Trichloroethene	0.82	24	4.4	130

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN1041D020415

Lab ID#: 1502194-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.4	1.9	7.5	10
Tetrachloroethene	1.4	4.2	9.5	28

Client Sample ID: EN1041S020415

Lab ID#: 1502194-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.84	7.0	5.7	48

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Client Sample ID: DU3372020515

Lab ID#: 1502194-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021606**	**Date of Collection: 2/5/15 11:48:00 AM**	
Dil. Factor:	**1.63**	**Date of Analysis: 2/16/15 11:25 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Freon 113	0.82	Not Detected	6.2	Not Detected
Methylene Chloride	8.2	Not Detected	28	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	Not Detected	4.4	Not Detected
Trichloroethene	0.82	56	4.4	300
Tetrachloroethene	0.82	Not Detected	5.5	Not Detected
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: DU3372020515 Lab Duplicate

Lab ID#: 1502194-01AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021707**	**Date of Collection: 2/5/15 11:48:00 AM**	
Dil. Factor:	**3.07**	**Date of Analysis: 2/17/15 11:47 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.5	Not Detected	3.9	Not Detected
Chloroethane	6.1	Not Detected	16	Not Detected
1,1-Dichloroethene	1.5	Not Detected	6.1	Not Detected
Freon 113	1.5	Not Detected	12	Not Detected
Methylene Chloride	15	Not Detected	53	Not Detected
1,1-Dichloroethane	1.5	Not Detected	6.2	Not Detected
cis-1,2-Dichloroethene	1.5	Not Detected	6.1	Not Detected
1,1,1-Trichloroethane	1.5	Not Detected	8.4	Not Detected
Trichloroethene	1.5	55	8.2	300
Tetrachloroethene	1.5	Not Detected	10	Not Detected
trans-1,2-Dichloroethene	1.5	Not Detected	6.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: EB3330020515

Lab ID#: 1502194-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021608**	**Date of Collection: 2/5/15 5:22:00 PM**	
Dil. Factor:	**1.66**	**Date of Analysis: 2/16/15 12:33 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.83	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.8	Not Detected
1,1-Dichloroethene	0.83	Not Detected	3.3	Not Detected
Freon 113	0.83	Not Detected	6.4	Not Detected
Methylene Chloride	8.3	Not Detected	29	Not Detected
1,1-Dichloroethane	0.83	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.83	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.83	Not Detected	4.5	Not Detected
Trichloroethene	0.83	Not Detected	4.5	Not Detected
Tetrachloroethene	0.83	Not Detected	5.6	Not Detected
trans-1,2-Dichloroethene	0.83	Not Detected	3.3	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: EB3333020415

Lab ID#: 1502194-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021708**	**Date of Collection: 2/4/15 2:34:00 PM**	
Dil. Factor:	**2.38**	**Date of Analysis: 2/17/15 12:57 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: EN0411D020515

Lab ID#: 1502194-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021610**	**Date of Collection: 2/5/15 2:29:00 PM**	
Dil. Factor:	**1.48**	**Date of Analysis: 2/16/15 02:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.74	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.8	Not Detected
1,1-Dichloroethene	0.74	Not Detected	2.9	Not Detected
Freon 113	0.74	Not Detected	5.7	Not Detected
Methylene Chloride	7.4	Not Detected	26	Not Detected
1,1-Dichloroethane	0.74	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.74	0.76	2.9	3.0
1,1,1-Trichloroethane	0.74	7.4	4.0	40
Trichloroethene	0.74	180	4.0	980
Tetrachloroethene	0.74	4.4	5.0	30
trans-1,2-Dichloroethene	0.74	Not Detected	2.9	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	91	70-130

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Client Sample ID: EN0411S020515

Lab ID#: 1502194-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021611**	**Date of Collection: 2/5/15 2:29:00 PM**	
Dil. Factor:	**1.39**	**Date of Analysis: 2/16/15 02:54 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.70	Not Detected	1.8	Not Detected
Chloroethane	2.8	Not Detected	7.3	Not Detected
1,1-Dichloroethene	0.70	Not Detected	2.8	Not Detected
Freon 113	0.70	Not Detected	5.3	Not Detected
Methylene Chloride	7.0	Not Detected	24	Not Detected
1,1-Dichloroethane	0.70	Not Detected	2.8	Not Detected
cis-1,2-Dichloroethene	0.70	Not Detected	2.8	Not Detected
1,1,1-Trichloroethane	0.70	Not Detected	3.8	Not Detected
Trichloroethene	0.70	3.2	3.7	17
Tetrachloroethene	0.70	Not Detected	4.7	Not Detected
trans-1,2-Dichloroethene	0.70	Not Detected	2.8	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: EN0412D020515

Lab ID#: 1502194-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021612**	**Date of Collection: 2/5/15 4:26:00 PM**	
Dil. Factor:	**1.54**	**Date of Analysis: 2/16/15 03:24 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.77	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.1	Not Detected
1,1-Dichloroethene	0.77	Not Detected	3.0	Not Detected
Freon 113	0.77	Not Detected	5.9	Not Detected
Methylene Chloride	7.7	Not Detected	27	Not Detected
1,1-Dichloroethane	0.77	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.77	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.77	1.4	4.2	7.6
Trichloroethene	0.77	49	4.1	260
Tetrachloroethene	0.77	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.77	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: EN0412S020515

Lab ID#: 1502194-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021613**	**Date of Collection: 2/5/15 4:28:00 PM**	
Dil. Factor:	**1.56**	**Date of Analysis: 2/16/15 04:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	6.0	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	1.0	4.2	5.5
Trichloroethene	0.78	39	4.2	210
Tetrachloroethene	0.78	Not Detected	5.3	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: EN0429D020515

Lab ID#: 1502194-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021614**	**Date of Collection:**	**2/5/15 11:20:00 AM**
Dil. Factor:	**1.63**	**Date of Analysis:**	**2/16/15 04:54 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Freon 113	0.82	Not Detected	6.2	Not Detected
Methylene Chloride	8.2	Not Detected	28	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	Not Detected	4.4	Not Detected
Trichloroethene	0.82	6.3	4.4	34
Tetrachloroethene	0.82	Not Detected	5.5	Not Detected
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: EN0429S020515

Lab ID#: 1502194-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021615**	**Date of Collection: 2/5/15 12:12:00 PM**	
Dil. Factor:	**1.53**	**Date of Analysis: 2/16/15 05:22 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.1	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.9	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	Not Detected	4.2	Not Detected
Trichloroethene	0.76	2.6	4.1	14
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: EN042D020515

Lab ID#: 1502194-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021616**	**Date of Collection:**	**2/5/15 9:03:00 AM**
Dil. Factor:	**1.47**	**Date of Analysis:**	**2/16/15 06:14 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.74	Not Detected	1.9	Not Detected
Chloroethane	2.9	Not Detected	7.8	Not Detected
1,1-Dichloroethene	0.74	Not Detected	2.9	Not Detected
Freon 113	0.74	Not Detected	5.6	Not Detected
Methylene Chloride	7.4	Not Detected	26	Not Detected
1,1-Dichloroethane	0.74	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.74	Not Detected	2.9	Not Detected
1,1,1-Trichloroethane	0.74	1.8	4.0	9.6
Trichloroethene	0.74	14	4.0	77
Tetrachloroethene	0.74	2.3	5.0	16
trans-1,2-Dichloroethene	0.74	Not Detected	2.9	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	89	70-130

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Client Sample ID: EN042S020515

Lab ID#: 1502194-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021617**	**Date of Collection:**	**2/5/15 9:00:00 AM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**2/16/15 06:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.90	Not Detected	2.3	Not Detected
Chloroethane	3.6	Not Detected	9.4	Not Detected
1,1-Dichloroethene	0.90	Not Detected	3.5	Not Detected
Freon 113	0.90	Not Detected	6.8	Not Detected
Methylene Chloride	9.0	Not Detected	31	Not Detected
1,1-Dichloroethane	0.90	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.90	Not Detected	4.9	Not Detected
Trichloroethene	0.90	Not Detected	4.8	Not Detected
Tetrachloroethene	0.90	Not Detected	6.1	Not Detected
trans-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: EN0430D020515

Lab ID#: 1502194-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021709**	**Date of Collection: 2/5/15 10:43:00 AM**	
Dil. Factor:	**1.45**	**Date of Analysis: 2/17/15 01:36 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.72	Not Detected	1.8	Not Detected
Chloroethane	2.9	Not Detected	7.6	Not Detected
1,1-Dichloroethene	0.72	Not Detected	2.9	Not Detected
Freon 113	0.72	Not Detected	5.6	Not Detected
Methylene Chloride	7.2	Not Detected	25	Not Detected
1,1-Dichloroethane	0.72	4.5	2.9	18
cis-1,2-Dichloroethene	0.72	0.77	2.9	3.0
1,1,1-Trichloroethane	0.72	6.8	4.0	37
Trichloroethene	0.72	160	3.9	840
Tetrachloroethene	0.72	4.2	4.9	28
trans-1,2-Dichloroethene	0.72	Not Detected	2.9	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: EN0430S020515

Lab ID#: 1502194-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021710**	**Date of Collection: 2/5/15 11:48:00 AM**	
Dil. Factor:	**1.66**	**Date of Analysis: 2/17/15 02:06 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.83	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.8	Not Detected
1,1-Dichloroethene	0.83	Not Detected	3.3	Not Detected
Freon 113	0.83	Not Detected	6.4	Not Detected
Methylene Chloride	8.3	Not Detected	29	Not Detected
1,1-Dichloroethane	0.83	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.83	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.83	Not Detected	4.5	Not Detected
Trichloroethene	0.83	58	4.5	310
Tetrachloroethene	0.83	Not Detected	5.6	Not Detected
trans-1,2-Dichloroethene	0.83	Not Detected	3.3	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: EN0432D020515

Lab ID#: 1502194-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021711**	**Date of Collection: 2/5/15 2:45:00 PM**	
Dil. Factor:	**1.58**	**Date of Analysis: 2/17/15 02:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.79	Not Detected	2.0	Not Detected
Chloroethane	3.2	Not Detected	8.3	Not Detected
1,1-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Freon 113	0.79	Not Detected	6.0	Not Detected
Methylene Chloride	7.9	Not Detected	27	Not Detected
1,1-Dichloroethane	0.79	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.79	8.2	4.3	44
Trichloroethene	0.79	180	4.2	940
Tetrachloroethene	0.79	Not Detected	5.4	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	91	70-130

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Client Sample ID: EN0432S020515

Lab ID#: 1502194-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021712**	**Date of Collection: 2/5/15 2:45:00 PM**	
Dil. Factor:	**1.65**	**Date of Analysis: 2/17/15 03:24 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.7	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.3	Not Detected
Freon 113	0.82	Not Detected	6.3	Not Detected
Methylene Chloride	8.2	Not Detected	29	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.82	1.3	4.5	7.4
Trichloroethene	0.82	24	4.4	130
Tetrachloroethene	0.82	Not Detected	5.6	Not Detected
trans-1,2-Dichloroethene	0.82	Not Detected	3.3	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	87	70-130

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Client Sample ID: EN1041D020415

Lab ID#: 1502194-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021713**	**Date of Collection: 2/4/15 3:54:00 PM**	
Dil. Factor:	**2.79**	**Date of Analysis: 2/17/15 04:01 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.4	Not Detected	3.6	Not Detected
Chloroethane	5.6	Not Detected	15	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.5	Not Detected
Freon 113	1.4	Not Detected	11	Not Detected
Methylene Chloride	14	Not Detected	48	Not Detected
1,1-Dichloroethane	1.4	Not Detected	5.6	Not Detected
cis-1,2-Dichloroethene	1.4	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.4	Not Detected	7.6	Not Detected
Trichloroethene	1.4	1.9	7.5	10
Tetrachloroethene	1.4	4.2	9.5	28
trans-1,2-Dichloroethene	1.4	Not Detected	5.5	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	91	70-130

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Client Sample ID: EN1041S020415

Lab ID#: 1502194-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021714**	**Date of Collection: 2/4/15 4:15:00 PM**	
Dil. Factor:	**1.69**	**Date of Analysis: 2/17/15 04:40 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.84	Not Detected	2.2	Not Detected
Chloroethane	3.4	Not Detected	8.9	Not Detected
1,1-Dichloroethene	0.84	Not Detected	3.4	Not Detected
Freon 113	0.84	Not Detected	6.5	Not Detected
Methylene Chloride	8.4	Not Detected	29	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	7.0	5.7	48
trans-1,2-Dichloroethene	0.84	Not Detected	3.4	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1502194-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021605**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/16/15 10:33 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	91	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1502194-18B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/17/15 10:26 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	89	70-130

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Client Sample ID: CCV

Lab ID#: 1502194-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021602**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/16/15 08:52 AM**	

Compound	%Recovery
Vinyl Chloride	90
Chloroethane	92
1,1-Dichloroethene	82
Freon 113	93
Methylene Chloride	93
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	87
1,1,1-Trichloroethane	96
Trichloroethene	98
Tetrachloroethene	105
trans-1,2-Dichloroethene	91

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: CCV

Lab ID#: 1502194-19B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/17/15 08:49 AM**	

Compound	%Recovery
Vinyl Chloride	90
Chloroethane	92
1,1-Dichloroethene	84
Freon 113	95
Methylene Chloride	94
1,1-Dichloroethane	94
cis-1,2-Dichloroethene	87
1,1,1-Trichloroethane	97
Trichloroethene	101
Tetrachloroethene	102
trans-1,2-Dichloroethene	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: LCS

Lab ID#: 1502194-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021603**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/16/15 09:27 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	100	70-130
Chloroethane	103	70-130
1,1-Dichloroethene	95	70-130
Freon 113	101	70-130
Methylene Chloride	96	70-130
1,1-Dichloroethane	98	70-130
cis-1,2-Dichloroethene	104	70-130
1,1,1-Trichloroethane	101	70-130
Trichloroethene	105	70-130
Tetrachloroethene	106	70-130
trans-1,2-Dichloroethene	83	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCSD

Lab ID#: 1502194-20AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021604**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/16/15 09:50 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	100	70-130
Chloroethane	104	70-130
1,1-Dichloroethene	97	70-130
Freon 113	102	70-130
Methylene Chloride	98	70-130
1,1-Dichloroethane	98	70-130
cis-1,2-Dichloroethene	105	70-130
1,1,1-Trichloroethane	103	70-130
Trichloroethene	107	70-130
Tetrachloroethene	107	70-130
trans-1,2-Dichloroethene	86	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: LCS

Lab ID#: 1502194-20B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/17/15 09:19 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	101	70-130
Chloroethane	103	70-130
1,1-Dichloroethene	94	70-130
Freon 113	102	70-130
Methylene Chloride	100	70-130
1,1-Dichloroethane	98	70-130
cis-1,2-Dichloroethene	100	70-130
1,1,1-Trichloroethane	103	70-130
Trichloroethene	111	70-130
Tetrachloroethene	111	70-130
trans-1,2-Dichloroethene	86	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCSD

Lab ID#: 1502194-20BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17021704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/17/15 09:47 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	106	70-130
Chloroethane	107	70-130
1,1-Dichloroethene	99	70-130
Freon 113	105	70-130
Methylene Chloride	102	70-130
1,1-Dichloroethane	103	70-130
cis-1,2-Dichloroethene	108	70-130
1,1,1-Trichloroethane	106	70-130
Trichloroethene	111	70-130
Tetrachloroethene	111	70-130
trans-1,2-Dichloroethene	91	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	102	70-130

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8/21/2015
Ms. Erica Bosse
Sanborn, Head & Associates
24 Wade Road

Latham NY

Project Name: IBM Endioctt GVP
Project #: 3304.00.030
Workorder #: 1508152

Dear Ms. Erica Bosse

The following report includes the data for the above referenced project for sample(s) received on 8/10/2015 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

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WORK ORDER #: 1508152

Work Order Summary

CLIENT:	Ms. Erica Bosse Sanborn, Head & Associates 24 Wade Road Latham, NY	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	518-207-0769	**P.O. #**	2755.07
FAX:		**PROJECT #**	3304.00.030 IBM Endioctt GVP
DATE RECEIVED:	08/10/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	08/21/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	EN1017D080515	TO-15	3.7 "Hg	5 psi
02A(cancelled)	EN1041D080415	TO-15	0.2 psi	5 psi
03A	EN1041S080415	TO-15	2.8 "Hg	5.4 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 08/21/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1508152

Three 1 Liter Summa Canister (100% Certified) samples were received on August 10, 2015. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A signature and date were not provided by the field sampler.

The Summa canister for sample EN1041D080415 was leaking upon arrival. The client was notified and the analysis was cancelled.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN1017D080515

Lab ID#: 1508152-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.76	2.4	3.0	9.6
1,1,1-Trichloroethane	0.76	27	4.2	150
Trichloroethene	0.76	32	4.1	170

Client Sample ID: EN1041S080415

Lab ID#: 1508152-03A

No Detections Were Found.

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Client Sample ID: EN1017D080515

Lab ID#: 1508152-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081715**	**Date of Collection: 8/5/15 8:35:00 AM**	
Dil. Factor:	**1.53**	**Date of Analysis: 8/17/15 03:11 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.1	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.9	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	2.4	3.0	9.6
1,1,1-Trichloroethane	0.76	27	4.2	150
Trichloroethene	0.76	32	4.1	170
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: EN1041S080415

Lab ID#: 1508152-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081717**	**Date of Collection: 8/4/15 10:40:00 AM**	
Dil. Factor:	**1.51**	**Date of Analysis: 8/17/15 04:50 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Trichloroethene	0.76	Not Detected	4.0	Not Detected
Tetrachloroethene	0.76	Not Detected	5.1	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	91	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1508152-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 09:48 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: CCV

Lab ID#: 1508152-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 08:24 AM**	

Compound	%Recovery
Vinyl Chloride	92
Chloroethane	92
1,1-Dichloroethene	94
Freon 113	90
Methylene Chloride	95
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	92
Trichloroethene	87
Tetrachloroethene	91
trans-1,2-Dichloroethene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: LCS

Lab ID#: 1508152-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 08:47 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	102	70-130
Chloroethane	104	70-130
1,1-Dichloroethene	104	70-130
Freon 113	95	70-130
Methylene Chloride	100	70-130
1,1-Dichloroethane	98	70-130
cis-1,2-Dichloroethene	111	70-130
1,1,1-Trichloroethane	96	70-130
Trichloroethene	87	70-130
Tetrachloroethene	93	70-130
trans-1,2-Dichloroethene	88	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: LCSD

Lab ID#: 1508152-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 09:11 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	100	70-130
Chloroethane	98	70-130
1,1-Dichloroethene	106	70-130
Freon 113	92	70-130
Methylene Chloride	97	70-130
1,1-Dichloroethane	95	70-130
cis-1,2-Dichloroethene	111	70-130
1,1,1-Trichloroethane	94	70-130
Trichloroethene	88	70-130
Tetrachloroethene	90	70-130
trans-1,2-Dichloroethene	87	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	105	70-130

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8/20/2015
Ms. Erica Bosse
Sanborn, Head & Associates
24 Wade Road

Latham NY

Project Name: IBM Endicott GVP
Project #: 2755.07
Workorder #: 1508151

Dear Ms. Erica Bosse

The following report includes the data for the above referenced project for sample(s) received on 8/10/2015 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

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WORK ORDER #: 1508151

Work Order Summary

CLIENT:	Ms. Erica Bosse Sanborn, Head & Associates 24 Wade Road Latham, NY	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	518-207-0769	**P.O. #**	2755.07
FAX:		**PROJECT #**	2755.07 IBM Endicott GVP
DATE RECEIVED:	08/10/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	08/20/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	EN046S080515	TO-15	3.5 "Hg	5 psi
02A	EN047D080515	TO-15	5.0 "Hg	5 psi
03A	EN047S080515	TO-15	4.0 "Hg	5 psi
04A	EN049D080515	TO-15	7.0 "Hg	5 psi
05A	EN049S080515	TO-15	4.0 "Hg	5 psi
05AA	EN049S080515 Lab Duplicate	TO-15	4.0 "Hg	5 psi
06A	EN0533D080415	TO-15	5.5 "Hg	5 psi
07A	EN0533S080415	TO-15	3.5 "Hg	5 psi
08A	EN0534D080415	TO-15	4.0 "Hg	5 psi
09A	EN0534S080415	TO-15	7.5 "Hg	5 psi
10A	EN0635D080515	TO-15	3.5 "Hg	5 psi
11A	EN0635S080515	TO-15	5.5 "Hg	5 psi
11AA	EN0635S080515 Lab Duplicate	TO-15	5.5 "Hg	5 psi
12A	EN0636D080515	TO-15	4.0 "Hg	5 psi
13A	EN0636S080515	TO-15	4.5 "Hg	5 psi
14A	EN0637D080415	TO-15	0.5 "Hg	5 psi
15A	EN0637S080415	TO-15	3.5 "Hg	5 psi
16A	EN0728D080415	TO-15	2.5 "Hg	5 psi
17A	EN0728S080415	TO-15	5.5 "Hg	5 psi
18A(cancelled)	EN0412S	TO-15	2.0 "Hg	5 psi
19A	EN0432D080515	TO-15	3.5 "Hg	5 psi
20A	Lab Blank	TO-15	NA	NA
20B	Lab Blank	TO-15	NA	NA

Continued on next page

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WORK ORDER #: 1508151

Work Order Summary

CLIENT:	Ms. Erica Bosse Sanborn, Head & Associates 24 Wade Road Latham, NY	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	518-207-0769	**P.O. #**	2755.07
FAX:		**PROJECT #**	2755.07 IBM Endicott GVP
DATE RECEIVED:	08/10/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	08/20/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
21A	CCV	TO-15	NA	NA
21B	CCV	TO-15	NA	NA
22A	LCS	TO-15	NA	NA
22AA	LCSD	TO-15	NA	NA
22B	LCS	TO-15	NA	NA
22BB	LCSD	TO-15	NA	NA

CERTIFIED BY:  DATE: 08/20/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1508151

Nineteen 1 Liter Summa Canister (100% Certified) samples were received on August 10, 2015. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A signature and date were not provided by the field sampler.

The number of samples received did not match the information on the COC. Sample EN0432D080515 was added to the analytical request. At the request of the client, sample EN0412S was cancelled.

Analytical Notes

Dilution was performed on sample EN049S080515 due to the presence of high level target species.

The recovery of surrogate 4-Bromofluorobenzene in sample EN0635S080515 Lab Duplicate was outside control limits due to matrix interference. The surrogate recovery is flagged.

Trichloroethene exceeded the instrument's calibration range for sample EN049S080515 Lab Duplicate and was flagged accordingly.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN046S080515

Lab ID#: 1508151-01A

No Detections Were Found.

Client Sample ID: EN047D080515

Lab ID#: 1508151-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.80	13	4.4	70
Trichloroethene	0.80	170	4.3	920
Tetrachloroethene	0.80	24	5.5	170

Client Sample ID: EN047S080515

Lab ID#: 1508151-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.78	1.1	4.2	5.8
Tetrachloroethene	0.78	3.3	5.2	22

Client Sample ID: EN049D080515

Lab ID#: 1508151-04A

No Detections Were Found.

Client Sample ID: EN049S080515

Lab ID#: 1508151-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	3.1	3.4	24	26
1,1-Dichloroethane	3.1	3.3	12	13
cis-1,2-Dichloroethene	3.1	7.8	12	31
1,1,1-Trichloroethane	3.1	36	17	200
Trichloroethene	3.1	940	17	5000
Tetrachloroethene	3.1	18	21	120

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN049S080515 Lab Duplicate

Lab ID#: 1508151-05AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	1.9	3.6	15	28
1,1-Dichloroethane	1.9	3.3	7.7	13
cis-1,2-Dichloroethene	1.9	8.4	7.6	33
1,1,1-Trichloroethane	1.9	37	10	200
Trichloroethene	1.9	910 E	10	4900 E
Tetrachloroethene	1.9	17	13	120

Client Sample ID: EN0533D080415

Lab ID#: 1508151-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	7.2	4.5	39
Trichloroethene	0.82	170	4.4	920
Tetrachloroethene	0.82	6.4	5.6	44

Client Sample ID: EN0533S080415

Lab ID#: 1508151-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.76	0.83	4.1	4.5
Trichloroethene	0.76	5.2	4.1	28
Tetrachloroethene	0.76	1.9	5.2	13

Client Sample ID: EN0534D080415

Lab ID#: 1508151-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.78	3.1	4.2	17
Trichloroethene	0.78	26	4.2	140
Tetrachloroethene	0.78	3.5	5.2	24

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0534S080415

Lab ID#: 1508151-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.90	2.3	4.8	13

Client Sample ID: EN0635D080515

Lab ID#: 1508151-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.76	2.7	4.1	15
Trichloroethene	0.76	13	4.1	72

Client Sample ID: EN0635S080515

Lab ID#: 1508151-11A

No Detections Were Found.

Client Sample ID: EN0635S080515 Lab Duplicate

Lab ID#: 1508151-11AA

No Detections Were Found.

Client Sample ID: EN0636D080515

Lab ID#: 1508151-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.78	29	4.2	160
Trichloroethene	0.78	37	4.2	200

Client Sample ID: EN0636S080515

Lab ID#: 1508151-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	1.2	4.3	6.7

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0637D080415

Lab ID#: 1508151-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.68	2.5	3.6	14
Tetrachloroethene	0.68	1.5	4.6	10

Client Sample ID: EN0637S080415

Lab ID#: 1508151-15A

No Detections Were Found.

Client Sample ID: EN0728D080415

Lab ID#: 1508151-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.73	1.3	2.9	5.0
Trichloroethene	0.73	6.5	3.9	35
Tetrachloroethene	0.73	130	5.0	890

Client Sample ID: EN0728S080415

Lab ID#: 1508151-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.82	1.4	4.4	7.4
Tetrachloroethene	0.82	26	5.6	180

Client Sample ID: EN0432D080515

Lab ID#: 1508151-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.76	0.89	3.1	3.6
1,1,1-Trichloroethane	0.76	9.7	4.1	53
Trichloroethene	0.76	150	4.1	830

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Client Sample ID: EN046S080515

Lab ID#: 1508151-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081506**	**Date of Collection:**	**8/5/15 8:46:00 AM**
Dil. Factor:	**1.52**	**Date of Analysis:**	**8/15/15 09:44 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Trichloroethene	0.76	Not Detected	4.1	Not Detected
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: EN047D080515

Lab ID#: 1508151-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081507**	**Date of Collection:**	**8/5/15 11:22:00 AM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**8/15/15 10:14 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.80	Not Detected	2.0	Not Detected
Chloroethane	3.2	Not Detected	8.5	Not Detected
1,1-Dichloroethene	0.80	Not Detected	3.2	Not Detected
Freon 113	0.80	Not Detected	6.2	Not Detected
Methylene Chloride	8.0	Not Detected	28	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.80	13	4.4	70
Trichloroethene	0.80	170	4.3	920
Tetrachloroethene	0.80	24	5.5	170
trans-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: EN047S080515

Lab ID#: 1508151-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081508**	**Date of Collection:**	**8/5/15 10:32:00 AM**
Dil. Factor:	**1.55**	**Date of Analysis:**	**8/15/15 10:50 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	5.9	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Trichloroethene	0.78	1.1	4.2	5.8
Tetrachloroethene	0.78	3.3	5.2	22
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: EN049D080515

Lab ID#: 1508151-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081509**	**Date of Collection:**	**8/5/15 2:42:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/15/15 11:13 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.88	Not Detected	2.2	Not Detected
Chloroethane	3.5	Not Detected	9.2	Not Detected
1,1-Dichloroethene	0.88	Not Detected	3.5	Not Detected
Freon 113	0.88	Not Detected	6.7	Not Detected
Methylene Chloride	8.8	Not Detected	30	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.88	Not Detected	4.8	Not Detected
Trichloroethene	0.88	Not Detected	4.7	Not Detected
Tetrachloroethene	0.88	Not Detected	5.9	Not Detected
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	91	70-130

eurofins | Air Toxics

Client Sample ID: EN049S080515

Lab ID#: 1508151-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081510**	**Date of Collection:**	**8/5/15 1:24:00 PM**
Dil. Factor:	**6.20**	**Date of Analysis:**	**8/15/15 11:48 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.1	Not Detected	7.9	Not Detected
Chloroethane	12	Not Detected	33	Not Detected
1,1-Dichloroethene	3.1	Not Detected	12	Not Detected
Freon 113	3.1	3.4	24	26
Methylene Chloride	31	Not Detected	110	Not Detected
1,1-Dichloroethane	3.1	3.3	12	13
cis-1,2-Dichloroethene	3.1	7.8	12	31
1,1,1-Trichloroethane	3.1	36	17	200
Trichloroethene	3.1	940	17	5000
Tetrachloroethene	3.1	18	21	120
trans-1,2-Dichloroethene	3.1	Not Detected	12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	92	70-130

eurofins | Air Toxics

Client Sample ID: EN049S080515 Lab Duplicate

Lab ID#: 1508151-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081706**	**Date of Collection: 8/5/15 1:24:00 PM**	
Dil. Factor:	**3.81**	**Date of Analysis: 8/17/15 10:38 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.9	Not Detected	4.9	Not Detected
Chloroethane	7.6	Not Detected	20	Not Detected
1,1-Dichloroethene	1.9	Not Detected	7.6	Not Detected
Freon 113	1.9	3.6	15	28
Methylene Chloride	19	Not Detected	66	Not Detected
1,1-Dichloroethane	1.9	3.3	7.7	13
cis-1,2-Dichloroethene	1.9	8.4	7.6	33
1,1,1-Trichloroethane	1.9	37	10	200
Trichloroethene	1.9	910 E	10	4900 E
Tetrachloroethene	1.9	17	13	120
trans-1,2-Dichloroethene	1.9	Not Detected	7.6	Not Detected

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: EN0533D080415

Lab ID#: 1508151-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081511**	**Date of Collection: 8/4/15 3:22:00 PM**	
Dil. Factor:	**1.64**	**Date of Analysis: 8/15/15 12:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Freon 113	0.82	Not Detected	6.3	Not Detected
Methylene Chloride	8.2	Not Detected	28	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	7.2	4.5	39
Trichloroethene	0.82	170	4.4	920
Tetrachloroethene	0.82	6.4	5.6	44
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	93	70-130

eurofins | Air Toxics

Client Sample ID: EN0533S080415

Lab ID#: 1508151-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081512**	**Date of Collection: 8/4/15 3:13:00 PM**	
Dil. Factor:	**1.52**	**Date of Analysis: 8/15/15 12:48 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	0.83	4.1	4.5
Trichloroethene	0.76	5.2	4.1	28
Tetrachloroethene	0.76	1.9	5.2	13
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: EN0534D080415

Lab ID#: 1508151-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081513**	**Date of Collection: 8/4/15 8:40:00 AM**	
Dil. Factor:	**1.55**	**Date of Analysis: 8/15/15 01:11 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	5.9	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	3.1	4.2	17
Trichloroethene	0.78	26	4.2	140
Tetrachloroethene	0.78	3.5	5.2	24
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: EN0534S080415

Lab ID#: 1508151-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081514**	**Date of Collection: 8/4/15 9:53:00 AM**	
Dil. Factor:	**1.79**	**Date of Analysis: 8/15/15 01:47 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.90	Not Detected	2.3	Not Detected
Chloroethane	3.6	Not Detected	9.4	Not Detected
1,1-Dichloroethene	0.90	Not Detected	3.5	Not Detected
Freon 113	0.90	Not Detected	6.8	Not Detected
Methylene Chloride	9.0	Not Detected	31	Not Detected
1,1-Dichloroethane	0.90	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.90	Not Detected	4.9	Not Detected
Trichloroethene	0.90	2.3	4.8	13
Tetrachloroethene	0.90	Not Detected	6.1	Not Detected
trans-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	91	70-130

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Client Sample ID: EN0635D080515

Lab ID#: 1508151-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081515**	**Date of Collection: 8/5/15 8:33:00 AM**	
Dil. Factor:	**1.52**	**Date of Analysis: 8/15/15 02:11 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	2.7	4.1	15
Trichloroethene	0.76	13	4.1	72
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: EN0635S080515

Lab ID#: 1508151-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081707**	**Date of Collection: 8/5/15 9:50:00 AM**	
Dil. Factor:	**2.38**	**Date of Analysis: 8/17/15 11:14 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	122	70-130

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Client Sample ID: EN0635S080515 Lab Duplicate

Lab ID#: 1508151-11AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081516**	**Date of Collection: 8/5/15 9:50:00 AM**	
Dil. Factor:	**1.64**	**Date of Analysis: 8/15/15 02:48 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Freon 113	0.82	Not Detected	6.3	Not Detected
Methylene Chloride	8.2	Not Detected	28	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	Not Detected	4.5	Not Detected
Trichloroethene	0.82	Not Detected	4.4	Not Detected
Tetrachloroethene	0.82	Not Detected	5.6	Not Detected
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected

Q = Exceeds Quality Control limits of 70% to 130%, due to matrix effects.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	131 Q	70-130

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Client Sample ID: EN0636D080515

Lab ID#: 1508151-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081708**	**Date of Collection: 8/5/15 9:05:00 AM**	
Dil. Factor:	**1.55**	**Date of Analysis: 8/17/15 11:37 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	5.9	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	29	4.2	160
Trichloroethene	0.78	37	4.2	200
Tetrachloroethene	0.78	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	95	70-130

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Client Sample ID: EN0636S080515

Lab ID#: 1508151-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081709**	**Date of Collection: 8/5/15 9:15:00 AM**	
Dil. Factor:	**1.58**	**Date of Analysis: 8/17/15 12:01 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.79	Not Detected	2.0	Not Detected
Chloroethane	3.2	Not Detected	8.3	Not Detected
1,1-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Freon 113	0.79	Not Detected	6.0	Not Detected
Methylene Chloride	7.9	Not Detected	27	Not Detected
1,1-Dichloroethane	0.79	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.79	1.2	4.3	6.7
Trichloroethene	0.79	Not Detected	4.2	Not Detected
Tetrachloroethene	0.79	Not Detected	5.4	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: EN0637D080415

Lab ID#: 1508151-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081710**	**Date of Collection: 8/4/15 9:34:00 AM**	
Dil. Factor:	**1.36**	**Date of Analysis: 8/17/15 12:38 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.68	Not Detected	1.7	Not Detected
Chloroethane	2.7	Not Detected	7.2	Not Detected
1,1-Dichloroethene	0.68	Not Detected	2.7	Not Detected
Freon 113	0.68	Not Detected	5.2	Not Detected
Methylene Chloride	6.8	Not Detected	24	Not Detected
1,1-Dichloroethane	0.68	Not Detected	2.8	Not Detected
cis-1,2-Dichloroethene	0.68	Not Detected	2.7	Not Detected
1,1,1-Trichloroethane	0.68	Not Detected	3.7	Not Detected
Trichloroethene	0.68	2.5	3.6	14
Tetrachloroethene	0.68	1.5	4.6	10
trans-1,2-Dichloroethene	0.68	Not Detected	2.7	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: EN0637S080415

Lab ID#: 1508151-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081711**	**Date of Collection: 8/4/15 9:16:00 AM**	
Dil. Factor:	**1.52**	**Date of Analysis: 8/17/15 01:01 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Trichloroethene	0.76	Not Detected	4.1	Not Detected
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: EN0728D080415

Lab ID#: 1508151-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081712**	**Date of Collection: 8/4/15 9:56:00 AM**	
Dil. Factor:	**1.46**	**Date of Analysis: 8/17/15 01:38 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.73	Not Detected	1.9	Not Detected
Chloroethane	2.9	Not Detected	7.7	Not Detected
1,1-Dichloroethene	0.73	Not Detected	2.9	Not Detected
Freon 113	0.73	Not Detected	5.6	Not Detected
Methylene Chloride	7.3	Not Detected	25	Not Detected
1,1-Dichloroethane	0.73	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.73	1.3	2.9	5.0
1,1,1-Trichloroethane	0.73	Not Detected	4.0	Not Detected
Trichloroethene	0.73	6.5	3.9	35
Tetrachloroethene	0.73	130	5.0	890
trans-1,2-Dichloroethene	0.73	Not Detected	2.9	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: EN0728S080415

Lab ID#: 1508151-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081713**	**Date of Collection: 8/4/15 11:32:00 AM**	
Dil. Factor:	**1.64**	**Date of Analysis: 8/17/15 02:01 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Freon 113	0.82	Not Detected	6.3	Not Detected
Methylene Chloride	8.2	Not Detected	28	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	Not Detected	4.5	Not Detected
Trichloroethene	0.82	1.4	4.4	7.4
Tetrachloroethene	0.82	26	5.6	180
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: EN0432D080515

Lab ID#: 1508151-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081714**	**Date of Collection:**	**8/5/15 10:27:00 AM**
Dil. Factor:	**1.52**	**Date of Analysis:**	**8/17/15 02:33 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	0.89	3.1	3.6
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	9.7	4.1	53
Trichloroethene	0.76	150	4.1	830
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	126	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1508151-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081505**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/15/15 08:44 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	91	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1508151-20B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 09:48 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: CCV

Lab ID#: 1508151-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/15/15 07:04 AM**	

Compound	%Recovery
Vinyl Chloride	91
Chloroethane	90
1,1-Dichloroethene	92
Freon 113	89
Methylene Chloride	92
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	97
1,1,1-Trichloroethane	91
Trichloroethene	86
Tetrachloroethene	93
trans-1,2-Dichloroethene	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: CCV

Lab ID#: 1508151-21B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 08:24 AM**	

Compound	%Recovery
Vinyl Chloride	92
Chloroethane	92
1,1-Dichloroethene	94
Freon 113	90
Methylene Chloride	95
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	92
Trichloroethene	87
Tetrachloroethene	91
trans-1,2-Dichloroethene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: LCS

Lab ID#: 1508151-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/15/15 07:27 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	100	70-130
Chloroethane	101	70-130
1,1-Dichloroethene	101	70-130
Freon 113	93	70-130
Methylene Chloride	99	70-130
1,1-Dichloroethane	96	70-130
cis-1,2-Dichloroethene	107	70-130
1,1,1-Trichloroethane	93	70-130
Trichloroethene	88	70-130
Tetrachloroethene	92	70-130
trans-1,2-Dichloroethene	87	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: LCSD

Lab ID#: 1508151-22AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/15/15 08:02 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	98	70-130
Chloroethane	99	70-130
1,1-Dichloroethene	104	70-130
Freon 113	92	70-130
Methylene Chloride	98	70-130
1,1-Dichloroethane	94	70-130
cis-1,2-Dichloroethene	112	70-130
1,1,1-Trichloroethane	94	70-130
Trichloroethene	87	70-130
Tetrachloroethene	90	70-130
trans-1,2-Dichloroethene	86	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCS

Lab ID#: 1508151-22B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 08:47 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	102	70-130
Chloroethane	104	70-130
1,1-Dichloroethene	104	70-130
Freon 113	95	70-130
Methylene Chloride	100	70-130
1,1-Dichloroethane	98	70-130
cis-1,2-Dichloroethene	111	70-130
1,1,1-Trichloroethane	96	70-130
Trichloroethene	87	70-130
Tetrachloroethene	93	70-130
trans-1,2-Dichloroethene	88	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: LCSD

Lab ID#: 1508151-22BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 09:11 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	100	70-130
Chloroethane	98	70-130
1,1-Dichloroethene	106	70-130
Freon 113	92	70-130
Methylene Chloride	97	70-130
1,1-Dichloroethane	95	70-130
cis-1,2-Dichloroethene	111	70-130
1,1,1-Trichloroethane	94	70-130
Trichloroethene	88	70-130
Tetrachloroethene	90	70-130
trans-1,2-Dichloroethene	87	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	105	70-130

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8/21/2015
Ms. Erica Bosse
Sanborn, Head & Associates
24 Wade Road

Latham NY

Project Name: IBM Endicott GVP
Project #: 2755.07
Workorder #: 1508150

Dear Ms. Erica Bosse

The following report includes the data for the above referenced project for sample(s) received on 8/10/2015 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

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WORK ORDER #: 1508150

Work Order Summary

CLIENT:	Ms. Erica Bosse Sanborn, Head & Associates 24 Wade Road Latham, NY	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	518-207-0769	**P.O. #**	2755.07
FAX:		**PROJECT #**	2755.07 IBM Endicott GVP
DATE RECEIVED:	08/10/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	08/21/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	EN0425D080415	TO-15	4.1 "Hg	5 psi
02A	EN0425S080415	TO-15	3.3 "Hg	5.2 psi
03A	EN0426D080415	TO-15	4.3 "Hg	4.9 psi
04A	EN0426S080415	TO-15	3.1 "Hg	5 psi
05A	EN0427S080415	TO-15	1.6 "Hg	4.8 psi
06A	EN0429D080515	TO-15	4.7 "Hg	5.1 psi
07A	EN0429S080515	TO-15	3.7 "Hg	5.1 psi
08A	EN042D080515	TO-15	4.7 "Hg	4.8 psi
09A	EN042S080515	TO-15	3.9 "Hg	5.1 psi
09AA	EN042S080515 Lab Duplicate	TO-15	3.9 "Hg	5.1 psi
10A	EN0430D080515	TO-15	10 "Hg	4.9 psi
10AA	EN0430D080515 Lab Duplicate	TO-15	10 "Hg	4.9 psi
11A	EN0430S080515	TO-15	3.7 "Hg	4.9 psi
12A(cancelled)	EN0431S080515	TO-15	1.2 psi	5.1 psi
13A	EN0432S080515	TO-15	4.3 "Hg	4.9 psi
14A	EN043D080515	TO-15	3.3 "Hg	5 psi
15A	EN043S080515	TO-15	5.5 "Hg	5 psi
16A	EN044D080515	TO-15	5.3 "Hg	5 psi
17A	EN044S080515	TO-15	3.9 "Hg	5.2 psi
18A	EN045D080515	TO-15	3.3 "Hg	5.1 psi
19A	EN045S080515	TO-15	3.1 "Hg	5 psi
20A	EN046D080515	TO-15	3.3 "Hg	5.3 psi
21A	Lab Blank	TO-15	NA	NA

Continued on next page

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WORK ORDER #: 1508150

Work Order Summary

CLIENT:	Ms. Erica Bosse Sanborn, Head & Associates 24 Wade Road Latham, NY	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	518-207-0769	**P.O. #**	2755.07
FAX:		**PROJECT #**	2755.07 IBM Endicott GVP
DATE RECEIVED:	08/10/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	08/21/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
21B	Lab Blank	TO-15	NA	NA
22A	CCV	TO-15	NA	NA
22B	CCV	TO-15	NA	NA
23A	LCS	TO-15	NA	NA
23AA	LCSD	TO-15	NA	NA
23B	LCS	TO-15	NA	NA
23BB	LCSD	TO-15	NA	NA

CERTIFIED BY:  DATE: 08/21/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1508150

Twenty 1 Liter Summa Canister (100% Certified) samples were received on August 10, 2015. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A signature and date were not provided by the field sampler.

The COC information for sample EN042D080515 did not match the entry on the sample tag with regard to sample identification. The information on the COC was used to process and report the sample.

The Summa canister for sample EN0431S080515 was leaking upon arrival. The client was notified and the analysis was cancelled.

Analytical Notes

Dilution was performed on sample EN0430S080515 due to the presence of high level target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0425D080415

Lab ID#: 1508150-01A

No Detections Were Found.

Client Sample ID: EN0425S080415

Lab ID#: 1508150-02A

No Detections Were Found.

Client Sample ID: EN0426D080415

Lab ID#: 1508150-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.78	9.0	4.2	49
Trichloroethene	0.78	180	4.2	980
Tetrachloroethene	0.78	1.6	5.3	11

Client Sample ID: EN0426S080415

Lab ID#: 1508150-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.74	6.2	4.1	34
Trichloroethene	0.74	110	4.0	610
Tetrachloroethene	0.74	1.8	5.0	13

Client Sample ID: EN0427S080415

Lab ID#: 1508150-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.70	18	3.8	97
Trichloroethene	0.70	82	3.8	440
Tetrachloroethene	0.70	18	4.7	120

Client Sample ID: EN0429D080515

Lab ID#: 1508150-06A

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0429D080515

Lab ID#: 1508150-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.80	3.4	4.4	19
Trichloroethene	0.80	39	4.3	210

Client Sample ID: EN0429S080515

Lab ID#: 1508150-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.77	5.8	4.2	31
Trichloroethene	0.77	52	4.1	280

Client Sample ID: EN042D080515

Lab ID#: 1508150-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.78	1.3	4.3	7.3
Trichloroethene	0.78	8.7	4.2	47
Tetrachloroethene	0.78	1.6	5.3	11

Client Sample ID: EN042S080515

Lab ID#: 1508150-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.78	3.2	4.2	17
Tetrachloroethene	0.78	0.77 J	5.2	5.2 J

Client Sample ID: EN042S080515 Lab Duplicate

Lab ID#: 1508150-09AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.1	3.2	5.9	17

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0430D080515

Lab ID#: 1508150-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.0	4.2	4.0	17
cis-1,2-Dichloroethene	1.0	1.5	4.0	5.9
1,1,1-Trichloroethane	1.0	18	5.4	100
Trichloroethene	1.0	160	5.4	840
Tetrachloroethene	1.0	8.8	6.8	60

Client Sample ID: EN0430D080515 Lab Duplicate

Lab ID#: 1508150-10AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.4	3.8	5.6	15
cis-1,2-Dichloroethene	1.4	1.4	5.5	5.6
1,1,1-Trichloroethane	1.4	19	7.5	100
Trichloroethene	1.4	160	7.4	850
Tetrachloroethene	1.4	8.9	9.4	60

Client Sample ID: EN0430S080515

Lab ID#: 1508150-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.3	3.6	6.9	19
Trichloroethene	1.3	390	6.8	2100

Client Sample ID: EN0432S080515

Lab ID#: 1508150-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.78	8.5	4.2	46
Trichloroethene	0.78	130	4.2	680
Tetrachloroethene	0.78	1.0	5.3	6.9

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN043D080515

Lab ID#: 1508150-14A

No Detections Were Found.

Client Sample ID: EN043S080515

Lab ID#: 1508150-15A

No Detections Were Found.

Client Sample ID: EN044D080515

Lab ID#: 1508150-16A

No Detections Were Found.

Client Sample ID: EN044S080515

Lab ID#: 1508150-17A

No Detections Were Found.

Client Sample ID: EN045D080515

Lab ID#: 1508150-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.76	11	4.1	61
Trichloroethene	0.76	35	4.0	190

Client Sample ID: EN045S080515

Lab ID#: 1508150-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.74	1.8	4.1	9.9
Trichloroethene	0.74	31	4.0	170
Tetrachloroethene	0.74	0.87	5.0	5.9

Client Sample ID: EN046D080515

Lab ID#: 1508150-20A

No Detections Were Found.

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Client Sample ID: EN0425D080415

Lab ID#: 1508150-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081415**	**Date of Collection:**	**8/4/15 11:27:00 AM**
Dil. Factor:	**1.55**	**Date of Analysis:**	**8/14/15 06:59 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	5.9	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Trichloroethene	0.78	Not Detected	4.2	Not Detected
Tetrachloroethene	0.78	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	92	70-130

eurofins | Air Toxics

Client Sample ID: EN0425S080415

Lab ID#: 1508150-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081416**	**Date of Collection: 8/4/15 11:17:00 AM**	
Dil. Factor:	**1.52**	**Date of Analysis: 8/14/15 07:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Trichloroethene	0.76	Not Detected	4.1	Not Detected
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	93	70-130

eurofins | Air Toxics

Client Sample ID: EN0426D080415

Lab ID#: 1508150-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081417**	**Date of Collection: 8/4/15 9:15:00 AM**	
Dil. Factor:	**1.56**	**Date of Analysis: 8/14/15 07:58 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	6.0	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	9.0	4.2	49
Trichloroethene	0.78	180	4.2	980
Tetrachloroethene	0.78	1.6	5.3	11
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	95	70-130

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Client Sample ID: EN0426S080415

Lab ID#: 1508150-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081418**	**Date of Collection:**	**8/4/15 9:18:00 AM**
Dil. Factor:	**1.49**	**Date of Analysis:**	**8/14/15 08:34 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.74	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	0.74	Not Detected	3.0	Not Detected
Freon 113	0.74	Not Detected	5.7	Not Detected
Methylene Chloride	7.4	Not Detected	26	Not Detected
1,1-Dichloroethane	0.74	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.74	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.74	6.2	4.1	34
Trichloroethene	0.74	110	4.0	610
Tetrachloroethene	0.74	1.8	5.0	13
trans-1,2-Dichloroethene	0.74	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: EN0427S080415

Lab ID#: 1508150-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081419**	**Date of Collection:**	**8/4/15 8:48:00 AM**
Dil. Factor:	**1.40**	**Date of Analysis:**	**8/14/15 09:02 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.70	Not Detected	1.8	Not Detected
Chloroethane	2.8	Not Detected	7.4	Not Detected
1,1-Dichloroethene	0.70	Not Detected	2.8	Not Detected
Freon 113	0.70	Not Detected	5.4	Not Detected
Methylene Chloride	7.0	Not Detected	24	Not Detected
1,1-Dichloroethane	0.70	Not Detected	2.8	Not Detected
cis-1,2-Dichloroethene	0.70	Not Detected	2.8	Not Detected
1,1,1-Trichloroethane	0.70	18	3.8	97
Trichloroethene	0.70	82	3.8	440
Tetrachloroethene	0.70	18	4.7	120
trans-1,2-Dichloroethene	0.70	Not Detected	2.8	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: EN0429D080515

Lab ID#: 1508150-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081420**	**Date of Collection: 8/5/15 1:46:00 PM**	
Dil. Factor:	**1.60**	**Date of Analysis: 8/14/15 09:37 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.80	Not Detected	2.0	Not Detected
Chloroethane	3.2	Not Detected	8.4	Not Detected
1,1-Dichloroethene	0.80	Not Detected	3.2	Not Detected
Freon 113	0.80	Not Detected	6.1	Not Detected
Methylene Chloride	8.0	Not Detected	28	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.80	3.4	4.4	19
Trichloroethene	0.80	39	4.3	210
Tetrachloroethene	0.80	Not Detected	5.4	Not Detected
trans-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	91	70-130

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Client Sample ID: EN0429S080515

Lab ID#: 1508150-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081421**	**Date of Collection: 8/5/15 1:40:00 PM**	
Dil. Factor:	**1.54**	**Date of Analysis: 8/14/15 10:01 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.77	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.1	Not Detected
1,1-Dichloroethene	0.77	Not Detected	3.0	Not Detected
Freon 113	0.77	Not Detected	5.9	Not Detected
Methylene Chloride	7.7	Not Detected	27	Not Detected
1,1-Dichloroethane	0.77	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.77	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.77	5.8	4.2	31
Trichloroethene	0.77	52	4.1	280
Tetrachloroethene	0.77	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.77	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: EN042D080515

Lab ID#: 1508150-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081422**	**Date of Collection:**	**8/5/15 12:55:00 PM**
Dil. Factor:	**1.57**	**Date of Analysis:**	**8/14/15 10:30 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.3	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	6.0	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	1.3	4.3	7.3
Trichloroethene	0.78	8.7	4.2	47
Tetrachloroethene	0.78	1.6	5.3	11
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	126	70-130

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Client Sample ID: EN042S080515

Lab ID#: 1508150-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081706**	**Date of Collection: 8/5/15 12:54:00 PM**	
Dil. Factor:	**1.55**	**Date of Analysis: 8/17/15 11:41 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	5.9	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Trichloroethene	0.78	3.2	4.2	17
Tetrachloroethene	0.78	0.77 J	5.2	5.2 J
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

J = Estimated value.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	86	70-130
4-Bromofluorobenzene	113	70-130

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Client Sample ID: EN042S080515 Lab Duplicate

Lab ID#: 1508150-09AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081718**	**Date of Collection: 8/5/15 12:54:00 PM**	
Dil. Factor:	**2.20**	**Date of Analysis: 8/17/15 05:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Chloroethane	4.4	Not Detected	12	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Freon 113	1.1	Not Detected	8.4	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Trichloroethene	1.1	3.2	5.9	17
Tetrachloroethene	1.1	Not Detected	7.5	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	121	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	112	70-130

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Client Sample ID: EN0430D080515

Lab ID#: 1508150-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081707**	**Date of Collection: 8/5/15 3:31:00 PM**	
Dil. Factor:	**2.00**	**Date of Analysis: 8/17/15 12:07 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
Chloroethane	4.0	Not Detected	10	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Freon 113	1.0	Not Detected	7.7	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
1,1-Dichloroethane	1.0	4.2	4.0	17
cis-1,2-Dichloroethene	1.0	1.5	4.0	5.9
1,1,1-Trichloroethane	1.0	18	5.4	100
Trichloroethene	1.0	160	5.4	840
Tetrachloroethene	1.0	8.8	6.8	60
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	115	70-130

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Client Sample ID: EN0430D080515 Lab Duplicate

Lab ID#: 1508150-10AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081719**	**Date of Collection:**	**8/5/15 3:31:00 PM**
Dil. Factor:	**2.76**	**Date of Analysis:**	**8/17/15 05:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.4	Not Detected	3.5	Not Detected
Chloroethane	5.5	Not Detected	14	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.5	Not Detected
Freon 113	1.4	Not Detected	10	Not Detected
Methylene Chloride	14	Not Detected	48	Not Detected
1,1-Dichloroethane	1.4	3.8	5.6	15
cis-1,2-Dichloroethene	1.4	1.4	5.5	5.6
1,1,1-Trichloroethane	1.4	19	7.5	100
Trichloroethene	1.4	160	7.4	850
Tetrachloroethene	1.4	8.9	9.4	60
trans-1,2-Dichloroethene	1.4	Not Detected	5.5	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	126	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	117	70-130

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Client Sample ID: EN0430S080515

Lab ID#: 1508150-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081708**	**Date of Collection: 8/5/15 2:07:00 PM**	
Dil. Factor:	**2.53**	**Date of Analysis: 8/17/15 12:32 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
Chloroethane	5.1	Not Detected	13	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Freon 113	1.3	Not Detected	9.7	Not Detected
Methylene Chloride	13	Not Detected	44	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.1	Not Detected
cis-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.3	3.6	6.9	19
Trichloroethene	1.3	390	6.8	2100
Tetrachloroethene	1.3	Not Detected	8.6	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	119	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	117	70-130

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Client Sample ID: EN0432S080515

Lab ID#: 1508150-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081710**	**Date of Collection: 8/5/15 10:22:00 AM**	
Dil. Factor:	**1.56**	**Date of Analysis: 8/17/15 01:25 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	6.0	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	8.5	4.2	46
Trichloroethene	0.78	130	4.2	680
Tetrachloroethene	0.78	1.0	5.3	6.9
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	126	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	119	70-130

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Client Sample ID: EN043D080515

Lab ID#: 1508150-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081711**	**Date of Collection: 8/5/15 2:30:00 PM**	
Dil. Factor:	**1.50**	**Date of Analysis: 8/17/15 01:51 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.75	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	0.75	Not Detected	3.0	Not Detected
Freon 113	0.75	Not Detected	5.7	Not Detected
Methylene Chloride	7.5	Not Detected	26	Not Detected
1,1-Dichloroethane	0.75	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.75	Not Detected	4.1	Not Detected
Trichloroethene	0.75	Not Detected	4.0	Not Detected
Tetrachloroethene	0.75	Not Detected	5.1	Not Detected
trans-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	124	70-130
Toluene-d8	86	70-130
4-Bromofluorobenzene	122	70-130

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Client Sample ID: EN043S080515

Lab ID#: 1508150-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081712**	**Date of Collection: 8/5/15 2:37:00 PM**	
Dil. Factor:	**1.64**	**Date of Analysis: 8/17/15 02:17 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Freon 113	0.82	Not Detected	6.3	Not Detected
Methylene Chloride	8.2	Not Detected	28	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	Not Detected	4.5	Not Detected
Trichloroethene	0.82	Not Detected	4.4	Not Detected
Tetrachloroethene	0.82	Not Detected	5.6	Not Detected
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	124	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	120	70-130

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Client Sample ID: EN044D080515

Lab ID#: 1508150-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081713**	**Date of Collection:**	**8/5/15 10:51:00 AM**
Dil. Factor:	**1.63**	**Date of Analysis:**	**8/17/15 02:44 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Freon 113	0.82	Not Detected	6.2	Not Detected
Methylene Chloride	8.2	Not Detected	28	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	Not Detected	4.4	Not Detected
Trichloroethene	0.82	Not Detected	4.4	Not Detected
Tetrachloroethene	0.82	Not Detected	5.5	Not Detected
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	119	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	120	70-130

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Client Sample ID: EN044S080515

Lab ID#: 1508150-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081714**	**Date of Collection: 8/5/15 10:33:00 AM**	
Dil. Factor:	**1.56**	**Date of Analysis: 8/17/15 03:10 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	6.0	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Trichloroethene	0.78	Not Detected	4.2	Not Detected
Tetrachloroethene	0.78	Not Detected	5.3	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	121	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	122	70-130

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Client Sample ID: EN045D080515

Lab ID#: 1508150-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081715**	**Date of Collection: 8/5/15 9:59:00 AM**	
Dil. Factor:	**1.51**	**Date of Analysis: 8/17/15 03:36 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	11	4.1	61
Trichloroethene	0.76	35	4.0	190
Tetrachloroethene	0.76	Not Detected	5.1	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	87	70-130
4-Bromofluorobenzene	118	70-130

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Client Sample ID: EN045S080515

Lab ID#: 1508150-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081716**	**Date of Collection: 8/5/15 9:49:00 AM**	
Dil. Factor:	**1.49**	**Date of Analysis: 8/17/15 04:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.74	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	0.74	Not Detected	3.0	Not Detected
Freon 113	0.74	Not Detected	5.7	Not Detected
Methylene Chloride	7.4	Not Detected	26	Not Detected
1,1-Dichloroethane	0.74	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.74	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.74	1.8	4.1	9.9
Trichloroethene	0.74	31	4.0	170
Tetrachloroethene	0.74	0.87	5.0	5.9
trans-1,2-Dichloroethene	0.74	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	86	70-130
4-Bromofluorobenzene	115	70-130

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Client Sample ID: EN046D080515

Lab ID#: 1508150-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081709**	**Date of Collection:**	**8/5/15 8:43:00 AM**
Dil. Factor:	**1.53**	**Date of Analysis:**	**8/17/15 12:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.1	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.9	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	Not Detected	4.2	Not Detected
Trichloroethene	0.76	Not Detected	4.1	Not Detected
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	109	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1508150-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081414**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/15 05:47 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	95	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1508150-21B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 10:17 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	108	70-130

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Client Sample ID: CCV

Lab ID#: 1508150-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081407a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/15 01:01 PM**	

Compound	%Recovery
Vinyl Chloride	92
Chloroethane	92
1,1-Dichloroethene	94
Freon 113	89
Methylene Chloride	93
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	91
Trichloroethene	86
Tetrachloroethene	91
trans-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: CCV

Lab ID#: 1508150-22B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 08:40 AM**	

Compound	%Recovery
Vinyl Chloride	77
Chloroethane	96
1,1-Dichloroethene	105
Freon 113	112
Methylene Chloride	97
1,1-Dichloroethane	97
cis-1,2-Dichloroethene	101
1,1,1-Trichloroethane	120
Trichloroethene	118
Tetrachloroethene	113
trans-1,2-Dichloroethene	105

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	109	70-130

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Client Sample ID: LCS

Lab ID#: 1508150-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081412d**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/15 03:39 PM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	98	70-130
Chloroethane	97	70-130
1,1-Dichloroethene	102	70-130
Freon 113	92	70-130
Methylene Chloride	96	70-130
1,1-Dichloroethane	94	70-130
cis-1,2-Dichloroethene	109	70-130
1,1,1-Trichloroethane	92	70-130
Trichloroethene	87	70-130
Tetrachloroethene	90	70-130
trans-1,2-Dichloroethene	86	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: LCSD

Lab ID#: 1508150-23AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081413**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/15 04:13 PM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	98	70-130
Chloroethane	97	70-130
1,1-Dichloroethene	106	70-130
Freon 113	92	70-130
Methylene Chloride	96	70-130
1,1-Dichloroethane	94	70-130
cis-1,2-Dichloroethene	111	70-130
1,1,1-Trichloroethane	93	70-130
Trichloroethene	86	70-130
Tetrachloroethene	92	70-130
trans-1,2-Dichloroethene	86	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: LCS

Lab ID#: 1508150-23B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 09:04 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	80	70-130
Chloroethane	100	70-130
1,1-Dichloroethene	103	70-130
Freon 113	107	70-130
Methylene Chloride	97	70-130
1,1-Dichloroethane	94	70-130
cis-1,2-Dichloroethene	104	70-130
1,1,1-Trichloroethane	116	70-130
Trichloroethene	108	70-130
Tetrachloroethene	114	70-130
trans-1,2-Dichloroethene	88	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: LCSD

Lab ID#: 1508150-23BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 09:29 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	81	70-130
Chloroethane	105	70-130
1,1-Dichloroethene	106	70-130
Freon 113	112	70-130
Methylene Chloride	101	70-130
1,1-Dichloroethane	100	70-130
cis-1,2-Dichloroethene	111	70-130
1,1,1-Trichloroethane	122	70-130
Trichloroethene	107	70-130
Tetrachloroethene	112	70-130
trans-1,2-Dichloroethene	92	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	106	70-130

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8/20/2015
Ms. Erica Bosse
Sanborn, Head & Associates
24 Wade Road

Latham NY

Project Name: IBM Endicott GVP
Project #: 2755.07
Workorder #: 1508149

Dear Ms. Erica Bosse

The following report includes the data for the above referenced project for sample(s) received on 8/10/2015 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

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WORK ORDER #: 1508149

Work Order Summary

CLIENT:	Ms. Erica Bosse Sanborn, Head & Associates 24 Wade Road Latham, NY	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	518-207-0769	**P.O. #**	2755.07
FAX:		**PROJECT #**	2755.07 IBM Endicott GVP
DATE RECEIVED:	08/10/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	08/20/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	EN0415D080415	TO-15	4.1 "Hg	5.2 psi
01AA	EN0415D080415 Lab Duplicate	TO-15	4.1 "Hg	5.2 psi
02A	EN0415S080415	TO-15	4.9 "Hg	5.2 psi
02AA	EN0415S080415 Lab Duplicate	TO-15	4.9 "Hg	5.2 psi
03A	EN0416D080415	TO-15	3.1 "Hg	5.1 psi
04A	EN0416S080415	TO-15	2.6 "Hg	5.4 psi
05A	EN0417D080415	TO-15	3.9 "Hg	5.3 psi
06A	EN0417S080415	TO-15	3.1 "Hg	5.1 psi
07A	EN0418D080415	TO-15	5.9 "Hg	5 psi
08A	EN0418S080415	TO-15	3.9 "Hg	4.9 psi
09A	EN0419D080415	TO-15	7.3 "Hg	5.4 psi
10A	EN0419S080415	TO-15	4.9 "Hg	5.2 psi
11A	EN041D080515	TO-15	2.6 "Hg	4.9 psi
12A	EN041S080515	TO-15	3.5 "Hg	5.1 psi
13A	EN0420D080415	TO-15	3.1 "Hg	5.2 psi
14A	EN0420S080415	TO-15	2.6 "Hg	5.2 psi
15A	EN0421D080415	TO-15	3.9 "Hg	5.1 psi
16A	EN0421S080415	TO-15	3.7 "Hg	5.1 psi
17A	EN0422D080415	TO-15	4.9 "Hg	4.8 psi
18A	EN0422S080415	TO-15	3.5 "Hg	4.9 psi
19A	EN0423D080415	TO-15	4.5 "Hg	5 psi
20A	EN0423S080415	TO-15	4.7 "Hg	5.4 psi
21A	Lab Blank	TO-15	NA	NA

Continued on next page

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WORK ORDER #: 1508149

Work Order Summary

CLIENT:	Ms. Erica Bosse Sanborn, Head & Associates 24 Wade Road Latham, NY	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	518-207-0769	**P.O. #**	2755.07
FAX:		**PROJECT #**	2755.07 IBM Endicott GVP
DATE RECEIVED:	08/10/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	08/20/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
21B	Lab Blank	TO-15	NA	NA
22A	CCV	TO-15	NA	NA
22B	CCV	TO-15	NA	NA
23A	LCS	TO-15	NA	NA
23AA	LCSD	TO-15	NA	NA
23B	LCS	TO-15	NA	NA
23BB	LCSD	TO-15	NA	NA

CERTIFIED BY:  DATE: 08/20/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1508149

Twenty 1 Liter Summa Canister (100% Certified) samples were received on August 10, 2015. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A signature and date were not provided by the field sampler.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0415D080415

Lab ID#: 1508149-01A

No Detections Were Found.

Client Sample ID: EN0415D080415 Lab Duplicate

Lab ID#: 1508149-01AA

No Detections Were Found.

Client Sample ID: EN0415S080415

Lab ID#: 1508149-02A

No Detections Were Found.

Client Sample ID: EN0415S080415 Lab Duplicate

Lab ID#: 1508149-02AA

No Detections Were Found.

Client Sample ID: EN0416D080415

Lab ID#: 1508149-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.75	1.0	4.1	5.6
Trichloroethene	0.75	6.0	4.0	32

Client Sample ID: EN0416S080415

Lab ID#: 1508149-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.75	0.95	4.0	5.1
Tetrachloroethene	0.75	0.93	5.1	6.3

Client Sample ID: EN0417D080415

Lab ID#: 1508149-05A

No Detections Were Found.

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0417S080415

Lab ID#: 1508149-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.75	1.1	4.1	5.9
Trichloroethene	0.75	34	4.0	180
Tetrachloroethene	0.75	2.5	5.1	17

Client Sample ID: EN0418D080415

Lab ID#: 1508149-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	7.4	4.6	40
Trichloroethene	0.84	98	4.5	530
Tetrachloroethene	0.84	1.4	5.7	9.5

Client Sample ID: EN0418S080415

Lab ID#: 1508149-08A

No Detections Were Found.

Client Sample ID: EN0419D080415

Lab ID#: 1508149-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.90	1.0	3.6	4.0
1,1,1-Trichloroethane	0.90	6.0	4.9	33
Trichloroethene	0.90	48	4.9	260

Client Sample ID: EN0419S080415

Lab ID#: 1508149-10A

No Detections Were Found.

Client Sample ID: EN041D080515

Lab ID#: 1508149-11A

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN041D080515

Lab ID#: 1508149-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.73	3.0	4.0	16
Trichloroethene	0.73	15	3.9	82

Client Sample ID: EN041S080515

Lab ID#: 1508149-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.76	0.92	4.1	5.0
Trichloroethene	0.76	2.0	4.1	10

Client Sample ID: EN0420D080415

Lab ID#: 1508149-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.76	2.0	4.1	11
Trichloroethene	0.76	25	4.0	130

Client Sample ID: EN0420S080415

Lab ID#: 1508149-14A

No Detections Were Found.

Client Sample ID: EN0421D080415

Lab ID#: 1508149-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.78	1.5	4.2	8.3

Client Sample ID: EN0421S080415

Lab ID#: 1508149-16A

No Detections Were Found.

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0422D080415

Lab ID#: 1508149-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.79	2.2	6.0	17
cis-1,2-Dichloroethene	0.79	1.0	3.1	4.2
1,1,1-Trichloroethane	0.79	3.0	4.3	16
Trichloroethene	0.79	30	4.2	160
Tetrachloroethene	0.79	0.95	5.4	6.5

Client Sample ID: EN0422S080415

Lab ID#: 1508149-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.76	1.3	5.8	9.9
cis-1,2-Dichloroethene	0.76	5.8	3.0	23
1,1,1-Trichloroethane	0.76	7.6	4.1	41
Trichloroethene	0.76	84	4.0	450
Tetrachloroethene	0.76	1.1	5.1	7.4
trans-1,2-Dichloroethene	0.76	0.90	3.0	3.6

Client Sample ID: EN0423D080415

Lab ID#: 1508149-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.79	1.1	3.2	4.3
cis-1,2-Dichloroethene	0.79	5.0	3.1	20
Trichloroethene	0.79	34	4.2	180
Tetrachloroethene	0.79	2.0	5.4	14

Client Sample ID: EN0423S080415

Lab ID#: 1508149-20A

No Detections Were Found.

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Client Sample ID: EN0415D080415

Lab ID#: 1508149-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081407**	**Date of Collection: 8/4/15 1:24:00 PM**	
Dil. Factor:	**1.57**	**Date of Analysis: 8/14/15 01:33 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.3	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	6.0	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	Not Detected	4.3	Not Detected
Trichloroethene	0.78	Not Detected	4.2	Not Detected
Tetrachloroethene	0.78	Not Detected	5.3	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	121	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	111	70-130

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Client Sample ID: EN0415D080415 Lab Duplicate

Lab ID#: 1508149-01AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081418**	**Date of Collection: 8/4/15 1:24:00 PM**	
Dil. Factor:	**2.10**	**Date of Analysis: 8/14/15 06:32 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.0	Not Detected	2.7	Not Detected
Chloroethane	4.2	Not Detected	11	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.2	Not Detected
Freon 113	1.0	Not Detected	8.0	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected
1,1,1-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Trichloroethene	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	Not Detected	7.1	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	128	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	111	70-130

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Client Sample ID: EN0415S080415

Lab ID#: 1508149-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081408**	**Date of Collection: 8/4/15 1:26:00 PM**	
Dil. Factor:	**1.62**	**Date of Analysis: 8/14/15 01:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.81	Not Detected	2.1	Not Detected
Chloroethane	3.2	Not Detected	8.5	Not Detected
1,1-Dichloroethene	0.81	Not Detected	3.2	Not Detected
Freon 113	0.81	Not Detected	6.2	Not Detected
Methylene Chloride	8.1	Not Detected	28	Not Detected
1,1-Dichloroethane	0.81	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.81	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.81	Not Detected	4.4	Not Detected
Trichloroethene	0.81	Not Detected	4.4	Not Detected
Tetrachloroethene	0.81	Not Detected	5.5	Not Detected
trans-1,2-Dichloroethene	0.81	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	84	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: EN0415S080415 Lab Duplicate

Lab ID#: 1508149-02AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081419**	**Date of Collection: 8/4/15 1:26:00 PM**	
Dil. Factor:	**2.17**	**Date of Analysis: 8/14/15 06:58 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Freon 113	1.1	Not Detected	8.3	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
Tetrachloroethene	1.1	Not Detected	7.4	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	129	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	112	70-130

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Client Sample ID: EN0416D080415

Lab ID#: 1508149-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081409**	**Date of Collection: 8/4/15 4:32:00 PM**	
Dil. Factor:	**1.50**	**Date of Analysis: 8/14/15 02:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.75	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	0.75	Not Detected	3.0	Not Detected
Freon 113	0.75	Not Detected	5.7	Not Detected
Methylene Chloride	7.5	Not Detected	26	Not Detected
1,1-Dichloroethane	0.75	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.75	1.0	4.1	5.6
Trichloroethene	0.75	6.0	4.0	32
Tetrachloroethene	0.75	Not Detected	5.1	Not Detected
trans-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	127	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	112	70-130

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Client Sample ID: EN0416S080415

Lab ID#: 1508149-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081410**	**Date of Collection:**	**8/4/15 4:31:00 PM**
Dil. Factor:	**1.50**	**Date of Analysis:**	**8/14/15 02:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.75	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	0.75	Not Detected	3.0	Not Detected
Freon 113	0.75	Not Detected	5.7	Not Detected
Methylene Chloride	7.5	Not Detected	26	Not Detected
1,1-Dichloroethane	0.75	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.75	Not Detected	4.1	Not Detected
Trichloroethene	0.75	0.95	4.0	5.1
Tetrachloroethene	0.75	0.93	5.1	6.3
trans-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	123	70-130

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Client Sample ID: EN0417D080415

Lab ID#: 1508149-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081411**	**Date of Collection: 8/4/15 2:55:00 PM**	
Dil. Factor:	**1.56**	**Date of Analysis: 8/14/15 03:18 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	6.0	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Trichloroethene	0.78	Not Detected	4.2	Not Detected
Tetrachloroethene	0.78	Not Detected	5.3	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	125	70-130

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Client Sample ID: EN0417S080415

Lab ID#: 1508149-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081412**	**Date of Collection:**	**8/4/15 2:50:00 PM**
Dil. Factor:	**1.50**	**Date of Analysis:**	**8/14/15 03:45 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.75	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	0.75	Not Detected	3.0	Not Detected
Freon 113	0.75	Not Detected	5.7	Not Detected
Methylene Chloride	7.5	Not Detected	26	Not Detected
1,1-Dichloroethane	0.75	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.75	1.1	4.1	5.9
Trichloroethene	0.75	34	4.0	180
Tetrachloroethene	0.75	2.5	5.1	17
trans-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	126	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	121	70-130

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Client Sample ID: EN0418D080415

Lab ID#: 1508149-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081413**	**Date of Collection: 8/4/15 11:39:00 AM**	
Dil. Factor:	**1.67**	**Date of Analysis: 8/14/15 04:11 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.84	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.8	Not Detected
1,1-Dichloroethene	0.84	Not Detected	3.3	Not Detected
Freon 113	0.84	Not Detected	6.4	Not Detected
Methylene Chloride	8.4	Not Detected	29	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	7.4	4.6	40
Trichloroethene	0.84	98	4.5	530
Tetrachloroethene	0.84	1.4	5.7	9.5
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	117	70-130

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Client Sample ID: EN0418S080415

Lab ID#: 1508149-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081414**	**Date of Collection: 8/4/15 11:25:00 AM**	
Dil. Factor:	**1.53**	**Date of Analysis: 8/14/15 04:37 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.1	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.9	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	Not Detected	4.2	Not Detected
Trichloroethene	0.76	Not Detected	4.1	Not Detected
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	128	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	120	70-130

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Client Sample ID: EN0419D080415

Lab ID#: 1508149-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081415**	**Date of Collection:**	**8/4/15 12:32:00 PM**
Dil. Factor:	**1.81**	**Date of Analysis:**	**8/14/15 05:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.90	Not Detected	2.3	Not Detected
Chloroethane	3.6	Not Detected	9.6	Not Detected
1,1-Dichloroethene	0.90	Not Detected	3.6	Not Detected
Freon 113	0.90	Not Detected	6.9	Not Detected
Methylene Chloride	9.0	Not Detected	31	Not Detected
1,1-Dichloroethane	0.90	Not Detected	3.7	Not Detected
cis-1,2-Dichloroethene	0.90	1.0	3.6	4.0
1,1,1-Trichloroethane	0.90	6.0	4.9	33
Trichloroethene	0.90	48	4.9	260
Tetrachloroethene	0.90	Not Detected	6.1	Not Detected
trans-1,2-Dichloroethene	0.90	Not Detected	3.6	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	124	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	113	70-130

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Client Sample ID: EN0419S080415

Lab ID#: 1508149-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081416**	**Date of Collection: 8/4/15 11:24:00 AM**	
Dil. Factor:	**1.62**	**Date of Analysis: 8/14/15 05:30 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.81	Not Detected	2.1	Not Detected
Chloroethane	3.2	Not Detected	8.5	Not Detected
1,1-Dichloroethene	0.81	Not Detected	3.2	Not Detected
Freon 113	0.81	Not Detected	6.2	Not Detected
Methylene Chloride	8.1	Not Detected	28	Not Detected
1,1-Dichloroethane	0.81	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.81	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.81	Not Detected	4.4	Not Detected
Trichloroethene	0.81	Not Detected	4.4	Not Detected
Tetrachloroethene	0.81	Not Detected	5.5	Not Detected
trans-1,2-Dichloroethene	0.81	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	126	70-130
Toluene-d8	87	70-130
4-Bromofluorobenzene	116	70-130

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Client Sample ID: EN041D080515

Lab ID#: 1508149-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081417**	**Date of Collection:**	**8/5/15 4:00:00 PM**
Dil. Factor:	**1.46**	**Date of Analysis:**	**8/14/15 05:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.73	Not Detected	1.9	Not Detected
Chloroethane	2.9	Not Detected	7.7	Not Detected
1,1-Dichloroethene	0.73	Not Detected	2.9	Not Detected
Freon 113	0.73	Not Detected	5.6	Not Detected
Methylene Chloride	7.3	Not Detected	25	Not Detected
1,1-Dichloroethane	0.73	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.73	Not Detected	2.9	Not Detected
1,1,1-Trichloroethane	0.73	3.0	4.0	16
Trichloroethene	0.73	15	3.9	82
Tetrachloroethene	0.73	Not Detected	5.0	Not Detected
trans-1,2-Dichloroethene	0.73	Not Detected	2.9	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	124	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	114	70-130

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Client Sample ID: EN041S080515

Lab ID#: 1508149-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081512**	**Date of Collection: 8/5/15 3:59:00 PM**	
Dil. Factor:	**1.52**	**Date of Analysis: 8/15/15 01:04 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	0.92	4.1	5.0
Trichloroethene	0.76	2.0	4.1	10
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	87	70-130
4-Bromofluorobenzene	114	70-130

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Client Sample ID: EN0420D080415

Lab ID#: 1508149-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081513**	**Date of Collection: 8/4/15 12:18:00 PM**	
Dil. Factor:	**1.51**	**Date of Analysis: 8/15/15 01:30 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	2.0	4.1	11
Trichloroethene	0.76	25	4.0	130
Tetrachloroethene	0.76	Not Detected	5.1	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	119	70-130
Toluene-d8	86	70-130
4-Bromofluorobenzene	117	70-130

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Client Sample ID: EN0420S080415

Lab ID#: 1508149-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081514**	**Date of Collection: 8/4/15 12:15:00 PM**	
Dil. Factor:	**1.48**	**Date of Analysis: 8/15/15 01:57 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.74	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.8	Not Detected
1,1-Dichloroethene	0.74	Not Detected	2.9	Not Detected
Freon 113	0.74	Not Detected	5.7	Not Detected
Methylene Chloride	7.4	Not Detected	26	Not Detected
1,1-Dichloroethane	0.74	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.74	Not Detected	2.9	Not Detected
1,1,1-Trichloroethane	0.74	Not Detected	4.0	Not Detected
Trichloroethene	0.74	Not Detected	4.0	Not Detected
Tetrachloroethene	0.74	Not Detected	5.0	Not Detected
trans-1,2-Dichloroethene	0.74	Not Detected	2.9	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	123	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	114	70-130

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Client Sample ID: EN0421D080415

Lab ID#: 1508149-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081515**	**Date of Collection: 8/4/15 11:53:00 AM**	
Dil. Factor:	**1.55**	**Date of Analysis: 8/15/15 02:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	5.9	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Trichloroethene	0.78	1.5	4.2	8.3
Tetrachloroethene	0.78	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	130	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	114	70-130

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Client Sample ID: EN0421S080415

Lab ID#: 1508149-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081516**	**Date of Collection: 8/4/15 12:00:00 PM**	
Dil. Factor:	**1.54**	**Date of Analysis: 8/15/15 02:49 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.77	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.1	Not Detected
1,1-Dichloroethene	0.77	Not Detected	3.0	Not Detected
Freon 113	0.77	Not Detected	5.9	Not Detected
Methylene Chloride	7.7	Not Detected	27	Not Detected
1,1-Dichloroethane	0.77	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.77	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.77	Not Detected	4.2	Not Detected
Trichloroethene	0.77	Not Detected	4.1	Not Detected
Tetrachloroethene	0.77	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.77	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	121	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	119	70-130

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Client Sample ID: EN0422D080415

Lab ID#: 1508149-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081517**	**Date of Collection: 8/4/15 2:56:00 PM**	
Dil. Factor:	**1.58**	**Date of Analysis: 8/15/15 03:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.79	Not Detected	2.0	Not Detected
Chloroethane	3.2	Not Detected	8.3	Not Detected
1,1-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Freon 113	0.79	2.2	6.0	17
Methylene Chloride	7.9	Not Detected	27	Not Detected
1,1-Dichloroethane	0.79	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.79	1.0	3.1	4.2
1,1,1-Trichloroethane	0.79	3.0	4.3	16
Trichloroethene	0.79	30	4.2	160
Tetrachloroethene	0.79	0.95	5.4	6.5
trans-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	128	70-130
Toluene-d8	86	70-130
4-Bromofluorobenzene	116	70-130

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Client Sample ID: EN0422S080415

Lab ID#: 1508149-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081518**	**Date of Collection: 8/4/15 2:39:00 PM**	
Dil. Factor:	**1.51**	**Date of Analysis: 8/15/15 03:42 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	1.3	5.8	9.9
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.76	5.8	3.0	23
1,1,1-Trichloroethane	0.76	7.6	4.1	41
Trichloroethene	0.76	84	4.0	450
Tetrachloroethene	0.76	1.1	5.1	7.4
trans-1,2-Dichloroethene	0.76	0.90	3.0	3.6

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	124	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	117	70-130

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Client Sample ID: EN0423D080415

Lab ID#: 1508149-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081519**	**Date of Collection: 8/4/15 12:38:00 PM**	
Dil. Factor:	**1.58**	**Date of Analysis: 8/15/15 04:08 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.79	Not Detected	2.0	Not Detected
Chloroethane	3.2	Not Detected	8.3	Not Detected
1,1-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Freon 113	0.79	Not Detected	6.0	Not Detected
Methylene Chloride	7.9	Not Detected	27	Not Detected
1,1-Dichloroethane	0.79	1.1	3.2	4.3
cis-1,2-Dichloroethene	0.79	5.0	3.1	20
1,1,1-Trichloroethane	0.79	Not Detected	4.3	Not Detected
Trichloroethene	0.79	34	4.2	180
Tetrachloroethene	0.79	2.0	5.4	14
trans-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	127	70-130
Toluene-d8	87	70-130
4-Bromofluorobenzene	119	70-130

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Client Sample ID: EN0423S080415

Lab ID#: 1508149-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081520**	**Date of Collection: 8/4/15 1:05:00 PM**	
Dil. Factor:	**1.62**	**Date of Analysis: 8/15/15 04:35 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.81	Not Detected	2.1	Not Detected
Chloroethane	3.2	Not Detected	8.5	Not Detected
1,1-Dichloroethene	0.81	Not Detected	3.2	Not Detected
Freon 113	0.81	Not Detected	6.2	Not Detected
Methylene Chloride	8.1	Not Detected	28	Not Detected
1,1-Dichloroethane	0.81	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.81	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.81	Not Detected	4.4	Not Detected
Trichloroethene	0.81	Not Detected	4.4	Not Detected
Tetrachloroethene	0.81	Not Detected	5.5	Not Detected
trans-1,2-Dichloroethene	0.81	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	123	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	116	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1508149-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081406**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/15 12:22 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1508149-21B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081511a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/15/15 12:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: CCV

Lab ID#: 1508149-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081405**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/15 11:20 AM**	

Compound	%Recovery
Vinyl Chloride	74
Chloroethane	91
1,1-Dichloroethene	102
Freon 113	104
Methylene Chloride	91
1,1-Dichloroethane	94
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	113
Trichloroethene	108
Tetrachloroethene	105
trans-1,2-Dichloroethene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: CCV

Lab ID#: 1508149-22B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081508**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/15/15 10:34 AM**	

Compound	%Recovery
Vinyl Chloride	78
Chloroethane	97
1,1-Dichloroethene	103
Freon 113	107
Methylene Chloride	95
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	114
Trichloroethene	96
Tetrachloroethene	111
trans-1,2-Dichloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	108	70-130

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Client Sample ID: LCS

Lab ID#: 1508149-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/15 10:08 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	76	70-130
Chloroethane	89	70-130
1,1-Dichloroethene	99	70-130
Freon 113	103	70-130
Methylene Chloride	90	70-130
1,1-Dichloroethane	92	70-130
cis-1,2-Dichloroethene	103	70-130
1,1,1-Trichloroethane	112	70-130
Trichloroethene	96	70-130
Tetrachloroethene	106	70-130
trans-1,2-Dichloroethene	86	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: LCSD

Lab ID#: 1508149-23AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/15 10:55 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	77	70-130
Chloroethane	93	70-130
1,1-Dichloroethene	99	70-130
Freon 113	102	70-130
Methylene Chloride	89	70-130
1,1-Dichloroethane	93	70-130
cis-1,2-Dichloroethene	103	70-130
1,1,1-Trichloroethane	112	70-130
Trichloroethene	95	70-130
Tetrachloroethene	104	70-130
trans-1,2-Dichloroethene	86	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: LCS

Lab ID#: 1508149-23B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081509**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/15/15 10:59 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	82	70-130
Chloroethane	102	70-130
1,1-Dichloroethene	107	70-130
Freon 113	108	70-130
Methylene Chloride	98	70-130
1,1-Dichloroethane	99	70-130
cis-1,2-Dichloroethene	111	70-130
1,1,1-Trichloroethane	118	70-130
Trichloroethene	106	70-130
Tetrachloroethene	110	70-130
trans-1,2-Dichloroethene	91	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: LCSD

Lab ID#: 1508149-23BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3081510**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/15/15 11:24 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	82	70-130
Chloroethane	103	70-130
1,1-Dichloroethene	107	70-130
Freon 113	108	70-130
Methylene Chloride	99	70-130
1,1-Dichloroethane	98	70-130
cis-1,2-Dichloroethene	111	70-130
1,1,1-Trichloroethane	117	70-130
Trichloroethene	108	70-130
Tetrachloroethene	110	70-130
trans-1,2-Dichloroethene	90	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	107	70-130

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8/20/2015
Ms. Erica Bosse
Sanborn, Head & Associates
24 Wade Road

Latham NY

Project Name: IBM Endicott GVP
Project #: 2755.07
Workorder #: 1508148

Dear Ms. Erica Bosse

The following report includes the data for the above referenced project for sample(s) received on 8/10/2015 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

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WORK ORDER #: 1508148

Work Order Summary

CLIENT:	Ms. Erica Bosse Sanborn, Head & Associates 24 Wade Road Latham, NY	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	518-207-0769	**P.O. #**	2755.07
FAX:		**PROJECT #**	2755.07 IBM Endicott GVP
DATE RECEIVED:	08/10/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	08/20/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	DU3297080415	TO-15	7.1 "Hg	5.1 psi
02A	DU3298080415	TO-15	7.3 "Hg	5 psi
03A	DU3331080515	TO-15	6.1 "Hg	4.9 psi
03AA	DU3331080515 Lab Duplicate	TO-15	6.1 "Hg	4.9 psi
04A	DU3336080415	TO-15	6.5 "Hg	5 psi
05A	DU3352080515	TO-15	5.3 "Hg	5 psi
06A	DU3372080515	TO-15	7.3 "Hg	4.6 psi
07A	DU3463080515	TO-15	3.3 "Hg	5 psi
08A	DU3829080415	TO-15	7.6 "Hg	4.8 psi
09A	EB3340080415	TO-15	3.1 "Hg	5.1 psi
10A	EB3457080515	TO-15	3.9 "Hg	4.7 psi
11A	EN0410D080515	TO-15	4.3 "Hg	5.1 psi
12A	EN0410S080515	TO-15	3.3 "Hg	5.3 psi
12AA	EN0410S080515 Lab Duplicate	TO-15	3.3 "Hg	5.3 psi
13A	EN0411D080515	TO-15	4.5 "Hg	4.8 psi
14A	EN0411S080515	TO-15	7.3 "Hg	5 psi
15A	EN0412D080515	TO-15	1.6 "Hg	5.2 psi
16A	EN0412S080515	TO-15	2.4 "Hg	4.9 psi
17A	EN0413D080415	TO-15	7.3 "Hg	4.9 psi
18A	EN0413S080415	TO-15	3.9 "Hg	5.1 psi
19A	EN0414D080415	TO-15	3.3 "Hg	5.1 psi
20A	EN0414S080415	TO-15	2.6 "Hg	4.8 psi
21A	Lab Blank	TO-15	NA	NA

Continued on next page

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WORK ORDER #: 1508148

Work Order Summary

CLIENT:	Ms. Erica Bosse Sanborn, Head & Associates 24 Wade Road Latham, NY	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	518-207-0769	**P.O. #**	2755.07
FAX:		**PROJECT #**	2755.07 IBM Endicott GVP
DATE RECEIVED:	08/10/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	08/20/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
21B	Lab Blank	TO-15	NA	NA
21C	Lab Blank	TO-15	NA	NA
22A	CCV	TO-15	NA	NA
22B	CCV	TO-15	NA	NA
22C	CCV	TO-15	NA	NA
23A	LCS	TO-15	NA	NA
23AA	LCSD	TO-15	NA	NA
23B	LCS	TO-15	NA	NA
23BB	LCSD	TO-15	NA	NA
23C	LCS	TO-15	NA	NA
23CC	LCSD	TO-15	NA	NA

CERTIFIED BY:  DATE: 08/20/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1508148

Twenty 1 Liter Summa Canister (100% Certified) samples were received on August 10, 2015. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A signature and date were not provided by the field sampler.

Analytical Notes

Dilution was performed on samples DU3331080515, EN0410D080515, and EN0410S080515 due to the presence of high level target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DU3297080415

Lab ID#: 1508148-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	1.8	4.8	9.7
Trichloroethene	0.88	15	4.7	83

Client Sample ID: DU3298080415

Lab ID#: 1508148-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.88	1.3	3.5	5.0
1,1,1-Trichloroethane	0.88	5.0	4.8	27
Trichloroethene	0.88	46	4.8	250

Client Sample ID: DU3331080515

Lab ID#: 1508148-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	3.3	99	13	390
Freon 113	3.3	52	26	400
1,1-Dichloroethane	3.3	38	14	160
cis-1,2-Dichloroethene	3.3	54	13	220
1,1,1-Trichloroethane	3.3	170	18	930
Trichloroethene	3.3	780	18	4200
Tetrachloroethene	3.3	53	23	360

Client Sample ID: DU3331080515 Lab Duplicate

Lab ID#: 1508148-03AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	3.3	100	13	410
Freon 113	3.3	49	26	370
1,1-Dichloroethane	3.3	37	14	150
cis-1,2-Dichloroethene	3.3	54	13	210
1,1,1-Trichloroethane	3.3	170	18	920

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DU3331080515 Lab Duplicate

Lab ID#: 1508148-03AA

Trichloroethene	3.3	800	18	4300
Tetrachloroethene	3.3	53	23	360

Client Sample ID: DU3336080415

Lab ID#: 1508148-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.86	1.6	4.6	8.7
Tetrachloroethene	0.86	28	5.8	190

Client Sample ID: DU3352080515

Lab ID#: 1508148-05A

No Detections Were Found.

Client Sample ID: DU3372080515

Lab ID#: 1508148-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.87	1.0	4.7	5.6
Trichloroethene	0.87	10	4.7	57

Client Sample ID: DU3463080515

Lab ID#: 1508148-07A

No Detections Were Found.

Client Sample ID: DU3829080415

Lab ID#: 1508148-08A

No Detections Were Found.

Client Sample ID: EB3340080415

Lab ID#: 1508148-09A

No Detections Were Found.

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EB3457080515

Lab ID#: 1508148-10A

No Detections Were Found.

Client Sample ID: EN0410D080515

Lab ID#: 1508148-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	26	100	100	410
Freon 113	26	39	200	300
1,1-Dichloroethane	26	200	110	810
cis-1,2-Dichloroethene	26	640	100	2600
1,1,1-Trichloroethane	26	640	140	3500
Trichloroethene	26	4300	140	23000
Tetrachloroethene	26	71	180	480

Client Sample ID: EN0410S080515

Lab ID#: 1508148-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	31	63	120	250
1,1-Dichloroethane	31	140	120	580
cis-1,2-Dichloroethene	31	430	120	1700
1,1,1-Trichloroethane	31	510	170	2800
Trichloroethene	31	5000	160	27000
Tetrachloroethene	31	46	210	310

Client Sample ID: EN0410S080515 Lab Duplicate

Lab ID#: 1508148-12AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	31	55	120	220
1,1-Dichloroethane	31	140	120	590
cis-1,2-Dichloroethene	31	390	120	1600
1,1,1-Trichloroethane	31	500	170	2700
Trichloroethene	31	4900	160	26000

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0410S080515 Lab Duplicate

Lab ID#: 1508148-12AA

Tetrachloroethene	31	43	210	290

Client Sample ID: EN0411D080515

Lab ID#: 1508148-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.78	0.92	3.1	3.6
1,1,1-Trichloroethane	0.78	6.2	4.2	34
Trichloroethene	0.78	140	4.2	730
Tetrachloroethene	0.78	4.3	5.3	29

Client Sample ID: EN0411S080515

Lab ID#: 1508148-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	0.95	4.8	5.2
Trichloroethene	0.88	11	4.8	61
Tetrachloroethene	0.88	1.0	6.0	7.1

Client Sample ID: EN0412D080515

Lab ID#: 1508148-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.72	2.6	3.9	14
Trichloroethene	0.72	93	3.8	500

Client Sample ID: EN0412S080515

Lab ID#: 1508148-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.72	2.8	4.0	15
Trichloroethene	0.72	84	3.9	450

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0413D080415

Lab ID#: 1508148-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	1.6	4.8	8.6
Trichloroethene	0.88	15	4.7	81

Client Sample ID: EN0413S080415

Lab ID#: 1508148-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.78	2.1	4.2	12
Trichloroethene	0.78	21	4.2	120

Client Sample ID: EN0414D080415

Lab ID#: 1508148-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.76	0.80	4.1	4.4
Trichloroethene	0.76	18	4.0	99

Client Sample ID: EN0414S080415

Lab ID#: 1508148-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.72	2.3	3.9	12

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Client Sample ID: DU3297080415

Lab ID#: 1508148-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081406**	**Date of Collection:**	**8/4/15 3:56:00 PM**
Dil. Factor:	**1.76**	**Date of Analysis:**	**8/14/15 03:03 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.88	Not Detected	2.2	Not Detected
Chloroethane	3.5	Not Detected	9.3	Not Detected
1,1-Dichloroethene	0.88	Not Detected	3.5	Not Detected
Freon 113	0.88	Not Detected	6.7	Not Detected
Methylene Chloride	8.8	Not Detected	30	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.88	1.8	4.8	9.7
Trichloroethene	0.88	15	4.7	83
Tetrachloroethene	0.88	Not Detected	6.0	Not Detected
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	113	70-130

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Client Sample ID: DU3298080415

Lab ID#: 1508148-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081417**	**Date of Collection: 8/4/15 12:32:00 PM**	
Dil. Factor:	**1.77**	**Date of Analysis: 8/14/15 09:07 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.88	Not Detected	2.3	Not Detected
Chloroethane	3.5	Not Detected	9.3	Not Detected
1,1-Dichloroethene	0.88	Not Detected	3.5	Not Detected
Freon 113	0.88	Not Detected	6.8	Not Detected
Methylene Chloride	8.8	Not Detected	31	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.88	1.3	3.5	5.0
1,1,1-Trichloroethane	0.88	5.0	4.8	27
Trichloroethene	0.88	46	4.8	250
Tetrachloroethene	0.88	Not Detected	6.0	Not Detected
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: DU3331080515

Lab ID#: 1508148-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081408**	**Date of Collection: 8/5/15 2:42:00 PM**	
Dil. Factor:	**6.69**	**Date of Analysis: 8/14/15 04:09 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.3	Not Detected	8.6	Not Detected
Chloroethane	13	Not Detected	35	Not Detected
1,1-Dichloroethene	3.3	99	13	390
Freon 113	3.3	52	26	400
Methylene Chloride	33	Not Detected	120	Not Detected
1,1-Dichloroethane	3.3	38	14	160
cis-1,2-Dichloroethene	3.3	54	13	220
1,1,1-Trichloroethane	3.3	170	18	930
Trichloroethene	3.3	780	18	4200
Tetrachloroethene	3.3	53	23	360
trans-1,2-Dichloroethene	3.3	Not Detected	13	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: DU3331080515 Lab Duplicate

Lab ID#: 1508148-03AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081409**	**Date of Collection: 8/5/15 2:42:00 PM**	
Dil. Factor:	**6.69**	**Date of Analysis: 8/14/15 04:34 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.3	Not Detected	8.6	Not Detected
Chloroethane	13	Not Detected	35	Not Detected
1,1-Dichloroethene	3.3	100	13	410
Freon 113	3.3	49	26	370
Methylene Chloride	33	Not Detected	120	Not Detected
1,1-Dichloroethane	3.3	37	14	150
cis-1,2-Dichloroethene	3.3	54	13	210
1,1,1-Trichloroethane	3.3	170	18	920
Trichloroethene	3.3	800	18	4300
Tetrachloroethene	3.3	53	23	360
trans-1,2-Dichloroethene	3.3	Not Detected	13	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	108	70-130

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Client Sample ID: DU3336080415

Lab ID#: 1508148-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081410**	**Date of Collection:**	**8/4/15 11:32:00 AM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**8/14/15 05:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.86	Not Detected	2.2	Not Detected
Chloroethane	3.4	Not Detected	9.0	Not Detected
1,1-Dichloroethene	0.86	Not Detected	3.4	Not Detected
Freon 113	0.86	Not Detected	6.6	Not Detected
Methylene Chloride	8.6	Not Detected	30	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.86	Not Detected	4.7	Not Detected
Trichloroethene	0.86	1.6	4.6	8.7
Tetrachloroethene	0.86	28	5.8	190
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: DU3352080515

Lab ID#: 1508148-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081411**	**Date of Collection: 8/5/15 9:50:00 AM**	
Dil. Factor:	**1.63**	**Date of Analysis: 8/14/15 05:41 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Freon 113	0.82	Not Detected	6.2	Not Detected
Methylene Chloride	8.2	Not Detected	28	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	Not Detected	4.4	Not Detected
Trichloroethene	0.82	Not Detected	4.4	Not Detected
Tetrachloroethene	0.82	Not Detected	5.5	Not Detected
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	118	70-130

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Client Sample ID: DU3372080515

Lab ID#: 1508148-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081412**	**Date of Collection: 8/5/15 10:15:00 AM**	
Dil. Factor:	**1.74**	**Date of Analysis: 8/14/15 06:07 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.87	Not Detected	2.2	Not Detected
Chloroethane	3.5	Not Detected	9.2	Not Detected
1,1-Dichloroethene	0.87	Not Detected	3.4	Not Detected
Freon 113	0.87	Not Detected	6.7	Not Detected
Methylene Chloride	8.7	Not Detected	30	Not Detected
1,1-Dichloroethane	0.87	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.87	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.87	1.0	4.7	5.6
Trichloroethene	0.87	10	4.7	57
Tetrachloroethene	0.87	Not Detected	5.9	Not Detected
trans-1,2-Dichloroethene	0.87	Not Detected	3.4	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	116	70-130

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Client Sample ID: DU3463080515

Lab ID#: 1508148-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081413**	**Date of Collection: 8/5/15 3:31:00 PM**	
Dil. Factor:	**1.50**	**Date of Analysis: 8/14/15 06:48 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.75	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	0.75	Not Detected	3.0	Not Detected
Freon 113	0.75	Not Detected	5.7	Not Detected
Methylene Chloride	7.5	Not Detected	26	Not Detected
1,1-Dichloroethane	0.75	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.75	Not Detected	4.1	Not Detected
Trichloroethene	0.75	Not Detected	4.0	Not Detected
Tetrachloroethene	0.75	Not Detected	5.1	Not Detected
trans-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: DU3829080415

Lab ID#: 1508148-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081414**	**Date of Collection: 8/4/15 9:53:00 AM**	
Dil. Factor:	**1.78**	**Date of Analysis: 8/14/15 07:14 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.89	Not Detected	2.3	Not Detected
Chloroethane	3.6	Not Detected	9.4	Not Detected
1,1-Dichloroethene	0.89	Not Detected	3.5	Not Detected
Freon 113	0.89	Not Detected	6.8	Not Detected
Methylene Chloride	8.9	Not Detected	31	Not Detected
1,1-Dichloroethane	0.89	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.89	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.89	Not Detected	4.8	Not Detected
Trichloroethene	0.89	Not Detected	4.8	Not Detected
Tetrachloroethene	0.89	Not Detected	6.0	Not Detected
trans-1,2-Dichloroethene	0.89	Not Detected	3.5	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: EB3340080415

Lab ID#: 1508148-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081415**	**Date of Collection: 8/4/15 5:22:00 PM**	
Dil. Factor:	**1.50**	**Date of Analysis: 8/14/15 07:54 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.75	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	0.75	Not Detected	3.0	Not Detected
Freon 113	0.75	Not Detected	5.7	Not Detected
Methylene Chloride	7.5	Not Detected	26	Not Detected
1,1-Dichloroethane	0.75	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.75	Not Detected	4.1	Not Detected
Trichloroethene	0.75	Not Detected	4.0	Not Detected
Tetrachloroethene	0.75	Not Detected	5.1	Not Detected
trans-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	105	70-130

eurofins | Air Toxics

Client Sample ID: EB3457080515

Lab ID#: 1508148-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081706**	**Date of Collection: 8/5/15 6:13:00 PM**	
Dil. Factor:	**1.52**	**Date of Analysis: 8/17/15 12:21 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Trichloroethene	0.76	Not Detected	4.1	Not Detected
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: EN0410D080515

Lab ID#: 1508148-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081807**	**Date of Collection: 8/5/15 2:00:00 PM**	
Dil. Factor:	**52.8**	**Date of Analysis: 8/18/15 03:54 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	26	Not Detected	67	Not Detected
Chloroethane	100	Not Detected	280	Not Detected
1,1-Dichloroethene	26	100	100	410
Freon 113	26	39	200	300
Methylene Chloride	260	Not Detected	920	Not Detected
1,1-Dichloroethane	26	200	110	810
cis-1,2-Dichloroethene	26	640	100	2600
1,1,1-Trichloroethane	26	640	140	3500
Trichloroethene	26	4300	140	23000
Tetrachloroethene	26	71	180	480
trans-1,2-Dichloroethene	26	Not Detected	100	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: EN0410S080515

Lab ID#: 1508148-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081416**	**Date of Collection: 8/5/15 2:07:00 PM**	
Dil. Factor:	**61.2**	**Date of Analysis: 8/14/15 08:20 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	31	Not Detected	78	Not Detected
Chloroethane	120	Not Detected	320	Not Detected
1,1-Dichloroethene	31	63	120	250
Freon 113	31	Not Detected	230	Not Detected
Methylene Chloride	310	Not Detected	1100	Not Detected
1,1-Dichloroethane	31	140	120	580
cis-1,2-Dichloroethene	31	430	120	1700
1,1,1-Trichloroethane	31	510	170	2800
Trichloroethene	31	5000	160	27000
Tetrachloroethene	31	46	210	310
trans-1,2-Dichloroethene	31	Not Detected	120	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	114	70-130

eurofins | Air Toxics

Client Sample ID: EN0410S080515 Lab Duplicate

Lab ID#: 1508148-12AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081418**	**Date of Collection: 8/5/15 2:07:00 PM**	
Dil. Factor:	**61.2**	**Date of Analysis: 8/14/15 09:33 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	31	Not Detected	78	Not Detected
Chloroethane	120	Not Detected	320	Not Detected
1,1-Dichloroethene	31	55	120	220
Freon 113	31	Not Detected	230	Not Detected
Methylene Chloride	310	Not Detected	1100	Not Detected
1,1-Dichloroethane	31	140	120	590
cis-1,2-Dichloroethene	31	390	120	1600
1,1,1-Trichloroethane	31	500	170	2700
Trichloroethene	31	4900	160	26000
Tetrachloroethene	31	43	210	290
trans-1,2-Dichloroethene	31	Not Detected	120	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	115	70-130

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Client Sample ID: EN0411D080515

Lab ID#: 1508148-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081707**	**Date of Collection: 8/5/15 9:11:00 AM**	
Dil. Factor:	**1.56**	**Date of Analysis: 8/17/15 01:02 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	6.0	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.78	0.92	3.1	3.6
1,1,1-Trichloroethane	0.78	6.2	4.2	34
Trichloroethene	0.78	140	4.2	730
Tetrachloroethene	0.78	4.3	5.3	29
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	115	70-130

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Client Sample ID: EN0411S080515

Lab ID#: 1508148-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081708**	**Date of Collection:**	**8/5/15 10:15:00 AM**
Dil. Factor:	**1.77**	**Date of Analysis:**	**8/17/15 01:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.88	Not Detected	2.3	Not Detected
Chloroethane	3.5	Not Detected	9.3	Not Detected
1,1-Dichloroethene	0.88	Not Detected	3.5	Not Detected
Freon 113	0.88	Not Detected	6.8	Not Detected
Methylene Chloride	8.8	Not Detected	31	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.88	0.95	4.8	5.2
Trichloroethene	0.88	11	4.8	61
Tetrachloroethene	0.88	1.0	6.0	7.1
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	117	70-130

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Client Sample ID: EN0412D080515

Lab ID#: 1508148-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081709**	**Date of Collection: 8/5/15 9:57:00 AM**	
Dil. Factor:	**1.43**	**Date of Analysis: 8/17/15 02:10 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.72	Not Detected	1.8	Not Detected
Chloroethane	2.9	Not Detected	7.5	Not Detected
1,1-Dichloroethene	0.72	Not Detected	2.8	Not Detected
Freon 113	0.72	Not Detected	5.5	Not Detected
Methylene Chloride	7.2	Not Detected	25	Not Detected
1,1-Dichloroethane	0.72	Not Detected	2.9	Not Detected
cis-1,2-Dichloroethene	0.72	Not Detected	2.8	Not Detected
1,1,1-Trichloroethane	0.72	2.6	3.9	14
Trichloroethene	0.72	93	3.8	500
Tetrachloroethene	0.72	Not Detected	4.8	Not Detected
trans-1,2-Dichloroethene	0.72	Not Detected	2.8	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	109	70-130

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Client Sample ID: EN0412S080515

Lab ID#: 1508148-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081710**	**Date of Collection: 8/5/15 10:57:00 AM**	
Dil. Factor:	**1.45**	**Date of Analysis: 8/17/15 02:36 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.72	Not Detected	1.8	Not Detected
Chloroethane	2.9	Not Detected	7.6	Not Detected
1,1-Dichloroethene	0.72	Not Detected	2.9	Not Detected
Freon 113	0.72	Not Detected	5.6	Not Detected
Methylene Chloride	7.2	Not Detected	25	Not Detected
1,1-Dichloroethane	0.72	Not Detected	2.9	Not Detected
cis-1,2-Dichloroethene	0.72	Not Detected	2.9	Not Detected
1,1,1-Trichloroethane	0.72	2.8	4.0	15
Trichloroethene	0.72	84	3.9	450
Tetrachloroethene	0.72	Not Detected	4.9	Not Detected
trans-1,2-Dichloroethene	0.72	Not Detected	2.9	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	116	70-130

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Client Sample ID: EN0413D080415

Lab ID#: 1508148-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081711**	**Date of Collection: 8/4/15 3:56:00 PM**	
Dil. Factor:	**1.76**	**Date of Analysis: 8/17/15 03:09 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.88	Not Detected	2.2	Not Detected
Chloroethane	3.5	Not Detected	9.3	Not Detected
1,1-Dichloroethene	0.88	Not Detected	3.5	Not Detected
Freon 113	0.88	Not Detected	6.7	Not Detected
Methylene Chloride	8.8	Not Detected	30	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.88	1.6	4.8	8.6
Trichloroethene	0.88	15	4.7	81
Tetrachloroethene	0.88	Not Detected	6.0	Not Detected
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	115	70-130

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Client Sample ID: EN0413S080415

Lab ID#: 1508148-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081712**	**Date of Collection: 8/4/15 2:48:00 PM**	
Dil. Factor:	**1.55**	**Date of Analysis: 8/17/15 03:51 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	5.9	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	2.1	4.2	12
Trichloroethene	0.78	21	4.2	120
Tetrachloroethene	0.78	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: EN0414D080415

Lab ID#: 1508148-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081713**	**Date of Collection: 8/4/15 3:12:00 PM**	
Dil. Factor:	**1.51**	**Date of Analysis: 8/17/15 04:17 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	0.80	4.1	4.4
Trichloroethene	0.76	18	4.0	99
Tetrachloroethene	0.76	Not Detected	5.1	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: EN0414S080415

Lab ID#: 1508148-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081714**	**Date of Collection: 8/4/15 3:16:00 PM**	
Dil. Factor:	**1.45**	**Date of Analysis: 8/17/15 04:45 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.72	Not Detected	1.8	Not Detected
Chloroethane	2.9	Not Detected	7.6	Not Detected
1,1-Dichloroethene	0.72	Not Detected	2.9	Not Detected
Freon 113	0.72	Not Detected	5.6	Not Detected
Methylene Chloride	7.2	Not Detected	25	Not Detected
1,1-Dichloroethane	0.72	Not Detected	2.9	Not Detected
cis-1,2-Dichloroethene	0.72	Not Detected	2.9	Not Detected
1,1,1-Trichloroethane	0.72	Not Detected	4.0	Not Detected
Trichloroethene	0.72	2.3	3.9	12
Tetrachloroethene	0.72	Not Detected	4.9	Not Detected
trans-1,2-Dichloroethene	0.72	Not Detected	2.9	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	115	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1508148-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081405**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/15 01:47 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1508148-21B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 11:01 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	109	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1508148-21C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081806**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/18/15 02:18 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: CCV

Lab ID#: 1508148-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/15 11:31 AM**	

Compound	%Recovery
Vinyl Chloride	90
Chloroethane	91
1,1-Dichloroethene	90
Freon 113	97
Methylene Chloride	92
1,1-Dichloroethane	91
cis-1,2-Dichloroethene	88
1,1,1-Trichloroethane	86
Trichloroethene	92
Tetrachloroethene	100
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	112	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1508148-22B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 08:53 AM**	

Compound	%Recovery
Vinyl Chloride	93
Chloroethane	94
1,1-Dichloroethene	92
Freon 113	99
Methylene Chloride	92
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	88
1,1,1-Trichloroethane	88
Trichloroethene	92
Tetrachloroethene	102
trans-1,2-Dichloroethene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	111	70-130

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Client Sample ID: CCV

Lab ID#: 1508148-22C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081805**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/18/15 01:32 PM**	

Compound	%Recovery
Vinyl Chloride	86
Chloroethane	91
1,1-Dichloroethene	89
Freon 113	94
Methylene Chloride	85
1,1-Dichloroethane	83
cis-1,2-Dichloroethene	83
1,1,1-Trichloroethane	85
Trichloroethene	89
Tetrachloroethene	98
trans-1,2-Dichloroethene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	114	70-130

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Client Sample ID: LCS

Lab ID#: 1508148-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/15 12:08 PM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	86	70-130
Chloroethane	86	70-130
1,1-Dichloroethene	86	70-130
Freon 113	90	70-130
Methylene Chloride	84	70-130
1,1-Dichloroethane	93	70-130
cis-1,2-Dichloroethene	97	70-130
1,1,1-Trichloroethane	81	70-130
Trichloroethene	92	70-130
Tetrachloroethene	101	70-130
trans-1,2-Dichloroethene	76	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	115	70-130

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Client Sample ID: LCSD

Lab ID#: 1508148-23AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/15 12:33 PM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	92	70-130
Chloroethane	94	70-130
1,1-Dichloroethene	92	70-130
Freon 113	100	70-130
Methylene Chloride	92	70-130
1,1-Dichloroethane	91	70-130
cis-1,2-Dichloroethene	108	70-130
1,1,1-Trichloroethane	107	70-130
Trichloroethene	89	70-130
Tetrachloroethene	106	70-130
trans-1,2-Dichloroethene	92	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	114	70-130

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Client Sample ID: LCS

Lab ID#: 1508148-23B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 09:31 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	94	70-130
Chloroethane	98	70-130
1,1-Dichloroethene	96	70-130
Freon 113	101	70-130
Methylene Chloride	94	70-130
1,1-Dichloroethane	89	70-130
cis-1,2-Dichloroethene	98	70-130
1,1,1-Trichloroethane	90	70-130
Trichloroethene	93	70-130
Tetrachloroethene	102	70-130
trans-1,2-Dichloroethene	88	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	112	70-130

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Client Sample ID: LCSD

Lab ID#: 1508148-23BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/17/15 09:56 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	95	70-130
Chloroethane	98	70-130
1,1-Dichloroethene	94	70-130
Freon 113	102	70-130
Methylene Chloride	96	70-130
1,1-Dichloroethane	91	70-130
cis-1,2-Dichloroethene	99	70-130
1,1,1-Trichloroethane	92	70-130
Trichloroethene	92	70-130
Tetrachloroethene	100	70-130
trans-1,2-Dichloroethene	87	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	115	70-130

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Client Sample ID: LCS

Lab ID#: 1508148-23C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/18/15 12:19 PM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	91	70-130
Chloroethane	96	70-130
1,1-Dichloroethene	91	70-130
Freon 113	96	70-130
Methylene Chloride	90	70-130
1,1-Dichloroethane	87	70-130
cis-1,2-Dichloroethene	94	70-130
1,1,1-Trichloroethane	88	70-130
Trichloroethene	91	70-130
Tetrachloroethene	101	70-130
trans-1,2-Dichloroethene	81	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	112	70-130

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Client Sample ID: LCSD

Lab ID#: 1508148-23CC

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a081804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/18/15 12:54 PM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	96	70-130
Chloroethane	92	70-130
1,1-Dichloroethene	90	70-130
Freon 113	98	70-130
Methylene Chloride	92	70-130
1,1-Dichloroethane	87	70-130
cis-1,2-Dichloroethene	94	70-130
1,1,1-Trichloroethane	89	70-130
Trichloroethene	93	70-130
Tetrachloroethene	103	70-130
trans-1,2-Dichloroethene	83	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	116	70-130

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10/16/2015
Ms. Erica Bosse
Sanborn, Head & Associates
24 Wade Road

Latham NY

Project Name: GVP
Project #: 3304.01
Workorder #: 1510112

Dear Ms. Erica Bosse

The following report includes the data for the above referenced project for sample(s) received on 10/5/2015 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

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WORK ORDER #: 1510112

Work Order Summary

CLIENT:	Ms. Erica Bosse Sanborn, Head & Associates 24 Wade Road Latham, NY	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	518-207-0769	**P.O. #**	3304.01EMB
FAX:		**PROJECT #**	3304.01 GVP
DATE RECEIVED:	10/05/2015	**CONTACT:**	Ausha Scott
DATE COMPLETED:	10/16/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	EN1041D100115	TO-15	2.4 "Hg	4.9 psi
02A	EN0431S100115	TO-15	3.5 "Hg	4.9 psi
02AA	EN0431S100115 Lab Duplicate	TO-15	3.5 "Hg	4.9 psi
03A	Lab Blank	TO-15	NA	NA
04A	CCV	TO-15	NA	NA
05A	LCS	TO-15	NA	NA
05AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 10/16/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 956
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1510112

Two 1 Liter Summa Canister samples were received on October 05, 2015. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN1041D100115

Lab ID#: 1510112-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.72	1.7	3.9	9.0
Tetrachloroethene	0.72	4.7	4.9	32

Client Sample ID: EN0431S100115

Lab ID#: 1510112-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.76	0.83	3.0	3.3

Client Sample ID: EN0431S100115 Lab Duplicate

Lab ID#: 1510112-02AA

No Detections Were Found.

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Client Sample ID: EN1041D100115

Lab ID#: 1510112-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p100808**	**Date of Collection: 10/1/15 2:20:00 PM**	
Dil. Factor:	**1.45**	**Date of Analysis: 10/8/15 03:44 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.72	Not Detected	1.8	Not Detected
Chloroethane	2.9	Not Detected	7.6	Not Detected
1,1-Dichloroethene	0.72	Not Detected	2.9	Not Detected
Freon 113	0.72	Not Detected	5.6	Not Detected
Methylene Chloride	7.2	Not Detected	25	Not Detected
1,1-Dichloroethane	0.72	Not Detected	2.9	Not Detected
cis-1,2-Dichloroethene	0.72	Not Detected	2.9	Not Detected
1,1,1-Trichloroethane	0.72	Not Detected	4.0	Not Detected
Trichloroethene	0.72	1.7	3.9	9.0
Tetrachloroethene	0.72	4.7	4.9	32
trans-1,2-Dichloroethene	0.72	Not Detected	2.9	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: EN0431S100115

Lab ID#: 1510112-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p100807**	**Date of Collection: 10/1/15 3:30:00 PM**	
Dil. Factor:	**1.51**	**Date of Analysis: 10/8/15 03:06 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.76	0.83	3.0	3.3
1,1,1-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Trichloroethene	0.76	Not Detected	4.0	Not Detected
Tetrachloroethene	0.76	Not Detected	5.1	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: EN0431S100115 Lab Duplicate

Lab ID#: 1510112-02AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p100816**	**Date of Collection: 10/1/15 3:30:00 PM**	
Dil. Factor:	**1.51**	**Date of Analysis: 10/8/15 08:04 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Trichloroethene	0.76	Not Detected	4.0	Not Detected
Tetrachloroethene	0.76	Not Detected	5.1	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1510112-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p100806**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/8/15 01:17 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: CCV

Lab ID#: 1510112-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p100803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/8/15 10:26 AM**	

Compound	**%Recovery**
Vinyl Chloride	97
Chloroethane	116
1,1-Dichloroethene	100
Freon 113	93
Methylene Chloride	95
1,1-Dichloroethane	102
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	96
Trichloroethene	91
Tetrachloroethene	95
trans-1,2-Dichloroethene	106

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: LCS

Lab ID#: 1510112-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p100804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/8/15 11:03 AM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	102	70-130
Chloroethane	107	70-130
1,1-Dichloroethene	100	70-130
Freon 113	92	70-130
Methylene Chloride	100	70-130
1,1-Dichloroethane	104	70-130
cis-1,2-Dichloroethene	112	70-130
1,1,1-Trichloroethane	97	70-130
Trichloroethene	95	70-130
Tetrachloroethene	90	70-130
trans-1,2-Dichloroethene	93	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: LCSD

Lab ID#: 1510112-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p100805**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 10/8/15 12:09 PM**	

Compound	%Recovery	Method Limits
Vinyl Chloride	101	70-130
Chloroethane	115	70-130
1,1-Dichloroethene	103	70-130
Freon 113	96	70-130
Methylene Chloride	93	70-130
1,1-Dichloroethane	101	70-130
cis-1,2-Dichloroethene	112	70-130
1,1,1-Trichloroethane	100	70-130
Trichloroethene	91	70-130
Tetrachloroethene	97	70-130
trans-1,2-Dichloroethene	95	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130