



8976 Wellington Road
Manassas, VA 20109

June 10, 2010

Robert C. Knizek, P.E.
Director, Remedial Bureau E
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7013

Re: Transmittal of Annual Report – Soil Vapor Monitoring Through April 2010
Comprehensive Operations, Maintenance and Monitoring Program
Order on Consent Index # A7-0502-0104, Site # 704014

Dear Mr. Knizek:

Enclosed with this transmittal letter please find our Annual Soil Vapor Monitoring 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) 257-1606.

Sincerely,

M. E. Meyers

Mitchell E. Meyers
Program Manager

cc: K. Lynch, NYSDEC Region 7
D. Tuohy, NYSDEC - Albany
G. Litwin, NYSDOH – Troy
R. Denz, Broome County Health Department



SANBORN, HEAD & ASSOCIATES, INC.



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June 10, 2010

File No. 2755.04

Mr. Mitchell E. Meyers
IBM Corporate Environmental Affairs
8976 Wellington Road
Manassas, Virginia 20110

Re: Annual Report
Soil Vapor Monitoring Through April 2010
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

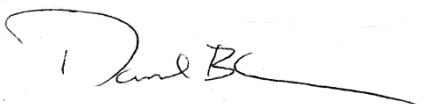
Dear Mr. Meyers:

We have enclosed our report summarizing soil vapor monitoring conducted in the Village of Endicott and the Town of Union, New York, through April 2010. 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 Vice President



Erica M. Bradstreet
Senior Project Geologist



SANBORN, HEAD & ASSOCIATES, INC.

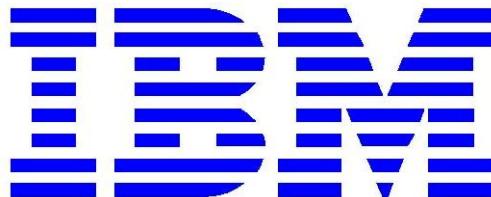
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**ANNUAL REPORT
SOIL VAPOR MONITORING THROUGH APRIL 2010
Comprehensive Operations, Maintenance & Monitoring Program
Endicott, NY**

Prepared for
IBM Corporate Environmental Affairs



Prepared by
Sanborn, Head & Associates, Inc.

File 2755.04
June 2010

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1.0 INTRODUCTION

This Annual Report for the Endicott Soil Vapor Monitoring Program (Annual Report) summarizes the findings of routine soil vapor monitoring program completed through April 2010 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 ventilation systems to address potential for vapors to enter human occupied structures (vapor intrusion potential).

Sanborn Head & Associates, Inc. (SHA) 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. SHA'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. The ventilation limits were established based on concurrent sampling of indoor air, substructure soil vapor, and ambient air at representative properties in the first four months of 2003 and 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. Other compounds including 1,1,1-Trichloroethane (TCA), tetrachloroethene (PCE) and their biochemical breakdown products are also found in this area, but at lower frequencies of detection and generally at lower concentrations.

Collection, field screening, and laboratory analysis of soil vapor samples was conducted on a monthly basis for fifteen consecutive months from August 2004 to October 2005 and has been conducted bi-monthly since that time. The scope of the present sampling program is summarized in Table B.1 in Appendix B. Soil gas samples are collected from permanent installations, referred to as "implants" which are located within and along the periphery of the ventilation areas. The samples are screened in the field for oxygen, carbon dioxide, and methane and are submitted for laboratory analysis for the principal VOCs that drove ventilation decisions. The implant locations are shown on Figure 1, relative to the ventilation areas and the nearby monitoring, extraction, and injection wells.

Where the depth to water table was sufficient, the implants include one installed proximate to the water table observed at the time of installation (water table depth), and one installed at a depth of 7 to 8 feet below ground surface (bgs) which is roughly equivalent to foundation depth for structures with basements (foundation depth).

Data from the water table depth implants were intended for use as a primary indicator of soil vapor concentration trends, driven primarily by changes in groundwater levels and quality. The data from foundation depth implants have been used to assess possible trends in soil vapor concentrations that may indicate changes in vapor intrusion potential. In some locations where the water table is relatively deep, intermediate depth implants were also installed and have been monitored. The implant completion details are summarized in Table B.1.

1.2 Scope of Work

Since submittal of the last Report¹, routine bi-monthly soil vapor monitoring has been conducted in December 2009, February 2010, and April 2010 in accordance with the program outlined in that report.

With the start of groundwater injection, the frequency of monitoring of EN04-1, EN04-3, EN04-31, and EN04-32 was voluntarily increased from bi-annually to bi-monthly in 2009. Sampling of EN04-30 was conducted monthly from December 2009 to April 2010.

In December 2009 and February 2010, samples were collected from monitoring installations maintained at 19 and 37 locations, respectively, including two locations associated with the Former Ideal Cleaners site (OU#4)². In April 2010, samples were collected from 14 locations.

As noted in sections to follow, during May 2010 new water table depth implants were installed at EN10-11 and EN10-17 by Groundwater Sciences Corporation (GSC) personnel as a part of executing soil profiling work at these locations. The new installations were performance tested by Sanborn Head personnel to verify functionality and will be included as a part of routine sampling to be conducted in June and August 2010. The completion information is included in Table B.1 in Appendix B.

The data was tabulated and reviewed and used to prepare graphical summaries depicting groundwater and soil vapor data for TCE as presented in Appendix B.3 as Figures B.1 through B.37. A tabular summary of soil vapor data recorded during the last 12 months is provided on compact disc in Appendix C.

¹ Sanborn, Head & Associates, Inc., December 10, 2009, Semiannual Report, Soil Vapor Monitoring Through October 2009.

² In August 2008, IBM installed two vapor implants at OU#4 as part of a remediation pilot study. Full scale remediation was initiated in September 2009, when an additional soil vapor implant was installed. The locations of the points designated EN08-39S and EN09-40S are shown on Figure 1. The initial round of sampling was completed in late September 2009. Since that time, the sampling was conducted bi-weekly until early April 2010.

1.3 Climatic Conditions and Groundwater Levels during the Monitoring Period

The soil vapor 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 Climactic Conditions

Figure 2 depicts the deviation from average monthly precipitation through April 2010 as a context for the soil vapor monitoring program. As shown by the plot of cumulative deviation from average precipitation, wetter than average conditions have been recorded from late 2003, after the ventilation limits had largely been established. Since then, average monthly precipitation has been both above and below normal. Through April 2010, the cumulative deviation from monthly average precipitation is about 28 inches. A discussion of weather conditions during sampling events is included in Appendix B.1.

1.3.2 Groundwater Levels

Since June 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 water quality within the soil vapor monitoring area. The extraction wells are centered on the largest contiguous ventilation area north of East Main Street and south of North Street and their operation has lowered groundwater levels, substantially dewatering much of the water bearing zone.

In November 2008, IBM initiated re-injection of treated groundwater and potable water via engineered injection well EN-510T, located west and upgradient of the largest contiguous ventilation area along Monroe Street as shown on Figure 1. In May 2009 injection was initiated at EN-92P which is adjacent to vapor monitoring point EN04-30 and at EN-78T in November 2009. During the first six months of injection at EN-92P, water levels increased 6.7 feet proximate to soil vapor implant EN04-30 and almost two feet near EN04-2.

Figure 1 depicts groundwater table elevation contours and dewatered “dry” areas as depicted by Groundwater Sciences Corporation (GSC) based on data recorded in early November 2009³. The figure depicts average rates of groundwater extraction and injection based on data reported by GSC for the month of November 2009, which suggests there is on the order of 275 and 213 gallons per minute (gpm) total extraction and injection, respectively, within or adjacent to the largest ventilation area. These total rates are equivalent to about 144 and 112 million gallons annually. As GSC asserts, since 2004 the in-place volume of groundwater beneath the plume area has decreased from about 135 MG to 95 MG⁴. The rates of extraction and injection are considerable and consistent with a substantial remediation effort with annual withdrawals and

³ Groundwater Sciences Corporation (GSC), April 14, 2010, Combined Groundwater Report for 2009, Endicott, New York. Plate 4-3, Groundwater Elevation Contour Map Upper Aquifer Water Table –November 10, 2009, received electronically May 5, 2010.

⁴ GSC, April 14, 2010 Report, page 58 as referenced above, for estimates derived for data from August 2009.

injection on the same order of estimated in-place hydraulic volumes. For additional discussion regarding groundwater level and quality trends, the reader is referred to the GSC report.

2.0 DATA AND FINDINGS

Overall, the data from sampling of soil vapor monitoring points continue to support the geographic limits of ventilation as protective. As discussed further in Section 2.2, soil vapor concentrations at foundation depth near and within the limits of ventilation have generally declined, or have not materially increased, at the majority of monitoring locations since the limits of ventilation were established.

2.1 Overall Trends in Groundwater Quality

In their April 14, 2010 report GSC indicated that their analysis of progress in reducing the mass of TCE in groundwater supported that the volumetric weighted average TCE concentration in groundwater has been reduced from about 80 to 30 micrograms per liter ($\mu\text{g}/\text{L}$), or by about 60% on the average or just over $\frac{1}{2}$ order of magnitude (see footnote 4). The data recorded for monitoring wells near soil vapor implant locations support GSC's findings.

Groundwater quality data compiled by GSC have been posted on graphical time-series plots prepared for IBM by Conestoga Rovers Associates (CRA) and are included as Appendix B.3. A visual review of these plots suggests that TCE concentrations have declined or did not materially change in groundwater proximate to 34 of the 37 monitoring locations⁵. At three of the soil vapor monitoring locations the adjacent well is dry and could not be sampled. For additional presentation of groundwater quality trends, please refer to GSC's April 14, 2010 report.

Appendix B.6 contains a summary of data recorded for water samples collected as a special sampling event as requested by NYSDEC in a letter approving the Semiannual Soil Vapor Monitoring report,⁶ which requested performance of "a snapshot" groundwater sampling in monitoring wells EN-449 and EN-401, if possible. According to GSC, EN-401 was found to be dry and could not be sampled. Sampling was conducted by GSC in EN-438 (proximate to EN04-30) and EN-449 (proximate to EN04-13) using strings of passive diffusion bag (PDB) samplers to assess for water quality stratification. TCE was not detected in PDB samples from any depth in EN-438 and was detected at about 100 $\mu\text{g}/\text{L}$; similar to concentrations observed via conventional purged sampling.

⁵ In general, the plots indicate about one-half order of magnitude variation in TCE concentration in groundwater samples. Five locations exhibit at least $\frac{1}{2}$ order of magnitude decline and four locations exhibit at least 1 order of magnitude decline in TCE concentrations. Locations exhibiting at least $\frac{1}{2}$ order of magnitude decline in groundwater TCE concentrations include EN04-3, EN04-5, EN04-11, EN04-16, and EN04-29 while at least an order of magnitude decline has been observed in data from monitoring wells near EN04-2, EN04-8, EN04-9, and EN04-30.

⁶ NYSDEC, Letter to Mitchell E. Meyers Re: Soil Vapor Monitoring Program, received by IBM on December 23, 2009. The letter approved the December 10, 2009 Semi-Annual Soil Vapor Monitoring report and requested certain additional groundwater and soil vapor sampling.

2.2 Overall Trends in Soil Vapor Concentrations

Plan view graphics prepared to aid in communicating TCE soil vapor concentrations are included in the report as Figure 3. Figures 3A and 3B were generated based on the arithmetic average of TCE data recorded during the first heating season after vapor implants were installed (November 2004 through April 2005) and averages for data recorded in the last heating season (November 2009 through April 2010). Accordingly, the images depict data from sampling from both foundation depth and water table depth, about five years apart. The images support an overall lower concentration presence of TCE in vapor both at foundation depth and the water table depth implants 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 many locations both near and away from areas of increased groundwater withdrawal as compared with 2004 and TCE was not detected at foundation depth at sixteen locations;
- The majority of foundation depth data on Figure 3A exhibit TCE vapor concentrations the same order of magnitude but marginally higher when compared against the prior heating season (2008/2009) as reported in the last Annual Report; and
- In comparison, the TCE data recorded in sampling of water table depth implants as shown on Figure 3B generally indicates lower concentrations when compared against those depicted in the last Annual Report.

In their letter approving Sanborn Head's December 2009 Semiannual Report, NYSDEC requested monthly vapor sampling at EN04-30 in the interest in understanding vapor concentrations after June 2009 when groundwater injection began at nearby injection well EN-92P. The soil vapor monitoring point is located a few feet away from the injection point and nearby monitoring wells.

As shown by Exhibit A below, since beginning injection the available data indicates over two orders magnitude lower concentration of TCE in groundwater, but has not shown an associated response in vapor concentrations. SHA has been conducting monthly sampling at EN04-30 since December 2009 to more closely track concentrations following startup of injection.

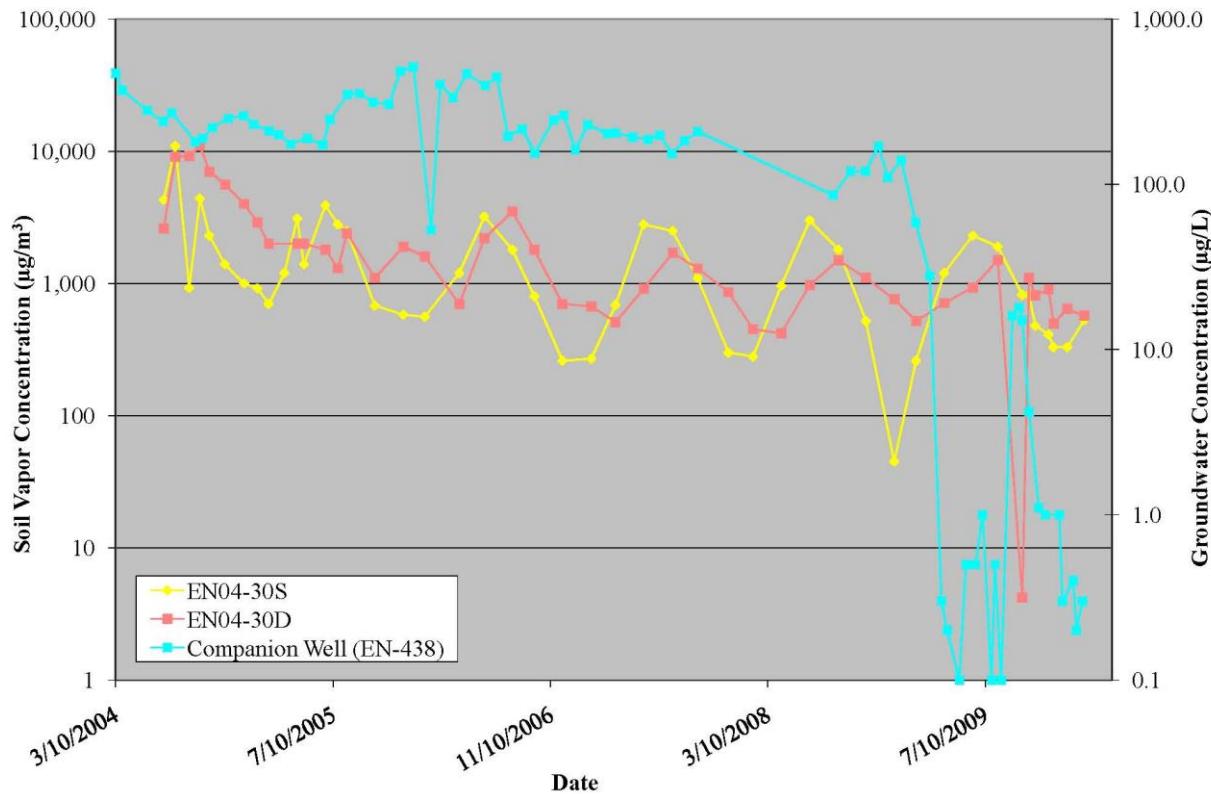


Exhibit A – Soil Vapor Data from location EN04-30

The data recorded in monitoring of EN04-30 indicate continued seasonal cyclic patterns in vapor concentrations, and little apparent response that can be readily correlated with beginning injection of clean water in nearby well EN-92P. In reviewing these data it should be noted that:

- Since about 2006, TCE vapor concentrations in samples from both depths have fluctuated above and below 1,000 $\mu\text{g}/\text{m}^3$. At equilibrium partitioning this concentration would be equivalent to about 3 $\mu\text{g}/\text{L}$ in soil moisture;
- Past soil profiling have documented the presence of TCE mass in vadose zone soils at concentrations generally below 10 micrograms per kilogram of soil on a dry weight basis ($\mu\text{g}/\text{kg}$) that can be expected to reflect mass in soil moisture and sorbed to the soil solids;
- Water quality data recorded for GSC sampling of the proximal monitoring points about 80 to 320 feet away from the injection point in November 2009, about 4 months after beginning injection indicated concentrations of TCE ranging from 14 to 83 $\mu\text{g}/\text{L}$, consistent with vapor source concentrations on the order of thousands to tens of thousands of $\mu\text{g}/\text{m}^3$ assuming theoretical equilibrium partitioning; and
- The area of this implant is covered by large expanses of paved parking.

In consideration of these factors, we believe that the vapor concentrations recorded in sampling of EN04-30 may reflect lateral transport in vapor phase which may be influenced by the paved surface covering, and the possible influence of residual TCE mass in aqueous and sorbed phases within the vadose zone. Additional soil profiling work is underway by GSC. In the interim, we recommend continued monitoring of this location at a quarterly frequency as an opportunity to observe vapor concentration trends.

Data recorded in sampling of soil vapor at the two soil vapor implants in the OU#4 area are summarized in a memorandum report included as Appendix B.4.

2.3 Quality Assurance/Quality Control

The following is a summary of Quality Assurance/Quality Control (QA/QC) measures taken in accordance with Project Data Quality Objectives (DQO). QA/QC measures include field screening of soil vapor samples, and laboratory measures for 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.

As part of routine ongoing QA/QC the analytical results were reviewed after each sampling round for anomalies or outliers. Locations where sampling results appeared to be inconsistent with prior results and perhaps indicative of sampling variability were resampled during the next several scheduled sampling rounds. EN04-13 and EN04-14 were sampled in December 2009 and April 2010, respectively, following abnormally low TCE detections in samples from water table depth collected in August 2009 and February 2010. The laboratory results for TCE during the subsequent resampling of EN04-13D and EN04-14D were more in keeping with the historical pattern of concentration trends.

In their December 2009 letter, NYSDEC requested the leak detection tracer testing during subsequent sampling two implants (EN04-13D and EN04-17D), which had exhibited “an unusually large decline” in TCE concentrations since 2004 along with higher concentrations in the shallow implant, or “inverted concentration profile.” No tracer gas was detected during the testing of those implants concurrent with sampling in February 2010, which employed field instruments with lower limit of detection on the order of 25 parts per million on a volumetric basis, or about 0.0025% by volume. For a more detailed discussion of tracer testing procedures, refer to Appendix B.1. EN04-13 was also sampled in April 2010 to provide data for the ongoing investigation of this implant.

As discussed during a June 2, 2010 telephone conversation:

- Both implant locations are in areas with less impervious surface covering that may be more conducive to infiltration and less likely to cap vapor transport;
- Both of the implant locations have been subject of leak detection tracer testing on roughly an annual basis and have not shown evidence of leakage;

- Although there has been some variability in O₂ and CO₂ field screening, there is no readily apparent relationship that indicated leakage of atmospheric air in the sampling process;
- In both cases, the observed soil vapor concentrations for TCE are consistent with what might be expected in equilibrium with a few 10s of µg/L in soil pore water; and
- Past soil profiling conducted by GSC near EN04-17 has indicated concentrations in the 10s to 1s of µg/kg on a dry weight basis across the vadose zone. An additional implant has been installed closer to the present water table depth.

On the basis of the information obtained and reviewed as outlined above, we believe that the observed vapor concentrations could be reflective of variable transport processes and phase partitioning that may be influenced by infiltration and moisture cycling through vadose zone.

We will continue to conduct leak detection tracer testing on an annual basis. The next event where this will be conducted will be in August 2010.

3.0 CONCLUSIONS AND RECOMMENDATIONS

IBM has successfully implemented a program of soil vapor monitoring for over six years since substantial 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 is out of proportion to improvements in groundwater quality that we believe is attributable to both natural processes and IBM's groundwater remediation efforts.

In accordance with recent discussions, we recommend that the frequency of monitoring be modified from bi-monthly or six times per year to quarterly, or four times per year. We believe that a sufficient base of data has been collected to document temporal and spatial variability. We propose to alter the scope of monitoring following the June 2010 sampling event. We propose that new implants EN10-11D and EN10-17D be included in the June 2010 and August 2010 sampling events. Following receipt and review of the two rounds of monitoring data and data from soil profiling work, we will provide a recommendation whether to continue sampling these implants as a part of the routine monitoring program.

As outlined in Appendix D, the scope of sampling to be conducted in August and February will include all active locations sampling from foundation and near water table depth, consistent with the program implemented in the last two years. The data from these two events will be used to support preparation of plan view graphics similar to Figures 3A and 3B to be included in semiannual and annual reporting. Sampling conducted in the two other events is proposed to include eight representative locations that we have found to be generally representative of temporal trends. We will continue to report data on a semiannual and annual basis.

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", "Unioneast.dwg", and "Endicottpln.dwg". The drawings were provided by the Broome County mapping division and were received by SHA 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 SHA in September 2003. The locations of groundwater monitoring and recovery wells are based on an AutoCAD drawing by GSC submitted to SHA on 05/17/2004 entitled "2007K006.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 SHA on 09/21/2004.

3. Groundwater contours, flow directions, flow divides, groundwater monitoring and extraction wells, and "dry" areas were adopted from a drawing by GSC transmitted to SHA on 5/10/2010 entitled 2007K306_toSHA.dwg. The contours represent inferred groundwater elevations based on groundwater measurements from November 10, 2009.

4. 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.

5. Posted extraction / injection rates are based on November 2009 volumes summarized in Appendix A (Extraction Well Pumping Volumes and VOC Mass Removal Data 1/1/09- 12/31/09) of Groundwater Sciences Corporation Endicott Combined Groundwater Report for 2009, Endicott, New York. Rates were calculated assuming steady withdrawl throughout November 2009.

LEGEND

- Limits of Ventilation
- Mailing address, arrow indicates facing street
- Soil Vapor Monitoring Location – Perimeter Monitoring
- Soil Vapor Monitoring Location – Remediation Progress Monitoring
- Soil Vapor Monitoring Location – OU# 4
- Proposed Soil Gas Monitoring Implant

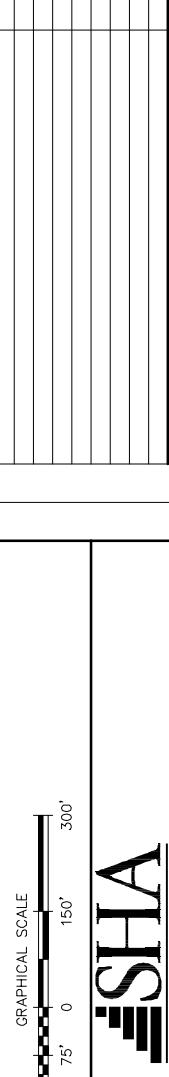
■ EN-430
★ EN-428
▼ EN-510T

Upper Aquifer Monitoring Well
 Upper Aquifer Interceptor Extraction Well
 Upper Aquifer Injection Well

20 2.1 11
 Extraction/Injection November 2009 Rates (gpm), injection rates are negative
 Groundwater Elevation Contour (Feet AMSL)

— 100
 Inferred direction of groundwater flow
 Area of unsaturated soil in the upper aquifer

Groundwater Divide



Annual Report – Soil Vapor Monitoring through April 2010
 Comprehensive Operations, Maintenance & Monitoring Program
 Endicott, New York

Soil Vapor Implant Location Plan

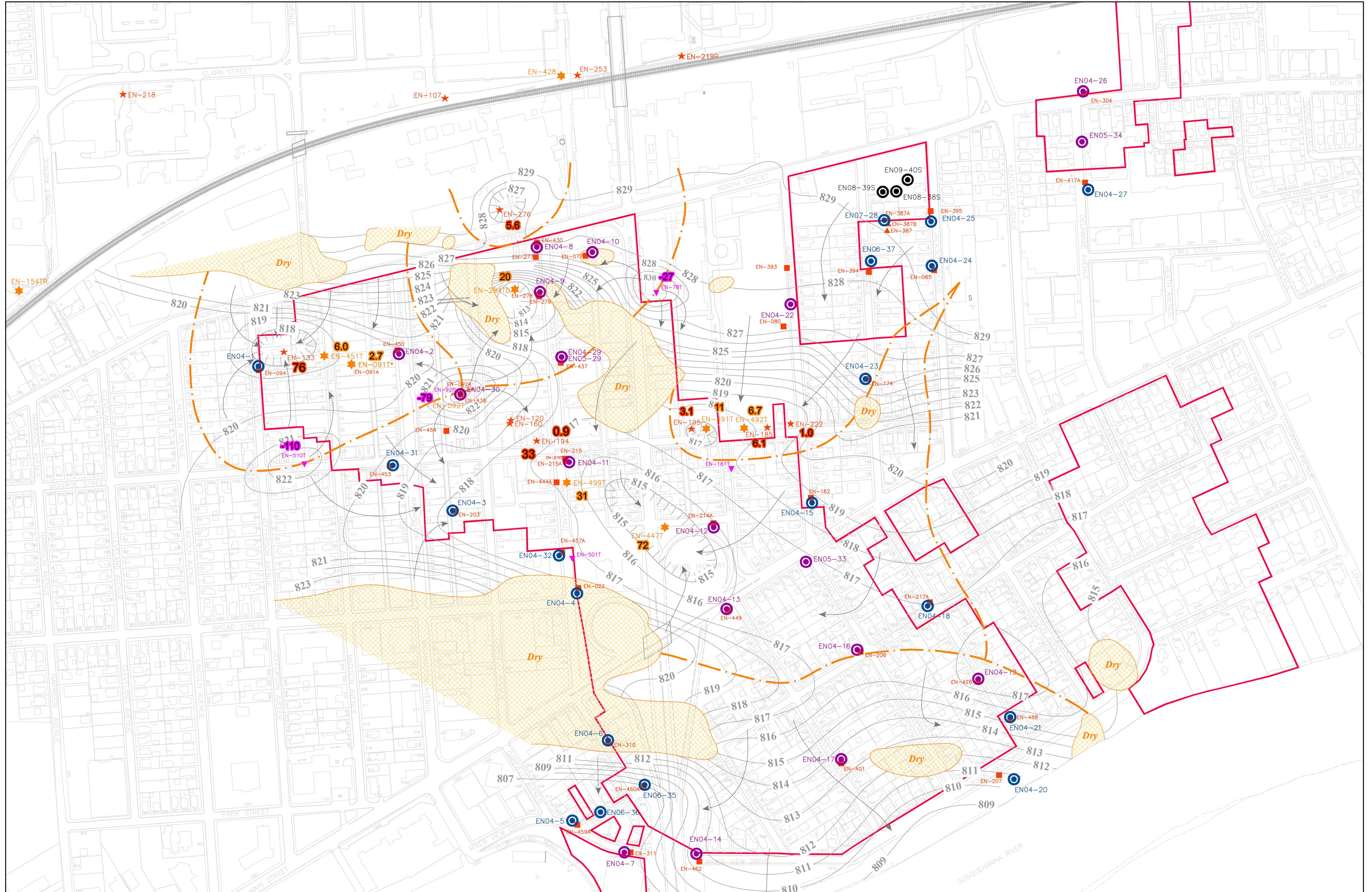
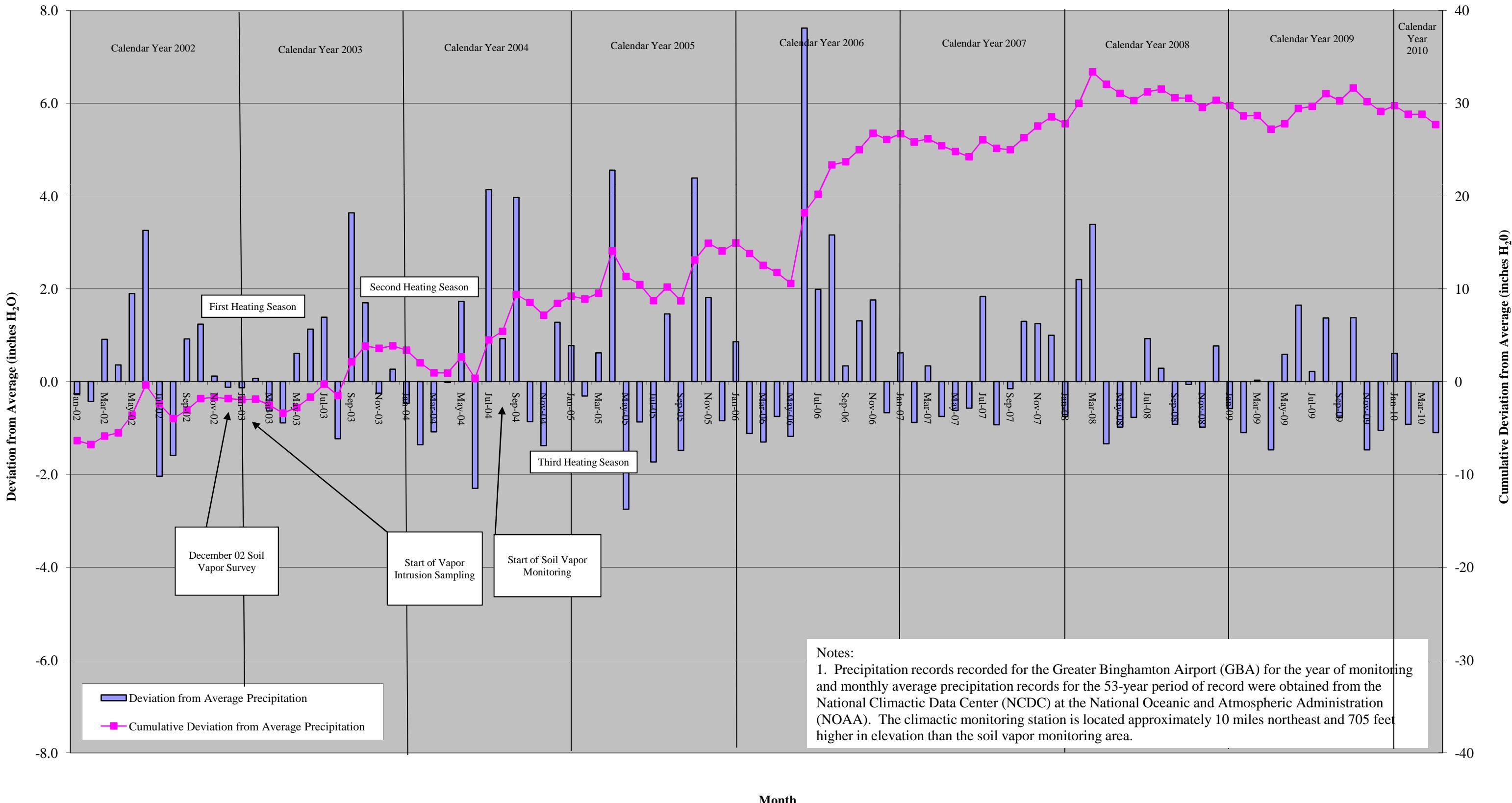


Figure 2
Historical Precipitation Records

Annual Report - Soil Vapor Monitoring through April 2010
 Endicott, New York



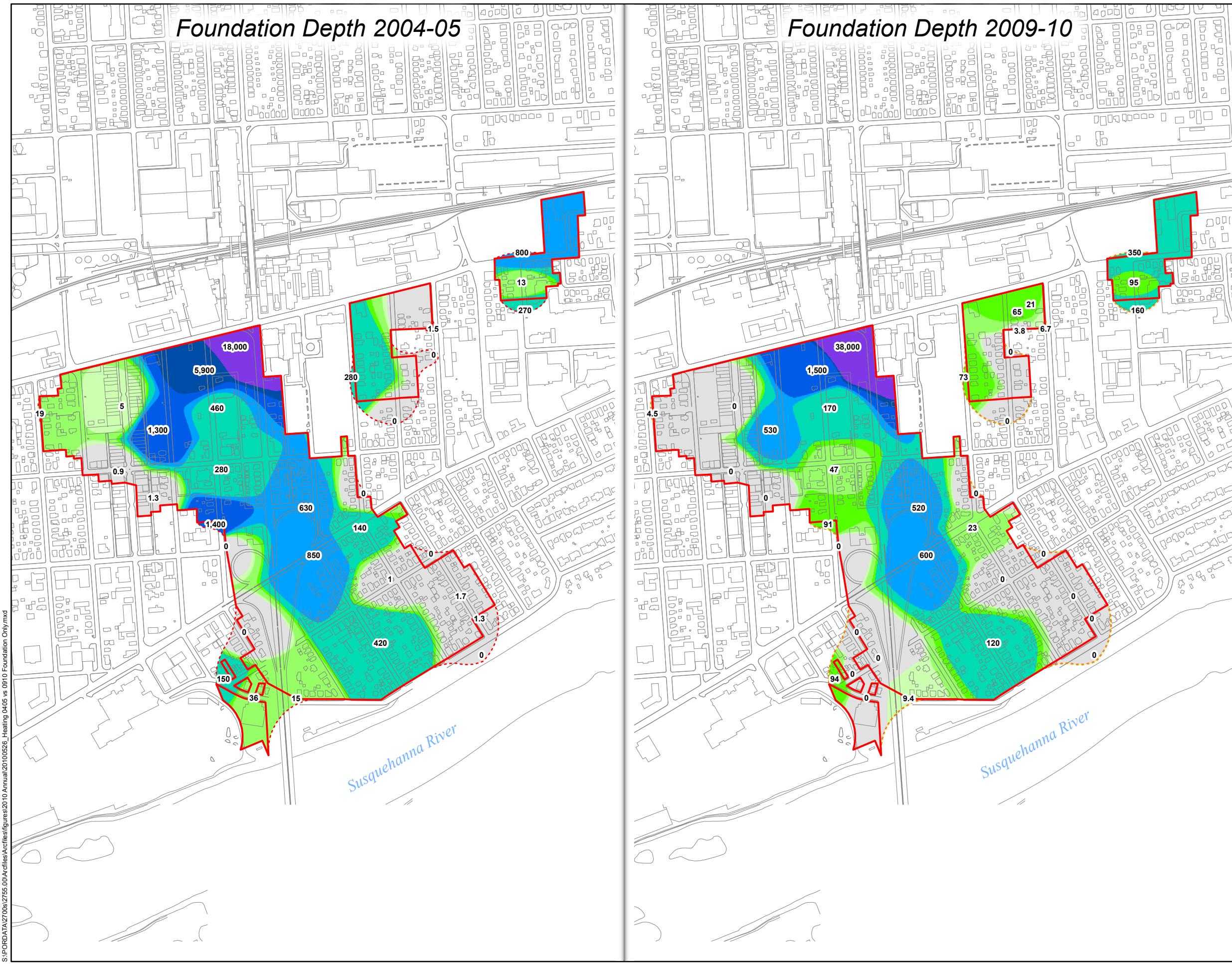


Figure 3A

Comparisons of Foundation Depth TCE Concentrations 2004/05 and 2009/10 Heating Seasons

Annual Report - Soil Vapor Monitoring Through April 2010

Comprehensive Operations, Maintenance, & Monitoring Program

Endicott, New York

Drawn By: S. Warner
Designed By: E. Bradstreet
Reviewed By: D. Carr
Date: June, 2010

Notes:

1. 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 heating season images display an average of the data recorded between November and April.

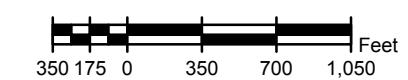
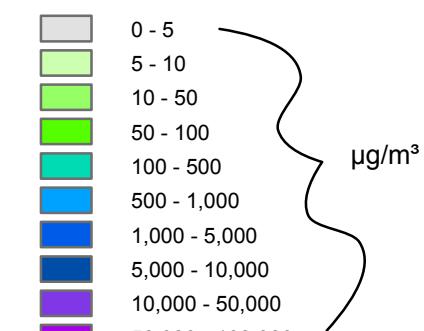
The images were created using uniform and consistent spatial statistical algorithms as outlined in more detail in Appendix B.5 and are intended not as absolute indicators of the limits of soil vapor concentrations at a given time but a basis of comparison between data from different times.

2. See Figure 1 for additional notes and legend.

Legend

Soil Vapor Implant Location.
TCE concentrations in
micrograms per cubic meter
($\mu\text{g}/\text{m}^3$)

Limits of Ventilation



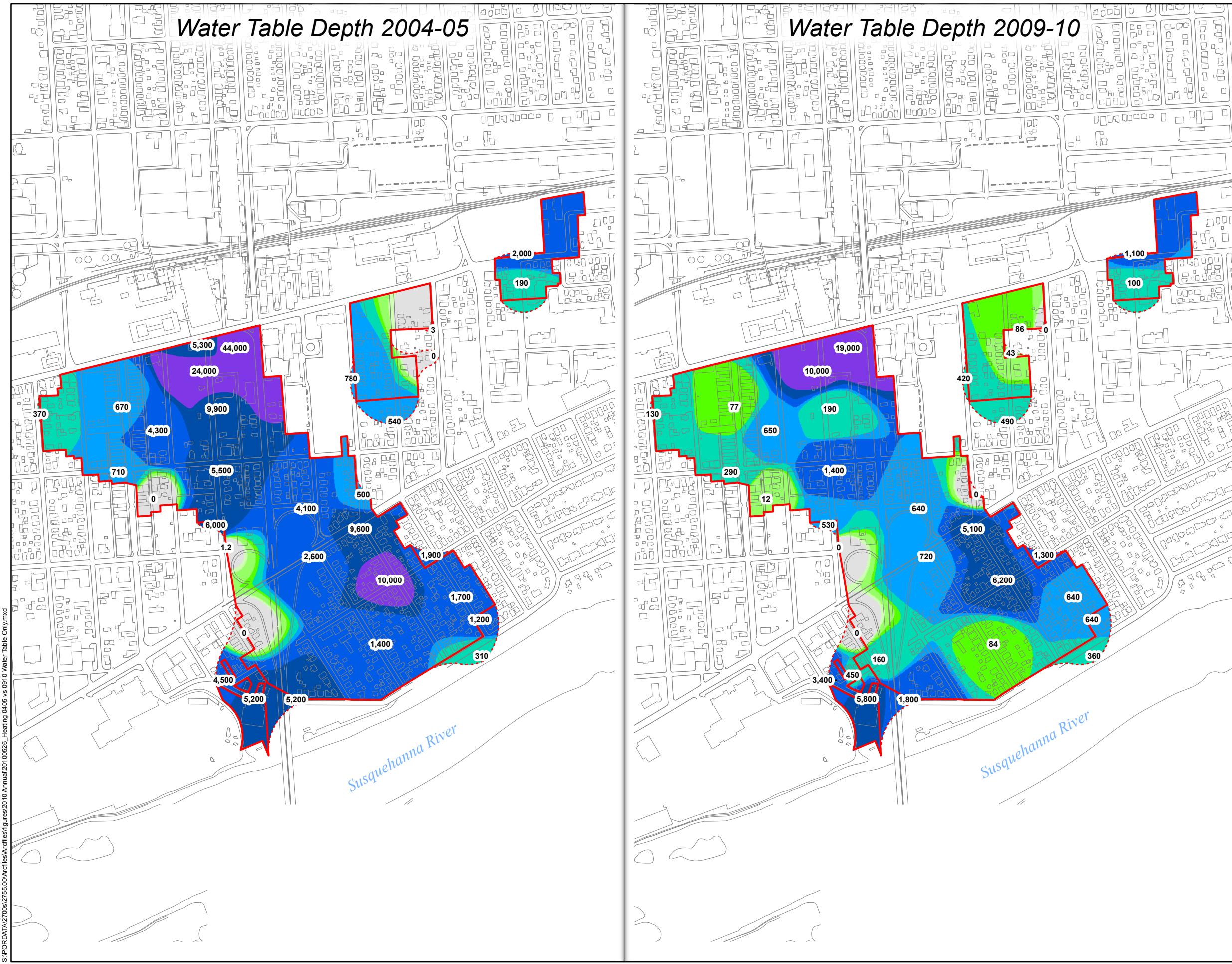


Figure 3B

Comparisons of Water Table Depth TCE Concentrations 2004/05 and 2009/10 Heating Seasons

Annual Report - Soil Vapor Monitoring Through April 2010

Comprehensive Operations,
Maintenance, & Monitoring Program

Endicott, New York

Drawn By: S. Warner
Designed By: E. Bradstreet
Reviewed By: D. Carr
Date: June, 2010

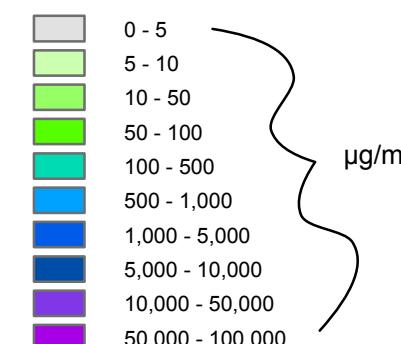
Notes:

See Figure 3A for additional notes.

Legend

Soil Vapor Implant Location.
TCE concentrations in
micrograms per cubic meter
($\mu\text{g}/\text{m}^3$)

Limits of Ventilation



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 SHA has reviewed that data available to us at the time the report was prepared and information as stated in this report, any of SHA's interpretations and conclusions that have relied on that information will be contingent on its validity. SHA 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 SHA 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, SHA has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.

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APPENDIX B

FIELD SAMPLING AND LABORATORY ANALYSIS



APPENDIX B.1

SUMMARY OF FIELD SAMPLING

APPENDIX B.1

SUMMARY OF FIELD SAMPLING Soil Vapor Monitoring Program, Endicott, New York

This summary of field sampling is provided for activities completed during monitoring from December 2009 to April 2010. Summaries of prior monitoring activities are provided in previous reports.

B.1.1 BACKGROUND

Soil vapor monitoring was conducted at 19 locations in December 2009, 37 locations in February 2010, and 14 locations in April 2010. The December 2009 and April 2010 sampling rounds represented the reduced scope of sampling approved by the Agencies in a letter dated February 18, 2009. Soil vapor implant installation details are provided in Table B.1. The implants consist of ¼-inch outside diameter (O.D.) by six-inch long woven stainless steel screen connected to ¼-inch O.D. lab-grade stainless steel tubing. The stainless steel tubing is finished above the ground surface with a compression fitting and gas-tight threaded cap and secured in an 8 or 9-inch diameter flush-mount protective road box.

B.1.2 SOIL VAPOR IMPLANT SAMPLING

The soil vapor implants were sampled from December 15 to 17, 2009, February 8 to 11, and April 19 to 20, 2010. Soil vapor samples were collected generally following procedures described in the approved Monitoring Plan, dated December 1, 2004.

As shown on Figures B.2.1 and B.2.2, the last three sampling events were conducted under rising and falling barometric pressure conditions. Approximately three tenths of an inch and four tenths of an inch of precipitation (water equivalent) were recorded during the December 2009 and February 2010 sampling events, respectively. No precipitation was recorded during the April 2010 sampling event.

Soil vapor samples were collected in one-liter SUMMA® canisters by connecting the stainless steel implant tubing to a short section of Teflon tubing fitted with an in-line Swagelok® valve. Each vapor implant was purged of one probe volume (estimated at about 10 milliliters [ml] per foot of probe depth) using a disposable syringe. An in-line vacuum gauge was monitored during purging, and the withdrawal rate was adjusted to limit the vacuum to around 2 inches H₂O or below.

Samples for laboratory analysis were collected using an in-line 1-hour flow controller, yielding a collection rate of approximately 0.013 liters per minute or less, a rate comparable to the rate of substructure soil vapor collection as part of the previous vapor intrusion sampling. Duplicate samples were collected concurrently using an additional Swagelok® “T” fitting and two two-hour controllers to maintain an approximately equivalent sample collection rate.

In addition, a Tedlar bag was collected via a Gillian® air pump and was field screened following the same methodology used in previous sampling and described in previous reports. The sample was screened in the field for carbon dioxide (CO₂), oxygen (O₂), and methane (CH₄) using a CES Lantec GEM 2000 four-gas meter, and for volatile organic compounds (VOCs) using a Photovac Model 2020 photo-ionization detector (PID) equipped with a 10.6 eV lamp and a Photovac MicroFID portable flame ionization detector (FID) in December 2008 and for CO₂, O₂, and methane only in 2009 as approved by the Agencies.

Tracer gas testing was performed at EN04-13D and EN04-17D at the request of NYSDEC in February 2010. Testing was completed following the collection of the canister sample, as part of the typical screening sample collection. A tracer gas, ultra-high purity (UHP) helium, was dispersed over the implant using an overturned bucket during the screening sample collection. The Tedlar bag sample was then screened in the field using a MGD2020 helium leak detector with a detection limit of 25 parts per million (ppm). No tracer gas was detected during the testing of these implants.

B.1.3 OU#4 SOIL VAPOR IMPLANTS

Since the last reporting period, OU#4 soil vapor implants were sampled bi-weekly from December 2009 to April 8, 2010. The implants were installed by others, but it is our understanding that they are constructed similarly to implants installed by SHA. OU#4 implants were sampled following the same procedures as the other implants, including purging, collection into SUMMA® canisters, and field screening. A memo outlining the findings of OU#4 vapor implant sampling is included in Appendix B.4.

B.1.3 QUALITY ASSURANCE/QUALITY CONTROL

Quality Control measures such as field duplicates blanks and analytical laboratory blanks were taken as required by the Monitoring Plan. Seven duplicates and four equipment blanks were collected during each sampling round. QA/QC measures implemented during the last three monitoring events included:

- Field screening Tedlar bag samples for CO₂, O₂, and CH₄;
- Collection and analysis of field duplicates for approximately 10% of the samples and calculation of the relative percent difference (RPD) between the sample and the associated duplicate (RPD less than 30% is acceptable according to the Plan);
- Analysis of equipment blanks, which were collected and submitted on eight out of the eight days of sampling performed over the sampling period; and
- Analysis of laboratory control samples.

The SUMMA® canisters used for sample collection were “certified clean” by the analytical laboratory to the laboratory reporting limits, and confirmation of the presence of the

certification seal or label for each container was noted prior to sample collection. The flow metering valves were cleaned prior to use and the laboratory verified the regulated flow rate. The canister vacuum was noted and recorded before and after the collection of samples.

Equipment blanks consisted of laboratory-certified SUMMA® canisters filled in the field with lab-grade nitrogen, and not opened during the course of its transport. Duplicate samples were collected simultaneously (i.e., over the same time interval) and spatially immediately adjacent to each other.

The collection, transfer of custody, and shipping/transport of the samples to the analytical laboratory was documented using chain-of-custody forms. The laboratory confirmed receipt vacuum and canister identification details and noted any discrepancies.

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TABLE B.1
Summary of Soil Vapor Monitoring Implants
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Endicott, New York

Location Designation ¹	Installation Date	Implant Type ²		Subsurface Conditions at Installation			Completion Details	Groundwater Conditions At Installation			May 2008 Groundwater Conditions			
		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well ³	Date Recorded/ Depth to Water Table ⁴	Nominal Implant Depth (ft. bgs)		Distance Above Water Table ⁵ (ft)	Vadose Zone Between Shallow and Deep Implants ⁶ (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	EN-094	7/26/04 28.47	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	5.5	13.5	10.5	6.8	9.2	-1.3
EN04-1D	Jul-04					23	Sand							
EN04-2S	Jul-04	X	EN-450	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	5.2	11	4.8	8	2	-2.8
EN04-2D	Jul-04					20	Sand & Gravel							
EN04-3S	Jul-04	X	EN-203	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	5.9	10	10.1	11.6	4.4	-5.7
EN04-3D	Jul-04					19	Sand							
EN04-4S	Jul-04	X	EN-022	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	6	8	0	6	0	0
EN04-4D	Jul-04					17	Gravel							
EN04-5S	Jul-04	X	EN-459A	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	5	25	10	6.2	8.8	-1.2
EN04-5D	Jul-04					34	Sand							
EN04-6S	Jul-04	X	EN-310	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	1	18	0	1	0	0
EN04-6D	Jul-04					27	Sand & Gravel							
EN04-7S	Jul-04	X	EN-311	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	9.7	25	1.3	9.2	1.8	0.5
EN04-7D	Jul-04					34	Poorly Sorted Sand							

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EN04-8S	Jul/Aug-02	X		EN-430	4/16/04 20.84	8	Sand & Gravel	0-2' Concrete Surface Seal 2-6.75' Bentonite Seal 6.75-7.75' Glass Bead Filter Pack 7.25-7.75' Screened Interval	8	2.8	2.2	NM	NM	NM
EN04-8D	Jul/Aug-02					12	Sand & Gravel	0-2' Concrete Surface Seal 2-10.5' Bentonite Seal 10.5-11.7' Glass Bead Filter Pack 11.2-11.7' 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	6	11	8	9.5	4.5	-3.5
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						
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	6.3	11.2	1.3	6.4	1.2	-0.1
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	7.2	11.5	7.2	14.4	0	-7.2
EN04-11D	Jul-04					21	Well Sorted Sand							
EN10-11D	May-10					30	Sand & Gravel							
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	6.2	10	11.8	11.6	6.4	-5.4
EN04-12D	Jul-04					19	Sand & Gravel							
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	6	21	13.5	10.8	8.7	-4.8
EN04-13D	Jul-04					30	Sand & Gravel							

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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			5	25	4	
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			5.3	21	6.2	
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			5.5	24.5	10.5	
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						
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			7.5	19	3.5	
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	X		EN-217A	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			4	26	1	
EN04-18S	Jul-04					8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval			5.9	22	5.3	
EN04-18D	Jul-04	X		EN-426	7/26/04 35.39	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					8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval			5.9	20.5	4.6	
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						

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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	7.7	25.5 9.5 4.3	8.1 3.9 -0.4	8.1 3.9 -0.4	8.1 3.9 -0.4	8.1 3.9 -0.4
EN04-20I	Jul-04						0-1' Concrete Surface Seal 1-23' Bentonite Seal 23-24' Glass Bead Filter Pack 23.5-24' Screened Interval						
EN04-20D	Jul-04						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	12	14.5 4	14.2 1.8	14.2 1.8	14.2 1.8	14.2 1.8
EN04-21D	Jul-04						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	2.8	7 6	2.5 6.3	2.5 6.3	2.5 6.3	2.5 6.3
EN04-22D	Jul/Aug-02						0-2' Concrete Surface Seal 2-15' Bentonite Seal 15-16' Glass Bead Filter Pack 15.5-16' Screened Interval						
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	3.5	14 7 4.5	5.4 2.6 -1.9	5.4 2.6 -1.9	5.4 2.6 -1.9	5.4 2.6 -1.9
EN04-23I	Jul-04						0-1' Concrete Surface Seal 1-14' Bentonite Seal 14-15' Glass Bead Filter Pack 14.5-15' Screened Interval						
EN04-23D	Jul-04						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	3.9	9.5 17.8	5.6 16.1	5.6 16.1	5.6 16.1	5.6 16.1
EN04-24D	Jul-04						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	1.4	8.5 5	1.7 4.7	1.7 4.7	1.7 4.7	1.7 4.7
EN04-25D	Aug-04						0-1' Concrete Surface Seal 1-16.5' Bentonite Seal 16.5-17.5' Glass Bead Filter Pack 17-17.5' Screened Interval						

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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	3.4	5	6.6	4.1	5.9	-0.7
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	3	11	9.5	4.9	7.6	-1.9
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	3.9	11	11.1	10	5	-6.1
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						
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	6	11	8	5.7	8.3	0.3
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	0.5	8	12	5.1	7.4	-4.6
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						

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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	3.4	9	5	8.4	0	-5
EN04-32D	Aug-04					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	2.3	22.5	6.2	4.9	3.6	-2.6
EN05-33I21	Apr-05					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					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				8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval						
EN05-34I	Apr-05					Well Sorted Sand	0-1' Concrete Surface Seal 1-10' Bentonite Seal 10-11' Glass Bead Filter Pack 10.5-11' Screened Interval	3.2	4	6.6	4.6	5.2	-1.4
EN05-34D	Apr-05					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-304	4/18/2004 16.67	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	6.2	25.3	10	6.8	9.4	-0.6
EN06-35I16	Jan-06					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				16	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					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						

TABLE B.1
Summary of Soil Vapor Monitoring Implants
Annual Report - Soil Vapor Monitoring Through April 2010
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

Location Designation ¹	Installation Date	Implant Type ²		Subsurface Conditions at Installation			Completion Details	Groundwater Conditions At Installation			May 2008 Groundwater Conditions		
		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well ³	Date Recorded/ Depth to Water Table ⁴	Nominal Implant Depth (ft. bgs)		Distance Above Water Table ⁵ (ft)	Vadose Zone Between Shallow and Deep Implants ⁶ (ft)	Saturated Screened Interval ⁷ (ft)	Distance Above Water Table ⁵ (ft)	Saturated Screened Interval ⁷ (ft)	Difference ⁸ (ft)
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	7	23.8	10	8.2	8.8	-1.2
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	1.3	12	3.2	1.5	3.0	-0.2
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:

- This table is intended to summarize implant depths, subsurface conditions and completion details for soil vapor monitoring implants used as part of IBM's Comprehensive Operations, Maintenance and Monitoring program in Endicott, New York.
- 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.
- 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.
- 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 SHA 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.
- 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 January/February 2007. 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.
- 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.
- 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.
- The "Difference" field calculates the change in saturated screened interval from around the time of implant installation to May 2008. 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.

APPENDIX B.2
CLIMATOLOGIC DATA AND PLOTS

Figure B.2.1
Summary of Daily Precipitation and Barometric Pressure - GBA
 Annual Report - Soil Vapor Monitoring
 Comprehensive Operations, Maintenance, & Monitoring Program
 Endicott, New York

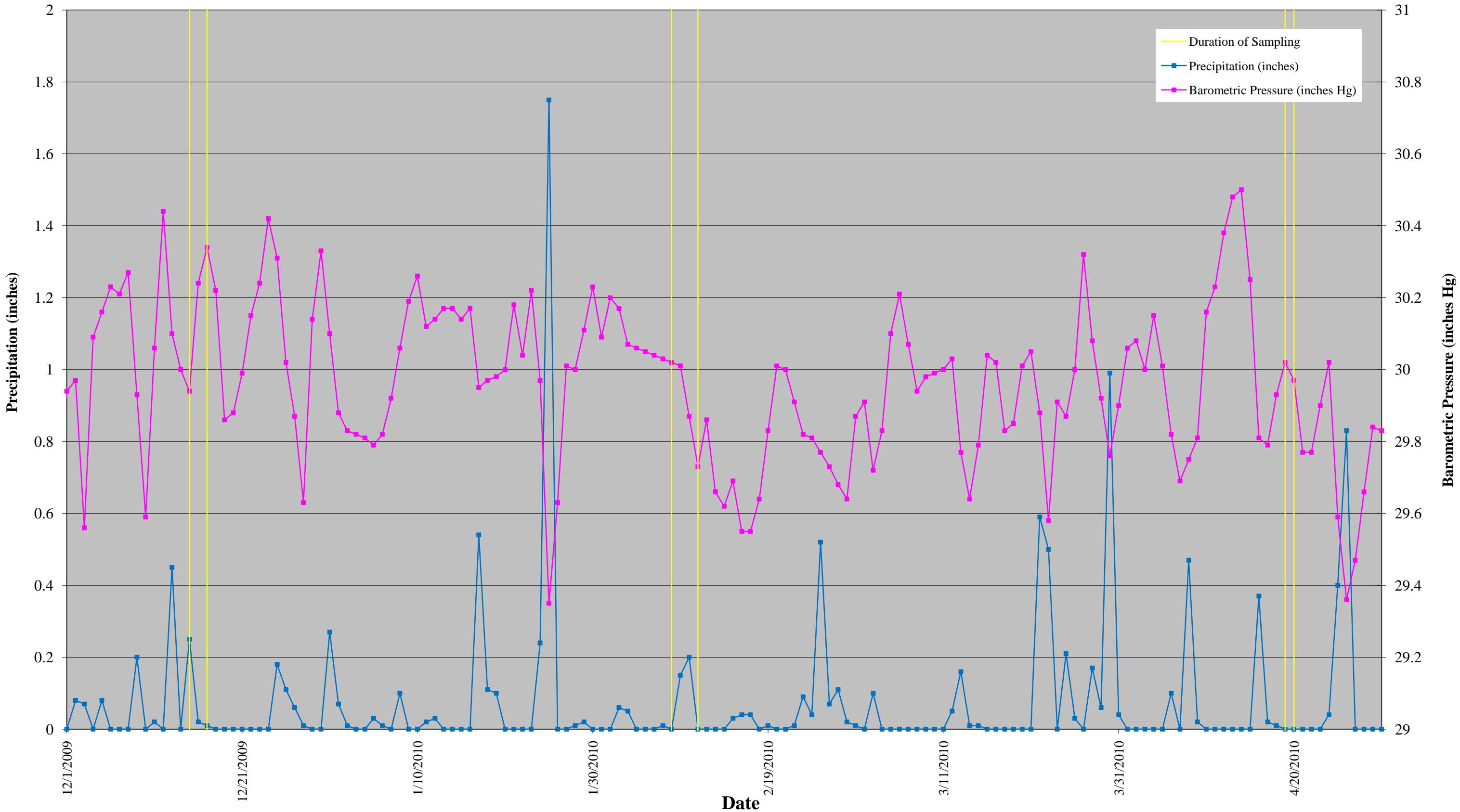
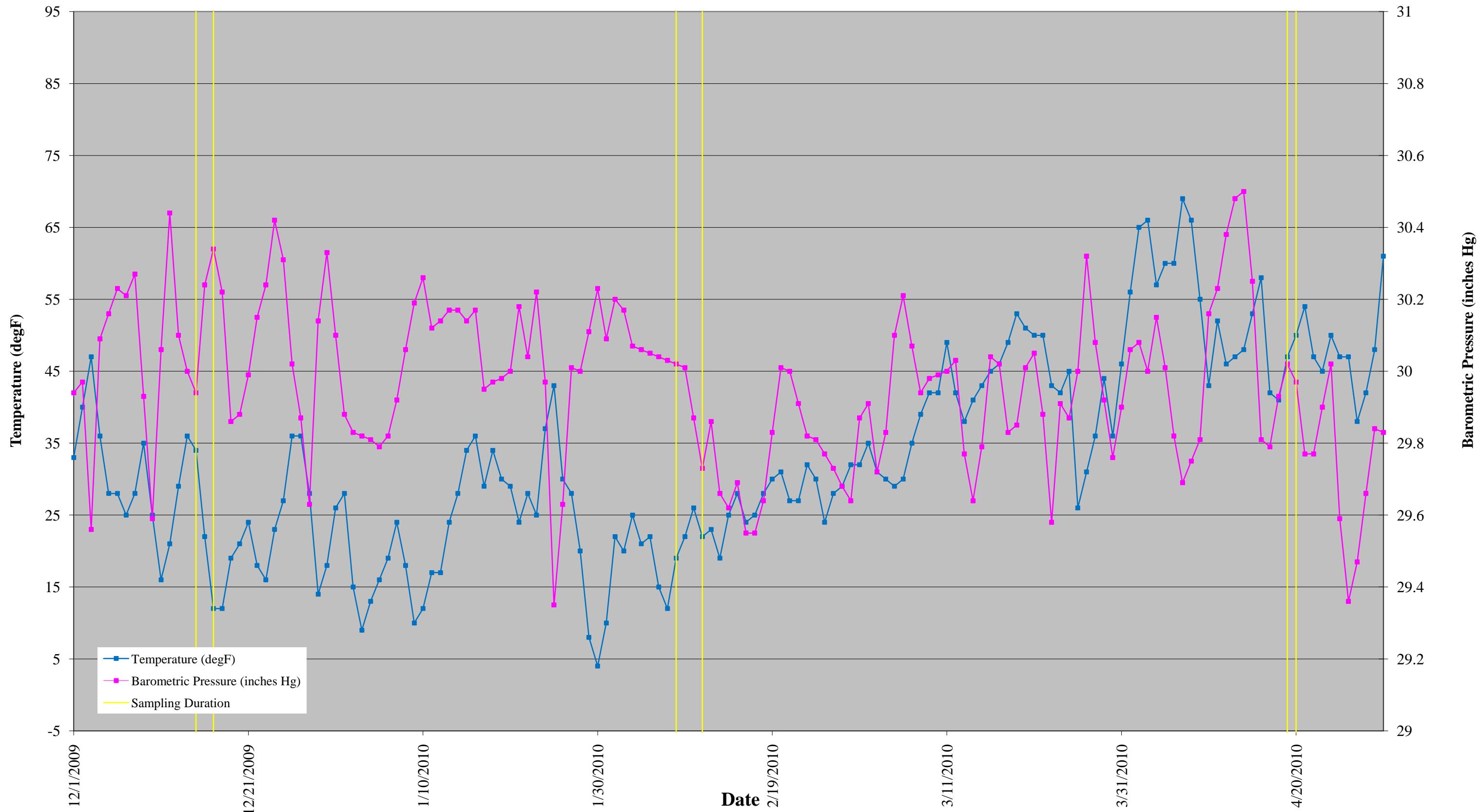


Figure B.2.2
Summary of Daily Barometric Pressure and Temperature - GBA
 Annual Report - Soil Vapor Monitoring
 Comprehensive Operations, Maintenance, & Monitoring Program
 Endicott, New York



**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA
(final)**

NOAA, National Climatic Data Center

Month: 10/2009

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)

BINGHAMTON, NY

Lat. 42.208 Lon. -75.981

Elevation(Ground): 1595 ft. above sea level

D a t e	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						D a t e	
	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	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	Dir	max 2-minute Speed	Dir		
	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	45	40	43	-11	38	40	22	0	0601	1746	RA BR	0	M	0.0	0.05	28.25	30.01	4.6	29	5.5	20	280	15	280	01
02	56	37	47	-6	43	45	18	0	0602	1744	RA BR	0	M	0.0	0.19	28.20	29.93	8.7	15	9.0	23	150	16	150	02
03	67	51	59*	6	47	52	6	0	0603	1743	RA BR	0	M	0.0	0.09	28.12	29.86	4.8	22	6.4	32	260	23	270	03
04	61	46	54	2	44	48	11	0	0604	1741		0	M	0.0	T	28.19	29.92	4.4	26	4.9	M	M	9	260	04
05	56	43	50	-2	43	46	15	0	0605	1739	RA	0	M	0.0	0.08	28.22	29.96	8.1	27	8.2	23	270	16	270	05
06	59	39	49	-3	42	46	16	0	0606	1737	RA BR	0	M	0.0	0.07	28.20	29.89	4.3	21	5.9	25	170	18	170	06
07	58	48	53	2	43	47	12	0	0607	1736	RA	0	M	0.0	0.15	27.87	29.62	14.4	27	17.3	44	280	31	270	07
08	57	43	50	-1	40	45	15	0	0608	1734		0	M	0.0	T	28.30	30.06	4.6	28	6.6	28	220	15	310	08
09	57	50	54	3	40	44	18	0	0609	1732	RA BR	0	M	0.0	0.12	28.12	M	3.8	18	5.2	15	230	10	190	09
10	56	38	47	-3	40	44	18	0	0611	1731	RA BR	0	M	0.0	0.01	28.17	29.98	6.7	32	8.2	25	330	17	330	10
11	52	35	44	-6	30	37	21	0	0612	1729		0	M	0.0	0.00	28.43	30.23	6.4	29	8.2	28	270	21	280	11
12	43	30	37	-12	31	35	28	0	0613	1728	RA BR	0	M	0.0	0.02	28.55	30.31	3.1	16	4.4	39	150	13	180	12
13	48	37	43	-6	37	40	22	0	0614	1726	RA BR	0	M	0.0	0.03	28.35	30.12	6.1	30	8.0	29	350	22	340	13
14	42	33	38	-11	30	34	27	0	0615	1724		0	M	0.0	T	28.46	30.24	4.5	36	5.2	23	220	13	350	14
15	38	31	35	-13	28	31	30	0	0616	1723	SN BR	0	M	1.2	0.16	28.30	30.05	7.1	20	7.3	20	060	13	050	15
16	37	30*	34*	-14	31	32	31	0	0617	1721	RA SN BR	1	M	0.8	0.08	28.22	30.01	3.8	03	5.0	15	040	12	050	16
17	42	34	38	-10	33	36	27	0	0619	1720	SN BR UP	0	M	T	0.01	28.33	30.12	1.2	01	2.3	22	300	7	030	17
18	51	33	42	-5	27	35	23	0	0620	1718		0	M	0.0	0.00	28.40	30.17	8.4	36	9.3	30	080	18	010	18
19	52	31	42	-5	27	36	23	0	0621	1716		0	M	0.0	0.00	28.40	30.18	3.6	28	6.0	23	110	10	280	19
20	59	43	51	4	37	44	14	0	0622	1715		0	M	0.0	0.00	28.38	30.14	3.7	24	4.9	15	240	12	230	20
21	63	50	57	11	44	50	8	0	0623	1713		0	M	0.0	0.00	28.41	30.15	4.0	23	4.6	17	250	14	250	21
22	67*	45	56	10	40	49	9	0	0624	1712		0	M	0.0	0.00	28.25	29.98	7.4	26	10.3	32	100	23	250	22
23	53	38	46	0	40	42	19	0	0626	1710	RA BR	0	M	0.0	0.32	28.30	30.03	9.5	14	12.7	39	150	26	140	23
24	66	46	56	11			9	0	0627	1709	RA BR	0	M	0.0	1.29	27.97	M	6.5	20	11.8	33	260	24	260	24
25	54	40	47	2	34	41	18	0	0628	1708		0	M	0.0	0.00	28.30	30.10	7.6	32	8.4	28	290	16	280	25
26	58	35	47	2	35	42	18	0	0629	1706		0	M	0.0	0.00	28.53	30.29	3.3	15	4.4	16	120	10	160	26
27	56	40	48	4	42	45	17	0	0631	1705	RA BR	0	M	0.0	0.03	28.35	30.10	6.0	16	6.9	30	240	15	190	27
28	53	49	51	7	49	50	14	0	0632	1703	RA BR	0	M	0.0	1.62	28.17	29.93	6.3	11	7.0	25	110	20	110	28
29	51	48	50	6	47	48	15	0	0633	1702	RA BR	0	M	0.0	0.02	28.48	30.26	1.2	05	2.7	32	030	15	300	29
30	51	49	50	7	45	48	15	0	0634	1701	BR	0	M	0.0	0.00	28.40	30.13	11.5	18	11.7	30	180	20	180	30
31	62	46	54	11	48	51	11	0	0635	1659	RA	0	M	0.0	0.07	28.09	29.81	10.2	22	13.2	36	250	28	250	31
	53.9	40.6	47.3		38.4	42.7	17.5	0.0	<-----Monthly Averages Totals----->						M	2.0	4.41	28.28	30.05	2.1	24	7.5	<Monthly Average		
	-2.8	1.0	-0.8		<-----Departure From Normal----->										1.39										

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 1.65 Date: 27-28	Sea Level Pressure Date (LST)
Total Departure	Total Departure	Greatest 24-hr Snowfall: 1.2 Date: 15	Maximum 30.42 12 0741	
Heating: 543	29	792	Greatest Snow Depth: 1 Date: 16	Minimum 29.41 07 0453
Cooling: 0	-2	272	Number of Days with ----->	Max Temp >=90: 0 Min Temp <=32: 4
			Max Temp <=32: 0 Min Temp <=0 : 0 Thunderstorms :	Min Temp <=0 : 0 Heavy Fog : 0
				Precipitation >=.01 inch: 19
				Precipitation >=.10 inch: 1
				Snowfall >=1.0 inch : 1

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA
(final)**
NOAA, National Climatic Data Center
Month: 11/2009

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)

BINGHAMTON, NY

Lat. 42.208 Lon. -75.981

Elevation(Ground): 1595 ft. above sea level

D a t e	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						D a t e
	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	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	Dir	max 2-minute Speed	Dir			
	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	49	36	43	0	32	38	22	0	0637	1658	RA SN BR BR HZ RA BR RA SN BR	0	M	0.0	0.00	28.37	30.17	6.1	34	7.1	29	080	15	030	01
02	53	30	42	-1	33	37	23	0	0638	1657		0	M	0.0	0.00	28.44	30.20	3.0	14	5.3	M	M	9	130	02
03	51	35	43	0	33	39	22	0	0639	1656		0	M	0.0	0.01	28.32	30.09	6.4	29	8.9	29	300	21	320	03
04	41	31	36	-6	29	33	29	0	0640	1654		0	M	T	T	28.48	30.27	2.4	30	3.8	16	300	12	310	04
05	43	32	38	-3	31	34	27	0	0642	1653		0	M	0.2	0.06	28.34	30.11	4.4	27	7.1	30	330	21	300	05
06	34	25	30*	-11	24	29	35	0	0643	1652		T	M	0.1	T	28.46	30.27	6.0	32	7.3	24	340	17	320	06
07	51	24*	38	-3	24	33	27	0	0644	1651		0	M	0.0	0.00	28.38	30.16	8.4	18	8.6	23	160	16	190	07
08	65	40	53	13	32	43	12	0	0645	1650		0	M	0.0	0.00	28.46	30.26	2.4	24	4.1	M	M	10	330	08
09	66*	46	56	16	40	48	9	0	0647	1649		0	M	0.0	0.00	28.56	30.30	7.8	21	8.4	23	230	16	230	09
10	55	42	49	9	40	45	16	0	0648	1648		0	M	0.0	0.00	28.57	30.34	7.2	34	7.6	18	360	15	360	10
11	49	35	42	3	29	36	23	0	0649	1647		0	M	0.0	0.00	28.63	30.41	7.3	04	7.8	18	010	13	050	11
12	50	32	41	2	22	33	24	0	0650	1646		0	M	0.0	0.00	28.51	30.27	8.5	06	8.6	18	060	14	050	12
13	58	32	45	6	21	35	20	0	0652	1645		0	M	0.0	0.00	28.35	30.11	7.5	06	7.1	21	080	14	080	13
14	56	42	49	11	45	47	16	0	0653	1644		0	M	0.0	0.03	28.24	29.99	4.9	06	5.3	21	040	15	060	14
15	63	48	56*	18	9	0	0654	1643	0	M	0.0	0.00	28.22	M	3.5	31	4.4	21	360	15	350	15			
16	50	34	42	5	31	37	23	0	0655	1642	0	M	0.0	0.00	28.38	30.16	9.5	35	9.8	24	330	16	010	16	
17	51	32	42	5	25	34	23	0	0656	1641	0	M	0.0	0.00	28.53	30.32	3.9	04	4.8	12	010	9	100	17	
18	53	30	42	6	28	35	23	0	0658	1640	0	M	0.0	0.00	28.62	30.42	6.5	14	6.7	18	150	15	140	18	
19	58	36	47	11	44	46	18	0	0659	1640	0	M	0.0	0.79	28.51	30.24	9.1	15	9.3	26	140	21	150	19	
20	54	40	47	11	38	42	18	0	0700	1639	0	M	0.0	T	28.28	30.04	9.5	27	9.9	28	290	20	270	20	
21	45	38	42	6	36	39	23	0	0701	1638	0	M	0.0	0.00	28.38	30.17	5.2	33	5.9	15	350	13	340	21	
22	47	33	40	5	35	38	25	0	0702	1637	0	M	0.0	0.00	28.54	30.35	3.4	03	5.1	14	270	12	010	22	
23	47	32	40	5	33	37	25	0	0704	1637	0	M	0.0	0.00	28.60	30.38	7.9	12	8.3	20	130	15	130	23	
24	51	40	46	12	42	44	19	0	0705	1636	0	M	0.0	T	28.44	30.19	3.9	11	4.7	10	150	8	110	24	
25	47	44	46	12	43	45	19	0	0706	1636	0	M	0.0	0.17	28.25	29.98	7.3	16	7.9	21	150	15	140	25	
26	53	38	46	12	41	43	19	0	0707	1635	0	M	0.0	0.20	28.10	29.82	4.3	19	6.1	23	340	17	320	26	
27	38	32	35	2	31	34	30	0	0708	1635	1	M	0.8	0.18	27.86	29.59	10.3	31	10.4	30	300	21	300	27	
28	38	31	35	2	30	34	30	0	0709	1634	0	M	T	0.01	27.97	29.77	12.9	30	13.3	39	310	28	310	28	
29	52	30	41	8	31	37	24	0	0710	1634	0	M	0.0	T	28.07	29.81	6.9	22	7.2	20	210	14	230	29	
30	50	28	39	7	32	36	26	0	0712	1633	0	M	T	0.18	27.95	29.71	7.7	30	9.5	25	310	16	310	30	
	50.6	34.9	42.8		32.9	38.3	22.0	0.0	<----Monthly Averages Totals----->		M	1.1	1.63		28.36	30.13	1.1	31	7.3	<Monthly Average					
	6.3	4.0	5.2		<-----Departure From Normal----->								-1.69												

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 0.79 Date: 19	Sea Level Pressure Date (LST)
Total Departure	Total Departure		Greatest 24-hr Snowfall: 0.8 Date: 27	Maximum 30.47 18 1013
Heating:	659	-153	Greatest Snow Depth: 1 Date: 27	Minimum 29.55 28 0053
Cooling:	0	0	Number of Days with ----->	Max Temp >=90: 0 Max Temp <=32: 0 Thunderstorms : 0 Heavy Fog : 0
				Min Temp <=32: 14 Min Temp <=0 : 0 Precipitation >=.01 inch: 9 Precipitation >=.10 inch: Snowfall >=1.0 inch : 0

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA
(final)**

NOAA, National Climatic Data Center

Month: 12/2009

**Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY**
Lat. 42.208 Lon. -75.981
Elevation(Ground): 1595 ft. above sea level

D a t e	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						D a t e
	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	Res	Avg. Dir	Speed	max Speed	5-second Dir	max 2-minute Speed	Dir			
	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26			
01	40	26	33	1	26	30	32	0	0713	1633	SN	0	M	T	T	28.14	29.94	8.0	25	8.4	30	260	22	280	01			
02	49	30	40	9	32	37	25	0	0714	1633	RA BR	0	M	0.0	0.08	28.25	29.97	10.0	16	10.7	39	150	26	150	02			
03	54*	40	47*	16	41	45	18	0	0715	1633		0	M	0.0	0.07	27.79	29.56	9.2	25	13.4	39	270	28	260	03			
04	42	29	36	5	25	32	29	0	0716	1632	SN BR	0	M	0.0	0.00	28.28	30.09	4.5	25	5.6	20	250	16	240	04			
05	31	25	28	-3			37	0	0717	1632		0	M	1.6	0.08	28.31	M	5.0	01	6.6	17	320	14	350	05			
06	32	23	28	-3	16	23	37	0	0718	1632		1	M	T	T	28.39	30.23	7.6	28	8.6	25	300	16	280	06			
07	29	20	25	-5	19	23	40	0	0719	1632		T	M	T	T	28.41	30.21	4.7	21	6.0	18	180	12	220	07			
08	32	23	28	-1	21	25	37	0	0720	1632	SN BR	T	M	T	T	28.46	30.27	1.9	23	5.3	18	150	15	140	08			
09	41	28	35	6			30	0	0720	1632	DZ FZRA SN BR	6	M	6.4	0.20	27.76	M	13.3	16	17.6	46	140	35	140	09			
10	35	14	25	-4	12	21	40	0	0721	1632	SN	3	M	0.1	T	27.78	29.59	18.8	26	19.2	41	250	30	260	10			
11	20	11	16	-12	5	13	49	0	0722	1632	SN BR	2	M	0.9	0.02	28.20	30.06	11.9	27	12.2	37	260	28	270	11			
12	27	14	21	-7	10	18	44	0	0723	1632	SN	3	M	T	T	28.59	30.44	4.3	25	6.0	18	290	13	250	12			
13	36	21	29	1	22	28	36	0	0724	1632	RA FZRA SN BR UP	2	M	T	0.45	28.32	30.10	5.2	20	7.5	23	190	15	190	13			
14	38	33	36	9	31	33	29	0	0725	1633	BR	1	M	0.0	0.00	28.22	30.00	3.9	20	6.2	16	190	12	180	14			
15	41	26	34	7	32	34	31	0	0725	1633	RA SN BR	T	M	2.8	0.25	28.15	29.94	6.8	25	8.9	20	270	20	280	15			
16	26	18	22	-5	13	19	43	0	0726	1633	SN BR	4	M	2.0	0.02	28.41	30.24	10.5	30	11.2	30	310	21	320	16			
17	19	4	12	-14	6	11	53	0	0727	1633	SN BR BLSN	5	M	0.6	0.01	28.48	30.34	9.5	33	9.7	28	320	21	340	17			
18	22	2*	12*	-14	2	10	53	0	0727	1634		4	M	0.0	0.00	28.40	30.22	2.4	07	2.8	9	050	8	060	18			
19	22	15	19	-7	0	14	46	0	0728	1634		3	M	0.0	0.00	28.07	29.86	7.8	03	8.7	20	050	15	030	19			
20	25	17	21	-5	8	18	44	0	0728	1634	SN	2	M	0.1	T	28.06	29.88	13.1	33	13.2	33	350	22	330	20			
21	26	21	24	-1	18	22	41	0	0729	1635	SN BR	2	M	1.2	T	28.17	29.99	8.6	31	9.0	23	340	16	330	21			
22	22	13	18	-7	11	16	47	0	0730	1635	SN BR	4	M	0.1	T	28.32	30.15	9.5	31	9.8	28	310	20	320	22			
23	20	11	16	-9	10	15	49	0	0730	1636	SN BR	4	M	0.9	T	28.40	30.24	11.7	31	12.1	29	290	21	310	23			
24	26	19	23	-2	18	21	42	0	0730	1637		4	M	0.0	0.00	28.58	30.42	4.3	03	6.5	17	030	13	360	24			
25	35	19	27	3	27	28	38	0	0731	1637	RA BR	4	M	T	0.18	28.51	30.31	10.9	13	11.3	35	120	26	120	25			
26	40	32	36	12	34	35	29	0	0731	1638	RA BR	1	M	0.0	0.11	28.27	30.02	19.6	13	20.6	44	150	36	130	26			
27	40	31	36	12	28	32	29	0	0731	1638	BR UP	0	M	0.0	0.06	28.12	29.87	4.9	24	6.0	23	250	17	250	27			
28	34	21	28	4	19	24	37	0	0732	1639	SN BR	1	M	2.0	0.01	27.87	29.63	11.3	26	13.6	38	260	29	270	28			
29	22	6	14	-10	1	8	51	0	0732	1640	SN BR BLSN	2	M	0.8	T	28.23	30.14	14.4	31	14.8	39	330	28	310	29			
30	24	12	18	-5	11	17	47	0	0732	1641	SN BR	1	M	0.2	T	28.51	30.33	5.1	21	6.9	16	210	12	280	30			
31	29	22	26	3			39	0	0732	1641		1	M	3.3	0.27	28.29	M	5.8	18	6.0	16	180	12	190	31			
	31.6	20.2	25.9			17.8	23.3	38.8	0.0			<----Monthly Averages Totals---->	M	23.0	1.81	28.25	30.05	3.5	27	9.8	<Monthly Average							
	-1.8	-0.6	-1.2									<-----Departure From Normal----->		-1.22														

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 0.45 Date: 13						Sea Level Pressure Date (LST)	
Total Departure	Total Departure		Greatest 24-hr Snowfall: 6.4 Date: 09						Maximum 30.53	12 1038
Heating: 1202	41	2653	Greatest Snow Depth: 6 Date: 09						Minimum 29.13	09 1453
Cooling: 0	0	272								
			Max Temp >=90: 0	Min Temp <=32: 29						Precipitation >=.01 inch: 14
			Max Temp <=32: 18	Min Temp <=0 : 0						Precipitation >=.10 inch: 7
				Heavy Fog :0						Snowfall >=1.0 inch : 7

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA
(final)**

NOAA, National Climatic Data Center

Month: 01/2010

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)

BINGHAMTON , NY

Lat. 42.208 Lon. -75.981

Elevation(Ground): 1595 ft. above sea level

D a t e	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				D a t e			
	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	Res	Avg. Speed	Dir	max Speed	5-second Dir	max 2-minute Speed	Dir
	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	33	22	28	5	24	26	37	0	0733	1643	SN BR	5	M	2.0	0.07	28.12	29.88	6.1	27	7.3	22	300	16	320	01
02	22	7	15	-8	5	10	50	0	0733	1643	SN BR UP BLSN	6	M	1.0	0.01	28.02	29.83	12.6	31	12.8	30	320	22	310	02
03	11	7	9	-14			56	0	0733	1644	SN BR	6	M	0.5	T	27.91	M	14.9	31	14.6	44	300	28	310	03
04	16	9	13	-10	7	11	52	0	0733	1645	SN BR	6	M	1.9	T	27.99	29.81	8.7	30	8.8	21	320	15	320	04
05	18	14	16	-7	11	15	49	0	0733	1646	SN BR	7	M	1.2	0.03	27.99	29.79	7.8	30	8.0	22	310	16	310	05
06	22	16	19	-3	15	18	46	0	0733	1647	SN BR	7	M	0.9	0.01	28.00	29.82	10.8	31	11.0	32	310	21	310	06
07	26	22	24	2	20	23	41	0	0732	1648	BR	7	M	T	T	28.12	29.92	7.6	31	7.8	26	300	18	290	07
08	23	13	18	-4			47	0	0732	1649	SN BR	7	M	2.8	0.10	28.01	M	8.9	32	9.8	30	340	22	340	08
09	14	5	10	-12	4	9	55	0	0732	1650	SN BR	8	M	0.2	T	28.32	30.19	10.6	33	10.8	29	330	18	320	09
10	20	4	12	-10	5	10	53	0	0732	1651	SN BR	7	M	0.2	T	28.43	30.26	6.7	27	7.6	18	280	13	300	10
11	25	9	17	-5	8	15	48	0	0732	1652	SN BR	6	M	0.6	0.02	28.30	30.12	4.7	24	5.4	15	250	13	260	11
12	20	14	17	-5	13	16	48	0	0731	1653	SN BR	7	M	0.7	0.03	28.30	30.14	10.1	32	10.3	29	340	21	330	12
13	32	15	24	2	14	20	41	0	0731	1655	SN	7	M	T	T	28.35	30.17	6.9	26	7.6	18	260	13	280	13
14	35	21	28	6	17	25	37	0	0730	1656		6	M	0.0	0.00	28.37	30.17	6.7	22	7.0	16	220	12	220	14
15	36	32	34	12	24	30	31	0	0730	1657		6	M	0.0	0.00	28.35	30.14	6.7	27	8.5	22	280	15	280	15
16	41	30	36	15	25	30	29	0	0730	1658		5	M	0.0	0.00	28.38	30.17	5.1	26	5.6	17	280	14	260	16
17	35	23	29	8	27	29	36	0	0729	1659	RA FZRA BR	4	M	0.1	0.54	28.19	29.95	5.3	12	7.0	21	140	17	150	17
18	37	30	34	13			31	0	0728	1700	RA BR	4	M	T	0.11	28.04	M	4.6	36	5.9	17	010	13	020	18
19	32	28	30	9			35	0	0728	1702	SN BR	3	M	1.1	0.10	28.11	M	2.1	32	3.6	14	340	12	340	19
20	31	26	29	8	24	26	36	0	0727	1703	SN BR	4	M	0.3	T	28.18	30.00	6.5	32	6.8	21	340	16	340	20
21	29	18	24	3	19	22	41	0	0727	1704	BR	4	M	0.0	0.00	28.36	30.18	2.0	02	3.3	14	350	12	360	21
22	38	17	28	7	16	23	37	0	0726	1705		3	M	0.0	0.00	28.24	30.04	5.8	03	6.3	15	030	10	020	22
23	35	15	25	4	15	23	40	0	0725	1706		3	M	0.0	0.00	28.40	30.22	2.8	13	5.1	16	170	13	150	23
24	45	28	37	16	29	33	28	0	0724	1708	RA BR	2	M	0.0	0.24	28.23	29.97	12.1	16	12.4	26	140	20	150	24
25	52*	33	43*	22	41	44	22	0	0724	1709	RA BR	T	M	0.0	1.75	27.65	29.35	7.8	20	14.0	38	140	28	150	25
26	34	25	30	9	19	26	35	0	0723	1710	SN	T	M	0.1	T	27.83	29.63	11.1	26	11.5	25	230	20	240	26
27	31	24	28	7	15	23	37	0	0722	1712	SN	0	M	T	T	28.20	30.01	9.8	26	10.2	22	260	16	260	27
28	31	9	20	-1	11	18	45	0	0721	1713	SN BR	0	M	0.8	0.01	28.19	30.00	10.0	27	13.0	45	290	30	280	28
29	11	5	8	-13			57	0	0720	1714	SN HZ	1	M	0.7	0.02	28.41	M	10.6	31	11.0	32	310	22	300	29
30	11	-3*	4*	-18	-5	2	61	0	0719	1715		1	M	0.1	0.00	28.38	30.23	7.5	35	7.7	23	340	17	330	30
31	21	-2	10	-12	1	9	55	0	0718	1717		1	M	0.0	0.00	28.25	30.09	5.7	27	6.6	23	260	17	260	31
	28.0	16.6	22.3			M	M	42.5	0.0			<----Monthly Averages Totals---->	M	15.2	3.04	28.18	29.98	5.1	29	8.6	<Monthly Average				
	-0.4	1.6	0.6									<-----Departure From Normal----->		0.46											

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 1.99 Date: 24-25	Sea Level Pressure Date (LST)
Total Departure	Total Departure	Greatest 24-hr Snowfall: 2.8 Date: 08	Maximum 30.33 30 0218	
Heating: 1316	-15	3969 -116	Greatest Snow Depth: 8 Date: 09	Minimum 29.16 25 1353
Cooling: 0	0	0 0	Number of Days with ----->	Max Temp >=90: 0 Min Temp <=32: 30
			20	Max Temp <=32: 2 Min Temp <=0 : 2 Heavy Fog : 0
				Precipitation >=.01 inch: 14 Precipitation >=.10 inch: 6 Snowfall >=1.0 inch : 6

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA
(final)**

NOAA, National Climatic Data Center

Month: 02/2010

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)

BINGHAMTON, NY

Lat. 42.208 Lon. -75.981

Elevation(Ground): 1595 ft. above sea level

D a t e	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				D a t e			
	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	Res	Avg. Speed	Dir	max 5-second Speed	Dir	max 2-minute Speed	Dir
	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	27	17	22	0	7	17	43	0	0717	1718	SN	1	M	0.1	T	28.36	30.20	9.6	29	10.2	23	260	18	260	01
02	25	14	20	-2	13	18	45	0	0716	1719	SN BR	1	M	0.6	0.06	28.37	30.17	2.9	16	4.4	13	160	10	150	02
03	29	21	25	3	20	23	40	0	0715	1721	SN BR HZ	2	M	1.6	0.05	28.25	30.07	5.2	29	6.4	23	290	15	310	03
04	27	14	21	-1			44	0	0714	1722	SN	4	M	0.8	T	28.50	M	7.8	32	8.2	32	300	21	320	04
05	28	15	22	0			43	0	0713	1723		3	M	0.0	0.00	28.41	M	2.3	34	4.7	13	020	9	050	05
06	23	7	15	-7			50	0	0712	1724		3	M	0.0	0.00	28.08	M	10.8	01	12.4	26	360	22	350	06
07	18	5*	12*	-10			53	0	0711	1726	SN BR HZ	2	M	0.4	0.01	28.17	M	9.7	32	10.0	26	330	20	320	07
08	25	13	19	-3			46	0	0709	1727	SN BR	4	M	1.5	T	28.20	M	10.9	31	11.2	31	320	21	320	08
09	27	16	22	0	16	20	43	0	0708	1728	FZRA SN BR HZ	3	M	1.3	0.15	28.22	30.01	1.5	01	5.6	25	330	18	340	09
10	28	23	26	3			39	0	0707	1730	SN BR	5	M	4.0	0.20	27.70	M	8.5	36	11.7	31	350	24	350	10
11	27	17	22	-1	12	19	43	0	0706	1731	SN	7	M	T	T	27.91	29.73	11.8	31	12.1	26	320	17	310	11
12	28	17	23	0	13	19	42	0	0704	1732	SN	7	M	T	T	28.06	29.86	9.4	31	9.6	26	310	17	310	12
13	23	14	19	-4	12	17	46	0	0703	1733	SN BR	6	M	0.3	T	27.89	29.66	8.9	31	9.2	32	320	20	310	13
14	29	20	25	2	18	22	40	0	0702	1735	SN BR	6	M	0.4	T	27.83	29.62	11.7	29	12.0	33	290	21	280	14
15	32	23	28	4	18	24	37	0	0700	1736	SN BR	7	M	1.1	0.03	27.92	29.69	5.3	25	7.2	20	260	16	270	15
16	26	22	24	0	21	23	41	0	0659	1737	SN BR	6	M	1.3	0.04	27.78	29.55	5.6	31	6.6	24	330	17	320	16
17	28	22	25	1	20	23	40	0	0658	1739	SN BR	7	M	1.6	0.04	27.78	29.55	10.1	28	10.3	24	280	17	280	17
18	30	25	28	4	22	25	37	0	0656	1740	SN BR	8	M	0.2	T	27.84	29.64	12.5	30	13.0	28	280	21	270	18
19	33	26	30	6	24	27	35	0	0655	1741	FZRA SN BR UP	8	M	0.4	0.01	28.02	29.83	13.5	30	13.7	35	300	26	300	19
20	35	27	31	6	24	28	34	0	0653	1742		8	M	T	T	28.22	30.01	10.4	30	10.6	25	300	17	330	20
21	34	19	27	2	18	24	38	0	0652	1744		7	M	0.0	0.00	28.21	30.00	10.5	32	11.1	30	310	21	320	21
22	37*	16	27	2	20	24	38	0	0650	1745	SN BR	7	M	0.5	0.01	28.15	29.91	6.6	14	7.8	28	140	22	140	22
23	33	31	32	6	29	31	33	0	0649	1746	SN BR	8	M	1.4	0.09	28.04	29.82	6.6	15	7.3	22	150	15	150	23
24	33	27	30	4	27	29	35	0	0647	1747	SN BR	8	M	0.7	0.04	28.04	29.81	8.4	34	8.8	21	350	16	350	24
25	28	19	24	-2			41	0	0646	1749	SN FZFG BR	10	M	13.9	0.52	27.81	M	12.2	32	12.3	38	330	26	310	25
26	36	19	28	2			37	0	0644	1750	SN BR UP	21	M	3.0	0.07	27.50	M	9.4	33	12.3	36	330	25	300	26
27	32	26	29	2			36	0	0643	1751	SN BR	20	M	2.0	0.11	27.71	M	6.4	26	7.9	17	220	12	240	27
28	36	28	32*	5	27	29	33	0	0641	1752	SN BR	19	M	0.4	0.02	27.86	29.64	5.3	32	6.3	23	330	18	350	28
	29.2	19.4	24.3		M	M	40.4	0.0	<----Monthly Averages Totals---->						M	37.5	1.45	28.03	29.82	6.5	31	9.4	<Monthly Average		
	-1.7	2.7	0.5		<-----Departure From Normal----->											-1.01									

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 0.55 Date: 25-26	Sea Level Pressure Date Time (LST)
Total Departure	Total Departure		Greatest 24-hr Snowfall: 13.9 Date: 25	Maximum 30.40 04 0853
Heating: 1132	-24	5101	Greatest Snow Depth: 21 Date: 26	Minimum 29.05 26 0453
Cooling: 0	0	0	Number of Days with ----->	Max Temp >=90: 0 Max Temp <=32: 20 Thunderstorms : 0
				Min Temp <=32: 28 Min Temp <=0 : 0 Heavy Fog : 0
				Precipitation >=.01 inch: 16 Precipitation >=.10 inch: Snowfall >=1.0 inch : 11

**QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA
(final)**

NOAA, National Climatic Data Center
Month: 03/2010

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)

BINGHAMTON, NY

Lat. 42.208 Lon. -75.981

Elevation(Ground): 1595 ft. above sea level

D a t e	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						D a t e
	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	Res	Avg.	max 5-second	max 2-minute	Speed	Dir	Speed	Dir
	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	35	29	32	5	27	30	33	0	0640	1753	SN BR UP	19	M	T	0.01	28.07	29.87	11.0	33	11.4	28	360	22	350	01
02	39	30	35	7	26	31	30	0	0638	1755	SN BR	18	M	T	0.00	28.15	29.91	7.3	36	7.6	16	010	13	010	02
03	34	27	31	3	26	29	34	0	0636	1756	SN BR	16	M	1.5	0.10	27.96	29.72	8.7	36	9.4	25	340	18	340	03
04	35	24	30	2	16	24	35	0	0635	1757	HZ	14	M	0.0	0.00	28.02	29.83	13.6	34	13.8	33	360	26	360	04
05	35	22	29	0	15	24	36	0	0633	1758		13	M	0.0	0.00	28.27	30.10	12.5	34	12.6	29	350	23	350	05
06	40	20	30	1	12	24	35	0	0631	1759		12	M	0.0	0.00	28.41	30.21	7.9	33	8.5	22	360	17	350	06
07	48	22	35	5	18	30	30	0	0630	1801		11	M	0.0	0.00	28.30	30.07	6.5	30	7.0	23	290	16	300	07
08	50	28	39	9	20	32	26	0	0628	1802		11	M	0.0	0.00	28.17	29.94	8.8	28	9.4	28	330	20	310	08
09	51	32	42	12	24	34	23	0	0626	1803		9	M	0.0	0.00	28.20	29.98	4.3	32	5.8	18	320	14	290	09
10	54	29	42	11	25	36	23	0	0625	1804		7	M	0.0	0.00	28.22	29.99	4.9	14	5.6	16	150	13	150	10
11	57	40	49	18	33	41	16	0	0623	1805		3	M	0.0	0.00	28.24	30.00	9.8	14	9.9	21	140	16	140	11
12	45	39	42	11	37	40	23	0	0621	1807	RA	1	M	0.0	0.05	28.28	30.03	14.2	12	14.3	31	130	25	120	12
13	41	35	38	6	33	36	27	0	0620	1808	RA BR	T	M	T	0.16	28.06	29.77	17.4	08	17.9	38	070	26	080	13
14	46	35	41	9	34	37	24	0	0618	1809	RA BR	0	M	T	0.01	27.89	29.64	12.7	07	13.0	33	060	23	080	14
15	47	38	43	11	33	38	22	0	0616	1810	RA	0	M	0.0	0.01	28.01	29.79	11.6	04	12.2	32	050	25	060	15
16	57	33	45	12	19	35	20	0	0615	1811		0	M	0.0	0.00	28.27	30.04	8.9	35	9.4	25	350	18	350	16
17	59	33	46	13	20	36	19	0	0613	1812		0	M	0.0	0.00	28.28	30.02	3.9	31	5.3	33	360	17	350	17
18	62	35	49	16	26	39	16	0	0611	1813		0	M	0.0	0.00	28.10	29.83	6.3	27	7.0	30	320	17	280	18
19	63	42	53*	19	26	41	12	0	0609	1815		0	M	0.0	0.00	28.10	29.85	4.4	26	6.8	18	270	14	260	19
20	65	37	51	17	33	42	14	0	0608	1816		0	M	0.0	0.00	28.25	30.01	4.3	29	8.4	30	220	17	260	20
21	66*	34	50	15	32	42	15	0	0606	1817		0	M	0.0	0.00	28.32	30.05	4.0	02	6.3	16	240	13	260	21
22	57	42	50	15	43	46	15	0	0604	1818	RA BR	0	M	0.0	0.59	28.17	29.88	6.6	08	7.7	20	120	15	110	22
23	53	33	43	8	39	41	22	0	0603	1819	RA BR	0	M	T	0.50	27.86	29.58	4.4	36	9.7	29	310	21	050	23
24	51	32	42	6	24	34	23	0	0601	1820	SN BR	T	M	0.3	T	28.12	29.91	10.2	31	10.6	30	280	22	330	24
25	56	33	45	9	24	36	20	0	0559	1821	RA SN BR	0	M	0.4	0.21	28.15	29.87	2.5	30	8.6	25	350	22	350	25
26	32	19	26*	-10	12	21	39	0	0557	1823		T	M	0.4	0.03	28.17	30.00	13.1	35	13.4	28	360	22	350	26
27	44	17*	31	-6	5	23	34	0	0556	1824		0	M	0.0	0.00	28.50	30.32	2.2	17	5.8	18	170	13	160	27
28	44	28	36	-1	29	34	29	0	0554	1825	RA BR	0	M	0.0	0.17	28.34	30.08	12.1	16	12.4	31	190	18	160	28
29	50	37	44	7		21	0	0	0552	1826	RA BR	0	M	0.0	0.06	28.06	M	5.1	35	8.2	26	010	20	020	29
30	37	34	36	-2	32	34	29	0	0551	1827	RA SN BR	0	M	T	0.99	28.02	29.76	16.3	35	17.1	41	340	25	340	30
31	55	36	46	8		19	0	0	0549	1828	RA BR	M	M	M	0.04	28.12	M	9.3	33	9.4	23	310	18	320	31
	48.6	31.5	40.1		25.6	34.1	24.6	0.0	<-----Monthly Averages Totals----->			M	M	2.93	28.17	29.92	3.9	36	9.8	<Monthly Average					
	8.0	6.8	7.4		<-----Departure From Normal----->									-0.04											

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 1.05s Date: 22-23	Sea Level Pressure Date (LST)
Total Departure	Total Departure	Greatest 24-hr Snowfall: M Date: M	Maximum 30.41 27 1025	
Heating: 764	-233	Greatest Snow Depth: M Date: M	Minimum 29.49 23 1425	
Cooling: 0	-1	Number of Days with ----->	Max Temp >=90: 0 Min Temp <=32: 14	Precipitation >=.01 inch: 14
		Max Temp <=32: 1 Min Temp <=0 : 0	Max Temp <=32: 1 Min Temp <=0 : 0	Precipitation >=.10 inch: 1
		Thunderstorms :	Heavy Fog : 0	Snowfall >=1.0 inch : 1

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA
(may be updated)
NOAA, National Climatic Data Center
Month: 04/2010

Station Location: GREATER BINGHAMTON/E A LINK FIELD AP (04725)
BINGHAMTON, NY
Lat. 42.208 Lon. -75.981
Elevation(Ground): 1595 ft. above sea level

D a t e	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						D a t e	
	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 Speed	Dir	max 2-minute Speed	Dir	
	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	73	32s	M	M	35	47	M	M	0547	1829	BR RA TSRA RA BR RA SN RA BR VCTS RA SN BR RA FG BR	M	M	M	T	28.32	30.06	3.5	18	4.5	15	220	10	210	01
02	79	51	65	26	39	52	0	0	0545	1830		M	M	M	0.00	28.35	30.08	6.5	17	6.8	20	210	14	200	02
03	79	52	66	27	44	54	0	1	0544	1832		M	M	M	0.00	28.28	30.00	9.2	18	9.8	30	180	20	170	03
04	64	50	57	17	30	45	8	0	0542	1833		M	M	M	0.00	28.40	30.15	4.2	32	6.7	28	300	18	310	04
05	75	44	60	20	35	48	5	0	0540	1834		M	M	M	T	28.30	30.01	4.9	22	7.8	33	250	22	250	05
06	72	48	60	20	48	54	5	0	0539	1835		M	M	M	0.10	28.13	29.82	3.8	21	7.0	23	260	17	250	06
07	82	56	69*	28	45	56	0	4	0537	1836		M	M	M	0.00	27.99	29.69	6.1	26	10.0	30	270	22	270	07
08	82*	50	66	25			0	1	0535	1837		M	M	M	0.47	27.93	M	4.1	17	9.0	33	300	24	310	08
09	50s	32	M	M	28	35	M	M	0534	1838		M	M	M	0.02	28.04	29.81	9.7	31	10.1	32	280	22	310	09
10	55	31*	43	1	21	35	22	0	0532	1839		M	M	M	T	28.36	30.16	9.7	28	11.3	30	310	22	310	10
11	60	44	52	10	25	41	13	0	0530	1841		M	M	M	T	28.46	30.23	6.8	30	9.0	24	280	17	360	11
12	54	38	46	3	22	37	19	0	0529	1842		M	M	M	0.00	28.59	30.38	8.1	34	9.0	29	270	21	350	12
13	56	38	47	4	22	37	18	0	0527	1843		M	M	M	0.00	28.69	30.48	3.3	04	5.0	24	050	13	040	13
14	61	34	48	5	21	38	17	0	0525	1844		M	M	M	0.00	28.74	30.50	2.5	34	4.0	21	290	15	350	14
15	65	41	53	9	31	43	12	0	0524	1845		M	M	M	T	28.53	30.25	0.9	23	4.8	17	300	13	330	15
16	70	45	58	14	46	51	7	0	0522	1846		M	M	M	0.37	28.12	29.81	4.9	18	8.1	29	300	20	320	16
17	50	34	42	-3	31	36	23	0	0521	1847		M	M	M	0.02	28.03	29.79	10.1	29	11.0	29	270	21	270	17
18	49	32	41	-4	32	37	24	0	0519	1848		M	M	M	0.01	28.15	29.93	8.6	30	9.2	25	310	17	340	18
19	56	37	47	2	32	40	18	0	0518	1849		M	M	M	0.00	28.26	30.02	10.4	34	11.2	30	010	24	360	19
20	63	37	50	4	32	42	15	0	0516	1851		M	M	M	0.00	28.25	29.97	3.5	34	5.2	16	340	14	350	20
21	66	42	54	8	34	45	11	0	0514	1852		M	M	M	0.00	28.07	29.77	2.2	23	5.6	22	220	14	260	21
22	56	37	47	0	36	42	18	0	0513	1853		M	M	M	0.00	28.03	29.77	7.0	33	8.9	31	350	20	350	22
23	56	33	45	-2			20	0	0511	1854		M	M	M	0.00	28.19	M	M	9.2	31	230	20	350	23	
24	64	35	50	2	28	41	15	0	0510	1855		M	M	M	0.04	28.30	30.02	4.3	18	6.0	21	230	15	220	24
25	48	45	47	-1	45	46	18	0	0508	1856		M	M	M	0.40	27.91	29.59	8.1	12	8.6	18	100	15	100	25
26	50	44	47	-1	46	46	18	0	0507	1857		M	M	M	0.83	27.65	29.36	5.3	07	6.1	17	070	13	060	26
27	44	32	38*	-11	30	36	27	0	0506	1858		M	M	M	T	27.72	29.47	10.6	32	11.1	35	350	29	350	27
28	51	33	42	-8	24	35	23	0	0504	1860		M	M	M	T	27.89	29.66	13.0	31	13.4	36	320	25	320	28
29	60	35	48	-2	23	39	17	0	0503	1901		M	M	M	0.00	28.09	29.84	11.0	31	11.6	41	330	26	320	29
30	75	46	61	11	37	49	4	0	0501	1901		M	M	M	0.00	28.12	29.83	0.2	29	4.9	20	290	12	300	30
	62.2	40.3	51.3		32.9	43.1	13.5	0.2	<-----Monthly Averages Totals----->				M	M	2.26	28.20	29.92	2.9	29	8.2	<Monthly Average				
	9.1	5.2	7.2		<-----Departure From Normal----->										-1.23										

Degree Days	Monthly	Season to Date	Greatest 24-hr Precipitation: 0.83 Date: 26	Sea Level Pressure Date (LST)
Total Departure	Total Departure		Greatest 24-hr Snowfall: M Date: M	Maximum 30.61 14 0915
Heating:	377	-240	Greatest Snow Depth: M Date: M	Minimum 29.30 26 1343
Cooling:	6	2	Number of Days with ----->	Max Temp >=90: 0 Max Temp <=32: 0 Thunderstorms : 1 Heavy Fog : 0
				Min Temp <=32: 5 Min Temp <=0 : 0 Precipitation >=.01 inch: 9 Precipitation >=.10 inch: Snowfall >=1.0 inch : 0

APPENDIX B.3

TIME SERIES PLOTS – FIGURES B.1 THROUGH B.37

Figure B.1
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

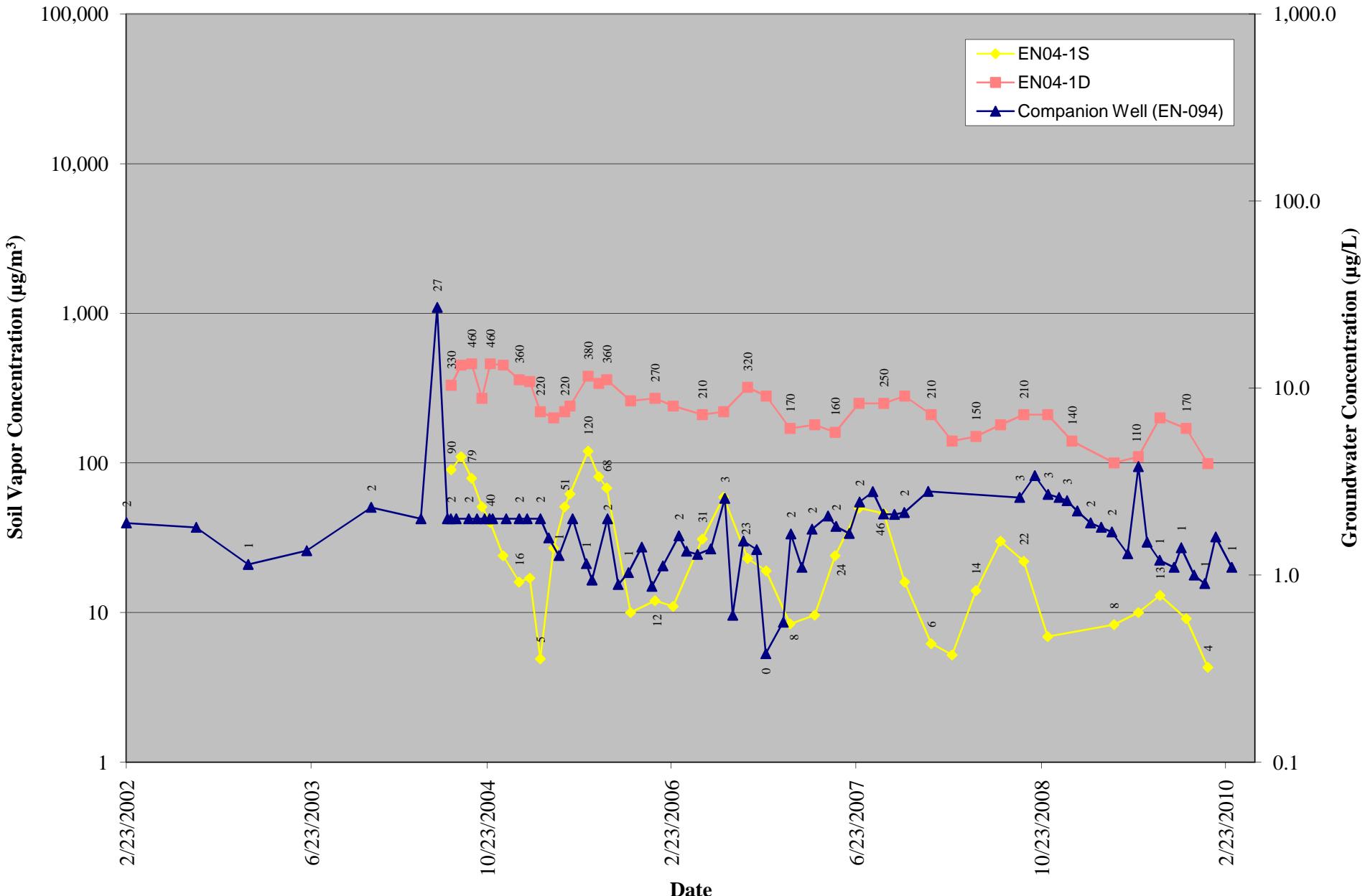


Figure B.2
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

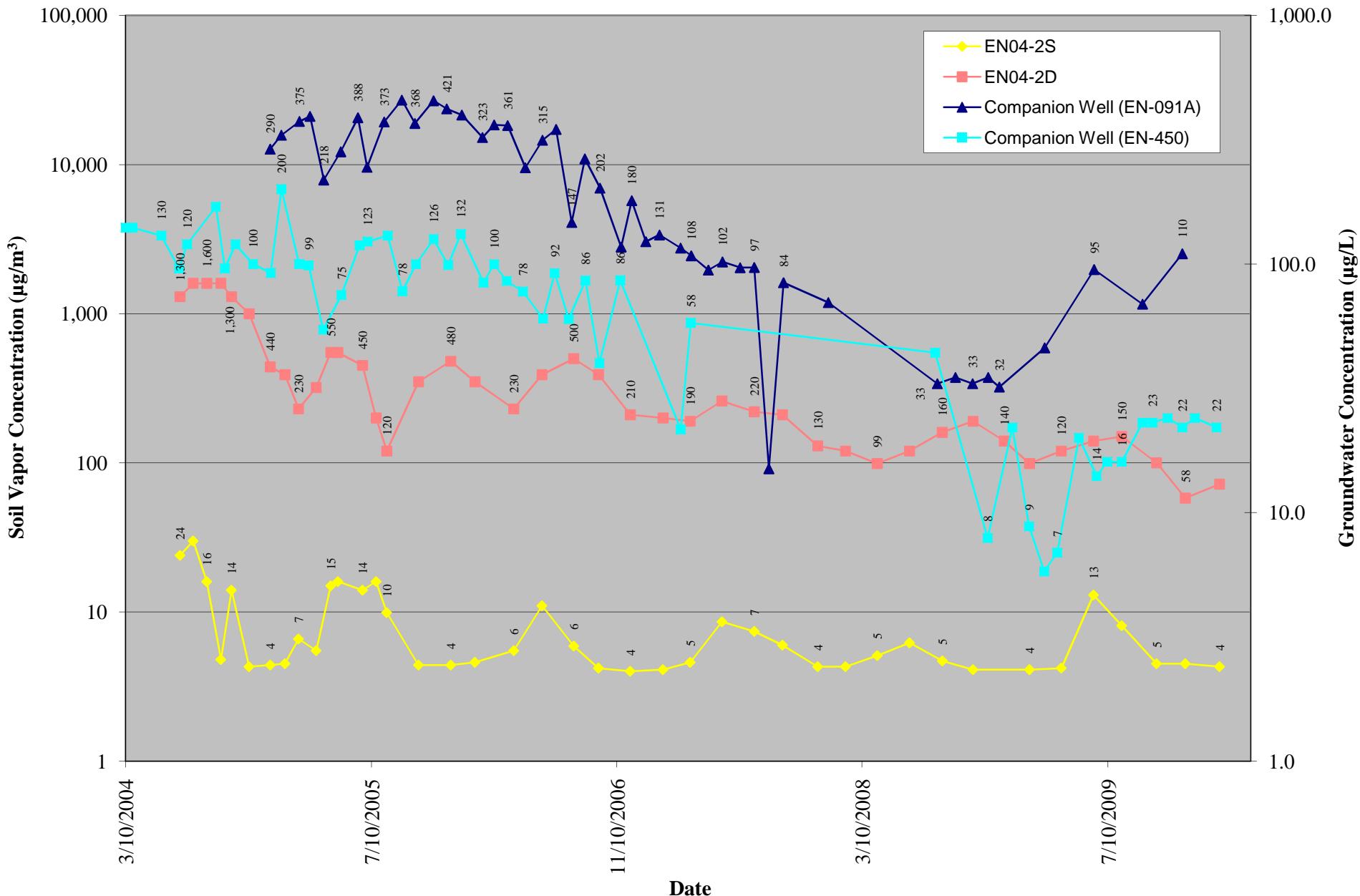


Figure B.3
TCE in Soil Vapor and Groundwater
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 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

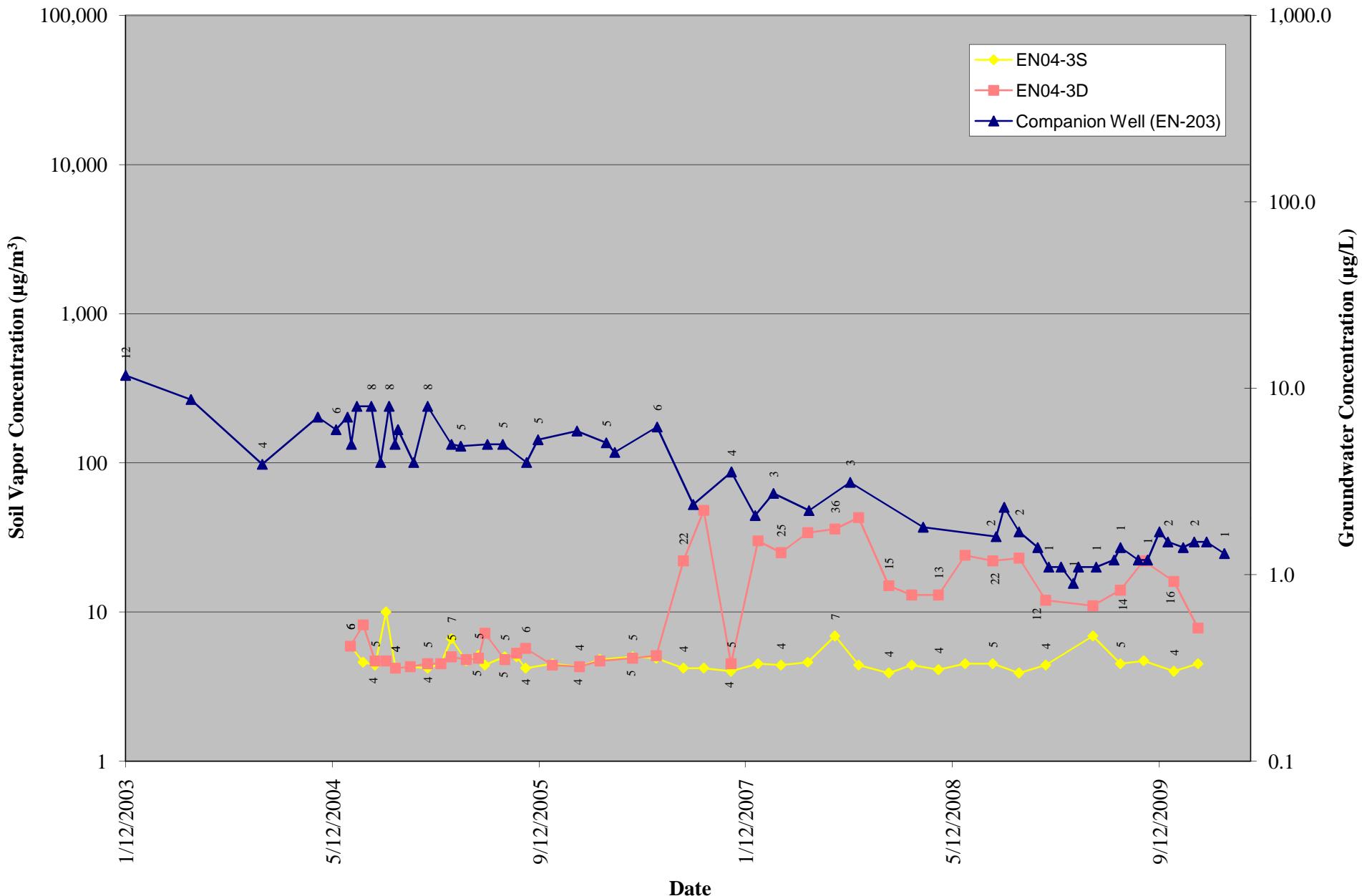


Figure B.4
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

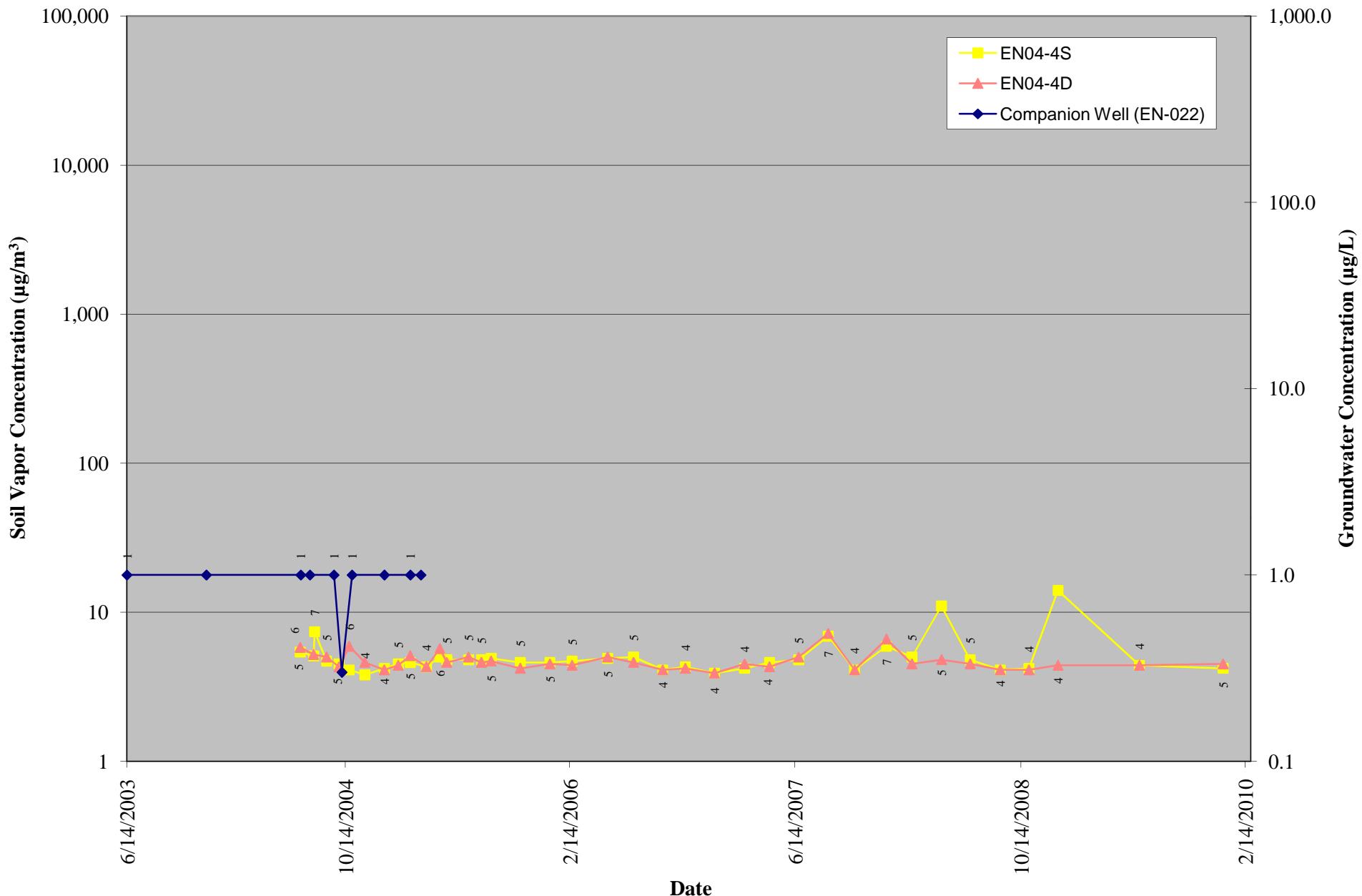


Figure B.5
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

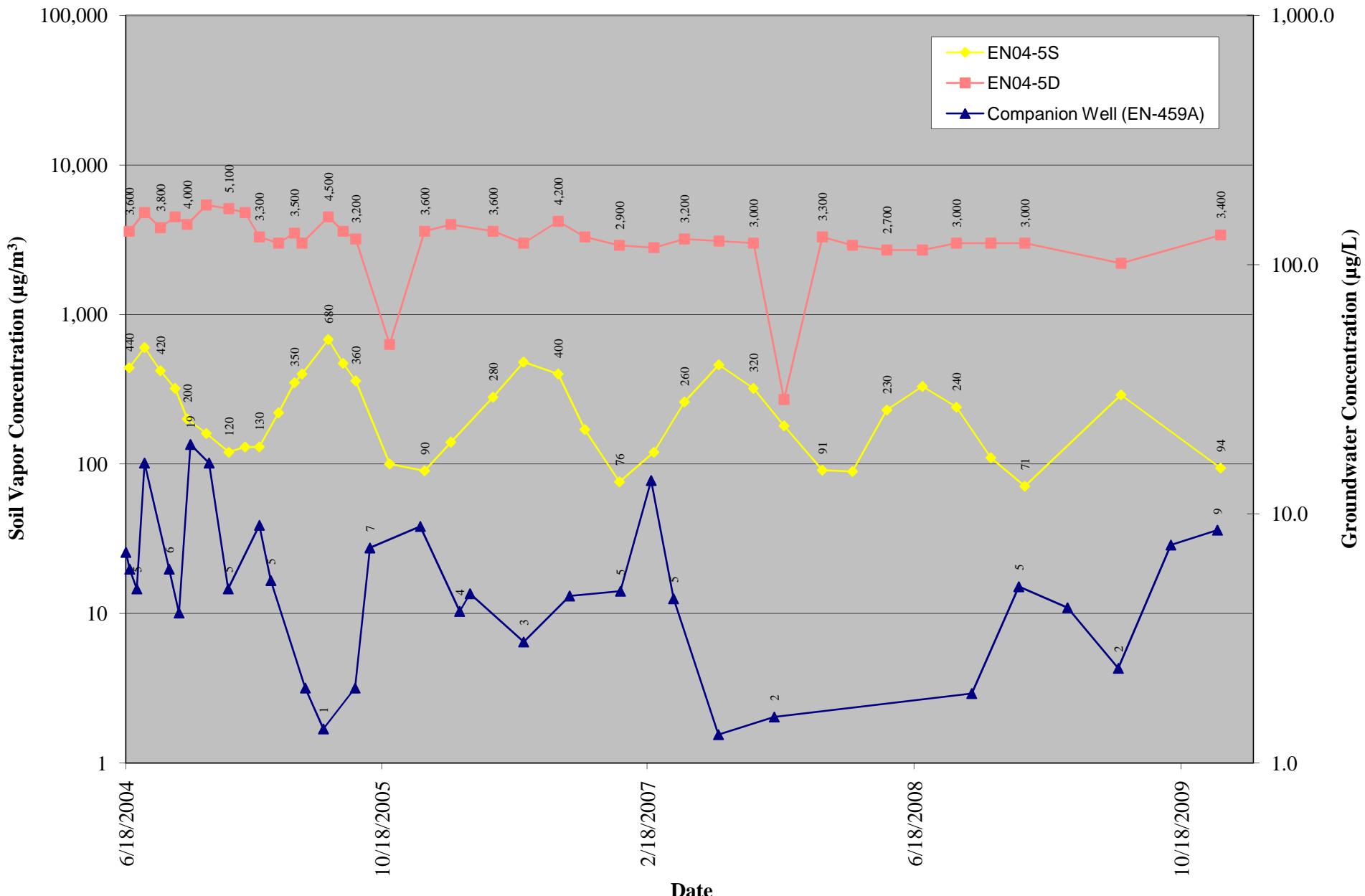


Figure B.6
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

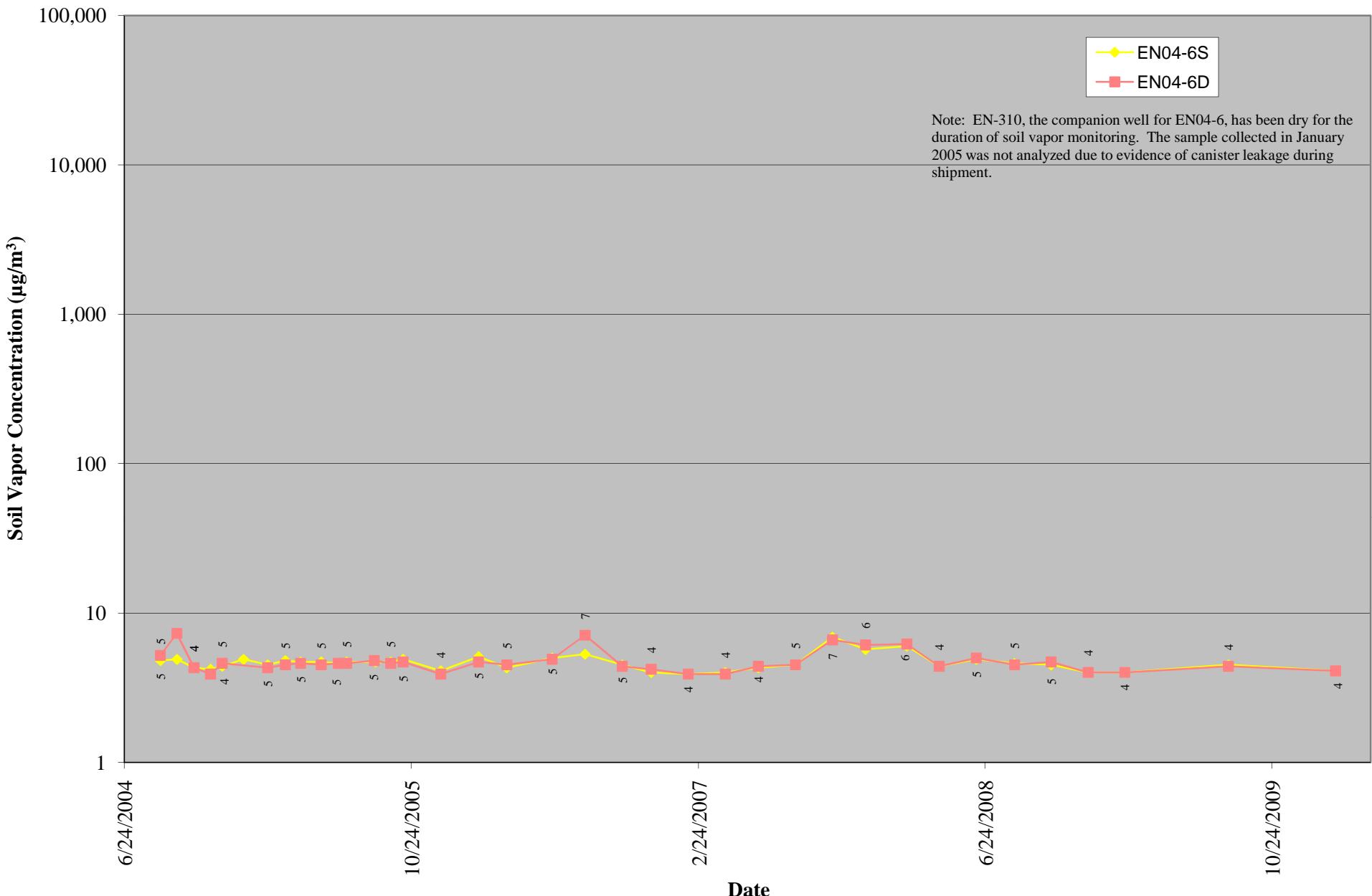


Figure B.7
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

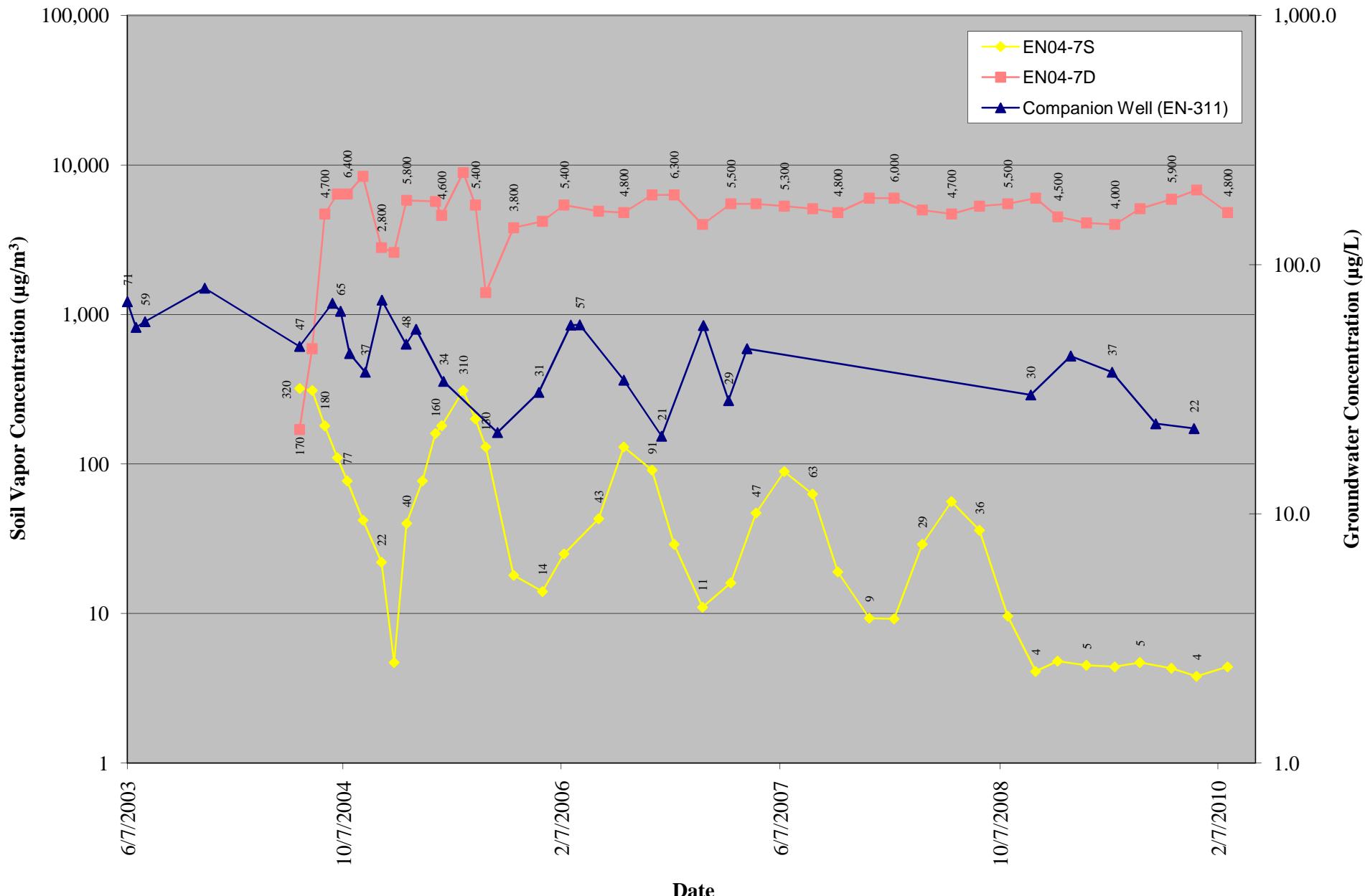


Figure B.8
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

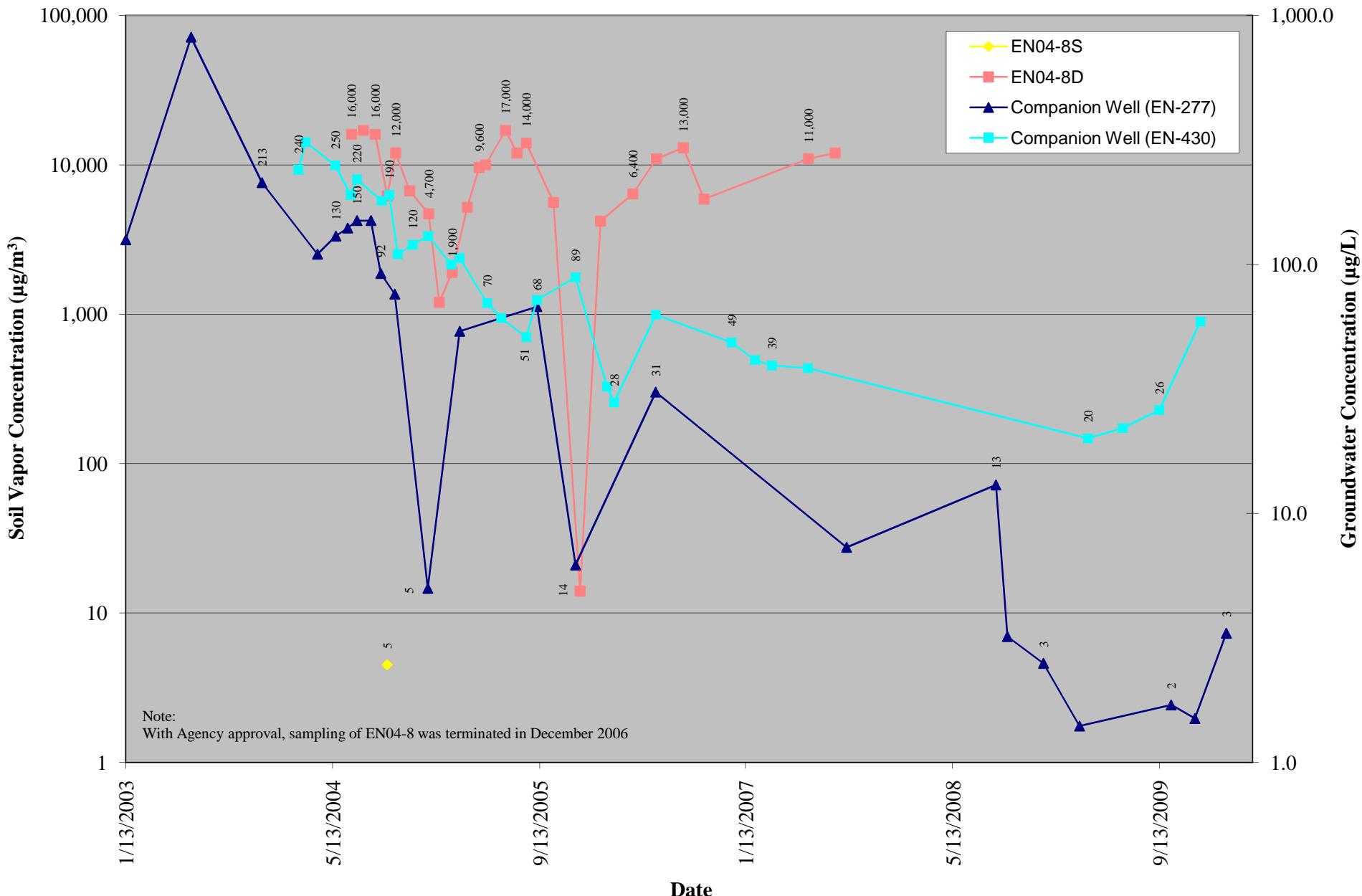


Figure B.9
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through April 2010
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

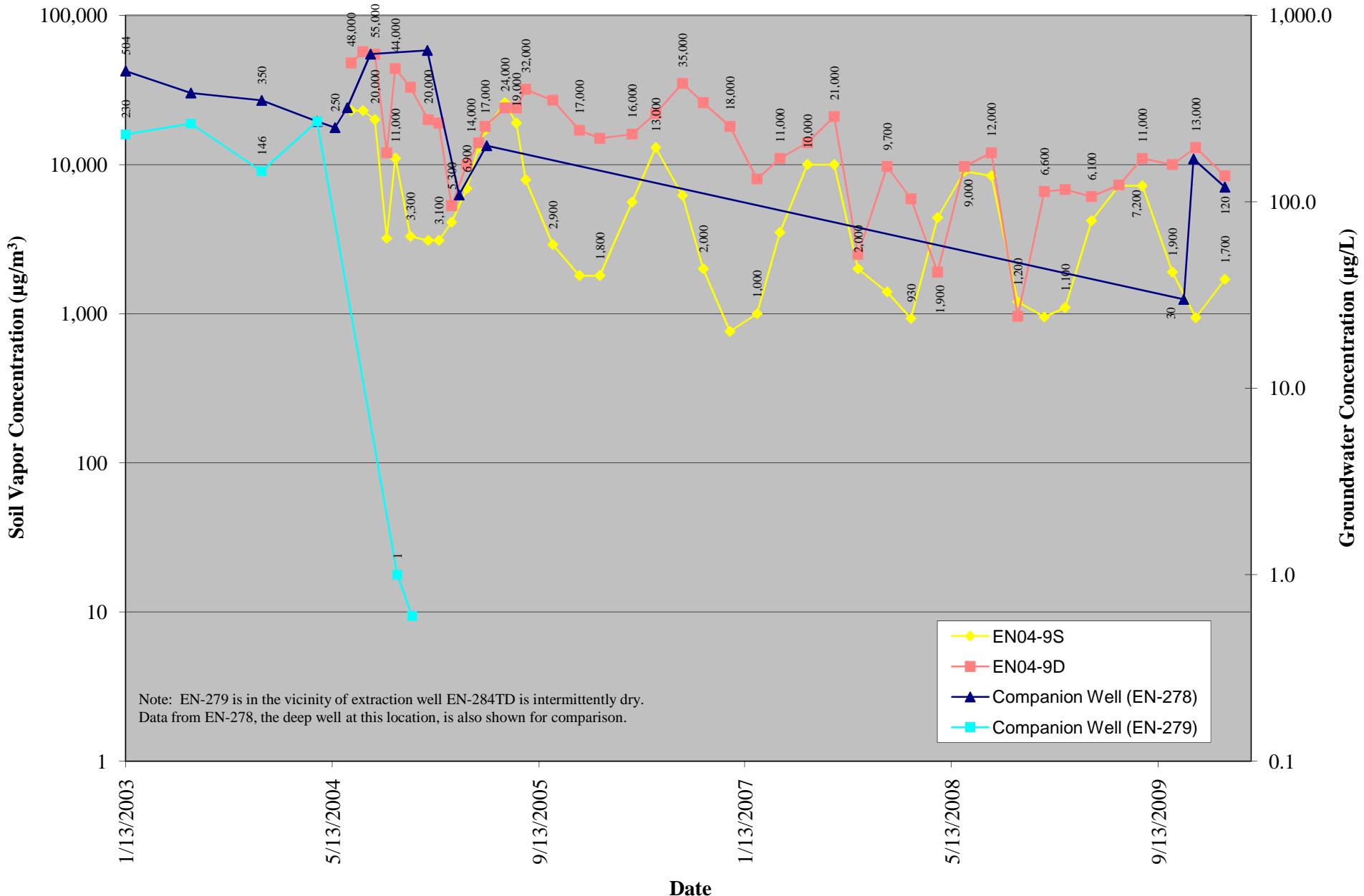


Figure B.10
TCE in Soil Vapor and Groundwater
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Endicott, New York

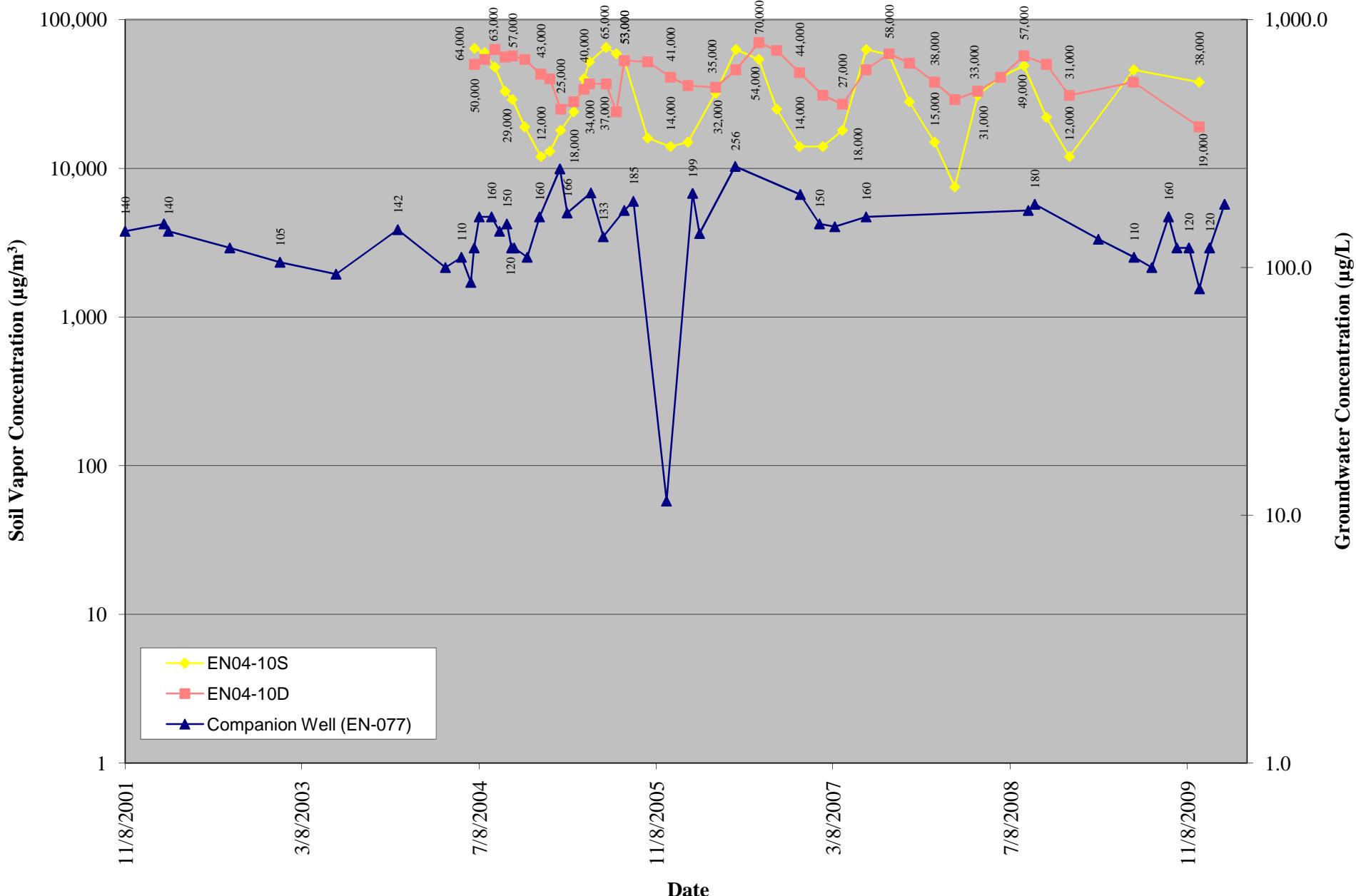


Figure B.11
TCE in Soil Vapor and Groundwater
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 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

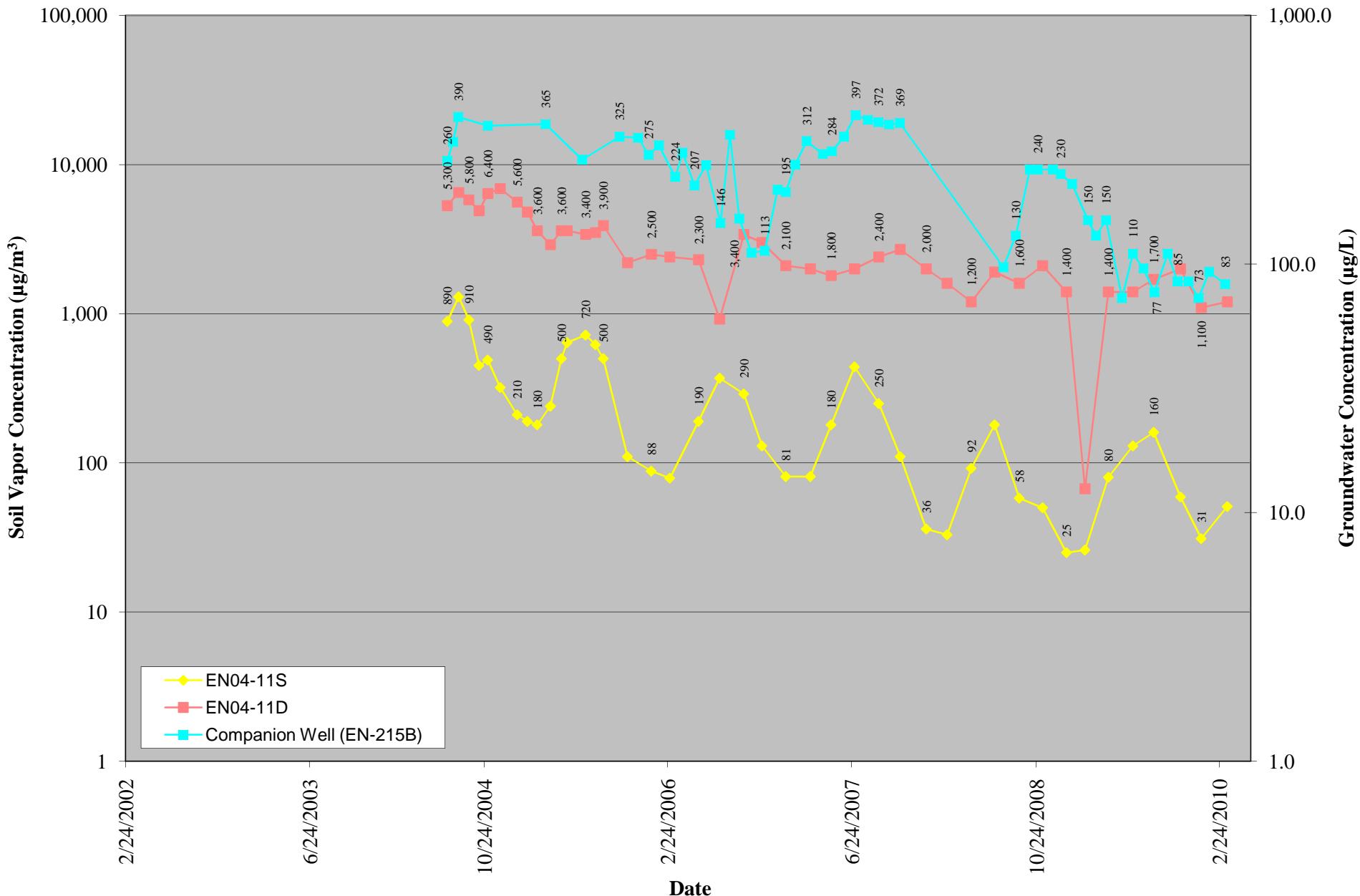


Figure B.12
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

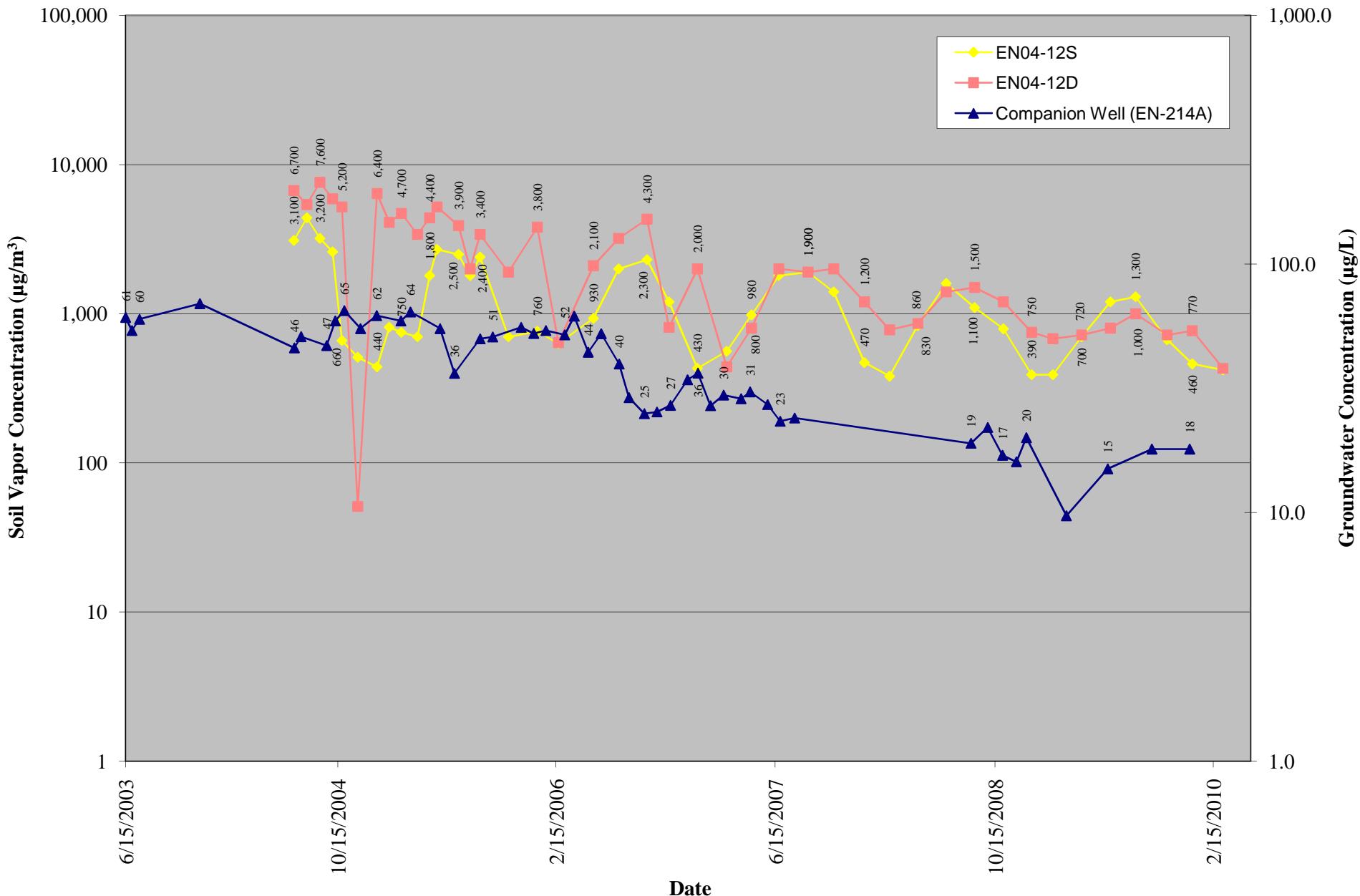


Figure B.13
TCE in Soil Vapor and Groundwater
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Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

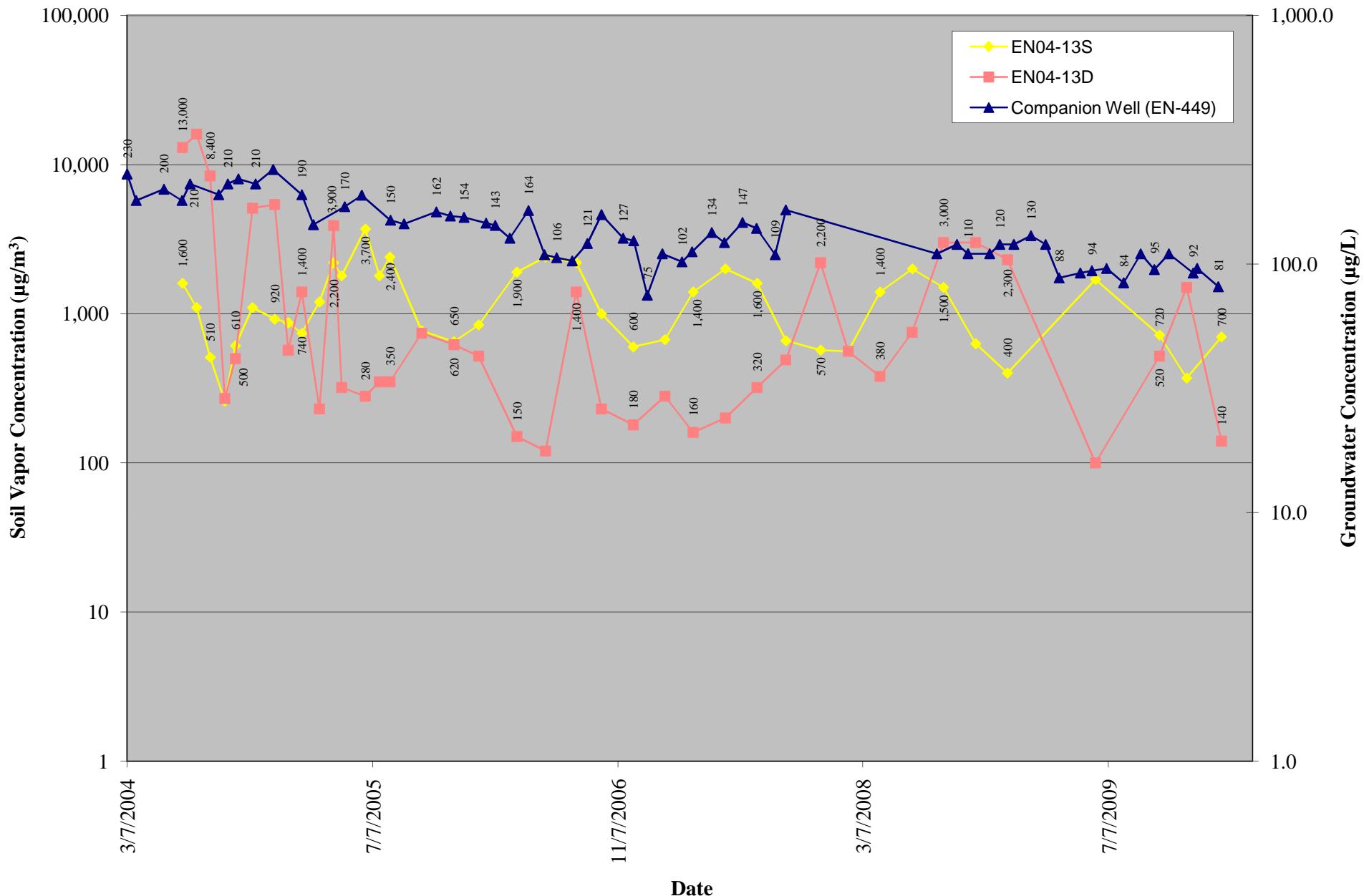


Figure B.14
TCE in Soil Vapor and Groundwater
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Endicott, New York

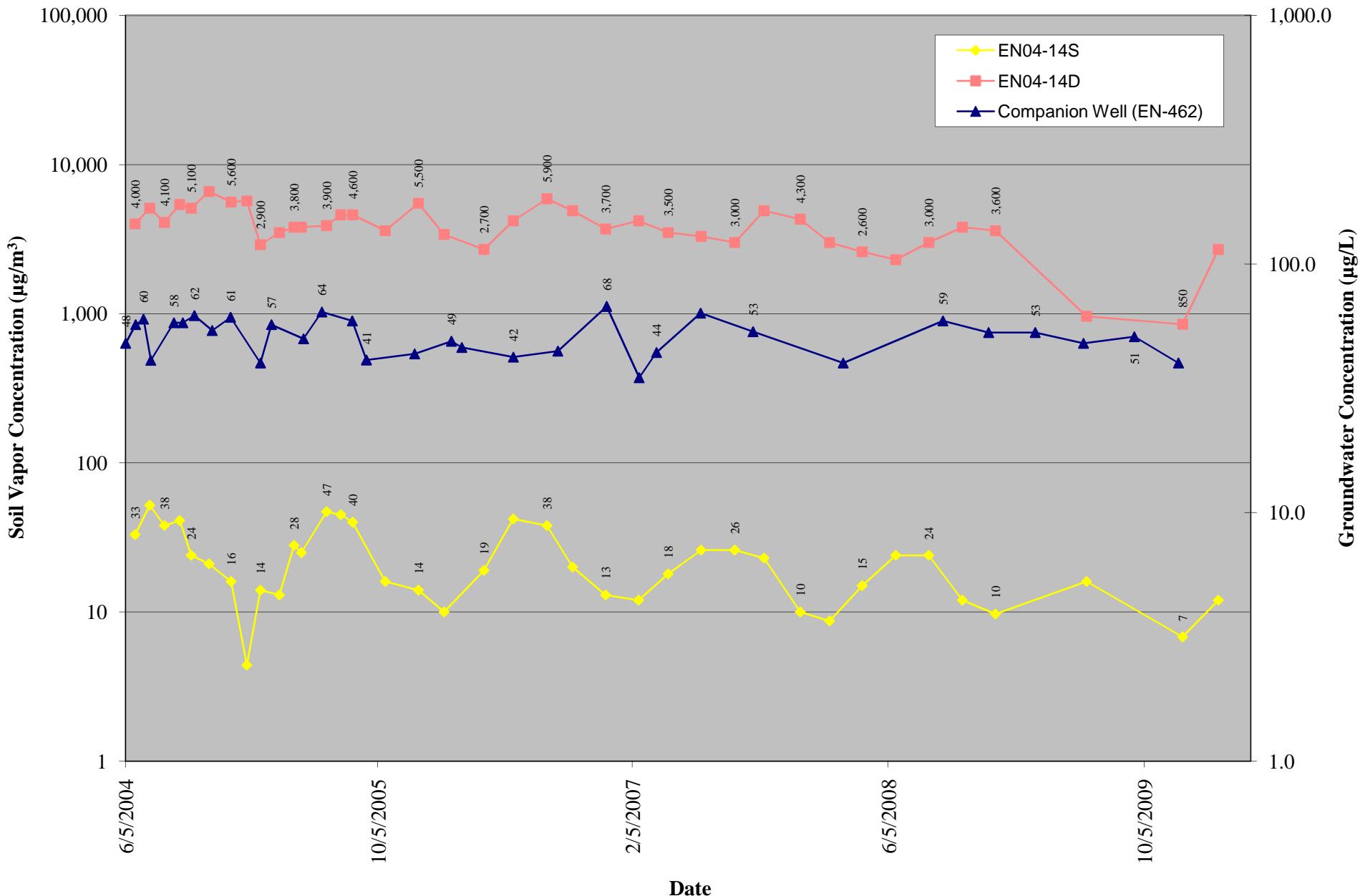


Figure B.15
TCE in Soil Vapor and Groundwater
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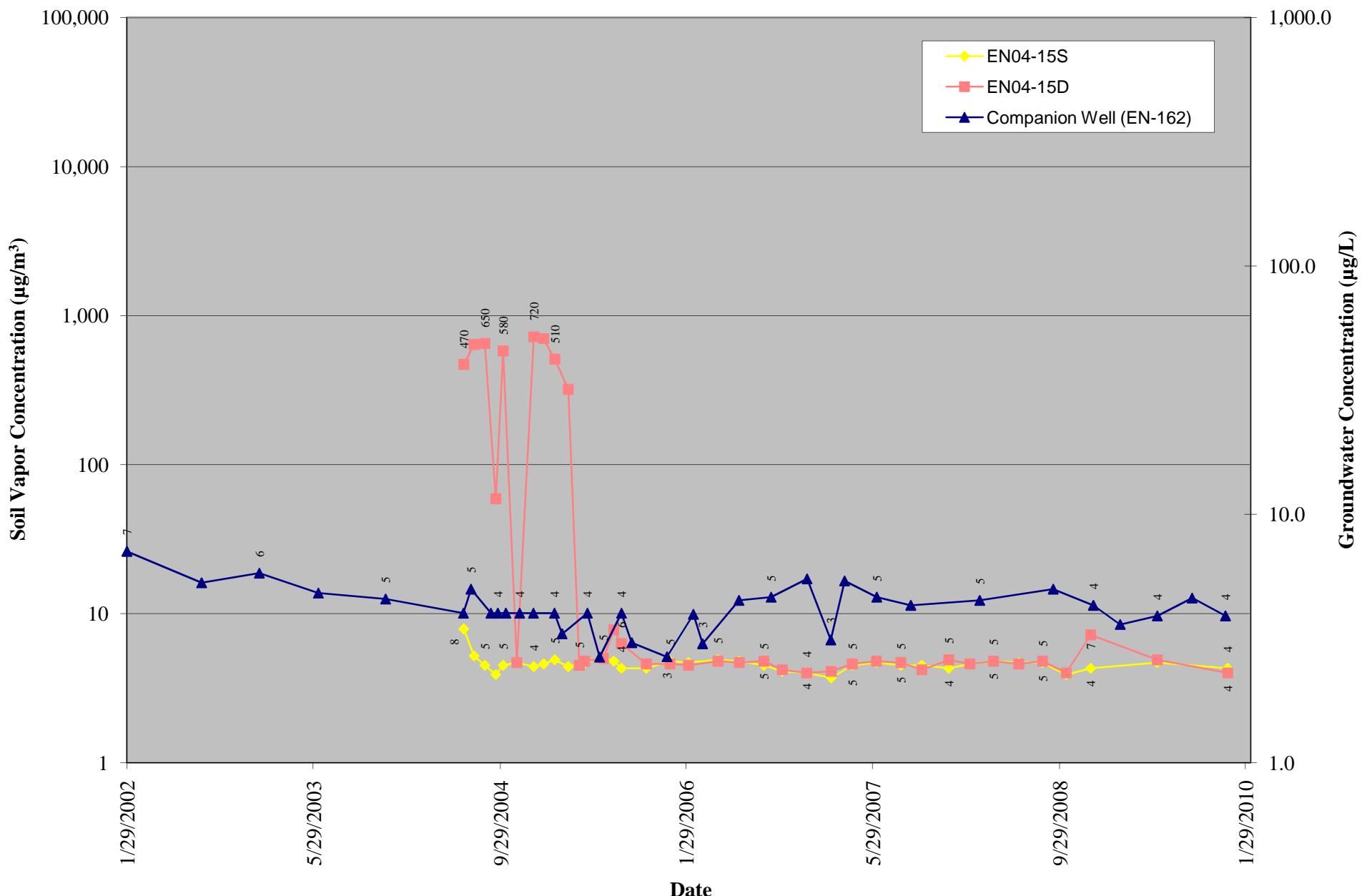


Figure B.16
TCE in Soil Vapor and Groundwater
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Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

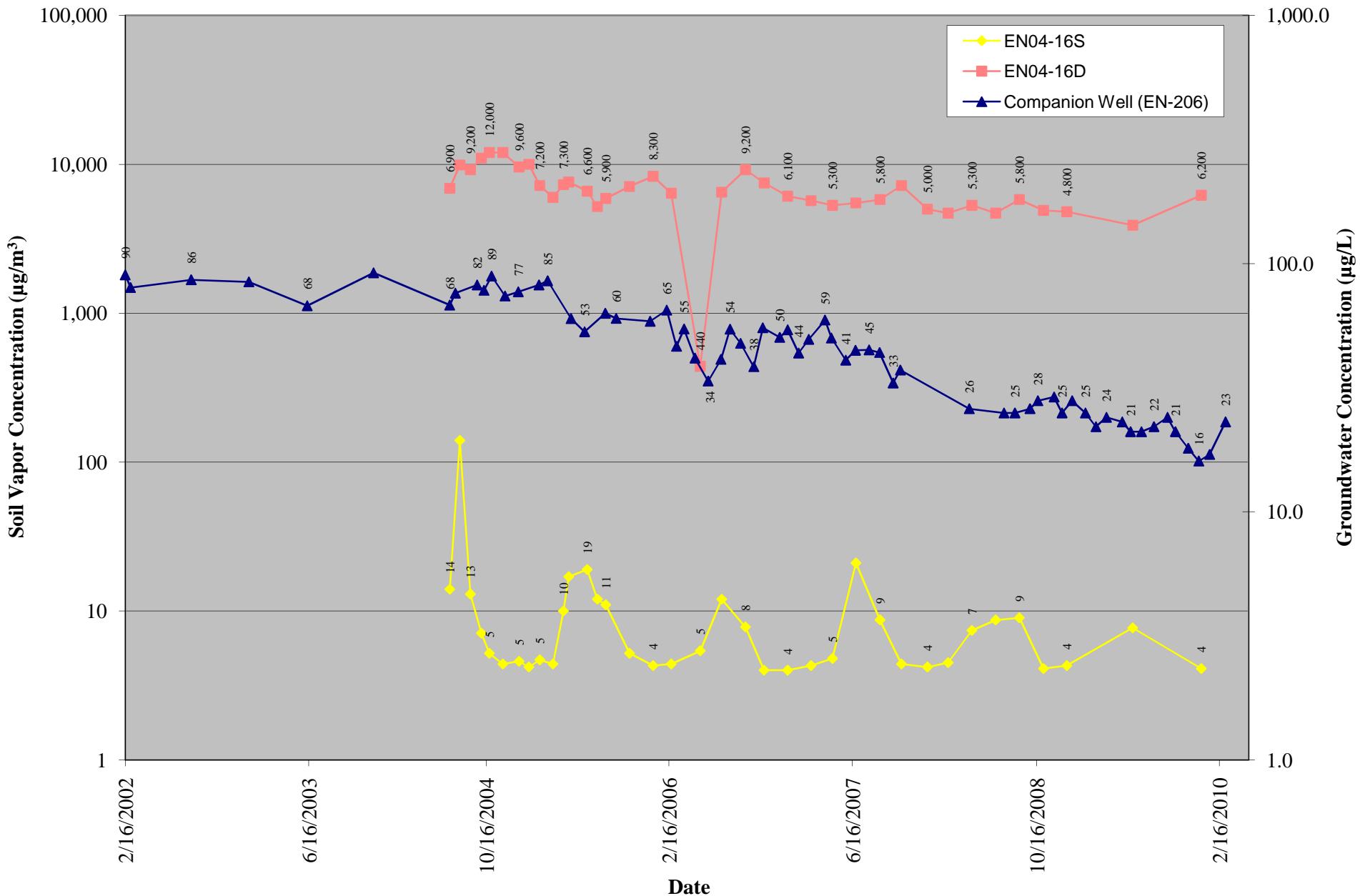


Figure B.17
TCE in Soil Vapor and Groundwater
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Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

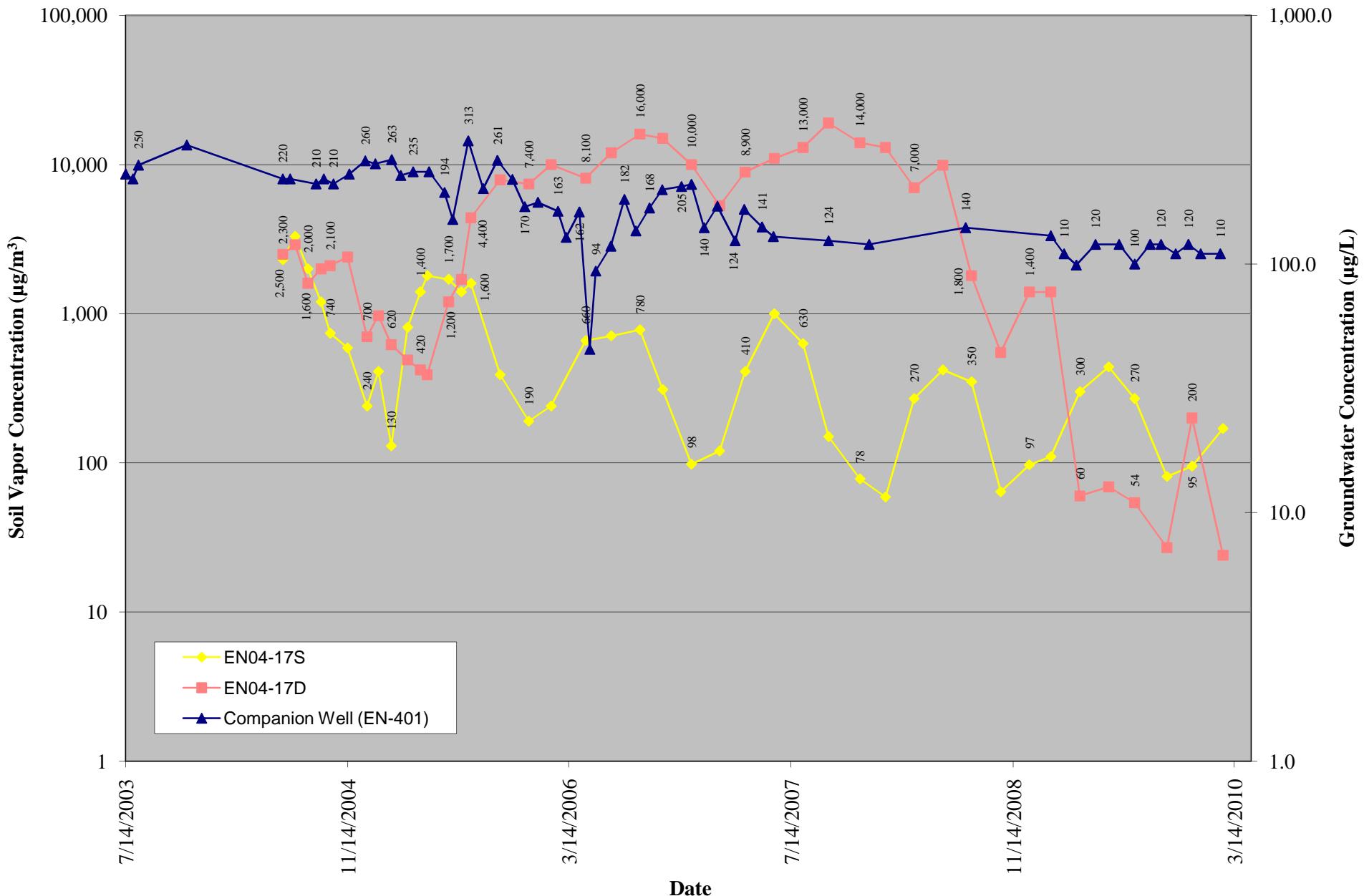


Figure B.18
TCE in Soil Vapor and Groundwater
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Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

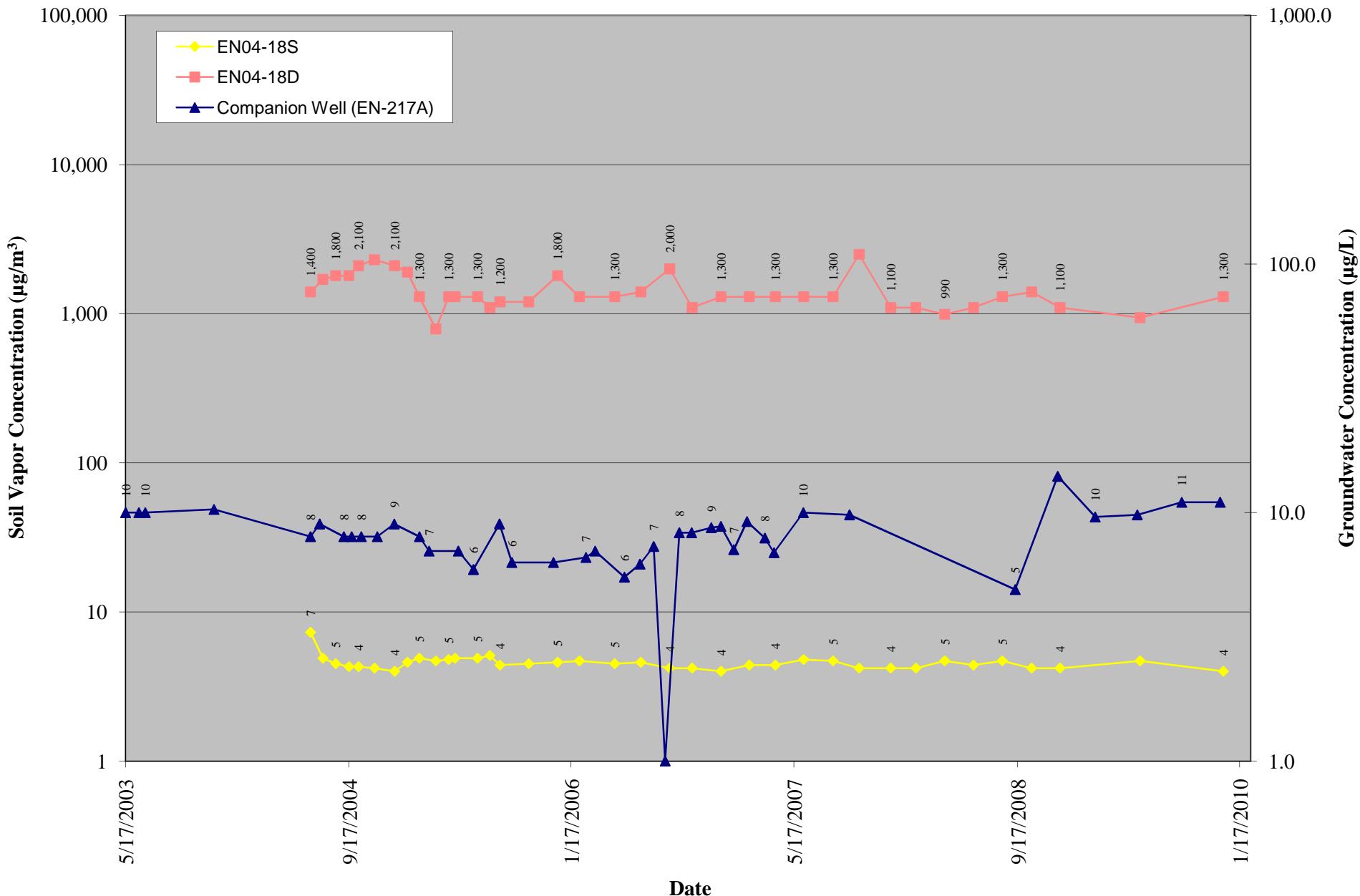


Figure B.19
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

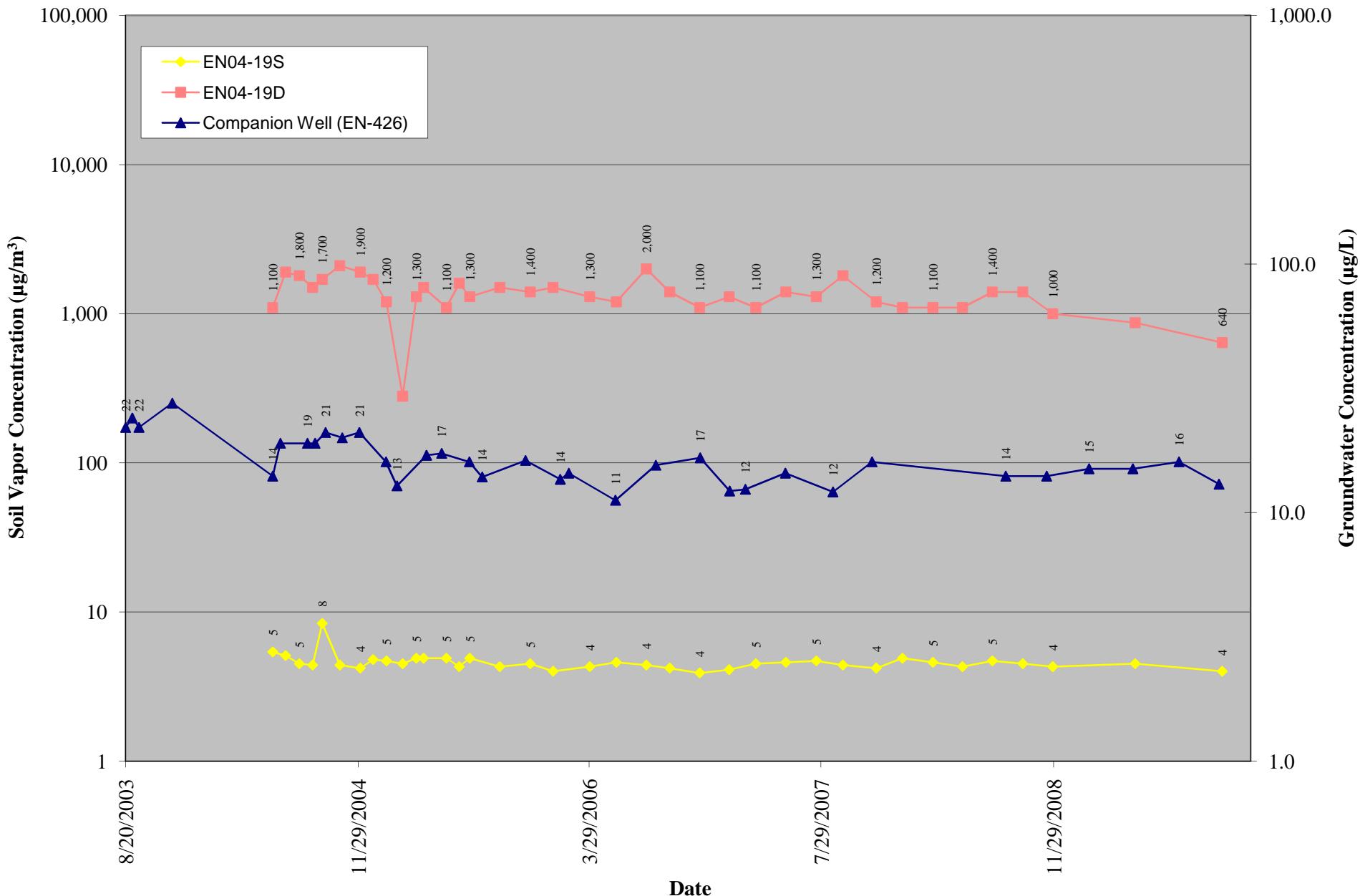


Figure B.20
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

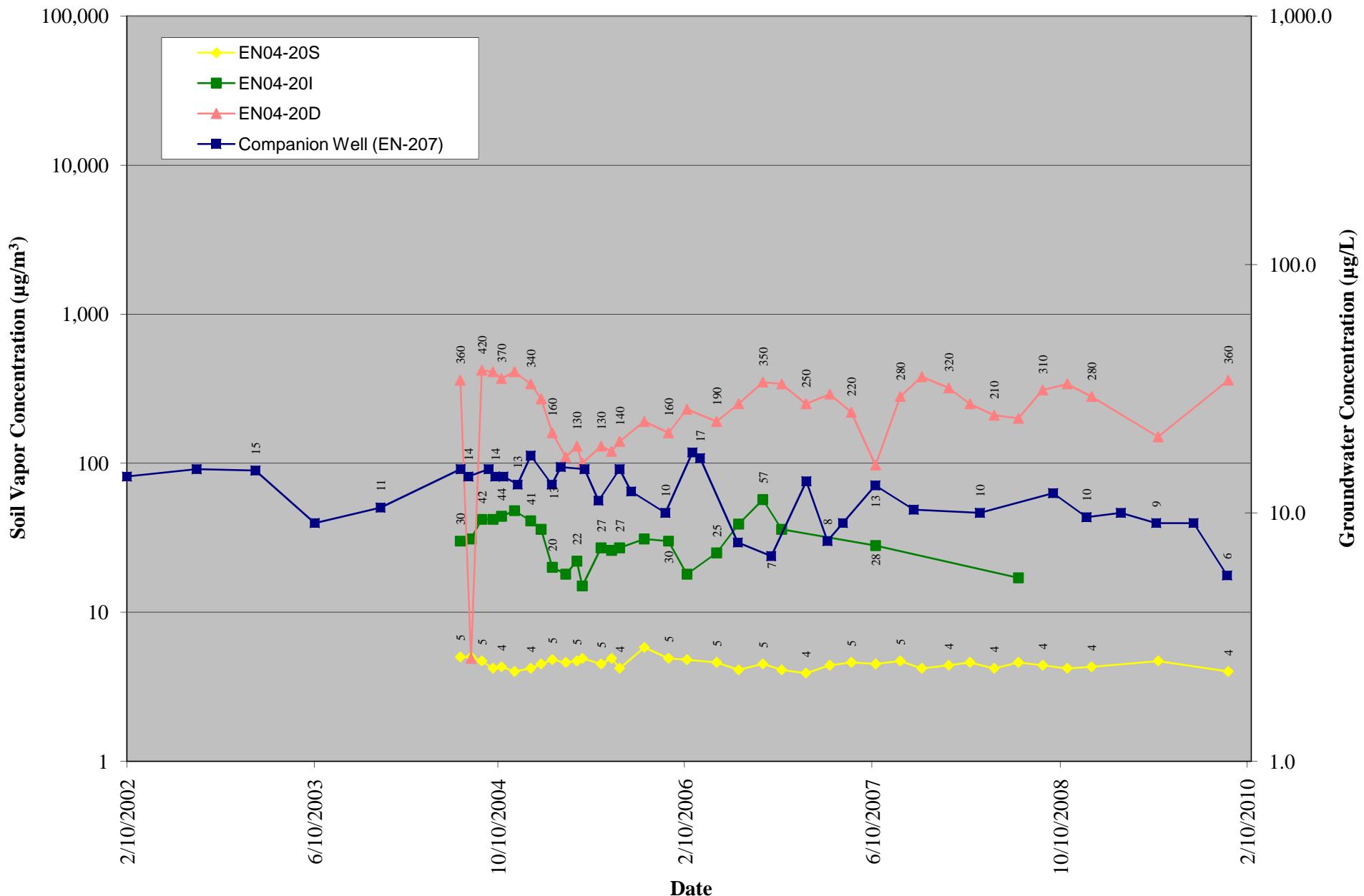


Figure B.21
TCE in Soil Vapor and Groundwater
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Endicott, New York

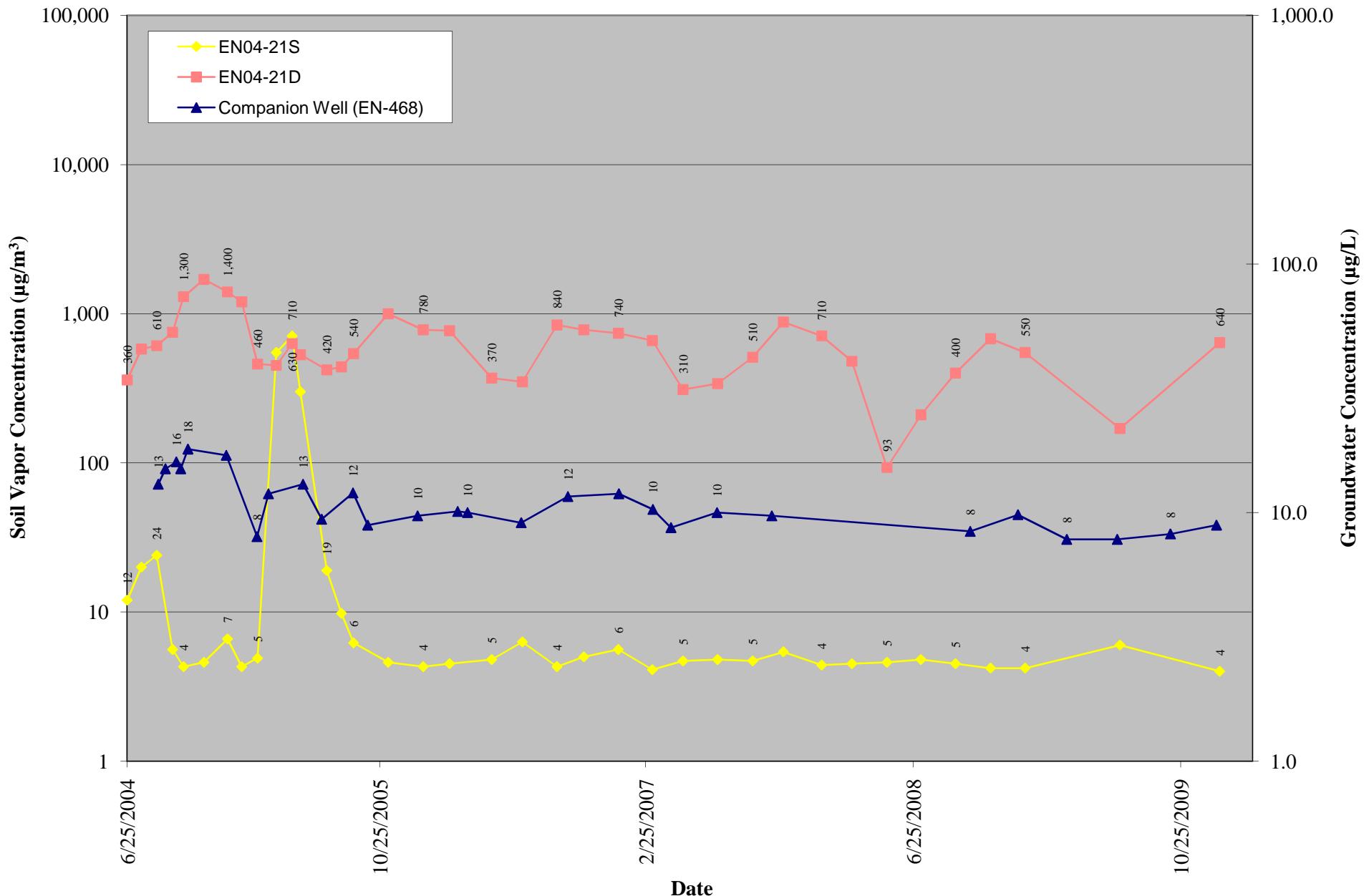


Figure B.22
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

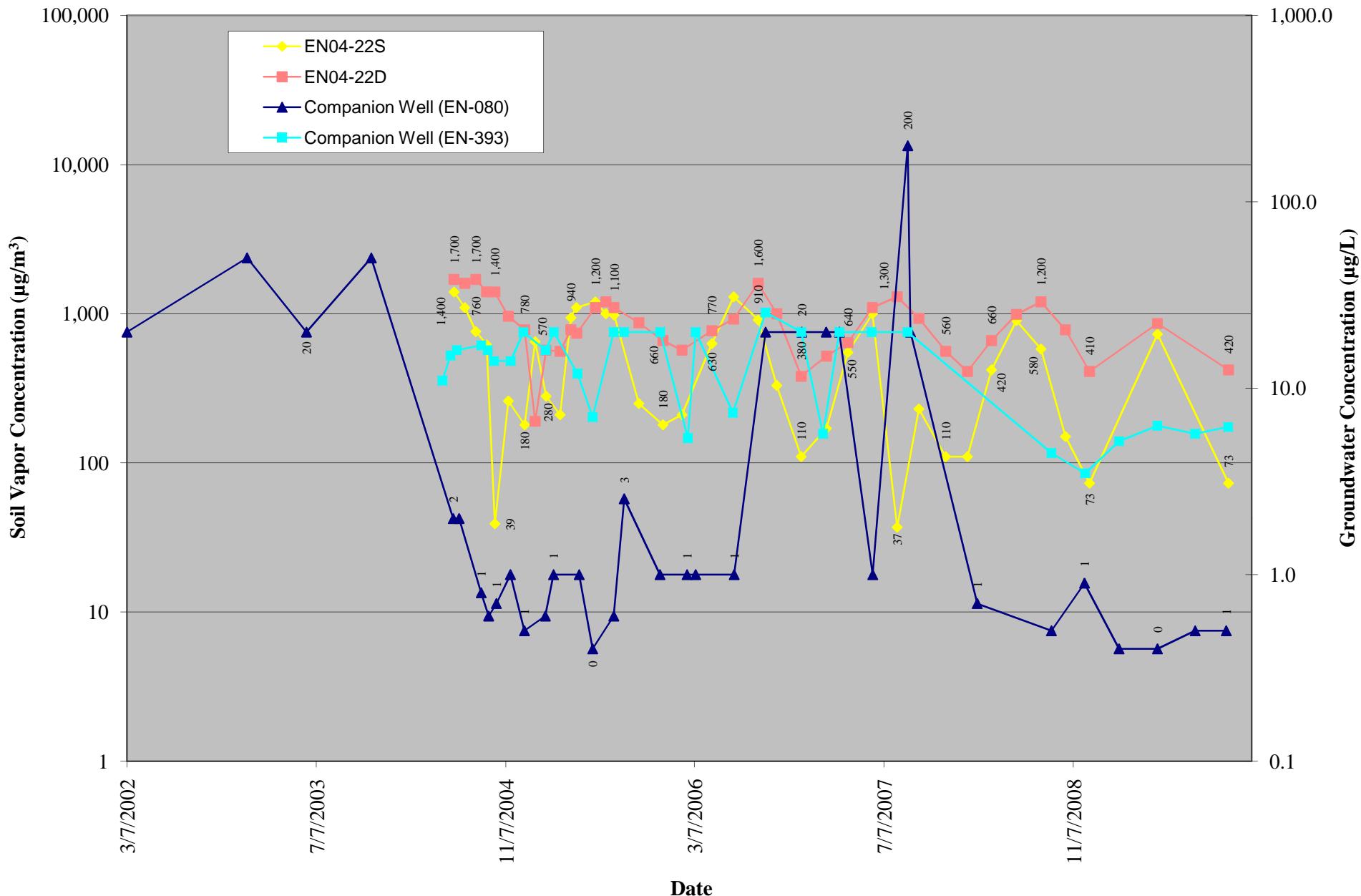


Figure B.23
TCE in Soil Vapor and Groundwater
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Endicott, New York

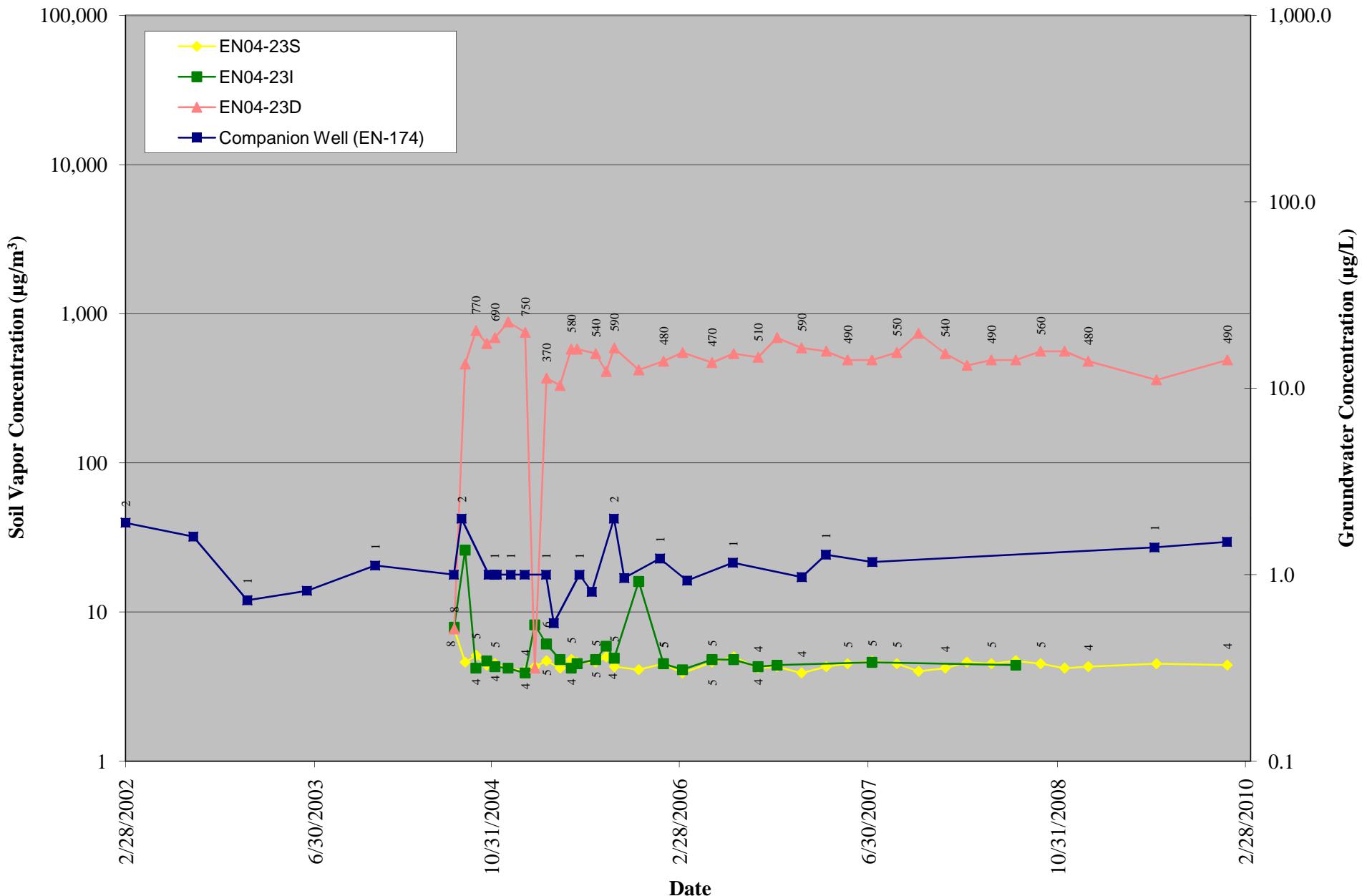


Figure B.24
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through April 2010
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

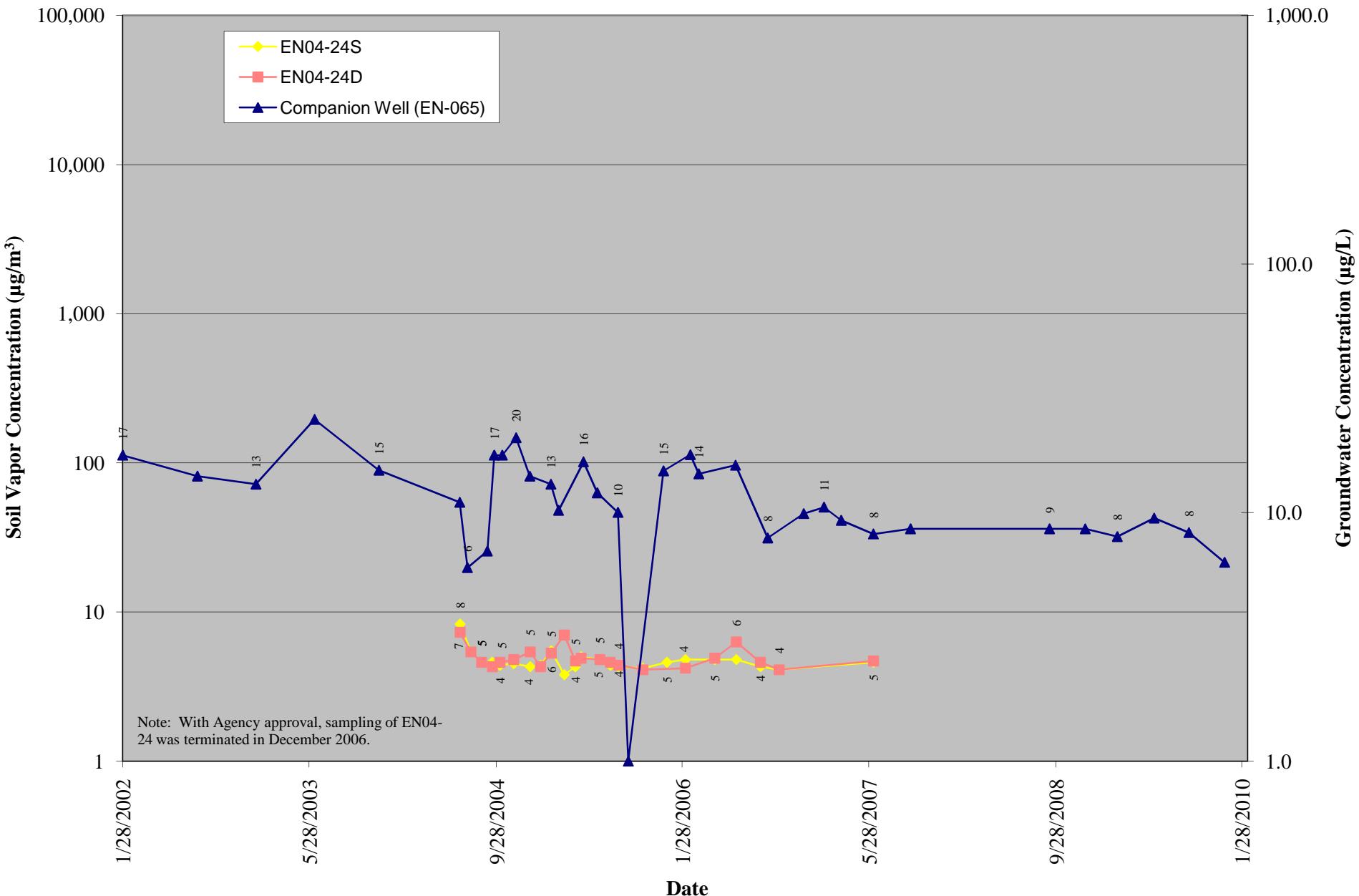


Figure B.25
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

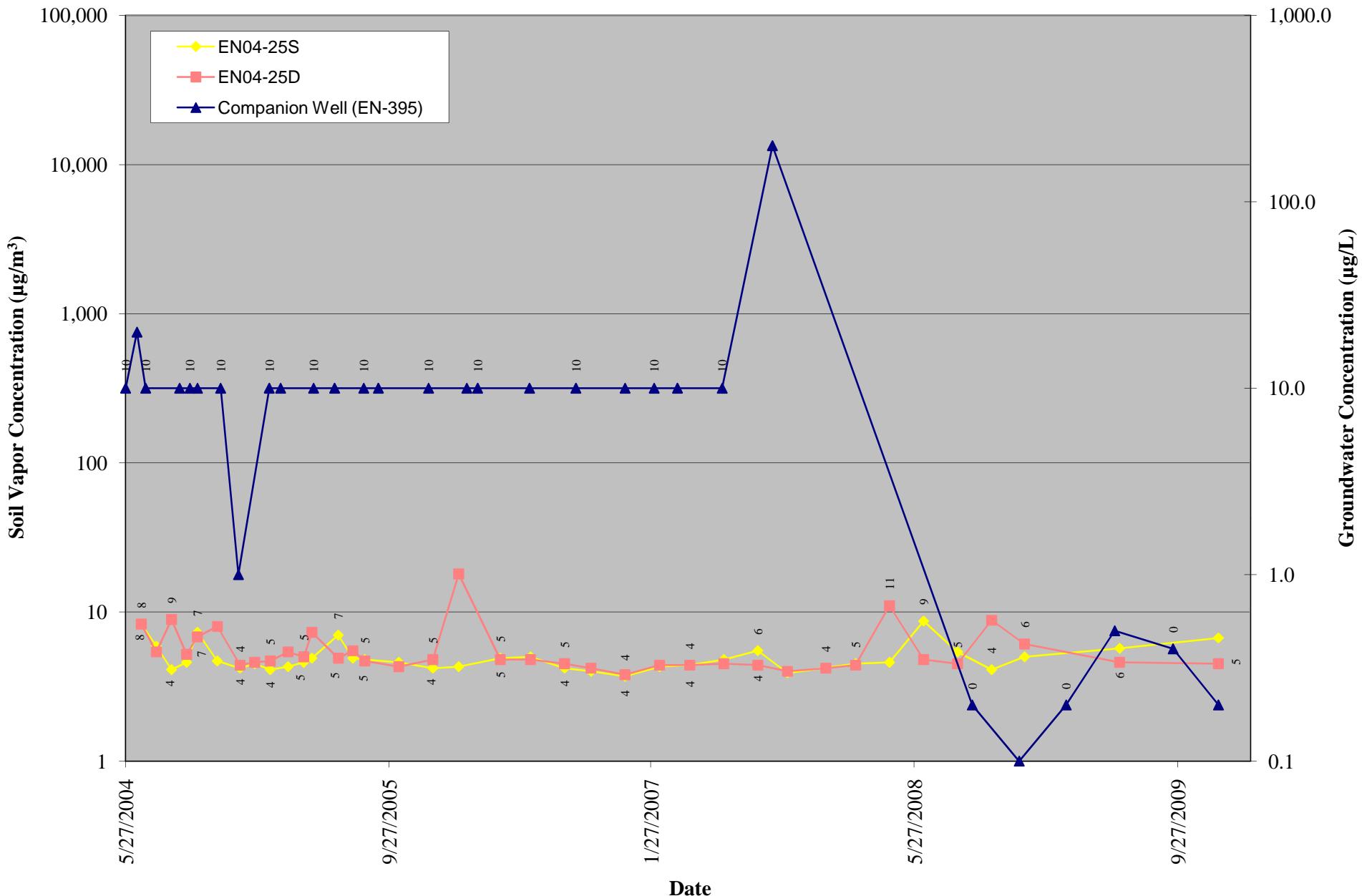


Figure B.26
TCE in Soil Vapor and Groundwater

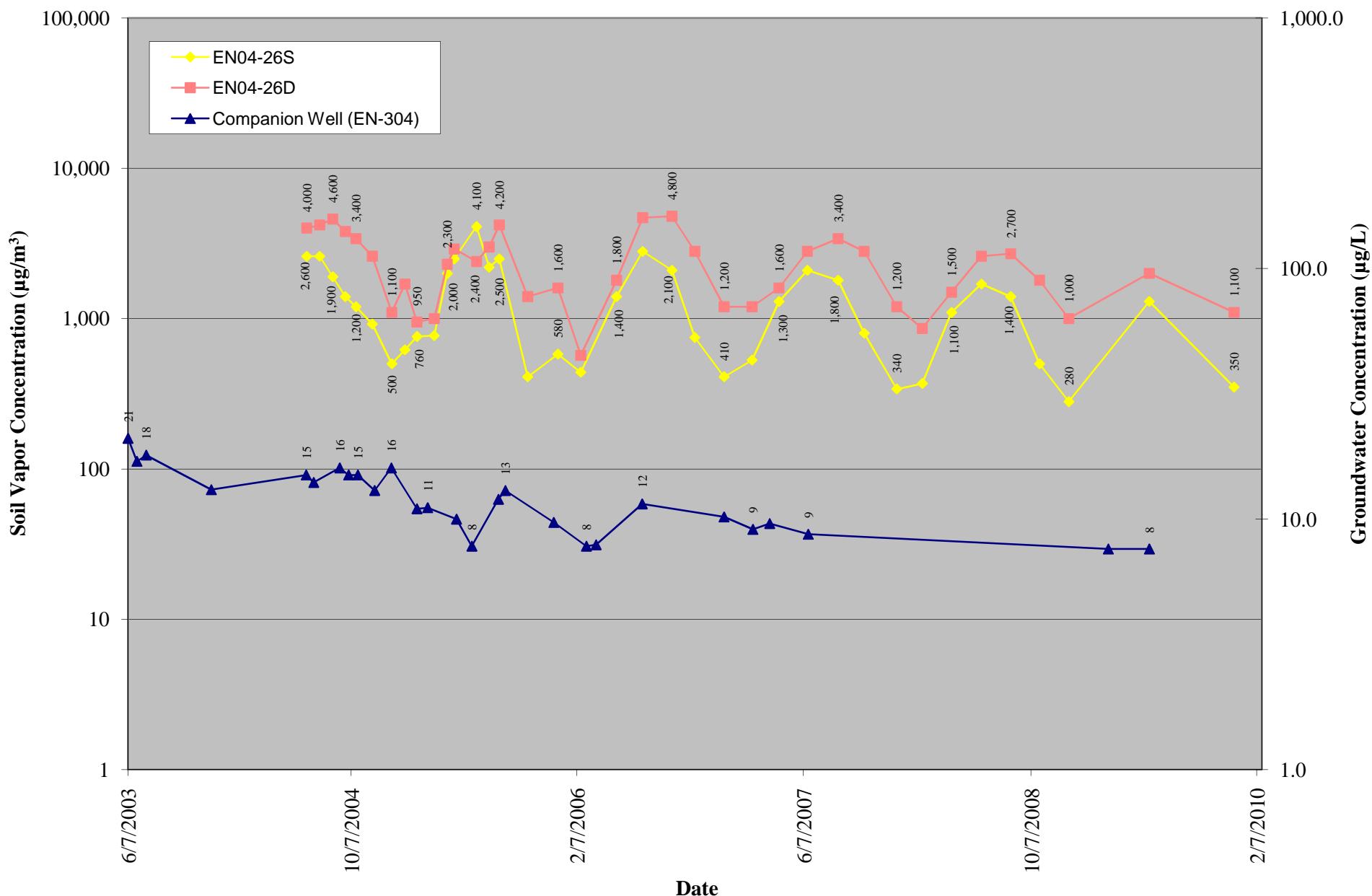


Figure B.27
TCE in Soil Vapor and Groundwater
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 Endicott, New York

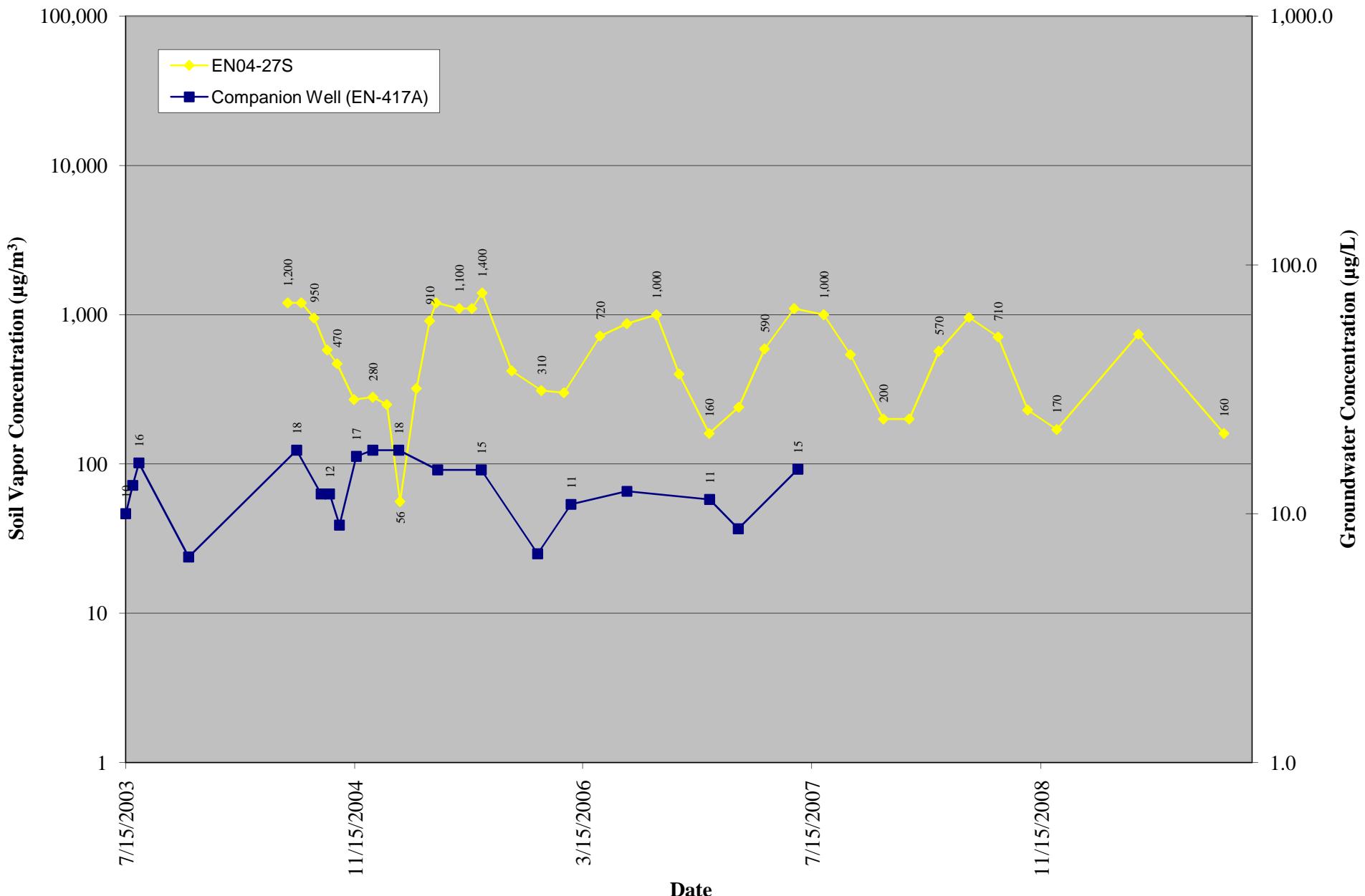


Figure B.28
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
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Endicott, New York

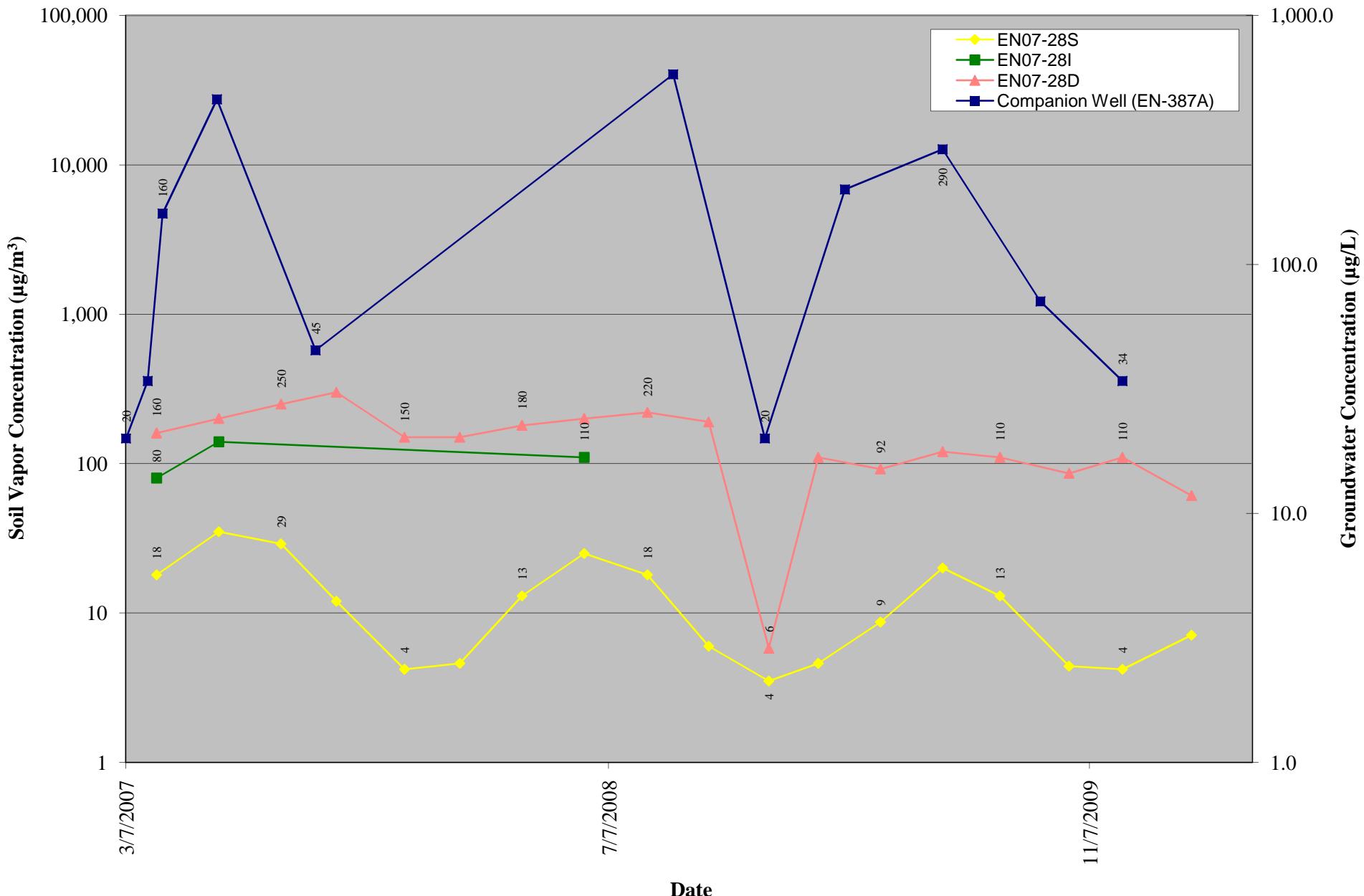


Figure B.29
TCE in Soil Vapor and Groundwater
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Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

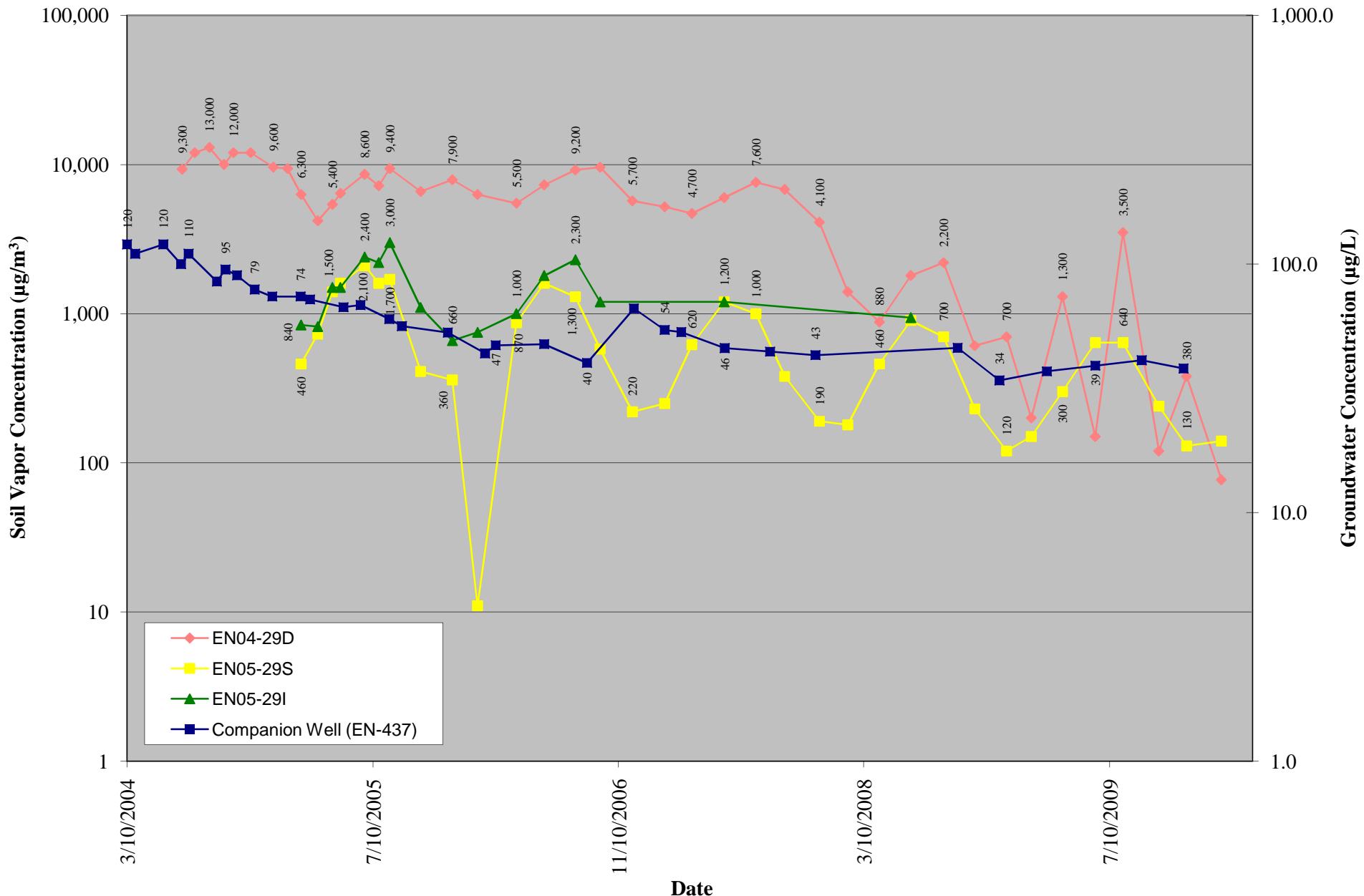


Figure B.30
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

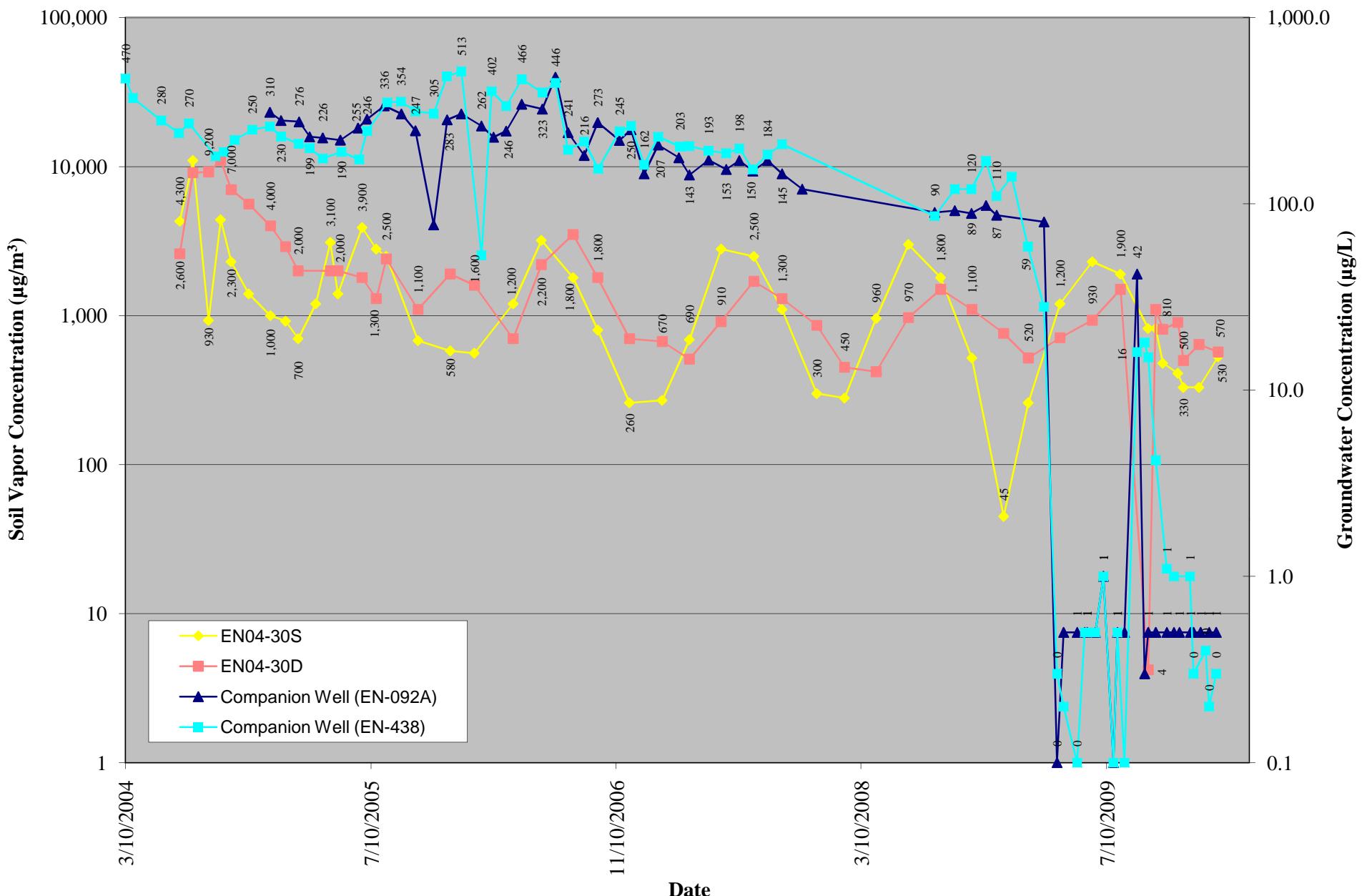


Figure B.31
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

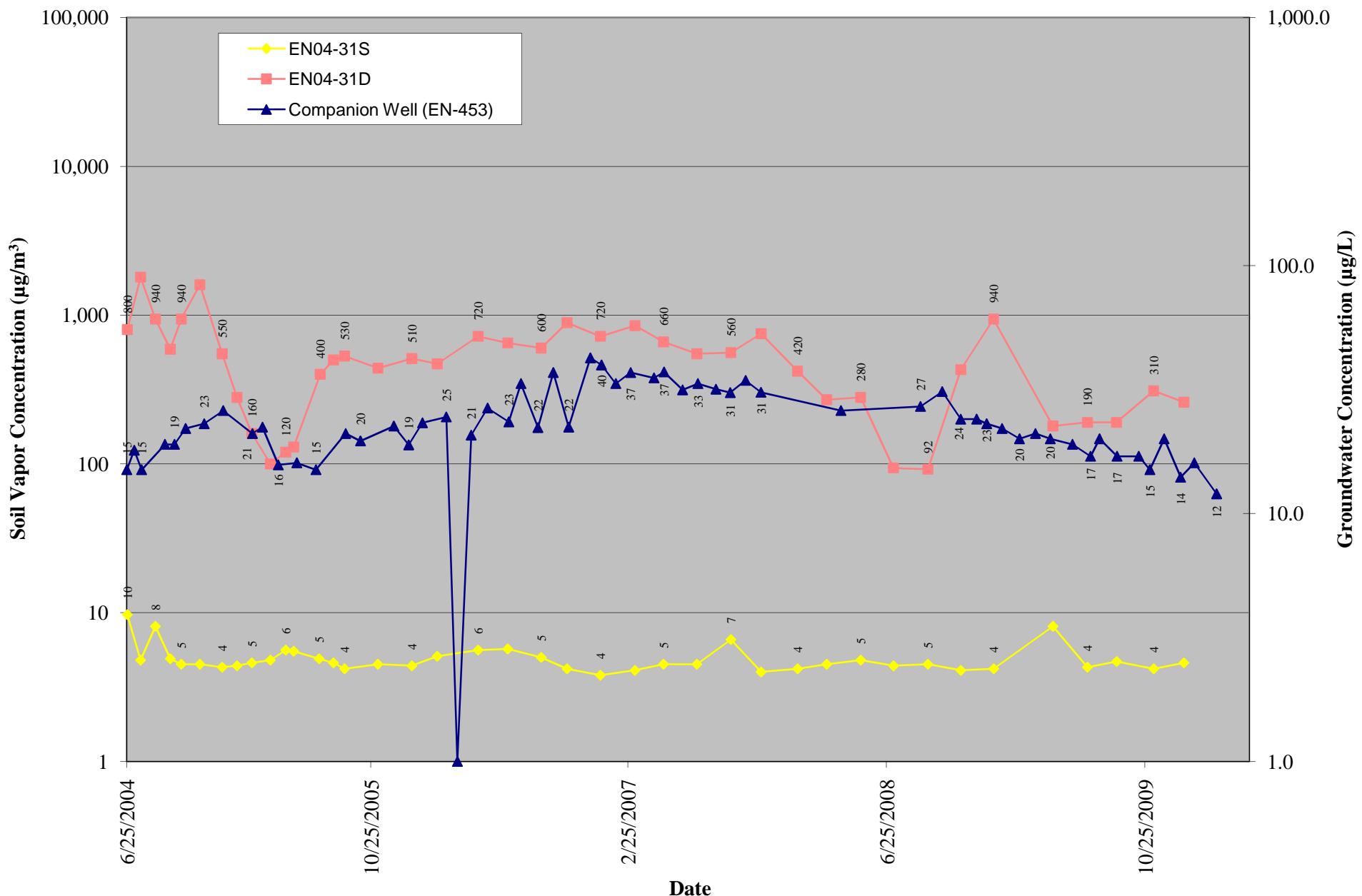


Figure B.32
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

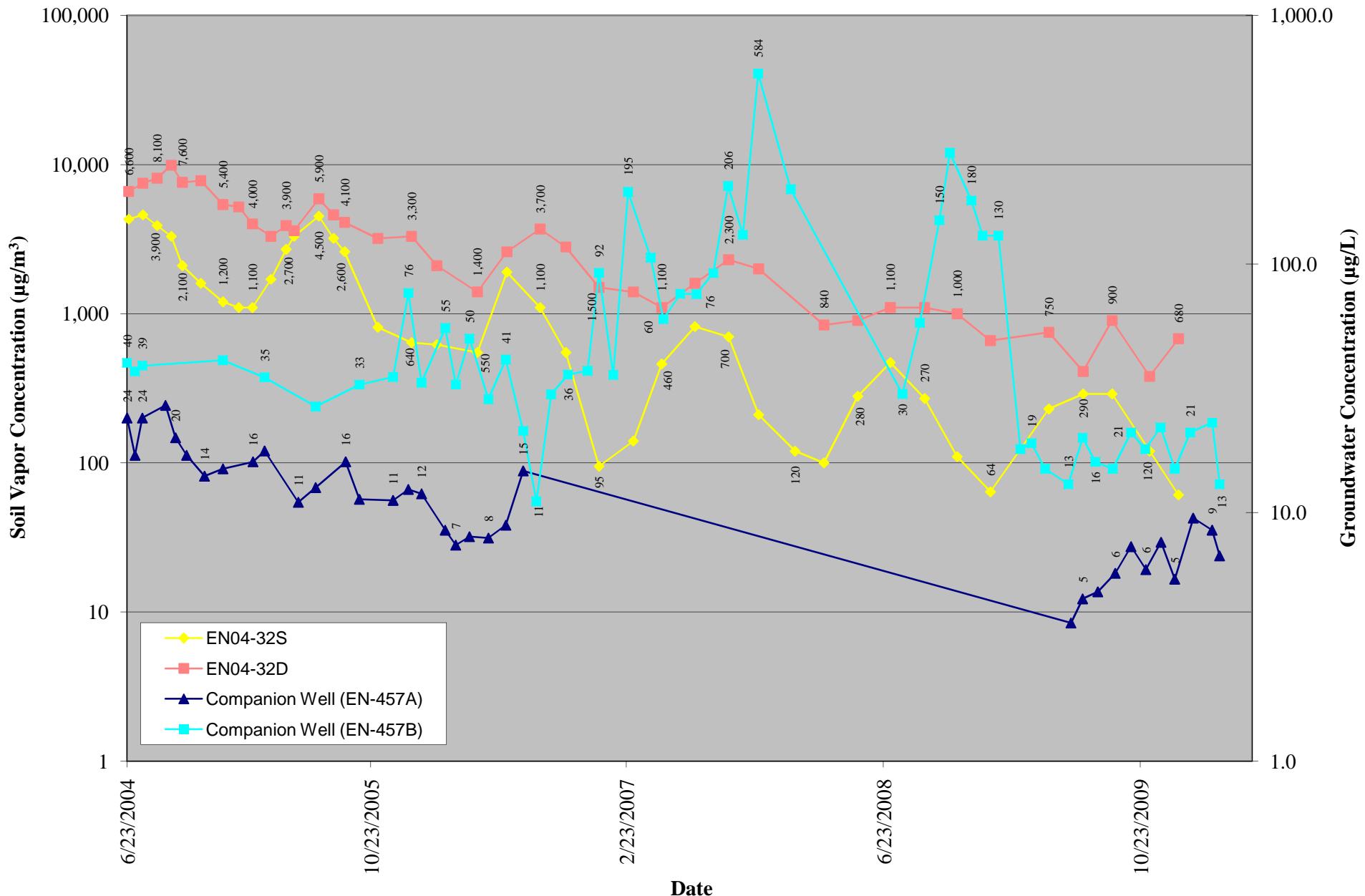


Figure B.33
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through April 2010
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

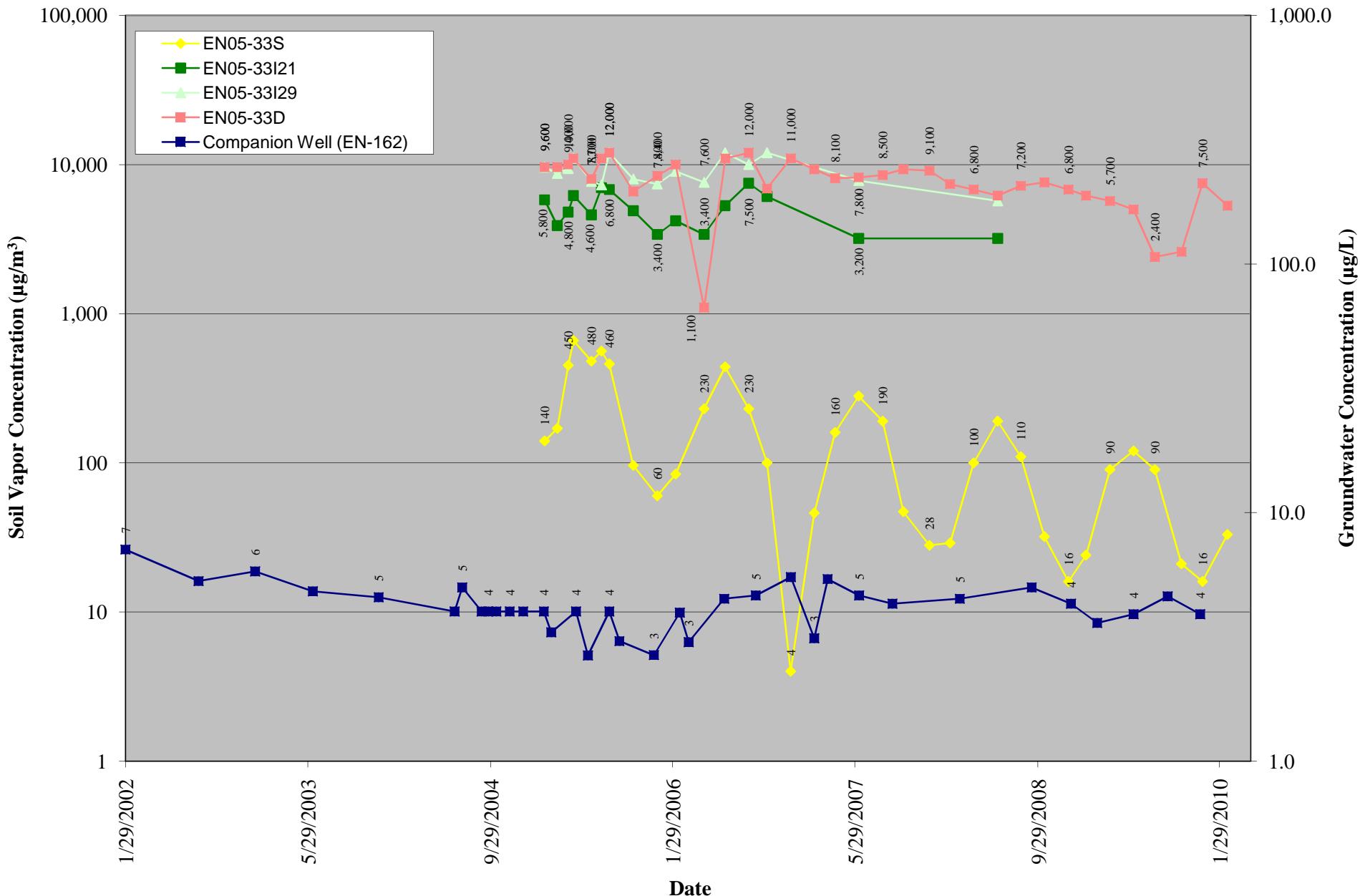


Figure B.34
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

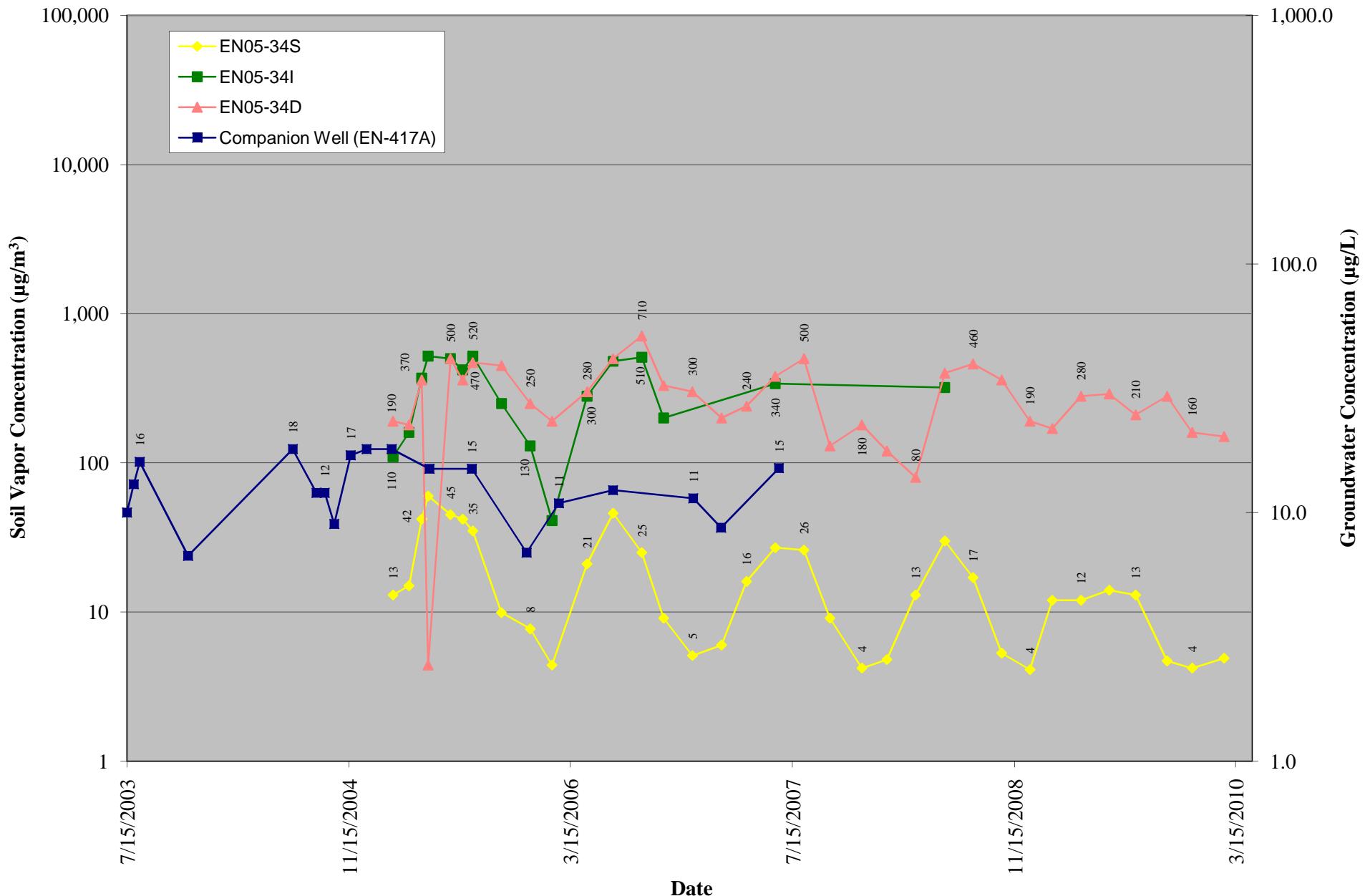


Figure B.35
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

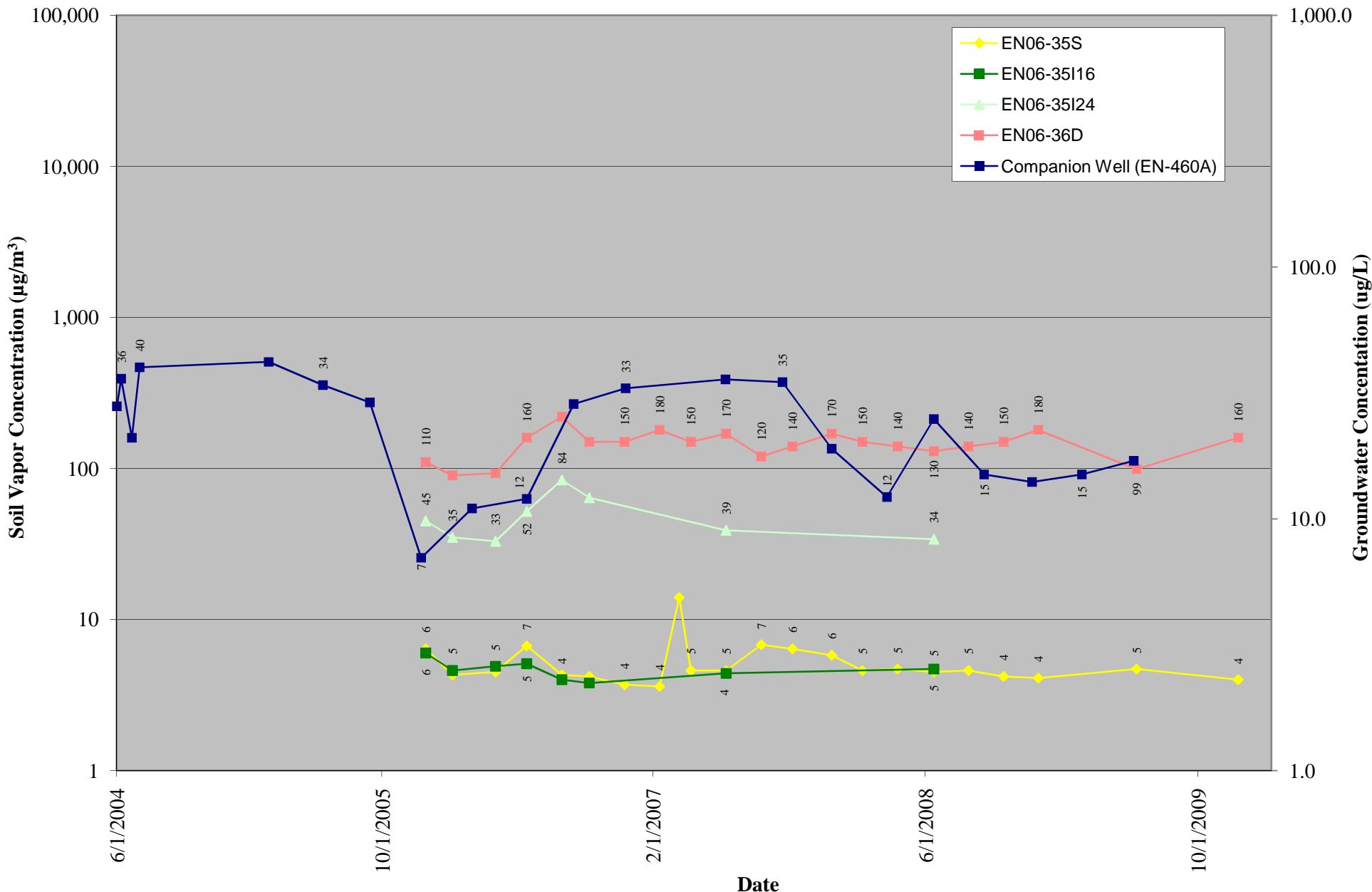


Figure B.36
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

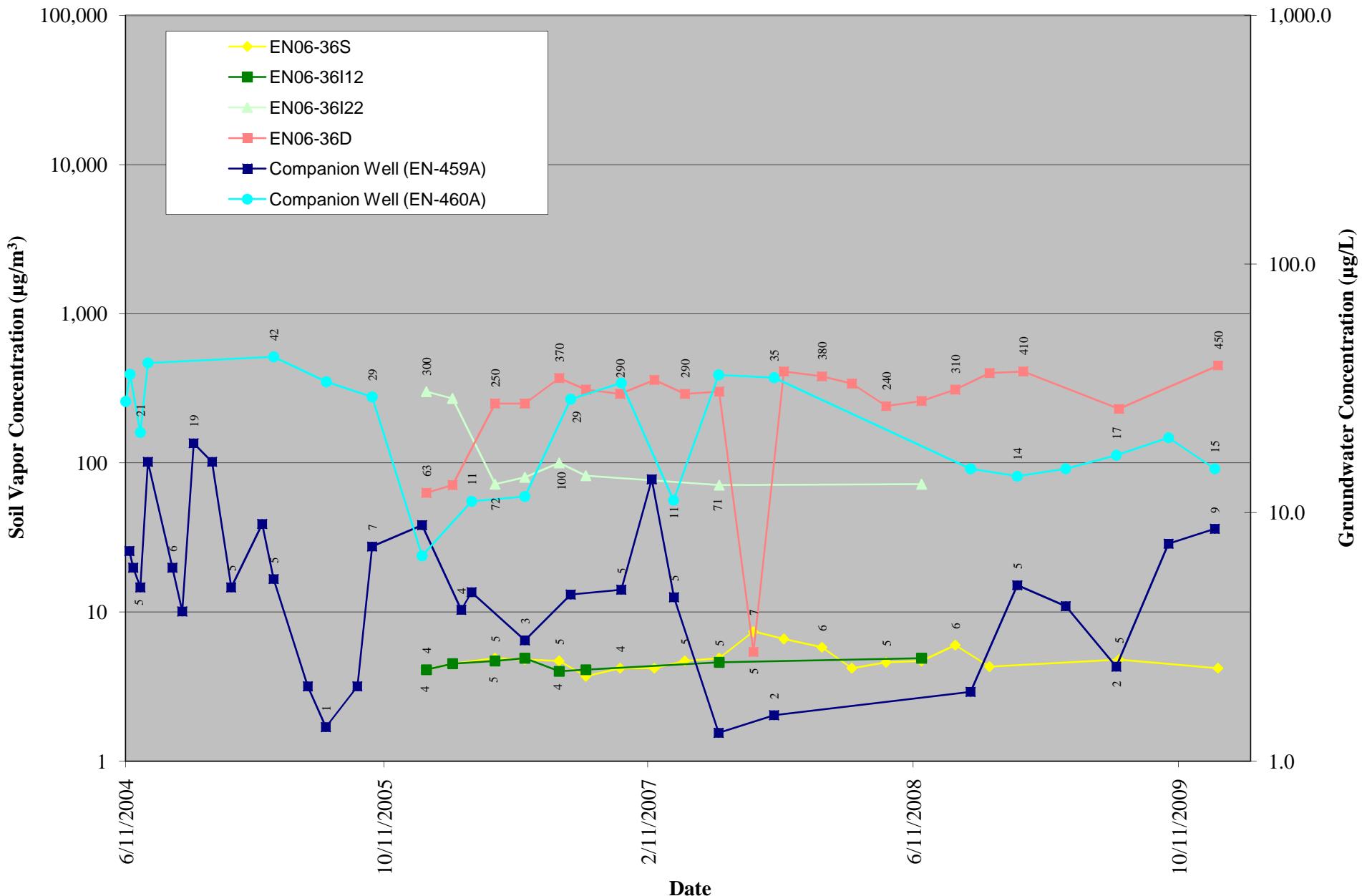
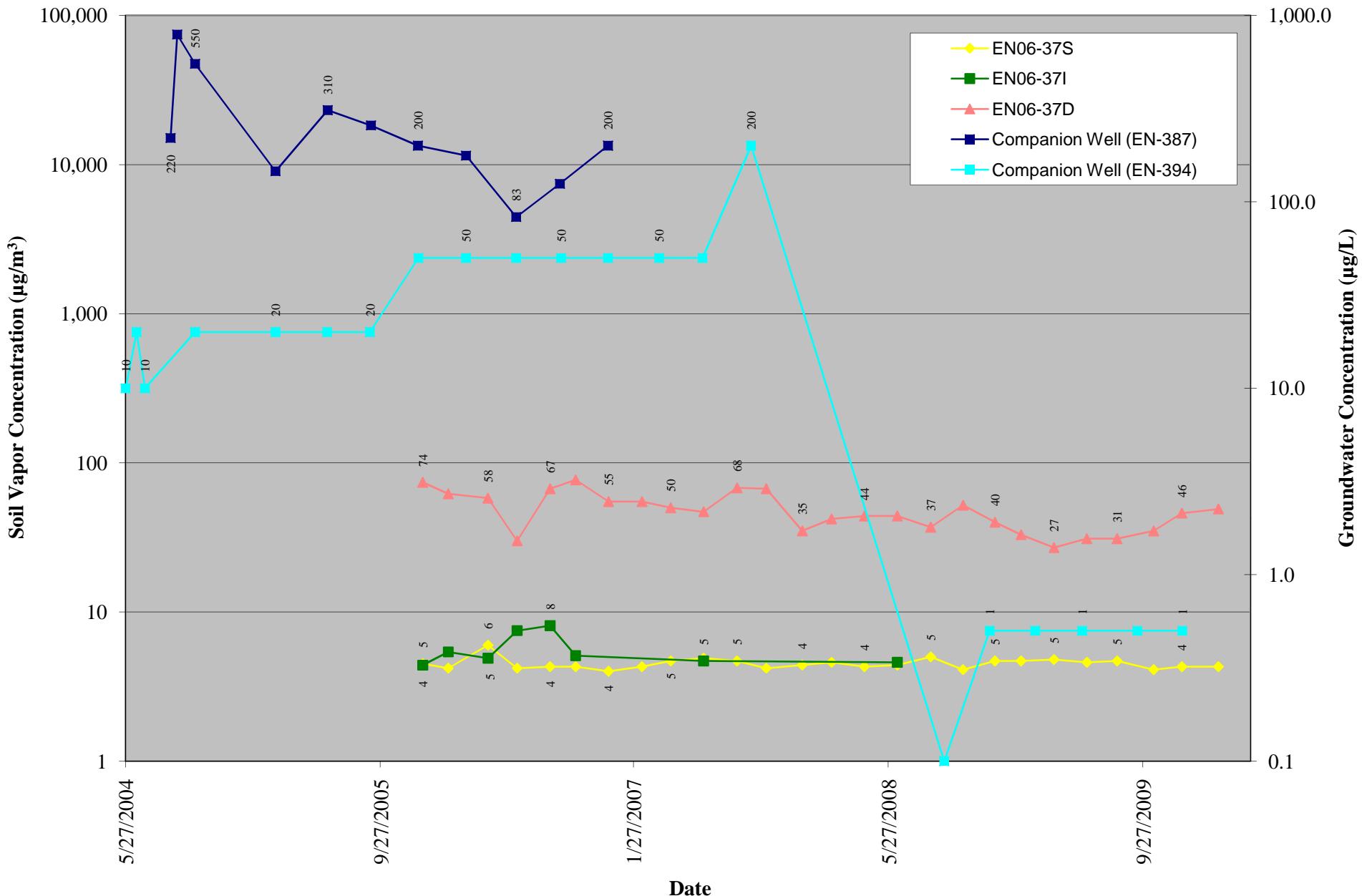


Figure B.37
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through April 2010
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York



APPENDIX B.4

**LETTER REPORT – TRANSMITTAL OF BIWEEKLY SAMPLING
RESULTS - OU#4 SOIL VAPOR IMPLANTS, ENDICOTT, NEW YORK**





SANBORN, HEAD & ASSOCIATES, INC.

95 High Street ■ Portland, ME 04101

P (207) 761-9300 ■ F (207) 761-9339

www.sanbornhead.com

April 26, 2010

File No. 2755.02

Mr. Kevin Whalen
IBM Corporate Environmental Affairs
8976 Wellington road
Manassas, VA 20109

Re: Summary Bi-Weekly Sampling Results
OU#4 Soil Vapor Implants
Endicott, New York

Dear Mr. Whalen:

This letter is intended to provide a summary of data and observations derived from bi-weekly soil vapor sampling of the two soil vapor implants (EN08-39S and EN09-40S) located in the OU#4 area, subject to thermal desorption remediation. A third location monitored during the pilot testing of thermal treatment, EN08-38S, was abandoned during construction of the full-scale system. We understand that operation of the full-scale remediation ended on March 24, 2010. The locations of the implants in relation to the OU#4 area are shown on Figure 1. This work was conducted at IBM's request and we understand IBM may choose to transmit the data in this letter to the appropriate agencies.

Sampling of the implants was performed by SHA personnel on the dates noted in the table below, following protocols established for the Endicott Soil Vapor Monitoring program. For a detailed description of the sampling procedure, refer to SHA's soil vapor monitoring plan¹. Samples were submitted to Air Toxics, Ltd. of Folsom, California and analyzed for the compound list used for routine soil vapor monitoring, which includes tetrachloroethene (PCE) and its breakdown products.

SUMMARY OF FINDINGS

The soil vapor results are summarized in Table 1. PCE concentrations recorded in sampling of gas from EN08-39S and EN09-40S are shown on Figure 2. The key findings include:

- The presence of chlorinated ethenes, primarily PCE, has been consistently detected in samples from both implants;

¹ Sanborn, Head & Associates, Inc., September 29, 2004, [Soil Vapor Monitoring Plan](#).

- The PCE concentration observed in sampling of EN08-39S in September 2009, when vapor sampling resumed for the full-scale implementation, is over an order of magnitude lower than concentrations recorded at the completion of pilot testing.
- Analytical results from January 29, 2010 from EN08-39S indicated PCE was not detected above the laboratory reporting limit, over one order of magnitude lower than previous or subsequent sampling. The sampling results may be indicated of leakage during sampling or shipment.
- At the completion of monitoring, PCE concentrations are nearly one and one half orders of magnitude lower than when full-scale treatment began, over three orders of magnitude lower for samples from EN08-39S compared to concentrations during the pilot study.

CLOSING

The attached soil vapor data results indicate lower concentrations of chlorinated ethenes at the perimeter of the remediation area. We understand thermal desorption treatment has been concluded at the OU#4 site and the existing implants are likely to be destroyed in the decommissioning of the remediation system. In addition, as part of on-going monitoring in the OU#4 area, IBM plans to install and sample permanent vapor implants. Please let us know if we can be of further assistance to you in this regard.

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

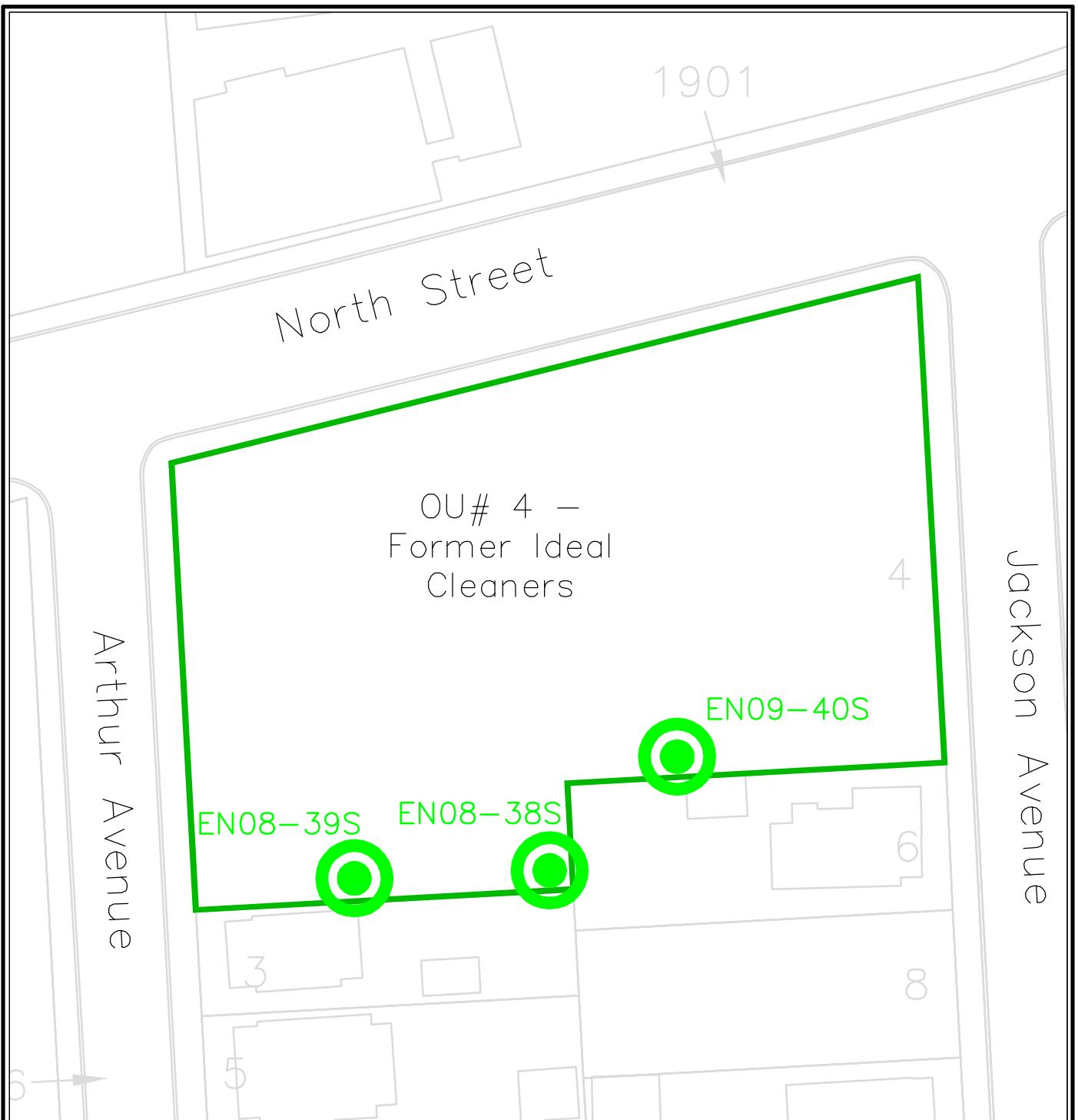
Erica Bradstreet
 Senior Project Geologist

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

EMB/DBC:emb

Encl.

Figure 1	Location Plan (1 page)
Figure 2	Time Series Plot (1 page)
Table 1	Summary of Soil Vapor Implant Analytical Results (1 page)



1. This figure is intended to depict soil vapor monitoring locations that have been installed in the OU#4 area. 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", "Unioneast.dwg", and "Endicottpln.dwg". The drawings were provided by the Broome County mapping division and were received by SHA 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 SHA in September 2003.

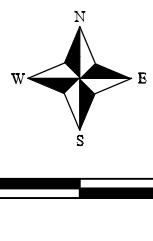


Figure 1
PCE in Soil Vapor
OU#4 Area
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

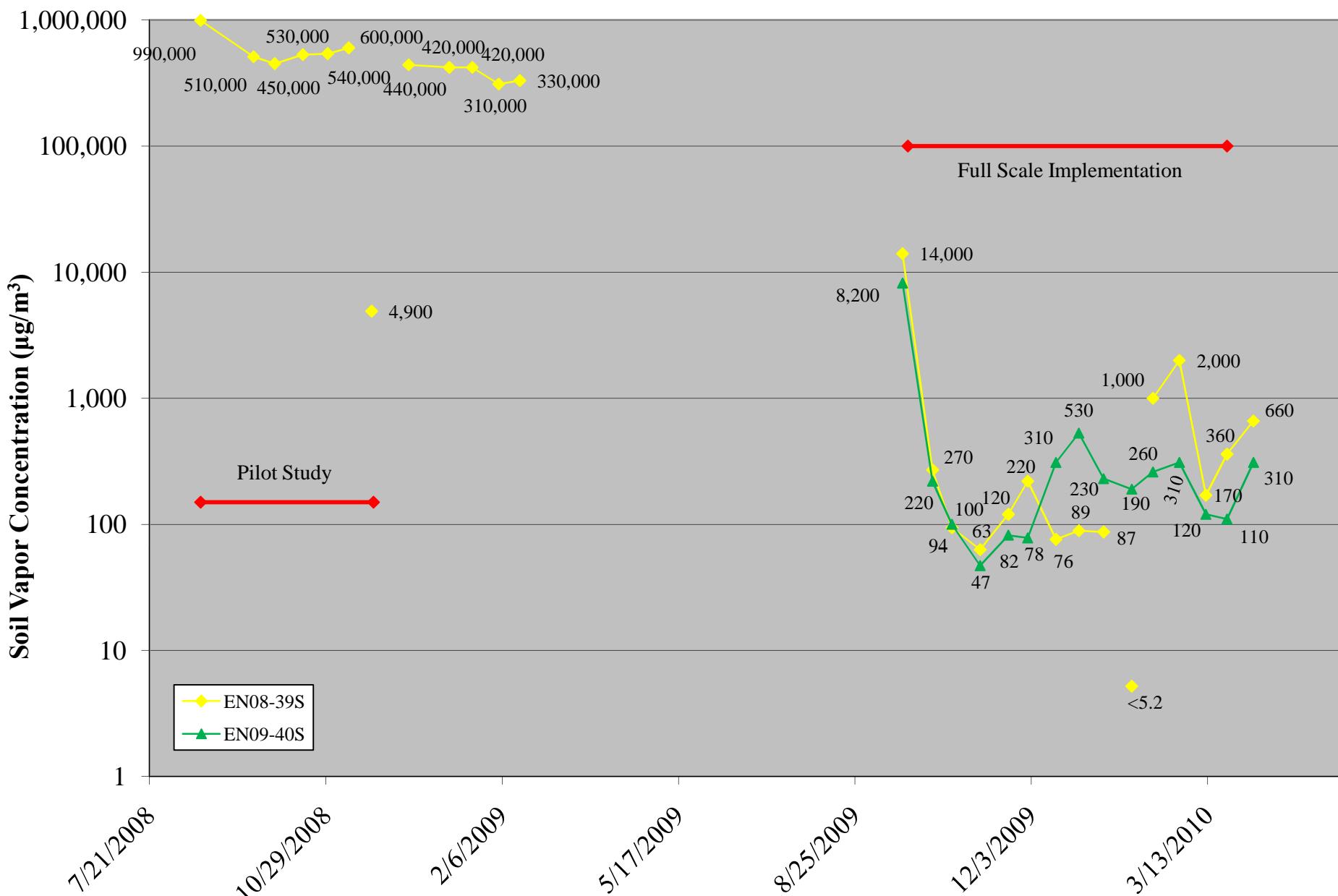


Table 1
Summary of OU#4 Soil Vapor Implant Analytical Results
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

Location	Date	Type	Chlorinated Ethenes ($\mu\text{g}/\text{m}^3$)										Chlorinated Ethanes ($\mu\text{g}/\text{m}^3$)						Other VOCs ($\mu\text{g}/\text{m}^3$)							
			Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,1-Dichloroethene (DCE)	cis-1,2-Dichloroethene (cDCE)	trans-1,2-Dichloroethene (tDCE)	Vinyl Chloride (VC)	1,1,1-Trichloroethane (TCA)	1,1-Dichloroethane (DCA)	Chloroethane (Cane)	Methylene Chloride (MeCl)	Freon 113													
EN08-38S	Pilot Study	8/19/2008	Sample	110		19		NS		9.7	<	0.79	U <	0.51	U	<	NS			NS		NS				
		9/18/2008	Sample	57		9.6	<	3.2	U	5.9	<	3.2	U <	2.0	U <	4.4	U <	3.2	U <	2.1	U <	2.8	U <	6.2	U	
		9/30/2008	Sample	42		7.0	<	3.2	U	3.5	<	3.2	U <	2.0	U <	4.4	U <	3.2	U <	2.1	U <	2.8	U <	6.2	U	
		10/16/2008	Sample	41		7.8	<	3.2	U	5.0	<	3.2	U <	2.0	U <	4.4	U <	3.2	U <	2.1	U <	2.8	U <	6.2	U	
		Duplicate		41		7.9	<	3.2	U	5.0	<	3.2	U <	2.0	U <	4.4	U <	3.2	U <	2.1	U <	2.8	U <	6.2	U	
		10/30/2008	Sample	56		12	<	3.2	U	7.4	<	3.2	U <	2.0	U <	4.4	U <	3.2	U <	2.1	U	3.2		<	6.2	U
		11/11/2008	Sample	79		13	<	3.2	U	10	<	3.2	U <	2.0	U <	4.4	U <	3.2	U <	2.1	U <	2.8	U <	6.2	U	
		11/24/2009	Sample	63		11	<	2.8	U	8.3	<	2.8	U <	1.8	U <	3.8	U <	2.8	U <	1.8	U <	2.4	U <	2.4	U	
		12/15/2008	Sample	77		19	<	3.1	U	10	<	3.1	U <	2.0	U <	4.2	U <	3.1	U <	2.0	U <	2.7	U <	5.9	U	
		1/7/2009	Sample	62		12	<	3.3	U	11	<	3.3	U <	2.1	U <	4.6	U <	3.4	U <	2.2	U <	2.9	U <	6.4	U	
		1/20/2009	Sample	88		19	<	3.2	U	20	<	3.2	U <	2.0	U <	4.4	U <	3.2	U <	2.1	U <	2.8	U <	6.2	U	
		2/4/2009	Sample	98		21	<	3.3	U	22	<	3.3	U <	2.1	U <	4.6	U <	3.4	U <	2.2	U <	2.9	U <	6.4	U	
		2/16/2009	Sample	120		25	<	3.5	U	30	<	3.5	U <	2.2	U <	4.8	U <	3.5	U <	2.3	U <	3.0	U <	6.7	U	
EN08-39S	Pilot Study	8/19/2008	Sample	990,000		7,800		NS		2,200	<	1,600	U <	1,000	U	NS		NS		NS		NS		NS		
		9/18/2008	Sample	510,000		3,900	<	1,100	U	1,100	U <	1,100	U <	690	U <	1,500	U <	1,100	U <	710	U <	930	U <	2,000	U	
		9/30/2008	Sample	450,000		2,500	<	870	U	870	U <	870	U <	560	U <	1,200	U <	870	U <	580	U <	760	U <	1,700	U	
		10/16/2008	Sample	530,000		3,300	<	1,100	U	1,100	U <	1,100	U <	690	U <	1,500	U <	1,100	U <	710	U <	930	U <	2,000	U	
		10/30/2008	Sample	540,000		3,500	<	1,600	U	1,600	U <	1,600	U <	1,000	U <	2,200	U <	1,600	U <	1,100	U <	1,400	U <	3,100	U	
		11/11/2008	Sample	600,000		3,500	<	1,300	U	1,300	U <	1,300	U <	820	U <	1,800	U <	1,300	U <	850	U <	1,100	U <	2,500	U	
		11/24/2008	Sample	4,900		32	<	15	U	15	U <	15	U <	9.5	U <	20	U <	15	U <	9.8	U <	13	U <	28	U	
		12/15/2008	Sample	440,000		2,500	<	640	U	640	U <	640	U <	410	U <	880	U <	650	U <	420	U <	560	U <	1,200	U	
		1/7/2009	Sample	420,000		3,400	<	1,400	U	1,400	U <	1,400	U <	890	U <	1,900	U <	1,400	U <	920	U <	1,200	U <	2,700	U	
		1/20/2009	Sample	420,000		3,400	<	530	U	650	<	530	U <	340	U <	730	U <	540	U <	350	U <	460	U <	1,000	U	
		2/4/2009	Sample	310,000		3,400	<	650	U	650	U <	650	U <	420	U <	890	U <	660	U <	430	U <	570	U <	1,200	U	
		2/16/2009	Sample	330,000		3,500	<	810	U	810	U <	810	U <	520	U <	1,100	U <	830	U <	540	U <	710	U <	1,600	U	
		Duplicate		310,000		2,900	<	810	U	810	U <	810	U <	520	U <	1,100	U <	830	U <	540	U <	710	U <	1,600	U	
EN08-39S	Full Scale	9/21/2009	Sample	14,000		1,400	<	23	U	670	<	23	U <	15	U <	32	U <	24	U <	15	U <	20	U <	45	U	
		10/8/2009	Sample	270		22	<	3.1	U	7.3	<	3.1	U <	2.0	U <	4.3	U <	3.2	U <	2.1	U <	2.7	U <	6.0	U	
		10/19/2009	Sample	94		6.8	<	3.4	U	3.4	U <	3.4	U <	2.2	U <	4.7	U <	3.5	U <	2.3	U <	3.0	U <	6.6	U	
		11/4/2009	Sample	63		5.4	<	3.2	U	3.2	U <	3.2	U <	2.0	U <	4.4	U <	3.2	U <	2.1	U <	2.8	U <			

Table 1
Summary of OU#4 Soil Vapor Implant Analytical Results
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

Location	Date	Type	Chlorinated Ethenes ($\mu\text{g}/\text{m}^3$)										Chlorinated Ethanes ($\mu\text{g}/\text{m}^3$)							Other VOCs ($\mu\text{g}/\text{m}^3$)														
			Tetrachloroethene (PCE)	Trichloroethene (TCE)	1,1-Dichloroethene (DCE)	cis-1,2-Dichloroethene (cDCE)	trans-1,2-Dichloroethene (tDCE)	Vinyl Chloride (VC)	1,1,1-Trichloroethane (TCA)	1,1-Dichloroethane (DCA)	Chloroethane (Cane)	Methylene Chloride (MeCl)	Freon 113																					
EN09-40S	Full Scale	9/21/2009	Sample	8,200		440	<	24	U	40	<	24	U	<	16	U	<	33	U	<	25	U	<	16	U	<	21	U	<	47	U			
		10/8/2009	Sample	220		7.0	<	3.0	U	<	3.0	U	<	3.0	U	<	1.9	U	<	4.1	U	<	3.1	U	<	2.0	U		23		<	5.8	U	
		10/19/2009	Sample	100		6.9	<	3.5	U	<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	2.3	U		24		<	6.7	U	
		11/4/2009	Sample	47	<	4.3	U	<	3.2	U	<	3.2	U	<	3.2	U	<	2.0	U	<	4.4	U	<	3.2	U	<	2.1	U		11		<	6.2	U
		11/20/2009	Sample	82	<	4.7	U	<	3.5	U	<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.6	U	<	2.3	U		13		<	6.7	U
		12/1/2009	Sample	78		4.3	<	3.1	U	<	3.1	U	<	3.1	U	<	2.0	U	<	4.3	U	<	3.2	U	<	2.1	U		15		<	6.0	U	
		12/17/2009	Sample	310		17	<	2.9	U	11	<	2.9	U	<	1.9	U	<	4.0	U	<	3.0	U	<	2.0	U		9.9		<	5.7	U			
		12/30/2009	Sample	530		42	<	3.4	U	32	<	3.4	U	<	2.2	U	<	4.6	U	<	3.4	U	<	2.2	U		4.3		<	6.5	U			
		1/13/2010	Sample	230		19	<	3.2	U	8.0	<	3.2	U	<	2.0	U	<	4.4	U	<	3.2	U	<	2.1	U		3.7		<	6.2	U			
		1/29/2010	Sample	190		22	<	3.1	U	5.4	<	3.1	U	<	2.0	U	<	4.3	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U			
		2/10/2010	Sample	260		23	<	3.4	U	6.2	<	3.4	U	<	2.2	U	<	4.7	U	<	3.5	U	<	2.2	U	<	3.0	U	<	6.6	U			
		2/25/2010	Sample	310		32	<	3.2	U	6.6	<	3.2	U	<	2.0	U	<	4.4	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U			
		3/12/2010	Sample	120		10	<	3.1	U	3.7	<	3.1	U	<	2.0	U	<	4.2	U	<	3.1	U	<	2.0	U	<	2.7	U	<	5.9	U			
		3/24/2010	Sample	110		10	<	6.6	U	<	6.6	U	<	6.6	U	<	4.3	U	<	9.1	U	<	6.8	U	<	4.4	U	<	5.8	U	<	13	U	
		4/8/2010	Sample	310		29	<	3.5	U	9.1	<	3.5	U	<	2.2	U	<	4.8	U	<	3.6	U	<	2.3	U	<	3	U	<	6.7	U			

Notes:

- This table is a summary of the findings of sampling soil vapor implants located in the OU#4 area in Endicott, New York. Soil Vapor monitoring is being conducted at the request of IBM on a bi-monthly basis for a sixth-month period as part of the activities at OU#4, the former Ideal Cleaners site. Soil Vapor sampling procedures are being followed in accordance with SHA's "Soil Vapor Monitoring Plan," of September 2004.
- Soil vapor implants EN08-39S and EN09-40S were installed by TerraTherm of Fitchburg, Massachusetts in August 2008 and August 2009, respectively. We understand the sampling performed by others on August 19, 2008 was conducted following procedures provided by SHA. Samples were analyzed by Lancaster Laboratories of Lancaster, Pennsylvania. Subsequent rounds of sampling were conducted by SHA and analyzed by Air Toxics, Ltd. of Folsom, California.
- The vapor samples were collected on the dates noted using evacuated canister sampling techniques (Summa® Canisters). The Summa® canister samples were analyzed for the project-specific list of VOCs using EPA Compendium Method TO-15 standard (full-scan) methods. 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. Qualifiers added by SHA include NS = denotes no analysis performed for the indicated compound.

APPENDIX B.5
SUMMARY OF PLAN VIEW GRAPHICS



APPENDIX B.5

Summary of Plan View Graphics Annual Report - Soil Vapor Monitoring Through April 2010 Comprehensive Operations, Maintenance, and Monitoring Program Endicott, New York

The report contains plan view graphics intended to aid in portraying soil vapor concentration trends consistent with the available data. As noted on the figures, the images were created using uniform and consistent spatial statistical algorithms and are not intended as indicators of the absolute limits of soil vapor concentrations but as basis of comparison among data sets from different times.

The soil vapor data used in the development of the figures were queried from a Microsoft Access ® database of the analytical result through April 2010. The posted values represent the computed arithmetic average of results was recorded over the noted time periods. Graphics depicting soil vapor concentrations during the "Heating Season" reflects data recorded between December 1st and April 30th.

The colored shading shown on the figures was generated using ArcGIS Geostatistical Analyst, employing an inverse distance weighted interpolation scheme (IDW). Please refer to the attached reference for additional information regarding the IDW interpolation used to develop the spatial transition of shading between actual observations. For each data set, the IDW algorithm was conditioned by specifying a circular distance of 1,000 feet and a distance weighting power function of 10.

The symbology, or color coding, also remains consistent between each image with soil vapor concentrations depicted in shades of green to purple with increasing concentration. Each level of color shading reflects a half order of magnitude interval in micrograms per cubic meter $\mu\text{g}/\text{m}^3$. The major color divisions between grey, and shades of green, blue, and purple highlight concentration milestones of $<5 \mu\text{g}/\text{m}^3$, $100 \mu\text{g}/\text{m}^3$, and $10,000 \mu\text{g}/\text{m}^3$. A mask was used to display shading within the ventilation limits or within the limits of soil vapor implant locations.

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Geostatistical Analyst

How Inverse Distance Weighted (IDW) interpolation works

related topics

IDW interpolation explicitly implements the assumption that things that are close to one another are more alike than those that are farther apart. To predict a value for any unmeasured location, IDW will use the measured values surrounding the prediction location. Those measured values closest to the prediction location will have more influence on the predicted value than those farther away. Thus, IDW assumes that each measured point has a local influence that diminishes with distance. It weights the points closer to the prediction location greater than those farther away, hence the name inverse distance weighted.

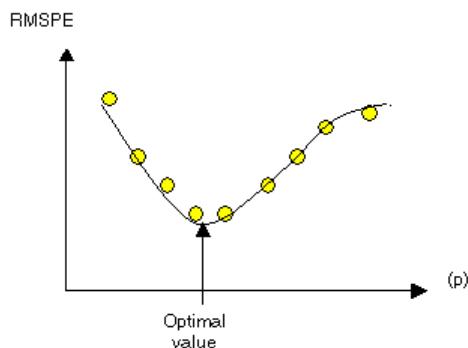
See *Using ArcGIS Geostatistical Analyst* for formula and additional information.

[Learn more about the interpolation techniques available in ArcGIS Geostatistical Analyst](#)

The Power function

The optimal power (p) value is determined by minimizing the root mean square prediction error (RMSPE). The RMSPE is the statistic that is calculated from cross-validation. In cross-validation, each measured point is removed and compared to the predicted value for that location. The RMSPE is a summary statistic quantifying the error of the prediction surface. Geostatistical Analyst tries several different powers for IDW to identify the power that produces the minimum RMSPE. The diagram below shows how Geostatistical Analyst calculates the optimal power. The RMSPE is plotted for several different powers for the same dataset. A curve is fit to the points (a quadratic Local Polynomial equation), and from the curve the power that provides the smallest RMSPE is determined as the optimal power.

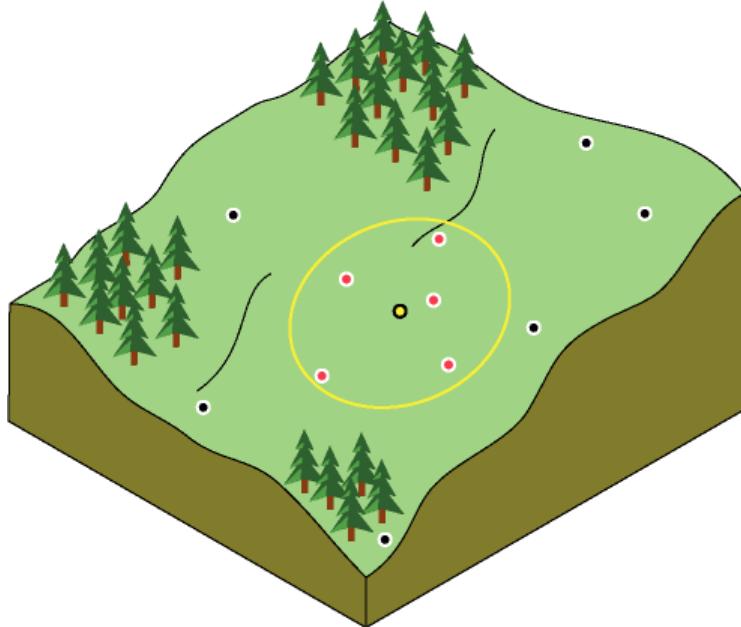
Weights are proportional to the inverse distance raised to the power value p . As a result, as the distance increases, the weights decrease rapidly. How fast the weights decrease is dependent on the value for p . If $p = 0$, there is no decrease with distance, and because each weight λ_i will be the same, the prediction will be the mean of all the measured values. As p increases, the weights for distant points decrease rapidly. If the p value is very high, only the immediate few surrounding points will influence the prediction.



Geostatistical Analyst uses power functions greater than 1. A $p = 2$ is known as the inverse distance squared weighted interpolation.

The search neighborhood

Because things that are close to one another are more alike than those farther away, as the locations get farther away, the measured values will have little relationship with the value of the prediction location. To speed calculations you can discount to zero the more distant points with little influence. As a result, it is common practice to limit the number of measured values that are used when predicting the unknown value for a location by specifying a search neighborhood. The specified shape of the neighborhood restricts how far and where to look for the measured values to be used in the prediction. Other neighborhood parameters restrict the locations that will be used within that shape. In the following image, five measured points (neighbors) will be used when predicting a value for the location without a measurement, the yellow point.

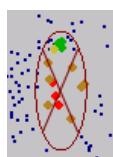


The shape of the neighborhood is influenced by the input data and the surface you are trying to create. If there are no directional influences on the weighting of your data, you'll want to consider points equally in all directions. To do so, you'll probably want the shape of your neighborhood to be a circle. However, if there is a directional influence on your data, such as a prevailing wind, you may want to adjust for it by changing the shape of your neighborhood to an ellipse with the major axis parallel with the wind. The adjustment for this directional influence is justified because you know that locations upwind from a prediction location are going to be more similar at remote distances than locations that are perpendicular to the wind.

Once a neighborhood shape is specified, you can restrict which locations within the shape should be used. You can define the maximum and minimum number of locations to use, and you can divide the neighborhood into sectors. If you divide the neighborhood into sectors, the maximum and minimum constraints will be applied to each sector. There are several different sectors that can be used and are displayed below.



The points highlighted in the data view of the Searching Neighborhood dialog box identify the locations and the weights that will be used for predicting a location at the center of the ellipse. The neighborhood is contained within the displayed ellipse. In the following example, two points (red) in the sector to the west and one point in the southern sector will be weighted more than 10 percent. In the northern sector, one point (yellow) will be weighted between 3 percent and 5 percent.



When to use IDW



The surface calculated using IDW depends on the selection of a power value (p) and the neighborhood search strategy. IDW is an exact interpolator, where the maximum and minimum values (see diagram above) in the interpolated surface can only occur at sample points. The output surface is sensitive to clustering and the presence of outliers. IDW assumes that the surface is being driven by the local variation, which can be captured through the neighborhood.

APPENDIX B.6

GSC MARCH 4, 2010 PDB SAMPLING DATA TRANSMITTAL



Dan Carr

From: Charles A. Rine [crine@groundwatersciences.com]
Sent: Thursday, March 04, 2010 5:44 PM
To: 'Mitch Meyers'
Cc: 'Craig G. Robertson'; rwatson@groundwatersciences.com; dcarr@sanbornhead.com
Subject: Endicott PDB Sampler Results, EN-438 and EN-449
Attachments: PDB Data EN-438 and EN-449.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Mitch,

The attached table summarizes the groundwater analytical chemistry results from the PDB samplers that were installed on 2/1 and pulled on 2/22. Four PDB samplers were placed in well EN-438 and three in EN-449; the depths shown are from top of casing. After the PDBs were pulled and groundwater samples were collected from them, each well was purged of three well volumes and sampled by the standard method using a bailer. As shown by the highlighted cells on the table, there does not appear to be meaningful stratification of chemistry at EN-449. No target VOCs were detected in any of the PDBs from EN-438, although TCE was detected in the bailer purge/grab sample. The detections of acetone and 2-butanone (common lab chemicals) are likely related to some QC issue with the PDBs, as the levels are the same in every PDB sample from both wells, and the two compounds were not detected in the bailer purge/grab samples. Chloroform at EN-449 may or may not be real; it was detected in both the PDB and the purge/grab sample at the method detection limit.

Chuck

Charles A. Rine
Senior Associate
Groundwater Sciences Corp.
(717) 901-8188

PDB Sampler Results, Endicott, New York

Parameter	Well	EN-438 23-25	EN-438 26'-28'	EN-438 29'-31'	EN-438 32'-34'	EN-438 Grab	EN-449 41'-43'	EN-449 44'-46'	EN-449 47'-49'	EN-449 Grab		Units
Lab_ID	5911485	5911486	5911487	5911488	5911489		5911490	5911491	5911492	5911493		
Acetone		21	20	18	17	N.D.		18	20	20	N.D.	ug/l
Benzene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Bromodichloromethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Bromoform		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Bromomethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
2-Butanone		2.4 J	2.6 J	2.0 J	2.1 J	N.D.	2.4 J	2.2 J	2.4 J	N.D.	N.D.	ug/l
Carbon Disulfide		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Carbon Tetrachloride		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Chlorobenzene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Chloroethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Chloroform		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Chloromethane		N.D.	N.D.	N.D.	N.D.	N.D.	0.1 J	0.1 J	0.1 J	0.1 J	N.D.	ug/l
Cyclohexane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
1,2-Dibromo-3-chloropropane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Dibromochloromethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
1,2-Dibromoethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
1,2-Dichlorobenzene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
1,3-Dichlorobenzene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
1,4-Dichlorobenzene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Dichlorodifluoromethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
1,1-Dichloroethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
1,2-Dichloroethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
1,1-Dichloroethene		N.D.	N.D.	N.D.	N.D.	N.D.	0.1 J	0.1 J	0.1 J	N.D.	N.D.	ug/l
cis-1,2-Dichloroethene		N.D.	N.D.	N.D.	N.D.	N.D.	0.8	0.8	0.7	0.7	N.D.	ug/l
trans-1,2-Dichloroethene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
1,2-Dichloropropane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
cis-1,3-Dichloropropene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
trans-1,3-Dichloropropene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Ethylbenzene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Freon 113		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Freon 123a		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
2-Hexanone		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Isopropylbenzene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Methyl Acetate		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Methyl Tertiary Butyl Ether		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
4-Methyl-2-Pentanone		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Methylcyclohexane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Methylene Chloride		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Styrene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
1,1,2,2-Tetrachloroethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Tetrachloroethene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Toluene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
1,2,4-Trichlorobenzene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
1,1,1-Trichloroethane		N.D.	N.D.	N.D.	N.D.	N.D.	3.7	3.6	3.5	3.2	N.D.	ug/l
1,1,2-Trichloroethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Trichloroethene		N.D.	N.D.	N.D.	N.D.	1.0	110	100	100	92	N.D.	ug/l
Trichlorofluoromethane		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
Vinyl Chloride		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
m+p-Xylene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l
o-Xylene		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	ug/l

APPENDIX C

COMPACT DISC OF DATA

APPENDIX C.1

**TABLE C.1 SUMMARY OF ANALYTICAL LABORATORY
DATA APRIL 2009 THROUGH APRIL 2010**

APPENDIX C.2

**ANALYTICAL LABORATORY REPORTS ON COMPACT DISC
(SELECT COPIES)**

APPENDIX C.1

**TABLE C.1 – SUMMARY OF ANALYTICAL LABORATORY
DATA APRIL 2009 THROUGH APRIL 2010**



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

		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	1,1,1-Dichloroethane	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon 113)																						
Designation Monitoring Well	EN04-1 EN-094	EN04-1S	8	6/8/2009	EN041S060809	Summa Canister	18.2	0.3	0.0	3.08	No	No	ug/m3	<	10	U	<	8.3	U	<	6.1	U	<	6.1	U	<	3.9	U	<	8.4	U	<	6.1	U	<	6.2	U	<	4.1	U	<	5.4	U	<	12	U
		EN04-1S	8	8/11/2009	EN041S081109	Summa Canister	19.6	0.4	0.0	1.76	No	No	ug/m3	<	6.0	U		10		<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.6	U	<	2.3	U	<	3.0	U	<	6.7	U
		EN04-1S	8	10/7/2009	EN041S100709	Summa Canister	20.2	0.5	0.0	1.75	No	No	ug/m3	<	5.9	U		13		<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U
		EN04-1S	8	12/15/2009	EN041S121509	Summa Canister	20.7	0.2	0.1	1.46	No	No	ug/m3	<	5.0	U		9.1		<	2.9	U	<	2.9	U	<	1.9	U	<	4.0	U	<	2.9	U	<	3.0	U	<	5.6	U						
		EN04-1S	8	2/10/2010	EN041S021010	Summa Canister	19.9	0.1	0.1	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	<	2.1	U	<	2.8	U	<	6.2	U
		EN04-1D	23	6/8/2009	EN041D060809	Summa Canister	18.4	0.2	0.0	2.03	No	No	ug/m3	<	6.9	U		100		<	4.0	U	<	4.0	U	<	2.6	U		17		<	4.0	U	<	4.1	U	<	2.7	U	<	3.5	U	<	7.8	U
		EN04-1D	23	8/11/2009	EN041D081109	Summa Canister	19.5	0.3	0.0	1.75	No	No	ug/m3		30			110		<	3.5	U	<	3.5	U	<	2.2	U		17		<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U
		EN04-1D	23	10/7/2009	EN041D100709	Summa Canister	20.2	0.4	0.0	1.68	No	No	ug/m3		16			200		<	3.3	U	<	3.3	U	<	2.1	U		27		<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
		EN04-1D	23	12/15/2009	EN041D121509	Summa Canister	20.5	0.6	0.1	1.55	No	No	ug/m3	<	5.2	U		170		<	3.1	U	<	3.1	U	<	2.0	U		21		<	3.1	U	<	3.1	U	<	2.0	U	<	2.7	U	<	5.9	U
		EN04-1D	23	2/10/2010	EN041D021010	Summa Canister	19.8	0.2	0.2	1.68	No	No	ug/m3	<	5.7	U		99		<	3.3	U	<	3.3	U	<	2.1	U		11		<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
Designation Monitoring Well	EN04-2 EN-450;EN-091A	EN04-2S	8	4/7/2009	EN042S040709	Summa Canister	21.3	0.3	0.0	1.52	No	No	ug/m3	<	5.2	U	<	4.1	U	<	3	U	<	3.0	U	<	1.9	U	<	4.1	U	<	3.0	U	<	3.1	U	<	2.0	U	<	2.6	U	<	5.8	U
		EN04-2S Dup	8	4/7/2009	DU1035040709	Summa Canister	21.3	0.3	0.0	1.58	No	No	ug/m3	<	5.4	U	<	4.2	U	<	3.1	U	<	3.1	U	<	2.0	U	<	4.3	U	<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
		EN04-2S	8	6/9/2009	EN042S060909	Summa Canister	20.1	0.3	0.0	1.58	No	No	ug/m3	<	5.4	U	<	4.2	U	<	3.1	U	<	3.1	U	<	2.0	U	<	4.3	U	<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
		EN04-2S	8	8/12/2009	EN042S081209	Summa Canister	19.6	0.3	0.0	1.64	No	No	ug/m3	<	5.6	U		13		<	3.2	U	<	3.2	U	<	2.1	U	<	4.5	U	<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U
		EN04-2S	8	10/7/2009	EN042S100709	Summa Canister	20.4	0.3	0.0	1.75	No	No	ug/m3		8.7			8.1		<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U
		EN04-2S	8	12/15/2009	EN042S121509	Summa Canister	20.8	0.1	0.1	1.68	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	<	2.2	U	<	2.9	U	<	6.4	U
		EN04-2S	8	2/10/2010	EN042S021010	Summa Canister	20.3	0.1	0.0	1.68	No	No	ug/m3		290		<	4.5	U	<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
		EN04-2S	8	4/19/2010	EN042S04192010	Summa Canister	22.4	0.2	0.1	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	<	2.1	U	<	2.8	U	<	6.2	U
		EN04-2D	20	4/7/2009	EN042D040709	Summa Canister	21.5	0.3	0.0	1.61	No	No	ug/m3		16			99		<	3.2	U	<	3.2	U	<	2.0	U		9.0		<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U
		EN04-2D	20	6/9/2009	EN042D060909	Summa Canister	20	0.2	0.0	1.61	No	No	ug/m3		79			120		<	3.2	U	<	3.2	U	<	2.0	U		9.3		<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U

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

		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	1,1,1-Dichloroethane	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon 113)																						
Designation Monitoring Well	EN04-3 EN-203	EN04-3S	8	6/8/2009	EN043S060809	Summa Canister	18.8	0.1	0.0	2.58	No	No	ug/m3	<	8.8	U	<	6.9	U	<	5.1	U	<	5.1	U	<	3.4	U	<	4.5	U	<	9.9	U												
		EN04-3S	8	8/12/2009	EN043S081209	Summa Canister	19.9	0.2	0.0	8.4	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	<	2.2	U	<	2.9	U	<	6.4	U
		EN04-3S	8	10/6/2009	EN043S100609	Summa Canister	20.9	0.1	0.0	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	<	2.3	U	<	3.0	U	<	6.7	U
		EN04-3S	8	12/16/2009	EN043S121609	Summa Canister	20.9	0.2	0.1	1.48	No	No	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	<	2.6	U	<	5.7	U			
		EN04-3S	8	2/11/2010	EN043S021110	Summa Canister	19	0.1	0.2	1.68	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	<	2.2	U	<	2.9	U	<	6.4	U
		EN04-3D	19	6/8/2009	EN043D060809	Summa Canister	18.9	0.1	0.0	2.31	No	No	ug/m3	<	7.8	U		11		<	4.6	U	<	4.6	U	<	3.0	U	<	6.3	U	<	4.6	U	<	4.7	U	<	3.0	U	<	5.2		<	8.8	U
		EN04-3D	19	8/12/2009	EN043D081209	Summa Canister	19.9	0.1	0.0	8.4	No	No	ug/m3	<	5.7	U		14		<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
		EN04-3D	19	10/6/2009	EN043D100609	Summa Canister	20.3	0.5	0.0	1.64	No	No	ug/m3	<	5.6	U		22		<	3.2	U	<	3.2	U	<	2.1	U	<	4.5	U	<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U
		EN04-3D Dup	19	10/6/2009	DU6599100609	Summa Canister	20.3	0.5	0.0	1.61	No	No	ug/m3	<	5.5	U		24		<	3.2	U	<	3.2	U	<	2.0	U	<	4.4	U	<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U
		EN04-3D	19	12/16/2009	EN043D121609	Summa Canister	20.7	0.4	0.1	1.55	No	No	ug/m3	<	5.2	U		16		<	3.1	U	<	3.1	U	<	2.0	U	<	4.2	U	<	3.1	U	<	3.1	U	<	2.0	U	<	2.7	U	<	5.9	U
		EN04-3D	19	2/11/2010	EN043D021110	Summa Canister	19	0.2	0.2	1.58	No	No	ug/m3	<	5.4	U		7.8		<	3.1	U	<	3.1	U	<	2.0	U	<	4.3	U	<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
Designation Monitoring Well	EN04-4 EN-022	EN04-4S	8	8/12/2009	EN044S081209	Summa Canister	18.0	2.0	0.0	8.2	No	No	ug/m3		15		<	4.4	U	<	3.2	U	<	3.2	U	<	2.1	U	<	4.5	U	<	3.2	U	<	2.2	U	<	2.8	U	<	6.3	U			
		EN04-4S	8	2/9/2010	EN044S020910	Summa Canister	19.7	0.5	0.1	1.58	No	No	ug/m3	<	5.4	U		4.2		<	3.1	U	<	3.1	U	<	2.0	U	<	4.3	U	<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
		EN04-4S Dup	8	2/9/2010	DU3495020910	Summa Canister	19.7	0.5	0.1	1.65	No	No	ug/m3	<	5.6	U		4.4		<	3.3	U	<	3.3	U	<	2.1	U	<	4.5	U	<	3.3	U	<	3.3	U	<	2.2	U	<	2.9	U	<	6.3	U
		EN04-4D	17	8/12/2009	EN044D081209	Summa Canister	18.3	1.5	0.0	1.64	No	No	ug/m3	<	5.6	U		4.4		<	3.2	U	<	3.2	U	<	2.1	U	<	4.5	U	<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U
		EN04-4D	17	2/9/2010	EN044D020910	Summa Canister	20.2	0.1	0.1	1.66	No	No	ug/m3	<	5.6	U		4.5		<	3.3	U	<	3.3	U	<	2.1	U	<	4.5	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
Designation Monitoring Well	EN04-5 EN-459A	EN04-5S	8	8/11/2009	EN045S081109	Summa Canister	18.0	2.1	0.0	1.65	No	No	ug/m3		11			290		<	3.3	U	<	3.3	U	<	2.1	U		15		<	3.3	U	<	3.3	U	<	2.2	U	<	2.9	U	<	6.3	U
		EN04-5S	8	2/9/2010	EN045S020910	Summa Canister	20.6	1.4	0.0	1.58	No	No	ug/m3	<	5.4	U		94		<	3.1	U	<	3.1	U	<	2.0	U		10		<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
		EN04-5D	34	8/11/2009	EN045D081109	Summa Canister	18.9	0.9	0.0	3.66	No	No	ug/m3		27			2200		<	7.2	U	<	7.2	U	<	4.7	U		97		<	7.2	U	<	7.4	U	<	4.8	U	<	6.4	U	<	14	U
		EN04-5D	34	2/9/2010	EN045D020910	Summa Canister	20.5	2.1	0.0	4.05	No	No	ug/m3	<	14	U		3400		<	8.0	U	<	8.0	U	<	5.2	U		130		<	8.0	U	<	8.2	U	<	5.3	U	<	7.0	U	<	16	U
Designation Monitoring Well	EN04-6<br																																													

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		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	1,1,2-Dichloroethane	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon 113)	
Designation Monitoring Well	EN04-7 EN-311	EN04-7S	8	4/6/2009	EN047S040609	Summa Canister	20.9	0.4	0.0	1.79	No	No	ug/m3	9.0		< 4.8 U	< 3.5 U	< 3.5 U	< 2.3 U	< 4.9 U	< 3.5 U	< 3.6 U	< 2.4 U	< 3.1 U	< 6.8 U
		EN04-7S Dup	8	4/6/2009	DU3335040609	Summa Canister	20.9	0.4	0.0	1.68	No	No	ug/m3	7.8		< 4.5	< 3.3 U	< 3.3 U	< 2.1 U	< 4.6 U	< 3.3 U	< 3.4 U	< 2.2 U	< 2.9 U	< 6.4 U
		EN04-7S	8	6/9/2009	EN047S060909	Summa Canister	19.2	0.4	0.0	1.68	No	No	ug/m3	17		< 4.5 U	< 3.3 U	< 3.3 U	< 2.1 U	< 4.6 U	< 3.3 U	< 3.4 U	< 2.2 U	< 2.9 U	< 6.4 U
		EN04-7S	8	8/11/2009	EN047S081109	Summa Canister	18.7	0.9	0.0	1.63	No	No	ug/m3	10		< 4.4 U	< 3.2 U	< 3.2 U	< 2.1 U	< 4.4 U	< 3.2 U	< 3.3 U	< 2.2 U	< 2.8 U	< 6.2 U
		EN04-7S	8	10/6/2009	EN047S100609	Summa Canister	19.9	0.8	0.0	1.75	No	No	ug/m3	28		< 4.7 U	< 3.5 U	< 3.5 U	< 2.2 U	< 4.8 U	< 3.5 U	< 3.5 U	< 2.3 U	< 3.0 U	< 6.7 U
		EN04-7S	8	12/15/2009	EN047S121509	Summa Canister	20.4	0.4	0.1	1.6	No	No	ug/m3	9.9		< 4.3 U	< 3.2 U	< 3.2 U	< 2.0 U	< 4.4 U	< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.1 U
		EN04-7S	8	2/9/2010	EN047S020910	Summa Canister	21.0	0.6	0.0	1.4	No	No	ug/m3	< 4.7 U	< 3.8 U	< 2.8 U	< 2.8 U	< 1.8 U	< 3.8 U	< 2.8 U	< 1.8 U	< 2.4 U	< 5.4 U		
		EN04-7S Dup	8	2/9/2010	DU35664020910	Summa Canister	21.0	0.6	0.0	1.42	No	No	ug/m3	< 4.8 U	< 3.8 U	< 2.8 U	< 2.8 U	< 1.8 U	< 3.9 U	< 2.8 U	< 2.9 U	< 1.9 U	< 2.5 U	< 5.4 U	
		EN04-7S	8	4/19/2010	EN047S041910	Summa Canister	20.6	0.3	0.0	1.64	No	No	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	< 2.2 U	< 2.8 U	< 6.3 U	
		EN04-7D	34	4/6/2009	EN047D040609	Summa Canister	20.6	1.4	0.0	8.95	No	No	ug/m3	< 30 U	4,500		31	< 18 U	< 11 U	260	< 18 U	< 18 U	< 12 U	< 16 U	< 34 U
		EN04-7D	34	6/9/2009	EN047D060909	Summa Canister	20.0	0.5	0.0	4.67	No	No	ug/m3	< 16 U	4,100		34	< 9.2 U	< 6.0 U	260	< 9.2 U	< 9.4 U	< 6.2 U	< 8.1 U	< 18 U
		EN04-7D	34	8/11/2009	EN047D081109	Summa Canister	19.2	0.7	0.0	7	No	No	ug/m3	< 24 U	4,000		35	< 14 U	< 8.9 U	230	< 14 U	< 19 U	< 9.2 U	< 12 U	< 27 U
		EN04-7D Dup	34	8/11/2009	DU3355081109	Summa Canister	19.2	0.7	0.0	7.16	No	No	ug/m3	< 24 U	4,300		39	< 14 U	< 9.2 U	260	< 14 U	< 20 U	< 9.4 U	< 12 U	< 27 U
		EN04-7D	34	10/6/2009	EN047D100609	Summa Canister	19.3	1.3	0.0	6.56	No	No	ug/m3	< 22 U	5,100		32	< 13 U	< 8.4 U	230	< 13 U	< 13 U	< 8.6 U	< 11 U	< 25 U
		EN04-7D	34	12/15/2009	EN047D121509	Summa Canister	20.1	1.3	0.1	11	No	No	ug/m3	< 37 U	5,900		50	< 22 U	< 14 U	250	< 22 U	< 22 U	< 14 U	< 19 U	< 42 U
		EN04-7D	34	2/9/2010	EN047D020910	Summa Canister	20.3	1.8	0.0	8.57	No	No	ug/m3	< 29 U	6,800		48	< 17 U	< 11 U	350	< 17 U	< 17 U	< 11 U	< 15 U	< 33 U
		EN04-7D	34	4/19/2010	EN047D041910	Summa Canister	20.3	1.0	0.0	4.8	No	No	ug/m3	< 16 U	4,800		39	< 9.5 U	< 6.1 U	240	< 9.5 U	< 9.7 U	< 6.3 U	< 8.3 U	< 18 U

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		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	1,1,1-Dichloroethane	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon 113)																		
Designation Monitoring Well	EN04-9 EN-278;EN-279	EN04-9S	8	4/7/2009	EN049S040709	Summa Canister	20.5	0.4	0.0	1.58	No	No	ug/m3	23		1,100		6.1	<	3.1	U	<	2.0	U	61		<	3.1	U	7.6	<	2.1	U	<	2.7	U	<	6.0	U			
		EN04-9S	8	6/8/2009	EN049S060809	Summa Canister	17.6	0.6	0.0	6.56	No	No	ug/m3	110		4,200		14	<	13	U	<	8.4	U	200		<	13	U	18	<	8.6	U	<	11	U	<	25	U			
		EN04-9S	8	8/12/2009	EN049S081209	Summa Canister	17.5	0.8	0.0	8.5	No	No	ug/m3	540		7,200		540	<	17	U	<	11	U	740		<	200		150	<	11	U	<	15	U	<	38				
		EN04-9S Dup	8	8/12/2009	DU3325081209	Summa Canister	17.5	0.8	0.0	8.5	No	No	ug/m3	560		7,300		530	<	17	U	<	11	U	740		<	200		140	<	11	U	<	15	U	<	37				
		EN04-9S	8	10/6/2009	EN049S100609	Summa Canister	18.5	1.5	0.1	11.2	No	No	ug/m3	190		7,200	<	22	U	<	22	U	<	14	U	330		<	22	U	<	23	U	<	15	U	<	19	U	<	43	U
		EN04-9S	8	12/16/2009	EN049S121609	Summa Canister	20.1	0.6	0.1	2.4	No	No	ug/m3	45		1,900		5.3	<	4.8	U	<	3.1	U	78		<	4.8	U	7.0	<	3.2	U	<	4.2	U	<	9.2	U			
		EN04-9S	8	2/9/2010	EN049S020910	Summa Canister	19.2	0.7	0.2	1.58	No	No	ug/m3	25		940		3.8	<	3.1	U	<	2.0	U	49		<	3.1	U	5.1	<	2.1	U	<	2.7	U	<	6.0	U			
		EN04-9S	8	4/19/2010	EN049S04192010	Summa Canister	22.8	0.5	0.1	1.87	No	No	ug/m3	40		1,700		10	<	3.7	U	<	2.4	U	78		<	3.7	U	9.3	<	2.5	U	<	3.2	U	<	7.2	U			
		EN04-9D	20	4/7/2009	EN049D040709	Summa Canister	19.9	0.7	0.0	13.1	No	No	ug/m3	470		6,800		560	<	26	U	<	17	U	550		<	120		160	<	17	U	<	23	U	<	50	U			
		EN04-9D Dup	20	4/7/2009	DU3301040709	Summa Canister	19.9	0.7	0.0	13.1	No	No	ug/m3	470		6,700		550	<	26	U	<	17	U	540		<	120		160	<	17	U	<	23	U	<	50	U			
		EN04-9D	20	6/8/2009	EN049D060809	Summa Canister	17.9	0.3	0.0	6.72	No	No	ug/m3	460		6,100		460	<	13	U	<	8.6	U	500		<	96		130	<	8.9	U	<	12	U	<	26	U			
		EN04-9D	20	8/12/2009	EN049D081209	Summa Canister	18.3	1.2	0.0	13.4	No	No	ug/m3	190		7,300	<	26	U	<	26	U	<	17	U	390		<	26	U	<	27	U	<	18	U	<	23	U	<	51	U
		EN04-9D	20	10/6/2009	EN049D100609	Summa Canister	17.6	1.4	0.0	16.4	No	No	ug/m3	870		11,000		880	<	32	U	<	21	U	1,000		<	420		250	<	22	U	<	28	U	<	86				
		EN04-9D	20	12/16/2009	EN049D121609	Summa Canister	19.6	1.1	0.1	10.5	No	No	ug/m3	860		10,000		740	<	21	U	<	13	U	780		<	250		240	<	14	U	<	18	U	<	44				
		EN04-9D Dup	20	12/16/2009	DU3336121609	Summa Canister	19.6	1.1	0.1	10.5	No	No	ug/m3	660		10,000		730	<	21	U	<	13	U	770		<	250		240	<	14	U	<	18	U	<	45				
		EN04-9D	20	2/9/2010	EN049D020910	Summa Canister	18.3	0.9	0.2	15.8	No	No	ug/m3	800		13,000		880	<	31	U	<	20	U	1,100		<	390		310	<	21	U	<	27	U	<	60	U			
		EN04-9D	20	4/19/2010	EN049D04192010	Summa Canister	21.5	0.7	0.1	9.37	No	No	ug/m3	550		8,400		550	<	18	U	<	12	U	590		<	230		160	<	12	U	<	16	U	<	50				
Designation Monitoring Well	EN04-10 EN-077	EN04-10S	8	8/13/2009	EN0410S081309	Summa Canister	13.6	5.5	0.0	65.6	No	No	ug/m3	560		46,000		9,200	<	130	U	<	84	U	9,400		<	1,400		4,200	<	86	U	<	110	U	<	250	U			
		EN04-10S	8	2/9/2010	EN0410S020910	Summa Canister	13.8	4.6	0.2	61.2	No	No	ug/m3	460		38,000		10,000	<	120	U	<	78	U	9,300		<	1,000		3,900	<	81	U	<	110	U	<	230	U			
		EN04-10D	20	8/12/2009	EN0410D081209	Summa Canister	18.9	1.3	0.0	68	No	No	ug/m3	700		38,000		10,000	<	130	U	<	87	U	5,900		<	3,000		4,600	<	90	U	<	120	U	<	260	U			
		EN04-10D	20	2/9/2010	EN0410D020910	Summa Canister	14.7	3.6	0.2	22	No	No	ug/m3	120		19,000		4,000	<	44	U	<	28	U	5,800		<	620		2,100	<	29	U	<	38	U	<	84	U			

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Designation Monitoring Well	EN04-11 EN-215;EN-215B	EN04-11S	8	4/7/2009	EN0411S040709	Summa Canister	20.4	0.6	0.0	1.68	No	No	ug/m3	7.1		26		< 3.3 U	< 3.3 U	< 2.1 U	< 4.6 U	< 3.3 U	< 3.4 U	< 2.2 U	< 2.9 U	< 6.4 U	
		EN04-11S	8	6/8/2009	EN0411S060809	Summa Canister	18.3	0.7	0.0	1.39	No	No	ug/m3	<	4.7 U	80		< 2.8 U	< 2.8 U	< 1.8 U	5.5		< 2.8 U	< 2.8 U	< 1.8 U	< 2.4 U	< 5.3 U
		EN04-11S	8	8/12/2009	EN0411S081209	Summa Canister	19.2	1.0	0.0	8.2	No	No	ug/m3	6.2		130		< 3.2 U	< 3.2 U	< 2.1 U	11		< 3.2 U	< 3.3 U	< 2.2 U	< 2.8 U	< 6.3 U
		EN04-11S	8	10/6/2009	EN0411S100609	Summa Canister	19.7	1.1	0.1	1.68	No	No	ug/m3	6.8		160		< 3.3 U	< 3.3 U	< 2.1 U	6.1		< 3.3 U	< 3.4 U	< 2.2 U	< 2.9 U	< 6.4 U
		EN04-11S	8	12/16/2009	EN0411S121609	Summa Canister	20.5	0.5	0.1	1.47	No	No	ug/m3	<	5.0 U	59		< 2.9 U	< 2.9 U	< 1.9 U	< 4.0 U	< 2.9 U	< 3.0 U	< 1.9 U	< 2.6 U	< 5.6 U	
		EN04-11S	8	2/9/2010	EN0411S020910	Summa Canister	19.6	0.2	0.2	1.56	No	No	ug/m3	<	5.3 U	31		< 3.1 U	< 3.1 U	< 2.0 U	13		< 3.1 U	< 3.2 U	< 3.2 U	< 2.7 U	10
		EN04-11S	8	4/19/2010	EN0411S04192010	Summa Canister	19.7	0.5	0.1	1.61	No	No	ug/m3	<	5.5 U	51		< 3.2 U	< 3.2 U	< 2.0 U	11		< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	10
		EN04-11D	21	4/7/2009	EN0411D040709	Summa Canister	20.6	0.4	0.0	1.61	No	No	ug/m3	<	5.5 U	67		< 3.2 U	< 3.2 U	< 2.0 U	6.1		< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
		EN04-11D	21	6/8/2009	EN0411D060809	Summa Canister	18.5	0.3	0.0	3.22	No	No	ug/m3	36		1,400		< 6.4 U	< 6.4 U	< 4.1 U	38		< 6.4 U	< 6.5 U	< 4.2 U	< 5.6 U	< 12 U
		EN04-11D	21	8/12/2009	EN0411D081209	Summa Canister	19.7	0.4	0.0	1.61	No	No	ug/m3	70		1,400		5.1		< 2.0 U	42		< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
		EN04-11D	21	10/6/2009	EN0411D100609	Summa Canister	19.8	0.9	0.0	1.68	No	No	ug/m3	44		1,700		5.5		< 2.1 U	37		< 3.3 U	< 3.4 U	< 2.2 U	< 2.9 U	< 6.4 U
		EN04-11D	21	12/16/2009	EN0411D121609	Summa Canister	20.6	0.7	0.1	2.96	No	No	ug/m3	53		2,000		7.2		< 3.8 U	44		< 5.9 U	< 6.0 U	< 3.9 U	< 5.1 U	< 11 U
		EN04-11D	21	2/9/2010	EN0411D020910	Summa Canister	19.7	0.4	0.1	1.57	No	No	ug/m3	26		1,100		3.5		< 2.0 U	32		< 3.1 U	< 3.2 U	< 2.1 U	< 2.7 U	< 6.0 U
		EN04-11D	21	4/19/2010	EN0411D04192010	Summa Canister	20.0	0.4	0.1	1.61	No	No	ug/m3	31		1,200		3.5		< 2.0 U	31		< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
Designation Monitoring Well	EN04-12 EN-214A	EN04-12S	8	4/6/2009	EN0412S040609	Summa Canister	19.8	1.6	0.0	1.79	No	No	ug/m3	<	6.1 U	390		< 3.5 U	< 3.5 U	< 2.3 U	17		< 3.5 U	< 3.6 U	< 2.4 U	< 3.1 U	< 6.8 U
		EN04-12S	8	6/9/2009	EN0412S060909	Summa Canister	18.7	1.6	0.0	1.71	No	No	ug/m3	<	5.8 U	700		< 3.4 U	< 3.4 U	< 2.2 U	22		< 3.4 U	< 3.5 U	< 2.2 U	< 3.0 U	< 6.6 U
		EN04-12S	8	8/12/2009	EN0412S081209	Summa Canister	18.2	2.8	0.0	1.68	No	Yes	ug/m3	<	5.7 U	1,200		< 3.3 U	< 3.3 U	< 2.1 U	22		< 3.4 U	< 3.4 U	< 2.2 U	< 2.9 U	< 6.4 U
		EN04-12S	8	10/7/2009	EN0412S100709	Summa Canister	18.6	2.4	0.0	1.61	No	No	ug/m3	<	5.5 U	1,300		< 3.2 U	< 3.2 U	< 2.0 U	29		< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
		EN04-12S	8	12/16/2009	EN0412S121609	Summa Canister	19.4	2.0	0.1	1.58	No	No	ug/m3	<	5.4 U	670		< 3.1 U	< 3.1 U	< 2.0 U	16		< 3.1 U	< 3.2 U	< 2.1 U	< 2.7 U	< 6.0 U
		EN04-12S	8	2/10/2010	EN0412S021010	Summa Canister	20.3	1.1	0.0	1.58	No	No	ug/m3	<	5.4 U	460		< 3.1 U	< 3.1 U	< 2.0 U	20		< 3.1 U	< 3.2 U	< 2.1 U	< 2.7 U	< 6.0 U
		EN04-12S	8	4/19/2010	EN0412S041910	Summa Canister	20.1	0.8	0.0	1.58	No	No	ug/m3	<	5.4 U	420		< 3.1 U	< 3.1 U	< 2.0 U	14		< 3.1 U	< 3.2 U	< 2.1 U	< 2.7 U	< 6.0 U
		EN04-12D	19	4/6/2009	EN0412D040609	Summa Canister	20.0	1.7	0.0	1.71	No	No	ug/m3	<	5.8 U	680		< 3.4 U	< 3.4 U	< 2.2 U	30		< 3.4 U	< 3.5 U	< 2.2 U	< 3.0 U	< 6.6 U
		EN04-12D	19	6/9/2009	EN0412D060909	Summa Canister	18.7	1.7	0.0	6.72	No	No	ug/m3	270		720		2,400		< 2.1 U	13		< 13 U	< 18 U	< 8.9 U	240	
		EN04-12D	19	8/12/2009	EN0412D081209	Summa Canister	18.5	2.5	0.0	1.68	No	Yes	ug/m3	<	5.7 U	800		< 3.3 U	< 3.3 U	< 2.1 U	13		< 3.3 U	< 3.4 U	< 2.2 U	< 2.9 U	< 6.4 U
		EN04-12D	19	10/7/2009	EN0412D100709	Summa Canister	18.2	2.8	0.0	1.64	No	No	ug/m3	<	5.6 U	1,000		< 3.2 U	< 3.2 U	< 2.1 U	24		< 3.2 U	< 3.3 U	< 2.2 U	< 2.8 U	< 6.3 U
		EN04-12D	19	12/16/2009	EN0412D121609	Summa Canister	19.1	2.2	0.1	1.61	No	No	ug/m3	<	5.5 U	720		< 3.2 U	< 3.2 U	< 2.0 U	16		< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
		EN04-12D																									

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		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 (Freon 113)																						
Designation Monitoring Well	EN04-13 EN-449	EN04-13S	8	8/12/2009	EN0413S081209	Summa Canister	17.1	3.5	0.0	2.28	No	No	ug/m3	<	7.7	U	1,700		<	4.5	U	<	4.5	U	<	2.9	U	180		13	<	4.6	U	<	3.0	U	<	4.0	U	<	8.7	U				
		EN04-13S	8	12/17/2009	EN0413S121709	Summa Canister	18.5	3.3	0.0	1.53	No	No	ug/m3	<	5.2	U	720		<	3.0	U	<	3.0	U	<	2.0	U	150		<	3.0	U	<	3.1	U	<	2.0	U	<	2.6	U	<	5.9	U		
		EN04-13S Dup	8	12/17/2009	DU3344121709	Summa Canister	18.5	3.3	0.0	1.53	No	No	ug/m3	<	5.2	U	750		<	3.0	U	<	3.0	U	<	2.0	U	160		<	3.0	U	<	3.1	U	<	2.0	U	<	2.6	U	<	5.9	U		
		EN04-13S	8	2/9/2010	EN0413S020910	Summa Canister	18.7	3.0	0	1.51	No	No	ug/m3	<	5.1	U	370		<	3.0	U	<	3.0	U	<	1.9	U	88		<	3.0	U	<	3.0	U	<	2.0	U	<	2.6	U	<	5.8	U		
		EN04-13S	8	4/19/2010	EN0413S041910	Summa Canister	19.5	1.5	0.0	1.64	No	No	ug/m3	<	5.6	U	700		<	3.2	U	<	3.2	U	<	2.1	U	170		<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U		
		EN04-13D	30	8/12/2009	EN0413D081209	Summa Canister	18.9	2.1	0.0	8.95	No	No	ug/m3	<	6.1	U	100		<	3.5	U	<	3.5	U	<	2.3	U	9.1		<	3.5	U	<	3.6	U	<	2.4	U	<	3.1	U	<	6.8	U		
		EN04-13D	30	12/17/2009	EN0413D121709	Summa Canister	21.0	1.2	0.1	1.61	No	No	ug/m3	<	5.5	U	520		<	3.2	U	<	3.2	U	<	2.0	U	76		<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U		
		EN04-13D	30	2/9/2010	EN0413D020910	Summa Canister	19.2	2.3	0.0	1.38	No	Yes	ug/m3	<	4.7	U	1,500		<	2.7	U	<	2.7	U	<	1.8	U	310		<	2.7	U	<	2.8	U	<	1.8	U	<	2.6		<	6.3			
		EN04-13D	30	4/19/2010	EN0413D041910	Summa Canister	20.4	0.8	0.0	1.52	No	No	ug/m3		7.2		140		<	3.0	U	<	3.0	U	<	1.9	U	15		<	3.0	U	<	3.1	U	<	2.0	U	<	2.6	U	<	5.8	U		
Designation	EN04-14	EN04-14S	8	8/11/2009	EN0414S081109	Summa Canister	18.2	1.9	0.0	8.4	No	No	ug/m3	<	5.7	U	16		<	3.3	U	<	3.3	U	<	2.1	U	5.8		<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U		
Monitoring Well	EN-462	EN04-14S Dup	8	8/11/2009	DU31775081109	Summa Canister	18.2	1.9	0.0	1.68	No	No	ug/m3	<	5.7	U	24		<	3.3	U	<	3.3	U	<	2.1	U	7.0		<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U		
		EN04-14S	8	2/10/2010	EN0414S021010	Summa Canister	20.6	1.4	0.0	1.41	No	No	ug/m3		5.3		6.8		<	2.8	U	<	2.8	U	<	1.8	U	4.7		<	2.8	U	<	2.8	U	<	1.9	U	<	2.4	U	<	5.4	U		
		EN04-14S	8	4/19/2010	EN0414S041910	Summa Canister	19.8	0.8	0.0	1.61	No	No	ug/m3	<	5.5	U	12		<	3.2	U	<	3.2	U	<	2.0	U	7.1		<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U		
		EN04-14D	34	8/11/2009	EN0414D081109	Summa Canister	19.4	0.4	0.0	1.71	No	No	ug/m3		36		960		<	3.4	U	<	3.4	U	<	2.2	U	46		<	3.4	U	<	3.5	U	<	2.2	U	<	3.0	U	<	6.6	U		
		EN04-14D	34	2/10/2010	EN0414D021010	Summa Canister	20.9	0.8	0.0	1.49	No	No	ug/m3	<	5.0	U	850		<	3.0	U	<	3.0	U	<	1.9	U	35		<	3.0	U	<	3.0	U	<	2.0	U	<	2.6	U	<	5.7	U		
		EN04-14D Dup	34	2/10/2010	DU34142021010	Summa Canister	20.9	0.8	0.0	6.2	No	No	ug/m3	<	21	U	3,400		<	12	U	<	12	U	<	7.9	U	120		<	12	U	<	12	U	<	8.2	U	<	11	U	<	24	U		
		EN04-14D	34	4/19/2010	EN0414D041910	Summa Canister	21.1	0.1	0.0	2.58	No	No	ug/m3	<	8.8	U	2,700		<	5.1	U	<	5.1	U	<	3.3	U	82		<	5.1	U	<	5.2	U	<	3.4	U	<	4.5	U	<	9.9	U		
		EN04-14D Dup	34	4/19/2010	DU3299041910	Summa Canister	21.1	0.1	0.0	2.39	No	No	ug/m3	<	8.1	U	2,600		<	4.7	U	<	4.7	U	<	3.0	U	100		<	4.7	U	<	4.8	U	<	3.2	U	<	4.2	U	<	9.2	U		
Designation	EN04-15	EN04-15S	8	8/11/2009	EN0415S081109	Summa Canister	18.5	1.8	0.0	1.76	No	Yes	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	<	2.3	U	<	3.0	U	<	6.7	U
Monitoring Well	EN-162	EN04-15S	8	2/11/2010	EN0415S021110	Summa Canister	NS	NS	NS	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	<	2.1	U	<	2.8	U	<	6.2	U
		EN04-15D	30	8/11/2009	EN0415D081109	Summa Canister	18.7	1.7	0.0	1.81	No	Yes	ug/m3</																																	

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		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	1,1,1-Dichloroethane	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon 113)																						
Designation Monitoring Well	EN04-17 EN-401	EN04-17S	8	4/6/2009	EN0417S040609	Summa Canister	21.1	0.4	0.0	1.75	No	No	ug/m3	<	5.9	U	110		<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U	
		EN04-17S	8	6/9/2009	EN0417S060909	Summa Canister	19.5	0.4	0.0	1.79	No	No	ug/m3	<	6.1	U	300		<	3.5	U	<	3.5	U	<	2.3	U	<	5.3		<	3.5	U	<	3.6	U	<	2.4	U	<	3.1	U	<	6.8	U	
		EN04-17S Dup	8	6/9/2009	DU3372060909	Summa Canister	19.5	0.4	0.0	1.79	No	No	ug/m3	<	6.1	U	300		<	3.5	U	<	3.5	U	<	2.3	U	<	5.7		<	3.5	U	<	3.6	U	<	2.4	U	<	3.1	U	<	6.8	U	
		EN04-17S	8	8/11/2009	EN0417S081109	Summa Canister	19.3	0.8	0.0	8.75	No	No	ug/m3	<	5.9	U	440		<	3.5	U	<	3.5	U	<	2.2	U	<	8.8		<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U	
		EN04-17S	8	10/7/2009	EN0417S100709	Summa Canister	20.4	0.8	0.0	1.71	No	No	ug/m3	<	5.8	U	270		<	3.4	U	<	3.4	U	<	2.2	U	<	5.0		<	3.4	U	<	3.5	U	<	2.2	U	<	3.0	U	<	6.6	U	
		EN04-17S	8	12/17/2009	EN0417S121709	Summa Canister	20.5	0.5	0.1	1.58	No	No	ug/m3	<	5.4	U	81		<	3.1	U	<	3.1	U	<	2.0	U	<	4.3	U	<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U	
		EN04-17S	8	2/10/2010	EN0417S021010	Summa Canister	20.9	0.3	0.0	1.58	No	No	ug/m3	<	5.4	U	95		<	3.1	U	<	3.1	U	<	2.0	U	<	4.3	U	<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U	
		EN04-17S	8	4/19/2010	EN0417S041910	Summa Canister	20.6	0.1	0.0	1.64	No	No	ug/m3	<	5.6	U	170		<	3.2	U	<	3.2	U	<	2.1	U	<	4.5	U	<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U	
		EN04-17S Dup	8	4/19/2010	DU2052041910	Summa Canister	20.6	0.1	0.0	1.68	No	No	ug/m3	<	5.7	U	170		<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U	
		EN04-17D	28	4/6/2009	EN0417D040609	Summa Canister	21.1	0.4	0.0	3.28	No	No	ug/m3	<	11	U	1,400		<	16		<	6.5	U	<	4.2	U	<	77		<	6.5	U	<	6.6	U	<	4.3	U	<	5.7	U	<	12	U	
		EN04-17D	28	6/9/2009	EN0417D060909	Summa Canister	19.7	0.6	0.0	1.79	No	No	ug/m3	<	10		60		<	3.5	U	<	3.5	U	<	2.3	U	<	4.9	U	<	3.5	U	<	3.6	U	<	2.4	U	<	3.1	U	<	6.8	U	
		EN04-17D	28	8/11/2009	EN0417D081109	Summa Canister	19.4	0.7	0.0	8.75	No	No	ug/m3	<	5.9	U	69		<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U	
		EN04-17D	28	10/7/2009	EN0417D100709	Summa Canister	20.5	0.5	0.0	1.64	No	No	ug/m3	<	5.6	U	54		<	3.2	U	<	3.2	U	<	2.1	U	<	4.5	U	<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U	
		EN04-17D	28	12/17/2009	EN0417D121709	Summa Canister	20.6	0.3	0.1	1.55	No	No	ug/m3	<	5.2	U	27		<	3.1	U	<	3.1	U	<	2.0	U	<	4.2	U	<	3.1	U	<	3.1	U	<	2.0	U	<	2.7	U	<	5.9	U	
		EN04-17D	28	2/10/2010	EN0417D021010	Summa Canister	21.0	0.3	0.1	1.44	No	Yes	ug/m3	<	4.9	U	200		<	2.8	U	<	2.8	U	<	1.8	U	<	10		<	2.8	U	<	2.9	U	<	1.9	U	<	2.5	J	<	5.5	U	
		EN04-17D	28	4/19/2010	EN0417D041910	Summa Canister	20.1	0.1	0.0	1.61	No	No	ug/m3	<	270		24		<	3.2	U	<	3.2	U	<	2.0	U	<	4.4	U	<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U	
Designation Monitoring Well	EN04-18 EN-217A	EN04-18S	8	8/11/2009	EN0418S081109	Summa Canister	19.4	1.3	0.0	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	<	2.3	U	<	3.0	U	<	6.7	U
		EN04-18S	8	2/9/2010	EN0418S020910	Summa Canister	21.0	0.4	0.0	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	<	2.0	U	<	2.6	U	<	5.8	U
		EN04-18D	31	8/11/2009	EN0418D081109	Summa Canister	19.7	0.7	0.0	1.7	No	No	ug/m3	<	8.5		940		<	8.6		<	3.4	U	<	2.2	U	<	51		<	3.4	U	<	3.4	U	<	2.2	U	<	3.0	U	<	6.5	U	
		EN04-18D	31	2/9/2010	EN0418D020910	Summa Canister	21.0	1.1	0	1.52	No	No	ug/m3	<	9.8		1,300		<	8.9		<	3.0	U	<																					

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		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	1,1,1-Dichloroethane	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon 113)																						
Designation	EN04-20	EN04-20S	8	8/10/2009	EN0420S081009	Summa Canister	20.0	0.5	0.0	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	<	2.3	U	<	3.0	U	<	6.7	U
Monitoring Well	EN-207	EN04-20S	8	2/8/2010	EN0420S020810	Summa Canister	21.2	1.2	0.0	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	<	2.0	U	<	2.6	U	<	5.8	U
		EN04-20D	36	8/10/2009	EN0420D081009	Summa Canister	18.6	2.1	0.0	1.75	No	No	ug/m3	<	5.9	U		150		<	3.5	U	<	3.5	U	<	2.2	U		6.3		<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U
		EN04-20D	36	2/8/2010	EN0420D020810	Summa Canister	21.7	0.9	0.0	1.52	No	No	ug/m3		5.9			360		<	3.0	U	<	3.0	U	<	1.9	U		13		<	3.0	U	<	3.1	U	<	2.0	U	<	2.6	U	<	5.8	U
Designation	EN04-21	EN04-21S	7.5	8/10/2009	EN0421S081009	Summa Canister	17.5	2.6	0.0	1.69	No	No	ug/m3	<	5.7	U		6.0		<	3.4	U	<	3.4	U	<	2.2	U	<	4.6	U	<	3.4	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.5	U
Monitoring Well	EN-468	EN04-21S	7.5	2/8/2010	EN0421S020810	Summa Canister	21.5	1.1	0.0	1.48	No	No	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	<	2.0	U	<	2.6	U	<	5.7	U
		EN04-21D	23	8/10/2009	EN0421D081009	Summa Canister	18.5	1.7	0.0	1.72	No	No	ug/m3	<	5.8	U		170		<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.6	U
		EN04-21D	23	2/8/2010	EN0421D020810	Summa Canister	21.6	0.5	0.0	1.49	No	No	ug/m3	<	5.0	U		640		<	3.0	U	<	3.0	U	<	1.9	U		30		<	3.0	U	<	3.0	U	<	2.0	U	<	2.6	U	<	5.7	U
Designation	EN04-22	EN04-22S	8	8/11/2009	EN0422S081109	Summa Canister	16.2	3.4	0.0	1.81	No	No	ug/m3		6.8			730			280			20		<	2.3	U		51		<	3.6	U		3.7		<	2.4	U	<	3.1	U		10	
Monitoring Well	EN-080;EN-393	EN04-22S	8	2/10/2010	EN0422S021010	Summa Canister	20.1	0.8	0.0	1.58	No	No	ug/m3	<	5.4	U		73			58			5.4		<	2.0	U		9.2		<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
		EN04-22D	16	8/11/2009	EN0422D081109	Summa Canister	15.8	4.1	0.0	1.81	No	No	ug/m3		8.0			860			760			52		<	2.3	U		76		<	3.6	U		7.4		<	2.4	U	<	3.1	U		9.6	
		EN04-22D	16	2/10/2010	EN0422D021010	Summa Canister	20.3	0.9	0.0	1.55	No	No	ug/m3	<	5.2	U		420			410			29		<	2.0	U		26		<	3.1	U		3.3		<	2.0	U	<	2.7	U	<	5.9	U
Designation	EN04-23	EN04-23S	8	8/11/2009	EN0423S081109	Summa Canister	18.6	2.1	0.0	8.45	No	Yes	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	<	2.2	U	<	2.9	U	<	6.5	U
Monitoring Well	EN-174	EN04-23S	8	2/10/2010	EN0423S021010	Summa Canister	20.8	0.9	0.0	1.64	No	No	ug/m3		12		<	4.4	U	<	3.2	U	<	3.2	U	<	2.1	U		9.5		<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U
		EN04-23D	23	8/11/2009	EN0423D081109	Summa Canister	18.5	2.0	0.0	8.95	No	Yes	ug/m3		13			360			100			5.4		<	2.3	U	<	4.9	U	<	3.5	U		17		<	2.4	U	<	3.1	U	<	6.8	U
		EN04-23D Dup	23	8/11/2009	DU2136081109	Summa Canister	18.5	2.0	0.0	8.9	No	Yes	ug/m3		13			360			120			5.6		<	2.3	U	<	4.8	U	<	3.5	U		18		<	2.3	U	<	3.1	U	<	6.8	U
		EN04-23D	23	2/10/2010	EN0423D021010	Summa Canister	20.3	1.2	0.0	1.61	No	No	ug/m3		14			490			120			4.8		<	2.0	U	<	4.4	U	<	3.2	U		21		<	2.1	U	<	2.8	U	<	6.2	U
Designation	EN04-25	EN04-25S	8	8/11/2009	EN0425S081109	Summa Canister	14.3	4.5	0.0	1.78	No	No	ug/m3		7.7			5.7		<	3.5	U	<	3.5	U	<	2.3	U	<	4.8	U	<	3.5	U	<	3.6	U	<	2.3	U	<	3.1	U	<	6.8	U
Monitoring Well	EN-395	EN04-25S	8	2/10/2010	EN0425S021010	Summa Canister	17.7	1.4	0.0	1.58	No	No	ug/m3	<	5.4	U		6.7		<	3.1	U	<	3.1	U	<	2.0	U	<	4.3	U	<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
		EN04-25D	17.5	8/11/2009	EN0425D081109	Summa Canister	16.3	2.6	0.0	1.7	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	<	2.2	U	<	3.0	U	<	6.5	U
		EN04-25D	17.5	2/10/2010	EN0425D021010	Summa Canister	19.8	0.4	0.1	1.68	No</td																																			

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		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	1,1,1-Dichloroethane	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon 113)																					
Designation Monitoring Well	EN04-27 EN-417A	EN04-27S	8	8/10/2009	EN0427S081009	Summa Canister	15.7	3.7	0.0	1.79	No	No	ug/m3	140		<	3.5	U	<	3.5	U	<	2.3	U	110	<	3.5	U	<	3.6	U	<	2.4	U	<	3.1	U	<	6.8	U					
		EN04-27S Dup	8	8/10/2009	DU34081081009	Summa Canister	15.7	3.7	0.0	1.75	No	No	ug/m3	98		<	3.5	U	<	3.5	U	<	2.2	U	80	<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U					
		EN04-27S	8	2/8/2010	EN0427S020810	Summa Canister	18.8	1.3	0.1	1.68	No	No	ug/m3	26		<	3.3	U	<	3.3	U	<	2.1	U	36	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U					
Designation Monitoring Well	EN07-28 EN-387A	EN07-28S	7	4/7/2009	EN0728S040709	Summa Canister	20.5	0.2	0.0	1.71	No	No	ug/m3	65		<	4.6	U	<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	2.2	U	<	3.0	U	<	6.6	U
		EN07-28S	7	6/9/2009	EN0728S060909	Summa Canister	19.3	0.4	0.0	1.96	No	No	ug/m3	220		<	8.7		<	3.9	U	<	3.9	U	<	2.5	U	<	5.3	U	<	3.9	U	<	4.0	U	<	2.6	U	<	3.4	U	<	7.5	U
		EN07-28S	7	8/11/2009	EN0728S081109	Summa Canister	19.9	0.7	0.0	1.63	No	Yes	ug/m3	410		<	20		<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.2	U
		EN07-28S	7	10/8/2009	EN0728S100809	Summa Canister	19.4	0.5	0.0	1.68	No	No	ug/m3	320		<	13		<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
		EN07-28S	7	12/17/2009	EN0728S121709	Summa Canister	20.8	0.3	0.1	1.5	No	No	ug/m3	110		<	4.4		<	3.0	U	<	3.0	U	<	1.9	U	<	4.1	U	<	3.0	U	<	3.0	U	<	2.0	U	<	2.6	U	<	5.7	U
		EN07-28S	7	2/9/2010	EN0728S020910	Summa Canister	20.3	0.1	0.0	1.57	No	No	ug/m3	67		<	4.2	U	<	3.1	U	<	3.1	U	<	2.0	U	<	4.3	U	<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
		EN07-28S	7	4/20/2010	EN0728S04202010	Summa Canister	20.3	0.1	0.0	1.68	No	No	ug/m3	120		<	7.1		<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
		EN07-28D	19	4/7/2009	EN0728D040709	Summa Canister	14.9	8.2	0.0	1.68	No	No	ug/m3	1,300		<	110		<	33		<	7.9		<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
		EN07-28D	19	6/9/2009	EN0728D060909	Summa Canister	14.1	4.0	0.0	1.75	No	No	ug/m3	1,200		<	92		<	39		<	11		<	2.2	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U
		EN07-28D	19	8/11/2009	EN0728D081109	Summa Canister	9.6	7.8	0.0	1.69	No	Yes	ug/m3	1,700		<	120		<	40		<	16		<	2.2	U	<	4.6	U	<	3.4	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.5	U
		EN07-28D	19	10/8/2009	EN0728D100809	Summa Canister	7.3	10.1	0.0	1.58	No	No	ug/m3	1,400		<	110		<	39		<	9.7		<	2.0	U	<	4.3	U	<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
		EN07-28D	19	12/17/2009	EN0728D121709	Summa Canister	8.0	11.1	0.0	1.5	No	No	ug/m3	1,500		<	86		<	28		<	7.9		<	1.9	U	<	4.1	U	<	3.0	U	<	3.0	U	<	2.0	U	<	2.6	U	<	5.7	U
		EN07-28D	19	2/9/2010	EN0728D020910	Summa Canister	11.1	7.8	0.0	1.52	No	No	ug/m3	1,700		<	110		<	28		<	5.9		<	1.9	U	<	4.1	U	<	3.0	U	<	3.1	U	<	2.0	U	<	2.6	U	<	5.8	U
		EN07-28D	19	4/20/2010	EN0728D04202010	Summa Canister	15.7	3.9	0.0	1.75	No	No	ug/m3	1,100		<	61		<	16		<	3.7		<	2.2	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U

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		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	1,1,1-Dichloroethane	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon 113)																					
Designation Monitoring Well	EN04-29;EN05-29 EN-437	EN05-29S	8	4/7/2009	EN0529S040709	Summa Canister	20.1	0.9	0.0	1.68	No	No	ug/m3	<	5.7	U	150		<	3.3	U	<	3.3	U	<	2.1	U	12		<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U	
		EN05-29S	8	6/8/2009	EN0529S060809	Summa Canister	17.7	0.9	0.0	2.21	No	No	ug/m3	<	7.5	U	300		<	4.4	U	<	4.4	U	<	2.8	U	23		<	4.4	U	<	4.5	U	<	2.9	U	<	3.8	U	<	8.5	U	
		EN05-29S Dup	8	6/8/2009	DU3331060809	Summa Canister	17.7	0.9	0.0	1.79	No	No	ug/m3	<	6.1	U	420		<	3.5	U	<	3.5	U	<	2.3	U	29		<	3.5	U	<	3.6	U	<	2.4	U	<	3.1	U	<	6.8	U	
		EN05-29S	8	8/12/2009	EN0529S081209	Summa Canister	19.2	1.1	0.0	1.76	No	Yes	ug/m3	<	6.0	U	640		<	3.5	U	<	3.5	U	<	2.2	U	45		<	3.5	U	<	3.6	U	<	2.3	U	<	3.0	U	<	6.7	U	
		EN05-29S	8	10/6/2009	EN0529S100609	Summa Canister	18.7	1.7	0.0	1.68	No	No	ug/m3	<	5.7	U	640		<	3.3	U	<	3.3	U	<	2.1	U	41		<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U	
		EN05-29S	8	12/16/2009	EN0529S121609	Summa Canister	20.2	1.2	0.1	1.61	No	No	ug/m3	<	5.5	U	240		<	3.2	U	<	3.2	U	<	2.0	U	18		<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U	
		EN05-29S	8	2/9/2010	EN0529S020910	Summa Canister	19.5	0.6	0.2	1.61	No	No	ug/m3	<	5.5	U	130		<	3.2	U	<	3.2	U	<	2.0	U	12		<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U	
		EN05-29S	8	4/19/2010	EN0529S04192010	Summa Canister	23.5	0.8	0.1	1.68	No	No	ug/m3		6.4		140		<	3.3	U	<	3.3	U	<	2.1	U	12		<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U	
		EN04-29D	20	4/7/2009	EN0429D040709	Summa Canister	20.3	0.9	0.0	1.64	No	No	ug/m3		7.2		200		<	3.2	U	<	3.2	U	<	2.1	U	12		<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U	
		EN04-29D	20	6/8/2009	EN0429D060809	Summa Canister	17.9	0.9	0.0	1.68	No	No	ug/m3	<	5.7	U	1,300			3.6		<	3.3	U	<	2.1	U	110		<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U	
		EN04-29D	20	8/12/2009	EN0429D081209	Summa Canister	18.0	2.1	0.0	1.76	No	Yes	ug/m3	<	6.0	U	150		<	3.5	U	<	3.5	U	<	2.2	U	8.9		<	3.5	U	<	3.6	U	<	2.3	U	<	3.0	U	<	6.7	U	
		EN04-29D	20	10/6/2009	EN0429D100609	Summa Canister	20.4	0.4	0.0	6.44	No	No	ug/m3	<	22	U	3,500		<	13	U	<	13	U	<	8.2	U	200		<	13	U	<	13	U	<	8.5	U	<	11	U	<	25	U	
		EN04-29D	20	12/16/2009	EN0429D121609	Summa Canister	20.7	0.7	0.1	1.58	No	No	ug/m3	<	5.4	U	120		<	3.1	U	<	3.1	U	<	2.0	U	5.6		<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U	
		EN04-29D	20	2/9/2010	EN0429D020910	Summa Canister	19.4	0.7	0.2	1.66	No	No	ug/m3	<	5.6	U	380		<	3.3	U	<	3.3	U	<	2.1	U	28		<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U	
		EN04-29D Dup	20	2/9/2010	DU3372020910	Summa Canister	19.4	0.7	0.2	1.66	No	No	ug/m3	<	5.6	U	380		<	3.3	U	<	3.3	U	<	2.1	U	29		<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U	
		EN04-29D	20	4/19/2010	EN0429D04192010	Summa Canister	20.7	0.8	0.1	1.71	No	No	ug/m3	<	5.8	U	77		<	3.4	U	<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	2.2	U	<	3.0	U	<	6.6	U
		EN04-29D Dup	20	4/19/2010	DU333204192010	Summa Canister	20.7	0.8	0.1	1.64	No	No	ug/m3	<	5.6	U	67		<	3.2	U	<	3.2	U	<	2.1	U	<	4.5	U	<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U
Designation Monitoring Well	EN04-30 EN-092A;EN-438	EN04-30S	9	4/7/2009	EN0430S040709	Summa Canister	21.6	0.2	0.0	1.64	No	No	ug/m3	<	5.6	U	260		<	3.2	U	<	3.2	U	<	2.1	U	<	4.5	U	<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U
		EN04-30S	9	6/9/2009	EN0430S060909	Summa Canister	20.1	0.3	0.0	1.71	No	No	ug/m3	<	5.8	U	1,200		<	3.4	U	<	3.4	U	<	2.2	U	8.5		<	3.4	U	<	3.5	U	<	2.2	U	<	3.0	U	<	6.6	U	
		EN04-30S	9	8/12/2009	EN0430S081209	Summa Canister	19.5	0.5	0.0	3.01	No	No	ug/m3		12		2,300			7.5		<	6.0	U	<	3.8	U	20		<	6.0	U	<	6.1	U	<	4.0	U	<	5.2	U	<	12	U	
		EN04-30S	9	10/7/2009	EN0430S100709	Summa Canister	20.2	0.6	0.0	2.87	No	No</																																	

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	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	1,1,1-Dichloroethane	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon 113)																							
EN04-30 Continued	EN04-30D	20	4/7/2009	EN0430D040709	Summa Canister	21.7	0.3	0.0	1.58	No	No	ug/m3	19		520		10	<	3.1	U	<	2.0	U	36		<	3.1	U	4.0		<	2.1	U	<	2.7	U	<	6.0	U							
	EN04-30D	20	6/9/2009	EN0430D060909	Summa Canister	20.2	0.2	0.0	1.68	No	No	ug/m3	32		710		21	<	3.3	U	<	2.1	U	82		<	4.4	U	7.2		<	2.2	U	<	2.9	U	<	8.9								
	EN04-30D	20	8/12/2009	EN0430D081209	Summa Canister	19.5	0.4	0.0	1.72	No	No	ug/m3	47		930		18	<	3.4	U	<	2.2	U	100		<	3.4	U	8.7		<	2.3	U	<	3.0	U	<	9.1								
	EN04-30D	20	10/7/2009	EN0430D100709	Summa Canister	19.8	0.9	0.0	3.42	No	No	ug/m3	68		1,500		25	<	6.8	U	<	4.4	U	140		<	6.8	U	23		<	4.5	U	<	5.9	U	<	13	U							
	EN04-30D Dup	20	10/7/2009	DU3830100709	Summa Canister	19.8	0.9	0.0	1.68	No	No	ug/m3	72		1,500		28	<	3.3	U	<	2.1	U	150		<	3.3	U	25		<	2.2	U	<	2.9	U	<	11								
	EN04-30D	20	12/1/2009	EN0430D120109	Summa Canister	18.9	1.0	0	1.55	No	No	ug/m3	<	5.2	U	<	4.2	U	<	3.1	U	<	2.0	U	2	<	4.2	U	<	3.1	U	<	3.1	U	<	2.0	U	<	2.7	U	<	5.9	U			
	EN04-30D	20	12/16/2009	EN0430D121609	Summa Canister	20.2	0.9	0.1	1.58	No	No	ug/m3	34		1,100		9.0	<	3.1	U	<	2.0	U	64		<	3.1	U	4.8		<	2.1	U	<	2.7	U	<	6.0	U							
	EN04-30D	20	12/30/2009	EN0430D123009	Summa Canister	21.3	1.4	0.3	1.76	No	No	ug/m3	37		810		7.8	<	3.5	U	<	2.2	U	47		<	3.5	U	3.6	U	<	2.3	U	<	3.0	U	<	6.7	U							
	EN04-30D	20	1/29/2010	EN430D012910	Summa Canister	19.6	0.9	0.2	1.6	No	No	ug/m3	29		900		7.1	<	3.1	U	<	2.0	U	49		<	3.1	U	3.5	U	<	2.1	U	<	2.7	U	<	6.0	U							
	EN04-30D	20	2/9/2010	EN0430D020910	Summa Canister	19.7	0.4	0.2	1.52	No	No	ug/m3	17		500		4.6	<	3.0	U	<	1.9	U	20		<	3.0	U	3.1	U	<	2.0	U	<	2.6	U	<	5.8	U							
	EN04-30D	20	3/12/2010	EN0430D031210	Summa Canister	20.5	0.5	0.1	1.6	No	No	ug/m3	22		640		5.3	<	3.2	U	<	2.0	U	30		<	3.2	U	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U							
	EN04-30D	20	4/19/2010	EN0430D04192010	Summa Canister	23.0	0.4	0.1	1.64	No	No	ug/m3	26		570		5.2	<	3.2	U	<	2.1	U	24		<	3.2	U	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U							
Designation	EN04-31	EN04-31S	10	6/8/2009	EN0431S060809	Summa Canister	18.6	0.1	0.0	3.01	No	No	ug/m3	<	10	U	<	8.1	U	<	6.0	U	<	6.0	U	<	3.8	U	<	8.2	U	<	6.0	U	<	6.1	U	<	4.0	U	<	5.2	U	<	12	U
Monitoring Well	EN-453	EN04-31S	10	8/12/2009	EN0431S081209	Summa Canister	20.6	0.1	0.0	8.05	No	Yes	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	<	2.1	U	<	2.8	U	<	6.2	U
		EN04-31S	10	10/6/2009	EN0431S100609	Summa Canister	20.8	0.1	0.0	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	<	2.3	U	<	3.0	U	<	6.7	U
		EN04-31S	10	12/15/2009	EN0431S121509	Summa Canister	21	0.1	0.1	1.55	No	No	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	<	2.0	U	<	2.7	U	<	5.9	U
		EN04-31S	10	2/10/2010	EN0431S021010	Summa Canister	20.0	0.1	0.1	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	<	2.2	U	<	3.0	U	<	6.6	U
		EN04-31D	19	6/8/2009	EN0431D060809	Summa Canister	18.4	0.1	0.0	2.12	No	No	ug/m3	<	7.2	U	<	180		<	4.2	U	<	4.2	U	<	2.7	U	<	7.3		<	4.2	U	<	4.3	U	<	2.8	U	<	3.7	U	<	8.1	U
		EN04-31D	19	8/12/2009	EN0431D081209	Summa Canister	20.6	0.3	0.0	8.2	No	Yes	ug/m3	<	5.6	U	<	190		<	3.2	U	<	3.2	U	<	2.1	U	<	10		<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U
		EN04-31D	19	10/6/2009	EN0431D100609	Summa Canister	20.6	0.2	0.0	1.75	No	No	ug/m3	<	5.9	U	<	190		<	3.5	U	<	3.5	U	<	2.2	U	<	7.5		<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U
		EN04-31D	19	12/15/2009	EN0431D121509	Summa Canister	20.9	0.2	0.1	1.49	No	No	ug/m3	<	5.0	U	<	310		<	3.2	U	<	3.0	U	<	1.9	U	<	15		<	3.0	U	<	3.0	U	<	2.0	U	<	2.6	U	<	5.7	U
		EN04-31D	19	2/10/2010	EN0431D021010	Summa Canister	20.0	0.2	0.1	1.61	No																																			

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		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	1,1,1-Dichloroethane	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon 113)																					
Designation Monitoring Well	EN04-32 EN-457A;EN-457B	EN04-32S	8	6/8/2009	EN0432S060809	Summa Canister	18.3	0.6	0.0	1.68	No	No	ug/m3	<	5.7	U	230		<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
		EN04-32S	8	8/12/2009	EN0432S081209	Summa Canister	19.2	1.1	0.0	8.4	No	No	ug/m3	<	5.7	U	290		<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
		EN04-32S	8	10/6/2009	EN0432S100609	Summa Canister	19.7	0.8	0.0	1.68	No	No	ug/m3	<	5.7	U	290		<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
		EN04-32S	8	12/16/2009	EN0432S121609	Summa Canister	20.4	0.7	0.1	1.49	No	No	ug/m3	<	5.0	U	120		<	3.0	U	<	3.0	U	<	1.9	U	<	4.1	U	<	3.0	U	<	3.0	U	<	2.0	U	<	2.6	U	<	5.7	U
		EN04-32S	8	2/9/2010	EN0432S020910	Summa Canister	19.7	0.3	0.2	1.56	No	No	ug/m3	<	5.3	U	61		<	3.1	U	<	3.1	U	<	2.0	U	<	4.2	U	<	3.1	U	<	3.2	U	<	2.0	U	<	2.7	U	<	6.0	U
		EN04-32D	18	6/8/2009	EN0432D060809	Summa Canister	18.3	0.5	0.0	1.58	No	No	ug/m3		18		750		<	3.1	U	<	3.1	U	<	2.0	U		9.1		<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
		EN04-32D	18	8/12/2009	EN0432D081209	Summa Canister	19.4	0.6	0.0	8.55	No	No	ug/m3	<	5.8	U	410		<	3.4	U	<	3.4	U	<	2.2	U		5.1		<	3.4	U	<	3.5	U	<	2.2	U	<	3.0	U	<	6.6	U
		EN04-32D Dup	18	8/12/2009	DU3456081209	Summa Canister	19.4	0.6	0.0	8.55	No	No	ug/m3	<	5.8	U	670		<	3.4	U	<	3.4	U	<	2.2	U		7.7		<	3.4	U	<	3.5	U	<	2.2	U	<	3.0	U	<	6.6	U
		EN04-32D	18	10/6/2009	EN0432D100609	Summa Canister	20.1	0.5	0.0	1.71	No	No	ug/m3	<	5.8	U	900		<	3.4	U	<	3.4	U	<	2.2	U		9.1		<	3.4	U	<	3.5	U	<	2.2	U	<	3.0	U	<	6.6	U
		EN04-32D	18	12/16/2009	EN0432D121609	Summa Canister	21.0	0.6	0.1	1.53	No	No	ug/m3	<	5.2	U	380		<	3.0	U	<	3.0	U	<	2.0	U		4.2		<	3.0	U	<	3.1	U	<	2.0	U	<	2.6	U	<	5.9	U
		EN04-32D Dup	18	12/16/2009	DU3490121609	Summa Canister	21.0	0.6	0.1	1.58	No	No	ug/m3	<	5.4	U	620		<	3.1	U	<	3.1	U	<	2.0	U		6.7		<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
		EN04-32D	18	2/9/2010	EN0432D020910	Summa Canister	19.5	0.4	0.2	1.68	No	No	ug/m3	<	5.7	U	680		<	3.3	U	<	3.3	U	<	2.1	U		10		<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
Monitoring Well	EN05-33 EN-162	EN05-33S	7.5	4/6/2009	EN0533S040609	Summa Canister	20.8	0.6	0.0	1.68	No	No	ug/m3	<	5.7	U	24		<	3.3	U	<	3.3	U	<	2.1	U		4.6		<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
		EN05-33S	7.5	6/9/2009	EN0533S060909	Summa Canister	19.7	0.5	0.0	2.01	No	No	ug/m3		27		90		<	4.0	U	<	4.0	U	<	2.6	U		5.5		<	4.0	U	<	4.1	U	<	2.6	U	<	3.5	U	<	7.7	U
		EN05-33S	7.5	8/11/2009	EN0533S081109	Summa Canister	19.5	0.8	0.0	1.78	No	Yes	ug/m3		21		120		<	3.5	U	<	3.5	U	<	2.3	U		5.8		<	3.5	U	<	3.6	U	<	2.3	U	<	3.1	U	<	6.8	U
		EN05-33S	7.5	10/7/2009	EN0533S100709	Summa Canister	20.1	0.8	0.0	2.35	No	No	ug/m3		13		90		<	4.6	U	<	4.6	U	<	3.0	U		7.1		<	4.6	U	<	4.8	U	<	3.1	U	<	4.1	U	<	9.0	U
		EN05-33S	7.5	12/17/2009	EN0533S121709	Summa Canister	20.9	0.4	0.1	1.55	No	No	ug/m3	<	5.2	U	21		<	3.1	U	<	3.1	U	<	2.0	U		4.2		<	3.1	U	<	3.1	U	<	2.0	U	<	2.7	U	<	5.9	U
		EN05-33S	7.5	2/11/2010	EN0533S021110	Summa Canister	21	0.4	0	1.46	No	No	ug/m3	<	5.0	U	16		<	2.9	U	<	2.9	U	<	1.9	U		4.0		<	2.9	U	<	3.0	U	<	1.9	U	<	2.5	U	<	5.6	U
		EN05-33S	7.5	4/19/2010	EN0533S041910	Summa Canister	20.8	0.0	0.0	1.61	No	No	ug/m3		5.6		33		<	3.2	U	<	3.2	U	<	2.0	U		4.4		<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U
		EN05-33D	32	4/6/2009	EN0533D040609	Summa Canister	20.6	0.9	0.0	11.7	No	No	ug/m3		280		6,200		<	23		<	23	U	<	15	U		280		<	23	U	<	24	U	<	15	U	<	20	U	<	45	U
		EN05-33D	32	6/9/2009	EN05																																								

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Designation Monitoring Well	EN05-34 EN-417A	EN05-34S	8	4/7/2009	EN0534S040709	Summa Canister	20.5	0.5	0.0	1.64	No	No	ug/m3	<	5.6	U	12		<	3.2	U	<	3.2	U	<	2.1	U	<	4.5	U	<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U
		EN05-34S	8	6/9/2009	EN0534S060909	Summa Canister	19.3	0.7	0.0	1.75	No	No	ug/m3		32		12		<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U
		EN05-34S	8	8/10/2009	EN0534S081009	Summa Canister	19.0	1.3	0.0	8.9	No	No	ug/m3	<	6.0	U	14		<	3.5	U	<	3.5	U	<	2.3	U	<	4.8	U	<	3.5	U	<	3.6	U	<	2.3	U	<	3.1	U	<	6.8	U
		EN05-34S	8	10/7/2009	EN0534S100709	Summa Canister	20.2	1.0	0.0	1.61	No	No	ug/m3	<	5.5	U	13		<	3.2	U	<	3.2	U	<	2.0	U	<	4.4	U	<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U
		EN05-34S	8	12/15/2009	EN0534S121509	Summa Canister	20.5	0.4	0.1	1.61	No	No	ug/m3		28		280		<	3.2	U	<	3.2	U	<	2.0	U	<	19		<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U
		EN05-34S	8	2/8/2010	EN0534S020810	Summa Canister	20.6	0.3	0.1	1.56	No	No	ug/m3	<	5.3	U	4.2		<	3.1	U	<	3.1	U	<	2.0	U	<	4.2	U	<	3.1	U	<	3.2	U	<	2.0	U	<	2.7	U	<	6.0	U
		EN05-34S	8	4/19/2010	EN0534S041910	Summa Canister	20.1	0.1	0.0	1.55	No	No	ug/m3	<	5.2	U	4.9		<	3.1	U	<	3.1	U	<	2.0	U	<	4.2	U	<	3.1	U	<	3.1	U	<	2.0	U	<	2.7	U	<	5.9	U
		EN05-34D	13.5	4/7/2009	EN0534D040709	Summa Canister	20.2	0.7	0.0	1.58	No	No	ug/m3		13		170		<	3.1	U	<	3.1	U	<	2.0	U	<	14		<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
		EN05-34D	13.5	6/9/2009	EN0534D060909	Summa Canister	19.9	0.3	0.0	1.87	No	No	ug/m3		23		280		<	3.7	U	<	3.7	U	<	2.4	U	<	19		<	3.7	U	<	3.8	U	<	2.5	U	<	3.2	U	<	7.2	U
		EN05-34D	13.5	8/10/2009	EN0534D081009	Summa Canister	19.4	0.9	0.0	8.45	No	No	ug/m3		30		290		<	3.4	U	<	3.4	U	<	2.2	U	<	23		<	3.4	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.5	U
		EN05-34D	13.5	10/7/2009	EN0534D100709	Summa Canister	19.9	1.3	0.0	1.34	No	No	ug/m3		21		210		<	2.6	U	<	2.6	U	<	1.7	U	<	15		<	2.6	U	<	2.7	U	<	1.8	U	<	2.3	U	<	5.1	U
		EN05-34D Dup	13.5	10/7/2009	DU3358100709	Summa Canister	19.9	1.3	0.0	1.79	No	No	ug/m3		31		330		<	3.5	U	<	3.5	U	<	2.3	U	<	22		<	3.5	U	<	3.6	U	<	2.4	U	<	3.1	U	<	6.8	U
		EN05-34D	13.5	12/15/2009	EN0534D121509	Summa Canister	20.2	1.0	0.1	1.62	No	No	ug/m3	<	5.5	U	4.7		<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	2.1	U	<	2.8	U	<	6.2	U
		EN05-34D	13.5	2/8/2010	EN0534D020810	Summa Canister	20.5	0.5	0.0	1.55	No	No	ug/m3		13		160		<	3.1	U	<	3.1	U	<	2.0	U	<	13		<	3.1	U	<	3.1	U	<	2.0	U	<	2.7	U	<	5.9	U
		EN05-34D	13.5	4/19/2010	EN0534D041910	Summa Canister	20.1	0.1	0.1	1.55	No	No	ug/m3		15		150		<	3.1	U	<	3.1	U	<	2.0	U	<	12		<	3.1	U	<	3.1	U	<	2.0	U	<	2.7	U	<	5.9	U
Designation Monitoring Well	EN06-35 EN-460	EN06-35S	8	8/11/2009	EN0635S081109	Summa Canister	19.2	1.1	0.0	1.75	No	No	ug/m3	<	5.9	U	4.7		<	3.5	U	<	3.5	U	<	2.2	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U
		EN06-35S	8	2/9/2010	EN0635S020910	Summa Canister	21.1	0.3	0.0	1.51	No	No	ug/m3	<	5.1	U	4.0		<	3.0	U	<	3.0	U	<	1.9	U	<	4.1	U	<	3.0	U	<	3.0	U	<	2.0	U	<	2.6	U	<	5.8	U
		EN06-35S Dup	8	2/9/2010	DU36424020910	Summa Canister	21.1	0.3	0.0	1.41	No	No	ug/m3	<	4.8	U	3.8		<	2.8	U	<	2.8	U	<	1.8	U	<	3.8	U	<	2.8	U	<	2.8	U	<	1.9	U	<	2.4	U	<	5.4	U
		EN06-35D	34	8/11/2009	EN0635D081109	Summa Canister	19.4	0.7	0.0	1.75	No	No	ug/m3	<	5.9	U	99		<	3.5	U	<	3.5	U	<	2.2	U	<	18		<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U
		EN06-35D	34	2/9/2010	EN0635D020910	Summa Canister	20.1	1.5	0.0	1.58	No	No	ug/m3		30		160		<	3.1	U	<	3.1	U	<	2.0	U	<	40		<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
Designation Monitoring Well	EN06																																												

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

		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	1,1,2-Dichloroethane	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon 113)																						
Designation Monitoring Well	EN06-37 EN-387;EN-394	EN06-37S	8	4/7/2009	EN0637S040709	Summa Canister	20.5	0.6	0.0	1.75	No	No	ug/m3	<	5.9	U	<	4.7	U	<	3.5	U	<	3.5	U	<	3.0	U	<	6.7	U															
		EN06-37S	8	6/9/2009	EN0637S060909	Summa Canister	19.2	1.2	0.0	1.79	No	No	ug/m3		89		<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	4.9	U	<	3.5	U	<	3.6	U	<	2.4	U	<	3.1	U	<	6.8	U
		EN06-37S	8	8/11/2009	EN0637S081109	Summa Canister	18.5	2.1	0.0	8.5	No	Yes	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	<	2.2	U	<	3.0	U	<	6.5	U
		EN06-37S	8	10/8/2009	EN0637S100809	Summa Canister	18.8	1.6	0.0	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	<	2.3	U	<	3.0	U	<	6.7	U
		EN06-37S	8	12/17/2009	EN0637S121709	Summa Canister	19.8	1.0	0.1	1.52	No	No	ug/m3		15		<	4.1	U	<	3.0	U	<	3.0	U	<	1.9	U	<	4.1	U	<	3.0	U	<	3.1	U	<	2.0	U	<	2.6	U	<	5.8	U
		EN06-37S	8	2/9/2010	EN0637S020910	Summa Canister	20.0	0.3	0.0	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	<	2.1	U	<	2.8	U	<	6.2	U
		EN06-37S	8	4/20/2010	EN0637S04202010	Summa Canister	20.3	0.7	0.0	1.61	No	No	ug/m3		6.8		<	4.3	U	<	3.2	U	<	3.2	U	<	2.0	U	<	4.4	U	<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U
		EN06-37D	21	4/7/2009	EN0637D040709	Summa Canister	18.3	2.0	0.0	1.64	No	No	ug/m3		18			33			19		<	3.2	U	<	2.1	U	<	4.5	U	<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.3	U
		EN06-37D	21	6/9/2009	EN0637D060909	Summa Canister	17.1	1.9	0.0	1.71	No	No	ug/m3		15			27			16		<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	2.2	U	<	3.0	U	<	6.6	U
		EN06-37D	21	8/11/2009	EN0637D081109	Summa Canister	17.8	2.3	0.0	8.3	No	Yes	ug/m3		26			31			17		<	3.3	U	<	2.1	U	<	4.5	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
		EN06-37D	21	10/8/2009	EN0637D100809	Summa Canister	17.0	3.0	0.0	1.68	No	No	ug/m3		15			31			16		<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	U
		EN06-37D	21	12/17/2009	EN0637D121709	Summa Canister	16.9	3.5	0.2	1.73	No	No	ug/m3		17			35			14		<	3.4	U	<	2.2	U	<	4.7	U	<	3.4	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.6	U
		EN06-37D	21	2/9/2010	EN0637D020910	Summa Canister	18.6	1.6	0.1	1.53	No	No	ug/m3		22			46			15		<	3.0	U	<	2.0	U	<	4.2	U	<	3.0	U	<	3.1	U	<	2.0	U	<	2.6	U	<	5.9	U
		EN06-37D	21	4/20/2010	EN0637D04202010	Summa Canister	18.9	0.7	0.0	1.68	No	No	ug/m3		18			49			11		<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.4	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 canister sampling techniques (Summa® Canisters). The Summa® canister 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 SHA.

3. This table is an abbreviated summary of the soil vapor monitoring. Data reported were collected in routine monitoring events during the April 2009 to April 2010 calendar year.

4. As noted on the table by a "Y" entry in the "SF₆ Applied?" and "He Applied?" columns, tracer gas was used during the sample collection process to screen for possible leakage of ambient air into the sample collection apparatus. The ultra pure (98%) tracer gas was applied to the ground surface around the soil vapor implant surface completion either during collection of the Summa Canister sample or after the collection of a sample canister into a Tedlar bag. The canister/Tedlar bag samples were analyzed for SF₆ using proprietary ATL GC Application #8 at Air Toxics, LTD, of Folsom, California during the initial rounds of sampling. Subsequently, helium tracer gas was analyzed in the field using a helium leak detector.

APPENDIX C.2

ANALYTICAL LABORATORY REPORTS ON COMPACT DISC (SELECT COPIES)



1/15/2010

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.03
Workorder #: 0912509AR1

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 12/19/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified 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: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Bryanna Langley
Project Manager

WORK ORDER #: 0912509AR1

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. #	BCT2755
FAX:		PROJECT #	2755.03 GVP
DATE RECEIVED:	12/19/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	01/06/2010		
DATE REISSUED:	01/15/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	EN041S121509	Modified TO-15	2.5 "Hg	5 psi
02A	EN041D121509	Modified TO-15	4.0 "Hg	5 psi
03A	EN042S121509	Modified TO-15	6.0 "Hg	5 psi
04A	EN042D121509	Modified TO-15	6.0 "Hg	5 psi
05A	EN0431S121509	Modified TO-15	4.0 "Hg	5 psi
06A	EN0431D121509	Modified TO-15	3.0 "Hg	5 psi
07A	EN047S121509	Modified TO-15	4.8 "Hg	5 psi
08A	EN047D121509	Modified TO-15	5.6 "Hg	5 psi
08AA	EN047D121509 Lab Duplicate	Modified TO-15	5.6 "Hg	5 psi
09A	EN0411S121609	Modified TO-15	2.6 "Hg	5 psi
10A	EN0411D121609	Modified TO-15	2.8 "Hg	5 psi
11A	EN0534S121509	Modified TO-15	5.0 "Hg	5 psi
12A	EN0534D121509	Modified TO-15	5.2 "Hg	5 psi
13A	EN043S121609	Modified TO-15	2.8 "Hg	5 psi
14A	EN043D121609	Modified TO-15	4.0 "Hg	5 psi
15A	EN0432S121609	Modified TO-15	3.0 "Hg	5 psi
16A	EN0432D121609	Modified TO-15	3.8 "Hg	5 psi

Continued on next page

WORK ORDER #: 0912509AR1

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. #	BCT2755
FAX:		PROJECT #	2755.03 GVP
DATE RECEIVED:	12/19/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	01/06/2010		
DATE REISSUED:	01/15/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
17A	DU3490121609	Modified TO-15	4.6 "Hg	5 psi
18A	EN0529S121609	Modified TO-15	5.0 "Hg	5 psi
19A	EN0429D121609	Modified TO-15	4.6 "Hg	5 psi
19AA	EN0429D121609 Lab Duplicate	Modified TO-15	4.6 "Hg	5 psi
20A	Lab Blank	Modified TO-15	NA	NA
20B	Lab Blank	Modified TO-15	NA	NA
21A	CCV	Modified TO-15	NA	NA
21B	CCV	Modified TO-15	NA	NA
22A	LCS	Modified TO-15	NA	NA
22AA	LCSD	Modified TO-15	NA	NA
22B	LCS	Modified TO-15	NA	NA
22BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 01/15/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
 NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
 Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15
Sanborn, Head & Associates
Workorder# 0912509ARI**

Nineteen 1 Liter Summa Canister (100% Certified) samples were received on December 19, 2009. The laboratory performed analysis via modified 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.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) information for samples EN0411D100609, EN0534S121509 and EN0534D121509 did not match the entries on the sample tags with regard to sample identification. Therefore the information on the COC was used to process and report the samples.

Analytical Notes

There were no analytical discrepancies.

PER CLIENT REQUEST THE WORK ORDER WAS REISSUED ON JANUARY 15, 2010 TO AMEND IDENTIFICATION OF SAMPLE EN0411D121609.

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.

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



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

Client Sample ID: EN041S121509

Lab ID#: 0912509AR1-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.73	1.7	3.9	9.1

Client Sample ID: EN041D121509

Lab ID#: 0912509AR1-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.78	3.8	4.2	21
Trichloroethene	0.78	31	4.2	170

Client Sample ID: EN042S121509

Lab ID#: 0912509AR1-03A

No Detections Were Found.

Client Sample ID: EN042D121509

Lab ID#: 0912509AR1-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	2.1	4.6	12
Trichloroethene	0.84	19	4.5	100
Tetrachloroethene	0.84	3.2	5.7	22

Client Sample ID: EN0431S121509

Lab ID#: 0912509AR1-05A

No Detections Were Found.

Client Sample ID: EN0431D121509

Lab ID#: 0912509AR1-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.74	0.82	3.0	3.2
1,1,1-Trichloroethane	0.74	2.8	4.1	15
Trichloroethene	0.74	58	4.0	310



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

Client Sample ID: EN047S121509

Lab ID#: 0912509AR1-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.80	1.4	5.4	9.9

Client Sample ID: EN047D121509

Lab ID#: 0912509AR1-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	5.5	12	22	50
1,1,1-Trichloroethane	5.5	45	30	250
Trichloroethene	5.5	1100	30	5900

Client Sample ID: EN047D121509 Lab Duplicate

Lab ID#: 0912509AR1-08AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	5.5	12	22	49
1,1,1-Trichloroethane	5.5	44	30	240
Trichloroethene	5.5	1100	30	5800

Client Sample ID: EN0411S121609

Lab ID#: 0912509AR1-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.74	11	4.0	59

Client Sample ID: EN0411D121609

Lab ID#: 0912509AR1-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.5	1.8	5.9	7.2
1,1,1-Trichloroethane	1.5	8.0	8.1	44
Trichloroethene	1.5	370	8.0	2000
Tetrachloroethene	1.5	7.8	10	53



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

Client Sample ID: EN0534S121509

Lab ID#: 0912509AR1-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.80	3.5	4.4	19
Trichloroethene	0.80	52	4.3	280
Tetrachloroethene	0.80	4.1	5.5	28

Client Sample ID: EN0534D121509

Lab ID#: 0912509AR1-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.81	0.88	4.4	4.7

Client Sample ID: EN043S121609

Lab ID#: 0912509AR1-13A

No Detections Were Found.

Client Sample ID: EN043D121609

Lab ID#: 0912509AR1-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.78	3.0	4.2	16

Client Sample ID: EN0432S121609

Lab ID#: 0912509AR1-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.74	21	4.0	120

Client Sample ID: EN0432D121609

Lab ID#: 0912509AR1-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.76	71	4.1	380



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

Client Sample ID: DU3490121609

Lab ID#: 0912509AR1-17A

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
Trichloroethene	0.79	120	4.2	620

Client Sample ID: EN0529S121609

Lab ID#: 0912509AR1-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.80	3.2	4.4	18
Trichloroethene	0.80	46	4.3	240

Client Sample ID: EN0429D121609

Lab ID#: 0912509AR1-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	1.0	4.3	5.6
Trichloroethene	0.79	22	4.2	120

Client Sample ID: EN0429D121609 Lab Duplicate

Lab ID#: 0912509AR1-19AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	0.98	4.3	5.3
Trichloroethene	0.79	20	4.2	110



Client Sample ID: EN041S121509

Lab ID#: 0912509AR1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122608	Date of Collection:	12/15/09 9:36:00 AM	
Dil. Factor:	1.46	Date of Analysis:	12/26/09 12:41 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	0.73	Not Detected	1.9	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	0.73	Not Detected	2.5	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	Not Detected	4.0	Not Detected
Trichloroethene	0.73	1.7	3.9	9.1
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	87	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN041D121509

Lab ID#: 0912509AR1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122609	Date of Collection:	12/15/09 9:36:00 AM	
Dil. Factor:	1.55	Date of Analysis:	12/26/09 01:17 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	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	3.8	4.2	21
Trichloroethene	0.78	31	4.2	170
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	88	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN042S121509

Lab ID#: 0912509AR1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122610	Date of Collection:	12/15/09 11:11:00 A	
Dil. Factor:	1.68	Date of Analysis:	12/26/09 01:56 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
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	88	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN042D121509

Lab ID#: 0912509AR1-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122611	Date of Collection:	12/15/09 11:11:00 A	
Dil. Factor:	1.68	Date of Analysis:	12/26/09 02:33 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	2.1	4.6	12
Trichloroethene	0.84	19	4.5	100
Tetrachloroethene	0.84	3.2	5.7	22
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	91	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0431S121509

Lab ID#: 0912509AR1-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122612	Date of Collection:	12/15/09 1:23:00 PM	
Dil. Factor:	1.55	Date of Analysis:	12/26/09 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	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	89	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0431D121509

Lab ID#: 0912509AR1-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122613	Date of Collection:	12/15/09 1:23:00 PM	
Dil. Factor:	1.49	Date of Analysis:	12/26/09 03:46 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	0.74	Not Detected	2.0	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	0.74	Not Detected	2.6	Not Detected
1,1-Dichloroethane	0.74	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.74	0.82	3.0	3.2
1,1,1-Trichloroethane	0.74	2.8	4.1	15
Trichloroethene	0.74	58	4.0	310
Tetrachloroethene	0.74	Not Detected	5.0	Not Detected
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	91	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN047S121509

Lab ID#: 0912509AR1-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122614	Date of Collection:	12/15/09 3:03:00 PM	
Dil. Factor:	1.60	Date of Analysis:	12/26/09 04:33 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	Not Detected	4.4	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
Tetrachloroethene	0.80	1.4	5.4	9.9
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	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN047D121509

Lab ID#: 0912509AR1-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122615	Date of Collection:	12/15/09 3:09:00 PM	
Dil. Factor:	11.0	Date of Analysis:	12/26/09 05:10 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	5.5	Not Detected	14	Not Detected
Chloroethane	5.5	Not Detected	14	Not Detected
1,1-Dichloroethene	5.5	Not Detected	22	Not Detected
Freon 113	5.5	Not Detected	42	Not Detected
Methylene Chloride	5.5	Not Detected	19	Not Detected
1,1-Dichloroethane	5.5	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	5.5	12	22	50
1,1,1-Trichloroethane	5.5	45	30	250
Trichloroethene	5.5	1100	30	5900
Tetrachloroethene	5.5	Not Detected	37	Not Detected
trans-1,2-Dichloroethene	5.5	Not Detected	22	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN047D121509 Lab Duplicate

Lab ID#: 0912509AR1-08AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122617	Date of Collection:	12/15/09 3:09:00 PM	
Dil. Factor:	11.0	Date of Analysis:	12/26/09 06:23 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	5.5	Not Detected	14	Not Detected
Chloroethane	5.5	Not Detected	14	Not Detected
1,1-Dichloroethene	5.5	Not Detected	22	Not Detected
Freon 113	5.5	Not Detected	42	Not Detected
Methylene Chloride	5.5	Not Detected	19	Not Detected
1,1-Dichloroethane	5.5	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	5.5	12	22	49
1,1,1-Trichloroethane	5.5	44	30	240
Trichloroethene	5.5	1100	30	5800
Tetrachloroethene	5.5	Not Detected	37	Not Detected
trans-1,2-Dichloroethene	5.5	Not Detected	22	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: EN0411S121609

Lab ID#: 0912509AR1-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122616	Date of Collection:	12/16/09 10:46:00 A	
Dil. Factor:	1.47	Date of Analysis:	12/26/09 05:46 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	0.74	Not Detected	1.9	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	0.74	Not Detected	2.6	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	11	4.0	59
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	90	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN0411D121609

Lab ID#: 0912509AR1-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122618	Date of Collection:	12/16/09 10:46:00 A	
Dil. Factor:	2.96	Date of Analysis:	12/26/09 06:59 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.5	Not Detected	3.8	Not Detected
Chloroethane	1.5	Not Detected	3.9	Not Detected
1,1-Dichloroethene	1.5	Not Detected	5.9	Not Detected
Freon 113	1.5	Not Detected	11	Not Detected
Methylene Chloride	1.5	Not Detected	5.1	Not Detected
1,1-Dichloroethane	1.5	Not Detected	6.0	Not Detected
cis-1,2-Dichloroethene	1.5	1.8	5.9	7.2
1,1,1-Trichloroethane	1.5	8.0	8.1	44
Trichloroethene	1.5	370	8.0	2000
Tetrachloroethene	1.5	7.8	10	53
trans-1,2-Dichloroethene	1.5	Not Detected	5.9	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	96	70-130



Client Sample ID: EN0534S121509

Lab ID#: 0912509AR1-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122619	Date of Collection:	12/15/09 4:39:00 PM	
Dil. Factor:	1.61	Date of Analysis:	12/26/09 07:36 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	3.5	4.4	19
Trichloroethene	0.80	52	4.3	280
Tetrachloroethene	0.80	4.1	5.5	28
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	90	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN0534D121509

Lab ID#: 0912509AR1-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122709	Date of Collection:	12/15/09 4:39:00 PM	
Dil. Factor:	1.62	Date of Analysis:	12/27/09 01:15 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	0.81	Not Detected	2.1	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	0.81	Not Detected	2.8	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	0.88	4.4	4.7
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	84	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN043S121609

Lab ID#: 0912509AR1-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122710	Date of Collection:	12/16/09 11:16:00 A	
Dil. Factor:	1.48	Date of Analysis:	12/27/09 01:53 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	0.74	Not Detected	2.0	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	0.74	Not Detected	2.6	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	84	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN043D121609

Lab ID#: 0912509AR1-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122711	Date of Collection:	12/16/09 11:16:00 A	
Dil. Factor:	1.55	Date of Analysis:	12/27/09 02:37 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	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	3.0	4.2	16
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	85	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0432S121609

Lab ID#: 0912509AR1-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122712	Date of Collection:	12/16/09 10:23:00 A	
Dil. Factor:	1.49	Date of Analysis:	12/27/09 03:20 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	0.74	Not Detected	2.0	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	0.74	Not Detected	2.6	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	Not Detected	4.1	Not Detected
Trichloroethene	0.74	21	4.0	120
Tetrachloroethene	0.74	Not Detected	5.0	Not Detected
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	84	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0432D121609

Lab ID#: 0912509AR1-16A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122713	Date of Collection:	12/16/09 11:30:00 A	
Dil. Factor:	1.53	Date of Analysis:	12/27/09 03:59 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	71	4.1	380
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	87	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: DU3490121609

Lab ID#: 0912509AR1-17A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122714	Date of Collection:	12/16/09 11:30:00 A	
Dil. Factor:	1.58	Date of Analysis:	12/27/09 04:38 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	120	4.2	620
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	86	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN0529S121609

Lab ID#: 0912509AR1-18A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122715	Date of Collection:	12/16/09 2:13:00 PM	
Dil. Factor:	1.61	Date of Analysis:	12/27/09 05:17 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	3.2	4.4	18
Trichloroethene	0.80	46	4.3	240
Tetrachloroethene	0.80	Not Detected	5.5	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	86	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0429D121609

Lab ID#: 0912509AR1-19A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122716	Date of Collection:	12/16/09 2:13:00 PM	
Dil. Factor:	1.58	Date of Analysis:	12/27/09 05:53 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	1.0	4.3	5.6
Trichloroethene	0.79	22	4.2	120
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	86	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0429D121609 Lab Duplicate

Lab ID#: 0912509AR1-19AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122717	Date of Collection:	12/16/09 2:13:00 PM	
Dil. Factor:	1.58	Date of Analysis:	12/27/09 06:34 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	0.98	4.3	5.3
Trichloroethene	0.79	20	4.2	110
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	88	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: Lab Blank

Lab ID#: 0912509AR1-20A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122607	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	12/26/09 11:51 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	86	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: Lab Blank

Lab ID#: 0912509AR1-20B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122708	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	12/27/09 12:19 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	84	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: CCV

Lab ID#: 0912509AR1-21A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122603	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/26/09 08:49 AM

Compound	%Recovery
Vinyl Chloride	78
Chloroethane	73
1,1-Dichloroethene	84
Freon 113	100
Methylene Chloride	84
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	112
1,1,1-Trichloroethane	103
Trichloroethene	109
Tetrachloroethene	121
trans-1,2-Dichloroethene	104

Container Type: NA - Not Applicable

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



Client Sample ID: CCV

Lab ID#: 0912509AR1-21B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122704	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/27/09 08:46 AM

Compound	%Recovery
Vinyl Chloride	80
Chloroethane	77
1,1-Dichloroethene	83
Freon 113	94
Methylene Chloride	81
1,1-Dichloroethane	90
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	100
Trichloroethene	106
Tetrachloroethene	121
trans-1,2-Dichloroethene	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: LCS

Lab ID#: 0912509AR1-22A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122604	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/26/09 09:38 AM

Compound	%Recovery
Vinyl Chloride	82
Chloroethane	80
1,1-Dichloroethene	78
Freon 113	88
Methylene Chloride	79
1,1-Dichloroethane	89
cis-1,2-Dichloroethene	101
1,1,1-Trichloroethane	100
Trichloroethene	108
Tetrachloroethene	128
trans-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	111	70-130



Client Sample ID: LCSD

Lab ID#: 0912509AR1-22AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122605	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/26/09 10:20 AM

Compound	%Recovery
Vinyl Chloride	86
Chloroethane	82
1,1-Dichloroethene	79
Freon 113	87
Methylene Chloride	79
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	100
1,1,1-Trichloroethane	100
Trichloroethene	106
Tetrachloroethene	127
trans-1,2-Dichloroethene	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	111	70-130



Client Sample ID: LCS

Lab ID#: 0912509AR1-22B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122705	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/27/09 09:30 AM

Compound	%Recovery
Vinyl Chloride	88
Chloroethane	82
1,1-Dichloroethene	76
Freon 113	85
Methylene Chloride	76
1,1-Dichloroethane	86
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	101
Trichloroethene	106
Tetrachloroethene	126
trans-1,2-Dichloroethene	93

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	111	70-130



Client Sample ID: LCSD

Lab ID#: 0912509AR1-22BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x122706	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/27/09 10:17 AM

Compound	%Recovery
Vinyl Chloride	88
Chloroethane	83
1,1-Dichloroethene	78
Freon 113	85
Methylene Chloride	77
1,1-Dichloroethane	86
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	100
Trichloroethene	106
Tetrachloroethene	128
trans-1,2-Dichloroethene	91

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	112	70-130

1/6/2010

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.03
Workorder #: 0912509B

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 12/19/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified 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: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Bryanna Langley
Project Manager

WORK ORDER #: 0912509B

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. #	BCT2755
FAX:		PROJECT #	2755.03 GVP
DATE RECEIVED:	12/19/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	01/06/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
20A	EN049S121609	Modified TO-15	3.2 "Hg	5 psi
21A	EN049D121609	Modified TO-15	4.4 "Hg	5 psi
22A	DU3336121609	Modified TO-15	4.4 "Hg	5 psi
22AA	DU3336121609 Lab Duplicate	Modified TO-15	4.4 "Hg	5 psi
23A	EN0430S121609	Modified TO-15	4.0 "Hg	5 psi
24A	EN0430D121609	Modified TO-15	4.6 "Hg	5 psi
25A	EN0412S121609	Modified TO-15	4.6 "Hg	5 psi
26A	EN0412D121609	Modified TO-15	5.0 "Hg	5 psi
27A	EN0413S121709	Modified TO-15	3.8 "Hg	5 psi
28A	DU3344121709	Modified TO-15	3.8 "Hg	5 psi
29A	EN0413D121709	Modified TO-15	5.0 "Hg	5 psi
30A	EN0533S121709	Modified TO-15	4.0 "Hg	5 psi
31A	EN0533D121709	Modified TO-15	3.8 "Hg	5 psi
31AA	EN0533D121709 Lab Duplicate	Modified TO-15	3.8 "Hg	5 psi
32A	EN0728S121709	Modified TO-15	3.2 "Hg	5 psi
33A	EN0728D121709	Modified TO-15	3.2 "Hg	5 psi
33AA	EN0728D121709 Lab Duplicate	Modified TO-15	3.2 "Hg	5 psi

Continued on next page

WORK ORDER #: 0912509B

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. #	BCT2755
FAX:		PROJECT #	2755.03 GVP
DATE RECEIVED:	12/19/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	01/06/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
34A	EN0637S121709	Modified TO-15	3.6 "Hg	5 psi
35A	EN0637D121709	Modified TO-15	6.8 "Hg	5 psi
36A	EN0839S121709	Modified TO-15	4.6 "Hg	5 psi
37A	EB2218121609	Modified TO-15	1.2 "Hg	5 psi
38A	EB3302121509	Modified TO-15	4.0 "Hg	5 psi
39A	Lab Blank	Modified TO-15	NA	NA
39B	Lab Blank	Modified TO-15	NA	NA
40A	CCV	Modified TO-15	NA	NA
40B	CCV	Modified TO-15	NA	NA
41A	LCS	Modified TO-15	NA	NA
41AA	LCSD	Modified TO-15	NA	NA
41B	LCS	Modified TO-15	NA	NA
41BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 01/06/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15
Sanborn, Head & Associates
Workorder# 0912509B**

Nineteen 1 Liter Summa Canister (100% Certified) samples were received on December 19, 2009. The laboratory performed analysis via modified 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.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

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.

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



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

Client Sample ID: EN049S121609

Lab ID#: 0912509B-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.2	1.7	4.8	7.0
cis-1,2-Dichloroethene	1.2	1.3	4.8	5.3
1,1,1-Trichloroethane	1.2	14	6.5	78
Trichloroethene	1.2	350	6.4	1900
Tetrachloroethene	1.2	6.6	8.1	45

Client Sample ID: EN049D121609

Lab ID#: 0912509B-21A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	5.2	62	21	250
Freon 113	5.2	5.8	40	44
1,1-Dichloroethane	5.2	59	21	240
cis-1,2-Dichloroethene	5.2	190	21	740
1,1,1-Trichloroethane	5.2	140	29	780
Trichloroethene	5.2	1900	28	10000
Tetrachloroethene	5.2	130	36	860

Client Sample ID: DU3336121609

Lab ID#: 0912509B-22A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	5.2	64	21	250
Freon 113	5.2	5.8	40	45
1,1-Dichloroethane	5.2	58	21	240
cis-1,2-Dichloroethene	5.2	180	21	730
1,1,1-Trichloroethane	5.2	140	29	770
Trichloroethene	5.2	1900	28	10000
Tetrachloroethene	5.2	98	36	660

Client Sample ID: DU3336121609 Lab Duplicate

Lab ID#: 0912509B-22AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	5.2	62	21	240



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

Client Sample ID: DU3336121609 Lab Duplicate

Lab ID#: 0912509B-22AA

Freon 113	5.2	5.8	40	45
1,1-Dichloroethane	5.2	57	21	230
cis-1,2-Dichloroethene	5.2	180	21	710
1,1,1-Trichloroethane	5.2	140	29	760
Trichloroethene	5.2	1900	28	10000
Tetrachloroethene	5.2	96	36	650

Client Sample ID: EN0430S121609

Lab ID#: 0912509B-23A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.78	1.0	4.2	5.7
Trichloroethene	0.78	150	4.2	820

Client Sample ID: EN0430D121609

Lab ID#: 0912509B-24A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.79	1.2	3.2	4.8
cis-1,2-Dichloroethene	0.79	2.3	3.1	9.0
1,1,1-Trichloroethane	0.79	12	4.3	64
Trichloroethene	0.79	200	4.2	1100
Tetrachloroethene	0.79	5.0	5.4	34

Client Sample ID: EN0412S121609

Lab ID#: 0912509B-25A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	3.0	4.3	16
Trichloroethene	0.79	120	4.2	670

Client Sample ID: EN0412D121609

Lab ID#: 0912509B-26A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.80	3.0	4.4	16



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

Client Sample ID: EN0412D121609

Lab ID#: 0912509B-26A

Trichloroethene	0.80	130	4.3	720
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Client Sample ID: EN0413S121709

Lab ID#: 0912509B-27A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.76	27	4.2	150
Trichloroethene	0.76	130	4.1	720

Client Sample ID: DU3344121709

Lab ID#: 0912509B-28A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.76	28	4.2	160
Trichloroethene	0.76	140	4.1	750

Client Sample ID: EN0413D121709

Lab ID#: 0912509B-29A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.80	14	4.4	76
Trichloroethene	0.80	97	4.3	520

Client Sample ID: EN0533S121709

Lab ID#: 0912509B-30A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.78	3.9	4.2	21

Client Sample ID: EN0533D121709

Lab ID#: 0912509B-31A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.2	16	6.7	85
Trichloroethene	1.2	490	6.6	2600



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

Client Sample ID: EN0533D121709

Lab ID#: 0912509B-31A

Tetrachloroethene	1.2	13	8.3	88
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Client Sample ID: EN0533D121709 Lab Duplicate

Lab ID#: 0912509B-31AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.2	16	6.7	86
Trichloroethene	1.2	500	6.6	2700
Tetrachloroethene	1.2	13	8.3	88

Client Sample ID: EN0728S121709

Lab ID#: 0912509B-32A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.75	0.82	4.0	4.4
Tetrachloroethene	0.75	16	5.1	110

Client Sample ID: EN0728D121709

Lab ID#: 0912509B-33A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.75	7.1	3.0	28
Trichloroethene	0.75	16	4.0	86
Tetrachloroethene	0.75	220	5.1	1500
trans-1,2-Dichloroethene	0.75	2.0	3.0	7.9

Client Sample ID: EN0728D121709 Lab Duplicate

Lab ID#: 0912509B-33AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.75	7.2	3.0	29
Trichloroethene	0.75	16	4.0	86
Tetrachloroethene	0.75	220	5.1	1500
trans-1,2-Dichloroethene	0.75	2.0	3.0	8.0



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

Client Sample ID: EN0637S121709

Lab ID#: 0912509B-34A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.76	2.3	5.2	15

Client Sample ID: EN0637D121709

Lab ID#: 0912509B-35A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.86	3.4	3.4	14
Trichloroethene	0.86	6.6	4.6	35
Tetrachloroethene	0.86	2.5	5.9	17

Client Sample ID: EN0839S121709

Lab ID#: 0912509B-36A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.79	1.2	3.1	4.6
Trichloroethene	0.79	1.4	4.2	7.4
Tetrachloroethene	0.79	11	5.4	76

Client Sample ID: EB2218121609

Lab ID#: 0912509B-37A

No Detections Were Found.

Client Sample ID: EB3302121509

Lab ID#: 0912509B-38A

No Detections Were Found.



Client Sample ID: EN049S121609

Lab ID#: 0912509B-20A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122709	Date of Collection:	12/16/09 1:56:00 PM	
Dil. Factor:	2.40	Date of Analysis:	12/27/09 11:32 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Chloroethane	1.2	Not Detected	3.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Freon 113	1.2	Not Detected	9.2	Not Detected
Methylene Chloride	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	1.7	4.8	7.0
cis-1,2-Dichloroethene	1.2	1.3	4.8	5.3
1,1,1-Trichloroethane	1.2	14	6.5	78
Trichloroethene	1.2	350	6.4	1900
Tetrachloroethene	1.2	6.6	8.1	45
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	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	97	70-130



Client Sample ID: EN049D121609

Lab ID#: 0912509B-21A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122708	Date of Collection:	12/16/09 2:54:00 PM	
Dil. Factor:	10.5	Date of Analysis:	12/27/09 11:06 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	5.2	Not Detected	13	Not Detected
Chloroethane	5.2	Not Detected	14	Not Detected
1,1-Dichloroethene	5.2	62	21	250
Freon 113	5.2	5.8	40	44
Methylene Chloride	5.2	Not Detected	18	Not Detected
1,1-Dichloroethane	5.2	59	21	240
cis-1,2-Dichloroethene	5.2	190	21	740
1,1,1-Trichloroethane	5.2	140	29	780
Trichloroethene	5.2	1900	28	10000
Tetrachloroethene	5.2	130	36	860
trans-1,2-Dichloroethene	5.2	Not Detected	21	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	96	70-130



Client Sample ID: DU3336121609

Lab ID#: 0912509B-22A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122710	Date of Collection:	12/16/09 2:54:00 PM	
Dil. Factor:	10.5	Date of Analysis:	12/27/09 11:57 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	5.2	Not Detected	13	Not Detected
Chloroethane	5.2	Not Detected	14	Not Detected
1,1-Dichloroethene	5.2	64	21	250
Freon 113	5.2	5.8	40	45
Methylene Chloride	5.2	Not Detected	18	Not Detected
1,1-Dichloroethane	5.2	58	21	240
cis-1,2-Dichloroethene	5.2	180	21	730
1,1,1-Trichloroethane	5.2	140	29	770
Trichloroethene	5.2	1900	28	10000
Tetrachloroethene	5.2	98	36	660
trans-1,2-Dichloroethene	5.2	Not Detected	21	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: DU3336121609 Lab Duplicate

Lab ID#: 0912509B-22AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122711	Date of Collection:	12/16/09 2:54:00 PM	
Dil. Factor:	10.5	Date of Analysis:	12/27/09 12:28 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	5.2	Not Detected	13	Not Detected
Chloroethane	5.2	Not Detected	14	Not Detected
1,1-Dichloroethene	5.2	62	21	240
Freon 113	5.2	5.8	40	45
Methylene Chloride	5.2	Not Detected	18	Not Detected
1,1-Dichloroethane	5.2	57	21	230
cis-1,2-Dichloroethene	5.2	180	21	710
1,1,1-Trichloroethane	5.2	140	29	760
Trichloroethene	5.2	1900	28	10000
Tetrachloroethene	5.2	96	36	650
trans-1,2-Dichloroethene	5.2	Not Detected	21	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	95	70-130



Client Sample ID: EN0430S121609

Lab ID#: 0912509B-23A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122712	Date of Collection:	12/16/09 2:41:00 PM	
Dil. Factor:	1.55	Date of Analysis:	12/27/09 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	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	1.0	4.2	5.7
Trichloroethene	0.78	150	4.2	820
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	108	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	95	70-130



Client Sample ID: EN0430D121609

Lab ID#: 0912509B-24A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122713	Date of Collection:	12/16/09 2:45:00 PM	
Dil. Factor:	1.58	Date of Analysis:	12/27/09 01:46 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.79	1.2	3.2	4.8
cis-1,2-Dichloroethene	0.79	2.3	3.1	9.0
1,1,1-Trichloroethane	0.79	12	4.3	64
Trichloroethene	0.79	200	4.2	1100
Tetrachloroethene	0.79	5.0	5.4	34
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	107	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0412S121609

Lab ID#: 0912509B-25A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122714	Date of Collection:	12/16/09 4:34:00 PM	
Dil. Factor:	1.58	Date of Analysis:	12/27/09 02:13 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	3.0	4.3	16
Trichloroethene	0.79	120	4.2	670
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	108	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN0412D121609

Lab ID#: 0912509B-26A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122715	Date of Collection:	12/16/09 4:34:00 PM	
Dil. Factor:	1.61	Date of Analysis:	12/27/09 02:41 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	3.0	4.4	16
Trichloroethene	0.80	130	4.3	720
Tetrachloroethene	0.80	Not Detected	5.5	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	107	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	110	70-130



Client Sample ID: EN0413S121709

Lab ID#: 0912509B-27A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122716	Date of Collection:	12/17/09 3:58:00 PM	
Dil. Factor:	1.53	Date of Analysis:	12/27/09 03:17 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	27	4.2	150
Trichloroethene	0.76	130	4.1	720
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	107	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: DU3344121709

Lab ID#: 0912509B-28A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122717	Date of Collection:	12/17/09 3:58:00 PM	
Dil. Factor:	1.53	Date of Analysis:	12/27/09 03:44 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	28	4.2	160
Trichloroethene	0.76	140	4.1	750
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	110	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN0413D121709

Lab ID#: 0912509B-29A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122718	Date of Collection:	12/17/09 2:45:00 PM	
Dil. Factor:	1.61	Date of Analysis:	12/27/09 04:11 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	14	4.4	76
Trichloroethene	0.80	97	4.3	520
Tetrachloroethene	0.80	Not Detected	5.5	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	112	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0533S121709

Lab ID#: 0912509B-30A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122719	Date of Collection:	12/17/09 3:38:00 PM	
Dil. Factor:	1.55	Date of Analysis:	12/27/09 04:40 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	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	3.9	4.2	21
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	109	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0533D121709

Lab ID#: 0912509B-31A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122720	Date of Collection:	12/17/09 3:38:00 PM	
Dil. Factor:	2.45	Date of Analysis:	12/27/09 05:07 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Chloroethane	1.2	Not Detected	3.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Freon 113	1.2	Not Detected	9.4	Not Detected
Methylene Chloride	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
1,1,1-Trichloroethane	1.2	16	6.7	85
Trichloroethene	1.2	490	6.6	2600
Tetrachloroethene	1.2	13	8.3	88
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0533D121709 Lab Duplicate

Lab ID#: 0912509B-31AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122721	Date of Collection:	12/17/09 3:38:00 PM	
Dil. Factor:	2.45	Date of Analysis:	12/27/09 05:32 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Chloroethane	1.2	Not Detected	3.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Freon 113	1.2	Not Detected	9.4	Not Detected
Methylene Chloride	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
1,1,1-Trichloroethane	1.2	16	6.7	86
Trichloroethene	1.2	500	6.6	2700
Tetrachloroethene	1.2	13	8.3	88
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN0728S121709

Lab ID#: 0912509B-32A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122813	Date of Collection:	12/17/09 10:05:00 AM	
Dil. Factor:	1.50	Date of Analysis:	12/28/09 03:38 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	0.75	Not Detected	2.0	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	0.75	Not Detected	2.6	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	0.82	4.0	4.4
Tetrachloroethene	0.75	16	5.1	110
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	109	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0728D121709

Lab ID#: 0912509B-33A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122814	Date of Collection:	12/17/09 10:05:00 AM	
Dil. Factor:	1.50	Date of Analysis:	12/28/09 04:18 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	0.75	Not Detected	2.0	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	0.75	Not Detected	2.6	Not Detected
1,1-Dichloroethane	0.75	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.75	7.1	3.0	28
1,1,1-Trichloroethane	0.75	Not Detected	4.1	Not Detected
Trichloroethene	0.75	16	4.0	86
Tetrachloroethene	0.75	220	5.1	1500
trans-1,2-Dichloroethene	0.75	2.0	3.0	7.9

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN0728D121709 Lab Duplicate

Lab ID#: 0912509B-33AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122815	Date of Collection:	12/17/09 10:05:00 AM	
Dil. Factor:	1.50	Date of Analysis:	12/28/09 04:51 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	0.75	Not Detected	2.0	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	0.75	Not Detected	2.6	Not Detected
1,1-Dichloroethane	0.75	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.75	7.2	3.0	29
1,1,1-Trichloroethane	0.75	Not Detected	4.1	Not Detected
Trichloroethene	0.75	16	4.0	86
Tetrachloroethene	0.75	220	5.1	1500
trans-1,2-Dichloroethene	0.75	2.0	3.0	8.0

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN0637S121709

Lab ID#: 0912509B-34A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122722	Date of Collection:	12/17/09 9:42:00 AM	
Dil. Factor:	1.52	Date of Analysis:	12/27/09 06:30 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	2.3	5.2	15
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	112	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0637D121709

Lab ID#: 0912509B-35A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122723	Date of Collection:	12/17/09 11:42:00 AM	
Dil. Factor:	1.73	Date of Analysis:	12/27/09 06:57 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	0.86	Not Detected	2.3	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	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	3.4	3.4	14
1,1,1-Trichloroethane	0.86	Not Detected	4.7	Not Detected
Trichloroethene	0.86	6.6	4.6	35
Tetrachloroethene	0.86	2.5	5.9	17
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	112	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN0839S121709

Lab ID#: 0912509B-36A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122810	Date of Collection:	12/17/09 12:11:00 PM	
Dil. Factor:	1.58	Date of Analysis:	12/28/09 01:57 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.79	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.79	1.2	3.1	4.6
1,1,1-Trichloroethane	0.79	Not Detected	4.3	Not Detected
Trichloroethene	0.79	1.4	4.2	7.4
Tetrachloroethene	0.79	11	5.4	76
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	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EB2218121609

Lab ID#: 0912509B-37A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122811	Date of Collection:	12/16/09 5:18:00 PM	
Dil. Factor:	1.40	Date of Analysis:	12/28/09 02:36 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	0.70	Not Detected	1.8	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	0.70	Not Detected	2.4	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	Not Detected	3.8	Not Detected
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	108	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EB3302121509

Lab ID#: 0912509B-38A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122812	Date of Collection:	12/15/09 5:20:00 PM	
Dil. Factor:	1.55	Date of Analysis:	12/28/09 03:04 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	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	113	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: Lab Blank

Lab ID#: 0912509B-39A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122706	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	12/27/09 09:37 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: Lab Blank

Lab ID#: 0912509B-39B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122809	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	12/28/09 12:34 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: CCV

Lab ID#: 0912509B-40A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/27/09 07:21 AM

Compound	%Recovery
Vinyl Chloride	106
Chloroethane	112
1,1-Dichloroethene	82
Freon 113	86
Methylene Chloride	97
1,1-Dichloroethane	104
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	97
Trichloroethene	101
Tetrachloroethene	96
trans-1,2-Dichloroethene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: CCV

Lab ID#: 0912509B-40B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/28/09 07:43 AM

Compound	%Recovery
Vinyl Chloride	107
Chloroethane	115
1,1-Dichloroethene	81
Freon 113	85
Methylene Chloride	97
1,1-Dichloroethane	103
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	96
Trichloroethene	102
Tetrachloroethene	96
trans-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: LCS

Lab ID#: 0912509B-41A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/27/09 08:01 AM

Compound	%Recovery
Vinyl Chloride	112
Chloroethane	121
1,1-Dichloroethene	75
Freon 113	80
Methylene Chloride	92
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	98
Trichloroethene	101
Tetrachloroethene	102
trans-1,2-Dichloroethene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: LCSD

Lab ID#: 0912509B-41AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/27/09 08:26 AM

Compound	%Recovery
Vinyl Chloride	113
Chloroethane	127
1,1-Dichloroethene	77
Freon 113	80
Methylene Chloride	92
1,1-Dichloroethane	102
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	98
Trichloroethene	100
Tetrachloroethene	102
trans-1,2-Dichloroethene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: LCS

Lab ID#: 0912509B-41B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122808	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/28/09 12:00 PM

Compound	%Recovery
Vinyl Chloride	108
Chloroethane	122
1,1-Dichloroethene	74
Freon 113	77
Methylene Chloride	91
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	97
1,1,1-Trichloroethane	97
Trichloroethene	99
Tetrachloroethene	100
trans-1,2-Dichloroethene	97

Container Type: NA - Not Applicable

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



Client Sample ID: LCSD

Lab ID#: 0912509B-41BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/28/09 08:43 AM

Compound	%Recovery
Vinyl Chloride	112
Chloroethane	125
1,1-Dichloroethene	76
Freon 113	79
Methylene Chloride	92
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	97
Trichloroethene	100
Tetrachloroethene	101
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

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

1/6/2010

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.03
Workorder #: 0912509C

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 12/19/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified 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: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Bryanna Langley
Project Manager

WORK ORDER #: 0912509C

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. #	BCT2755
FAX:		PROJECT #	2755.03 GVP
DATE RECEIVED:	12/19/2009	CONTACT:	Bryanna Langley
DATE COMPLETED:	01/06/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
39A	EB3060121709	Modified TO-15	1.0 "Hg	5 psi
40A	EN0940S121709	Modified TO-15	2.8 "Hg	5 psi
41A	EN0417S121709	Modified TO-15	4.6 "Hg	5 psi
42A	EN0417D121709	Modified TO-15	4.0 "Hg	5 psi
43A	Lab Blank	Modified TO-15	NA	NA
44A	CCV	Modified TO-15	NA	NA
45A	LCS	Modified TO-15	NA	NA
45AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 01/06/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15
Sanborn, Head & Associates
Workorder# 0912509C**

Four 1 Liter Summa Canister (100% Certified) samples were received on December 19, 2009. The laboratory performed analysis via modified 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.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

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.

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



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

Client Sample ID: EB3060121709

Lab ID#: 0912509C-39A

No Detections Were Found.

Client Sample ID: EN0940S121709

Lab ID#: 0912509C-40A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	0.74	2.8	2.6	9.9
cis-1,2-Dichloroethene	0.74	2.9	2.9	11
Trichloroethene	0.74	3.2	4.0	17
Tetrachloroethene	0.74	46	5.0	310

Client Sample ID: EN0417S121709

Lab ID#: 0912509C-41A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.79	15	4.2	81

Client Sample ID: EN0417D121709

Lab ID#: 0912509C-42A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.78	5.0	4.2	27



Client Sample ID: EB3060121709

Lab ID#: 0912509C-39A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122816	Date of Collection:	12/17/09 5:09:00 PM	
Dil. Factor:	1.39	Date of Analysis:	12/28/09 05:20 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	0.70	Not Detected	1.8	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	0.70	Not Detected	2.4	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	Not Detected	3.7	Not Detected
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	108	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0940S121709

Lab ID#: 0912509C-40A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122817	Date of Collection:	12/17/09 12:19:00 PM	
Dil. Factor:	1.48	Date of Analysis:	12/28/09 05:55 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	0.74	Not Detected	2.0	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	0.74	2.8	2.6	9.9
1,1-Dichloroethane	0.74	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.74	2.9	2.9	11
1,1,1-Trichloroethane	0.74	Not Detected	4.0	Not Detected
Trichloroethene	0.74	3.2	4.0	17
Tetrachloroethene	0.74	46	5.0	310
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	110	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0417S121709

Lab ID#: 0912509C-41A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122818	Date of Collection:	12/17/09 4:21:00 PM	
Dil. Factor:	1.58	Date of Analysis:	12/28/09 06:28 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	Not Detected	4.3	Not Detected
Trichloroethene	0.79	15	4.2	81
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	110	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0417D121709

Lab ID#: 0912509C-42A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122819	Date of Collection:	12/17/09 4:21:00 PM	
Dil. Factor:	1.55	Date of Analysis:	12/28/09 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	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	5.0	4.2	27
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	110	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: Lab Blank

Lab ID#: 0912509C-43A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122809	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	12/28/09 12:34 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: CCV

Lab ID#: 0912509C-44A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/28/09 07:43 AM

Compound	%Recovery
Vinyl Chloride	107
Chloroethane	115
1,1-Dichloroethene	81
Freon 113	85
Methylene Chloride	97
1,1-Dichloroethane	103
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	96
Trichloroethene	102
Tetrachloroethene	96
trans-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: LCS

Lab ID#: 0912509C-45A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122808	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/28/09 12:00 PM

Compound	%Recovery
Vinyl Chloride	108
Chloroethane	122
1,1-Dichloroethene	74
Freon 113	77
Methylene Chloride	91
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	97
1,1,1-Trichloroethane	97
Trichloroethene	99
Tetrachloroethene	100
trans-1,2-Dichloroethene	97

Container Type: NA - Not Applicable

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



Client Sample ID: LCSD

Lab ID#: 0912509C-45AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6122804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/28/09 08:43 AM

Compound	%Recovery
Vinyl Chloride	112
Chloroethane	125
1,1-Dichloroethene	76
Freon 113	79
Methylene Chloride	92
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	97
Trichloroethene	100
Tetrachloroethene	101
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

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

2/26/2010

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.04
Workorder #: 1002271A

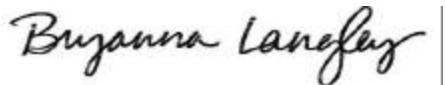
Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 2/12/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified 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: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Bryanna Langley
Project Manager

WORK ORDER #: 1002271A

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. #	BCT2755
FAX:		PROJECT #	2755.04 GVP
DATE RECEIVED:	02/12/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	02/26/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	EN0427S020810	Modified TO-15	6.0 "Hg	5 psi
02A	EN0534S020810	Modified TO-15	4.2 "Hg	5 psi
03A	EN0534D020810	Modified TO-15	4.0 "Hg	5 psi
04A	EB2536020810	Modified TO-15	5.0 "Hg	5 psi
05A	EN0426S020810	Modified TO-15	4.2 "Hg	5 psi
06A	EN0426D020810	Modified TO-15	3.4 "Hg	5 psi
07A	EN0420S020810	Modified TO-15	3.4 "Hg	5 psi
08A	EN0420D020810	Modified TO-15	3.6 "Hg	5 psi
09A	EN0421S020810	Modified TO-15	2.8 "Hg	5 psi
09AA	EN0421S020810 Lab Duplicate	Modified TO-15	2.8 "Hg	5 psi
10A	EN0421D020810	Modified TO-15	3.0 "Hg	5 psi
11A	EN0728S020910	Modified TO-15	4.4 "Hg	5 psi
12A	EN0728D020910	Modified TO-15	3.6 "Hg	5 psi
13A	EN0637S020910	Modified TO-15	5.0 "Hg	5 psi
14A	EN0637D020910	Modified TO-15	3.8 "Hg	5 psi
15A	EB12029020910	Modified TO-15	5.2 "Hg	5 psi
16A	EN044S020910	Modified TO-15	4.6 "Hg	5 psi

Continued on next page

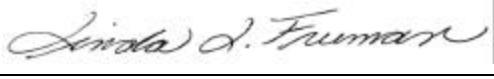
WORK ORDER #: **1002271A**

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. #	BCT2755
FAX:		PROJECT #	2755.04 GVP
DATE RECEIVED:	02/12/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	02/26/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
17A	EN044D020910	Modified TO-15	5.8 "Hg	5 psi
18A	DU3495020910	Modified TO-15	5.6 "Hg	5 psi
19A	EN0411S020910	Modified TO-15	4.2 "Hg	5 psi
20A	Lab Blank	Modified TO-15	NA	NA
20B	Lab Blank	Modified TO-15	NA	NA
21A	CCV	Modified TO-15	NA	NA
21B	CCV	Modified TO-15	NA	NA
22A	LCS	Modified TO-15	NA	NA
22AA	LCSD	Modified TO-15	NA	NA
22B	LCS	Modified TO-15	NA	NA
22BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 02/26/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15
Sanborn, Head & Associates
Workorder# 1002271A**

Nineteen 1 Liter Summa Canister (100% Certified) samples were received on February 12, 2010. The laboratory performed analysis via modified 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.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

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.

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



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

Client Sample ID: EN0427S020810

Lab ID#: 1002271A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	6.5	4.6	36
Trichloroethene	0.84	30	4.5	160
Tetrachloroethene	0.84	3.8	5.7	26

Client Sample ID: EN0534S020810

Lab ID#: 1002271A-02A

No Detections Were Found.

Client Sample ID: EN0534D020810

Lab ID#: 1002271A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.78	2.4	4.2	13
Trichloroethene	0.78	30	4.2	160
Tetrachloroethene	0.78	2.0	5.2	13

Client Sample ID: EB2536020810

Lab ID#: 1002271A-04A

No Detections Were Found.

Client Sample ID: EN0426S020810

Lab ID#: 1002271A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.78	0.94	6.0	7.2
1,1,1-Trichloroethane	0.78	6.7	4.2	36
Trichloroethene	0.78	66	4.2	350

Client Sample ID: EN0426D020810

Lab ID#: 1002271A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.76	1.4	5.8	11



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

Client Sample ID: EN0426D020810

Lab ID#: 1002271A-06A

1,1,1-Trichloroethane	0.76	11	4.1	59
Trichloroethene	0.76	210	4.0	1100
Tetrachloroethene	0.76	1.0	5.1	7.0

Client Sample ID: EN0420S020810

Lab ID#: 1002271A-07A

No Detections Were Found.

Client Sample ID: EN0420D020810

Lab ID#: 1002271A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.76	2.4	4.1	13
Trichloroethene	0.76	66	4.1	360
Tetrachloroethene	0.76	0.88	5.2	5.9

Client Sample ID: EN0421S020810

Lab ID#: 1002271A-09A

No Detections Were Found.

Client Sample ID: EN0421S020810 Lab Duplicate

Lab ID#: 1002271A-09AA

No Detections Were Found.

Client Sample ID: EN0421D020810

Lab ID#: 1002271A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.74	5.6	4.1	30
Trichloroethene	0.74	120	4.0	640

Client Sample ID: EN0728S020910

Lab ID#: 1002271A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0728S020910

Lab ID#: 1002271A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.78	9.9	5.3	67

Client Sample ID: EN0728D020910

Lab ID#: 1002271A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.76	7.1	3.0	28
Trichloroethene	0.76	20	4.1	110
Tetrachloroethene	0.76	250	5.2	1700
trans-1,2-Dichloroethene	0.76	1.5	3.0	5.9

Client Sample ID: EN0637S020910

Lab ID#: 1002271A-13A

No Detections Were Found.

Client Sample ID: EN0637D020910

Lab ID#: 1002271A-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.76	3.9	3.0	15
Trichloroethene	0.76	8.6	4.1	46
Tetrachloroethene	0.76	3.3	5.2	22

Client Sample ID: EB12029020910

Lab ID#: 1002271A-15A

No Detections Were Found.

Client Sample ID: EN044S020910

Lab ID#: 1002271A-16A

No Detections Were Found.

Client Sample ID: EN044D020910

Lab ID#: 1002271A-17A



Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN044D020910

Lab ID#: 1002271A-17A

No Detections Were Found.

Client Sample ID: DU3495020910

Lab ID#: 1002271A-18A

No Detections Were Found.

Client Sample ID: EN0411S020910

Lab ID#: 1002271A-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloroethane	0.78	1.2	2.0	3.2
Freon 113	0.78	1.4	6.0	10
1,1,1-Trichloroethane	0.78	2.3	4.2	13
Trichloroethene	0.78	5.7	4.2	31



Client Sample ID: EN0427S020810

Lab ID#: 1002271A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021708	Date of Collection:	2/8/10 4:55:00 PM	
Dil. Factor:	1.68	Date of Analysis:	2/17/10 01:56 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	6.5	4.6	36
Trichloroethene	0.84	30	4.5	160
Tetrachloroethene	0.84	3.8	5.7	26
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	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EN0534S020810

Lab ID#: 1002271A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021709	Date of Collection:	2/8/10 5:20:00 PM	
Dil. Factor:	1.56	Date of Analysis:	2/17/10 02:47 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	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	101	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EN0534D020810

Lab ID#: 1002271A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021710	Date of Collection:	2/8/10 5:20:00 PM	
Dil. Factor:	1.55	Date of Analysis:	2/17/10 03:23 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	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	2.4	4.2	13
Trichloroethene	0.78	30	4.2	160
Tetrachloroethene	0.78	2.0	5.2	13
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	99	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EB2536020810

Lab ID#: 1002271A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021711	Date of Collection:	2/8/10 6:37:00 PM	
Dil. Factor:	1.61	Date of Analysis:	2/17/10 04:04 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	Not Detected	4.4	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
Tetrachloroethene	0.80	Not Detected	5.5	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	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	90	70-130



Client Sample ID: EN0426S020810

Lab ID#: 1002271A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021712	Date of Collection:	2/8/10 5:35:00 PM	
Dil. Factor:	1.56	Date of Analysis:	2/17/10 04:49 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	0.78	Not Detected	2.0	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	0.94	6.0	7.2
Methylene Chloride	0.78	Not Detected	2.7	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	6.7	4.2	36
Trichloroethene	0.78	66	4.2	350
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	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	90	70-130



Client Sample ID: EN0426D020810

Lab ID#: 1002271A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021713	Date of Collection:	2/8/10 5:35:00 PM	
Dil. Factor:	1.51	Date of Analysis:	2/17/10 05:25 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	0.76	Not Detected	2.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	1.4	5.8	11
Methylene Chloride	0.76	Not Detected	2.6	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	59
Trichloroethene	0.76	210	4.0	1100
Tetrachloroethene	0.76	1.0	5.1	7.0
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	107	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EN0420S020810

Lab ID#: 1002271A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021714	Date of Collection:	2/8/10 4:43:00 PM	
Dil. Factor:	1.51	Date of Analysis:	2/17/10 06:05 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	90	70-130



Client Sample ID: EN0420D020810

Lab ID#: 1002271A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021715	Date of Collection:	2/8/10 4:43:00 PM	
Dil. Factor:	1.52	Date of Analysis:	2/17/10 06:51 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	2.4	4.1	13
Trichloroethene	0.76	66	4.1	360
Tetrachloroethene	0.76	0.88	5.2	5.9
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	109	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	90	70-130



Client Sample ID: EN0421S020810

Lab ID#: 1002271A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021808	Date of Collection:	2/8/10 5:06:00 PM	
Dil. Factor:	1.48	Date of Analysis:	2/18/10 11:28 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.74	Not Detected	1.9	Not Detected
Chloroethane	0.74	Not Detected	2.0	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	0.74	Not Detected	2.6	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	103	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	87	70-130



Client Sample ID: EN0421S020810 Lab Duplicate

Lab ID#: 1002271A-09AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021809	Date of Collection:	2/8/10 5:06:00 PM	
Dil. Factor:	1.48	Date of Analysis:	2/18/10 12:04 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	0.74	Not Detected	2.0	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	0.74	Not Detected	2.6	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	105	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EN0421D020810

Lab ID#: 1002271A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021810	Date of Collection:	2/8/10 5:06:00 PM	
Dil. Factor:	1.49	Date of Analysis:	2/18/10 12:40 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	0.74	Not Detected	2.0	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	0.74	Not Detected	2.6	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	5.6	4.1	30
Trichloroethene	0.74	120	4.0	640
Tetrachloroethene	0.74	Not Detected	5.0	Not Detected
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	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EN0728S020910

Lab ID#: 1002271A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021811	Date of Collection:	2/9/10 5:24:00 PM	
Dil. Factor:	1.57	Date of Analysis:	2/18/10 01:23 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	0.78	Not Detected	2.1	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	0.78	Not Detected	2.7	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	9.9	5.3	67
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	109	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EN0728D020910

Lab ID#: 1002271A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021812	Date of Collection:	2/9/10 5:43:00 PM	
Dil. Factor:	1.52	Date of Analysis:	2/18/10 01:59 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	7.1	3.0	28
1,1,1-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Trichloroethene	0.76	20	4.1	110
Tetrachloroethene	0.76	250	5.2	1700
trans-1,2-Dichloroethene	0.76	1.5	3.0	5.9

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	88	70-130



Client Sample ID: EN0637S020910

Lab ID#: 1002271A-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021813	Date of Collection:	2/9/10 5:30:00 PM	
Dil. Factor:	1.61	Date of Analysis:	2/18/10 02:35 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	Not Detected	4.4	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
Tetrachloroethene	0.80	Not Detected	5.5	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	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	90	70-130



Client Sample ID: EN0637D020910

Lab ID#: 1002271A-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021814	Date of Collection:	2/9/10 5:31:00 PM	
Dil. Factor:	1.53	Date of Analysis:	2/18/10 03:17 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	3.9	3.0	15
1,1,1-Trichloroethane	0.76	Not Detected	4.2	Not Detected
Trichloroethene	0.76	8.6	4.1	46
Tetrachloroethene	0.76	3.3	5.2	22
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	110	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EB12029020910

Lab ID#: 1002271A-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021815	Date of Collection:	2/9/10 6:07:00 PM	
Dil. Factor:	1.62	Date of Analysis:	2/18/10 04:10 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	0.81	Not Detected	2.1	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	0.81	Not Detected	2.8	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	112	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	90	70-130



Client Sample ID: EN044S020910

Lab ID#: 1002271A-16A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021816	Date of Collection:	2/9/10 3:16:00 PM	
Dil. Factor:	1.58	Date of Analysis:	2/18/10 04:48 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	Not Detected	4.3	Not Detected
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	110	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	90	70-130



Client Sample ID: EN044D020910

Lab ID#: 1002271A-17A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021817	Date of Collection:	2/9/10 3:31:00 PM	
Dil. Factor:	1.66	Date of Analysis:	2/18/10 05:28 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	0.83	Not Detected	2.2	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	0.83	Not Detected	2.9	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	112	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	91	70-130



Client Sample ID: DU3495020910

Lab ID#: 1002271A-18A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021818	Date of Collection:	2/9/10 3:16:00 PM	
Dil. Factor:	1.65	Date of Analysis:	2/18/10 06:04 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	0.82	Not Detected	2.2	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	0.82	Not Detected	2.9	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	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	3.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	90	70-130



Client Sample ID: EN0411S020910

Lab ID#: 1002271A-19A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021819	Date of Collection:	2/9/10 2:48:00 PM	
Dil. Factor:	1.56	Date of Analysis:	2/18/10 06:49 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	0.78	1.2	2.0	3.2
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	1.4	6.0	10
Methylene Chloride	0.78	Not Detected	2.7	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	2.3	4.2	13
Trichloroethene	0.78	5.7	4.2	31
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	114	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271A-20A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021707	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/17/10 12:46 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	88	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271A-20B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021807	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/18/10 10:38 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	89	70-130



Client Sample ID: CCV

Lab ID#: 1002271A-21A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/17/10 07:57 AM

Compound	%Recovery
Vinyl Chloride	114
Chloroethane	107
1,1-Dichloroethene	96
Freon 113	95
Methylene Chloride	93
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	104
Trichloroethene	101
Tetrachloroethene	97
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: CCV

Lab ID#: 1002271A-21B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/18/10 08:49 AM

Compound	%Recovery
Vinyl Chloride	101
Chloroethane	98
1,1-Dichloroethene	86
Freon 113	86
Methylene Chloride	86
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	89
1,1,1-Trichloroethane	94
Trichloroethene	92
Tetrachloroethene	89
trans-1,2-Dichloroethene	89

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: LCS

Lab ID#: 1002271A-22A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/17/10 08:33 AM

Compound	%Recovery
Vinyl Chloride	112
Chloroethane	110
1,1-Dichloroethene	93
Freon 113	95
Methylene Chloride	92
1,1-Dichloroethane	98
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	104
Trichloroethene	102
Tetrachloroethene	98
trans-1,2-Dichloroethene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: LCSD

Lab ID#: 1002271A-22AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021705	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/17/10 11:16 AM

Compound	%Recovery
Vinyl Chloride	117
Chloroethane	111
1,1-Dichloroethene	90
Freon 113	93
Methylene Chloride	92
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	104
1,1,1-Trichloroethane	105
Trichloroethene	100
Tetrachloroethene	100
trans-1,2-Dichloroethene	102

Container Type: NA - Not Applicable

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



Client Sample ID: LCS

Lab ID#: 1002271A-22B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/18/10 08:13 AM

Compound	%Recovery
Vinyl Chloride	105
Chloroethane	102
1,1-Dichloroethene	87
Freon 113	88
Methylene Chloride	86
1,1-Dichloroethane	90
cis-1,2-Dichloroethene	90
1,1,1-Trichloroethane	98
Trichloroethene	94
Tetrachloroethene	89
trans-1,2-Dichloroethene	91

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: LCSD

Lab ID#: 1002271A-22BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021805	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/18/10 09:25 AM

Compound	%Recovery
Vinyl Chloride	93
Chloroethane	90
1,1-Dichloroethene	80
Freon 113	80
Methylene Chloride	80
1,1-Dichloroethane	83
cis-1,2-Dichloroethene	84
1,1,1-Trichloroethane	86
Trichloroethene	86
Tetrachloroethene	84
trans-1,2-Dichloroethene	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130

2/26/2010

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.04
Workorder #: 1002271B

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 2/12/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified 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: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Bryanna Langley
Project Manager

WORK ORDER #: 1002271B

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. #	BCT2755
FAX:		PROJECT #	2755.04 GVP
DATE RECEIVED:	02/12/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	02/26/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
20A	EN0411D020910	Modified TO-15	4.4 "Hg	5 psi
21A	EN0432S020910	Modified TO-15	4.2 "Hg	5 psi
22A	EN0432D020910	Modified TO-15	6.0 "Hg	5 psi
23A	EN0415D021110	Modified TO-15	3.4 "Hg	5 psi
24A	EN0415S021110	Modified TO-15	5.0 "Hg	5 psi
25A	EN0529S020910	Modified TO-15	5.0 "Hg	5 psi
26A	EN0429D020910	Modified TO-15	5.8 "Hg	5 psi
27A	DU3372020910	Modified TO-15	5.8 "Hg	5 psi
28A	EN0410S020910	Modified TO-15	3.8 "Hg	5 psi
29A	EN0410D020910	Modified TO-15	5.6 "Hg	5 psi
29AA	EN0410D020910 Lab Duplicate	Modified TO-15	5.6 "Hg	5 psi
30A	EN049S020910	Modified TO-15	4.6 "Hg	5 psi
31A	EN049D020910	Modified TO-15	4.6 "Hg	5 psi
32A	EN0430S020910	Modified TO-15	3.2 "Hg	5 psi
33A	EN0430D020910	Modified TO-15	3.6 "Hg	5 psi
34A	EN0635D020910	Modified TO-15	4.6 "Hg	5 psi
35A	EN0635S020910	Modified TO-15	3.4 "Hg	5 psi

Continued on next page

WORK ORDER #: 1002271B

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. #	BCT2755
FAX:		PROJECT #	2755.04 GVP
DATE RECEIVED:	02/12/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	02/26/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
36A	DU36424020910	Modified TO-15	1.4 "Hg	5 psi
37A	EN046S020910	Modified TO-15	3.6 "Hg	5 psi
38A	EN046D020910	Modified TO-15	3.6 "Hg	5 psi
39A	Lab Blank	Modified TO-15	NA	NA
39B	Lab Blank	Modified TO-15	NA	NA
39C	Lab Blank	Modified TO-15	NA	NA
39D	Lab Blank	Modified TO-15	NA	NA
40A	CCV	Modified TO-15	NA	NA
40B	CCV	Modified TO-15	NA	NA
40C	CCV	Modified TO-15	NA	NA
40D	CCV	Modified TO-15	NA	NA
41A	LCS	Modified TO-15	NA	NA
41AA	LCSD	Modified TO-15	NA	NA
41B	LCS	Modified TO-15	NA	NA
41BB	LCSD	Modified TO-15	NA	NA
41C	LCS	Modified TO-15	NA	NA
41CC	LCSD	Modified TO-15	NA	NA
41D	LCS	Modified TO-15	NA	NA
41DD	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 02/26/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15
Sanborn, Head & Associates
Workorder# 1002271B**

Nineteen 1 Liter Summa Canister (100% Certified) samples were received on February 12, 2010. The laboratory performed analysis via modified 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.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) was not relinquished properly on pages 2-5. 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.

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



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

Client Sample ID: EN0411D020910

Lab ID#: 1002271B-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.78	0.89	3.1	3.5
1,1,1-Trichloroethane	0.78	5.9	4.3	32
Trichloroethene	0.78	200	4.2	1100
Tetrachloroethene	0.78	3.9	5.3	26

Client Sample ID: EN0432S020910

Lab ID#: 1002271B-21A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.78	11	4.2	61

Client Sample ID: EN0432D020910

Lab ID#: 1002271B-22A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	1.9	4.6	10
Trichloroethene	0.84	130	4.5	680

Client Sample ID: EN0415D021110

Lab ID#: 1002271B-23A

No Detections Were Found.

Client Sample ID: EN0415S021110

Lab ID#: 1002271B-24A

No Detections Were Found.

Client Sample ID: EN0529S020910

Lab ID#: 1002271B-25A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.80	2.3	4.4	12
Trichloroethene	0.80	24	4.3	130



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

Client Sample ID: EN0429D020910

Lab ID#: 1002271B-26A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.83	5.1	4.5	28
Trichloroethene	0.83	71	4.5	380

Client Sample ID: DU3372020910

Lab ID#: 1002271B-27A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.83	5.3	4.5	29
Trichloroethene	0.83	71	4.5	380

Client Sample ID: EN0410S020910

Lab ID#: 1002271B-28A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	31	250	120	1000
1,1-Dichloroethane	31	950	120	3900
cis-1,2-Dichloroethene	31	2600	120	10000
1,1,1-Trichloroethane	31	1700	170	9300
Trichloroethene	31	7100	160	38000
Tetrachloroethene	31	68	210	460

Client Sample ID: EN0410D020910

Lab ID#: 1002271B-29A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	11	160	44	620
1,1-Dichloroethane	11	520	44	2100
cis-1,2-Dichloroethene	11	1000	44	4000
1,1,1-Trichloroethane	11	1100	60	5800
Trichloroethene	11	3500	59	19000
Tetrachloroethene	11	18	75	120

Client Sample ID: EN0410D020910 Lab Duplicate

Lab ID#: 1002271B-29AA



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

Client Sample ID: EN0410D020910 Lab Duplicate

Lab ID#: 1002271B-29AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	11	160	44	640
1,1-Dichloroethane	11	530	44	2100
cis-1,2-Dichloroethene	11	990	44	3900
1,1,1-Trichloroethane	11	1100	60	5800
Trichloroethene	11	3500	59	19000
Tetrachloroethene	11	17	75	120

Client Sample ID: EN049S020910

Lab ID#: 1002271B-30A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.79	1.2	3.2	5.1
cis-1,2-Dichloroethene	0.79	0.96	3.1	3.8
1,1,1-Trichloroethane	0.79	9.1	4.3	49
Trichloroethene	0.79	170	4.2	940
Tetrachloroethene	0.79	3.7	5.4	25

Client Sample ID: EN049D020910

Lab ID#: 1002271B-31A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	7.9	98	31	390
1,1-Dichloroethane	7.9	76	32	310
cis-1,2-Dichloroethene	7.9	220	31	880
1,1,1-Trichloroethane	7.9	210	43	1100
Trichloroethene	7.9	2500	42	13000
Tetrachloroethene	7.9	120	54	800

Client Sample ID: EN0430S020910

Lab ID#: 1002271B-32A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.75	61	4.0	330



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

Client Sample ID: EN0430D020910

Lab ID#: 1002271B-33A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.76	1.2	3.0	4.6
1,1,1-Trichloroethane	0.76	3.7	4.1	20
Trichloroethene	0.76	94	4.1	500
Tetrachloroethene	0.76	2.6	5.2	17

Client Sample ID: EN0635D020910

Lab ID#: 1002271B-34A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	7.4	4.3	40
Trichloroethene	0.79	29	4.2	160
Tetrachloroethene	0.79	4.5	5.4	30

Client Sample ID: EN0635S020910

Lab ID#: 1002271B-35A

No Detections Were Found.

Client Sample ID: DU36424020910

Lab ID#: 1002271B-36A

No Detections Were Found.

Client Sample ID: EN046S020910

Lab ID#: 1002271B-37A

No Detections Were Found.

Client Sample ID: EN046D020910

Lab ID#: 1002271B-38A

No Detections Were Found.



Client Sample ID: EN0411D020910

Lab ID#: 1002271B-20A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021811	Date of Collection:	2/9/10 2:48:00 PM	
Dil. Factor:	1.57	Date of Analysis:	2/18/10 12:02 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	0.78	Not Detected	2.1	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	0.78	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.78	0.89	3.1	3.5
1,1,1-Trichloroethane	0.78	5.9	4.3	32
Trichloroethene	0.78	200	4.2	1100
Tetrachloroethene	0.78	3.9	5.3	26
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	113	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0432S020910

Lab ID#: 1002271B-21A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021812	Date of Collection:	2/9/10 2:34:00 PM	
Dil. Factor:	1.56	Date of Analysis:	2/18/10 12:39 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	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	11	4.2	61
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	113	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0432D020910

Lab ID#: 1002271B-22A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021813	Date of Collection:	2/9/10 2:34:00 PM	
Dil. Factor:	1.68	Date of Analysis:	2/18/10 01:22 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	1.9	4.6	10
Trichloroethene	0.84	130	4.5	680
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
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	114	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0415D021110

Lab ID#: 1002271B-23A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021814	Date of Collection:	2/11/10 8:36:00 AM	
Dil. Factor:	1.51	Date of Analysis:	2/18/10 01:44 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	106	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0415S021110

Lab ID#: 1002271B-24A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021815	Date of Collection:	2/11/10 9:00:00 AM	
Dil. Factor:	1.61	Date of Analysis:	2/18/10 02:26 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	Not Detected	4.4	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
Tetrachloroethene	0.80	Not Detected	5.5	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	116	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0529S020910

Lab ID#: 1002271B-25A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021816	Date of Collection:	2/9/10 9:05:00 AM	
Dil. Factor:	1.61	Date of Analysis:	2/18/10 02:46 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	2.3	4.4	12
Trichloroethene	0.80	24	4.3	130
Tetrachloroethene	0.80	Not Detected	5.5	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	114	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0429D020910

Lab ID#: 1002271B-26A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021817	Date of Collection:	2/9/10 10:02:00 AM	
Dil. Factor:	1.66	Date of Analysis:	2/18/10 03:17 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	0.83	Not Detected	2.2	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	0.83	Not Detected	2.9	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	5.1	4.5	28
Trichloroethene	0.83	71	4.5	380
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	116	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: DU3372020910

Lab ID#: 1002271B-27A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021818	Date of Collection: 2/9/10 10:02:00 AM		
Dil. Factor:	1.66	Date of Analysis: 2/18/10 03:45 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	0.83	Not Detected	2.2	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	0.83	Not Detected	2.9	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	5.3	4.5	29
Trichloroethene	0.83	71	4.5	380
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	115	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0410S020910

Lab ID#: 1002271B-28A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021915	Date of Collection:	2/9/10 9:37:00 AM	
Dil. Factor:	61.2	Date of Analysis:	2/19/10 04:24 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	31	Not Detected	78	Not Detected
Chloroethane	31	Not Detected	81	Not Detected
1,1-Dichloroethene	31	250	120	1000
Freon 113	31	Not Detected	230	Not Detected
Methylene Chloride	31	Not Detected	110	Not Detected
1,1-Dichloroethane	31	950	120	3900
cis-1,2-Dichloroethene	31	2600	120	10000
1,1,1-Trichloroethane	31	1700	170	9300
Trichloroethene	31	7100	160	38000
Tetrachloroethene	31	68	210	460
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	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EN0410D020910

Lab ID#: 1002271B-29A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022011	Date of Collection:	2/9/10 9:29:00 AM	
Dil. Factor:	22.0	Date of Analysis:	2/20/10 12:57 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	11	Not Detected	28	Not Detected
Chloroethane	11	Not Detected	29	Not Detected
1,1-Dichloroethene	11	160	44	620
Freon 113	11	Not Detected	84	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
1,1-Dichloroethane	11	520	44	2100
cis-1,2-Dichloroethene	11	1000	44	4000
1,1,1-Trichloroethane	11	1100	60	5800
Trichloroethene	11	3500	59	19000
Tetrachloroethene	11	18	75	120
trans-1,2-Dichloroethene	11	Not Detected	44	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN0410D020910 Lab Duplicate

Lab ID#: 1002271B-29AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022013	Date of Collection:	2/9/10 9:29:00 AM	
Dil. Factor:	22.0	Date of Analysis:	2/20/10 01:57 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	11	Not Detected	28	Not Detected
Chloroethane	11	Not Detected	29	Not Detected
1,1-Dichloroethene	11	160	44	640
Freon 113	11	Not Detected	84	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
1,1-Dichloroethane	11	530	44	2100
cis-1,2-Dichloroethene	11	990	44	3900
1,1,1-Trichloroethane	11	1100	60	5800
Trichloroethene	11	3500	59	19000
Tetrachloroethene	11	17	75	120
trans-1,2-Dichloroethene	11	Not Detected	44	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	123	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN049S020910

Lab ID#: 1002271B-30A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021823	Date of Collection:	2/9/10 9:51:00 AM	
Dil. Factor:	1.58	Date of Analysis:	2/18/10 06:05 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.79	1.2	3.2	5.1
cis-1,2-Dichloroethene	0.79	0.96	3.1	3.8
1,1,1-Trichloroethane	0.79	9.1	4.3	49
Trichloroethene	0.79	170	4.2	940
Tetrachloroethene	0.79	3.7	5.4	25
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	120	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: EN049D020910

Lab ID#: 1002271B-31A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022008	Date of Collection:	2/9/10 9:51:00 AM	
Dil. Factor:	15.8	Date of Analysis:	2/20/10 11:17 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	7.9	Not Detected	20	Not Detected
Chloroethane	7.9	Not Detected	21	Not Detected
1,1-Dichloroethene	7.9	98	31	390
Freon 113	7.9	Not Detected	60	Not Detected
Methylene Chloride	7.9	Not Detected	27	Not Detected
1,1-Dichloroethane	7.9	76	32	310
cis-1,2-Dichloroethene	7.9	220	31	880
1,1,1-Trichloroethane	7.9	210	43	1100
Trichloroethene	7.9	2500	42	13000
Tetrachloroethene	7.9	120	54	800
trans-1,2-Dichloroethene	7.9	Not Detected	31	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: EN0430S020910

Lab ID#: 1002271B-32A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021824	Date of Collection:	2/9/10 10:13:00 AM	
Dil. Factor:	1.50	Date of Analysis:	2/18/10 06:23 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	0.75	Not Detected	2.0	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	0.75	Not Detected	2.6	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	61	4.0	330
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	116	70-130
Toluene-d8	84	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: EN0430D020910

Lab ID#: 1002271B-33A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p021913	Date of Collection:	2/9/10 10:13:00 AM	
Dil. Factor:	1.52	Date of Analysis:	2/19/10 03:21 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	1.2	3.0	4.6
1,1,1-Trichloroethane	0.76	3.7	4.1	20
Trichloroethene	0.76	94	4.1	500
Tetrachloroethene	0.76	2.6	5.2	17
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	111	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0635D020910

Lab ID#: 1002271B-34A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p021914	Date of Collection:	2/9/10 3:55:00 PM	
Dil. Factor:	1.58	Date of Analysis:	2/19/10 03:43 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	7.4	4.3	40
Trichloroethene	0.79	29	4.2	160
Tetrachloroethene	0.79	4.5	5.4	30
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	109	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0635S020910

Lab ID#: 1002271B-35A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p021915	Date of Collection:	2/9/10 3:55:00 PM	
Dil. Factor:	1.51	Date of Analysis:	2/19/10 04:04 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	112	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	105	70-130



Client Sample ID: DU36424020910

Lab ID#: 1002271B-36A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p021916	Date of Collection:	2/9/10 3:55:00 PM	
Dil. Factor:	1.41	Date of Analysis:	2/19/10 04:22 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	0.70	Not Detected	1.9	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	0.70	Not Detected	2.4	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	Not Detected	3.8	Not Detected
Tetrachloroethene	0.70	Not Detected	4.8	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	111	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: EN046S020910

Lab ID#: 1002271B-37A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p021917	Date of Collection:	2/9/10 4:08:00 PM	
Dil. Factor:	1.52	Date of Analysis:	2/19/10 04:44 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	115	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: EN046D020910

Lab ID#: 1002271B-38A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022007	Date of Collection:	2/9/10 4:08:00 PM	
Dil. Factor:	1.52	Date of Analysis:	2/20/10 10:48 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	115	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271B-39A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021808	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/18/10 09:57 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	109	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271B-39B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021909	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/19/10 11:56 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	88	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271B-39C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p021908	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/19/10 11:37 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	104	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271B-39D

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022006	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/20/10 10:12 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	105	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: CCV

Lab ID#: 1002271B-40A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/18/10 07:53 AM

Compound	%Recovery
Vinyl Chloride	119
Chloroethane	107
1,1-Dichloroethene	103
Freon 113	103
Methylene Chloride	108
1,1-Dichloroethane	108
cis-1,2-Dichloroethene	103
1,1,1-Trichloroethane	104
Trichloroethene	104
Tetrachloroethene	103
trans-1,2-Dichloroethene	105

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: CCV

Lab ID#: 1002271B-40B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/19/10 07:35 AM

Compound	%Recovery
Vinyl Chloride	103
Chloroethane	96
1,1-Dichloroethene	88
Freon 113	85
Methylene Chloride	84
1,1-Dichloroethane	86
cis-1,2-Dichloroethene	84
1,1,1-Trichloroethane	97
Trichloroethene	92
Tetrachloroethene	82
trans-1,2-Dichloroethene	88

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: CCV

Lab ID#: 1002271B-40C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p021902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/19/10 07:49 AM

Compound	%Recovery
Vinyl Chloride	104
Chloroethane	103
1,1-Dichloroethene	103
Freon 113	102
Methylene Chloride	100
1,1-Dichloroethane	99
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	98
Trichloroethene	99
Tetrachloroethene	100
trans-1,2-Dichloroethene	101

Container Type: NA - Not Applicable

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



Client Sample ID: CCV

Lab ID#: 1002271B-40D

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/20/10 08:45 AM

Compound	%Recovery
Vinyl Chloride	121
Chloroethane	98
1,1-Dichloroethene	102
Freon 113	103
Methylene Chloride	106
1,1-Dichloroethane	106
cis-1,2-Dichloroethene	100
1,1,1-Trichloroethane	117
Trichloroethene	111
Tetrachloroethene	109
trans-1,2-Dichloroethene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	109	70-130



Client Sample ID: LCS

Lab ID#: 1002271B-41A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/18/10 08:30 AM

Compound	%Recovery
Vinyl Chloride	117
Chloroethane	102
1,1-Dichloroethene	90
Freon 113	87
Methylene Chloride	95
1,1-Dichloroethane	98
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	97
Trichloroethene	98
Tetrachloroethene	95
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: LCSD

Lab ID#: 1002271B-41AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d021805	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/18/10 08:48 AM

Compound	%Recovery
Vinyl Chloride	118
Chloroethane	104
1,1-Dichloroethene	89
Freon 113	88
Methylene Chloride	96
1,1-Dichloroethane	99
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	96
Trichloroethene	97
Tetrachloroethene	95
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: LCS

Lab ID#: 1002271B-41B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/19/10 08:10 AM

Compound	%Recovery
Vinyl Chloride	100
Chloroethane	96
1,1-Dichloroethene	86
Freon 113	85
Methylene Chloride	84
1,1-Dichloroethane	87
cis-1,2-Dichloroethene	87
1,1,1-Trichloroethane	95
Trichloroethene	91
Tetrachloroethene	86
trans-1,2-Dichloroethene	88

Container Type: NA - Not Applicable

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



Client Sample ID: LCSD

Lab ID#: 1002271B-41BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021907	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/19/10 10:42 AM

Compound	%Recovery
Vinyl Chloride	98
Chloroethane	95
1,1-Dichloroethene	82
Freon 113	84
Methylene Chloride	84
1,1-Dichloroethane	84
cis-1,2-Dichloroethene	86
1,1,1-Trichloroethane	90
Trichloroethene	90
Tetrachloroethene	85
trans-1,2-Dichloroethene	87

Container Type: NA - Not Applicable

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



Client Sample ID: LCS

Lab ID#: 1002271B-41C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p021903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/19/10 08:16 AM

Compound	%Recovery
Vinyl Chloride	87
Chloroethane	86
1,1-Dichloroethene	76
Freon 113	76
Methylene Chloride	76
1,1-Dichloroethane	81
cis-1,2-Dichloroethene	84
1,1,1-Trichloroethane	81
Trichloroethene	87
Tetrachloroethene	92
trans-1,2-Dichloroethene	85

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: LCSD

Lab ID#: 1002271B-41CC

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p021904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/19/10 08:52 AM

Compound	%Recovery
Vinyl Chloride	88
Chloroethane	86
1,1-Dichloroethene	75
Freon 113	75
Methylene Chloride	77
1,1-Dichloroethane	81
cis-1,2-Dichloroethene	85
1,1,1-Trichloroethane	81
Trichloroethene	87
Tetrachloroethene	92
trans-1,2-Dichloroethene	83

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: LCS

Lab ID#: 1002271B-41D

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/20/10 09:18 AM

Compound	%Recovery
Vinyl Chloride	110
Chloroethane	93
1,1-Dichloroethene	85
Freon 113	83
Methylene Chloride	90
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	93
1,1,1-Trichloroethane	98
Trichloroethene	93
Tetrachloroethene	90
trans-1,2-Dichloroethene	91

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: LCSD

Lab ID#: 1002271B-41DD

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/20/10 09:42 AM

Compound	%Recovery
Vinyl Chloride	102
Chloroethane	88
1,1-Dichloroethene	79
Freon 113	78
Methylene Chloride	84
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	87
1,1,1-Trichloroethane	92
Trichloroethene	89
Tetrachloroethene	86
trans-1,2-Dichloroethene	86

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	108	70-130

2/26/2010

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.04
Workorder #: 1002271C

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 2/12/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified 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: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Bryanna Langley
Project Manager

WORK ORDER #: 1002271C

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. #	BCT2755
FAX:		PROJECT #	2755.04 GVP
DATE RECEIVED:	02/12/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	02/26/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
39A	EN0636S020910	Modified TO-15	4.6 "Hg	5 psi
40A	EN0636D020910	Modified TO-15	4.4 "Hg	5 psi
41A	EN045S020910	Modified TO-15	4.6 "Hg	5 psi
42A	EN045D020910	Modified TO-15	3.6 "Hg	5 psi
43A	EN0413D020910	Modified TO-15	0.8 "Hg	5 psi
44A	EN047S020910	Modified TO-15	1.2 "Hg	5 psi
45A	DU35664020910	Modified TO-15	1.6 "Hg	5 psi
45AA	DU35664020910 Lab Duplicate	Modified TO-15	1.6 "Hg	5 psi
46A	EN047D020910	Modified TO-15	3.2 "Hg	5 psi
47A	EN0418D020910	Modified TO-15	3.6 "Hg	5 psi
48A	EN0416S020910	Modified TO-15	3.6 "Hg	5 psi
49A	EN0416D020910	Modified TO-15	4.0 "Hg	5 psi
50A	EN0413S020910	Modified TO-15	3.4 "Hg	5 psi
51A	EN0419S020910	Modified TO-15	3.0 "Hg	5 psi
52A	EN0419D020910	Modified TO-15	2.4 "Hg	5 psi
53A	DU3052020910	Modified TO-15	2.4 "Hg	5 psi
54A	EN0418S020910	Modified TO-15	3.4 "Hg	5 psi

Continued on next page

WORK ORDER #: 1002271C

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. #	BCT2755
FAX:		PROJECT #	2755.04 GVP
DATE RECEIVED:	02/12/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	02/26/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
55A	EN041S021010	Modified TO-15	5.0 "Hg	5 psi
55AA	EN041S021010 Lab Duplicate	Modified TO-15	5.0 "Hg	5 psi
56A	EN041D021010	Modified TO-15	6.0 "Hg	5 psi
57A	EN042S021010	Modified TO-15	6.0 "Hg	5 psi
58A	Lab Blank	Modified TO-15	NA	NA
58B	Lab Blank	Modified TO-15	NA	NA
58C	Lab Blank	Modified TO-15	NA	NA
59A	CCV	Modified TO-15	NA	NA
59B	CCV	Modified TO-15	NA	NA
59C	CCV	Modified TO-15	NA	NA
60A	LCS	Modified TO-15	NA	NA
60AA	LCSD	Modified TO-15	NA	NA
60B	LCS	Modified TO-15	NA	NA
60BB	LCSD	Modified TO-15	NA	NA
60C	LCS	Modified TO-15	NA	NA
60CC	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 02/26/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15
Sanborn, Head & Associates
Workorder# 1002271C**

Nineteen 1 Liter Summa Canister (100% Certified) samples were received on February 12, 2010. The laboratory performed analysis via modified 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.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) was not relinquished properly on pages 2-5. A signature and date were not provided by the field sampler.

There was a significant difference (greater than 5.0" Hg) between the measured canister receipt vacuum and that which was reported on the Chain of Custody (COC) for sample EN0419D020910. Therefore the vacuum measured in the laboratory was used to calculate results.

Analytical Notes

The LCS analyzed on February 22, 2010 did not meet required acceptance criteria of 70-130% recovery for Vinyl Chloride at 69%.

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.

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



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

Client Sample ID: EN0636S020910

Lab ID#: 1002271C-39A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	1.0	4.3	5.5

Client Sample ID: EN0636D020910

Lab ID#: 1002271C-40A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.78	1.6	3.1	6.3
1,1,1-Trichloroethane	0.78	80	4.3	440
Trichloroethene	0.78	84	4.2	450

Client Sample ID: EN045S020910

Lab ID#: 1002271C-41A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	1.9	4.3	10
Trichloroethene	0.79	18	4.2	94

Client Sample ID: EN045D020910

Lab ID#: 1002271C-42A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	2.0	24	11	130
Trichloroethene	2.0	630	11	3400

Client Sample ID: EN0413D020910

Lab ID#: 1002271C-43A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.69	0.82	5.3	6.3
Methylene Chloride	0.69	0.74	2.4	2.6
1,1,1-Trichloroethane	0.69	56	3.8	310
Trichloroethene	0.69	270	3.7	1500



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

Client Sample ID: EN047S020910

Lab ID#: 1002271C-44A

No Detections Were Found.

Client Sample ID: DU35664020910

Lab ID#: 1002271C-45A

No Detections Were Found.

Client Sample ID: DU35664020910 Lab Duplicate

Lab ID#: 1002271C-45AA

No Detections Were Found.

Client Sample ID: EN047D020910

Lab ID#: 1002271C-46A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	4.3	12	17	48
1,1,1-Trichloroethane	4.3	63	23	350
Trichloroethene	4.3	1200	23	6800

Client Sample ID: EN0418D020910

Lab ID#: 1002271C-47A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.76	2.2	3.0	8.9
1,1,1-Trichloroethane	0.76	19	4.1	100
Trichloroethene	0.76	240	4.1	1300
Tetrachloroethene	0.76	1.4	5.2	9.8

Client Sample ID: EN0416S020910

Lab ID#: 1002271C-48A

No Detections Were Found.

Client Sample ID: EN0416D020910

Lab ID#: 1002271C-49A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0416D020910

Lab ID#: 1002271C-49A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	3.1	4.5	12	18
1,1,1-Trichloroethane	3.1	57	17	310
Trichloroethene	3.1	1100	17	6200
Tetrachloroethene	3.1	41	21	280

Client Sample ID: EN0413S020910

Lab ID#: 1002271C-50A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.76	16	4.1	88
Trichloroethene	0.76	69	4.0	370

Client Sample ID: EN0419S020910

Lab ID#: 1002271C-51A

No Detections Were Found.

Client Sample ID: EN0419D020910

Lab ID#: 1002271C-52A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.73	1.7	2.9	6.6
1,1,1-Trichloroethane	0.73	3.0	4.0	17
Trichloroethene	0.73	120	3.9	640

Client Sample ID: DU3052020910

Lab ID#: 1002271C-53A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.73	8.4	3.9	45

Client Sample ID: EN0418S020910

Lab ID#: 1002271C-54A

No Detections Were Found.



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

Client Sample ID: EN041S021010

Lab ID#: 1002271C-55A

No Detections Were Found.

Client Sample ID: EN041S021010 Lab Duplicate

Lab ID#: 1002271C-55AA

No Detections Were Found.

Client Sample ID: EN041D021010

Lab ID#: 1002271C-56A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	2.0	4.6	11
Trichloroethene	0.84	18	4.5	99

Client Sample ID: EN042S021010

Lab ID#: 1002271C-57A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.84	42	5.7	290



Client Sample ID: EN0636S020910

Lab ID#: 1002271C-39A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021910	Date of Collection:	2/9/10 4:26:00 PM	
Dil. Factor:	1.58	Date of Analysis:	2/19/10 12:31 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	1.0	4.3	5.5
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	103	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EN0636D020910

Lab ID#: 1002271C-40A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021911	Date of Collection:	2/9/10 4:26:00 PM	
Dil. Factor:	1.57	Date of Analysis:	2/19/10 01:53 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	0.78	Not Detected	2.1	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	0.78	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.78	1.6	3.1	6.3
1,1,1-Trichloroethane	0.78	80	4.3	440
Trichloroethene	0.78	84	4.2	450
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	107	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	88	70-130



Client Sample ID: EN045S020910

Lab ID#: 1002271C-41A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021912	Date of Collection:	2/9/10 4:55:00 PM	
Dil. Factor:	1.58	Date of Analysis:	2/19/10 02:28 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	1.9	4.3	10
Trichloroethene	0.79	18	4.2	94
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	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	88	70-130



Client Sample ID: EN045D020910

Lab ID#: 1002271C-42A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021913	Date of Collection:	2/9/10 4:55:00 PM	
Dil. Factor:	4.05	Date of Analysis:	2/19/10 03:04 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.0	Not Detected	5.2	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
1,1-Dichloroethene	2.0	Not Detected	8.0	Not Detected
Freon 113	2.0	Not Detected	16	Not Detected
Methylene Chloride	2.0	Not Detected	7.0	Not Detected
1,1-Dichloroethane	2.0	Not Detected	8.2	Not Detected
cis-1,2-Dichloroethene	2.0	Not Detected	8.0	Not Detected
1,1,1-Trichloroethane	2.0	24	11	130
Trichloroethene	2.0	630	11	3400
Tetrachloroethene	2.0	Not Detected	14	Not Detected
trans-1,2-Dichloroethene	2.0	Not Detected	8.0	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EN0413D020910

Lab ID#: 1002271C-43A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021914	Date of Collection:	2/9/10 1:40:00 PM	
Dil. Factor:	1.38	Date of Analysis:	2/19/10 03:40 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.69	Not Detected	1.8	Not Detected
Chloroethane	0.69	Not Detected	1.8	Not Detected
1,1-Dichloroethene	0.69	Not Detected	2.7	Not Detected
Freon 113	0.69	0.82	5.3	6.3
Methylene Chloride	0.69	0.74	2.4	2.6
1,1-Dichloroethane	0.69	Not Detected	2.8	Not Detected
cis-1,2-Dichloroethene	0.69	Not Detected	2.7	Not Detected
1,1,1-Trichloroethane	0.69	56	3.8	310
Trichloroethene	0.69	270	3.7	1500
Tetrachloroethene	0.69	Not Detected	4.7	Not Detected
trans-1,2-Dichloroethene	0.69	Not Detected	2.7	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EN047S020910

Lab ID#: 1002271C-44A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021916	Date of Collection:	2/9/10 3:40:00 PM	
Dil. Factor:	1.40	Date of Analysis:	2/19/10 05:07 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	0.70	Not Detected	1.8	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	0.70	Not Detected	2.4	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	Not Detected	3.8	Not Detected
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	109	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: DU35664020910

Lab ID#: 1002271C-45A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021917	Date of Collection:	2/9/10 3:40:00 PM	
Dil. Factor:	1.42	Date of Analysis:	2/19/10 05:44 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.71	Not Detected	1.8	Not Detected
Chloroethane	0.71	Not Detected	1.9	Not Detected
1,1-Dichloroethene	0.71	Not Detected	2.8	Not Detected
Freon 113	0.71	Not Detected	5.4	Not Detected
Methylene Chloride	0.71	Not Detected	2.5	Not Detected
1,1-Dichloroethane	0.71	Not Detected	2.9	Not Detected
cis-1,2-Dichloroethene	0.71	Not Detected	2.8	Not Detected
1,1,1-Trichloroethane	0.71	Not Detected	3.9	Not Detected
Trichloroethene	0.71	Not Detected	3.8	Not Detected
Tetrachloroethene	0.71	Not Detected	4.8	Not Detected
trans-1,2-Dichloroethene	0.71	Not Detected	2.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	91	70-130



Client Sample ID: DU35664020910 Lab Duplicate

Lab ID#: 1002271C-45AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021919	Date of Collection:	2/9/10 3:40:00 PM	
Dil. Factor:	1.42	Date of Analysis:	2/19/10 06:55 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.71	Not Detected	1.8	Not Detected
Chloroethane	0.71	Not Detected	1.9	Not Detected
1,1-Dichloroethene	0.71	Not Detected	2.8	Not Detected
Freon 113	0.71	Not Detected	5.4	Not Detected
Methylene Chloride	0.71	Not Detected	2.5	Not Detected
1,1-Dichloroethane	0.71	Not Detected	2.9	Not Detected
cis-1,2-Dichloroethene	0.71	Not Detected	2.8	Not Detected
1,1,1-Trichloroethane	0.71	Not Detected	3.9	Not Detected
Trichloroethene	0.71	Not Detected	3.8	Not Detected
Tetrachloroethene	0.71	Not Detected	4.8	Not Detected
trans-1,2-Dichloroethene	0.71	Not Detected	2.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EN047D020910

Lab ID#: 1002271C-46A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021918	Date of Collection:	2/9/10 3:40:00 PM	
Dil. Factor:	8.57	Date of Analysis:	2/19/10 06:20 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	4.3	Not Detected	11	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
1,1-Dichloroethene	4.3	Not Detected	17	Not Detected
Freon 113	4.3	Not Detected	33	Not Detected
Methylene Chloride	4.3	Not Detected	15	Not Detected
1,1-Dichloroethane	4.3	Not Detected	17	Not Detected
cis-1,2-Dichloroethene	4.3	12	17	48
1,1,1-Trichloroethane	4.3	63	23	350
Trichloroethene	4.3	1200	23	6800
Tetrachloroethene	4.3	Not Detected	29	Not Detected
trans-1,2-Dichloroethene	4.3	Not Detected	17	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	87	70-130



Client Sample ID: EN0418D020910

Lab ID#: 1002271C-47A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022113	Date of Collection:	2/9/10 8:24:00 AM	
Dil. Factor:	1.52	Date of Analysis:	2/21/10 01:32 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	2.2	3.0	8.9
1,1,1-Trichloroethane	0.76	19	4.1	100
Trichloroethene	0.76	240	4.1	1300
Tetrachloroethene	0.76	1.4	5.2	9.8
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	110	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: EN0416S020910

Lab ID#: 1002271C-48A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022114	Date of Collection:	2/9/10 10:00:00 AM	
Dil. Factor:	1.52	Date of Analysis:	2/21/10 02:09 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	129	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: EN0416D020910

Lab ID#: 1002271C-49A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022115	Date of Collection:	2/9/10 10:00:00 AM	
Dil. Factor:	6.20	Date of Analysis:	2/21/10 02:37 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.1	Not Detected	7.9	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	3.1	Not Detected	12	Not Detected
Freon 113	3.1	Not Detected	24	Not Detected
Methylene Chloride	3.1	Not Detected	11	Not Detected
1,1-Dichloroethane	3.1	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	3.1	4.5	12	18
1,1,1-Trichloroethane	3.1	57	17	310
Trichloroethene	3.1	1100	17	6200
Tetrachloroethene	3.1	41	21	280
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	129	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: EN0413S020910

Lab ID#: 1002271C-50A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022209	Date of Collection:	2/9/10 1:40:00 PM	
Dil. Factor:	1.51	Date of Analysis:	2/22/10 11:32 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	16	4.1	88
Trichloroethene	0.76	69	4.0	370
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	78	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN0419S020910

Lab ID#: 1002271C-51A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022210	Date of Collection:	2/9/10 7:54:00 AM	
Dil. Factor:	1.49	Date of Analysis:	2/22/10 12:12 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	0.74	Not Detected	2.0	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	0.74	Not Detected	2.6	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	Not Detected	4.1	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	3.0	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	79	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0419D020910

Lab ID#: 1002271C-52A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022212	Date of Collection:	2/9/10 7:54:00 AM	
Dil. Factor:	1.46	Date of Analysis:	2/22/10 12:58 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	0.73	Not Detected	1.9	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	0.73	Not Detected	2.5	Not Detected
1,1-Dichloroethane	0.73	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.73	1.7	2.9	6.6
1,1,1-Trichloroethane	0.73	3.0	4.0	17
Trichloroethene	0.73	120	3.9	640
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	80	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: DU3052020910

Lab ID#: 1002271C-53A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022213	Date of Collection:	2/9/10 7:54:00 AM	
Dil. Factor:	1.46	Date of Analysis:	2/22/10 01:23 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	0.73	Not Detected	1.9	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	0.73	Not Detected	2.5	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	Not Detected	4.0	Not Detected
Trichloroethene	0.73	8.4	3.9	45
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	79	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0418S020910

Lab ID#: 1002271C-54A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022214	Date of Collection:	2/9/10 8:24:00 AM	
Dil. Factor:	1.51	Date of Analysis:	2/22/10 01:46 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	81	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN041S021010

Lab ID#: 1002271C-55A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022215	Date of Collection:	2/10/10 9:20:00 AM	
Dil. Factor:	1.61	Date of Analysis:	2/22/10 02:09 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	Not Detected	4.4	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
Tetrachloroethene	0.80	Not Detected	5.5	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	83	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN041S021010 Lab Duplicate

Lab ID#: 1002271C-55AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022216	Date of Collection:	2/10/10 9:20:00 AM	
Dil. Factor:	1.61	Date of Analysis:	2/22/10 02:32 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	Not Detected	4.4	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
Tetrachloroethene	0.80	Not Detected	5.5	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	84	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN041D021010

Lab ID#: 1002271C-56A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022217	Date of Collection:	2/10/10 9:16:00 AM	
Dil. Factor:	1.68	Date of Analysis:	2/22/10 02:56 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	2.0	4.6	11
Trichloroethene	0.84	18	4.5	99
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
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	84	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN042S021010

Lab ID#: 1002271C-57A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022219	Date of Collection:	2/10/10 11:14:00 AM	
Dil. Factor:	1.68	Date of Analysis:	2/22/10 05:00 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	42	5.7	290
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	82	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271C-58A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021909	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/19/10 11:56 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	88	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271C-58B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022107	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/21/10 10:20 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	118	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271C-58C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022208	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/22/10 10:56 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	78	70-130
Toluene-d8	87	70-130
4-Bromofluorobenzene	93	70-130



Client Sample ID: CCV

Lab ID#: 1002271C-59A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021902	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/19/10 07:35 AM

Compound	%Recovery
Vinyl Chloride	103
Chloroethane	96
1,1-Dichloroethene	88
Freon 113	85
Methylene Chloride	84
1,1-Dichloroethane	86
cis-1,2-Dichloroethene	84
1,1,1-Trichloroethane	97
Trichloroethene	92
Tetrachloroethene	82
trans-1,2-Dichloroethene	88

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: CCV

Lab ID#: 1002271C-59B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022103	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/21/10 08:23 AM

Compound	%Recovery
Vinyl Chloride	120
Chloroethane	96
1,1-Dichloroethene	96
Freon 113	98
Methylene Chloride	104
1,1-Dichloroethane	103
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	115
Trichloroethene	103
Tetrachloroethene	103
trans-1,2-Dichloroethene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: CCV

Lab ID#: 1002271C-59C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022204	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/22/10 08:59 AM

Compound	%Recovery
Vinyl Chloride	87
Chloroethane	74
1,1-Dichloroethene	89
Freon 113	86
Methylene Chloride	79
1,1-Dichloroethane	81
cis-1,2-Dichloroethene	87
1,1,1-Trichloroethane	73
Trichloroethene	80
Tetrachloroethene	85
trans-1,2-Dichloroethene	90

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	81	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: LCS

Lab ID#: 1002271C-60A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021903	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/19/10 08:10 AM

Compound	%Recovery
Vinyl Chloride	100
Chloroethane	96
1,1-Dichloroethene	86
Freon 113	85
Methylene Chloride	84
1,1-Dichloroethane	87
cis-1,2-Dichloroethene	87
1,1,1-Trichloroethane	95
Trichloroethene	91
Tetrachloroethene	86
trans-1,2-Dichloroethene	88

Container Type: NA - Not Applicable

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



Client Sample ID: LCSD

Lab ID#: 1002271C-60AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x021907	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/19/10 10:42 AM

Compound	%Recovery
Vinyl Chloride	98
Chloroethane	95
1,1-Dichloroethene	82
Freon 113	84
Methylene Chloride	84
1,1-Dichloroethane	84
cis-1,2-Dichloroethene	86
1,1,1-Trichloroethane	90
Trichloroethene	90
Tetrachloroethene	85
trans-1,2-Dichloroethene	87

Container Type: NA - Not Applicable

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



Client Sample ID: LCS

Lab ID#: 1002271C-60B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022104	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/21/10 08:50 AM

Compound	%Recovery
Vinyl Chloride	117
Chloroethane	98
1,1-Dichloroethene	87
Freon 113	87
Methylene Chloride	96
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	104
Trichloroethene	97
Tetrachloroethene	95
trans-1,2-Dichloroethene	97

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	121	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	110	70-130



Client Sample ID: LCSD

Lab ID#: 1002271C-60BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022105	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/21/10 09:19 AM

Compound	%Recovery
Vinyl Chloride	109
Chloroethane	93
1,1-Dichloroethene	85
Freon 113	83
Methylene Chloride	89
1,1-Dichloroethane	91
cis-1,2-Dichloroethene	91
1,1,1-Trichloroethane	97
Trichloroethene	93
Tetrachloroethene	91
trans-1,2-Dichloroethene	93

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	108	70-130



Client Sample ID: LCS

Lab ID#: 1002271C-60C

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022203	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/22/10 08:36 AM

Compound	%Recovery
Vinyl Chloride	69 Q
Chloroethane	90
1,1-Dichloroethene	89
Freon 113	81
Methylene Chloride	82
1,1-Dichloroethane	85
cis-1,2-Dichloroethene	97
1,1,1-Trichloroethane	81
Trichloroethene	90
Tetrachloroethene	94
trans-1,2-Dichloroethene	99

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	82	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	92	70-130



Client Sample ID: LCSD

Lab ID#: 1002271C-60CC

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022206	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/22/10 09:45 AM

Compound	%Recovery
Vinyl Chloride	70
Chloroethane	77
1,1-Dichloroethene	86
Freon 113	86
Methylene Chloride	76
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	79
Trichloroethene	86
Tetrachloroethene	92
trans-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	82	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	96	70-130

2/26/2010

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.04
Workorder #: 1002271D

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 2/12/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified 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: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Bryanna Langley
Project Manager

WORK ORDER #: 1002271D

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. #	BCT2755
FAX:		PROJECT #	2755.04 GVP
DATE RECEIVED:	02/12/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	02/26/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
58A	EN042D021010	Modified TO-15	6.0 "Hg	5 psi
59A	EN0425S021010	Modified TO-15	4.5 "Hg	5 psi
60A	EN0425D021010	Modified TO-15	6.0 "Hg	5 psi
60AA	EN0425D021010 Lab Duplicate	Modified TO-15	6.0 "Hg	5 psi
61A	EN0839S021010	Modified TO-15	5.0 "Hg	5 psi
62A	EN0940S021010	Modified TO-15	6.5 "Hg	5 psi
63A	DU1350021010	Modified TO-15	6.0 "Hg	5 psi
64A	EN0431S021010	Modified TO-15	6.5 "Hg	5 psi
65A	EN0431D021010	Modified TO-15	5.0 "Hg	5 psi
66A	EB1358021010	Modified TO-15	5.0 "Hg	5 psi
67A	EN043S021110	Modified TO-15	6.0 "Hg	5 psi
68A	EN043D021110	Modified TO-15	4.5 "Hg	5 psi
69A	EB1734021110	Modified TO-15	4.5 "Hg	5 psi
70A	EN0414S021010	Modified TO-15	1.5 "Hg	5 psi
71A	EN0414D021010	Modified TO-15	3.0 "Hg	5 psi
72A	DU34142021010	Modified TO-15	4.0 "Hg	5 psi
73A	EN0417S021010	Modified TO-15	4.5 "Hg	5 psi

Continued on next page

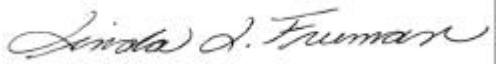
WORK ORDER #: 1002271D

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. #	BCT2755
FAX:		PROJECT #	2755.04 GVP
DATE RECEIVED:	02/12/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	02/26/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
74A	EN0417D021010	Modified TO-15	2.0 "Hg	5 psi
75A	EN0422S021010	Modified TO-15	4.5 "Hg	5 psi
76A	EN0422D021010	Modified TO-15	4.0 "Hg	5 psi
77A	Lab Blank	Modified TO-15	NA	NA
77B	Lab Blank	Modified TO-15	NA	NA
78A	CCV	Modified TO-15	NA	NA
78B	CCV	Modified TO-15	NA	NA
79A	LCS	Modified TO-15	NA	NA
79AA	LCSD	Modified TO-15	NA	NA
79B	LCS	Modified TO-15	NA	NA
79BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 02/26/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15
Sanborn, Head & Associates
Workorder# 1002271D**

Nineteen 1 Liter Summa Canister (100% Certified) samples were received on February 12, 2010. The laboratory performed analysis via modified 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.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) was not relinquished properly on pages 2-5. A signature and date were not provided by the field sampler.

The Chain of Custody (COC) information for sample DU36488021110 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

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.

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



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

Client Sample ID: EN042D021010

Lab ID#: 1002271D-58A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	1.3	4.6	6.9
Trichloroethene	0.84	11	4.5	58
Tetrachloroethene	0.84	1.9	5.7	13

Client Sample ID: EN0425S021010

Lab ID#: 1002271D-59A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.79	1.2	4.2	6.7

Client Sample ID: EN0425D021010

Lab ID#: 1002271D-60A

No Detections Were Found.

Client Sample ID: EN0425D021010 Lab Duplicate

Lab ID#: 1002271D-60AA

No Detections Were Found.

Client Sample ID: EN0839S021010

Lab ID#: 1002271D-61A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.80	23	3.2	90
Trichloroethene	0.80	24	4.3	130
Tetrachloroethene	0.80	150	5.5	1000

Client Sample ID: EN0940S021010

Lab ID#: 1002271D-62A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.86	1.6	3.4	6.2
Trichloroethene	0.86	4.3	4.6	23
Tetrachloroethene	0.86	38	5.8	260



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

Client Sample ID: DU1350021010

Lab ID#: 1002271D-63A

No Detections Were Found.

Client Sample ID: EN0431S021010

Lab ID#: 1002271D-64A

No Detections Were Found.

Client Sample ID: EN0431D021010

Lab ID#: 1002271D-65A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.80	2.2	4.4	12
Trichloroethene	0.80	48	4.3	260

Client Sample ID: EB1358021010

Lab ID#: 1002271D-66A

No Detections Were Found.

Client Sample ID: EN043S021110

Lab ID#: 1002271D-67A

No Detections Were Found.

Client Sample ID: EN043D021110

Lab ID#: 1002271D-68A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.79	1.5	4.2	7.8

Client Sample ID: EB1734021110

Lab ID#: 1002271D-69A

No Detections Were Found.

Client Sample ID: EN0414S021010

Lab ID#: 1002271D-70A



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

Client Sample ID: EN0414S021010

Lab ID#: 1002271D-70A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.70	0.87	3.8	4.7
Trichloroethene	0.70	1.3	3.8	6.8
Tetrachloroethene	0.70	0.79	4.8	5.3

Client Sample ID: EN0414D021010

Lab ID#: 1002271D-71A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.74	6.4	4.1	35
Trichloroethene	0.74	160	4.0	850

Client Sample ID: DU34142021010

Lab ID#: 1002271D-72A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	3.1	22	17	120
Trichloroethene	3.1	620	17	3400

Client Sample ID: EN0417S021010

Lab ID#: 1002271D-73A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.79	18	4.2	95

Client Sample ID: EN0417D021010

Lab ID#: 1002271D-74A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	0.72	0.72 J	2.5	2.5 J
1,1,1-Trichloroethane	0.72	1.8	3.9	10
Trichloroethene	0.72	36	3.9	200



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

Client Sample ID: EN0422S021010

Lab ID#: 1002271D-75A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.79	14	3.1	58
1,1,1-Trichloroethane	0.79	1.7	4.3	9.2
Trichloroethene	0.79	14	4.2	73
trans-1,2-Dichloroethene	0.79	1.4	3.1	5.4

Client Sample ID: EN0422D021010

Lab ID#: 1002271D-76A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.78	0.82	3.1	3.3
cis-1,2-Dichloroethene	0.78	100	3.1	410
1,1,1-Trichloroethane	0.78	4.8	4.2	26
Trichloroethene	0.78	78	4.2	420
trans-1,2-Dichloroethene	0.78	7.3	3.1	29



Client Sample ID: EN042D021010

Lab ID#: 1002271D-58A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022314	Date of Collection:	2/10/10 11:14:00 AM	
Dil. Factor:	1.68	Date of Analysis:	2/23/10 01:07 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	1.3	4.6	6.9
Trichloroethene	0.84	11	4.5	58
Tetrachloroethene	0.84	1.9	5.7	13
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	79	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0425S021010

Lab ID#: 1002271D-59A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022315	Date of Collection:	2/10/10 2:07:00 PM	
Dil. Factor:	1.58	Date of Analysis:	2/23/10 01:30 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	Not Detected	4.3	Not Detected
Trichloroethene	0.79	1.2	4.2	6.7
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	80	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0425D021010

Lab ID#: 1002271D-60A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022316	Date of Collection:	2/10/10 2:46:00 PM	
Dil. Factor:	1.68	Date of Analysis:	2/23/10 01:53 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
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	83	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0425D021010 Lab Duplicate

Lab ID#: 1002271D-60AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022317	Date of Collection:	2/10/10 2:46:00 PM	
Dil. Factor:	1.68	Date of Analysis:	2/23/10 02:16 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
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	82	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0839S021010

Lab ID#: 1002271D-61A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022318	Date of Collection:	2/10/10 2:32:00 PM	
Dil. Factor:	1.61	Date of Analysis:	2/23/10 02:39 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	23	3.2	90
1,1,1-Trichloroethane	0.80	Not Detected	4.4	Not Detected
Trichloroethene	0.80	24	4.3	130
Tetrachloroethene	0.80	150	5.5	1000
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	83	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0940S021010

Lab ID#: 1002271D-62A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022319	Date of Collection:	2/10/10 2:23:00 PM	
Dil. Factor:	1.71	Date of Analysis:	2/23/10 03:06 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	0.86	Not Detected	2.2	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	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	1.6	3.4	6.2
1,1,1-Trichloroethane	0.86	Not Detected	4.7	Not Detected
Trichloroethene	0.86	4.3	4.6	23
Tetrachloroethene	0.86	38	5.8	260
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	83	70-130
Toluene-d8	87	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: DU1350021010

Lab ID#: 1002271D-63A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022320	Date of Collection:	2/10/10 2:48:00 PM	
Dil. Factor:	1.68	Date of Analysis:	2/23/10 04:07 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
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	82	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0431S021010

Lab ID#: 1002271D-64A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022321	Date of Collection:	2/10/10 4:30:00 PM	
Dil. Factor:	1.71	Date of Analysis:	2/23/10 04:30 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	0.86	Not Detected	2.2	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	0.86	Not Detected	3.0	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	Not Detected	4.6	Not Detected
Tetrachloroethene	0.86	Not Detected	5.8	Not Detected
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	83	70-130
Toluene-d8	89	70-130
4-Bromofluorobenzene	95	70-130



Client Sample ID: EN0431D021010

Lab ID#: 1002271D-65A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022322	Date of Collection:	2/10/10 4:37:00 PM	
Dil. Factor:	1.61	Date of Analysis:	2/23/10 04:56 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	2.2	4.4	12
Trichloroethene	0.80	48	4.3	260
Tetrachloroethene	0.80	Not Detected	5.5	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	84	70-130
Toluene-d8	87	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EB1358021010

Lab ID#: 1002271D-66A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022323	Date of Collection:	2/10/10 5:09:00 PM	
Dil. Factor:	1.61	Date of Analysis:	2/23/10 05:19 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	Not Detected	4.4	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
Tetrachloroethene	0.80	Not Detected	5.5	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	85	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN043S021110

Lab ID#: 1002271D-67A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022324	Date of Collection:	2/11/10 9:20:00 AM	
Dil. Factor:	1.68	Date of Analysis:	2/23/10 05:49 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
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	84	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN043D021110

Lab ID#: 1002271D-68A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022328	Date of Collection:	2/11/10 9:25:00 AM	
Dil. Factor:	1.58	Date of Analysis:	2/23/10 07:52 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	Not Detected	4.3	Not Detected
Trichloroethene	0.79	1.5	4.2	7.8
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	86	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EB1734021110

Lab ID#: 1002271D-69A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022329	Date of Collection:	2/11/10 9:55:00 AM	
Dil. Factor:	1.58	Date of Analysis:	2/23/10 08:15 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	Not Detected	4.3	Not Detected
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	86	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	95	70-130



Client Sample ID: EN0414S021010

Lab ID#: 1002271D-70A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022332	Date of Collection:	2/10/10 8:18:00 AM	
Dil. Factor:	1.41	Date of Analysis:	2/23/10 09:23 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	0.70	Not Detected	1.9	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	0.70	Not Detected	2.4	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	0.87	3.8	4.7
Trichloroethene	0.70	1.3	3.8	6.8
Tetrachloroethene	0.70	0.79	4.8	5.3
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	88	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN0414D021010

Lab ID#: 1002271D-71A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022408	Date of Collection:	2/10/10 8:18:00 AM	
Dil. Factor:	1.49	Date of Analysis:	2/24/10 12:55 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	0.74	Not Detected	2.0	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	0.74	Not Detected	2.6	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	6.4	4.1	35
Trichloroethene	0.74	160	4.0	850
Tetrachloroethene	0.74	Not Detected	5.0	Not Detected
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	95	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: DU34142021010

Lab ID#: 1002271D-72A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022333	Date of Collection:	2/10/10 8:18:00 AM	
Dil. Factor:	6.20	Date of Analysis:	2/23/10 09:46 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.1	Not Detected	7.9	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	3.1	Not Detected	12	Not Detected
Freon 113	3.1	Not Detected	24	Not Detected
Methylene Chloride	3.1	Not Detected	11	Not Detected
1,1-Dichloroethane	3.1	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	3.1	Not Detected	12	Not Detected
1,1,1-Trichloroethane	3.1	22	17	120
Trichloroethene	3.1	620	17	3400
Tetrachloroethene	3.1	Not Detected	21	Not Detected
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	89	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: EN0417S021010

Lab ID#: 1002271D-73A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022409	Date of Collection:	2/10/10 8:53:00 AM	
Dil. Factor:	1.58	Date of Analysis:	2/24/10 01:24 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	Not Detected	4.3	Not Detected
Trichloroethene	0.79	18	4.2	95
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	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0417D021010

Lab ID#: 1002271D-74A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022410	Date of Collection:	2/10/10 8:53:00 AM	
Dil. Factor:	1.44	Date of Analysis:	2/24/10 01:59 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	0.72	Not Detected	1.9	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	0.72	0.72 J	2.5	2.5 J
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	1.8	3.9	10
Trichloroethene	0.72	36	3.9	200
Tetrachloroethene	0.72	Not Detected	4.9	Not Detected
trans-1,2-Dichloroethene	0.72	Not Detected	2.8	Not Detected

J = Estimated value.

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

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



Client Sample ID: EN0422S021010

Lab ID#: 1002271D-75A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022331	Date of Collection:	2/10/10 12:22:00 PM	
Dil. Factor:	1.58	Date of Analysis:	2/23/10 09:00 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.79	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.79	14	3.1	58
1,1,1-Trichloroethane	0.79	1.7	4.3	9.2
Trichloroethene	0.79	14	4.2	73
Tetrachloroethene	0.79	Not Detected	5.4	Not Detected
trans-1,2-Dichloroethene	0.79	1.4	3.1	5.4

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	87	70-130
4-Bromofluorobenzene	95	70-130



Client Sample ID: EN0422D021010

Lab ID#: 1002271D-76A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022330	Date of Collection:	2/10/10 12:22:00 PM	
Dil. Factor:	1.55	Date of Analysis:	2/23/10 08:38 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.78	0.82	3.1	3.3
cis-1,2-Dichloroethene	0.78	100	3.1	410
1,1,1-Trichloroethane	0.78	4.8	4.2	26
Trichloroethene	0.78	78	4.2	420
Tetrachloroethene	0.78	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.78	7.3	3.1	29

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	95	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271D-77A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022313	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/23/10 12:36 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	81	70-130
Toluene-d8	88	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271D-77B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022407	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/24/10 12:15 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	96	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: CCV

Lab ID#: 1002271D-78A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022308	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/23/10 10:27 AM

Compound	%Recovery
Vinyl Chloride	92
Chloroethane	92
1,1-Dichloroethene	97
Freon 113	95
Methylene Chloride	83
1,1-Dichloroethane	91
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	83
Trichloroethene	89
Tetrachloroethene	96
trans-1,2-Dichloroethene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	81	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: CCV

Lab ID#: 1002271D-78B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022402	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/24/10 09:21 AM

Compound	%Recovery
Vinyl Chloride	109
Chloroethane	100
1,1-Dichloroethene	100
Freon 113	103
Methylene Chloride	97
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	104
Trichloroethene	107
Tetrachloroethene	107
trans-1,2-Dichloroethene	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: LCS

Lab ID#: 1002271D-79A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022309	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/23/10 10:50 AM

Compound	%Recovery
Vinyl Chloride	81
Chloroethane	82
1,1-Dichloroethene	84
Freon 113	87
Methylene Chloride	76
1,1-Dichloroethane	87
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	81
Trichloroethene	86
Tetrachloroethene	94
trans-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	82	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: LCSD

Lab ID#: 1002271D-79AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3022310	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/23/10 11:13 AM

Compound	%Recovery
Vinyl Chloride	80
Chloroethane	83
1,1-Dichloroethene	84
Freon 113	84
Methylene Chloride	74
1,1-Dichloroethane	86
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	79
Trichloroethene	85
Tetrachloroethene	93
trans-1,2-Dichloroethene	95

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: LCS

Lab ID#: 1002271D-79B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022403	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/24/10 10:06 AM

Compound	%Recovery
Vinyl Chloride	105
Chloroethane	94
1,1-Dichloroethene	85
Freon 113	88
Methylene Chloride	84
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	99
Trichloroethene	100
Tetrachloroethene	100
trans-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: LCSD

Lab ID#: 1002271D-79BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022404	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/24/10 10:33 AM

Compound	%Recovery
Vinyl Chloride	105
Chloroethane	94
1,1-Dichloroethene	86
Freon 113	87
Methylene Chloride	84
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	95
1,1,1-Trichloroethane	97
Trichloroethene	96
Tetrachloroethene	99
trans-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

2/26/2010

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.04
Workorder #: 1002271E

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 2/12/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified 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: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Bryanna Langley
Project Manager

WORK ORDER #: 1002271E

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. #	BCT2755
FAX:		PROJECT #	2755.04 GVP
DATE RECEIVED:	02/12/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	02/26/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
77A	EN0423S021010	Modified TO-15	5.5 "Hg	5 psi
77AA	EN0423S021010 Lab Duplicate	Modified TO-15	5.5 "Hg	5 psi
78A	EN0423D021010	Modified TO-15	5.0 "Hg	5 psi
79A	EN0412S021010	Modified TO-15	4.5 "Hg	5 psi
80A	EN0412D021010	Modified TO-15	4.5 "Hg	5 psi
81A	EN0533S021110	Modified TO-15	2.5 "Hg	5 psi
82A	EN0533D021110	Modified TO-15	3.5 "Hg	5 psi
83A	DU36488021110	Modified TO-15	3.5 "Hg	5 psi
84A	Lab Blank	Modified TO-15	NA	NA
84B	Lab Blank	Modified TO-15	NA	NA
85A	CCV	Modified TO-15	NA	NA
85B	CCV	Modified TO-15	NA	NA
86A	LCS	Modified TO-15	NA	NA
86AA	LCSD	Modified TO-15	NA	NA
86B	LCS	Modified TO-15	NA	NA
86BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 02/26/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15
Sanborn, Head & Associates
Workorder# 1002271E**

Seven 1 Liter Summa Canister (100% Certified) samples were received on February 12, 2010. The laboratory performed analysis via modified 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.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) was not relinquished properly on pages 2-5. 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.

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



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

Client Sample ID: EN0423S021010

Lab ID#: 1002271E-77A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.82	1.7	5.6	12

Client Sample ID: EN0423S021010 Lab Duplicate

Lab ID#: 1002271E-77AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.82	1.3	5.6	8.8

Client Sample ID: EN0423D021010

Lab ID#: 1002271E-78A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.80	5.2	3.2	21
cis-1,2-Dichloroethene	0.80	30	3.2	120
Trichloroethene	0.80	92	4.3	490
Tetrachloroethene	0.80	2.1	5.5	14
trans-1,2-Dichloroethene	0.80	1.2	3.2	4.8

Client Sample ID: EN0412S021010

Lab ID#: 1002271E-79A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	3.6	4.3	20
Trichloroethene	0.79	86	4.2	460

Client Sample ID: EN0412D021010

Lab ID#: 1002271E-80A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	6.7	4.3	37
Trichloroethene	0.79	140	4.2	770



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

Client Sample ID: EN0533S021110

Lab ID#: 1002271E-81A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.73	3.0	3.9	16

Client Sample ID: EN0533D021110

Lab ID#: 1002271E-82A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	4.3	7.3	17	29
1,1,1-Trichloroethane	4.3	63	24	340
Trichloroethene	4.3	1400	23	7500
Tetrachloroethene	4.3	43	29	290

Client Sample ID: DU36488021110

Lab ID#: 1002271E-83A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	4.3	6.8	17	27
1,1,1-Trichloroethane	4.3	66	24	360
Trichloroethene	4.3	1500	23	8100
Tetrachloroethene	4.3	47	29	320



Client Sample ID: EN0423S021010

Lab ID#: 1002271E-77A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022016	Date of Collection:	2/10/10 1:00:00 PM	
Dil. Factor:	1.64	Date of Analysis:	2/20/10 03:38 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	0.82	Not Detected	2.2	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	0.82	Not Detected	2.8	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	1.7	5.6	12
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	125	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: EN0423S021010 Lab Duplicate

Lab ID#: 1002271E-77AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022017	Date of Collection:	2/10/10 1:00:00 PM	
Dil. Factor:	1.64	Date of Analysis:	2/20/10 04:06 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	0.82	Not Detected	2.2	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	0.82	Not Detected	2.8	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	1.3	5.6	8.8
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	128	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: EN0423D021010

Lab ID#: 1002271E-78A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022018	Date of Collection:	2/10/10 1:00:00 PM	
Dil. Factor:	1.61	Date of Analysis:	2/20/10 04:34 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.80	5.2	3.2	21
cis-1,2-Dichloroethene	0.80	30	3.2	120
1,1,1-Trichloroethane	0.80	Not Detected	4.4	Not Detected
Trichloroethene	0.80	92	4.3	490
Tetrachloroethene	0.80	2.1	5.5	14
trans-1,2-Dichloroethene	0.80	1.2	3.2	4.8

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	127	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	105	70-130



Client Sample ID: EN0412S021010

Lab ID#: 1002271E-79A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022019	Date of Collection:	2/10/10 3:28:00 PM	
Dil. Factor:	1.58	Date of Analysis:	2/20/10 05:00 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	3.6	4.3	20
Trichloroethene	0.79	86	4.2	460
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	128	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	105	70-130



Client Sample ID: EN0412D021010

Lab ID#: 1002271E-80A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022020	Date of Collection:	2/10/10 3:28:00 PM	
Dil. Factor:	1.58	Date of Analysis:	2/20/10 05:43 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	6.7	4.3	37
Trichloroethene	0.79	140	4.2	770
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	130	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: EN0533S021110

Lab ID#: 1002271E-81A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022021	Date of Collection:	2/11/10 7:57:00 AM	
Dil. Factor:	1.46	Date of Analysis:	2/20/10 06:25 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	0.73	Not Detected	1.9	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	0.73	Not Detected	2.5	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	Not Detected	4.0	Not Detected
Trichloroethene	0.73	3.0	3.9	16
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	129	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: EN0533D021110

Lab ID#: 1002271E-82A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022109	Date of Collection:	2/11/10 7:57:00 AM	
Dil. Factor:	8.68	Date of Analysis:	2/21/10 11:23 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	4.3	Not Detected	11	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
1,1-Dichloroethene	4.3	Not Detected	17	Not Detected
Freon 113	4.3	Not Detected	33	Not Detected
Methylene Chloride	4.3	Not Detected	15	Not Detected
1,1-Dichloroethane	4.3	Not Detected	18	Not Detected
cis-1,2-Dichloroethene	4.3	7.3	17	29
1,1,1-Trichloroethane	4.3	63	24	340
Trichloroethene	4.3	1400	23	7500
Tetrachloroethene	4.3	43	29	290
trans-1,2-Dichloroethene	4.3	Not Detected	17	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	124	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: DU36488021110

Lab ID#: 1002271E-83A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022111	Date of Collection:	2/11/10 7:57:00 AM	
Dil. Factor:	8.68	Date of Analysis:	2/21/10 12:38 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	4.3	Not Detected	11	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
1,1-Dichloroethene	4.3	Not Detected	17	Not Detected
Freon 113	4.3	Not Detected	33	Not Detected
Methylene Chloride	4.3	Not Detected	15	Not Detected
1,1-Dichloroethane	4.3	Not Detected	18	Not Detected
cis-1,2-Dichloroethene	4.3	6.8	17	27
1,1,1-Trichloroethane	4.3	66	24	360
Trichloroethene	4.3	1500	23	8100
Tetrachloroethene	4.3	47	29	320
trans-1,2-Dichloroethene	4.3	Not Detected	17	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271E-84A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022006	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/20/10 10:12 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	105	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: Lab Blank

Lab ID#: 1002271E-84B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022107	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	2/21/10 10:20 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	118	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: CCV

Lab ID#: 1002271E-85A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/20/10 08:45 AM

Compound	%Recovery
Vinyl Chloride	121
Chloroethane	98
1,1-Dichloroethene	102
Freon 113	103
Methylene Chloride	106
1,1-Dichloroethane	106
cis-1,2-Dichloroethene	100
1,1,1-Trichloroethane	117
Trichloroethene	111
Tetrachloroethene	109
trans-1,2-Dichloroethene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	109	70-130



Client Sample ID: CCV

Lab ID#: 1002271E-85B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022103	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/21/10 08:23 AM

Compound	%Recovery
Vinyl Chloride	120
Chloroethane	96
1,1-Dichloroethene	96
Freon 113	98
Methylene Chloride	104
1,1-Dichloroethane	103
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	115
Trichloroethene	103
Tetrachloroethene	103
trans-1,2-Dichloroethene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: LCS

Lab ID#: 1002271E-86A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/20/10 09:18 AM

Compound	%Recovery
Vinyl Chloride	110
Chloroethane	93
1,1-Dichloroethene	85
Freon 113	83
Methylene Chloride	90
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	93
1,1,1-Trichloroethane	98
Trichloroethene	93
Tetrachloroethene	90
trans-1,2-Dichloroethene	91

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: LCSD

Lab ID#: 1002271E-86AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022005	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/20/10 09:42 AM

Compound	%Recovery
Vinyl Chloride	102
Chloroethane	88
1,1-Dichloroethene	79
Freon 113	78
Methylene Chloride	84
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	87
1,1,1-Trichloroethane	92
Trichloroethene	89
Tetrachloroethene	86
trans-1,2-Dichloroethene	86

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	108	70-130



Client Sample ID: LCS

Lab ID#: 1002271E-86B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022104	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/21/10 08:50 AM

Compound	%Recovery
Vinyl Chloride	117
Chloroethane	98
1,1-Dichloroethene	87
Freon 113	87
Methylene Chloride	96
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	104
Trichloroethene	97
Tetrachloroethene	95
trans-1,2-Dichloroethene	97

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	121	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	110	70-130



Client Sample ID: LCSD

Lab ID#: 1002271E-86BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022105	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/21/10 09:19 AM

Compound	%Recovery
Vinyl Chloride	109
Chloroethane	93
1,1-Dichloroethene	85
Freon 113	83
Methylene Chloride	89
1,1-Dichloroethane	91
cis-1,2-Dichloroethene	91
1,1,1-Trichloroethane	97
Trichloroethene	93
Tetrachloroethene	91
trans-1,2-Dichloroethene	93

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	108	70-130

WORK ORDER #: 1004521A

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. #	2755.04
FAX:		PROJECT #	2755.04 GVP
DATE RECEIVED:	04/23/2010	CONTACT:	Ausha Scott
DATE COMPLETED:	05/07/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	EN0534S041910	Modified TO-15	4.0 "Hg	5 psi
02A	EN0534D041910	Modified TO-15	4.0 "Hg	5 psi
03A	EN0417S041910	Modified TO-15	5.5 "Hg	5 psi
04A	DU2052041910	Modified TO-15	6.0 "Hg	5 psi
05A	EN0417D041910	Modified TO-15	5.0 "Hg	5 psi
06A	EN0414S041910	Modified TO-15	5.0 "Hg	5 psi
07A	EN0414D041910	Modified TO-15	5.0 "Hg	5 psi
08A	DU3299041910	Modified TO-15	7.5 "Hg	5 psi
09A	EN0533S041910	Modified TO-15	5.0 "Hg	5 psi
09AA	EN0533S041910 Lab Duplicate	Modified TO-15	5.0 "Hg	5 psi
10A	EN0533D041910	Modified TO-15	5.0 "Hg	5 psi
10AA	EN0533D041910 Lab Duplicate	Modified TO-15	5.0 "Hg	5 psi
11A	EN0413S041910	Modified TO-15	5.5 "Hg	5 psi
12A	EN0413D041910	Modified TO-15	3.5 "Hg	5 psi
13A	EN0412S041910	Modified TO-15	4.5 "Hg	5 psi
14A	EN0412D041910	Modified TO-15	5.5 "Hg	5 psi
15A	EN047S041910	Modified TO-15	5.5 "Hg	5 psi

Continued on next page

WORK ORDER #: 1004521A

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. #	2755.04
FAX:		PROJECT #	2755.04 GVP
DATE RECEIVED:	04/23/2010	CONTACT:	Ausha Scott
DATE COMPLETED:	05/07/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
16A	EN047D041910	Modified TO-15	6.0 "Hg	5 psi
17A	EB33716041910	Modified TO-15	3.0 "Hg	5 psi
18A	EN042S04192010	Modified TO-15	5.0 "Hg	5 psi
19A	EN042D04192010	Modified TO-15	5.5 "Hg	5 psi
20A	EN0430S04192010	Modified TO-15	5.5 "Hg	5 psi
21A	Lab Blank	Modified TO-15	NA	NA
22A	CCV	Modified TO-15	NA	NA
23A	LCS	Modified TO-15	NA	NA
23AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 05/07/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE
Modified TO-15
Sanborn, Head & Associates
Workorder# 1004521A**

Twenty 1 Liter Summa Canister (100% Certified) samples were received on April 23, 2010. The laboratory performed analysis via modified 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.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit exceedences and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

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.

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



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

Client Sample ID: EN0534S041910

Lab ID#: 1004521A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.78	0.90	4.2	4.9

Client Sample ID: EN0534D041910

Lab ID#: 1004521A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.78	2.2	4.2	12
Trichloroethene	0.78	28	4.2	150
Tetrachloroethene	0.78	2.2	5.2	15

Client Sample ID: EN0417S041910

Lab ID#: 1004521A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.82	31	4.4	170

Client Sample ID: DU2052041910

Lab ID#: 1004521A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.84	32	4.5	170

Client Sample ID: EN0417D041910

Lab ID#: 1004521A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.80	4.4	4.3	24
Tetrachloroethene	0.80	40	5.5	270

Client Sample ID: EN0414S041910

Lab ID#: 1004521A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0414S041910

Lab ID#: 1004521A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.80	1.3	4.4	7.1
Trichloroethene	0.80	2.2	4.3	12

Client Sample ID: EN0414D041910

Lab ID#: 1004521A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.3	15	7.0	82
Trichloroethene	1.3	500	6.9	2700

Client Sample ID: DU3299041910

Lab ID#: 1004521A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.2	19	6.5	100
Trichloroethene	1.2	480	6.4	2600

Client Sample ID: EN0533S041910

Lab ID#: 1004521A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.80	6.1	4.3	33
Tetrachloroethene	0.80	0.83	5.5	5.6

Client Sample ID: EN0533S041910 Lab Duplicate

Lab ID#: 1004521A-09AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	3.2	6.1	17	33

Client Sample ID: EN0533D041910

Lab ID#: 1004521A-10A



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

Client Sample ID: EN0533D041910

Lab ID#: 1004521A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	3.2	5.7	13	23
1,1,1-Trichloroethane	3.2	45	18	250
Trichloroethene	3.2	990	17	5300
Tetrachloroethene	3.2	40	22	270

Client Sample ID: EN0533D041910 Lab Duplicate

Lab ID#: 1004521A-10AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	3.2	5.7	13	22
1,1,1-Trichloroethane	3.2	43	18	230
Trichloroethene	3.2	990	17	5300
Tetrachloroethene	3.2	41	22	280

Client Sample ID: EN0413S041910

Lab ID#: 1004521A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	30	4.5	170
Trichloroethene	0.82	130	4.4	700

Client Sample ID: EN0413D041910

Lab ID#: 1004521A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.76	2.8	4.1	15
Trichloroethene	0.76	26	4.1	140
Tetrachloroethene	0.76	1.0	5.2	7.2

Client Sample ID: EN0412S041910

Lab ID#: 1004521A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	2.6	4.3	14



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

Client Sample ID: EN0412S041910

Lab ID#: 1004521A-13A

Trichloroethene	0.79	77	4.2	420
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Client Sample ID: EN0412D041910

Lab ID#: 1004521A-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	2.8	4.5	15
Trichloroethene	0.82	80	4.4	430

Client Sample ID: EN047S041910

Lab ID#: 1004521A-15A

No Detections Were Found.

Client Sample ID: EN047D041910

Lab ID#: 1004521A-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	2.4	9.9	9.5	39
1,1,1-Trichloroethane	2.4	43	13	240
Trichloroethene	2.4	900	13	4800

Client Sample ID: EB33716041910

Lab ID#: 1004521A-17A

No Detections Were Found.

Client Sample ID: EN042S04192010

Lab ID#: 1004521A-18A

No Detections Were Found.

Client Sample ID: EN042D04192010

Lab ID#: 1004521A-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	1.2	4.5	6.7
Trichloroethene	0.82	13	4.4	72



Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN042D04192010

Lab ID#: 1004521A-19A

Tetrachloroethene	0.82	1.9	5.6	13
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Client Sample ID: EN0430S04192010

Lab ID#: 1004521A-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	0.90	4.5	4.9
Trichloroethene	0.82	99	4.4	530



Client Sample ID: EN0534S041910

Lab ID#: 1004521A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042707	Date of Collection:	4/19/10 9:48:00 AM	
Dil. Factor:	1.55	Date of Analysis:	4/27/10 10:49 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	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	0.90	4.2	4.9
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	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0534D041910

Lab ID#: 1004521A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042708	Date of Collection:	4/19/10 9:48:00 AM	
Dil. Factor:	1.55	Date of Analysis:	4/27/10 11:09 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	0.78	Not Detected	2.0	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	0.78	Not Detected	2.7	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	2.2	4.2	12
Trichloroethene	0.78	28	4.2	150
Tetrachloroethene	0.78	2.2	5.2	15
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	101	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0417S041910

Lab ID#: 1004521A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042709	Date of Collection:	4/19/10 12:34:00 PM	
Dil. Factor:	1.64	Date of Analysis:	4/27/10 11:29 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	0.82	Not Detected	2.2	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	0.82	Not Detected	2.8	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	31	4.4	170
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	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: DU2052041910

Lab ID#: 1004521A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042710	Date of Collection:	4/19/10 12:34:00 PM	
Dil. Factor:	1.68	Date of Analysis:	4/27/10 11:50 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.84	Not Detected	2.1	Not Detected
Chloroethane	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	Not Detected	4.6	Not Detected
Trichloroethene	0.84	32	4.5	170
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
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	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0417D041910

Lab ID#: 1004521A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042711	Date of Collection:	4/19/10 11:33:00 AM	
Dil. Factor:	1.61	Date of Analysis:	4/27/10 12:15 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	Not Detected	4.4	Not Detected
Trichloroethene	0.80	4.4	4.3	24
Tetrachloroethene	0.80	40	5.5	270
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	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0414S041910

Lab ID#: 1004521A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042712	Date of Collection:	4/19/10 12:06:00 PM	
Dil. Factor:	1.61	Date of Analysis:	4/27/10 12:36 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	1.3	4.4	7.1
Trichloroethene	0.80	2.2	4.3	12
Tetrachloroethene	0.80	Not Detected	5.5	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	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0414D041910

Lab ID#: 1004521A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042713	Date of Collection:	4/19/10 12:59:00 PM	
Dil. Factor:	2.58	Date of Analysis:	4/27/10 01:18 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
Chloroethane	1.3	Not Detected	3.4	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Freon 113	1.3	Not Detected	9.9	Not Detected
Methylene Chloride	1.3	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
1,1,1-Trichloroethane	1.3	15	7.0	82
Trichloroethene	1.3	500	6.9	2700
Tetrachloroethene	1.3	Not Detected	8.8	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	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	98	70-130



Client Sample ID: DU3299041910

Lab ID#: 1004521A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042721	Date of Collection:	4/19/10 12:59:00 PM	
Dil. Factor:	2.39	Date of Analysis:	4/27/10 04:04 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	1.2	Not Detected	3.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Freon 113	1.2	Not Detected	9.2	Not Detected
Methylene Chloride	1.2	Not Detected	4.2	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	19	6.5	100
Trichloroethene	1.2	480	6.4	2600
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	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0533S041910

Lab ID#: 1004521A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042725	Date of Collection:	4/19/10 3:01:00 PM	
Dil. Factor:	1.61	Date of Analysis:	4/27/10 05:31 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	Not Detected	4.4	Not Detected
Trichloroethene	0.80	6.1	4.3	33
Tetrachloroethene	0.80	0.83	5.5	5.6
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	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0533S041910 Lab Duplicate

Lab ID#: 1004521A-09AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042723	Date of Collection:	4/19/10 3:01:00 PM	
Dil. Factor:	6.44	Date of Analysis:	4/27/10 04:52 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.2	Not Detected	8.2	Not Detected
Chloroethane	3.2	Not Detected	8.5	Not Detected
1,1-Dichloroethene	3.2	Not Detected	13	Not Detected
Freon 113	3.2	Not Detected	25	Not Detected
Methylene Chloride	3.2	Not Detected	11	Not Detected
1,1-Dichloroethane	3.2	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	3.2	Not Detected	13	Not Detected
1,1,1-Trichloroethane	3.2	Not Detected	18	Not Detected
Trichloroethene	3.2	6.1	17	33
Tetrachloroethene	3.2	Not Detected	22	Not Detected
trans-1,2-Dichloroethene	3.2	Not Detected	13	Not Detected

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

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



Client Sample ID: EN0533D041910

Lab ID#: 1004521A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042727	Date of Collection:	4/19/10 3:01:00 PM	
Dil. Factor:	6.44	Date of Analysis:	4/27/10 06:34 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.2	Not Detected	8.2	Not Detected
Chloroethane	3.2	Not Detected	8.5	Not Detected
1,1-Dichloroethene	3.2	Not Detected	13	Not Detected
Freon 113	3.2	Not Detected	25	Not Detected
Methylene Chloride	3.2	Not Detected	11	Not Detected
1,1-Dichloroethane	3.2	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	3.2	5.7	13	23
1,1,1-Trichloroethane	3.2	45	18	250
Trichloroethene	3.2	990	17	5300
Tetrachloroethene	3.2	40	22	270
trans-1,2-Dichloroethene	3.2	Not Detected	13	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	99	70-130



Client Sample ID: EN0533D041910 Lab Duplicate

Lab ID#: 1004521A-10AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042728	Date of Collection:	4/19/10 3:01:00 PM	
Dil. Factor:	6.44	Date of Analysis:	4/27/10 07:00 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.2	Not Detected	8.2	Not Detected
Chloroethane	3.2	Not Detected	8.5	Not Detected
1,1-Dichloroethene	3.2	Not Detected	13	Not Detected
Freon 113	3.2	Not Detected	25	Not Detected
Methylene Chloride	3.2	Not Detected	11	Not Detected
1,1-Dichloroethane	3.2	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	3.2	5.7	13	22
1,1,1-Trichloroethane	3.2	43	18	230
Trichloroethene	3.2	990	17	5300
Tetrachloroethene	3.2	41	22	280
trans-1,2-Dichloroethene	3.2	Not Detected	13	Not Detected

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

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



Client Sample ID: EN0413S041910

Lab ID#: 1004521A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042714	Date of Collection:	4/19/10 4:53:00 PM	
Dil. Factor:	1.64	Date of Analysis:	4/27/10 01:38 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	0.82	Not Detected	2.2	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	0.82	Not Detected	2.8	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	30	4.5	170
Trichloroethene	0.82	130	4.4	700
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	103	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0413D041910

Lab ID#: 1004521A-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042715	Date of Collection:	4/19/10 4:53:00 PM	
Dil. Factor:	1.52	Date of Analysis:	4/27/10 01:59 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	0.76	Not Detected	2.0	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	0.76	Not Detected	2.6	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	2.8	4.1	15
Trichloroethene	0.76	26	4.1	140
Tetrachloroethene	0.76	1.0	5.2	7.2
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	102	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0412S041910

Lab ID#: 1004521A-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042716	Date of Collection:	4/19/10 5:15:00 PM	
Dil. Factor:	1.58	Date of Analysis:	4/27/10 02:19 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	0.79	Not Detected	2.1	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	0.79	Not Detected	2.7	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	2.6	4.3	14
Trichloroethene	0.79	77	4.2	420
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	101	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0412D041910

Lab ID#: 1004521A-14A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042717	Date of Collection:	4/19/10 5:15:00 PM	
Dil. Factor:	1.64	Date of Analysis:	4/27/10 02:45 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	0.82	Not Detected	2.2	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	0.82	Not Detected	2.8	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	2.8	4.5	15
Trichloroethene	0.82	80	4.4	430
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	103	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN047S041910

Lab ID#: 1004521A-15A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042718	Date of Collection:	4/19/10 6:32:00 PM	
Dil. Factor:	1.64	Date of Analysis:	4/27/10 03:05 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	0.82	Not Detected	2.2	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	0.82	Not Detected	2.8	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	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN047D041910

Lab ID#: 1004521A-16A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042726	Date of Collection:	4/19/10 6:32:00 PM	
Dil. Factor:	4.80	Date of Analysis:	4/27/10 06:14 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.4	Not Detected	6.1	Not Detected
Chloroethane	2.4	Not Detected	6.3	Not Detected
1,1-Dichloroethene	2.4	Not Detected	9.5	Not Detected
Freon 113	2.4	Not Detected	18	Not Detected
Methylene Chloride	2.4	Not Detected	8.3	Not Detected
1,1-Dichloroethane	2.4	Not Detected	9.7	Not Detected
cis-1,2-Dichloroethene	2.4	9.9	9.5	39
1,1,1-Trichloroethane	2.4	43	13	240
Trichloroethene	2.4	900	13	4800
Tetrachloroethene	2.4	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	2.4	Not Detected	9.5	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	98	70-130



Client Sample ID: EB33716041910

Lab ID#: 1004521A-17A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042719	Date of Collection:	4/19/10 7:33:00 PM	
Dil. Factor:	1.49	Date of Analysis:	4/27/10 03:25 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	0.74	Not Detected	2.0	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	0.74	Not Detected	2.6	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	Not Detected	4.1	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	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	101	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN042S04192010

Lab ID#: 1004521A-18A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042720	Date of Collection:	4/19/10 10:05:00 AM	
Dil. Factor:	1.61	Date of Analysis:	4/27/10 03:46 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	Not Detected	4.4	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
Tetrachloroethene	0.80	Not Detected	5.5	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	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN042D04192010

Lab ID#: 1004521A-19A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042722	Date of Collection:	4/19/10 10:02:00 AM	
Dil. Factor:	1.64	Date of Analysis:	4/27/10 04:24 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	0.82	Not Detected	2.2	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	0.82	Not Detected	2.8	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	1.2	4.5	6.7
Trichloroethene	0.82	13	4.4	72
Tetrachloroethene	0.82	1.9	5.6	13
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	101	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0430S04192010

Lab ID#: 1004521A-20A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042724	Date of Collection:	4/19/10 11:38:00 AM	
Dil. Factor:	1.64	Date of Analysis:	4/27/10 05:11 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	0.82	Not Detected	2.2	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	0.82	Not Detected	2.8	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	0.90	4.5	4.9
Trichloroethene	0.82	99	4.4	530
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	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: Lab Blank

Lab ID#: 1004521A-21A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042706	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	4/27/10 10:11 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: CCV

Lab ID#: 1004521A-22A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042702	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/27/10 08:36 AM

Compound	%Recovery
Vinyl Chloride	97
Chloroethane	134 Q
1,1-Dichloroethene	101
Freon 113	101
Methylene Chloride	99
1,1-Dichloroethane	100
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	100
Trichloroethene	101
Tetrachloroethene	101
trans-1,2-Dichloroethene	100

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: LCS

Lab ID#: 1004521A-23A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042703	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/27/10 08:56 AM

Compound	%Recovery
Vinyl Chloride	117
Chloroethane	135 Q
1,1-Dichloroethene	88
Freon 113	94
Methylene Chloride	91
1,1-Dichloroethane	98
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	104
Trichloroethene	102
Tetrachloroethene	101
trans-1,2-Dichloroethene	101

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: LCSD

Lab ID#: 1004521A-23AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	d042704	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/27/10 09:16 AM

Compound	%Recovery
Vinyl Chloride	120
Chloroethane	138 Q
1,1-Dichloroethene	90
Freon 113	96
Methylene Chloride	93
1,1-Dichloroethane	100
cis-1,2-Dichloroethene	103
1,1,1-Trichloroethane	105
Trichloroethene	102
Tetrachloroethene	102
trans-1,2-Dichloroethene	102

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130

5/6/2010

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.04
Workorder #: 1004521B

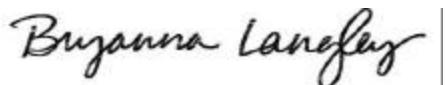
Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 4/23/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified 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: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Bryanna Langley
Project Manager

WORK ORDER #: 1004521B

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. #	2755.03
FAX:		PROJECT #	2755.04 GVP
DATE RECEIVED:	04/23/2010	CONTACT:	Bryanna Langley
DATE COMPLETED:	05/06/2010		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
21A	EN0430D04192010	Modified TO-15	5.5 "Hg	5 psi
22A	EN049S04192010	Modified TO-15	5.5 "Hg	5 psi
23A	EN049D04192010	Modified TO-15	5.5 "Hg	5 psi
23AA	EN049D04192010 Lab Duplicate	Modified TO-15	5.5 "Hg	5 psi
24A	EN0429D04192010	Modified TO-15	6.5 "Hg	5 psi
25A	DU333204192010	Modified TO-15	5.5 "Hg	5 psi
26A	EN0529S04192010	Modified TO-15	6.0 "Hg	5 psi
27A	EN0411S04192010	Modified TO-15	5.0 "Hg	5 psi
28A	EN0411D04192010	Modified TO-15	5.0 "Hg	5 psi
29A	EN0728S04202010	Modified TO-15	6.0 "Hg	5 psi
30A	EN0728D04202010	Modified TO-15	7.0 "Hg	5 psi
31A	EN0637S04202010	Modified TO-15	5.0 "Hg	5 psi
32A	EN0637D04202010	Modified TO-15	6.0 "Hg	5 psi
33A	Lab Blank	Modified TO-15	NA	NA
34A	CCV	Modified TO-15	NA	NA
35A	LCS	Modified TO-15	NA	NA
35AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 05/06/10

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15
Sanborn, Head & Associates
Workorder# 1004521B**

Twelve 1 Liter Summa Canister (100% Certified) samples were received on April 23, 2010. The laboratory performed analysis via modified 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.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

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.

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



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

Client Sample ID: EN0430D04192010

Lab ID#: 1004521B-21A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.82	1.3	3.2	5.2
1,1,1-Trichloroethane	0.82	4.4	4.5	24
Trichloroethene	0.82	110	4.4	570
Tetrachloroethene	0.82	3.9	5.6	26

Client Sample ID: EN049S04192010

Lab ID#: 1004521B-22A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.94	2.3	3.8	9.3
cis-1,2-Dichloroethene	0.94	2.5	3.7	10
1,1,1-Trichloroethane	0.94	14	5.1	78
Trichloroethene	0.94	320	5.0	1700
Tetrachloroethene	0.94	5.9	6.3	40

Client Sample ID: EN049D04192010

Lab ID#: 1004521B-23A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	4.7	57	18	230
Freon 113	4.7	6.5	36	50
1,1-Dichloroethane	4.7	39	19	160
cis-1,2-Dichloroethene	4.7	140	18	550
1,1,1-Trichloroethane	4.7	110	26	590
Trichloroethene	4.7	1600	25	8400
Tetrachloroethene	4.7	82	32	550

Client Sample ID: EN049D04192010 Lab Duplicate

Lab ID#: 1004521B-23AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	3.3	56	13	220
Freon 113	3.3	6.4	25	49
1,1-Dichloroethane	3.3	39	13	160
cis-1,2-Dichloroethene	3.3	140	13	560



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

Client Sample ID: EN049D04192010 Lab Duplicate

Lab ID#: 1004521B-23AA

1,1,1-Trichloroethane	3.3	110	18	580
Trichloroethene	3.3	1500 E	18	8000 E
Tetrachloroethene	3.3	79	22	540

Client Sample ID: EN0429D04192010

Lab ID#: 1004521B-24A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.86	14	4.6	77

Client Sample ID: DU333204192010

Lab ID#: 1004521B-25A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.82	12	4.4	67

Client Sample ID: EN0529S04192010

Lab ID#: 1004521B-26A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	2.2	4.6	12
Trichloroethene	0.84	26	4.5	140
Tetrachloroethene	0.84	0.95	5.7	6.4

Client Sample ID: EN0411S04192010

Lab ID#: 1004521B-27A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.80	1.3	6.2	10
1,1,1-Trichloroethane	0.80	2.0	4.4	11
Trichloroethene	0.80	9.4	4.3	51

Client Sample ID: EN0411D04192010

Lab ID#: 1004521B-28A



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

Client Sample ID: EN0411D04192010

Lab ID#: 1004521B-28A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.80	0.88	3.2	3.5
1,1,1-Trichloroethane	0.80	5.7	4.4	31
Trichloroethene	0.80	230	4.3	1200
Tetrachloroethene	0.80	4.6	5.5	31

Client Sample ID: EN0728S04202010

Lab ID#: 1004521B-29A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.84	1.3	4.5	7.1
Tetrachloroethene	0.84	18	5.7	120

Client Sample ID: EN0728D04202010

Lab ID#: 1004521B-30A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.88	4.2	3.5	16
Trichloroethene	0.88	11	4.7	61
Tetrachloroethene	0.88	170	5.9	1100
trans-1,2-Dichloroethene	0.88	0.92	3.5	3.7

Client Sample ID: EN0637S04202010

Lab ID#: 1004521B-31A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.80	1.0	5.5	6.8

Client Sample ID: EN0637D04202010

Lab ID#: 1004521B-32A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.84	2.8	3.3	11
Trichloroethene	0.84	9.0	4.5	49
Tetrachloroethene	0.84	2.7	5.7	18



Client Sample ID: EN0430D04192010

Lab ID#: 1004521B-21A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042713	Date of Collection:	4/19/10 11:47:00 AM	
Dil. Factor:	1.64	Date of Analysis:	4/27/10 02:49 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	0.82	Not Detected	2.2	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	0.82	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	1.3	3.2	5.2
1,1,1-Trichloroethane	0.82	4.4	4.5	24
Trichloroethene	0.82	110	4.4	570
Tetrachloroethene	0.82	3.9	5.6	26
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	89	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN049S04192010

Lab ID#: 1004521B-22A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042714	Date of Collection:	4/19/10 2:00:00 PM	
Dil. Factor:	1.87	Date of Analysis:	4/27/10 03:18 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.94	Not Detected	2.4	Not Detected
Chloroethane	0.94	Not Detected	2.5	Not Detected
1,1-Dichloroethene	0.94	Not Detected	3.7	Not Detected
Freon 113	0.94	Not Detected	7.2	Not Detected
Methylene Chloride	0.94	Not Detected	3.2	Not Detected
1,1-Dichloroethane	0.94	2.3	3.8	9.3
cis-1,2-Dichloroethene	0.94	2.5	3.7	10
1,1,1-Trichloroethane	0.94	14	5.1	78
Trichloroethene	0.94	320	5.0	1700
Tetrachloroethene	0.94	5.9	6.3	40
trans-1,2-Dichloroethene	0.94	Not Detected	3.7	Not Detected

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

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



Client Sample ID: EN049D04192010

Lab ID#: 1004521B-23A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042716	Date of Collection:	4/19/10 2:04:00 PM	
Dil. Factor:	9.37	Date of Analysis:	4/27/10 04:12 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	4.7	Not Detected	12	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
1,1-Dichloroethene	4.7	57	18	230
Freon 113	4.7	6.5	36	50
Methylene Chloride	4.7	Not Detected	16	Not Detected
1,1-Dichloroethane	4.7	39	19	160
cis-1,2-Dichloroethene	4.7	140	18	550
1,1,1-Trichloroethane	4.7	110	26	590
Trichloroethene	4.7	1600	25	8400
Tetrachloroethene	4.7	82	32	550
trans-1,2-Dichloroethene	4.7	Not Detected	18	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN049D04192010 Lab Duplicate

Lab ID#: 1004521B-23AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042715	Date of Collection:	4/19/10 2:04:00 PM	
Dil. Factor:	6.56	Date of Analysis:	4/27/10 03:45 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.3	Not Detected	8.4	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
1,1-Dichloroethene	3.3	56	13	220
Freon 113	3.3	6.4	25	49
Methylene Chloride	3.3	Not Detected	11	Not Detected
1,1-Dichloroethane	3.3	39	13	160
cis-1,2-Dichloroethene	3.3	140	13	560
1,1,1-Trichloroethane	3.3	110	18	580
Trichloroethene	3.3	1500 E	18	8000 E
Tetrachloroethene	3.3	79	22	540
trans-1,2-Dichloroethene	3.3	Not Detected	13	Not Detected

E = Exceeds instrument calibration range.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0429D04192010

Lab ID#: 1004521B-24A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042717	Date of Collection:	4/19/10 4:47:00 PM	
Dil. Factor:	1.71	Date of Analysis:	4/27/10 04:38 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	0.86	Not Detected	2.2	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	0.86	Not Detected	3.0	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	14	4.6	77
Tetrachloroethene	0.86	Not Detected	5.8	Not Detected
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	93	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: DU333204192010

Lab ID#: 1004521B-25A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042718	Date of Collection:	4/19/10 4:47:00 PM	
Dil. Factor:	1.64	Date of Analysis:	4/27/10 05:04 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	0.82	Not Detected	2.2	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	0.82	Not Detected	2.8	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	12	4.4	67
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	93	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0529S04192010

Lab ID#: 1004521B-26A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042719	Date of Collection:	4/19/10 4:05:00 PM	
Dil. Factor:	1.68	Date of Analysis:	4/27/10 05:27 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	2.2	4.6	12
Trichloroethene	0.84	26	4.5	140
Tetrachloroethene	0.84	0.95	5.7	6.4
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	93	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: EN0411S04192010

Lab ID#: 1004521B-27A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042720	Date of Collection:	4/19/10 6:59:00 PM	
Dil. Factor:	1.61	Date of Analysis:	4/27/10 05:46 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	0.80	Not Detected	2.1	Not Detected
1,1-Dichloroethene	0.80	Not Detected	3.2	Not Detected
Freon 113	0.80	1.3	6.2	10
Methylene Chloride	0.80	Not Detected	2.8	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	2.0	4.4	11
Trichloroethene	0.80	9.4	4.3	51
Tetrachloroethene	0.80	Not Detected	5.5	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	93	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: EN0411D04192010

Lab ID#: 1004521B-28A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042721	Date of Collection:	4/19/10 6:54:00 PM	
Dil. Factor:	1.61	Date of Analysis:	4/27/10 06:17 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	0.88	3.2	3.5
1,1,1-Trichloroethane	0.80	5.7	4.4	31
Trichloroethene	0.80	230	4.3	1200
Tetrachloroethene	0.80	4.6	5.5	31
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	94	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: EN0728S04202010

Lab ID#: 1004521B-29A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042722	Date of Collection:	4/20/10 5:54:00 PM	
Dil. Factor:	1.68	Date of Analysis:	4/27/10 06:36 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	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	Not Detected	4.6	Not Detected
Trichloroethene	0.84	1.3	4.5	7.1
Tetrachloroethene	0.84	18	5.7	120
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	95	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN0728D04202010

Lab ID#: 1004521B-30A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042723	Date of Collection:	4/20/10 5:55:00 PM	
Dil. Factor:	1.75	Date of Analysis:	4/27/10 06:56 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	0.88	Not Detected	2.3	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	0.88	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.88	4.2	3.5	16
1,1,1-Trichloroethane	0.88	Not Detected	4.8	Not Detected
Trichloroethene	0.88	11	4.7	61
Tetrachloroethene	0.88	170	5.9	1100
trans-1,2-Dichloroethene	0.88	0.92	3.5	3.7

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN0637S04202010

Lab ID#: 1004521B-31A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042724	Date of Collection:	4/20/10 6:28:00 PM	
Dil. Factor:	1.61	Date of Analysis:	4/27/10 07:15 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	0.80	Not Detected	2.1	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	0.80	Not Detected	2.8	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	Not Detected	4.4	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
Tetrachloroethene	0.80	1.0	5.5	6.8
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	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: EN0637D04202010

Lab ID#: 1004521B-32A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042725	Date of Collection:	4/20/10 6:15:00 PM	
Dil. Factor:	1.68	Date of Analysis:	4/27/10 07:35 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	0.84	Not Detected	2.2	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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	2.8	3.3	11
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	9.0	4.5	49
Tetrachloroethene	0.84	2.7	5.7	18
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	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: Lab Blank

Lab ID#: 1004521B-33A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042706	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	4/27/10 11:05 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	0.50	Not Detected	1.3	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	0.50	Not Detected	1.7	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	100	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: CCV

Lab ID#: 1004521B-34A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/27/10 08:53 AM

Compound	%Recovery
Vinyl Chloride	93
Chloroethane	91
1,1-Dichloroethene	103
Freon 113	100
Methylene Chloride	83
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	106
1,1,1-Trichloroethane	99
Trichloroethene	100
Tetrachloroethene	103
trans-1,2-Dichloroethene	103

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: LCS

Lab ID#: 1004521B-35A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/27/10 09:36 AM

Compound	%Recovery
Vinyl Chloride	95
Chloroethane	94
1,1-Dichloroethene	94
Freon 113	91
Methylene Chloride	76
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	104
1,1,1-Trichloroethane	98
Trichloroethene	96
Tetrachloroethene	98
trans-1,2-Dichloroethene	103

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: LCSD

Lab ID#: 1004521B-35AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p042704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/27/10 09:55 AM

Compound	%Recovery
Vinyl Chloride	87
Chloroethane	85
1,1-Dichloroethene	88
Freon 113	87
Methylene Chloride	74
1,1-Dichloroethane	85
cis-1,2-Dichloroethene	101
1,1,1-Trichloroethane	96
Trichloroethene	96
Tetrachloroethene	97
trans-1,2-Dichloroethene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	102	70-130

APPENDIX D

PROPOSED MONITORING PROGRAM FOR THE NEXT ANNUAL PERIOD



Appendix D
Proposed Sampling Schedule 2010/2011 Period
 Annual Report - Soil Vapor Monitoring through April 2010
 Comprehensive Operations, Maintenance, and Monitoring Program
 Endicott, New York

Implant	August	December	February	June	Implant	August	December	February	June
EN04-1S	1		1		EN04-26S	1	1	1	1
EN04-1D	1		1		EN04-26D	1	1	1	1
EN04-2S	1		1		EN04-27S	1		1	
EN04-2D	1		1		EN07-28S	1	1	1	1
EN04-3S	1		1		EN07-28I				
EN04-3D	1		1		EN07-28D	1	1	1	1
EN04-4S	1		1		EN05-29S	1	1	1	1
EN04-4D	1		1		EN05-29I				
EN04-5S	1		1		EN04-29D	1	1	1	1
EN04-5D	1		1		EN04-30S	1	1	1	1
EN04-6S	1		1		EN04-30D	1	1	1	1
EN04-6D	1		1		EN04-31S	1		1	
EN04-7S	1	1	1	1	EN04-31D	1		1	
EN04-7D	1	1	1	1	EN04-32S	1		1	
EN04-9S	1		1		EN04-32D	1		1	
EN04-9D	1		1		EN05-33S	1		1	
EN04-10S	1		1		EN05-33I21				
EN04-10D	1		1		EN05-33I29				
EN04-11S	1	1	1	1	EN05-33D	1		1	
EN04-11D	1	1	1	1	EN05-34S	1		1	
EN10-11D	1	1	1	1	EN05-34I				
EN04-12S	1	1	1	1	EN05-34D	1		1	
EN04-12D	1	1	1	1	EN06-35S	1		1	
EN04-13S	1		1		EN06-35I16				
EN04-13D	1		1		EN06-35I24				
EN04-14S	1		1		EN06-35D	1		1	
EN04-14D	1		1		EN06-36S	1		1	
EN04-15S	1		1		EN06-36I21				
EN04-15D	1		1		EN06-36I29				
EN04-16S	1		1		EN06-36D	1		1	
EN04-16D	1		1		EN06-37S	1		1	
EN04-17S	1	1	1	1	EN06-37I				
EN04-17D	1	1	1	1	EN06-37D	1		1	
EN10-17D	1	1	1	1	Totals	71	18	71	18
EN04-18S	1		1						
EN04-18D	1		1						
EN04-19S	1		1						
EN04-19D	1		1						
EN04-20S	1		1						
EN04-20I									
EN04-20D	1		1						
EN04-21S	1		1						
EN04-21D	1		1						
EN04-22S	1		1						
EN04-22D	1		1						
EN04-23S	1		1						
EN04-23I									
EN04-23D	1		1						
EN04-25D	1		1						
EN04-25S	1		1						

QA/QC Samples

	Dec/Jun	Aug/Feb
Samples	18	71
10% Duplicates	2	7
Equipment Blanks	2	4

Notes:

1. This table is intended to summarize the proposed soil vapor implant sampling scope to be executed beginning in August 2010.
2. Newly installed implants EN10-11D and EN10-17D will be sampled in June and August 2010. The data will be evaluated in conjunction with soil profiling data and we will develop a recommendation regarding continued sampling of these locations.