



May 28, 2013
Ref. No. 137015-106

Mr. Jaspal Walia
Project Manager
New York State Department of Environmental Conservation, Region 9
270 Michigan Avenue
Buffalo, NY 14203-2999

Subject: Annual Status Report for 2012
Leica, Inc. Site; Erie County, Cheektowaga, New York
Inactive Hazardous Waste Disposal Site No. 915156

Dear Mr. Walia:

As required by Section VII of the Order of Consent (the "Order") for the subject site, and as specified in Section 6 of the Site Management Plan, dated September 2011, EnergySolutions, LLC will prepare progress reports during the performance phase of the remedial action. This letter shall serve as the written progress report as required by the Order, and as the Periodic Review Report (PRR) as required by the Site Management Plan dated September 2011. The report format is consistent with the items specified in Section VII (i)-(vii) of the Order and the information provided is consistent with the requirements of Section 6.3 of the Site Management Plan.

1. Actions Taken During the Previous Months (January 2012 – December 2012)

1.1 Groundwater Remediation System

To address the contaminated bedrock aquifer, one well pump was installed in each of the two bedrock wells, in MW-11A on July 12, 1999, and in MW-16A on April 7, 1999. Each bedrock well is 6 inches in diameter and was completed to a total depth of approximately 40 feet below grade. Bedrock was encountered at 13.5 feet in MW-11A, and at 12.5 feet in MW-16A. The pumps installed in MW-11A and MW-16A are each set at approximately 28 feet below grade.

Pneumatic pumps were installed in each well and each pump is capable of recovering approximately 7 gallons per minute of groundwater from the bedrock aquifer. The original system design included an air injection compressor which supplied compressed air to the pneumatic pumps. Treatment was conducted by a multi-stage diffuser (MSD) designed to remove VOC contaminants from groundwater prior to discharge into the local sanitary sewer. The air discharge from the MSD was treated using activated carbon and was monitored quarterly to gauge its performance. A sketch of the groundwater system layout as originally installed and operated is included as Appendix A. A copy of the Permit allowing discharge to the Buffalo sewer system is also included in Appendix A.

The pumping system is designed to run continuously (excluding periods when undergoing repairs, as required) until the Remedial Action Objectives (RAOs), or other criteria, approved by the NYSDEC, have been met. System and equipment maintenance is routinely performed in accordance with the manufacturers' recommendations.

The current permit allowing discharge to the Buffalo sewer system is a revised version of the original permit. On March 18, 2011 NYSDEC, the Buffalo Sewer Authority (BSA) and the Town of Cheektowaga authorized direct discharge of the recovered groundwater to the BSA system without pre-treatment in the MSD system. Direct discharge was permitted based on the fact that the total concentration of VOCs in the recovered groundwater was below the discharge limits and therefore treatment was no longer needed. System piping was reconfigured in April of 2011 in order to allow the recovered groundwater discharge to bypass the MSD and flow directly to the BSA system.

Water discharge system samples are collected and analyzed quarterly to assess the recovered groundwater's quality and provide data to the BSA confirming concentrations are within allowable discharge parameters. The samples are analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and Total Extractable Hydrocarbons. Total Extractable Hydrocarbons concentrations were within the allowable limits of 100 mg/l in each quarter. Total VOC concentrations in the recovered groundwater were also below the BSA allowable discharge limits of 2,140 ug/l during each quarterly sampling event in 2012. Quarterly report summaries for discharge sampling performed in February, May, August and November are included in Appendix A.

During 2012 the pumping system ran throughout the year with only minor down time for maintenance. The system pumped a total of approximately 4,820,221 gallons during 2012 (measure from 12/15/11 through 1/8/13). A summary of the flow for 2012 is included in Appendix A. An average flow rate of approximately 14 gallons per minute was observed during 2012, and is considered the average pumping rate when both pumps are operating. Based on the average pumping rate and minimal anticipated downtime for repairs, approximately 4 to 6 million gallons of water are expected to be recovered and discharged in 2013.

A general site map showing the location of the various elements of the groundwater recovery system is included as Figure 1.

1.2 General Maintenance

Operations, maintenance and monitoring of the bedrock groundwater recovery system was conducted in accordance with Section 6, System Operations, Maintenance, and Monitoring Plan included within the "Construction and Operation of Remedial System Project Design, Final Submittal" prepared by Scientech NES, Inc. (now EnergySolutions) dated March 1999 and submitted to the New York State Department of Environmental Conservation (NYSDEC), Region 9. Operations and Maintenance activities were also performed in accordance with the Site Management Plan prepared by EnergySolutions dated September 2011.

The EnergySolutions field crew continued to conduct routine scheduled maintenance of the groundwater pumping system from January 2012 through December 2012. During the routine maintenance visits, the EnergySolutions field crew also inspected the site remediation system trailers, and other site items. Site equipment was in satisfactory working condition throughout 2012 with the exception of periods when maintenance and repairs were performed as specified in Table 1-1 below.

The inspection forms, detailed notes and other records prepared by the field inspectors are included in Appendix B as required in Section 6.3 of the Site Management Plan.

Table 1-1
2012 Annual System Maintenance and Repair Summary
Former Leica Facility, Cheektowaga, NY
Inactive HWDS 915156

Component	Date Deficiency Detected	Deficiency noted	Maintenance/Repair action	Date System Returned to operation
Pump 11A	1/31/2012	Not pumping water	Replace air regulator and water trap	2/1/2012
Pump 16A	1/31/2012	Not pumping water	Replace air hose in well	2/3/2012
Pump 11A	6/19/2012	Not pumping water	Replace check valve on pump	7/16/2012
Pump Compressor	7/11/2012	High temperature on compressor	Pressure wash compressor radiator	7/16/2012
Pump 11A	7/18/2012	Not pumping water	Ordered new pump on 8/9/2012	8/28/2012
Pump 16A	9/11/2012	Not pumping water	Clean pump replace pivot pins in air mechanism	10/24/2012
Pump 16A	11/15/2012	Not pumping	Pump water log or float stuck. Pull pump and it works again.	11/15/2012
Compressed air piping	1/8/2013	Air line broken in Area B parking area	Shut system down, repair air line 1/21/2013 – 1/24/2013.	1/31/13

1.3 Submission of the Institutional Controls Certifications and Declaration

In conjunction with the submittal of the 2011 Annual Report in May of 2012, EnergySolutions also prepared and submitted requested NYSDEC Institutional and Engineering Controls Certification Forms for calendar year 2011 (included as Appendix H to the 2011 Annual Report). Certification Forms for calendar year 2012 are included in this submittal in Appendix H. The Certification Forms are intended to provide confirmation that all required Institutional and Engineering Controls were in place and functioning properly through 2012 with the exception of repair times as noted above in Table 1-1.

1.4 Systematic Groundwater Sampling

Groundwater elevation measurements were collected from March 23 through March 27, 2012 for the first semi-annual sampling event, and on November 5, 2012 for the second semi-annual sampling event. Groundwater samples were collected semi-annually from shallow wells MW-5, MW-6, MW-10, MW-14, MW-16R, MW-18, MW-22, MW-24, MW-25, MW-26, MW-27, and MW-28 and only in November from MW-23. Bedrock wells MW-2A, MW-5A, MW-6A, MW-14A, MW-18A, MW-22A, MW-24A, MW-25A, MW-26A, MW-27A, MW-28A, and MW-29A were sampled semi-annually. The Energy Solutions field staff attempted to collect samples from the overburden well MW-2 during both semi-annual sampling rounds, but were unable to due to the lack of water in the well. Samples of groundwater from MW-11A and MW-16A were collected in the discharge piping at the treatment facility. These samples were collected during each of the semi-annual sampling events, and were intended to provide information regarding continuing groundwater quality and the effects of the HRC injection on the groundwater in the vicinity of each of the wells. A schedule of the sampling is provided in Table 1-2 below.

**Table 1-2
Sampling Schedule**

Well Number	Semi-Annual Event 1, March	Semi-Annual Event 2 November
2	Dry	Dry
2A	March 30	Nov. 8
5	March 28	Nov. 7
5A	March 28	Nov. 7
6A	March 28	Nov. 6
6	March 28	Nov. 6
10	March 28	Nov. 6
11A	March 30	Nov. 7
14	March 28	Nov. 6
14A	March 28	Nov. 6
16A	March 30	Nov. 7
16R	March 29	Nov. 7
18	March 28	Nov. 6
18A	March 28	Nov. 6
22	March 28	Nov. 6
22A	March 28	Nov. 6
23	Not Sampled	Nov. 7
24	March 29	Nov. 8
24A	March 29	Nov. 8
25	March 28	Nov. 9
25A	March 28	Nov. 9
26	March 28	Nov. 9
26A	March 28	Nov. 9
27	March 28	Nov. 9
27A	March 28	Nov. 9
28	March 28	Nov. 9
28A	March 28	Nov. 9
29A	March 28	Nov. 9

Groundwater depth measurements were collected from most of the available wells at the site during the March and November semi-annual sampling rounds. A summary of groundwater elevation information is included in Table 1 and Table 2 in Appendix C. Monitoring well locations, groundwater contours and contaminant isopleths are shown on Figures 2 through 13

All samples collected during the two semi-annual events were submitted under chain of custody to Columbia Analytical Services, Inc., located in Rochester, New York, for volatile organic compound (VOC) analysis using EPA Method 8260.

1.5 Supplemental Groundwater Grab Sampling

As an integral part of the implementation of the Second Supplemental Sub-Slab Investigation Work Plan implemented in September 2012, EnergySolutions installed four temporary groundwater monitoring wells within the building (INT-10 through INT-13) on September 18, 2012. The wells were installed in order to provide several pieces of additional information. Wells INT 12 and INT 13 were installed to provide additional information regarding the northern extent of the groundwater plume generated by the former drywell located outside the main facility loading dock as well as the continuity of that plume through the area beneath the former open air courtyard in the center of the facility. Wells INT 10 and INT 11 were installed in order to determine whether subslab vapors in the southwestern portions of the main warehouse were caused by interior spills or by the migration of the main plume from the former dry well. The four temporary wells were cased with 1" PVC piping and screened at an approximate depth of five to fifteen feet below the building floor. The well locations are depicted in Figure 14. A detailed review of the data collected from these wells is included in Section 2 entitled "Results of Data Generated."

1.6 Vapor Mitigation Work Plan Implementation

In response to the results of laboratory analysis of subslab and indoor air samples collected in March of 2010, EnergySolutions prepared a mitigation plan entitled "Vapor Mitigation Work Plan" which was approved by the NYSDEC on March 15th 2011. The Work Plan proposed three main remedial components which included:

- sealing cracks in the basement floor,
- design and installation of a Sub-slab Depressurization System (SSDS) in the loading dock area, and
- the possible implementation of supplemental HRC injection in the vicinity of MW-24 and MW-24A, depending on the water quality of supplemental groundwater grab samples collected from the groundwater beneath the central, western and southern areas of the building.

EnergySolutions initiated implementation of the Vapor Mitigation Work Plan in 2011, and has completed the following portions of the plan.

- Section 2.1 - Basement Area Mitigation; EnergySolutions cleaned the floor slab in the basement area and sealed all major cracks in the basement in accordance with the mitigation plan during the week of September 12, 2011;
- Section 2.2 – Main Entryway/Loading Dock Mitigation; EnergySolutions has completed the installation of the SSDS mitigation system proposed in the Vapor Mitigation Work Plan. The system began operation in December of 2012. Sampling designed to assess the success of the system is planned for 2013.
- Section 2.4 - Main Warehouse Groundwater Investigation; EnergySolutions installed and sampled six (locations INT-1 thru 5 and EXT-1) temporary small diameter groundwater wells on June 6th through 8th in 2011. Four additional temporary wells (INT-10 thru INT-13) were installed in September of 2012. Sampling plans included collection of groundwater grab samples from these four new wells installed inside the building in 2012; however, only two samples, one from Well INT-12 and a second from INT-13, were collected due to the unavailability of water in the other two wells.

1.7 Second Supplemental Sub-Slab Gas Investigation

In addition to the vapor Mitigation Plan activities completed as mentioned above, EnergySolutions performed additional sub-slab and indoor air investigation in 2012. The following section provides a brief summary of the 2011 investigation and a summary of the 2012 investigation.

Concentrations of chlorinated VOCs in the Main Warehouse Groundwater Investigation grab samples (INT-1 thru INT-5) collected on June 8, 2011 to the west and south of MW-24 and MW-24A were elevated. Based on these results, it appeared that the extent of these elevated VOC concentrations in the groundwater extended further to the west and south than originally anticipated. Based on these elevated groundwater results which indicated that further investigation in the areas west and south of the MW-24 well pair was warranted, the Supplemental Sub-Slab Gas Investigation was planned, approved and implemented in September of 2011.

Results of the Supplemental Sub-Slab Gas Investigation conducted in 2011 indicated that there were additional areas within the building with elevated concentrations of chlorinated VOCs and aromatic VOCs in the sub-slab vapors. The locations of the higher sub-slab concentrations detected (8hr-002 at 420,000 ug/m³) coincided well with the locations of the higher groundwater grab sample concentrations (INT-12 at TCE of 82,000 ug/l), suggesting that in some locations within the eastern and central portions of the warehouse, VOCs in the groundwater (i.e. sample INT-2) were evaporating and migrating through the vadose zone and becoming trapped beneath the floor slab. Although the 2011 data suggested a strong correlation between groundwater sample results and sub-slab sample results in some areas, there were other areas where the correlations were poor. For example, groundwater concentrations in the southwest corner of the building were thought to be relatively low based on the distance from the original drywell release; however, the subslab concentrations of TCE in the area were significantly elevated at 60,000 ug/m³. Similarly, in the vicinity of sample 024, thought to be north of the main drywell groundwater plume, the subslab concentrations of TCE in the area were significantly elevated at 39,000 ug/m³. These poor correlations between groundwater and subslab vapor concentrations suggested that the original conceptual model which proposed the loading dock area dry well as the main and possibly only source of contamination was incomplete. Data suggested that there might be other potential sources of VOC contamination creating elevated concentrations in the subslab vapors and indoor air in some areas.

In an effort to collect additional data which could be used to further refine the site conceptual model and confirm the potential sources of elevated subslab concentrations in the various areas of the building, the Second Supplemental Sub-Slab Gas Investigation was planned, approved and implemented in September of 2012. Whereas the 2011 investigation was focused primarily on sub-slab data collection, the 2012 Second Supplemental Sub-Slab Gas Investigation collected additional indoor air concentration data throughout the central and western portions of the main warehouse. Sampling locations are shown on Figure 14.

In addition to the collection of air samples and groundwater grab samples, one soil sample was collected during the Second Supplemental Sub-Slab Gas Investigation. The soil sample was collected from the INT-13 well boring from a depth of 6.5 to 7 feet below the facility floor and tested for VOCs via EPA method 8260. The depth interval was selected as the most likely to contain VOC contamination based on visual evidence and PID readings. Laboratory analysis revealed slightly elevated concentrations of chlorinated solvents with TCE detected at the highest concentration of 140 ug/kg. Data for this single soil sample is not summarized in the data tables; however, the laboratory report is included in Appendix E.

The results of the “Second Supplemental Sub-Slab Gas Investigation” are detailed in Section 2. “Results of Data Generated”.

2. Results of Data Generated

2.1 Groundwater Sampling (Regular Monitoring Program)

The results of data collected during the March and November rounds of groundwater sampling are included in this report. Samples collected in March and November were intended to serve as semi-annual groundwater sampling. Based on the extended time which has passed since the HRC injection was completed, and the more recent trends exhibited by biological indicator parameters suggesting that dechlorination activity has declined, testing for biological activity indicators was not performed during the year.

During the two sampling events, all wells scheduled for sampling provided sufficient water for sample collection, with the exception of MW-2 which was dry during both events. During both events, three well volumes were purged from monitoring wells with sufficient water volume using a dedicated bailer or pump prior to sample collection. Samples were collected from site wells in 2012 based on the schedule with sampling dates as shown in Table 1-2 “Sampling Schedule” in Section 1 - Actions Taken During the Previous Months Systematic Groundwater Sampling.

2.2 Area B (Area surrounding the former drywell near the loading dock at the NE corner of the facility) Comparison

Groundwater quality frequently varies at the site from season to season. In order to compare data quality during the same successive season, concentrations of total VOCs in the spring of 2011 (March) were compared to concentrations in the spring of 2012 (March). When comparing the total VOC concentrations in individual wells in Area B during these two seasons, they ranged as follows.

Total VOC concentrations in MW-16A ranged from 1274 to 794 micrograms per liter (ug/l), MW-16R from 495.7 to 523 ug/l and MW-18A from 86 to 72.3 ug/l. MW-18 did not contain detectable concentrations of any VOCs on either of the sampling dates. These changes in concentrations are thought to be associated seasonal fluctuations and the natural movement of the contaminants in the local groundwater. Concentrations in 2012 in some Area B wells rose in comparison to 2011 levels but were reduced in others; consistent trends were not observed.

Results from the spring sampling round indicated that TCE remained at non-detectable concentrations from 2011 to 2012 in shallow wells in the vicinity of Area B. Bedrock wells MW-16A and MW-18A contained TCE concentrations of 65 and 43 ug/l respectively. For monitoring well MW-16R, the TCE concentrations were at non-detectable levels in the samples collected during both semi-annual events. These low concentrations are still likely to be the result of the 2008 HRC injection program. Concentrations of DCE and vinyl chloride in MW-16R, which are byproducts of the natural/biological degradation of TCE, remained very low in 2012, all at or below 12 ug/l. Chloroethane, a degradation product of DCE, continues to be detected in the groundwater samples collected from MW-16R at relatively high concentrations indicating significant reductive de-chlorination has occurred since the injection. In addition, the chlorinated solvent 1,1,1-trichloroethane (TCA) was detected at 40 ug/l in MW-16A, a significant decrease when compared to concentrations from 2009 as high as 420 ug/l.

The November 2012 results continue to show no detectable concentrations of TCE in groundwater samples collected from the three overburden monitoring wells in Area B. DCE and vinyl chloride

concentrations remain non-detectable in monitoring well MW-18 and MW-24, with low detections of vinyl chloride in MW-16R at 12 ug/l.

TCE and DCE concentrations, when compared to 2011 levels, remained relatively consistent in the groundwater samples collected from bedrock monitoring wells MW-18A and MW-16A. Concentrations ranged from a low of 22 ug/l (DCE in MW-18A in March) to a high of 760 ug/l (DCE in MW-16A in November). TCE was not detected in MW-24A and DCE concentrations remained relatively constant through 2011 and 2012. Vinyl chloride concentrations remained relatively consistent in MW-16A and MW-24A in 2012. Vinyl Chloride was detected in MW-18A in November only. The DCE concentration increased at MW-18A, but decreased at MW-24A. Vinyl chloride concentrations decreased at both wells.

These results indicate that although some limited biological degradation is still in progress in the area, contaminant reduction rates have declined. The results further indicate that the highest chlorinated solvent contaminant reductions have occurred in the overburden; vinyl chloride was the only contaminant detected in 2012 at a concentration of only 12ug/l in MW-16R in November. The highest bedrock chlorinated solvent concentrations are now at 760 ug/l (cis 1,2 DCE in MW-16A, November); but still significantly lower than concentrations of 1400 ug/l present when the HRC injection occurred in 2008.

Data continues to confirm that the reduction of chlorinated solvent concentrations has occurred (particularly in the overburden) as a result of the HRC injection. Higher overall reductions in the overburden are consistent with anticipated results as the injection process focused on the overburden soils, and chlorinated solvents were expected at higher concentrations at deeper intervals based on their density.

Recent increases in benzene, toluene, ethyl benzene and xylene (BTEX) concentrations are believed to be associated with the release of BTEX compounds from soils as a result of the HRC injection and subsequent reductive dechlorination processes. Factors that may have contributed to the increased BTEX concentrations include: a change in surface tension as a result of the HRC injection; changes in the soil K_{oc} as a result of the HRC addition; increased microbial activity releasing BTEX compounds from the soil; and back diffusion from the clay lens located above the sandy silt layer as contaminant concentrations at the edges of the worst areas are reduced. As would be expected, based on the density of BTEX compounds, elevated BTEX concentrations are focused almost entirely in the overburden wells in Area B. Xylene, detected in MW-16A in November at a concentration of 15 ug/l, was the only BTEX constituent detected in an Area B bedrock well in 2012.

BTEX concentrations in shallow well MW-16R have remained relatively consistent over the past several years since the HRC injection, ranging from a low of 66 ug/l the first time they were detected in October of 2009, to a high of 316 ug/l in October of 2011. Total BTEX concentrations at 59 ug/l in November of 2012 were at their lowest levels in MW-16R since October of 2009. Concentrations in MW-24 rose consistently over the last two years with the maximum values occurring in December of 2011 at 6,080 ug/l total BTEX; concentrations were slightly lower in 2012 at 5,333 ug/l.

Based on the fact that: these BTEX concentrations are isolated in groundwater under the parking area and the building; the area groundwater is not utilized by any potential receptors as ensured by the site groundwater use restriction; and there do not appear to be any major concerns with BTEX concentrations within the facility based on available indoor air data; these BTEX concentrations do not appear to be a major problem. We will continue to assess any potential impacts from these elevated BTEX concentrations based on future groundwater data.

2.3 Area C (Area surrounding former burial area at the SE corner of the property) Comparison

In order to assess potential trends in the contaminant concentrations in Area C, we have compared concentrations of total VOCs in the spring of 2011 with concentrations in the spring of 2012. When comparing the total VOC concentrations in individual wells in Area C during these two seasons, they ranged as follows: MW-5 from ND to ND; MW-22 from 12 to 22.1 ug/l; MW-5A from 7.9 to 46.6 ug/l; MW-6 from 180 to 273 ug/l; MW-6A from 1,060 to 296 ug/l; MW-10 from 22 to 9 ug/l; MW-11A from 870 to 540 ug/l; MW-14, from 300 to 550 ug/l; MW-14A, from 80 to 9.5 ug/l; and MW-22A from 6 to 22 ug/l. These slight variations in concentrations are thought to be associated with seasonal fluctuations and the natural movement of the contaminants in the local groundwater and do not appear to be representative of any significant trends. Future rounds of groundwater samples will provide additional evidence to assess the success of the HRC injection in this area.

TCE is now virtually absent from the wells in Area C with the only March TCE concentrations detected in MW-6 at 23 ug/l; the remainder of the VOC concentrations in the area are comprised of DCE and vinyl chloride. This data suggests that significant reductive dechlorination has occurred in the area over time. During the spring sampling round, concentrations of DCE and vinyl chloride remained relatively constant in 2012 when compared to 2011 concentrations in most wells in the area, with slight increases in some cases. The most significant shallow well increases were observed on the eastern side of the plume in well MW-14. DCE and vinyl chloride were also detected more frequently in 2012 groundwater samples collected from MW-22 and MW-22A; however, the concentrations remain low with a maximum of 35 ug/l vinyl chloride in MW-22A and 37 ug/l vinyl chloride in MW-22. Although concentrations are fluctuating in these wells, the variations do not appear to be reflective of any major trends.

Concentrations of the TCE daughter products cis 1,2 DCE and vinyl chloride in Area C during 2012 remained relatively consistent with previous rounds of sampling. Data trends which indicate that relative concentrations of vinyl chloride and DEC are remaining constant suggest that dechlorination activity is limited at this point. If dechlorination were occurring, the DCE concentrations would be declining and the vinyl chloride concentrations increasing.

2.4 Off Site Wells

The nine offsite groundwater monitoring wells installed in 2009 and 2010 on Rowan and Preston Roads were sampled during both semi-annual events in 2012. Results were relatively consistent throughout the year and with past sampling results. Well pairs MW-5, MW-25, MW-27 and MW-29 continue to delineate the boundaries of the contaminant plume. No VOCs were detected in MW-5 during the year and only vinyl chloride and DCE were detected in MW-5A at a maximum concentration in March of 14 ug/l with all contaminants at non-detectable levels in MW-5A in November 2012. MW-25 did not contain detectable concentrations of any contaminants during the year. MW-25A contained detectable concentrations of DCE and vinyl chloride during the year but at the low maximum concentrations of 34 ug/l and 73 ug/l respectively. MW-27, MW-27A and MW-29A did not contain detectable concentrations of any chlorinated VOCs during the year.

Data from the remainder of the wells in the area (MW-26 and MW-28 well pairs and MW-29A) indicate that the center of the contaminant plume is located in the vicinity of the MW-26 well pair with the extent bounded to the east by the MW-25 well pair, to the west by the MW-27 well pair and to the south by MW-29A. This conclusion is further confirmed by the comparative ratios of vinyl chloride and DEC in wells MW-28 and MW-28A. When compared to other wells on Rowan and Preston roads along the plume boundary, DCE concentrations are higher than vinyl chloride concentrations in MW-28; this indicates that less degradation has occurred at that point than at other area wells. This reduce degradation suggests that the travel time from the source to MW-28 is faster and less retarded than the travel to other

wells; i.e. MW-28 is in the center of the plume. In addition, concentrations of DCE are non-detectable in MW-28A suggesting that the travel time to the deeper screen is longer, allowing for more dechlorination to occur.

TCE was detected in MW-2A during the year at a maximum concentration of 760 ug/l (March 2012). TCE concentrations were higher than DCE concentrations in March, but the reverse was true in November when TCE concentrations were at 6.4 ug/l and DCE concentrations were at 14ug/l. Although it is clear that dechlorination has not occurred to a sufficient degree to generate any vinyl chloride in the well, the resulting fluctuations in product ratios suggest there are no clear trends in degradation. These fluctuations in product ratios may be the result of seasonal fluctuations in the well. In light of the fact that the closest upgradient HRC injection was performed 700 feet away to the east of the MW-24 well pair, limited vinyl chloride concentrations are not unexpected. Subsequent sampling of well INT-10 and the installation of additional bedrock wells in the building as planned will assist in assessing these results from MW-2A.

2.5 Vertical Groundwater Gradients

As an integral part of the analysis of the 2012 site groundwater data, potential vertical groundwater gradients were calculate for the areas downgradient of Area B, the original drywell release at the loading dock. Vertical gradients were calculated in order to provide additional information regarding the vertical extent of the contamination and assist in determining appropriate depths for additional wells proposed for installation within the southern and southeastern portions of the building.

Vertical groundwater gradients were calculated for key areas of the site downgradient of Area B, including the areas within the building to the southeast of the original dry well release area (MW-24 well pair), the area due south of the original dry well release area (MW-18 well pair), and the area to the south of the recently discovered elevated VOC concentrations beneath the central portions of the building (MW-6 well pair).

Vertical gradient calculations indicate that the groundwater is travelling vertically downward in all areas that were checked. The results of these calculations are also confirmed by the site data which suggests that in these areas, contaminant concentrations in the zones where the original releases occurred (shallow groundwater) are at or near the RAO levels, with concentrations in the deeper groundwater zones still at higher levels.

A summary of the vertical gradient calculations is included in Table 8.

2.6 Groundwater Data Trends

Groundwater Data trends were assessed using the Mann-Kendall test which provides statistical evidence regarding increasing or decreasing data trends. The trends have been analyzed using data which spans a five year period from 2007 through 2012. Whereas other sections of this report suggest that dechlorination activity is now very limited in most areas of the site, successful dechlorination is observed in the data trends based on these extended periods of time represented in the data sets. Trends based on these extended periods of time do not necessarily reflect seasonal trends which may be seen over shorter periods of time or more recent trends over the previous year or two.

The statistical analysis of the data suggests decreasing trends in the majority of the site and off site wells, particularly in the vicinity of the former Area B dry well where the HRC injection was focused. Relatively consistent results to slightly increasing trends are present in the vicinity of monitoring wells MW-22, MW-22A and MW-25 and MW-25A, where it appears that groundwater with slightly elevated

VOC concentrations continues to migrate in relatively low concentrations from contamination surrounding the Area C supplemental excavation. Declining trends have not been achieved at MW-6 or MW-6A either. Groundwater with elevated VOC concentrations may be migrating to these wells from areas beneath the central portions of the building.

A summary table of groundwater data trends is also included in Appendix C as Table 5. The table shows standard Mann-Kendall S values with higher values in the table representing increasing trends and lower (negative) values representing decreasing trends. Cells in the table with sufficient data to demonstrate a decreasing trend are shaded in green and cells with sufficient data to demonstrate an increasing trend are shaded in orange.

The trend analysis suggests that TCE concentrations are increasing in only two wells including MW-6A and MW-18A and are decreasing (or remaining constant at ND levels) at all other locations. TCE increases in MW-6A are thought to be the result of continuing migration of contamination from beneath the building. TCE increases in MW-18A are believed to be the result of the downward migration of the contaminants from the man drywell release area. This migration is anticipated based on the vertical gradients which are referenced in Section 2.5 above.

The trend analyses also suggest that DCE concentrations are increasing in only two wells at the site including MW-22A and MW-25 A and are decreasing (or remaining relatively constant) at all other locations. These trend increases in MW-22A are believed to be partly related to the continued migration from the main Area C release. Increases in DCE in this well are also thought to be partly related to the dechlorination of TCE in the area. DCE concentrations remained primarily nondetectable through time in MW-22A until 2011 when the concentrations began to rise slightly in December of that year and then remained slightly elevated at concentrations of 7 and 11 during 2012. TCE concentrations dropped from a high of 22 ug/kg in 2011 and a high of 11 ug/l in 2011 to non detectable levels in both rounds during 2012. This decrease in TCE concentrations when occurring simultaneously with an increase in DCE concentrations suggests continued dechlorination in MW-22A. Increases in DCE concentrations in MW-25A appear to be related to continued migration from the Area C contamination.

The trend analysis suggests that Vinyl chloride concentrations are increasing in four locations including MW-6, MW-14, MW-22A and MW-28. The increasing vinyl chloride trends at well locations MW-6 and MW-14 are believed to be representative of continuing dechlorination from the HRC injection in the area. Data trends from MW-28 reflect a change from non-detected concentrations in early 2011 to consistent concentrations in the range from 7.2 to 9.2 ug/l in late 2011 and throughout 2012. This appearance of vinyl chloride in this well appears to represent the leading edge of the plume from the Area C release now reaching this location. Increase concentrations of vinyl chloride in MW-22A appear to be representative of successful dechlorination and continued migration from the main Area C release.

2.7 Groundwater Chemistry and Elevation Data Tables and Figures

Groundwater chemistry data tables (Tables 3A, 3B, 3C, 3D, 3E, 3F & 3G) and groundwater elevation tables (Tables 1 and 2) for March, and November 2012 are included in Appendix C.

Bedrock and overburden groundwater contours are shown on Figures 2 and 3; 8 and 9 in Appendix D. Groundwater contaminant concentration isopleths are shown on Figures 4 through 7(March 2012), and 10 through 13 (November 2012)in Appendix D. Laboratory data is included in Appendix E.

2.8 Supplemental Groundwater Grab Sampling

As an integral part of the implementation of the Second Supplemental Sub-Slab Investigation Work Plan submitted in 2012, EnergySolutions installed four temporary groundwater monitoring wells within the building (INT-10 through INT-13) on September 18, 2012. The wells were installed in order to provide additional information regarding the northern extent of the groundwater plume generated by the former drywell located outside the main facility loading dock as well as the continuity of that plume through the area beneath the former open air courtyard in the center of the facility and on to the southwest corner of the building. The temporary wells were cased with 1" PVC piping and screened at an approximate depth of five to fifteen feet below the building floor. The well locations are depicted in Figure 14.

Once installed, the wells were allowed to equilibrate over night; however, sufficient water was not present to permit sampling on the following day. The wells were observed periodically until late October, when on October 31st there was sufficient water in wells INT-12 and INT-13 to collect groundwater samples. Sufficient water was still not present in wells INT-10 and INT-11. We anticipate these two additional wells will be sampled in the spring of 2013.

Grab sample groundwater data was submitted to the NYDEC in February 2013. Data collected from wells INT-12 and INT-13 appears to confirm the updated site conceptual model included in this report (see section entitled *Second Supplemental Sub-slab Gas Investigation (September 2012)*). Sample INT-12, collected from the well located in between the original dry well release and well INT-2, contained TCE at a concentration of 2,400 ug/l. This concentration is consistent with the TCE concentrations originally detected in MW-24, but significantly lower than the concentration of 82,000ug/l detected in well INT-2 in 2011. The differential between these concentrations suggests that although well INT-2 may be impacted to some degree from the original dry well release, it appears that there are other sources of TCE also contributing to this well. One would not expect TCE concentrations to rise from 2,400 to 82,000 as the plume moves further down gradient of the source unless there were additional contributions. The data therefore suggests that there may be a separate source of contamination in the former open air courtyard area which was located in the center of the building causing this increase in TCE concentrations from location INT-12 to location INT-2.

In addition, the low TCE concentration of 210 ug/l in the sample collected from well INT-13 indicates that the groundwater in this area beneath the former Plating Shop is not heavily contaminated. This groundwater data suggests that the high TCE concentrations (51,000 ug/m³) in the subslab vapors at location 8hr-037 may be the result of surface spills from inside the building and not the result of evaporation from the groundwater plume migrating beneath the area.

Laboratory groundwater grab sample data for the groundwater grab samples collected from shallow wells INT 12 and INT 13 is included in Appendix E and summarized in Table 4 included in Appendix C.

2.9 Second Supplemental Sub-slab Gas Investigation (SSSGI) September 2012

Samples collected during the Second Supplemental Sub-Slab Gas Investigation (SSSGI) were collected in accordance with the procedures established in the Second Supplemental Sub-Slab Gas Investigation Work Plan approved by the department via correspondence dated July 31, 2012. Results of the investigation were submitted to the Department in a letter report dated February 12 2013. The results are summarized below.

Samples were collected from 15 different locations inside the building during the 2012 sampling effort. Subslab samples were collected at all 15 locations, and indoor air samples were collected from six of the 15 locations. Indoor air samples were labeled with an "AA" prefix referring to ambient air, and sub-slab

samples were labeled with an “SS” prefix referring to sub-slab air. Of the 15 subslab samples collected, six were 30 minute samples and the remaining 9 were collected as 8 hour samples. All indoor air samples were collected as 8 hour samples.

All indoor air samples were collected directly into Suma Canisters in accordance with the procedures established in the approved sampling plan. All 8 hour sub-slab samples were collected using helium gas shrouds in order to confirm there was no dilution of the sample from the indoor air in the building.

Trichloroethylene (TCE), the contaminant most frequently detected during the SSSGI, was detected in all samples collected from within the building and beneath the floor. TCE concentrations in subslab samples ranged from a minimum of 16 ug/m³ at location SS-8hr-042 to a maximum concentration of 51,000 ug/m³ at locations SS-8hr-037 and SS-8hr-038. TCE was detected in indoor air samples at concentrations ranging from a low of 1.3 ug/m³ at location AA-8hr-040 to a maximum of 21 ug/m³ at location AA-8hr-045.

As noted above, the highest TCE concentration of 51,000 micrograms per cubic meter (ug/m³) was detected at two locations including subslab sample SS-8hr-037 collected from the north-central portion of the building and subslab sample SS-8hr-038 collected from the southwestern corner of the building. The highest indoor air concentration of TCE reported (1,400 ug/m³) was detected in sample AA-8hr-043 collected from the central portion of the building. This sample data appeared suspect based on indoor air concentrations detected to date in other locations; therefore, the AA-8hr-043 location was re-sampled on November 19, 2012. TCE was detected at a concentration of 11 ug/m³ in this retested sample. The results of this second test were viewed as more representative of the actual indoor air concentrations in the area. With the first test at location 8hr-043 discarded, the highest TCE concentration detected in indoor air during the September/November sampling rounds was 21 ug/m³ reported in sample AA-8hr-045 collected just north of the center of the building.

Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) workplace standards are included in Table 6 in Appendix C which provides a summary of the indoor air data. In virtually all of the samples, TCE was the contaminant with the highest concentrations, however; there were no OSHA PEL exceedances observed. A summary of the sub-slab data is provided in Table 7 also included in Appendix C. The laboratory data is included in Appendix E. Indoor air concentrations of all contaminants at all locations are below the OSHA PELs in every case. Figure 14 includes indoor air and subslab data collected to date including results from March, 2010, September 2011 and September 2012.

One soil sample was also collected during the Second Supplemental Sub-Slab Gas Investigation from the INT-13 well. Sample INT-13 (6.5-7) was collected from the 6.5 to 7 foot interval within the borehole, immediately above what appeared to be the seasonal high water table at approximately 7.5 feet below the floor slab.

The soil sample was collected in order to provide additional data that would aid in assessing whether contamination from possible releases inside the building had migrated to significant depths within the soils below the floors. Visual evidence and PID readings of soils in the shallow zones of the INT 10 and 13 boreholes below the floor suggested that significant contamination was not present. Light contamination within the deeper sampled interval (6.5-7 feet) in boring INT-13 suggests that it is the result of minor groundwater contamination in the area as evidenced by the TCE concentration of 210 ug/kg in well INT-13. This data therefore suggests that releases from within the building may have migrated to the soils beneath the rock under the floor; however they did not spread out extensively laterally or horizontally.

2.10 Sub-Slab Vapor Migration and Conceptual Model

Initial subslab investigations performed in 2012 and 2011 were planned based on the expectation that the former dry well just outside the loading dock at the northeast corner of the building was the source of elevated sub-slab VOC concentrations. However, as more data was collected, it became evident that elevated VOC concentrations in the sub-slab gas beneath the building may have been generated by more than one single source. In order to create a clearer picture of the locations of these suspected multiple source areas, a Site Conceptual Model for vapor intrusion has been prepared based on available information including air data, groundwater data, soil data, aerial photographs of the facility and a review of the facility drawings showing former chemical storage and production areas. The conceptual model in Table 2-1 below provides information regarding the fate and transport of chemical releases for areas of elevated subslab vapor concentrations. Drawings showing areas of past chemical use, storage or production which may have released cleaning fluids to areas beneath the building are included in Appendix F.

The model now shows additional possible releases to the areas below the floors from spills within the building. For example, Table 2-1 now shows that the suspected origin of the elevated sub-slab concentrations in the north central area of the building could possibly be releases from the former Plating Shop. This model would explain the higher sub-slab concentrations and the low groundwater concentrations.

The model has also been further refined to account for the apparent lack of contamination in the soils beneath the rock base material in areas of high sub-slab concentrations but low groundwater concentrations as evidence by the lack of elevated PID readings in the INT-10 and INT-13 borings. Sub-slab concentrations in both of these areas are in excess of 50,000 ug/m³. If fluids had leaked through cracks in the floors in these areas, one might expect to find significant soil contamination beneath the rock layer; however, this was not the case in borings INT-13 or INT-10, two locations near highly elevated sub-slab readings. All PID readings above the watertable zone in each of these borings were below 1 ppm, not suggestive of any major releases from above.

The proposed model to explain this data would include the release of fluids through floor cracks to the subslab area and immediately through the rock base to the underlying soils. Virtually all of the soils beneath the rock layer are highly impermeable clay soils which would inhibit further vertical migration. The releases were therefore isolated vertically, and once on top of the clays did not migrate laterally to any significant degree. However, with the highly permeable rock layer available immediately above these trapped releases, as they evaporated over time, the vapors were free to migrate laterally in the rock over greater distances. With the released fluids contained in smaller isolated areas until they evaporated, it would be fairly easy to find non-contaminated soils in the same general vicinity of elevated sub-slab vapor concentrations.

Table 2-1
Updated Conceptual Model for Vapor Intrusion

Area of elevated subslab vapor Concentrations	Suspected source	Location or activity suspected to cause the original release	Representative Sample locations
Loading dock area	Groundwater	Releases to groundwater from former dry well located outside the loading	SB-1 south west to 019 (northern boundary of former outside

		dock	courtyard)
North central area	Interior spills	Plating Shop (See Figures in Appendix F)	8hr-037 south to 8hr-045 or 021
Central area	Exterior Spills	Potential spills and/or disposal in former building central courtyard (See aerial photo in Appendix F)	8hr-002 west to 8hr-003 and southwest to 8hr 043
Southern areas	Interior spills	Lens finishing and lens coating areas (See Fig. in Appendix F)	8hr-039 east to 8hr-038

3. Required Deliverables Submitted to NYSDEC

The following deliverables were submitted during the period:

- **2011 Annual Report** dated May 11, 2012.
- **Applicable** Engineering and Institutional Controls Certifications for year 2011, for the period from April 30, 2011 to April 30 2012, signed May 10, 2012 and submitted with the Annual Report dated May 11, 2012.
- **Second Supplemental Sub-Slab Gas Investigation Work Plan** CS-OP-PN-072, Rev. 0 dated May 2012, submitted on June 28, 2012 and approved by the Department via letter dated July 31, 2012.
- **Sub-Slab Depressurization System Installation Work Plan** dated March 22, 2012.

4. Actions Scheduled for the Upcoming Months (January 2013 – December 2013)

4.1 System Maintenance

The EnergySolutions field crew will continue with routine scheduled maintenance to the groundwater pumping system as specified in the new permit (Permit Number 11-02-CH014) that was issued on April 1st 2011. Samples of this discharge system will be taken quarterly in accordance with this new permit.

4.2 Groundwater Monitoring

Future groundwater monitoring will be performed on a semi-annual basis in accordance with the latest monitoring program schedule attached in Appendix G. The first scheduled semi-annual groundwater sampling event was conducted during the spring of 2013 in March 2013, as indicated in the current monitoring program.

4.3 Remediation System Monitoring

EnergySolutions has installed and is currently operating the Sub-Slab depressurization system in the main facility loading dock area. EnergySolutions will initiate indoor air and sub-slab vapor sampling of the loading dock area in order to assess the effects of the SSDS during 2013. Sampling during the year will include PID readings of the vapors within the system piping and supplemental TO-15 analysis of the sub-slab vapors and indoor air in the areas influenced by the system vacuum.

4.4 Supplemental Sub-Slab Gas investigation and Groundwater Grab Sampling

Based on the recommendations included in the Second Supplemental Sub-Slab Gas Investigation report submitted in February of 2013, we anticipate collecting additional data from several areas of the building in order to further assess the sources of and potential remedial actions for the elevated sub-slab and indoor air concentrations. The additional activities may include:

- Collection of additional DOH compliant indoor air samples in the far north and south portions of the building in order to further assess VOC concentrations in the indoor air.
- Collection of additional DOH compliant indoor air and subslab samples in the main office areas on the far western side of the building.
- Assessing air handling methods for the UPS Office at the north end of the building and the additional offices in the north east corner of the building.
- Collecting pressure differential readings between the main warehouse and the office areas in order to assess the potential for warehouse air to enter office areas.
- Collecting concrete samples from the building floors to determine whether contamination in the concrete floors may be the source of positive indoor air readings.
- Collection of additional samples from wells INT-10 and INT-11 when water is available.

A work plan was submitted to the department for approval before and approved before this 2012 annual report was completed. Results of the additional sampling will be presented in a final report prepared during 2013.

4.5 Installation of Additional Permanent Groundwater Monitoring Wells inside the Main Warehouse

Analyses of groundwater grab samples collected from shallow temporary groundwater monitoring wells located in the central portions of the building have suggested that the groundwater in these areas is contaminated; however, the extent of these elevated concentrations has not been established either horizontally or vertically. TCE has been detected at concentrations up to 82,000 ug/l and DCE has been detected at concentrations up to 9,000 ug/l in shallow temporary wells. In order to confirm this data and complete the delineation of these elevated VOC concentrations, *EnergySolutions* is currently considering installation of additional permanent wells in the building in the future. Shallow and deep well pairs may be installed in several areas inside the building so that temporary well data can be verified and horizontal and vertical delineation can be accomplished. However, due to the frequent lack of water in the overburden soils in the vicinity of the southern portion of the building (i.e. wells INT-10 and INT-11 have been dry most of the year) permanent shallow wells may not be installed in this area. The possible continued use of the current temporary wells is under consideration. Once the decision is made regarding what additional wells should be installed, *EnergySolutions* will submit a Work Plan to the NYSDEC for approval prior to installing any wells.

5. Schedule Information

No scheduling conflicts are anticipated at this time.

6. Modifications to the Work Plan

Additional work plans submitted, approved and/or implemented in 2012 are noted in Section 3 above.

7. Actions Taken in Support of the Citizen Participation Plan

No additional actions were taken in relation to citizen participation in 2012.

If you have any questions regarding this report, please feel free to call me at 801.303.1092.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert E. McPeak, Jr.", with a long horizontal flourish extending to the right.

Robert E. McPeak, Jr., P.E., LEP, LSRP
Project Manager, Environmental Services

REM/pm

Enclosures

cc: M. Forcucci (NYSDOH)
C. Grabinski
J. Egan (electronic copy only)

Enclosures:

Appendix A Groundwater Recovery System Documents

Treatment System Layout
Discharge Permit
Annual Groundwater Treatment System Discharge Summary
Quarterly Monitoring Report Summaries

Appendix B Field Inspection Documents

Inspection Forms
Inspection Notes

Appendix C Data Tables for Groundwater and Sub-Slab and Indoor Air

Table 1 Groundwater Elevation Data (March, 2012)
Table 2 Groundwater Elevation Data (November, 2012)
Table 3 Semi-annual Groundwater Data (A (Wells 1-3), B (Wells 5-10), C (Wells 11A-14A), D (Wells 16A-16R), E (Wells 18-22A), F (Wells 23-26A) & G (27-29A))
Table 4 Groundwater Grab Sample Data (November, 2012)
Table 5 Groundwater Data Trends
Table 6 Summary of Indoor Air Data (September, 2012)
Table 7 Summary of Sub Slab Data (September, 2012)
Table 8 Leica Vertical Well Gradients, Areas Downgradient of Area B

Appendix D Figures

Figure 1 Site Map and Groundwater Recovery System
Figure 2 Groundwater Contours, March 2012, Overburden Wells
Figure 3 Groundwater Contours, March 2012, Bedrock Wells
Figure 4 Vinyl Chloride Contaminant Concentration Isopleths, March 2012, Overburden Wells
Figure 5 Vinyl Chloride Contaminant Concentration Isopleths, March 2012, Bedrock Wells
Figure 6 CIS 1,2 DCE Contaminant Concentration Isopleths, March 2012, Overburden Wells
Figure 7 CIS 1,2 DCE Contaminant Concentration Isopleths, March 2012, Bedrock Wells
Figure 8 Groundwater Contours, November 2012, Overburden Wells
Figure 9 Groundwater Contours, November 2012, Bedrock Wells
Figure 10 Vinyl Chloride Contaminant Concentration Isopleths, November 2012, Overburden Wells
Figure 11 Vinyl Chloride Contaminant Concentration Isopleths, November 2012, Bedrock Wells
Figure 12 CIS 1,2 DCE Contaminant Concentration Isopleths, November 2012, Overburden Wells
Figure 13 CIS 1,2 DCE Contaminant Concentration Isopleths, November 2012, Bedrock Wells
Figure 14 Monitoring well Locations (INT 10 – 13) and second Supplemental Sub-Slab Gas Investigation Sampling Locations

Appendix E Laboratory Data

Analytical Data March, and November 2012
Groundwater Analytical Data
Analytical Data September 2012
Groundwater Grab Samples Analytical Data

Analytical Data September 2012
 Sub-Slab and Indoor Air Analytical Data
Analytical Data September 2012
 Soil Sample Analytical Data
Analytical Data November 2012
 Indoor Air 8hr-043 Retest

Appendix F Drawings of Former Facility Chemical Storage and Production Areas

Appendix G Monitoring Program Schedule

Appendix H Certification Forms

APPENDIX A

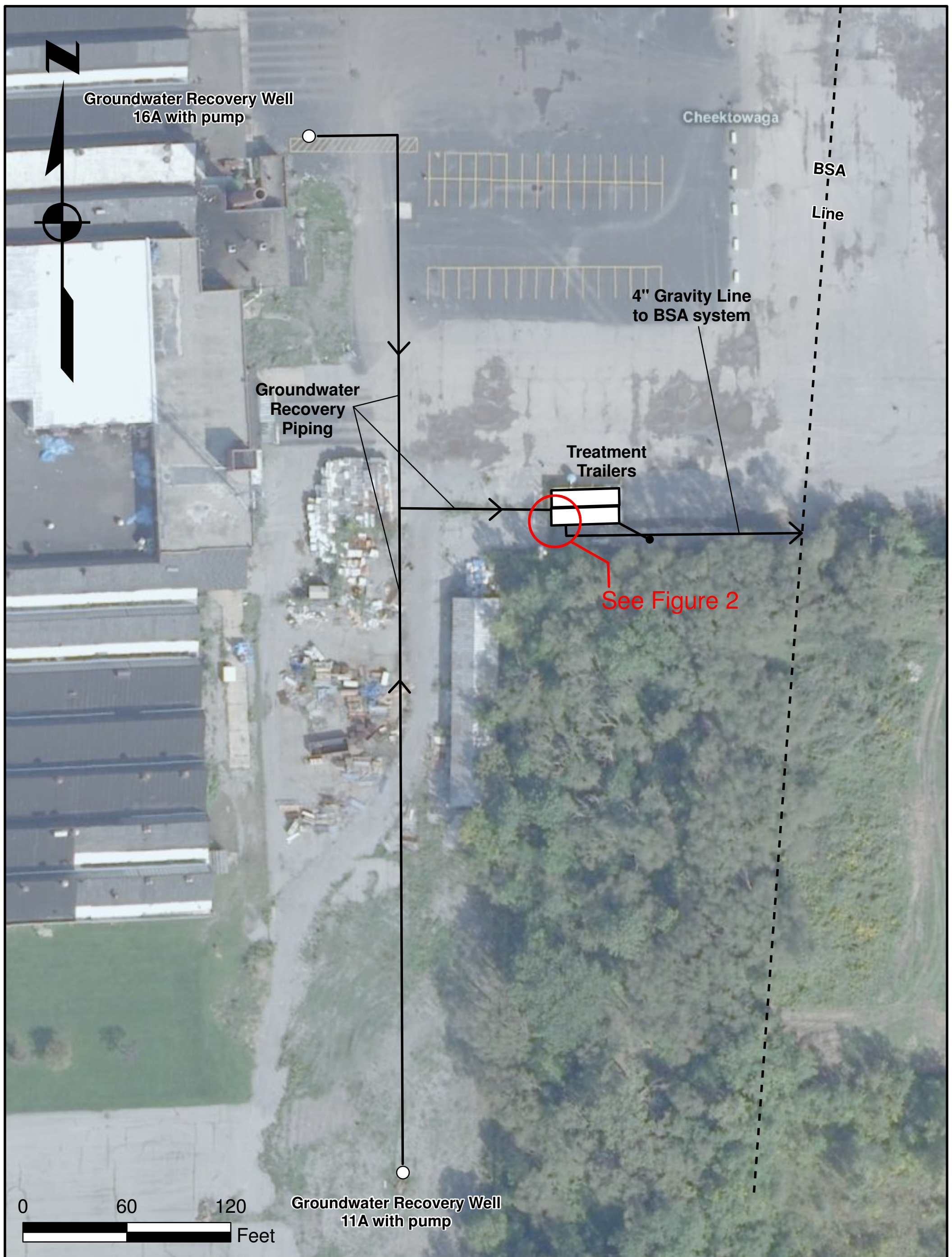
Groundwater Recovery System Documents


Treatment System Layout

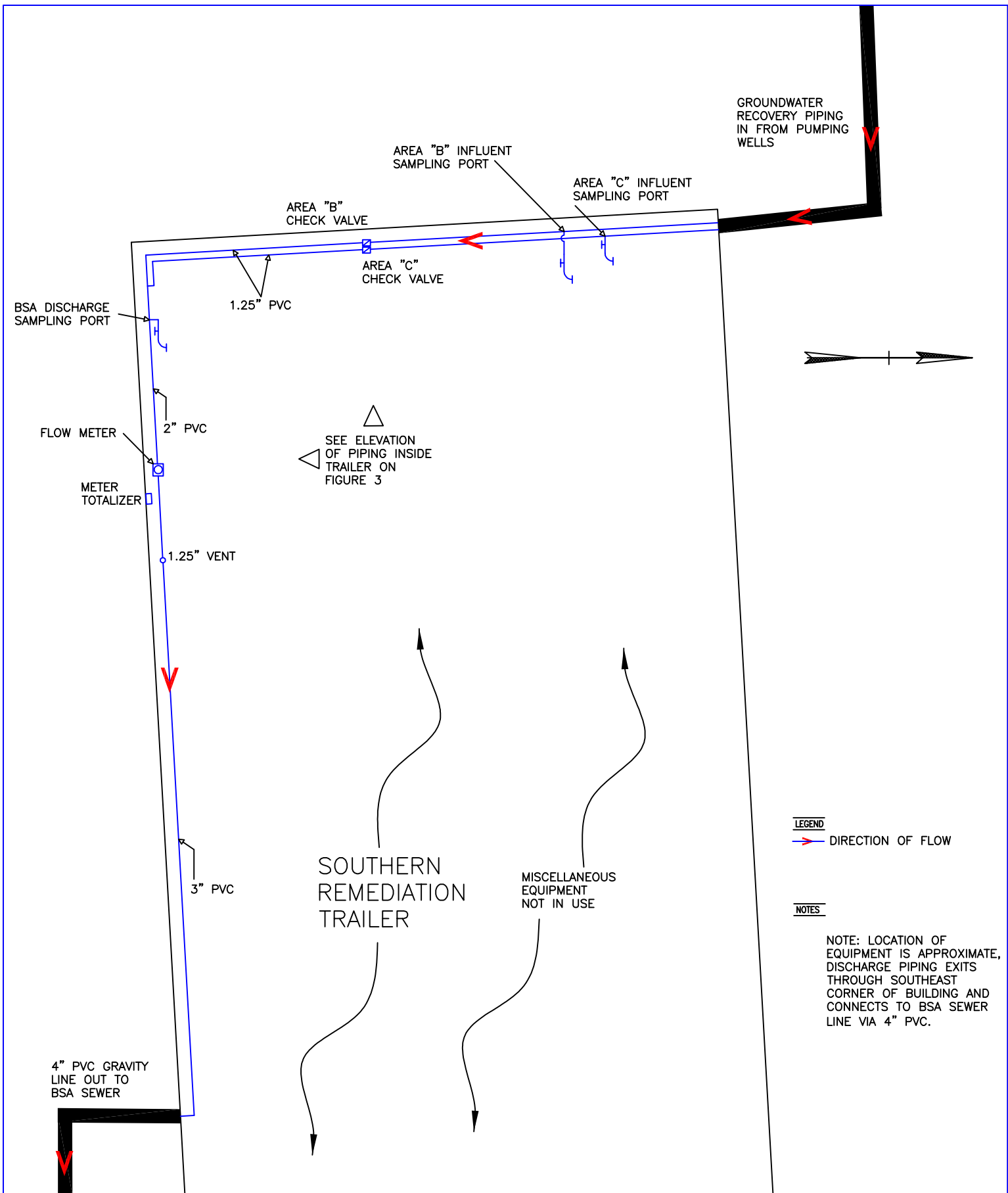
Discharge Permit


Annual Groundwater Treatment System Discharge Summary

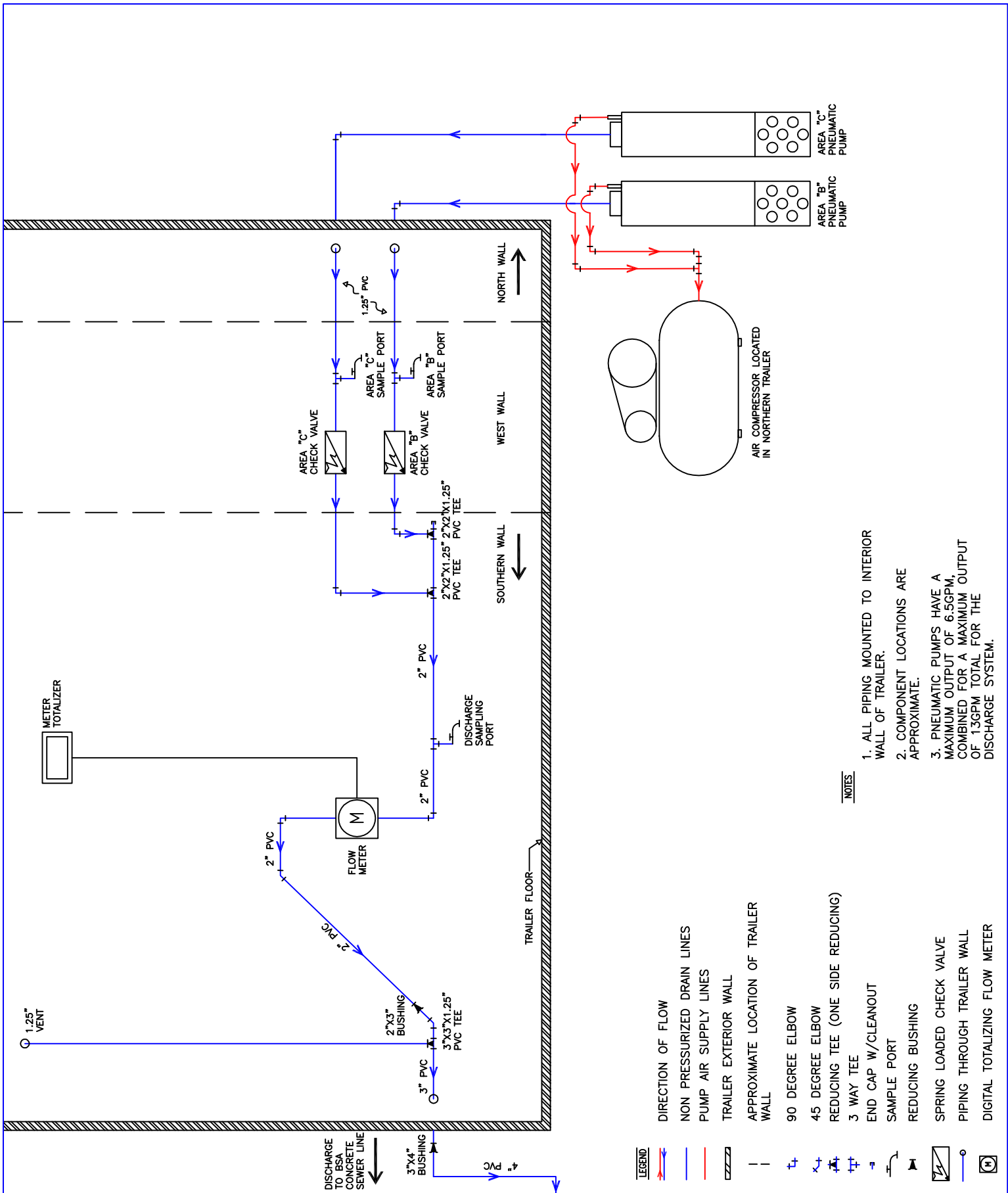
Quarterly Monitoring Report Summaries



DOCUMENT CONTROL NO.	PROJECT	LEICA MICROSYSTEMS INC. 203 EGGERT ROAD CHEEKTOWAGA, NY	 ENERGY SOLUTIONS 100 Mill Plain Road Danbury, CT 06811 203-797-8301	PROJECT # 137015	
REVISION NO.				DRAWING	
				SCALE: SEE SCALEBAR	DATE: 3/1/11
				BY: MT	CK:
				FIGURE # 1	



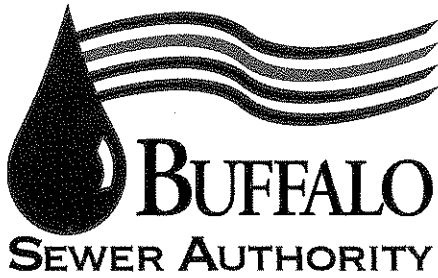
DOCUMENT CONTROL NO.	PROJECT	LEICA, INC. EGGERT & SUGAR ROADS CHEEKOTOWAGA, NEW YORK	 100 MILL PLAIN RD FLOOR 2, MAILBOX 106 DANBURY, CT 06811 (203) 797-8301	PROJECT # 137015
REVISION NO.				DRAWING



- LEGEND**
- DIRECTION OF FLOW
 - NON PRESSURIZED DRAIN LINES
 - PUMP AIR SUPPLY LINES
 - TRAILER EXTERIOR WALL
 - APPROXIMATE LOCATION OF TRAILER WALL
 - 90 DEGREE ELBOW
 - 45 DEGREE ELBOW
 - REDUCING TEE (ONE SIDE REDUCING)
 - 3 WAY TEE
 - END CAP W/CLEANOUT
 - SAMPLE PORT
 - REDUCING BUSHING
 - SPRING LOADED CHECK VALVE
 - PIPING THROUGH TRAILER WALL
 - DIGITAL TOTALIZING FLOW METER

- NOTES**
1. ALL PIPING MOUNTED TO INTERIOR WALL OF TRAILER.
 2. COMPONENT LOCATIONS ARE APPROXIMATE.
 3. PNEUMATIC PUMPS HAVE A MAXIMUM OUTPUT OF 6.5GPM, COMBINED FOR A MAXIMUM OUTPUT OF 13GPM TOTAL FOR THE DISCHARGE SYSTEM.

DOCUMENT CONTROL NO.	PROJECT	LEICA, INC. EGGERT & SUGAR ROADS CHEEKOTOWAGA, NEW YORK	 100 MILL PLAIN RD FLOOR 2, MAILBOX 106 DANBURY, CT 06811 (203) 797-8301	PROJECT # 137015	
REVISION NO.				DRAWING	FEBRUARY 2011 DISCHARGE SYSTEM ELEVATION PLUMBING DIAGRAM, SOUTHERN TRAILER
				SCALE: NTS	DATE: 3/10/11
				BY: DRS	CK:
				FIGURE # 3	



ADMINISTRATIVE OFFICES
1038 CITY HALL
65 NIAGARA SQUARE
BUFFALO, NY 14202-3378
PHONE: (716) 851-4664
FAX: (716) 856-5810

WASTEWATER TREATMENT PLANT
FOOT OF WEST FERRY
90 WEST FERRY STREET
BUFFALO, NY 14213-1799
PHONE: (716) 883-1820

March 18, 2011

CERTIFIED



Robert McPeak, P.E.
Energy Solutions
100 Mill Road
Second Floor, Mailbox 106
Danbury, CT 06811

Re: CHEEK/BPDES Permit No. 11-02-CH014

Dear Mr. McPeak:

Enclosed is your renewed CHEEK/BPDES Permit No. 11-02-CH014. This permit is jointly issued by the BSA and the Town of Cheektowaga and replaces all prior permits to discharge process wastes to the sanitary sewers.

This original permit must be maintained at your Lancaster facility and must be available for inspection at all times. It is your responsibility to assure continual compliance with the terms and conditions of this permit. Finally, you must apply for renewal at least six (6) months before this permit expires.

If you have any questions, please call Dennis W. Young at 883-1820, ext. 256.

Very truly yours,

By:

Leslie Sedita
Industrial Waste Administrator
Industrial Waste Section

cc: J. Keller
W. Pugh

\\WPDUJK\pugh\leicafina;permittr

**AUTHORIZATION TO DISCHARGE UNDER THE TOWN OF CHEEKTOWAGA/
BUFFALO POLLUTANT DISCHARGE ELIMINATION SYSTEM**

**PERMIT NO. 11-02-CH014
EPA 40CFR 403**

In accordance with the provisions of the Federal Water Pollution Control Act, as amended, and the Sewer Regulations of the Buffalo Sewer Authority and the Town of Cheektowaga Sewer Use Ordinance authorization is hereby granted to:

Leica, Inc

to discharge groundwater from a facility located at:

203 Eggert Road, Cheektowaga, New York 14225

to the Town of Cheektowaga and the Buffalo Municipal Sewer System.

Issuance of this permit is based upon a permit application filed on **January 5, 2011** and analytical data. This permit is granted in accordance with discharge limitations, monitoring requirements and other conditions set forth in Parts I and II hereof.

**Effective this 1st day of April, 2011
To Expire the 31st day of March, 2014**



Town Engineer, Town of Cheektowaga

Signed this 15th day of MARCH, 2011



General Manager, Buffalo Sewer Authority

Signed this 17th day of March, 2011

PART I: SPECIFIC CONDITIONS

A. DISCHARGE LIMITATIONS & MONITORING REQUIREMENTS

During the period beginning the effective date of this permit and lasting until the expiration date, discharge from the permitted facility outfall (see attached map) shall be limited and monitored **Quarterly** by the permittee as specified below:

Sample Point	Parameter	Discharge Limitations (mg/L except pH) Daily Max	Sampling Requirements	
			Period	Type
001	pH	5.0 – 12.0 S.U.	1 day	Composite
	Total Extractable Hydrocarbons EPA 1664	100	1 day	Composite
	EPA Test Method 624	2.14 mg/L ⁽¹⁾⁽⁴⁾	1 day	Grab ⁽²⁾
	EPA Test Method 625	2.14 mg/L ⁽¹⁾⁽⁴⁾	1 day	Grab ⁽²⁾
	Total Daily Flow	18,000 gallons	1 day	Discharge flow meter readings ⁽³⁾

1. The permittee must report any compound whose concentration is greater than 0.01 mg/L. The permittee is not authorized to discharge any of the parameters evaluated by this test procedure, which may cause or contribute to a violation of water quality standards or harm the sewerage system. Any parameter detected may, at the discretion of the Buffalo Sewer Authority or the Town of Cheektowaga be specifically limited and incorporated into this permit.
2. A single grab sample must be collected quarterly of the discharge and analyzed by a NYSDOH certified laboratory.
3. The discharge flow meter must be calibrated bi-annually by a factory certified technician. A copy of the most recent certificate of calibration must be submitted with each monitoring report.
4. Should any violation of the daily limits for EPA Test Methods 624 and 625 occur, permittee will be required to pretreat the groundwater prior to discharge.

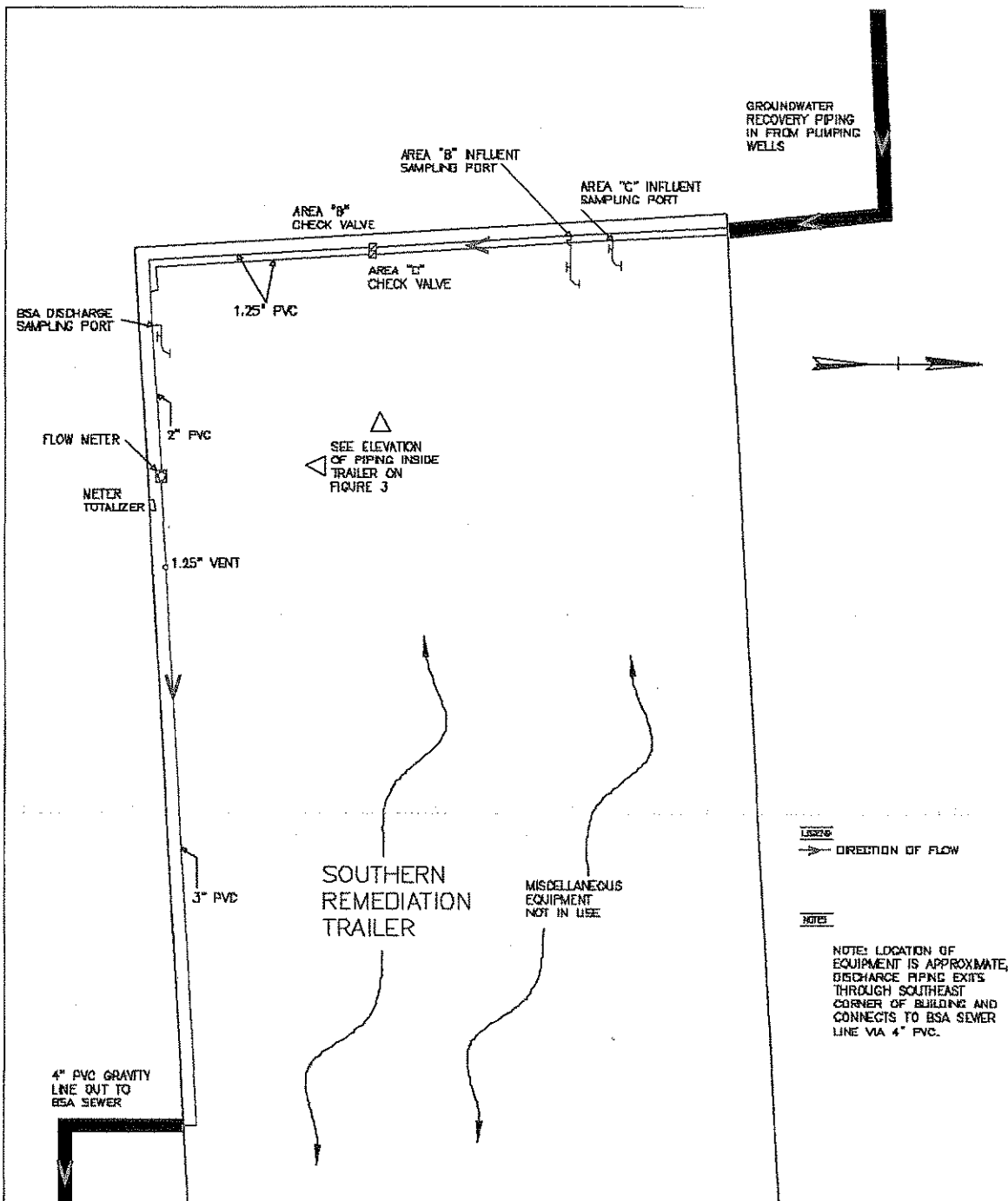
PART I: SPECIFIC CONDITIONS

B. DISCHARGE MONITORING REPORTING REQUIREMENTS

During the period beginning the effective date of this permit and lasting until the expiration date, discharge monitoring results shall be summarized and reported by the permittee on the days specified below:

Sample Point	Parameter	Reporting Requirements	
		Initial Report	Subsequent Reports*
001	All Parameters	June 30, 2011	Every June 30 th , Sept. 30 th , Dec. 31 st and March 31 st

* If any monitoring report shows a violation of any BSA pollutant limit, the permittee shall immediately commence monitoring on a monthly basis. Reports will then be due on the last day of each month, for the previous month's samples. (eg. Report on samples collected in Jan. must be submitted by the last day of Feb). When the permittee shows consistent compliance with all BSA pollutant limits, the permittee may request a return to quarterly monitoring. Such permission will not be unreasonably withheld.



DOCUMENT CONTROL NO.	PROJECT	LEICA, INC. EGGERT & SUGAR ROADS CHEEKOTOWAGA, NEW YORK	PROJECT # 139016
REVISION NO.	DRAWING	FEBRUARY 2011 DISCHARGE SYSTEM PLUMBING DETAIL, SOUTHERN TRAILER	SCALE NTS
			DATE 3/1/11
			BY DRS
			FIG # 2

ENERGY SOLUTIONS
100 MILL PLANK RD
FLOOR 2, MAILBOX 106
DANBURY, CT 06811
(203) 787-8001

LEGEND
— DIRECTION OF FLOW

NOTES
NOTE: LOCATION OF EQUIPMENT IS APPROXIMATE, DISCHARGE PIPING EXITS THROUGH SOUTHEAST CORNER OF BUILDING AND CONNECTS TO BSA SEWER LINE VIA 4" PVC.

TOWN OF CHEEKTOWAGA/BUFFALO POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT

PART II GENERAL CONDITIONS

A. **MONITORING AND REPORTING**

1. **Local Limits**

Except as otherwise specified in this permit, the permit holder shall comply with all specific prohibitions, limits on pollutants or pollutant parameters set forth in the Buffalo Sewer Authority Sewer Use Regulations, as amended from time to time, and such prohibitions, limits and parameters shall be deemed pretreatment standards for purposes of the Clean Water Act

2. **Definitions**

Definitions of terms contained in this permit are as defined in the Town of Cheektowaga Local Law No. 2 and the Buffalo Sewer Authority Sewer Use Regulations.

3. **Discharge Sampling Analysis**

All Wastewater discharge samples and analyses and flow measurements shall be representative of the volume and character of the monitored discharge. Methods employed for flow measurements and sample collections and analyses shall conform to the Buffalo Sewer Authority "Sampling Measurement and Analytical Guidelines Sheet."

4. **Recording of Results**

For each measurement or sample taken pursuant to the requirements of the permit, the Permittee shall record the information as required in the "Sampling Measurement and Analytical Guidelines Sheet."

5. **Additional Monitoring by Permittee**

If the Permittee monitors any pollutants at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified in 40 CFR Part 136 the results of such monitoring shall be included in the calculation and reporting of values required under Part I, B. Such increased frequency shall also be indicated.

6. **Reporting**

All reports prepared in accordance with this Permit shall be submitted to:

Mr. William Pugh, P.E.
Town Engineer
275 Alexander Ave.
Cheektowaga, New York, 14211

All self-monitoring reports shall be prepared in accordance with the BSA "Sampling Measurement and Analytical Guidelines Sheet." These reporting requirements shall not relieve the Permittee of any other reports, which may be required by the

N.Y.S.D.E.C. or the U.S.E.P.A.

B. PERMITTEE REQUIREMENTS

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit and with the information contained in the TC/BPDES Permit Application on which basis this permit is granted. In the event of any facility expansions, production increases, process modifications or the installation, modification or repair of any pretreatment equipment which may result in new, different or increased discharges of pollutants, a new TC/BPDES Permit Application must be submitted prior to any change. Following receipt of an amended application, the BSA may modify this permit to specify and limit any pollutants not previously limited. In the event that the proposed change will be covered under an applicable Categorical Standard, a Baseline Monitoring Report must be submitted at least ninety (90) days prior to any discharge.

2. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained at this facility for a minimum of three (3) years, or longer if requested by the General Manager and/or Town Engineer.

3. Notification of Slug, Accidental Discharge or Spill

In the event that a slug, accidental discharge or any spill occurs at the facility for which this permit is issued, it is the responsibility of the Permittee to immediately notify the B.S.A. Treatment Plant at 883-1820 of the quantity and character of such discharge. If requested by the B.S.A., within five (5) days following all such discharges, the Permittee shall submit a report describing the character and duration of the discharge, the cause of the discharge, and measures taken or that will be taken to prevent a recurrence of such discharge.

4. Noncompliance Notification

If, for any reason, the Permittee does not comply with or will be unable to comply with any discharge limitation specified in this permit, the Permittee or their assigns must verbally notify the Industrial Waste Section at 883-1820 within twenty-four (24) hours of becoming aware of the violation. The Permittee shall provide the Industrial Waste Section with the following information, in writing, within five (5) days of becoming aware of such condition:

- a. a description of the discharge and cause of noncompliance and;
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

5. Adverse Impact

The Permittee shall take all reasonable steps to minimize any adverse impact to the Buffalo and Town Sewerage System resulting from noncompliance with any discharge limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

6. Waste Residuals

Solids, sludges, filter backwash or other pollutants removed in the course of treatment or control of wastewaters and/or the treatment of intake waters, shall be disposed of in a manner such as to prevent any pollutant from such materials from entering the Buffalo or Town Sewer System.

7. Power Failures

In order to maintain compliance with the discharge limitations and prohibitions of this permit, the Permittee shall provide an alternative power source sufficient to operate the wastewater control facilities; or, if such alternative power source is not provided the Permittee shall halt, reduce or otherwise control production and/or controlled discharges upon the loss of power to the wastewater control facilities.

8. Treatment Upsets

a. Any industrial user which experiences an upset in operations that places it in a temporary state of noncompliance, which is not the result of operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation, shall inform the Industrial Waste Section immediately upon becoming aware of the upset. Where such information is given verbally, a written report shall be filed by the user within five (5) days. The report shall contain:

- (i) A description of the upset, its cause(s) and impact on the discharger's compliance status.
- (ii) The duration of noncompliance, including exact dates and times of noncompliance, and if the noncompliance is continuing, the time by which compliance is reasonably expected to be restored
- (iii) All steps taken or planned to reduce, eliminate, and prevent recurrence of such an upset.

b. An industrial user which complies with the notification provisions of this Section in a timely manner shall have an affirmative defense to any enforcement action brought by the Industrial Waste Section/Town Engineer for any noncompliance of the limits in this permit, which arises out of violations attributable to and alleged to have occurred during the period of the documented and verified upset.

9. Treatment Bypasses

- a. A bypass of the treatment system is prohibited unless the following conditions are met:
 - (i) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; or
 - (ii) There was no feasible alternative to the bypass, including the use of auxiliary treatment or retention of the wastewater; and
 - (iii) The industrial user properly notified the Industrial Waste Section as described in paragraph b. below.
- b. Industrial users must provide immediate notice to the Industrial Waste Section upon delivery of an unanticipated bypass. If necessary, the Industrial Waste Section may require the industrial user to submit a written report explaining the cause(s), nature, and duration of the bypass, and the steps being taken to prevent its recurrence.
- c. An industrial user may allow a bypass to occur which does not cause pretreatment standards or requirements to be violated, but only if it is for essential maintenance to ensure efficient operation of the treatment system. Industrial users anticipating a bypass must submit notice to the Industrial Waste Section at least ten (10) days in advance. The Industrial Waste Section may only approve the anticipated bypass if the circumstances satisfy those set forth in paragraph a. above.

C. PERMITTEE RESPONSIBILITIES

1. Permit Availability

The originally signed permit must be available upon request at all times for review at the address stated on the first page of this permit.

2. Inspections

The Permittee shall allow the representatives of the Buffalo Sewer Authority or Town of Cheektowaga upon the presentation of credentials and during normal working hours or at any other reasonable times, to have access to and copy any records required in this permit; and to sample any discharge of pollutants.

3. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities for which this permit has been issued the permit shall become null and void. The succeeding owner shall submit a completed Town of Cheektowaga/ Buffalo Sewer Authority permit application prior to discharge to the sewer system.

D. PERMITTEE LIABILITIES

1. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to the following:

- a. Violation of any terms or conditions of this permit,
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts,
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

2. Imminent Danger

In the event there exists an imminent danger to health or property, the permitter reserves the right to take immediate action to halt the permitted discharge to the sewerage works.

3. Civil and Criminal Liability

Nothing in this permit shall relieve the Permittee from any requirements, liabilities, or penalties under provisions of the Town of Cheektowaga Local Law No. 2, the "Sewer Regulations of the Buffalo Sewer Authority" or any Federal, State and/or local laws or regulations.

4. Penalties for Violations of Permit Conditions

The "Sewer Regulations of the Buffalo Sewer Authority" and Town of Cheektowaga Local Law No. 2, provide that any person who violates a B.P.D.E.S. permit condition is liable to the Authority and/or the Town for a civil penalty of up to \$10,000 per day for each violation. Any person who willfully or negligently violates permit conditions will be referred to the New York State Attorney General.

E. NATIONAL PRETREATMENT STANDARDS

If a pretreatment standard or prohibition (including any Schedule of Compliance specified in such pretreatment standard or prohibition) is established under Section 307 (b) of the Act for a pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with such pretreatment standard or prohibition.

F. PLANT CLOSURE

In the event of plant closure, the Permittee is required to notify the Industrial Waste Section/Town Engineer in writing as soon as an anticipated closure date is determined, but in no case later than five (5) days of the actual closure.

G. CONFIDENTIALITY

Except for data determined to be confidential under Section 308 of the Act, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Buffalo Sewer Authority or Town Engineer of the Town of Cheektowaga. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act.

H. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

Leica 2012 Annual Groundwater Treatment System Discharge Summary
December 15th, 2011 Through January 8th, 2013

Date	Meter Reading	Flow (gal)	Comments
12/15/2011	2682854.7		
		435957.3	
2/1/2012	3118812	19145.4	Area C pump only
2/3/2012	3137957.4		Area C pump only
		64370.9	
2/6/2012	3202328.3	19106.6	Both pumps running good
2/7/2012	3221434.9	248932.8	
2/21/2012	3470367.7	169918.8	
3/8/2012	3640286.5	101178.7	
3/19/2012	3741465.2	116462.7	
3/26/2012	3857927.9	50559.1	
3/29/2012	3908487	353777.2	
4/20/2012	4262264.2	197528.6	
5/2/2012	4459792.8	115291.9	
5/9/2012	4575084.7	32942.6	
5/11/2012	4608027.3	111272.5	
5/18/2012	4719299.8	78606.9	
5/23/2012	4797906.7	329473.7	
6/19/2012	5127380.4	220839	Area C pump only
7/17/2012	5348219.4	8008	Both pumps running
7/18/2012	5356227.4	56956.5	Area B pump only
8/9/2012	5413183.9	57416.5	Area B pump only
8/30/2012	5470600.4	125200	Both pumps running again
9/11/2012	5595800.4	38335.3	Area C pump only
9/14/2012	5634135.7	37994.1	
9/18/2012	5672129.8	164694.4	Order new pump for area B
10/9/2012	5836824.2	153190.1	
10/23/2012	5990014.3	120232.8	
10/31/2012	6110247.1	142057.2	
11/6/2012	6252304.3	60366	
11/9/2012	6312670.3	280704.8	
11/28/2012	6593375.1	412508.3	
12/18/2012	7005883.4	497192	
1/8/2013	7503075.4		Pumps shut down for air line repairs
4820221			Total Gallons Discharged 12/25/2011 Through 1/8/2013

March 16, 2012

Mr. William Pugh, P.E.
Town Engineer
275 Alexander Avenue
Cheektowaga, New York, 14211

Subject: Quarterly Discharge Monitoring Report
Leica, Inc. 203 Eggert Road, Cheektowaga, NY
Permit No. 11-02-CH014

Dear Mr. Pugh,

Enclosed you will find the Winter 2012 Monitoring Report for the subject site. If you have any questions you can reach me at 847-405-6565, or Mr. McPeak at 801-303-1092.

Sincerely,



Carl Grabinski
V.P. and Corporate Counsel
Leica, Inc

CC: Dennis Young

Discharge monitoring Report
 Winter, 2012
 Leica, Inc., 203 Eggert Road, Cheektowaga, NY
 Permit No. 11-02-CH014
 Sampling Date February 7, 2012

A single grab sample was collected from the discharge point on the referenced sampling date. The sample is collected from the groundwater collection system discharge line at the discharge sampling port locations shown on Figure 3. Quality of water collected from the subsurface and discharged from the system is consistent throughout the day and a single sample is representative of all water discharged.

A summary of the analytical results is included in Table 1 below.

Analyte	EPA Method	MDL	Result
Total Petroleum Hydrocarbons	1664	4.7 mg/L (MRL)	4.7 mg/L (U)
pH	SM-4500-H+ B	---	Lab 7.27 s.u.
Chloroethane	624	0.72 ug/L	11 ug/L
1,1-Dichloroethane	624	0.40 ug/L	36 ug/L
1,1-Dichloroethene	624	0.88 ug/L	2.8 ug/L (J)
Trans-1,2-Dichloroethene	624	0.64 ug/L	6.2 ug/L
Ethylbenzene	624	0.88 ug/L	2.3 ug/L (J)
Toluene	624	0.48 ug/L	1.8 ug/L (J)
1,1,1-Trichloroethane	624	0.60 ug/L	23 ug/L
Trichloroethene	624	0.52 ug/L	77 ug/L
Vinyl Chloride	624	0.56 ug/L	290 ug/L
Cis-1,2-Dichloroethene	624	0.52 ug/L	510 ug/L
Total VOCs			960.1

J = Estimated value.

B = Analyte also detected in the method blank

D = Concentration is a result of a dilution, typically a secondary analysis due to the first being out of calibration range.

U = Analyte was analyzed for but not detected.

Included with this discharge monitoring report is the meter certification for the currently installed totalizing meter which was installed on April 29, 2011. In accordance with the new discharge permit, the discharge system re-piping has been completed and the new meter has been installed. This sample represents the fourth quarterly sample from the new discharge system. Total VOCs detected were below the permissible limit of 2140 ug/L.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed Carl Scabineri Date: 3/19/12

June 1, 2012

Mr. William Pugh, P.E.
Town Engineer
275 Alexander Avenue
Cheektowaga, New York, 14211

Subject: Quarterly Discharge Monitoring Report
Leica, Inc. 203 Eggert Road, Cheektowaga, NY
Permit No. 11-02-CH014

Dear Mr. Pugh,

Enclosed you will find the Spring 2012 Monitoring Report for the subject site. If you have any questions you can reach me at 847-405-6565, or Mr. McPeak at 801-303-1092.

Sincerely,



Carl Grabinski
V.P. and Corporate Counsel
Leica, Inc

CC: James Kruszka

Discharge monitoring Report
 Spring, 2012
 Leica, Inc., 203 Eggert Road, Cheektowaga, NY
 Permit No. 11-02-CH014
 Sampling Date May 2, 2012

A single grab sample was collected from the discharge point on the referenced sampling date. The sample is collected from the groundwater collection system discharge line at the discharge sampling port locations shown on Figure 3. Quality of water collected from the subsurface and discharged from the system is consistent throughout the day and a single sample is representative of all water discharged.

A summary of the analytical results is included in Table 1 below.

Analyte	EPA Method	MDL	Result
Total Petroleum Hydrocarbons	1664	4.7 mg/L (MRL)	4.7 mg/L (U)
pH	SM-4500-H+ B	---	Lab 7.30 s.u.
Chloroethane	624	0.72 ug/L	12 ug/L
1,1-Dichloroethane	624	0.40 ug/L	39 ug/L
1,1-Dichloroethene	624	0.88 ug/L	2.0 ug/L (J)
Trans-1,2-Dichloroethene	624	0.64 ug/L	5.4 ug/L
Ethylbenzene	624	0.88 ug/L	3.5 ug/L (J)
Methylene Chloride	624	0.72 ug/L	0.88 ug/L (J)
Toluene	624	0.48 ug/L	1.7 ug/L (J)
1,1,1-Trichloroethane	624	0.60 ug/L	37 ug/L
Trichloroethene	624	0.52 ug/L	18 ug/L
Vinyl Chloride	624	0.56 ug/L	240 ug/L
Cis-1,2-Dichloroethene	624	0.52 ug/L	470 ug/L
Total VOCs			829.5

J = Estimated value.

B = Analyte also detected in the method blank

D = Concentration is a result of a dilution, typically a secondary analysis due to the first being out of calibration range.

U = Analyte was analyzed for but not detected.

Included with this discharge monitoring report is the meter certification for the currently installed totalizing meter which was installed on April 29, 2011. In accordance with the new discharge permit, the discharge system re-piping has been completed and the new meter has been installed. This sample represents the fifth quarterly sample from the new discharge system. Total VOCs detected were below the permissible limit of 2140 ug/L.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed *Sam J. Jankowski*

Date: 6/11/12

September 26, 2012

Mr. William Pugh, P.E.
Town Engineer
275 Alexander Avenue
Cheektowaga, New York, 14211

Subject: Quarterly Discharge Monitoring Report
Leica, Inc. 203 Eggert Road, Cheektowaga, NY
Permit No. 11-02-CH014

Dear Mr. Pugh,

Enclosed you will find the Summer 2012 Monitoring Report for the subject site. If you have any questions you can reach me at 630-694-2790, or Mr. McPeak at 801-303-1092.

Sincerely,



Carl Grabinski
V.P. and Corporate Counsel
Leica, Inc

CC: James Kruszka

Discharge monitoring Report
 Summer, 2012
 Leica, Inc., 203 Eggert Road, Cheektowaga, NY
 Permit No. 11-02-CH014
 Sampling Date August 30, 2012

A single grab sample was collected from the discharge point on the referenced sampling date. The sample is collected from the groundwater collection system discharge line at the discharge sampling port locations shown on Figure 3. Quality of water collected from the subsurface and discharged from the system is consistent throughout the day and a single sample is representative of all water discharged.

A summary of the analytical results for GWD083012 are included in Table 1 below.

Analyte	EPA Method	MDL	Result
Total Petroleum Hydrocarbons	1664	4.7 mg/L (MRL)	4.7 mg/L (U)
pH	SM-4500-H+ B	---	Lab 7.20 s.u.
Chloroethane	624	2.0 ug/L	18 ug/L
1,1-Dichloroethane	624	1.3 ug/L	45 ug/L
1,1-Dichloroethene	624	2.2 ug/L	3.3 ug/L (J)
Trans-1,2-Dichloroethene	624	0.95 ug/L	5.1 ug/L
Ethylbenzene	624	0.80 ug/L	3.4 ug/L (J)
Toluene	624	0.86 ug/L	3.1 ug/L (J)
1,1,1-Trichloroethane	624	0.90 ug/L	19 ug/L
Trichloroethene	624	1.1 ug/L	43 ug/L
Vinyl Chloride	624	1.1 ug/L	280 ug/L
Cis-1,2-Dichloroethene	624	0.95 ug/L	540 ug/L
Total VOCs			919.4

J = Estimated value.

B = Analyte also detected in the method blank

D = Concentration is a result of a dilution, typically a secondary analysis due to the first being out of calibration range.

U = Analyte was analyzed for but not detected.

Included with this discharge monitoring report is the meter certification for the currently installed totalizing meter which was installed on April 29, 2011. This sample represents the sixth quarterly sample from the new discharge system. Total VOCs detected were below the permissible limit of 2140 ug/L.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed *Steve Jankowski* Date: 11/5/12

December 12, 2012

Mr. William Pugh, P.E.
Town Engineer
275 Alexander Avenue
Cheektowaga, New York, 14211

Subject: Quarterly Discharge Monitoring Report
Leica, Inc. 203 Eggert Road, Cheektowaga, NY
Permit No. 11-02-CH014

Dear Mr. Pugh,

Enclosed you will find the Fall 2012 Monitoring Report for the subject site. If you have any questions you can reach me at 847-405-6565, or Mr. McPeak at 801-303-1092.

Sincerely,



Carl Grabinski
V.P. and Corporate Counsel
Leica, Inc

CC: James Kruszka

Discharge monitoring Report
 Fall, 2012
 Leica, Inc., 203 Eggert Road, Cheektowaga, NY
 Permit No. 11-02-CH014
 Sampling Date November 9, 2012

A single grab sample was collected from the discharge point on the referenced sampling date. The sample is collected from the groundwater collection system discharge line at the discharge sampling port locations shown on Figure 3. Quality of water collected from the subsurface and discharged from the system is consistent throughout the day and a single sample is representative of all water discharged.

A summary of the analytical results is included in Table 1 below.

Analyte	EPA Method	MDL	Result
Total Petroleum Hydrocarbons	1664	4.7 mg/L (MRL)	4.7 mg/L (U)
pH	SM-4500-H+ B	---	Lab 7.24 s.u.
Chloroethane	624	5.0 ug/L	24 ug/L
1,1-Dichloroethane	624	5.0 ug/L	75 ug/L
1,1-Dichloroethene	624	5.0 ug/L	4.4 ug/L (J)
Trans-1,2-Dichloroethene	624	5.0 ug/L	6.7 ug/L
Ethylbenzene	624	5.0 ug/L	5.2 ug/L
Toluene	624	5.0 ug/L	4.6 ug/L (J)
1,1,1-Trichloroethane	624	5.0 ug/L	61 ug/L
Trichloroethene	624	5.0 ug/L	72 ug/L
Vinyl Chloride	624	5.0 ug/L	280 ug/L
Cis-1,2-Dichloroethene	624	5.0 ug/L	660 ug/L
Total VOCs			1192.9

J = Estimated value.

B = Analyte also detected in the method blank

D = Concentration is a result of a dilution, typically a secondary analysis due to the first being out of calibration range.

U = Analyte was analyzed for but not detected.

Included with this discharge monitoring report is the meter certification for the currently installed totalizing meter which was installed on April 29, 2011. In accordance with the new discharge permit, the discharge system re-piping has been completed and the new meter has been installed. This sample represents the fifth quarterly sample from the new discharge system. Total VOCs detected were below the permissible limit of 2140 ug/L.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed *Luca Fratini* Date: 12/11/12

APPENDIX B

Field Inspection Documents

Inspection Forms
Inspection Notes

Sewer Discharge Field Sampling Log
Leica, Inc., 203 Eggert Road, Cheektowaga, NY
Permit No. 07-01-CH014

Sample Point Discharge
Sample Number GWD 020712
Date of Sampling 2/7/12
Time In (Reading 1): 9:00 Time Out (Reading 2): 15:00
Meter Reading 1: 3216517.3 Meter Reading 2: 3221434.9
Estimated 8 Hour Flow: 6556.8 Estimated 24 Hour Flow: 19670.4
pH reading: Sample To Lab
Sampler Initials WTD
Physical Observations Water levels in both wells is
High.
Weather Conditions 40° Partly sunny
Sampling Supervisor Signature Wayne Bellali Date 2/7/12
Comments Pumps had been down at end
of January. Repairs made week ending
2/3/12.

Analyses required on chain of custody

- TPH 1664
- EPA 624
- EPA 625
- Ph

Scheduled sampling dates

- April 30
- July 31
- Oct 31
- Jan 31

Sewer Discharge Totalizer Flow Log
 Leica, Inc., 203 Egger Road, Cheektowaga, NY
 Permit NO 07-01-CH014

Date	Reading 1 Time	Totalizer Reading 1 (Gal)	Reading 2 Time	Totalizer Reading 2 (Gal)	Total Flow from Time 1 to Time 2	Total Recording Time (Time 1 to Time 2)	Average Flow (GPM)	Observations and Comments
2/1/12	3:30	3118812.0						Repairs made and pumps started at 3:30. Only Area C pump is working.
2/3/12	8:30	3136653.0	11:30	3137957.4	1304.4	3 hrs	7.24	Area C pump Only
2/6/12	9:00	3196942.7	3:00	3202328.3	5385.6	6 hrs	14.96	Both pumps running Good. Water levels still high in both wells
2/7/12	9:00	3216517.3	3:00	3221434.9	4917.6	6 hrs	13.66	Running Good
2/20/12 JTP	9:00	3465616.9	3:00	3470367.7	4750.8	6 hrs	13.19	Running Good Drain Air line Water Traps.

Sewer Discharge Field Sampling Log
Leica, Inc., 203 Eggert Road, Cheektowaga, NY
Permit No. 07-01-CH014

Sample Point Discharge

Sample Number GWD 050212

Date of Sampling 5/2/12

Time In (Reading 1): 09:30

Time Out (Reading 2): 11:30

Meter Reading 1: 4458368.1

Meter Reading 2: 4459792.8

Estimated 8 Hour Flow: 5698.8

Estimated 24 Hour Flow: 17096.4

pH reading: Sample To Lab

Sampler Initials WTD

Physical Observations Running Good

Weather Conditions 65°

Sampling Supervisor Signature Wayne DeHali

Date 5/2/12

Comments _____

Analyses required on chain of custody

- TPH 1664
- EPA 624
- EPA 625
- Ph

Scheduled sampling dates

- April 30
- July 31
- Oct 31
- Jan 31

Sewer Discharge Totalizer Flow Log
 Lelco, Inc., 203 Eggers Road, Cheektowaga, NY
 Permit NO 07-01-CH014

Date	Reading 1 Time	Totalizer Reading 1 (Gal)	Reading 2 Time	Totalizer Reading 2 (Gal)	Total Flow from Time 1 to Time 2	Total Recording Time (Time 1 to Time 2)	Average Flow (GPM)	Observations and Comments
3/8/12	13:30	3638912.3	15:30	3640286.5	1374.2	2 hr	11.45	ON Filter change in morning System running at 12:00 Pumps running
3/11/12	09:00	3737594.5	15:00	3741465.2	3870.7	6 hr	10.75	Pumps running
3/21/12	10:00	3853602.5	16:00	3857927.9	4325.4	6 hr	12.01	Pumps running
3/29/12	09:30	3903547.7	16:30	3908487.0	4939.3	7 hr	11.76	Pumps running
4/1/12	09:00	4060928.7	11:00	4062267.2	1335.5	2 hr	11.13	Pumps running Drain water Traps
5/2/12	09:30	4458368.1	11:30	4469722.2	1424.7	2 hr	11.87	Pumps running
5/7/12	08:00	4569792.0	16:00	4575081.7	5292.7	8 hr	11.02	Drain water Traps
5/11/12	08:00	4609110.9	17:00	4608027.3	6116.4	9 hr	11.32	Pumps Running
5/18/12	08:00	4711025.4	16:00	4719299.8	5274.4	8 hr	10.98	Pumps Running
5/23/12	10:00	4795263.7	14:00	4797966.7	2643.0	4 hr	11.01	Drain water Traps on air lines + Compressor

Sewer Discharge Field Sampling Log
Leica, Inc., 203 Eggert Road, Cheektowaga, NY
Permit No. 07-01-CH014

Sample Point: Discharge

Sample Number: GWD 033012

Date of Sampling: 8/30/12

Time In (Reading 1): 09:00

Time Out (Reading 2): 15:00

Meter Reading 1: 5465494.4

Meter Reading 2: 5470600.4

Estimated 8 Hour Flow: 6868

Estimated 24 Hour Flow: 20424

pH reading: Sample To Lab

Sampler Initials: WTD

Physical Observations: _____

Weather Conditions: Sunny Warm 75°

Sampling Supervisor Signature: Walter D'Alba Date: 8/30/12

Comments: New Pump installed in Area C
Both Pumps running
Sampling one month late. Waited for
New pump for Area C. Old Pump still
working in July 18, 2012.

Analyses required on chain of custody:

- TPH 1664
- EPA 624
- EPA 625

Scheduled sampling dates:

- April 30
- July 31
- Oct 31
- Jan 31

Sewer Discharge Totalizer Flow Log
 Leica, Inc., 203 Eggert Road, Cheektowaga, NY
 Permit NO 07-01-CH014

Date	Reading 1 Time	Totalizer Reading 1 (Gal)	Reading 2 Time	Totalizer Reading 2 (Gal)	Total Flow from Time 1 to Time 2	Total Recording Time (Time 1 to Time 2)	Average Flow (GPM)	Observations and Comments
8/9/12	09:00	5410977.9	15:00	5413183.9	2196 ✓	6 hr -	6.1 ✓	Area C Pump Down Ordered new pump
8/30/12	09:00	5465494.4	15:00	5470600.4	5106 ✓	6 hr -	14.18 ✓	Area B Pump running New Pump installed in Area C on 8/28/12
9/11/12	09:00	5593602.9	15:00	5595800.4	2197.5 ✓	6 hr -	6.1 ✓	BOTH Pumps running Area B Pump down
9/14/12	09:00	5633349.4	11:00	5634135.7	786.3 ✓	2 hr -	6.55 ✓	Area C Pump only
9/18/12	08:00	5668597.5	18:00	5672129.8	3532.3 ✓	10 hr -	5.88 ✓	Area C Pump only Will Be ordering new pump For Area B

Sewer Discharge Field Sampling Log
Leica, Inc., 203 Eggert Road, Cheektowaga, NY
Permit No. 07-01-CH014

Sample Point System Sample Port

Sample Number GWD 110912

Date of Sampling 11/9/12

Time In (Reading 1): 08:30

Time Out (Reading 2): 12:30

Meter Reading 1: 6309762.8

Meter Reading 2: 6312670.3

Estimated 8 Hour Flow: 5815.0

Estimated 24 Hour Flow: 17445.0

pH reading: Lab

Sampler Initials WTD

Physical Observations Area B pump is running, but weak. Drain water trap in air line.

Weather Conditions Sunny 50°

Sampling Supervisor Signature Wayne Dattoli Date 11/9/12

Comments Will be replacing Area B pump.

Analyses required on chain of custody

- TPH 1664
- EPA 624
- EPA 625
- Ph

Scheduled sampling dates

- April 30
- July 31
- Oct 31
- Jan 31

Sewer Discharge Totalizer Flow Log
 Leica, Inc., 203 Eggert Road, Cheektowaga, NY
 Permit NO 07-01-CH014

Date	Reading 1 Time	Totalizer Reading 1 (Gal)	Reading 2 Time	Totalizer Reading 2 (Gal)	Total Flow from Time 1 to Time 2	Total Recording Time (Time 1 to Time 2)	Average Flow (GPM)	Observations and Comments
10/9/12	09:00	5834304.2	15:00	5836824.2	2520.0	6 hr	7.0	Area C Pump Only
10/23/12	09:30	5987880.6	14:30	599014.3	2133.7	5 hr	7.11	Area C Pump Only
10/31/12	09:30	6106133.2	13:30	6110247.1	4113.9	4 hr	17.14	Both Pumps Running
11/6/12	09:00	6245821.8	16:00	6252304.3	6482.5	7 hr	15.43	Both Pumps Running
11/9/12	08:30	6309762.8	12:30	6312670.3	2907.5	4 hr	12.11	Both Pumps Running Area B Pump is weak
11/15/12	09:00	6392182.6	11:00	6393069.0	886.4	2 hr	7.38	Area C Pump Only

1/17/12

8hr Maint.

Shut down Air Compressor for maint. and Oil Filter change. Oil Level low and Found a Flex seal leaking oil. Tighten clamps and Fill Oil Level. Change Oil Filter and reset Timer for start up. Grease Electric Motors. Start up Compressor and check for oil leaks. Restart deep well water Pumps. Drain water from air systems. Area B pump running ok. Area C Pump is working, but not continuous. May need work on pump or air regulator.

1/31/12

8hr Maint.

Order Glass from Lab for Quarterly Discharge Sample. Check over Systems. Air Compressor running ok with no loss of Oil. Deep well pumps are both down and not pumping water. Area B well has an air leak in the well. Pull pump out of well and replace air hose. Replace air regulator and water Trap. Add shut off valve for air line at the well. We never had shut off for each well and we would have to shut down air at compressor. That meant both pump shut down to work on one. Area C well has a lot of water from main air line and the regulator will not go any higher air pressure than 20 lbs. Tomorrow's job

2/1/12

8 hr Maint.

Replace Air regulator and water Trap at Area C well. Install shut off valve for air line.

Restart water pumps and let water blow off air line in Area C. Area C pump is pumping water and seems to be working good.

Area B pump is not pumping water, getting air ok but only a little water pumping. Pull pump out again to check. Take pump home to my shop to take apart. I can't get it apart myself without a vise.

2/2/12

4 hr. Maint.

Take pump apart and clean. Inside pump float and air valve look ok after cleaning. Check valve at top of pump is bad. Put pump together and get a new check valve tomorrow.

2/3/12

8 hr. Maint.

Take discharge meter readings. Check Area C Pump and drain water trap at well head. Area C pump is pumping 724 GPM, which is good. Get new check valve for Area B pump and install pump back in well. Start pump late afternoon and seems to be working good.

2/6/12

8 hr Maint.

Check over Systems. Take discharge meter readings. Drain water Traps at both well heads. Both Pumps running good. Water levels still high in both wells. Call Lab and schedule pickup for Tomorrow at noon for Quarterly discharge Samples. Meet with Jim in warehouse to see where we are at with installation approval.

2/7/12

8 hr Maint.

Take discharge meter readings. Check over Systems. Pumps running good. Take Quarterly Discharge Samples. Get Ice and pack cooler. Do Coc and paper work. Lab pickup at noon. Do some clean up work inside Trailer Boxes.

2/21/12

8 hr Maint

Take discharge meter readings. Drain water Air storage Tank and compressor. Check over systems. Drain water traps at well heads. Both pumps working. Work on field notes and Billing.

3/8/12

Maint. 8hr

Shut down Systems for Oil Filter change on air compressor. Grease Motors and Fill oil level. Restart Systems and drain water Air storage Tank and water Traps at well Heads.

Take new measurements in warehouse for Subslab extraction systems. Take pictures To send Mark and Bob with my Drawings + Measurements.

Take discharge meter readings in the afternoon.

3/13/12

Remediation 4hr

Work on Subslab Drawings and pictures. Get My Drawings and measurements with pictures Email To Bob + Mark.

3/19/12

Remed. 4hr

Maint 4hr

check some measurements for subslab systems and discuss with Mark on Phone To explain Drawings + Pictures.

check Sampling supplies and order Glass for sampling from Lab.

Take discharge meter readings and check over Pump Systems. Drain water Traps for air lines.

3/21/12

Maint 8 hr

Check over Pump systems. Take down plywood covering all vents in Both Trailer Boxes. It has got really warm 80° early. Reinstall Fan shrouds for exhaust Fans. Temp on compressor is running cooler now.

looking in warehouse at our last soil air sampling points. We are looking at areas of concern for foundations and closed off areas where remediation may be needed. Bob is thinking to take more air samples.

3/23/12

Maint 4 hr

Lab dropping off Glass + coolers for sampling.

Start taking water level measurements. Order YSI 556 meter for next week Thursday.

3/26/12

Remediation 8 hr

Bailing wells in residential area. Containing water and run through our systems on site.

Took discharge meter readings and check over pump systems.

3/27/12

Maint 5hrs

Remed. 5hrs

Taking water level measurements and Bailing wells in Area C. Will start Taking samples Tomorrow.

3/28/12

Maint 5hrs

Remed. 5hrs

Taking Samples from wells in Area C. And residential area. Pack in coolers and ice. Fill out COC for Lab. Scheduled Lab pickup for Friday 12:00. Let warehouse know that I will be working inside and out by MW 2 wells Thursday + Friday.
Bail MW 18 wells and sample.

3/29/12

Maint 5hr

Remed. 5hr

Take Discharge meter readings and check over pump systems. Drain water Traps at well heads.

Water level measurements and Bail MW 2A, MW 16 R, MW 24, and MW 24 A. Sample from all but MW 2A. Will Take Tomorrow.
Take Well perimeter measurements for 10 wells. Decon VSI cable and pack for shipping Tomorrow.

3/30/12

Maint 4hr

Remed. 4hrs

Take samples From MW2A, 11A, and 16A.
Pick up ice and repack cooler. Finish
COC paperwork for Lab pickup at 12:00.
Ship YSI back at Fedex airport office.
Work on field notes and paper work.

4/4/12

Remed. 4hr

Work at Home on Map Drawings for
Warehouse. Possible Foundations, closed
rooms and offices. Locations of last
Fall air and soil gas sampling.
All discussed with Bob, Dan and
Mosios by phone.

4/9/12

Maint 3hr

Work at Home on Maint Summary 2011
For Bobs annual report. Go back thru
2011 field notes any system down time
and repairs made. Email Summary
to Bobs computer.

4/20/12

4 hr Maint.

Check over pump systems. Drain water traps at well heads. Take Discharge meter readings.

Make list for parts + oil for compressor. Phone call with Dan. Order parts + oil for compressor.

4/30/12

2 hr Remed.

Discuss Estimate For SSDS install with Bob on phone. Look over estimate for Bob and make comments.

Make equipment calls and look at scheduling for 5/7/12 job start. Order Glass from Lab Quarterly Discharge.

5/1/12

2 hr Remed. 4 hr Maint.

Print Installation Plan and look over Final Plan.

Lab delivers Cooker and Glass. Check over systems. Discuss SSDS with Samson warehouse.

5/2/12

6hr Maint.

2hr Remed.

Take Discharge meter readings. Collect Discharge samples and pack in cooler and ice. Do paper work and COC For Lab pickup at noon. Pickup ice.

Confirm 5/7/12 start SSDS in warehouse with Bob, Dan, Samson Mark and Jim, and United Rentals for equipment.

5/4/12

4hr Remed.

Locate and Buy Ballard pipes. Order and pickup.

5/7/12

8hr Remed.

Get Tools ready Ladders, Saws, Drills, levels, Shovels, Post Hole auger and Hand Tools. Set up work areas and caution Tape area. Work with Samson To move some stuff. Run water Hose for core drill.

5/8/12

12 hrs Remed.

Dan onsite. Discuss Installation and Safety issues. Pickup Core Drill at United Rentals.

Work on Core drilling in Floor of warehouse.

5/9/12

10 hrs Remed.

Finish Core drilling Floor. Clean up work areas and Core drill. Return Core drill to United Rentals and confirm LIFTs for delivery on Monday morning.

Make materials list and start digging out wells. Took Discharge meter readings.

5/10/12

10 hrs Remed.

Pickup materials at Home Depot. Working on draw point well installation. Digging wells and Ballard Pipe Holes. Start installing 4in PVC slotted in sump hole and to ~~two~~ wall supports. Confirm Backhoe for Saturday with United Rentals.

5/11/12

10 hr Remed.

Finish Sump holes with pipes and brackets to wall. Sump Holes sealed off with Hydraulic cement.

Vacuum alarm mounted to wall and connected to 4in PVC.

Ballard Pipe set and sealed off with hydraulic cement, will start over head piping on Monday.

Took Discharge meter readings.

5/12/12

8 hr Maint.

Work on loading dock area parking lot. Remove 4 old curb boxes from dock area. Cap any open pipes and fill holes with 1+2 mix crushed stone. Boxes were no longer in use and were caving in from Truck Traffic.

5/14/12

10 hr Remed.

Call Backhoe off rent for pickup by United Rentals. Lifts delivered by United Rental. Start working on Fan install and overhead piping. Moises onsite with Dan and I this week.

5/15/12

10 hr Remed.

Working on Fan install and overhead piping. Fan mounting brackets and holes through concrete block walls

5/16/12

12 hr Remed.

Working on Fan install and overhead piping. Bob onsite discuss location of exhaust stacks outside warehouse. Drill holes for stacks through roof eave. Help Bob locate some sample points in warehouse and we will be working on some maps to better locate sample points and wells. also looking for mapping possible foundations inside warehouse. Call United Rental for outside man lift to work on roof of warehouse. To install exhaust stacks.

5/17/12

10 hr Remed.

Lift delivered by United Rentals. Finish up work on roof. Seal block walls around pipes with hydraulic cement. install water drains to bypass fans for any water condensation. Finish concrete work around sumps and balland pipes.

5/18/12

8hr Remed.

Call off rent on Man Lifts. United Rental will pickup. Stop at Home Depot for Fittings. Finish connect piping on one system. Paint Ballard Pipes and PVC pipe from floor to wall mounts. Bright yellow paint. Clean up in warehouse and Take Tools Home. Take Discharge meter readings.

5/23/12

8hr Remed.

Take Discharge meter readings. Working on maps for Bob. We are starting with columns inside warehouse. Trying to check measurements that Bob started with. Made call for electric work. But Haven't Heard back from Frey.

5/30/12

8hr Remed.

Take Discharge meter readings. Take column measurements and make maps to send Moises. Call Freys again leave message for Mike. Set up to look at Electric on 6/4/12 at 9:30.

6/4/12

8 hr Remed.

Take Discharge meter readings. Drain Water Traps and air compressor.

Check in maps that Moises changed for us. Columns are closer. Send some more changes to Moises and talk to him on phone.

Mike was here about electric and is going to call me about schedule.

6/12/12 4hr Remod

Meet Frey Electric at site. Discuss what we what done. Looks at power locations and make material list. Will start Tomorrow morning.

6/13/12 8hr Remod.

Frey Electric on site. I am working on Bob's Building volume map. Changes being made with Moises. Start location of past sampling done inside Building. We are remapping all sample points.

Frey has to order services meter and will call me when we can finish Electric.

6/19/12 4hr Maint. 4hr Remod.

Check over systems. Take Discharge meter readings. Area C Pump is down. Drain water traps at wells and compressor. Try restarting Area C Pump. Will not keep running. Will have to pull pump to check out.

Working on remapping sample points in building. Sending maps to Moises in office to work on. Bob asked to get this done this week. He needs it to complete second sampling work plan.

6/20/12

8 hr Remed.

Remapping Sample Points in Building.
Working back and forth with Moises in office
Email and scanning maps.

6/21/12

8 hr Remed.

Finish locating Sample points. Make changes
on locations of water sampling wells and new
subslab DS system draw points inside building.
measurements + location of MW16A and 16R
outside building. Email moises and Talk on
phone.

7/11/12

8 hr ~~Remed~~^{WTO} Maint.

Shut down Compressor and Pump System.
Pressure wash compressor and Radiator.
Temp running warm. leave shut down
for a few days To make sure electric
motors dry out.
Pull Area C Pump To check For cause
of Failure. Top check valve is Bad.
locate new check valve. Call about Electric
he's on vacation until Monday.

7/12/12

2 hr Maint

Pick up new check valve at Home Depot
in Dunkirk, N.Y.

7/16/12

8 hr Maint.

Call Electrician and he will be here Tomorrow.

Change oil, oil filters, Air filter and water trap filters on Air compressor

Change check valve on top of Area C Pump and install pump in well.

Start compressor and pumps. Drain water traps at wells and start pumps.

System running both pump working.

7/17/12

6 hr Remed. 2 hr Maint.

Electrician on site and working on installing meter for electric. Missing a fuse link for meter. Thinks he can get it for tomorrow.

Check over systems and take discharge meter readings. Both pumps running.

Compressor running cooler after cleaning radiator.

7/18/12

8 hr Maint.

Take discharge meter readings. Area C Pump has quit running again. I tried to take pump apart to look at air intake and exhaust needle valves. Was unable to get it apart. I think the pivot mechanism is bad. They were replaced years ago. Discuss new pump with Bob.

8/9/12

8 hr Maint.

Check over Systems. Drain water Traps for Air lines and Compressor.

Order New Pump For area C well.

Take Discharge meter readings.

Electrician finished work at warehouse for Fans. Lab delivered glass for Discharge Samples.

8/28/12

8 hr Maint.

Shut down Compressor for Oil Filter change.

Install New pump in area C well.

Restart Systems and Drain water Trap at well heads.

Both pumps running. Discuss Air Sampling with Mark + Jim at warehouse For week of 9/17/12. Should be good.

8/30/12

8 hr Maint

Take Discharge meter readings and Samples. Do paper work and COC For lab pickup at 12:00. Pickup Ice and pack Cooler. Check over systems. Talk with Mark at warehouse about sampling work in warehouse. What was involved and equipment we would be using.

9/11/12

8 hr Maint.

Check over Systems. Drain Air Lines at water Traps. Area B pump not running. Pull pump To check Air lines and reinstall. Working now OK. Not sure why it stopped.

City Sewer Dept stopped To get Discharge Sample. They get one annual.

Area B pump only ran for awhile and stopped again.

Called Bob about Bill Pugh with Sewer Dept. Bob will call him.

9/14/12

8 hr Maint.

Pull out Area B pump and Take apart. Clean pump and it looks like Float mechanism is worn and sticking. Will Discuss new pump with Bob next week.

Lab Drops off Air Sampling Canisters But no water glass.

Confirm with Bob + Dan about monday start.

9/17/12 12.5 hrs Remed.

Meet Bob and Dan onsite at 7:30. Dan goes over Health + Safety Plan meeting. Show Bob pumps that are bad. Work on air sampling in warehouse. Walk site with Bob and Lieca Reps.

9/18/12 12 hrs Remed.

Radar locating and well drilled on site. Air Sampling and Temporary water wells done. DEC onsite with Bob.

9/19/12 12.5 hrs Remed.

Myself and Dan Air Sampling. Call Lab for sample pickup. Today and Friday

9/20/12 12.5 hrs Remed.

Myself and Dan Air Sampling. Also start installing vacume check points. Start clean up from sampling.

9/21/12 8 hr Remed.

Air Sampling Finished. Lab pickup at 12:00. Finish vacume check points and clean up in warehouse. Move Tools and equipment to out of warehouse.

9/25/12

4hr Maint.

Working on paper work for Dan and
Billing.

10/9/12

8hr Maint.

Check over systems, Drain water Traps on air system. Take Discharge meter readings. Area C pump is working good.

Clean up in Trailer Boxes, looking for spare parts for pumps. Cutting up old PVC pipes that will be disposed of. Will be getting rid of old stuff inside and around outside. Used pipe, tubing, old pallets.

Make list of fittings to install PID check points and vacume gauges in SSDS systems.

10/23/12

4hr Maint.

4hr Remed.

Check over systems. Time for oil filter change. Take Discharge meter readings. Check water test wells in warehouse to see if we can get water samples. INT 12+13 have water. INT 10+11 are dry. Discuss with Dan + Bob on phone about taking samples for 12+13. We will take them next week. Order glass for semi annual sampling. Order supplies with mini balers for test wells.

10/24/12

8hr Maint.

Shut down System For Oil Filter Change. Change Filter and add oil. Grease Motors on compressor. Restart Compressor and water Pumps. Also cleaned and change some parts on Area B pump and installed pump. Drain water Traps in air system. Area B pump is running again.

10/31/12

4hr Maint. 4hr Remed.

Check over Systems. Both Pump are running good. Get supplies For Sampling from warehouse. Get water samples from IANT-12+13 Test wells in warehouse. Slow recovery at Both Test wells. Waited about 2 hr To get enough water To fill sample Vials. Take discharge meter readings. Confirm Lab pickup For Tomorrow. Do field notes and chain of custody For Lab. Get fittings for SSDS system.

11/1/12

8hr Remed.

Install fittings For Gauges (Vacuum) on SSDS systems. Install Port in system for AID readings. Connect moisture drains in SSDS pipes.

Lab pickup samples from Test wells in warehouse and drop off Glass For Semi-Annual Water Sampling.

11/5/12

4 hr Maint. 4 hr Remod.

Check system over. Drain water from Air Compressor and lines.

Order VSI 556 For field Parameters for rent on 11/8.

Taking water level measurements in all wells. Figure Bailing volumes for sampling.

11/6/12

6 hr Maint. 5 hr Remod.

Take Discharge Meter readings. Start Bailing wells in area C. Taking some samples Today and more Tomorrow morning for Lab Pickup at 12:00.

Call Karen at Lab for Discharge sample Glass and arrange pickup of well samples Tomorrow and Friday. Work on COC For Lab and pickup.

11/7/12

5 hr Maint 5 hr Remod.

Pick up Ice and repack samples.

Take 6 more well samples. Pack Cooler. Finish COC For Lab Pickup.

Set up Trailer For water from residential area. Samples Pick at 12:00.

Bail wells in residential area all afternoon. All Bailing water contained and disposed at air Discharge system.

11/8/12

5hr Maint.

5hr Remed.

Set up with warehouse To Bail and sample MW24 Pair and MW2 Pair. Contain water from MW24 Pair inside warehouse. get warehouse. To move Drum of water outside To our discharge system. Depose of water Through discharge. Take samples MW24A, MW24, and MW2A. Ice samples in cooler.

Take Field Parameters from 14 wells. Decon YSI 556 and pack for fedex shipping return. Ship from Fedex at Airport.

11/9/12

4hr Maint.

4hr Remed.

Take Discharge meter readings and Quarterly samples. Pick up Ice and pack Coolers. Take samples from all residential wells and pack for lab pickup at 12:00. fill out COC for lab pickup. fill out paper work and COC for Discharge Sampling. Clean up from Sampling This week.

11/15/12

4 hr Maint. 4 hr Remod.

Check over Systems, Take Discharge Meter Readings. Area B pump is not running at all. We will be replacing pump new soon. I will start checking on new pump.

Lab drops off Summa canister and Flow controller for an 8hr open air sample. Will run sample on Monday and lab will pickup on Tuesday 11/20.

11/19/12

5 hr Maint

5 hr Remod

Set up 8hr Air sample at 043 location in warehouse. Air sample had to run for 8.5 hours to get down to 5.5 vacume.

Also worked on closing up Trailer vents for winter. And some clean up in both Trailers.

11/20/12

4 hr Maint.

4 hr Remod.

Box Summa canister and Flow controller. Fill out COC for Lab pickup at 12:00.

Make list of work and materials for more winterizing Trailers and pumping wells.

Working on field notes and Billing.

11/28/12

8hr Maint

Check over systems. Take Discharge meter readings. Both Pumps running, Check warehouse for PID that Dan was sending me. Talk to Mark and Jim about mapping out office areas tomorrow. They will let office know and will walk through with me tomorrow morning.

11/29/12

8hr Remed.

Work on office Mapping. Taking measurement and Drawing Floor Plan for main offices in front of Warehouse. (West side)
Taking Pictures of office Areas.

12/3/12

8hr Remed.

Office Mapping. Traffic Offices that are located East of existing Court yard. Drawing Floor Plan and Taking measurements to send to Moises for mapping.
Taking Pictures of offices and separate Heating Systems.

12/4/12

4 hr Remed.

Working at Home on Office mapping and Pictures To Send To Moises. Scan on Computer for Email.

12/5/12

4 hr Remed.

Send Email To Moises, Bob and Dan. Pictures and measurements For mapping office Areas.

Talking with Moises on Phone To explain Drawings and Measurements

12/6/12

8 hr Maint.

Shut Down Systems For Compressor Oil Filter Change. Change Filter and Fill with Oil. May be using more Oil Than ~~usual~~^{WTP} normal. Grease motors and restart Systems, Drain Water Traps on Compressor, Air Tank and at Both well Pumps.

Everything running Good.

12/10/12

4 hr Maint.

4 hr Remed.

Check over Systems. All running Good. Let Bob and Dan know about Airleak in Parking Lot

Take Pictures in warehouse of all separate Heat systems for office Areas. Draw map and show Three separate Office areas and Heat systems. Send To Moises, Bob and Dan. Scan and Email Map and Pictures.

12/18/12

8 hr Remed.

Check over Systems. Take Discharge meter readings.

Start up Vacuum systems in Entryway and loading Dock Areas. Take PID readings before start up. Take Vacuum readings 1 system running at a time and then with both running. Talk with Bob and Dan about this on phone.

12/21/12

4 hr Remed.

Check over Systems. Vacuum systems running with 5.5 in vac in Entryway and 4.5 in vac in Loading Dock area. Power meter is reading KW power. Message board is saying (Check install). I will look at install book. May call Electric contractor Freys.

APPENDIX C

Data Tables for Groundwater and Sub-Slab and Indoor Air

Table 1	Groundwater Elevation Data (March, 2012)
Table 2	Groundwater Elevation Data (November 2012)
Table 3	Semi-annual Groundwater Data (A (Wells 1-3), B (Wells 5-10), C (Wells 11A-14A), D (Wells 16A-16R), E (Wells 18-22A), F (Wells 23-26A), & G (Wells 27-29A))
Table 4	Groundwater Grab Sample Data (November, 2012)
Table 5	Groundwater Data Trends
Table 6	Summary of Indoor Air Data (September, 2012)
Table 7	Summary of Sub Slab Data (September, 2012)
Table 8	Leica Vertical Well Gradients, Areas Downgradient of Area B

Prepared by: DRS
 Date: 4/10/2013
 Checked by: MT
 Date: 4/12/13

Table 1
Groundwater Elevation Data
March 2012

Well Number	Depth to Water (ft.)	Depth to Bottom (ft.)	Top of PVC Elevation	Water Column (ft.)	Well ID (inches)	One Well Volume (gal.)	Water Elevation (ft.)	Notes
MW-1	6.58	NM	662.38	NM	2	NA	655.80	
MW-1A	10.18	NM	663.48	NM	4	NA	653.30	
MW-2	7.36	7.68	657.01	0.32	2	0.05	649.65	
MW-2A	7.30	29.34	657.02	22.04	4	3.59	649.72	
MW-3	5.26	NM	655.94	NM	2	NA	650.68	
MW-4	7.58	NM	655.57	NM	2	NA	647.99	
MW-5	3.56	10.16	654.80	6.60	2	1.08	651.24	
MW-5A	4.42	38.98	654.84	34.56	4	5.63	650.42	
MW-6	8.22	14.78	660.84	6.56	2	1.07	652.62	
MW-6A	9.54	20.64	659.38	11.10	4	1.81	649.84	
MW-7	5.90	NM	658.21	NM	2	NA	652.31	
MW-9	6.60	NM	654.99	NM	2	NA	648.39	
MW-9A	3.46	NM	654.67	NM	4	NA	651.21	
MW-10	3.30	10.04	655.48	6.74	2	1.10	652.18	
MW-11A	9.98	NM	656.60	NM	6	NA	646.62	Pumping Well
MW-13	2.74	NM	654.66	NM	2	NA	651.92	
MW-13A	3.36	NM	655.13	NM	4	NA	651.77	
MW-14	2.14	10.50	653.38	8.36	2	1.36	651.24	
MW-14A	2.58	33.90	653.70	31.32	4	5.11	651.12	
MW-16R ²	5.30	11.98	660.04	6.68	2	1.09	654.74	
MW-16A	13.84	NM	659.95	NA	6	NA	646.11	Pumping Well
MW-17A	3.20	NM	659.18	NM	4	NA	655.98	
MW-18	9.04	12.70	662.51	3.66	2	0.60	653.47	
MW-18A	10.32	34.54	662.72	24.22	4	3.95	652.40	
MW-19	6.50	NM	660.84	NM	2	NA	654.34	
MW-20	4.16	NM	659.12	NM	2	NA	654.96	
MW-22	2.70	11.04	652.51	8.34	2	1.36	649.81	
MW-22A	3.00	45.94	654.45	42.94	6	7.00	651.45	
MW-23	3.42	NM	655.99	NM	2	NA	652.57	
MW-24	8.02	13.34	662.74	5.32	2	0.87	654.72	
MW-24A	9.60	34.20	662.85	24.60	4	4.01	653.25	
MW-25	4.00	10.52	653.20	6.52	2	1.06	649.20	
MW-25A	1.82	34.34	653.28	32.52	4	5.30	651.46	
MW-26	5.28	10.90	653.60	5.62	2	0.92	648.32	
MW-26A	2.76	34.36	653.70	31.60	4	5.15	650.94	
MW-27	5.96	10.88	654.68	10.88	2	1.77	648.72	
MW-27A	4.80	34.28	654.81	34.30	4	5.59	650.01	
MW-28	7.24	12.20	653.21	12.20	2	1.99	645.97	
MW-28A	5.06	34.44	652.97	34.46	4	5.62	647.91	
MW-29A	2.16	39.56	652.99	39.58	4	6.45	650.83	

Notes

- 1 Monitoring well accidently damaged or removed during excavation activities in Area C
- 2 Monitoring well MW-16R installed to replace MW-16
- 3 NL = Not Located
- 4 NM = Not Measured
- 5 NA = Not Available

Table 2
Groundwater Elevation Data
November 2012

Well Number	Depth to Water (ft.)	Depth to Bottom (ft.)	Top of PVC Elevation	Water Column (ft.)	Well ID (inches)	One Well Volume (gal.)	Water Elevation (ft.)	Notes
MW-1	0.00	NM	662.38	NM	2	NA	NA	Dry
MW-1A	12.9	NM	663.48	NM	4	NA	650.58	
MW-2	7.68	7.68	657.01	0.00	2	0.00	649.33	
MW-2A	7.70	29.34	657.02	21.64	4	3.53	649.32	
MW-3	6.58	NM	655.94	NM	2	NA	649.36	
MW-4	0.00	12.04	655.57	12.04	2	1.96	NA	Dry
MW-5	6.04	10.14	654.80	4.10	2	0.67	648.76	
MW-5A	6.60	38.96	654.84	32.36	4	5.27	648.24	
MW-6	9.92	14.78	660.84	4.86	2	0.79	650.92	
MW-6A	12.36	20.64	659.38	8.28	4	1.35	647.02	
MW-7	7.52	NM	658.21	NM	2	NA	650.69	
MW-9	0.00	10.40	654.99	10.40	2	1.70	NA	Dry
MW-9A	5.76	NM	654.67	NM	4	NA	648.91	
MW-10	8.86	10.02	655.48	1.16	2	0.19	646.62	
MW-11A	20.70	NM	656.60	NM	6	NA	635.90	
MW-13	0.00	10.26	654.66	10.26	2	1.67	NA	Dry
MW-13A	6.74	NM	655.13	NM	4	NA	648.39	
MW-14	5.90	10.50	653.38	4.60	2	0.75	647.48	
MW-14A	4.84	33.90	653.70	29.06	4	4.74	648.86	
MW-16R ²	8.34	11.98	660.04	3.64	2	0.59	651.70	
MW-16A	18.14	NM	659.95	NA	6	NA	641.81	
MW-17A	4.96	NM	659.18	NM	4	NA	654.22	
MW-18	8.5	12.70	662.51	4.20	2	0.68	654.01	
MW-18A	12.72	34.52	662.72	21.80	4	3.55	650.00	
MW-19	7.30	13.30	660.84	6.00	2	0.98	653.54	
MW-20	7.06	NM	659.12	NM	2	NA	652.06	
MW-22	6.28	11.04	652.51	4.76	2	0.78	646.23	
MW-22A	5.30	45.96	654.45	40.66	6	6.63	649.15	
MW-23	8.48	13.16	655.99	NM	2	NA	647.51	
MW-24	9.32	13.34	662.74	4.02	2	0.66	653.42	
MW-24A	12.66	34.20	662.85	21.54	4	3.51	650.19	
MW-25	5.72	10.50	653.20	4.78	2	0.78	647.48	
MW-25A	4.88	34.34	653.28	29.46	4	4.80	648.40	
MW-26	8.50	10.90	653.60	2.40	2	0.39	645.10	
MW-26A	4.88	34.36	653.70	29.48	4	4.81	648.82	No Recovery
MW-27	7.22	10.88	654.68	10.88	2	1.77	647.46	
MW-27A	7.00	34.26	654.81	34.30	4	5.59	647.81	No Recovery
MW-28	7.34	12.20	653.21	12.20	2	1.99	645.87	
MW-28A	5.32	34.46	652.97	34.46	4	5.62	647.65	No Recovery
MW-29A	4.64	39.56	652.99	39.58	4	6.45	648.35	No Recovery

Notes

- 1 Monitoring well accidently damaged or removed during excavation activities in Area C
- 2 Monitoring well MW-16R installed to replace MW-16
- 3 NL = Not Located
- 4 NM = Not Measured
- 5 NA = Not Available

Table 3B (Wells 5-10)
Quarterly Groundwater Data
Leica Microsystems, Eggert Road
Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-5																							
				May-02-07	May-14-08	Jul-30-08	Apr-15-09	Oct-6-09	Jan-14-10	Mar-24-10	Jul-6-10	Sept-29-10	Dec-16-10	Mar-23-11	Jun-8-11	Oct-5-11	Dec-14-11	Mar-28-12	Nov-7-12								
				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Volatiles Organic Compounds (ug/l)																											
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9	J	ND	ND	ND	ND						
benzene	71432	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
bromodichloromethane	75274	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
bromoform	75252	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
bromomethane	74839	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
carbon tetrachloride	56235	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
chlorobenzene	108907	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
chloroethane	75003	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
chloroform	67663	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
chloromethane	74873	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
dibromochloromethane	124481	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
1,1-dichloroethane	75343	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
1,2-dichloroethane	107062	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
1,1-dichloroethene	75354	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
cis-1,2-dichloroethene	156592	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
trans-1,2-dichloroethene	156605	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
1,2-dichloropropane	78875	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
cis-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
trans-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
ethylbenzene	100414	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
methylene chloride	75092	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
styrene	100425	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
1,1,2,2-tetrachloroethane	79345	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
tetrachloroethene	127184	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
toluene	108883	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
1,1,1-trichloroethane	71556	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
1,1,2-trichloroethane	79005	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
trichloroethene	79016	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
vinyl chloride	75014	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
o-xylene	95476	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
m+p xylene	108383/106423	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND						
TOTAL VOCs				0	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0	0						
Percent TCE				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Percent DCE				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Percent VC				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Chemistry (mg/L)				MW-5																							
Chloride				NA	18.1	23.8	3.7		2	U	4		5.5		2		41.5		6.4		5		NA	NA	NA	NA	NA
Ferrous Iron				NA	0.174	<0.100	0.1	U	0.1	U	0.1	U	NA		NA		NA		NA		NA		NA	NA	NA	NA	NA
Nitrate Nitrogen				NA	<0.500	<0.500	0.5	U	0.88		0.91		0.58		0.5	U	0.5	U	1	U	1	U	NA	NA	NA	NA	NA
Sulfate				NA	38.8	52.9	19.9		15		13		17.2		9.8		12.9		16.3		15.6		NA	NA	NA	NA	NA
Total Organic Carbon				NA	2.11	2.71	2.7		2.3		2.6		1.9		3.8		11.6		4.5		1.9		NA	NA	NA	NA	NA
Ferrous Iron Dissolved				NA	<0.100	<0.100	0.1	U	0.5	U	0.1	U	100	U	160		1180		100	U	100	U	NA	NA	NA	NA	NA
Manganese				NA	0.0476	0.0217	65		39		22		NA		NA		NA		NA		NA		NA	NA	NA	NA	NA
Manganese Dissolved				NA	<0.0100	<0.0100	10	U	10		10	U	33		277		55		10	U	NA		NA	NA	NA	NA	NA
Dissolved Oxygen (DO)				NA	NA	0.70	NA		28.5		15.5		NA		33.6		NA		45.4		135.4		3.8	NA	NA	NA	NA
pH				NA	NA	8.53	8.53		8.29		8.73		NA		8.43		NA		8.70		8.27		7.62	NA	NA	NA	NA
Oxygen Reduction Potential				NA	NA	-131.00	-99.00		-207.4		-157.8		NA		-109.7		NA		-106.5		3.4		-30.2	NA	NA	NA	NA

NOTES:
 RAOs GW = Remedial Action Objectives for Groundwater
 CAS = Chemical Abstract Service registry number
 Bold = Exceeds RAOs for groundwater (Not applicable to Treatment System Effluent)
 ND = Not Detected
 NA = Not Analyzed
 E = Exceeds Calibration Range
 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 3B (Wells 5-10)
Quarterly Groundwater Data
Leica Microsystems, Eggert Road
Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-5A																		
				May-02-07	May-14-08	Jul-30-08	Apr-15-09	Oct-16-09	Jan-14-10	Mar-24-10	Jul-6-10	Sept-29-20	Dec-16-10	Mar-23-11	Jun-8-11	Oct-6-11	Dec-14-11	Mar-28-12	Nov-7-12			
				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Volatiles Organic Compounds (ug/l)																						
acetone	67641	20	-	ND	ND	ND	31	85	26	ND	ND	32	ND	ND	ND	12	J	ND	ND	ND	ND	
benzene	71432	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromodichloromethane	75274	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromoform	75252	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromomethane	74839	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-butanone (MEK)	78933	10	-	ND	ND	ND	24	81	72	43	120	45	58	ND	36	14	45	39	22			
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
carbon tetrachloride	56235	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chlorobenzene	108907	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroethane	75003	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroform	67663	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloromethane	74873	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
dibromochloromethane	124481	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethane	75343	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-dichloroethane	107062	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethene	75354	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,2-dichloroethene	156592	5.0	5	12	10	9	ND	ND	ND	ND	ND	ND	ND	ND	4.6	J	ND	14	ND	ND	ND	
trans-1,2-dichloroethene	156605	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-dichloropropane	78875	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trans-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
ethylbenzene	100414	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
methylene chloride	75092	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
styrene	100425	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2,2-tetrachloroethane	79345	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tetrachloroethene	127184	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
toluene	108883	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1-trichloroethane	71556	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2-trichloroethane	79005	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trichloroethene	79016	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
vinyl chloride	75014	5.0	5	16	14	9.6	16	18	19	16	7	15	ND	7.9	7.7	ND	14	7.6	ND	ND	ND	
o-xylene	95476	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
m+p xylene	108383/106423	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
TOTAL VOCs				28	24	18.6	71	184	117	59	159	60	58	7.9	60.3	14	73	46.6	22			
Percent TCE				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Percent DCE				43%	42%	48%	0	0	0	0	0	0	0	0	8%	0	19%	0	0			
Percent VC				57%	58%	52%	23%	10%	16%	27%	4%	25%	0	100%	13%	0	19%	16%	0			
Chemistry (mg/L)				MW-5A																		
Chloride				NA	115.0	78.6	150	138	126	110	96	82.9	62.4	83.4	NA	NA	NA	NA	NA	NA	NA	
Ferrous Iron				NA	<0.100	<0.100	2.67	1.03	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Nitrate Nitrogen				NA	<0.500	<0.500	0.5	U	0.5	U	0.5	U	0.5	U	1	U	1	U	NA	NA	NA	
Sulfate				NA	89.5	60.0	81.5	55.2	44.9	46.9	8.5	13.2	6.5	62.5	NA	NA	NA	NA	NA	NA	NA	
Total Organic Carbon				NA	3.03	17.80	130	280	476	312	176	135	85.2	13.9	NA	NA	NA	NA	NA	NA	NA	
Ferrous Iron Dissolved				NA	<0.100	<0.100	3.8	0.84	14.9	11200	12500	11000	5050	910	NA	NA	NA	NA	NA	NA	NA	
Manganese				NA	0.0932	0.0903	195	512	175	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Manganese Dissolved				NA	0.0735	0.0405	151	502	171	109	87	49	56	75	NA	NA	NA	NA	NA	NA	NA	
Dissolved Oxygen (DO)				NA	NA	1.17	NA	11.2	29.8	NA	24.9	NA	29.8	119.2	5.3	NA	NA	NA	NA	NA	NA	
pH				NA	NA	8.68	7.14	6.81	6.82	NA	6.79	NA	6.82	7.28	7.62	NA	NA	NA	NA	NA	NA	
Oxygen Reduction Potential				NA	NA	-124.0	-122.0	-207.4	-90.9	NA	-114.2	NA	-99.4	2.3	-37.9	NA	NA	NA	NA	NA	NA	

NOTES:
RAOs GW = Remedial Action Objectives for Groundwater
CAS = Chemical Abstract Service registry number
Bold = Exceeds RAOs for groundwater (Not applicable to Treatment System Effluent)
ND = Not Detected
NA = Not Analyzed
E = Exceeds Calibration Range
D = Sample reanalyzed and quantified at higher dilution
Well MW-11 was removed during excavation and is no longer sampled.
Well MW-15A was filled with gravel and is no longer sampled.

Table 3B (Wells 5-10)
 Quarterly Groundwater Data
 Leica Microsystems, Eggert Road
 Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-6																
				May-02-07	May-14-08	Apr-15-09	Oct-6-09	Jan-14-10	Mar-23-10	Jul-6-10	Sept-29-10	Dec-16-10	Mar-23-11	Jun-8-11	Oct-5-11	Dec-14-11	Mar-28-12	Nov-6-12		
				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Volatiles Organic Compounds (ug/l)																				
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	67663	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	107062	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6	J	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5.0	5	190	120	110	110	120	130	120	74	92	110	140	140	170	200	160		
trans-1,2-dichloroethene	156605	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.5	J	ND	ND	5	ND	
1,2-dichloropropane	78875	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5.0	5	22	15	18	21	20	17	15	17	21	19	21	20	21	16	23		
vinyl chloride	75014	5.0	5	5.8	8.1	13	14	28	28	53	ND	31	51	42	69	63	52	29		
o-xylene	95476	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108383/106423	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs				217.8	143.1	141	145	168	175	188	91	144	180	207.1	229	254	273	212		
Percent TCE				10%	10%	13%	14%	12%	10%	8%	19%	15%	11%	10%	9%	8%	6%	11%		
Percent DCE				87%	84%	78%	76%	71%	74%	64%	81%	64%	61%	68%	61%	67%	73%	75%		
Percent VC				3%	6%	9%	10%	17%	16%	28%	0	22%	28%	20%	30%	25%	19%	14%		
Chemistry (mg/L)																				
Chloride				NA	7.3	8.0	8.0	8.1	7.4	8.2	NA	11.4	9.6	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron				NA	<0.100	0.1	U	0.1	U	0.1	U	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen				NA	<0.500	0.5	U	0.7	U	0.5	U	0.5	U	NA	1.0	U	1.0	U	NA	NA
Sulfate				NA	172	203	222	193	168	196	NA	273	172	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon				NA	6.12	6.2	5.6	7.7	6.6	7.8	5.3	6.9	5.6	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron Dissolved				NA	<0.100	0.1	U	0.1	U	0.1	U	100	U	860	NA	100	U	100	U	NA
Manganese				NA	0.0397	34	20	115	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese Dissolved				NA	0.0301	27	13	77	26	56	NA	19	54	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen (DO)				NA	NA	NA	35.5	19.5	NA	37.4	NA	42.3	129.4	5.7	NA	NA	NA	NA	NA	NA
pH				NA	NA	7.04	7.47	7.39	NA	7.37	NA	7.41	7.34	7.27	NA	NA	NA	NA	NA	NA
Oxygen Reduction Potential				NA	NA	-24.0	-178.9	7.4	NA	-21.8	NA	-15.8	3.1	13.0	NA	NA	NA	NA	NA	NA

NOTES:
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 ND = Not Detected
 NA = Not Analyzed
 E = Exceeds Calibration Range
 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 3B (Wells 5-10)
 Quarterly Groundwater Data
 Leica Microsystems, Eggert Road
 Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-6A (Deep Well)												
				May-02-07	May-02-07	Nov-14-07	Nov-14-07	May-14-08	Jul-30-08	Apr-15-09	Oct-6-09	Jan-14-10	Mar-23-10	Jul-6-10		
				1.00	2.50	1.00	2.50	2.50	2.50	1.00	1.00	1.00	2.50	2.50		
Volatile Organic Compounds (ug/l)																
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	67663	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	107062	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5.0	5	380	E 360	D 400	E 350	D 380	460	370	110	130	410	380		
trans-1,2-dichloroethene	156605	5.0	5	11	ND	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5.0	5	10	ND	ND	ND	ND	22	ND	ND	ND	ND	ND	ND	ND
vinyl chloride	75014	5.0	5	160	170	280	E 250	D 220	120	350	170	51	280	360		
o-xylene	95476	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108383/106423	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs				561	530	691	600	600	602	720	280	181	690	740		
Percent TCE				2%	0	0	0	0	4%	0	0	0	0	0		
Percent DCE				68%	68%	58%	58%	63%	76%	51%	39%	72%	59%	51%		
Percent VC				29%	32%	41%	42%	37%	20%	49%	61%	28%	41%	49%		
Chemistry (mg/L)				MW-6A (Deep Well)												
Chloride				NA	NA	NA	NA	8.8	51.5	13.2	9.1	6.4	9.5	11.7		
Ferrous Iron				NA	NA	NA	NA	0.412	1.340	2.38	0.39	0.25	NA	NA		
Nitrate Nitrogen				NA	NA	NA	NA	<0.500	<0.500	0.50	U 0.85	0.50	U 0.50	U 0.50	U	U
Sulfate				NA	NA	NA	NA	125	135	169	95.1	56.7	117.0	67.6		
Total Organic Carbon				NA	NA	NA	NA	7.36	5.38	11.6	5.6	3.4	6.1	5.8		
Ferrous Iron Dissolved				NA	NA	NA	NA	0.298	1.050	2.78	0.24	0.10	3550.00	230		
Manganese				NA	NA	NA	NA	0.0600	0.0944	54	434	206	NA	NA		
Manganese Dissolved				NA	NA	NA	NA	0.0532	0.1040	104	423	96	86	103		
Dissolved Oxygen (DO)				NA	NA	NA	NA	NA	2.67	NA	5.2	16.3	NA	21.2		
pH				NA	NA	NA	NA	NA	7.37	7.22	7.36	7.68	NA	7.40		
Oxygen Reduction Potential				NA	NA	NA	NA	NA	-89	-157	-259.6	11.5	NA	-63.2		

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 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 3B (Wells 5-10)
 Quarterly Groundwater Data
 Leica Microsystems, Eggert Road
 Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-6A (Deep Well) cont.																			
				Sept-29-10	Dec-16-10	Mar-23-11	Mar-23-11	Jun-8-11	Oct-5-11	Oct-5-11	Dec-14-11	Dec-14-11	Mar-28-12	Nov-6-12	Nov-6-12								
				2.50	2.50	1.00	10.00	2.50	2.50	5.00	2.50	5.00	2.00	2.00	5.00								
Volatile Organic Compounds (ug/l)																							
acetone	67641	20	-	ND	ND	ND	ND	ND	0.95	J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	67663	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5.0	-	ND	ND	21	ND	6	J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	107062	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5.0	-	ND	ND	6.2	ND	2.1	J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5.0	5	410	500	850	E	840	D	450	600	E	550	D	500	E	490	D	280	490	E	510	D
trans-1,2-dichloroethene	156605	5.0	5	ND	ND	10	ND	11	J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	ND	ND	ND
1,2-dichloropropane	78875	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5.0	5	ND	ND	7.1	ND	2.1	J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
vinyl chloride	75014	5.0	5	400	380	250	E	220	D	150	190	180	D	200	190	D	16	220	230	D	ND	ND	ND
o-xylene	95476	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108383/106423	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs				810	880	1144.3		1060		622.15	790	730	700	680	296	721	740						
Percent TCE				0	0	1%		0		0%	0	0	0	0	0	0	0	0					
Percent DCE				51%	57%	74%		79%		72%	76%	75%	72%	71%	72%	95%	68%	69%					
Percent VC				49%	43%	22%		21%		24%	24%	25%	29%	28%	5%	31%	31%						
Chemistry (mg/L)				MW-6A (Deep Well) cont.																			
Chloride				32.8	16.0	109.0		109.0		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron				NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen				0.50	U	1.00	U	1.00	U	1.00	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate				98.6	62.8	172.0		72.9		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon				6.1	6.9	3.4		3.4		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron Dissolved				3280	1010	590		590		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese				NA	NA	NA		NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese Dissolved				63	210	122		122		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen (DO)				NA	36.7	131.7		131.7		3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH				NA	7.19	7.29		7.29		7.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen Reduction Potential				NA	-56.2	4.2		4.2		10.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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 Well MW-15A was filled with gravel and is no longer sampled.

Table 3B (Wells 5-10)
Quarterly Groundwater Data
Leica Microsystems, Eggert Road
Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-10															
				May-02-07	Nov-14-07	May-14-08	Apr-15-09	Oct-6-09	Jul-6-10	Dec-15-10	Mar-23-11	Jun-8-11	Oct-5-11	Dec-14-11	Mar-28-12	Nov-6-12			
				1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Volatile Organic Compounds (ug/l)																			
acetone	67641	20	-	ND	ND	ND	150	160	46	ND	ND	ND	5.5	J	ND	ND	ND	ND	
benzene	71432	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromodichloromethane	75274	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromoform	75252	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
bromomethane	74839	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-butanone (MEK)	78933	10	-	ND	ND	ND	180	270	110	ND	ND	ND	1	J	ND	ND	ND	ND	
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
carbon tetrachloride	56235	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chlorobenzene	108907	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloroethane	75003	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.79	J	ND	ND	ND	ND	
chloroform	67663	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
chloromethane	74873	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
dibromochloromethane	124481	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethane	75343	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-dichloroethane	107062	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-dichloroethene	75354	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,2-dichloroethene	156592	5.0	5	160	110	190	120	ND	9.5	ND	ND	4.6	J	ND	ND	ND	ND	ND	
trans-1,2-dichloroethene	156605	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-dichloropropane	78875	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trans-1,3-dichloropropene	542756	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
ethylbenzene	100414	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
methylene chloride	75092	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
styrene	100425	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2,2-tetrachloroethane	79345	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
tetrachloroethene	127184	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
toluene	108883	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1-trichloroethane	71556	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2-trichloroethane	79005	5.0	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trichloroethene	79016	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
vinyl chloride	75014	5.0	5	71	38	73	38	ND	24	23	22	72	ND	5.2	9	ND	ND		
o-xylene	95476	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
m+p xylene	108383/106423	5.0	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
TOTAL VOCs				231	148	263	488	430	189.5	23	22	83.89	0	5.2	9	0	0		
Percent TCE				0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Percent DCE				69%	74%	72%	25%	0	5%	0	0	5%	0	0	0	0	0		
Percent VC				31%	26%	28%	8%	0	13%	100%	100%	86%	0	100%	100%	0	0		
Chemistry (mg/L)				MW-10															
Chloride				NA	NA	NA	NA	NA	33.5	24.4	40.8	NA	NA	NA	NA	NA	NA		
Ferrous Iron				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Nitrate Nitrogen				NA	NA	NA	NA	NA	0.5	U	1	U	1	U	NA	NA	NA		
Sulfate				NA	NA	NA	NA	NA	4.1	7.7	13.7	NA	NA	NA	NA	NA	NA		
Total Organic Carbon				NA	NA	NA	NA	NA	152	24.7	16.9	NA	NA	NA	NA	NA	NA		
Ferrous Iron Dissolved				NA	NA	NA	NA	NA	2510	6830	1070	NA	NA	NA	NA	NA	NA		
Manganese				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Manganese Dissolved				NA	NA	NA	NA	NA	30	55	50	NA	NA	NA	NA	NA	NA		
Dissolved Oxygen (DO)				NA	NA	NA	NA	NA	NA	NA	125.3	5.5	NA	NA	NA	NA	NA		
pH				NA	NA	NA	NA	NA	NA	NA	7.13	7.12	NA	NA	NA	NA	NA		
Oxygen Reduction Potential				NA	NA	NA	NA	NA	NA	NA	4.1	-49.9	NA	NA	NA	NA	NA		

NOTES:
 RAOs GW = Remedial Action Objectives for Groundwater
 CAS = Chemical Abstract Service registry number
 Bold = Exceeds RAOs for groundwater (Not applicable to Treatment System Effluent)
 ND = Not Detected
 NA = Not Analyzed
 E = Exceeds Calibration Range
 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 3C (Wells 11A-14A)
Quarterly Groundwater Data
Leica Microsystems, Eggert Road
Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-14A (Deep Well)																		
				May-02-07	Nov-14-07	May-14-08	Jul-30-08	Apr-15-09	Oct-6-09	Jan-14-10	Mar-23-10	Jul-6-10	Sept-30-10	Dec-16-10	Mar-23-11	Jun-8-11	Oct-5-11	Dec-14-11	Mar-28-12	Nov-6-12		
				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Volatile Organic Compounds (ug/l)																						
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	J	ND	ND	ND	ND
benzene	71432	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	67663	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	107062	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5	5	39	ND	160	6.2	100	12	38	96	31	5.9	16	41	5.3	5.8	7.6	ND	11		
trans-1,2-dichloroethene	156605	5	5	ND	ND	6.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
vinyl chloride	75014	5	5	29	7.2	56	8.2	57	16	ND	53	24	6.8	19	39	17	19	17	9.5	36		
o-xylene	95476	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108383/106423	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs				68	7.2	222.1	14.4	157	28	38	149	55	12.7	35	80	23.9	24.8	24.6	9.5	47		
Percent TCE				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent DCE				57%	0	72%	43%	64%	43%	100%	64%	56%	46%	46%	51%	22%	23%	31%	0	23%		
Percent VC				43%	100%	25%	57%	36%	57%	0	36%	44%	54%	54%	49%	71%	77%	69%	100%	77%		
Chemistry (mg/L)				MW-14A (Deep Well)																		
Chloride				NA	NA	27.1	15.2	27.8	15.1	15.9	21.7	15	17.3	15.2	18.7	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron				NA	NA	0.126	0.613	2.74	0.1	U	0.1	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen				NA	NA	<0.500	<0.500	0.5	U	0.71	0.5	U	0.5	U	0.5	U	1	U	NA	NA	NA	NA
Sulfate				NA	NA	224	54.1	210	41.6	82.5	146	115	34.9	28.8	105	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon				NA	NA	3.48	3.53	2.9	2.6	3.4	4.5	3.9	2.9	2.8	3	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron Dissolved				NA	NA	<0.100	1.29	4.17	0.1	U	0.1	U	1250	830	1120	230	1360	NA	NA	NA	NA	NA
Manganese				NA	NA	0.105	0.116	113	79	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese Dissolved				NA	NA	0.0992	0.114	108	63	37	97	83	65	52	104	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen (DO)				NA	NA	NA	1.42	NA	9	17.3	NA	15.2	NA	27.2	124.8	7.6	NA	NA	NA	NA	NA	NA
pH				NA	NA	NA	6.74	6.99	7.53	7.58	NA	7.17	NA	7.1	7.06	7.26	NA	NA	NA	NA	NA	NA
Oxygen Reduction Potential				NA	NA	NA	-205	-280	-276.2	26.4	NA	-104.7	NA	-70.9	3.2	-29.8	NA	NA	NA	NA	NA	NA

NOTES:
 RAOs GW = Remedial Action Objectives for Groundwater
 CAS = Chemical Abstract Service registry number
 Bold = Exceeds RAOs for groundwater (Not applicable to Treatment System Effluent)
 ND = Not Detected
 NA = Not Analyzed
 E = Exceeds Calibration Range
 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 3D (Wells 16A-16R)
Quarterly Groundwater Data
Leica Microsystems, Eggert Road
Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-16A (Deep Well)																							
				May-02-07	Nov-14-07	Nov-14-07	Mar-31-2008	Mar-31-2008	July-01-08	Jul-30-08	Apr-15-09	Oct-6-09	Mar-23-1010	Jul-6-10	Jul-6-10	Sept-29-10	Dec-15-10	Mar-31-11									
				5.00	1.00	10.00	5.00	10.00	10.00	10.00	1.00	1.00	10.00	5.00	1.00	5.00	5.00	5.00									
Volatiles Organic Compounds (ug/l)																											
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	30
chloroform	67663	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5	-	74	88	87	150	150	D	140	120	130	220	280	78	D	88	100	91	98							
1,2-dichloroethane	107062	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5	-	ND	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5	5	860	980	E	960	D	1100	E	1100	D	1400	1400	950	1300	1100	850	D	820	E	850	740	650			
trans-1,2-dichloroethene	156605	5	5	ND	12	E	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5	5	190	210	E	200	D	730	750	D	580	330	370	420	140	39	D	43	48	44	46					
1,1,2-trichloroethane	79005	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5	5	160	370	E	330	D	920	930	D	260	200	300	420	400	160	D	180	380	110	160					
vinyl chloride	75014	5	5	170	240	E	210	D	250	260	D	290	350	260	290	320	160	D	200	E	250	190	290				
o-xylene	95476	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108383/106423	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs				1454	1910	1787	3150	3190	2670	2400	2010	2650	2240	1287	1372.7	1628	1175	1274									
Percent TCE				11%	19%	18%	29%	29%	10%	8%	15%	16%	18%	12%	13%	23%	9%	13%									
Percent DCE				59%	51%	54%	35%	34%	52%	58%	47%	49%	49%	66%	60%	52%	63%	51%									
Percent VC				12%	13%	12%	8%	8%	11%	15%	13%	11%	14%	12%	15%	15%	16%	23%									
Chemistry (mg/L)				MW-16A (Deep Well)																							
Chloride				NA	NA	NA	NA	306	NA	242	225	197	273	216	216	219	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron				NA	NA	NA	NA	<0.100	NA	0.412	0.24	0.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen				NA	NA	NA	NA	<0.500	NA	<0.500	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Sulfate				NA	NA	NA	NA	83.1	NA	93.3	66.9	80	79.2	79.7	79.7	90.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon				NA	NA	NA	NA	2.3	NA	7.62	5	4.5	4.5	3.6	3.6	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron Dissolved				NA	NA	NA	NA	<0.100	NA	0.288	0.3	0.23	130	130	130	240	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese				NA	NA	NA	NA	0.102	NA	0.0963	79	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese Dissolved				NA	NA	NA	NA	0.098	NA	0.0896	71	79	100	68	68	72	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen (DO)				NA	NA	NA	NA	NA	NA	8.57	NA	NA	15.5	NA	47.8	47.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH				NA	NA	NA	NA	NA	NA	7.33	NA	7.19	NA	7.02	7.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen Reduction Potential				NA	NA	NA	NA	NA	NA	-172	NA	-262	NA	-25.4	-25.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

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- ND = Not Detected
- NA = Not Analyzed
- E = Exceeds Calibration Range
- D = Sample reanalyzed and quantified at higher dilution
- Well MW-11 was removed during excavation and is no longer sampled.
- Well MW-15A was filled with gravel and is no longer sampled.

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-16A (Deep Well) cont.						
				Jun-2-11	Oct-5-11	Dec-14-11	Mar-30-12	Nov-7-12	Nov-7-12	
				5.00	5.00	5.00	2.50	2.50	5.00	
Volatle Organic Compounds (ug/l)										
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	
benzene	71432	5	-	ND	ND	ND	ND	ND	ND	
bromodichloromethane	75274	5	-	ND	ND	ND	ND	ND	ND	
bromoform	75252	5	-	ND	ND	ND	ND	ND	ND	
bromomethane	74839	5	-	ND	ND	ND	ND	ND	ND	
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	
carbon tetrachloride	56235	5	-	ND	ND	ND	ND	ND	ND	
chlorobenzene	108907	5	-	ND	ND	ND	ND	ND	ND	
chloroethane	75003	5	-	9.5	J	ND	ND	18	21	ND
chloroform	67663	5	-	ND	ND	ND	ND	ND	ND	
chloromethane	74873	5	-	ND	ND	ND	ND	ND	ND	
dibromochloromethane	124481	5	-	ND	ND	ND	ND	ND	ND	
1,1-dichloroethane	75343	5	-	55		64	44	61	88	94
1,2-dichloroethane	107062	5	-	ND		ND	ND	ND	ND	
1,1-dichloroethene	75354	5	-	2.9	J	ND	ND	ND	ND	
cis-1,2-dichloroethene	156592	5	5	490		690	490	490	700	E
trans-1,2-dichloroethene	156605	5	5	5.1	J	ND	ND	ND	ND	
1,2-dichloropropane	78875	5	-	ND		ND	ND	ND	ND	
cis-1,3-dichloropropene	542756	5	-	ND		ND	ND	ND	ND	
trans-1,3-dichloropropene	542756	5	-	ND		ND	ND	ND	ND	
ethylbenzene	100414	5	5	5.1	J	ND	ND	ND	ND	
2-hexanone	591786	10	-	ND		ND	ND	ND	ND	
methylene chloride	75092	5	-	ND		ND	ND	ND	ND	
4-methyl-2-pentanone (MIBK)	108101	10	-	ND		ND	ND	ND	ND	
styrene	100425	5	-	ND		ND	ND	ND	ND	
1,1,2,2-tetrachloroethane	79345	5	-	ND		ND	ND	ND	ND	
tetrachloroethene	127184	5	-	ND		ND	ND	ND	ND	
toluene	108883	5	5	3.2	J	ND	ND	ND	ND	
1,1,1-trichloroethane	71556	5	5	21	J	ND	ND	40	67	69
1,1,2-trichloroethane	79005	5	-	ND		ND	ND	ND	ND	
trichloroethene	79016	5	5	58		50	34	65	140	140
vinyl chloride	75014	5	5	100		140	130	120	180	190
o-xylene	95476	5	5	3	J	ND	ND	ND	ND	
m+p xylene	108383/106423	5	5	6.9	J	ND	ND	ND	15	
TOTAL VOCs				759.7		944	698	794	1211	1253
Percent TCE				8%		5%	5%	8%	12%	11%
Percent DCE				64%		73%	70%	62%	58%	61%
Percent VC				13%		15%	19%	15%	15%	15%
Chemistry (mg/L)				MW-16A (Deep Well) cont.						
Chloride				NA		NA		NA		NA
Ferrous Iron				NA		NA		NA		NA
Nitrate Nitrogen				NA		NA		NA		NA
Sulfate				NA		NA		NA		NA
Total Organic Carbon				NA		NA		NA		NA
Ferrous Iron Dissolved				NA		NA		NA		NA
Manganese				NA		NA		NA		NA
Manganese Dissolved				NA		NA		NA		NA
Dissolved Oxygen (DO)				NA		NA		NA		NA
pH				NA		NA		NA		NA
Oxygen Reduction Potential				NA		NA		NA		NA

NOTES:

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 NA = Not Analyzed
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 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 3D (Wells 16A-16R)
Quarterly Groundwater Data
Leica Microsystems, Eggert Road
Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-16R																				
				May-02-07	May-02-07	Nov-15-07	Nov-15-07	Mar-31-08	May-14-08	May-14-08	Jul-30-08	Jul-30-08	Apr-15-09	Oct-6-09	Jan-14-10	Mar-23-10								
				10.00	20.00	10.00	25.00	10.00	10.00	20.00	10.00	20.00	1.00	1.00	1.00	5.00								
Volatiles Organic Compounds (ug/l)																								
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
benzene	71432	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
bromodichloromethane	75274	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
bromoform	75252	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
bromomethane	74839	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	280	230	D	ND	ND	ND	ND	ND	ND				
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
carbon tetrachloride	56235	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
chlorobenzene	108907	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
chloroethane	75003	5	-	ND	ND	68	ND	70	ND	ND	ND	ND	ND	520	280	290	500							
chloroform	67663	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
chloromethane	74873	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
1,1-dichloroethane	75343	5	-	1900	2000	1400	1400	1700	1800	1800	D	1700	1700	D	170	130	140	110						
1,2-dichloroethane	107062	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
1,1-dichloroethene	75354	5	-	ND	ND	66	66	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
cis-1,2-dichloroethene	156592	5	5	2900	E	3000	D	2700	E	2600	D	1100	2000	E	2000	D	2000	E	2100	D	ND	ND	ND	ND
trans-1,2-dichloroethene	156605	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	26	31	34							
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5	5	280	290	280	270	84	130	130	D	100	100	D	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5	5	2900	E	3000	D	3800	E	3600	D	210	280	290	D	85	ND	ND	ND	ND	ND	ND	ND	ND
vinyl chloride	75014	5	5	72	ND	110	ND	ND	ND	ND	ND	240	240	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-xylene	95476	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	35	37							
m+p xylene	108383/106423	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	28	45	55							
TOTAL VOCs				8052	8290	8424	7936	3164	4210	4220	4405	4370	690	476	541	736								
Percent TCE				36%	36%	45%	45%	7%	7%	7%	2%	0	0	0	0	0								
Percent DCE				36%	36%	32%	33%	35%	48%	47%	45%	48%	0	0	0	0								
Percent VC				1%	0	1%	0	0	0	0	5%	5%	0	0	0	0								
Chemistry (mg/L)																								
Chloride				NA	NA	NA	NA	1060	NA	NA	NA	745	652	983	503	339								
Ferrous Iron				NA	NA	NA	NA	0.107	NA	NA	NA	31.7	0.28	2.85	1.49	NA								
Nitrate Nitrogen				NA	NA	NA	NA	<0.500	NA	NA	NA	<0.500	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sulfate				NA	NA	NA	NA	31.7	NA	NA	NA	9.1	2.7	7.8	6.3	11.7								
Total Organic Carbon				NA	NA	NA	NA	4.8	NA	NA	NA	1080	65.7	39.8	71.9	43								
Ferrous Iron Dissolved				NA	NA	NA	NA	<0.100	NA	NA	NA	30.1	0.38	2.35	1.52	280								
Manganese				NA	NA	NA	NA	0.346	NA	NA	NA	1.05	184	175	156	NA								
Manganese Dissolved				NA	NA	NA	NA	0.366	NA	NA	NA	0.854	123	167	73	64								
Dissolved Oxygen (DO)				NA	NA	NA	NA	NA	NA	NA	NA	3.97	NA	7.9	21.1	NA								
pH				NA	NA	NA	NA	NA	NA	NA	NA	6.43	NA	7.09	7.36	NA								
Oxygen Reduction Potential				NA	NA	NA	NA	NA	NA	NA	NA	-101	NA	-297	-77.8	NA								

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 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 3E (Wells 18-22A)
 Quarterly Groundwater Data
 Leica Microsystems, Eggert Road
 Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-18																
				May-02-07	Mar-31-08	May-14-08	Apr-15-09	Oct-6-09	Jan-14-10	Mar-23-10	July-2-10	Sept-30-10	Dec-17-10	Mar-30-11	Jun-2-11	Oct-5-11	Dec-14-11	Mar-28-12	Nov-6-12	
				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volatile Organic Compounds (ug/l)																				
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	67663	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	107062	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-dichloroethene	156605	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
vinyl chloride	75014	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-xylene	95476	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108383/106423	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent TCE				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent DCE				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent VC				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chemistry (mg/L)				MW-18																
Chloride				NA	29.6	NA	25.6	19.1	8.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron				NA	<0.100	NA	0.79	0.64	0.98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen				NA	<0.500	NA	0.5	U 0.5	U 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate				NA	76.7	NA	74.8	73.9	64.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon				NA	3.98	NA	6.6	4	5.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron Dissolved				NA	<0.100	NA	0.92	0.38	0.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese				NA	0.162	NA	274	163	164	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese Dissolved				NA	0.165	NA	199	164	169	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen (DO)				NA	NA	NA	NA	7.4	16.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH				NA	NA	NA	NA	7.14	7.59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen Reduction Potential				NA	NA	NA	NA	-296.9	-90.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:
 RAOs GW = Remedial Action Objectives for Groundwater
 CAS = Chemical Abstract Service registry number
 Bold = Exceeds RAOs for groundwater (Not applicable to Treatment System Effluent)
 ND = Not Detected
 NA = Not Analyzed
 E = Exceeds Calibration Range
 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 3E (Wells 18-22A)
 Quarterly Groundwater Data
 Leica Microsystems, Eggert Road
 Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-22A																				
				May-3-07	Nov-22-07	May-14-08	Jul-30-08	Apr-15-09	Oct-6-09	Jan-14-10	Mar-23-10	July-2-10	Sept-30-10	Dec-15-10	Mar-23-11	Jun-8-11	Oct-5-11	Dec-14-11	Mar-28-12	Nov-6-12				
				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Volatile Organic Compounds (ug/l)																								
acetone	67641	20	-	ND	ND	160	110	46	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	67663	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	107062	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5	5	ND	ND	ND	ND	ND	5.1	ND	ND	ND	ND	ND	ND	ND	2.4	J	ND	8.2	7	11		
trans-1,2-dichloroethene	156605	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
vinyl chloride	75014	5	5	5	ND	ND	ND	ND	17	7.7	14	ND	8	22	6	7.4	12	28	15	35				
o-xylene	95476	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108383/106423	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs				5	0	160	110	46	22.1	7.7	14	0	8	22	6	9.8	12	36.2	22	46				
Percent TCE				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Percent DCE				0	0	0	0	0	23%	0	0	0	0	0	0	24%	0	23%	32%	24%				
Percent VC				100%	0	0	0	0	77%	100%	100%	0	100%	100%	100%	76%	100%	77%	68%	76%				
Chemistry (mg/L)				MW-22A																				
Chloride				NA	NA	17.7	16.8	10.1	25.4	12.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron				NA	NA	1.28	0.737	0.1	U	0.12	U	0.1	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen				NA	NA	<0.500	<0.500	0.5	U	0.5	U	0.5	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate				NA	NA	77.7	79.3	15.2	74	27.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon				NA	NA	7.96	6.18	3.8	3.3	4.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron Dissolved				NA	NA	0.126	<0.100	0.13	0.1	U	0.1	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese				NA	NA	0.3	0.139	67	55	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese Dissolved				NA	NA	0.163	0.131	64	52	66	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen (DO)				NA	NA	NA	2.46	NA	30.1	17.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH				NA	NA	NA	7.02	7.02	7.06	7.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen Reduction Potential				NA	NA	NA	-283	-337	-294.8	-249.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:
 RAOs GW = Remedial Action Objectives for Groundwater
 CAS = Chemical Abstract Service registry number
 Bold = Exceeds RAOs for groundwater (Not applicable to Treatment System Effluent)
 ND = Not Detected
 NA = Not Analyzed
 E = Exceeds Calibration Range
 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 3F (Wells 23-26A)
 Quarterly Groundwater Data
 Leica Microsystems, Eggert Road
 Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-23				MW-24														
				Apr-15-09	Oct-6-09	Dec-15-10	Nov-7-12	Mar-31-08	Mar-31-08	May-14-08	Jul-30-08	Apr-15-09	Oct-6-09	Jan-14-10	Mar-23-10	Jul-6-10	Jul-6-10	Sept-30-10	Dec-17-10			
				1.00	1.00	1.00	1.00	10.00	50.00	25.00	25.00	1.00	1.00	1.00	25.00	20.00	1.00	20.00	10.00			
Volatile Organic Compounds (ug/l)																						
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	650	750	470	D	500	E	ND	300
benzene	71432	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	120	D	140		120	170
bromodichloromethane	75274	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	1100	3700	3700	2600	D	2600	E	2300	930	
carbon disulfide	75150	10	-	24	14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	27		270	98	
chloroform	67663	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5	-	ND	ND	ND	ND	300	330	D	240	190	350	370	470	680	830	D	860	E	420	840
1,2-dichloroethane	107062	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5	5	ND	ND	ND	ND	4600	E	4800	D	3600	2900	3200	2600	200	850		85		ND	67
trans-1,2-dichloroethene	156605	5	5	ND	ND	ND	ND	72		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	900
1,1,1-trichloroethane	71556	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5	5	ND	ND	ND	ND	620	640	D	490	380	370	370	2600	1500	2300	1200	D	1200	E	150
vinyl chloride	75014	5	5	ND	ND	ND	ND	2200	E	2300	D	2000	1300	1800	2600	1500	2300	1200	D	1200	E	1100
o-xylene	95476	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108383/106423	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	370
TOTAL VOCs				24	14	0	0	7792	8070	6330	4770	5720	6670	6520	8280	5220	5412	3260		4975		
Percent TCE				0	0	0	0	8%	8%	8%	8%	6%	0	0	0	0	0	0	0	0	0	0
Percent DCE				0	0	0	0	59%	59%	57%	61%	56%	39%	3%	10%	0	2%	0	0	1%		
Percent VC				0	0	0	0	28%	29%	32%	27%	31%	39%	23%	28%	23%	22%	5%	22%			
Chemistry (mg/L)				MW-23				MW-24														
Chloride				NA	NA	NA	NA	90.1	NA	NA	380	194	191	200	239	237	237	286	267			
Ferrous Iron				NA	NA	NA	NA	0.164	NA	NA	1.4	0.1	0.38	1	U	NA	NA	NA	NA			
Nitrate Nitrogen				NA	NA	NA	NA	<0.500	NA	NA	<0.500	0.5	U	0.5	U	0.51	0.5	U	0.5	U	0.5	U
Sulfate				NA	NA	NA	NA	46.7	NA	NA	69.1	37.3	12.8	5.7	8.6	5.8	5.8	2	U	2	U	
Total Organic Carbon				NA	NA	NA	NA	6.4	NA	NA	5.46	7	249	1370	1670	1430	1430	1590	881			
Ferrous Iron Dissolved				NA	NA	NA	NA	<0.100	NA	NA	1.22	0.18	0.25	12.9	15400	6000	6000	32000	21200			
Manganese				NA	NA	NA	NA	0.175	NA	NA	0.0814	45	81	213	NA	NA	NA	NA	NA			
Manganese Dissolved				NA	NA	NA	NA	0.16	1	NA	0.0723	40	78	159	289	167	167	134	117			
Dissolved Oxygen (DO)				NA	NA	NA	NA	NA	NA	NA	4.58	NA	39.4	48	NA	41.3	41.3	NA	52.4			
pH				NA	NA	NA	NA	NA	NA	NA	6.79	NA	6.85	6.59	NA	6.48	6.48	NA	6.37			
Oxygen Reduction Potential				NA	NA	NA	NA	NA	NA	NA	-62	NA	-249.8	-8.2	NA	-10.8	-10.8	NA	-12.4			

NOTES:
 RAOs GW = Remedial Action Objectives for Groundwater
 CAS = Chemical Abstract Service registry number
 Bold = Exceeds RAOs for groundwater (Not applicable to Treatment System Effluent)
 ND = Not Detected
 NA = Not Analyzed
 E = Exceeds Calibration Range
 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 3F (Wells 23-26A)
Quarterly Groundwater Data
Leica Microsystems, Eggert Road
Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-24 cont.								MW-24A													
				Mar-30-11	Jun-8-11	Jun-8-11	Oct-10-11	Dec-15-11	Mar-29-12	Nov-8-12	Mar-31-08	May-14-08	May-14-08	Jul-30-08	Jul-30-08	Apr-15-09	Oct-6-09	Jan-14-10	Mar-23-10						
				5.00	5.00	10.00	5.00	10.00	10.00	10.00	2.00	2.00	20.00	2.00	20.00	1.00	1.00	1.00	1.00						
Volatile Organic Compounds (ug/l)																									
acetone	67641	20	-	240	370	380	D	330	190	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5	-	160	160	160	D	160	180	110	93	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5	-	ND	5.4	J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	670	1000	E	920	D	800	310	170	170	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	27	27
carbon disulfide	75150	10	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5	-	ND	17	J	17	DJ	34	82	50	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5	-	250	510		510	D	500	300	300	270	ND	ND	ND	ND	ND	ND	ND	280	ND	ND	11	11	11
chloroform	67663	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5	-	ND	37		5.9	DJ	38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5	-	370	44		34	DJ	ND	320	84	84	26	61	ND	72	73	D	84	130	67	60	60	60	60
1,2-dichloroethane	107062	5	-	ND	4.2	J	4.5	DJ	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5	5	100	4.6	J	6.4	DJ	ND	ND	ND	ND	380	1800	E	1700	D	750	E	760	D	540	ND	140	77
trans-1,2-dichloroethene	156605	5	5	ND	ND	ND		ND	ND	ND	ND	ND	ND	19	ND	12	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5	5	170	130		130	D	320	890	570	740	ND	ND	ND	ND	ND	ND	ND	ND	ND	26	ND	ND	ND
2-hexanone	591786	10	-	ND	5.4	J	7.4	DJ	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	1.9	J	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5	5	670	600		610	D	860	1900	1100	920	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5	5	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5	-	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5	5	ND	1.6	J	ND		ND	ND	ND	ND	23	110	110	D	48	49	D	26	ND	ND	ND	ND	ND
vinyl chloride	75014	5	5	140	24	J	22	DJ	ND	ND	ND	ND	94	590	E	560	D	390	400	D	320	ND	190	110	110
o-xylene	95476	5	5	40	29		33	DJ	79	310	210	340	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	ND	ND	ND
m+p xylene	108383/106423	5	5	470	330		370	D	770	2800	2200	2900	ND	ND	ND	ND	ND	ND	ND	ND	28	ND	ND	ND	ND
TOTAL VOCs				3280	3274.1		3210.2		3891	7282	4874	5567	523	2593	2370	1272	1282	970	476	397	285	285	285	285	285
Percent TCE				0	0%		0		0	0	0	0	4%	4%	5%	4%	4%	3%	0	0	0	0	0	0	0
Percent DCE				3%	0%		0%		0	0	0	0	73%	69%	72%	59%	59%	56%	0	35%	27%	27%	27%	27%	27%
Percent VC				4%	1%		1%		0	0	0	0	18%	23%	24%	31%	31%	33%	0	48%	39%	39%	39%	39%	39%
Chemistry (mg/L)				MW-24 cont.								MW-24A													
Chloride				230	NA	NA		NA	NA	NA	NA	NA	95.8	NA	NA	NA	218	231	186	183	256	256	256	256	
Ferrous Iron				NA	NA	NA		NA	NA	NA	NA	NA	0.155	NA	NA	NA	<0.100	2.63	2.67	4.97	NA	NA	NA	NA	
Nitrate Nitrogen				1	U	NA		NA	NA	NA	NA	NA	<0.500	NA	NA	NA	<0.500	0.5	U	0.5	U	0.5	U	0.55	
Sulfate				26	NA	NA		NA	NA	NA	NA	NA	94.5	NA	NA	NA	78.5	26.2	51.7	28.5	24.5	24.5	24.5	24.5	
Total Organic Carbon				570	NA	NA		NA	NA	NA	NA	NA	2.21	NA	NA	NA	3.73	5.9	19.6	10	19.1	19.1	19.1	19.1	
Ferrous Iron Dissolved				11900	NA	NA		NA	NA	NA	NA	NA	<0.100	NA	NA	NA	<0.100	2.85	1.78	3.6	3380	3380	3380	3380	
Manganese				NA	NA	NA		NA	NA	NA	NA	NA	0.116	NA	NA	NA	0.142	186	254	129	NA	NA	NA	NA	
Manganese Dissolved				239	NA	NA		NA	NA	NA	NA	NA	0.148	NA	NA	NA	0.133	176	247	254	160	160	160	160	
Dissolved Oxygen (DO)				5.4	22.7	22.7		NA	NA	NA	NA	NA	NA	NA	NA	NA	7.08	NA	15.7	20.1	NA	NA	NA	NA	
pH				6.75	6.8	6.8		NA	NA	NA	NA	NA	NA	NA	NA	NA	7.3	NA	7.2	7.45	NA	NA	NA	NA	
Oxygen Reduction Potential				98.6	-19.2	-19.2		NA	NA	NA	NA	NA	NA	NA	NA	NA	-3	NA	-304.5	-119.8	-119.8	NA	NA	NA	

NOTES:

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CAS = Chemical Abstract Service registry number
Bold = Exceeds RAOs for groundwater (Not applicable to Treatment System Effluent)
ND = Not Detected
NA = Not Analyzed
E = Exceeds Calibration Range
D = Sample reanalyzed and quantified at higher dilution
Well MW-11 was removed during excavation and is no longer sampled.
Well MW-15A was filled with gravel and is no longer sampled.

Table 3F (Wells 23-26A)
 Quarterly Groundwater Data
 Leica Microsystems, Eggert Road
 Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-24A cont.											
				Jul-6-10	Sept-30-10	Sept-30-10	Dec-17-10	Mar-30-11	Jun-8-11	Oct-10-11	Dec-15-11	Mar-29-12	Nov-8-12		
				1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Volatile Organic Compounds (ug/l)															
acetone	67641	20	-	31	38	45	D	21	ND	1.8	J	44	ND	ND	38
benzene	71432	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
bromodichloromethane	75274	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
bromoform	75252	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
bromomethane	74839	5	-	ND	ND	ND		ND	ND	0.42	J	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	130	200	E	220	D	93	44	J	170	ND	ND	74
carbon disulfide	75150	10	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
carbon tetrachloride	56235	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
chlorobenzene	108907	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
chloroethane	75003	5	-	8.1	27	24	D	12	11	4.3	J	21	5.3	14	27
chloroform	67663	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
chloromethane	74873	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
dibromochloromethane	124481	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
1,1-dichloroethane	75343	5	-	69	39	35	D	27	37	29		31	39	20	6.7
1,2-dichloroethane	107062	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
1,1-dichloroethene	75354	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5	5	36	23	21	D	16	14	18		5.2	19	6.8	ND
trans-1,2-dichloroethene	156605	5	5	ND	ND	ND		ND	ND	0.3	J	ND	ND	ND	ND
1,2-dichloropropane	78875	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
ethylbenzene	100414	5	5	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
2-hexanone	591786	10	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
methylene chloride	75092	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
styrene	100425	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
tetrachloroethene	127184	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
toluene	108883	5	5	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
1,1,1-trichloroethane	71556	5	5	ND	ND	ND		ND	ND	1.5	J	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5	-	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
trichloroethene	79016	5	5	ND	ND	ND		ND	ND	1.8	J	ND	ND	ND	ND
vinyl chloride	75014	5	5	64	27	24	D	40	14	12		26	38	5.6	ND
o-xylene	95476	5	5	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
m+p xylene	108383/106423	5	5	ND	ND	ND		ND	ND	ND		ND	ND	ND	ND
TOTAL VOCs				338.1	354	369		209	120	71.02		297.2	101.3	46.4	145.7
Percent TCE				0	0	0		0	0	3%		0	0	0	0
Percent DCE				11%	6%	6%		8%	12%	25%		2%	19%	15%	0
Percent VC				19%	8%	7%		19%	12%	17%		9%	38%	12%	0
Chemistry (mg/L)				MW-24A cont.											
Chloride				288	222	222		228	220	NA		NA	NA	NA	NA
Ferrous Iron				NA	NA	NA		NA	NA	NA		NA	NA	NA	NA
Nitrate Nitrogen				0.5	0.5	0.5	U	1	1	NA		NA	NA	NA	NA
Sulfate				2.0	7.2	7.2		16.2	19.1	NA		NA	NA	NA	NA
Total Organic Carbon				73.2	120	120		95	18.8	NA		NA	NA	NA	NA
Ferrous Iron Dissolved				16500	2060	2060		12500	10900	NA		NA	NA	NA	NA
Manganese				NA	NA	NA		NA	NA	NA		NA	NA	NA	NA
Manganese Dissolved				171	132	132		191	174	NA		NA	NA	NA	NA
Dissolved Oxygen (DO)				19.9	NA	NA		29.3	95.2	9.5		NA	NA	NA	NA
pH				7.1	NA	NA		7.05	7.24	6.81		NA	NA	NA	NA
Oxygen Reduction Potential				-72.3	NA	NA		-64.3	4.8	-49.2		NA	NA	NA	NA

NOTES:
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 NA = Not Analyzed
 E = Exceeds Calibration Range
 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 3F (Wells 23-26A)
 Quarterly Groundwater Data
 Leica Microsystems, Eggert Road
 Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-25												
				Sept-9-09	Jan-27-10	Mar-24-10	July-2-10	Sept-30-10	Dec-15-10	Mar-29-11	Jun-8-11	Oct-11-11	Dec-15-11	Mar-28-12	Nov-9-12	
				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Volatile Organic Compounds (ug/l)																
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
benzene	71432	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	67663	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	107062	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-dichloroethene	156605	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
vinyl chloride	75014	5	5	ND	ND	ND	ND	ND	ND	ND	7.3	ND	ND	ND	ND	ND
o-xylene	95476	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108383/106423	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs				0	0	0	0	0	0	0	7.3	0	0	0	0	0
Percent TCE				0	0	0	0	0	0	0	0	0	0	0	0	0
Percent DCE				0	0	0	0	0	0	0	0	0	0	0	0	0
Percent VC				0	0	0	0	0	0	0	100%	0	0	0	0	0
Chemistry (mg/L)				MW-25												
Chloride				49.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen				0.88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate				91.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon				17.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron Dissolved				100	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese Dissolved				110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen (DO)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH				7.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen Reduction Potential				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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 Well MW-15A was filled with gravel and is no longer sampled.

Table 3F (Wells 23-26A)
 Quarterly Groundwater Data
 Leica Microsystems, Eggert Road
 Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-25A															
				Sept-9-09	Sept-9-09	Jan-27-10	Mar-24-10	July-2-10	Sept-30-10	Dec-15-10	Mar-29-11	Jun-8-11	Oct-11-11	Oct-11-11	Dec-15-11	Mar-28-12	Nov-9-12		
				1.00	1.00 Dup	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Volatile Organic Compounds (ug/l)																			
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.7	J	ND	ND	ND	ND	ND
benzene	71432	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	75274	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromoform	75252	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bromomethane	74839	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
carbon tetrachloride	56235	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chlorobenzene	108907	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroethane	75003	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloroform	67663	5	-	14	14	6.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
chloromethane	74873	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
dibromochloromethane	124481	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethane	75343	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethane	107062	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-dichloroethene	75354	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5	5	ND	ND	6.4	ND	ND	ND	ND	ND	6.9	7	ND	ND	34	27		
trans-1,2-dichloroethene	156605	5	5	ND	ND	ND	ND	ND	ND	ND	ND	0.42	J	ND	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	100414	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
methylene chloride	75092	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
styrene	100425	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tetrachloroethene	127184	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
toluene	108883	5	5	8.7	8.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-trichloroethane	71556	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-trichloroethane	79005	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trichloroethene	79016	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
vinyl chloride	75014	5	5	9.1	9.9	23	15	14	7.9	5.6	9.1	18	24	ND	ND	70	73		
o-xylene	95476	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m+p xylene	108383/106423	5	5	8.3	8.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOTAL VOCs				40.1	40.7	35.5	15	14	7.9	5.6	9.1	28.02	31	0	0	104	100		
Percent TCE				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Percent DCE				0	0	18%	0	0	0	0	0	25%	23%	0	0	33%	27%		
Percent VC				23%	24%	65%	100%	100%	100%	100%	100%	64%	77%	0	0	67%	73%		
Chemistry (mg/L)				MW-25A															
Chloride				50.3	59.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen				0.91	0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate				43	43.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon				4.2	3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron Dissolved				100	U 100	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese Dissolved				10	U 10	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Oxygen (DO)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH				7.69	8.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen Reduction Potential				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:
 RAOs GW = Remedial Action Objectives for Groundwater
 CAS = Chemical Abstract Service registry number
 Bold = Exceeds RAOs for groundwater (Not applicable to Treatment System Effluent)
 ND = Not Detected
 NA = Not Analyzed
 E = Exceeds Calibration Range
 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 3F (Wells 23-26A)
 Quarterly Groundwater Data
 Leica Microsystems, Eggert Road
 Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-26														
				Sept-9-09	Jan-27-10	Mar-24-10	July-2-10	Sept-30-10	Dec-15-10	Mar-29-11	Apr-22-11	Jun-8-11	Oct-11-11	Dec-15-11	Mar-28-12	Nov-9-12		
				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Volatile Organic Compounds (ug/l)																		
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1	J	ND	ND	ND	ND
benzene	71432	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
bromodichloromethane	75274	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
bromoform	75252	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
bromomethane	74839	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
carbon tetrachloride	56235	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
chlorobenzene	108907	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
chloroethane	75003	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
chloroform	67663	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
chloromethane	74873	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
dibromochloromethane	124481	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
1,1-dichloroethane	75343	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.34	J	ND	ND	ND	ND
1,2-dichloroethane	107062	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
1,1-dichloroethene	75354	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
cis-1,2-dichloroethene	156592	5	5	46	5.2	12	ND	ND	ND	55	41	26	ND		20	13	12	12
trans-1,2-dichloroethene	156605	5	5	ND	ND	ND	ND	ND	ND	ND	ND	0.5	J	ND	ND	ND	ND	ND
1,2-dichloropropane	78875	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
cis-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
trans-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
ethylbenzene	100414	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
methylene chloride	75092	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
styrene	100425	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
1,1,2,2-tetrachloroethane	79345	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
tetrachloroethene	127184	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
toluene	108883	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
1,1,1-trichloroethane	71556	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
1,1,2-trichloroethane	79005	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
trichloroethene	79016	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
vinyl chloride	75014	5	5	28	ND	8	ND	ND	ND	100	37	37	ND		17	23	15	15
o-xylene	95476	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
m+p xylene	108383/106423	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND
TOTAL VOCs				74	5.2	20	0	0	0	155	78	65.94	0		37	36	27	27
Percent TCE				0	0	0	0	0	0	0	0	0	0		0	0	0	0
Percent DCE				62%	100%	60%	0	0	0	35%	53%	39%	0		54%	36%	44%	44%
Percent VC				38%	0	40%	0	0	0	65%	47%	56%	0		46%	64%	56%	56%
Chemistry (mg/L)				MW-26														
Chloride				550		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
Ferrous Iron				NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
Nitrate Nitrogen				0.5	U	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
Sulfate				99.9		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
Total Organic Carbon				14.6		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
Ferrous Iron Dissolved				100	U	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
Manganese				NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
Manganese Dissolved				217		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
Dissolved Oxygen (DO)				NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
pH				7.18		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA
Oxygen Reduction Potential				NA		NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA

NOTES:

RAOs GW = Remedial Action Objectives for Groundwater
 CAS = Chemical Abstract Service registry number
 Bold = Exceeds RAOs for groundwater (Not applicable to Treatment System Effluent)
 ND = Not Detected
 NA = Not Analyzed
 E = Exceeds Calibration Range
 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Prepared by: DRS
 Date:
 Checked by:
 Date:

Table 3G (Wells 27 - 29A)
 Groundwater Data
 Leica Microsystems Eggert Road
 Cheektowaga, NY

ANALYTE	CAS	Method Detection Limit	RAOs GW	MW-27											MW-27A											MW-28										
				July-2-10	Sept-30-10	Dec-15-10	Mar-29-11	Jun-9-11	Oct-11-11	Dec-15-11	Mar-28-12	Nov-9-12	July-2-10	Sept-30-10	Dec-15-10	Mar-29-11	Jun-9-11	Oct-11-11	Dec-15-11	Mar-28-12	Nov-9-12	July-2-10	Sept-30-10	Dec-15-10	Mar-29-11	Jun-8-11	Oct-11-11	Dec-15-11	Mar-28-12	Nov-9-12						
Volatile Organic Compounds (ug/l)																																				
acetone	67641	20	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
benzene	71432	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
bromodichloromethane	75274	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
bromomethane	75252	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
bromomethane	74839	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
2-butanone (MEK)	78933	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
carbon disulfide	75150	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
carbon tetrachloride	56235	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
chlorobenzene	108907	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
chloroethane	75003	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
chloroform	67663	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
chloromethane	74873	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
dibromochloromethane	124481	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
1,1-dichloroethane	75343	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
1,2-dichloroethane	107062	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
1,1-dichloroethene	75354	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
cis-1,2-dichloroethene	156592	5	5	ND	ND	ND	ND	0.98	J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
trans-1,2-dichloroethene	156605	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
1,2-dichloropropane	78875	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
cis-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
trans-1,3-dichloropropene	542756	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
ethylbenzene	100414	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
2-hexanone	591786	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
methylene chloride	75092	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
4-methyl-2-pentanone (MIBK)	108101	10	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
styrene	100425	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
1,1,2,2-tetrachloroethane	79345	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
tetrachloroethene	127184	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
toluene	108883	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
1,1,1-trichloroethane	71556	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
1,1,2-trichloroethane	79005	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
trichloroethene	79016	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
vinyl chloride	75014	5	5	ND	ND	ND	ND	1.7	J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
o-xylene	95476	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
m-p xylene	108383/106423	5	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND								
TOTAL VOCs				0	0	0	0	2.68	0	0	0	0	0	7.7	0	0	0	0	7.52	0	0	0	0	0	27	39	28	28	30.67	56.7	45.2	39.5	51.2			
Percent TCE				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Percent DCE				0	0	0	0	37%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%	100%	100%	88%	86%	84%	81%	82%				
Percent VC				0	0	0	0	63%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6%	14%	16%	19%	18%				
Chemistry (mg/L)																																				
Chloride				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
Ferrous Iron				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Nitrate Nitrogen				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Sulfate				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Total Organic Carbon				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Ferrous Iron Dissolved				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Manganese				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Manganese Dissolved				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Dissolved Oxygen (DO)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
pH				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
Oxygen Reduction Potential				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				

NOTES:
 RAOs GW = Remedial Action Objectives for Groundwater
 CAS = Chemical Abstract Service registry number
 Bold = Exceeds RAOs for groundwater (Not applicable to Treatment System Effluent)
 ND = Not Detected
 NA = Not Analyzed
 E = Exceeds Calibration Range
 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Prepared by: DRS
 Date:
 Checked by:
 Date:

Table 3G (Wells 27 - 29A)
 Groundwater Data
 Leica Microsystems Eggert Road
 Cheektowaga, NY

MW-28A										MW-29A									
July-2-10	Sept-30-10	Dec-15-10	Mar-29-11	Jun-8-11	Oct-11-11	Dec-15-11	Mar-28-12	Nov-9-12		July-2-10	Sept-30-10	Dec-15-10	Mar-29-11	Jun-8-11	Oct-11-11	Dec-15-11	Mar-28-12	Nov-9-12	
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ND	ND	ND	ND	2.2	J	ND	ND	ND	ND	ND	ND	ND	ND	7.6	J	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.63	J	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	0.36	J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	11	8.9	ND	3.2	J	5.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	12	6	ND	2.7	J	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	14	13	6.9	5.6	7.9	7.9	11	9.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19	23	13	7.6	5.6	8.6	5.6	ND	ND	5.3
ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	16	16	7.8	ND	2.7	J	5.3	ND	ND	ND
7.6	25	21.9	6.9	11.36	13.2	7.9	11	9.3	54.4	51	26.8	7.6	21.53	13.9	5.6	0	0	5.3	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	44%	41%	0	28%	40%	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	56%	59%	100%	49%	60%	100%	100%	100%	0	0	0	0	0	0	0	0	0	0	
MW-28A										MW-29A									
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4
 Groundwater Grab Sample Data
 INT 12 13 (10/31/12)

ANALYTE	Sample Collection Date: Dilution:	CAS	Method Detection Limit	RAOs GW	INT 12		INT 13	
					10/31/2012	10/31/2012	10/31/2012	10/31/2012
Volatle Organic Compounds (ug/l)								
acetone		67641	20	-	ND	ND	ND	ND
benzene		71432	5.0	-	ND	ND	ND	ND
bromodichloromethane		75274	5.0	-	ND	ND	ND	ND
bromoform		75252	5.0	-	ND	ND	ND	ND
bromomethane		74839	5.0	-	ND	ND	ND	ND
2-butanone (MEK)		78933	10	-	ND	ND	ND	ND
carbon disulfide		75150	10	-	ND	ND	ND	ND
carbon tetrachloride		56235	5.0	-	ND	ND	ND	ND
chlorobenzene		108907	5.0	-	ND	ND	ND	ND
chloroethane		75003	5.0	-	ND	ND	ND	ND
chloroform		67663	5.0	-	ND	ND	ND	ND
chloromethane		74873	5.0	-	ND	ND	ND	ND
dibromochloromethane		124481	5.0	-	ND	ND	ND	ND
1,1-dichloroethane		75343	5.0	-	190	D	69	66 D
1,2-dichloroethane		107062	5.0	-	ND	ND	ND	ND
1,1-dichloroethene		75354	5.0	-	ND	ND	11	10 D
cis-1,2-dichloroethene		156592	5.0	5	820	D	49	44 D
trans-1,2-dichloroethene		156605	5.0	5	ND	ND	ND	ND
1,2-dichloropropane		78875	5.0	-	ND	ND	ND	ND
cis-1,3-dichloropropene		542756	5.0	-	ND	ND	ND	ND
trans-1,3-dichloropropene		542756	5.0	-	ND	ND	ND	ND
ethylbenzene		100414	5.0	5	ND	ND	ND	ND
2-hexanone		591786	10	-	ND	ND	ND	ND
methylene chloride		75092	5.0	-	ND	ND	ND	ND
4-methyl-2-pentanone (MIBK)		108101	10	-	ND	ND	ND	ND
styrene		100425	5.0	-	ND	ND	ND	ND
1,1,2,2-tetrachloroethane		79345	5.0	-	ND	ND	ND	ND
tetrachloroethene		127184	5.0	-	ND	ND	ND	ND
toluene		108883	5.0	5	ND	ND	ND	ND
1,1,1-trichloroethane		71556	5.0	5	ND	ND	25	23 D
1,1,2-trichloroethane		79005	5.0	-	ND	ND	ND	ND
trichloroethene		79016	5.0	5	2400	E	2400 D	E 210 D
vinyl chloride		75014	5.0	5	ND	ND	ND	ND
o-xylene		95476	5.0	5	ND	ND	ND	ND
m+p xylene		108383/106423	5.0	5	ND	ND	ND	ND

NOTES:
 RAOs GW = Remedial Action Objectives for Groundwater
 CAS = Chemical Abstract Service registry number
 Bold = Exceeds RAOs for groundwater (Not applicable to Treatment System Effluent)
 ND = Not Detected
 NA = Not Analyzed
 E = Exceeds Calibration Range
 D = Sample reanalyzed and quantified at higher dilution
 Well MW-11 was removed during excavation and is no longer sampled.
 Well MW-15A was filled with gravel and is no longer sampled.

Table 5
Groundwater Data Trends Summary

Well Number	Monitoring Dates	Samples (n)	TCE Trend	DCE Trend	Vinyl Chloride Trend
MW-2A	12/15/11-11/8/12	5	-0.2449	-0.2449	0.0000
MW-5	05/02/07-11/7/12	16	0.0000	0.0000	0.0000
MW-5A	05/02/07-11/7/12	16	0.0000	-1.2141	-2.4520
MW-6	05/02/07-11/7/12	15	0.7531	1.4500	2.9233
MW-6A	05/02/07-11/6/12	23	2.6192	-1.0067	-0.1854
MW-10	05/02/07-11/6/12	13	0.0000	-2.8042	-2.4003
MW-11A	05/02/07-11/7/12	16	0.6508	0.1357	-2.1677
MW-14	05/02/07-11/6/12	19	0.6390	1.1600	3.7784
MW-14A	05/02/07-11/6/12	17	0.0000	-1.6491	-0.2063
MW-16R	05/02/07-11/7/12	25	0.0000	-4.0446	-0.0284
MW-16A	05/02/07-11/7/12	21	-3.1774	-3.4269	-1.7265
MW-18	05/02/07-11/6/12	16	0.0000	0.0000	0.0000
MW-18A	03/31/08-11/6/12	18	1.3286	0.6069	-0.4260
MW-22	05/02/07-11/6/12	16	0.0000	1.5474	1.6248
MW-22A	05/02/07-11/7/12	17	0.0000	2.5247	2.9669
MW-24	03/31/08-11/8/12	19	-3.1602	-4.4511	-4.7190
MW-24A	03/31/08-11/8/12	19	-3.0534	-4.0958	-3.8158
MW-25	09/09/09-11/09/12	12	0.0000	0.0000	0.2897
MW-25A	09/09/09-11/07/12	14	0.0000	1.9298	0.5491
MW-26	09/09/09-11/09/12	13	0.0000	-0.1243	0.5050
MW-26A	09/09/09-11/09/12	16	0.0000	-2.8922	0.5865
MW-28	07/02/10-11/09/12	9	0.0000	1.1595	2.7386
MW-28A	07/02/10-11/09/12	9	0.0000	-1.2674	0.4193
MW-29A	07/02/10-11/09/12	9	0.0000	-2.4195	0.0000

Notes

- 1.) Values in matrix are standardized Mann-Kendall S values
- 2.) The Confidence coefficients are 0.95. The Level of Significance is 0.05, unless otherwise noted.
- 3.) - Sufficient Evidence of DECREASING Trend
- 4.) - Sufficient Evidence of INCREASING Trend
- 5.) - Sufficient Evidence of DECREASING Trend - Non-detects included
- 6.) - Sufficient Evidence of INCREASING Trend - Non-detects included
- 7.) 0.0000 = All data were Non-detects

Prepared by: REM
 Date: 12/12/12
 Checked by: MT
 Date: 12/12/2012

Table 6 Summary of Indoor Air Data, (September 2012)
Leica Microsystems, Eggert Road
Cheektowaga, NY

Sample location	AA-8HR-040	AA-9HR-041	AA-8HR-042	AA-8HR-043 ¹	AA-8HR-043 ¹	AA-8HR-043 ¹	AA-8HR-043A	AA-8HR-044	AA-8HR-045		
Lab ID:	R1206262-006	R1206262-008	R1206262-013	R1206262-020	R1206262-020	R1206262-020	R1206018-001	R1206262-022	R1206262-012		
Sample Collection Date:	9/17/2012	9/17/2012	9/19/2012	9/20/2012	9/20/2012	9/20/2012	11/19/2012	9/20/2012	9/19/2012		
Analytical Dilution Factor:						Dilution					
OSHA PELs ²											
ug/m ³											
Volatile Organic Compounds (ug/m³)											
CHLOROMETHANE	0.86	U	0.97	U	1.0	U	16	U	0.95	U	1.0
VINYL CHLORIDE	0.11	U	0.13	U	0.11	U	2.1	U	0.087	U	0.11
BROMOMETHANE	0.82	U	0.92	U	0.78	U	15	U	0.62	U	0.8
CHLOROETHANE	1.1	U	1.2	U	1.1	U	20	U	0.84	U	1.1
ACETONE	9.5	U	19	U	26	U	180	U	18	U	16
TRICHLOROFLUOROMETHANE (CFC 11)	1.4	U	2.5	U	2.7	U	22	U	1.8	U	1.7
1,1-DICHLOROETHENE (1,1-DCE)	0.84	U	0.95	U	0.8	U	15	U	0.64	U	0.8
DICHLOROMETHANE (METHYLENE CHLORIDE)	0.72	U	0.82	U	0.69	U	13	U	1.2	U	0.69
1,1,2-TRICHLOROFLUOROETHANE (CFC 113)	0.53	U	0.8	U	0.73	U	6	U	0.67	U	0.73
CARBON DISULFIDE	0.65	U	0.73	U	0.62	U	12	U	0.49	U	0.62
TRANS-1,2-DICHLOROETHENE	0.84	U	0.95	U	0.8	U	15	U	0.64	U	0.8
1,1-DICHLOROETHANE (1,1-DCA)	0.86	U	0.97	U	0.82	U	16	U	0.65	U	0.82
METHYL TERT-BUTYL ETHER	1.5	U	1.7	U	1.4	U	28	U	1.1	U	1.4
VINYL ACETATE	9.5	U	11	U	9.1	U	180	U	7.3	U	9.1
2-BUTANONE (MEK)	2.2	U	3.1	U	5.1	U	23	U	6.5	U	3.7
CIS-1,2-DICHLOROETHENE	0.84	U	0.95	U	0.8	U	15	U	0.64	U	0.8
CHLOROFORM	1	U	1.2	U	0.98	U	19	U	0.78	U	1.0
1,2-DICHLOROETHANE	0.86	U	0.97	U	0.82	U	16	U	0.65	U	0.82
1,1,1-TRICHLOROETHANE (TCA)	1.1	U	1.3	U	1.1	U	21	U	0.87	U	1.1
BENZENE	3.195	U	3.9	U	2.7	U	12	U	3.4	U	2.3
CARBON TETRACHLORIDE	0.55	U	0.61	U	0.55	U	2.5	U	0.64	U	0.57
1,2-DICHLOROPROPANE	0.97	U	1.1	U	0.93	U	18	U	0.74	U	0.93
BROMODICHLOROMETHANE	0.29	U	0.32	U	0.27	U	5.3	U	0.22	U	0.27
TRICHLOROETHENE (TCE)	1.3	U	3.2	U	1.2	U	1400	E	11	U	2.1
CIS-1,3-DICHLOROPROPENE	1.9	U	2.2	U	1.8	U	35	U	1.5	U	1.8
4-METHYL-2-PENTANONE	1.7	U	1.9	U	1.6	U	32	U	1.3	U	1.6
TRANS-1,3-DICHLOROPROPENE	0.95	U	1.1	U	0.91	U	18	U	0.73	U	0.91
1,1,2-TRICHLOROETHANE	1.1	U	1.3	U	1.1	U	21	U	0.87	U	1.1
TOLUENE	36	U	30	U	16	U	72	U	18	U	13
2-HEXANONE	0.86	U	0.97	U	0.82	U	16	U	0.65	U	0.82
DIBROMOCHLOROMETHANE	0.36	U	0.41	U	0.35	U	6.7	U	0.28	U	0.35
1,2-DIBROMOETHANE	0.32	U	0.37	U	0.31	U	6	U	0.25	U	0.31
TETRACHLOROETHENE (PCE)	678241	U	0.26	U	0.24	U	2.8	U	0.69	U	0.16
CHLOROBENZENE	350000	U	1.1	U	0.93	U	18	U	0.74	U	0.93
ETHYLBENZENE	435000	U	3.8	U	4.9	U	33	U	4	U	3.6
M,P-XYLENES	435000	U	9.6	U	11	U	67	U	11	U	8.5
BROMOFORM	5000	U	2.5	U	2.1	U	40	U	1.7	U	2.1
STYRENE	425971	U	3.9	U	7.3	U	33	U	2.9	U	4.7
O-XYLENE	435000	U	3.5	U	4.4	U	33	U	4.4	U	3.3
1,1,2,2-TETRACHLOROETHANE	35000	U	0.32	U	0.27	U	5.3	U	0.22	U	0.27
1,3-DICHLOROBENZENE	2.5	U	2.8	U	2.4	U	46	U	1.9	U	2.4
1,4-DICHLOROBENZENE	450000	U	2.8	U	2.4	U	46	U	1.9	U	2.4
1,2-DICHLOROBENZENE	150000 ^c	U	2.8	U	2.4	U	46	U	1.9	U	2.4
TOTAL VOCs	65.18	83.97	94.6	1488	1484	85.15	48.88	80.3			

NOTES:

- 1.) Analysis reformed, with result of 11 ug/m³ TCE (See sample AA-8hr-043A)
 - 2.) No OSHA PEL Exceedances
 - 3.) ACGIH TLV
- Bold** = Equals or exceeds Laboratory MRL
B = Analyte detected in method blank
D = Sample reanalyzed and quantified at higher dilution
E = Exceeds calibration range
J = Estimated concentration
U = Analyte was not detected above Lab MRL

Table 7 Summary of Sub-Slab Data, (September 2012)
Leica Microsystems, Eggert Road
Cheektowaga, NY

Prepared by: REM
Date: 12/12/12
Checked by: MT
Date: 12/12/2012

Sample location Lab ID: Sample Collection Date: Analytical Dilution Factor:	SS-30mm-032	SS-30mm-033	SS-30mm-034	SS-30mm-035	SS-30mm-036	SS-30mm-038	SS-30mm-037	SS-6HR-037
	R1206262-002 9/19/2012	R1206262-003 9/19/2012	R1206262-004 9/19/2012	R1206262-004 9/19/2012	R1206262-001 9/19/2012	R1206262-001 9/19/2012	R1206262-016 9/19/2012	R1206262-010 9/19/2012
Volatile Organic Compounds (mg/m³)								
CHLOROMETHANE	14	12	65	110	64	11	74	440
VINYL CHLORIDE	1.8	1.6	8.6	14	8.5	1.5	9.9	59
BROMOMETHANE	13	12	62	100	61	11	71	420
CHLOROETHANE	18	16	83	140	82	14	96	570
ACETONE	430	560	720	1200	2200	290	2700	4900
TRICHLOROFLUOROMETHANE (CFC 11)	19	17	89	150	88	15	100	610
1,1-DICHLOROETHENE (1,1-DCE)	13	12	63	100	62	11	72	490
DICHLOROMETHANE (METHYLENE CHLORIDE)	11	10	55	90	54	9.3	63	370
1,1,2-TRICHLOROETHYLENE (CFC 113)	5.1	4.0	24	40	24	46	28	170
CARBON DISULFIDE	10	9.1	49	80	48	19	56	330
TRANS-1,2-DICHLOROETHENE	13	12	300	490	62	11	72	1200
1,1-DICHLOROETHANE (1,1-DCA)	14	12	65	110	64	17	74	8700
METHYL TERT-BUTYL ETHER	24	21	110	190	110	19	130	770
VINYL ACETATE	150	130	720	1200	710	120	820	4900
2-BUTANONE (MEK)	22	17	93	150	360	25	150	640
CIS-1,2-DICHLOROETHENE	13	12	1700	2800	62	11	72	820
CHLOROFORM	16	14	77	130	77	13	89	530
1,2-DICHLOROETHANE	14	12	65	110	64	11	74	440
1,1,1-TRICHLOROETHANE (TCA)	18	41	86	140	85	1400	99	2300
BENZENE	140	67	83	83	220	140	220	340
CARBON TETRACHLORIDE	2.1	1.9	10	17	9.9	1.7	12	69
1,2-DICHLOROPROPANE	15	14	73	120	72	17	84	500
BROMODICHLOROMETHANE	4.5	4.0	22	36	21	3.7	25	150
TRICHLOROETHENE (TCE)	24	390	8400	8900	100	520	140	51000
CIS-1,3-DICHLOROPROPENE	30	27	140	240	140	24	160	980
4-METHYL-2-PENTANONE	27	24	130	210	130	22	150	880
TRANS-1,3-DICHLOROPROPENE	15	13	72	120	71	12	82	490
1,1,2-TRICHLOROETHANE	18	16	86	140	85	15	99	590
TOLUENE	320	240	270	280	590	370	770	400
2-HEXANONE	14	12	65	110	64	11	74	440
DIBROMOCHLOROMETHANE	5.7	5.1	27	45	27	4.6	31	190
1,2-DIBROMOETHANE	5.1	4.6	24	40	24	4.2	28	170
TETRACHLOROETHENE (PCE)	2.4	4.7	11	19	11	5.3	420	110
CHLOROBENZENE	15	14	73	120	72	12	84	500
ETHYLBENZENE	42	35	140	220	130	45	160	930
M,P-XYLENES	200	170	270	450	470	260	440	1900
BROMOFORM	34	31	160	270	160	28	190	1100
STYRENE	28	25	130	230	130	23	150	920
O-XYLENE	89	37	140	220	260	87	160	930
1,1,2,2-TETRACHLOROETHANE	4.5	4	22	36	21	3.7	25	150
1,3-DICHLOROBENZENE	40	35	190	310	190	32	220	1300
1,4-DICHLOROBENZENE	40	35	190	310	190	32	220	1300
1,2-DICHLOROBENZENE	40	35	190	310	190	32	220	1300
TOTAL VOCs	1247	1564.7	10733	12480	4200	3224.3	4620	64620

NOTES:
* = 30 minute data provides a general comparison with NYSDOH standards, but should not be compared
Bold = Exceeds Laboratory MRL
B = Analyte detected in method blank
C = Sample reanalyzed and quantified at higher dilution
E = Exceeds calibration range
J = Estimated concentration
U = Analyte was not detected above Lab MRL

Prepared by: REM
 Date: 12/12/12
 Checked by: MT
 Date: 12/12/2012

Table 7 Summary of Sub-Slab Data, (September 2012)
 Leica Microsystems, Eggert Road
 Cheektowaga, NY

Sample location	SS-BHR-039	SS-BHR-040	SS-BHR-041	SS-BHR-041 DUP	SS-BHR-042	SS-BHR-043	SS-BHR-044	SS-BHR-045
Lab ID:	R1206262-018	R1206262-005	R1206262-007	R1206262-009	R1206262-014	R1206262-019	R1206262-021	R1206262-011
Sample Collection Date:	9/20/2012	9/17/2012	9/17/2012	9/17/2012	9/19/2012	9/20/2012	9/20/2012	9/19/2012
Analytical Dilution Factor:								
Volatile Organic Compounds (mcg/m³)								
CHLOROMETHANE	490	U	46	U	53	U	24	U
VINYL CHLORIDE	65	U	6.1	U	7	U	3.2	U
BROMOMETHANE	470	U	44	U	50	U	23	U
CHLOROETHANE	630	U	59	U	68	U	31	U
ACETONE	5400	U	1500	U	590	U	430	U
TRICHLOROFLUOROMETHANE (CF ₃)	670	U	63	U	73	U	33	U
1,1-DICHLOROETHENE (1,1-DCE)	480	U	45	U	52	U	24	U
DICHLOROMETHANE (METHYLENE CHLORIDE)	410	U	39	U	45	U	20	U
1,1,2-TRICHLOROETHANE (CF ₂ Cl)	180	U	17	U	20	U	9.2	U
CARBON DISULFIDE	370	U	35	U	40	U	19	U
TRANS-1,2-DICHLOROETHENE	4600	U	45	U	52	U	24	U
1,1-DICHLOROETHANE (1,1-DCA)	490	U	46	U	53	U	24	U
METHYL TERT-BUTYL ETHER	860	U	80	U	93	U	43	U
VINYL ACETATE	5400	U	510	U	590	U	270	U
2-BUTANONE (MEK)	710	U	66	U	76	U	49	U
CIS-1,2-DICHLOROETHENE	2900	U	45	U	52	U	24	U
CHLOROFORM	590	U	55	U	63	U	28	U
1,2-DICHLOROETHANE	490	U	46	U	53	U	24	U
1,1,1-TRICHLOROETHANE (TCA)	650	U	61	U	70	U	51	U
BENZENE	380	U	74	U	76	U	93	U
CARBON TETRACHLORIDE	76	U	7.1	U	8.2	U	3.8	U
1,2-DICHLOROPROPANE	550	U	52	U	60	U	27	U
BROMODICHLOROMETHANE	160	U	15	U	18	U	8.1	U
TRICHLOROETHENE (TCE)	51000	U	84	U	16	U	76	U
CIS-1,3-DICHLOROPROPENE	1100	U	100	U	120	U	54	U
4-METHYL-2-PENTANONE	980	U	92	U	110	U	48	U
TRANS-1,3-DICHLOROPROPENE	540	U	51	U	59	U	27	U
1,1,2-TRICHLOROETHANE	650	U	61	U	70	U	32	U
TOLUENE	440	U	760	U	2700	U	1700	U
2-HEXANONE	490	U	46	U	53	U	24	U
DIBROMOCHLOROMETHANE	210	U	19	U	22	U	10	U
1,2-DIBROMOETHANE	180	U	17	U	20	U	9.2	U
TETRACHLOROETHENE (PCE)	87	U	8.1	U	11	U	16	U
CHLOROBENZENE	550	U	52	U	60	U	27	U
ETHYLBENZENE	1000	U	97	U	110	U	51	U
M,P-XYLENES	2100	U	190	U	280	U	200	U
BROMOFORM	1200	U	120	U	130	U	61	U
STYRENE	1000	U	96	U	110	U	51	U
O-XYLENE	1000	U	97	U	110	U	78	U
1,1,2,2-TETRACHLOROETHANE	160	U	15	U	18	U	8.1	U
1,3-DICHLOROBENZENE	1400	U	130	U	150	U	71	U
1,4-DICHLOROBENZENE	1400	U	130	U	160	U	71	U
1,2-DICHLOROBENZENE	1400	U	130	U	150	U	71	U
TOTAL VOCs	59090	4692	2228	2249	3083	6064	2712	80.3

NOTES:
 * = 30 minute data provides a general comparison with NYSDOH standards, but should not be compared
 Bold = Exceeds Laboratory MRL
 B = Analyte detected in method blank
 D = Sample reanalyzed and quantified at higher dilution
 E = Exceeds calibration range
 J = Estimated concentration
 U = Analyte was not detected above Lab MRL

TABLE 8
Leica Vertical Well Gradients
Areas Downgradient of Area B

Well Location	24 Well Pair						18 Well Pair						6 Well Pair					
	Well Type	Overburden	Bedrock	Overburden well sampling depth	Bedrock well sampling depth	Gradient	Overburden	Bedrock	Overburden well sampling depth	Bedrock well sampling depth	Gradient	Overburden	Bedrock	Overburden well sampling depth	Bedrock well sampling depth	Gradient		
																	13.34	34.18
Total Depth	Depth to Water		Depth to Water		Depth to Water		Depth to Water		Depth to Water		Depth to Water		Depth to Water		Depth to Water			
2008	May	11.06	15.68	12.20	24.33	0.36	8.20	15.34	10.45	25.18	0.52	11.65	11.60	13.23	17.71	-0.01		
	July	11.78	18.14	12.56	26.16	0.47	12.58	18.14	12.64	26.33	0.41	14.72	14.74	14.76	17.71	0.01		
	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2009	April	10.00	14.16	11.67	24.17	0.33	8.98	14.44	10.84	24.48	0.40	10.06	10.56	12.43	17.71	0.09		
	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	October	9.76	10.42	11.55	23.76	0.05	9.52	11.08	11.11	23.61	0.12	7.64	8.22	11.22	17.71	0.09		
	January (2010)	9.84	13.70	11.59	25.94	0.31	8.92	12.76	10.21	24.14	0.36	8.62	8.86	11.71	17.71	0.04		
2010	March	6.72	10.76	10.05	23.76	0.29	7.80	12.24	10.25	23.61	0.33	7.86	8.42	11.33	17.71	0.09		
	July	10.44	16.56	11.89	25.37	0.45	9.16	16.02	10.93	25.27	0.48	12.08	13.72	13.44	17.71	0.38		
	September	10.84	17.20	12.09	25.69	0.47	10.68	17.00	11.69	25.76	0.45	13.84	13.15	14.32	17.71	-0.20		
	December	9.30	13.46	11.32	23.82	0.33	8.26	12.28	10.48	23.61	0.31	9.32	11.56	12.06	17.71	0.40		
2011	March	6.90	8.68	10.12	23.76	0.13	7.60	9.32	10.15	23.61	0.13	6.34	6.52	10.57	17.71	0.03		
	June	7.52	9.80	10.43	23.76	0.17	6.48	9.68	9.59	23.61	0.23	6.76	8.28	10.78	17.71	0.22		
	October	3.74	14.52	11.54	24.40	0.38	8.98	13.02	10.84	23.77	0.31	10.92	11.58	12.86	17.71	0.14		
	December	7.12	8.82	10.23	23.76	0.13	7.96	10.02	10.33	23.61	0.16	6.96	7.90	10.82	17.71	0.14		
2012	March	8.02	9.60	10.68	23.76	0.12	9.04	10.32	10.87	23.61	0.10	8.22	9.54	11.51	17.71	0.21		
	November	9.32	12.66	11.33	23.76	0.27	8.5	12.72	10.6	23.62	0.32	9.92	12.36	12.36	17.71	0.46		


Note Positive gradients are down

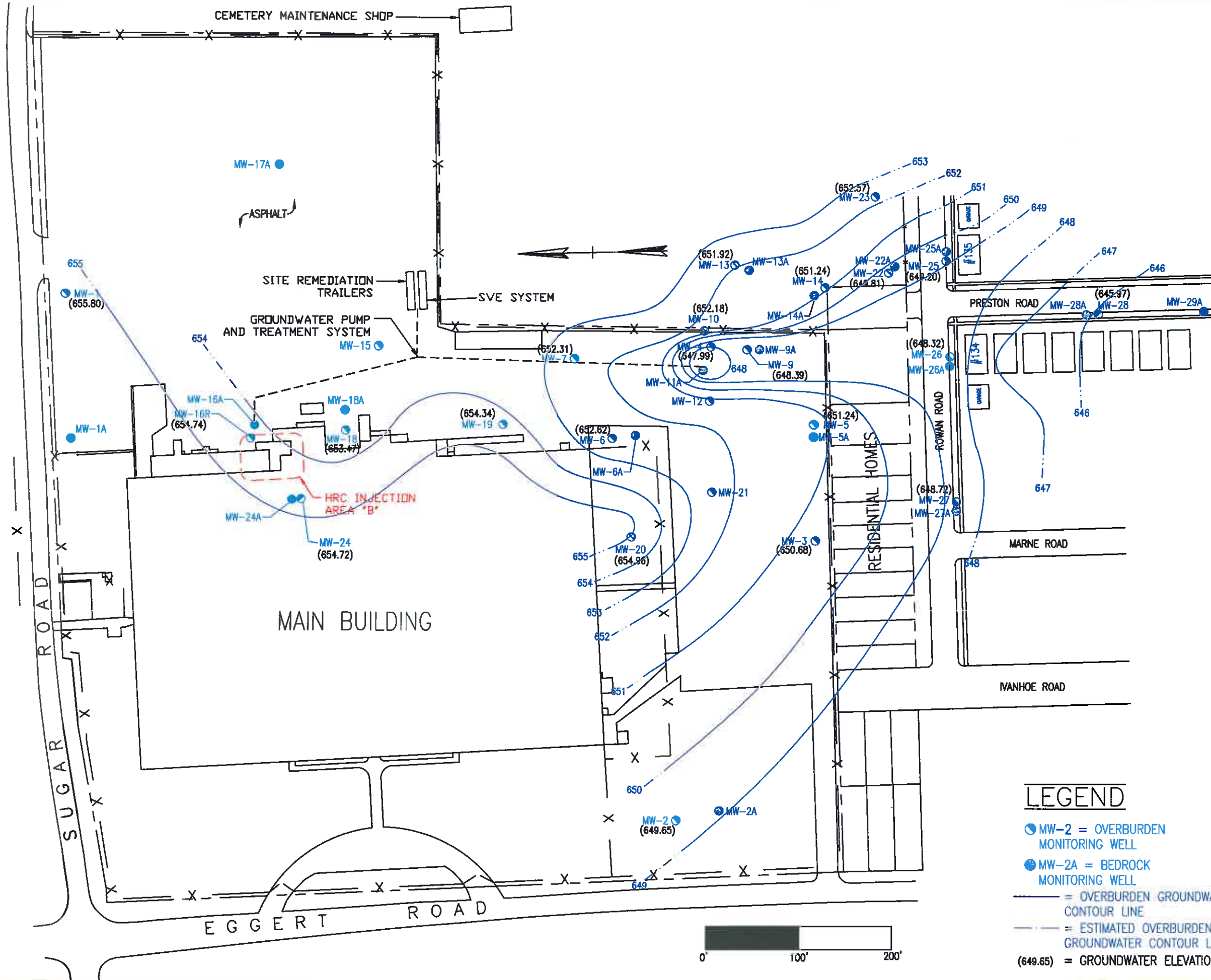
APPENDIX D

Figures

Figure 1	Site Map and Groundwater Recovery System
Figure 2	Groundwater Contours, March 2012, Overburden Wells
Figure 3	Groundwater Contours, March 2012, Bedrock Wells
Figure 4	Vinyl Chloride Contaminant Concentration Isopleths, March 2012, Overburden Wells
Figure 5	Vinyl Chloride Contaminant Concentration Isopleths, March 2012, Bedrock Wells
Figure 6	CIS 1,2 DCE Contaminant Concentration Isopleths, March 2012, Overburden Wells
Figure 7	CIS 1,2 DCE Contaminant Concentration Isopleths, March 2012, Bedrock Wells
Figure 8	Groundwater Contours, November 2012, Overburden Wells
Figure 9	Groundwater Contours, November 2012, Bedrock Wells
Figure 10	Vinyl Chloride Contaminant Concentration Isopleths, November 2012, Overburden Wells
Figure 11	Vinyl Chloride Contaminant Concentration Isopleths, November 2012, Bedrock Wells
Figure 12	CIS 1,2 DCE Contaminant Concentration Isopleths, November 2012, Overburden Wells
Figure 13	CIS 1,2 DCE Contaminant Concentration Isopleths, November 2012, Bedrock Wells
Figure 14	Monitoring well Locations (INT 10 – 13) and second Supplemental Sub-Slab Gas Investigation Sampling Locations



DOCUMENT CONTROL NO.	PROJECT	LEICA MICROSYSTEMS INC. 203 EGGERT ROAD CHEEKTOWAGA, NY		PROJECT # 137015
		 100 Mill Plain Road Danbury, CT 06811 203-797-8301		
REVISION NO.	DRAWING	Site Map and Groundwater Recovery System		FILENAME:
				SCALE: SEE SCALEBAR
				DATE: 4/22/13
				BY: MT
				CK:
				FIGURE # 1



LEGEND

- MW-2 = OVERBURDEN MONITORING WELL
- MW-2A = BEDROCK MONITORING WELL
- = OVERBURDEN GROUNDWATER CONTOUR LINE
- - - = ESTIMATED OVERBURDEN GROUNDWATER CONTOUR LINE
- (649.65) = GROUNDWATER ELEVATION (FEET)

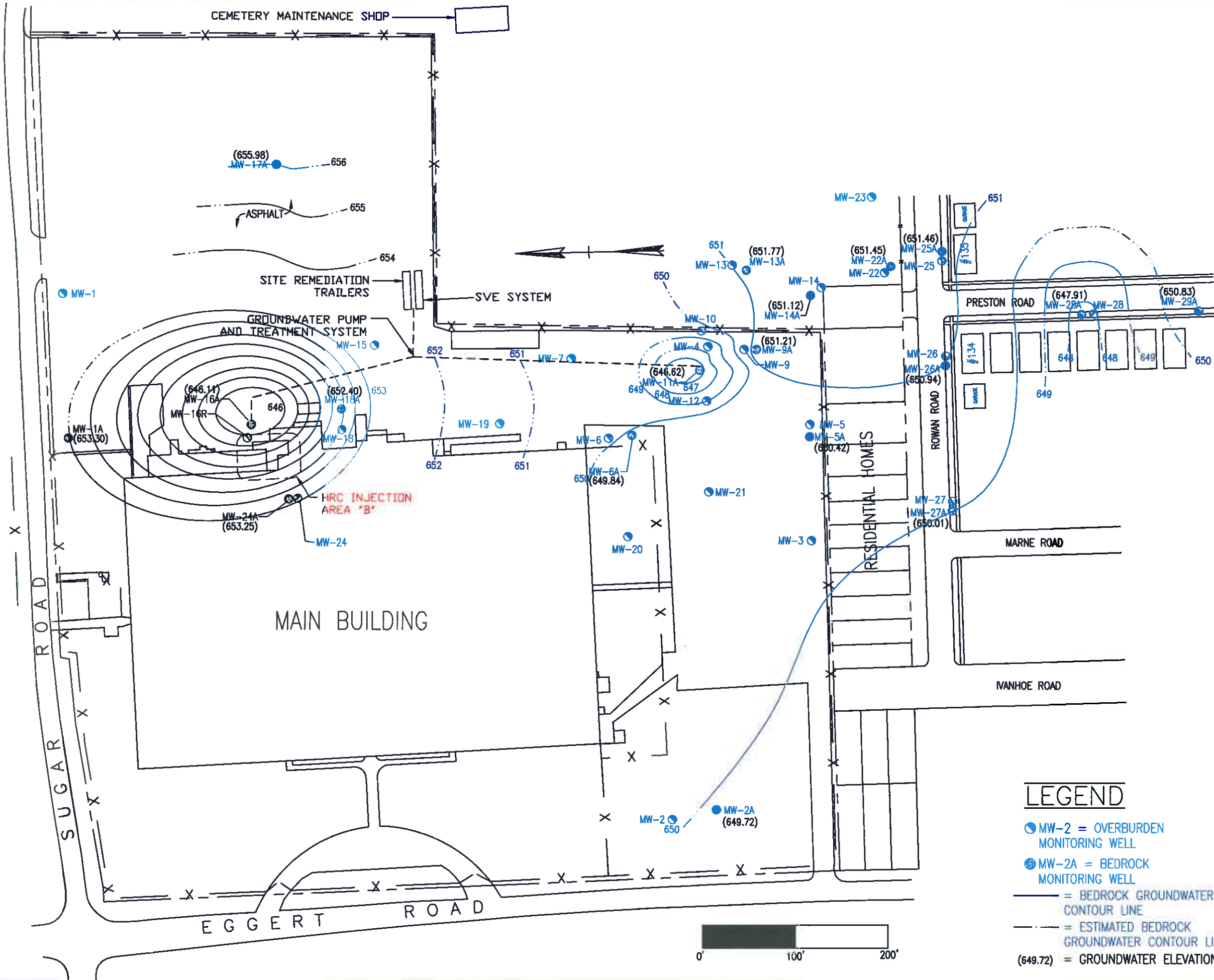
PROJECT # 137015
 FILENAME:
 SCALE: 1" = 100'
 DATE: 4/15/13
 BY: MT
 CK: RM
 FIGURE # 2

ENERGYSOLUTIONS
 100 MILL PLAIN RD
 DANBURY, CT. 06811
 (203)797-8301

LEICA MICROSYSTEMS INC.
 203 EGGERT RD
 CHEEKTOWAGA, NY

GROUNDWATER CONTOURS, MARCH
 2012, OVERBURDEN WELLS

DOCUMENT CONTROL NO.
 REVISION NO.

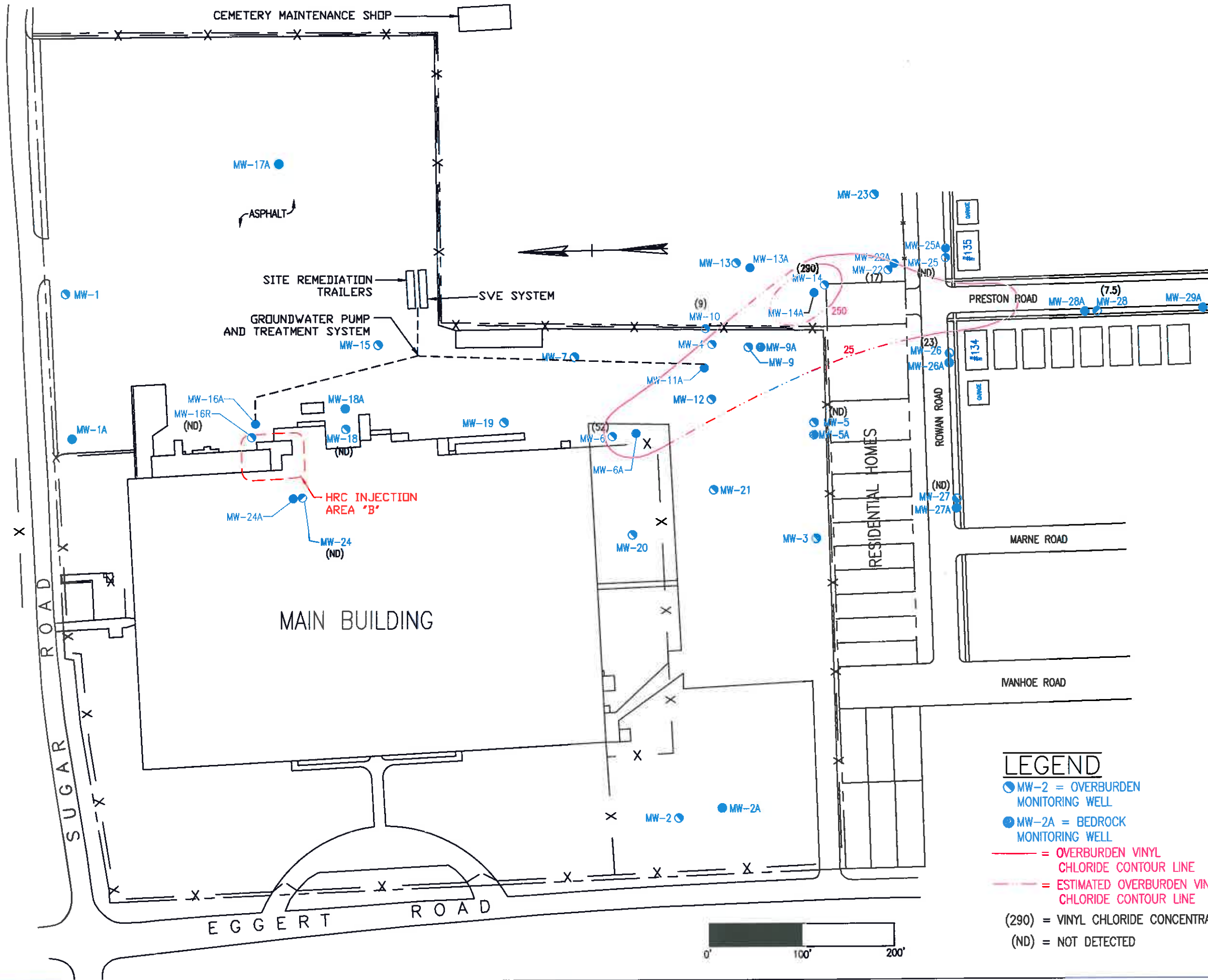


PROJECT # 137015
 FILENAME:
 SCALE: 1" = 100'
 DATE: 4/15/13
 BY: MT CK: RM
 FIGURE # 3

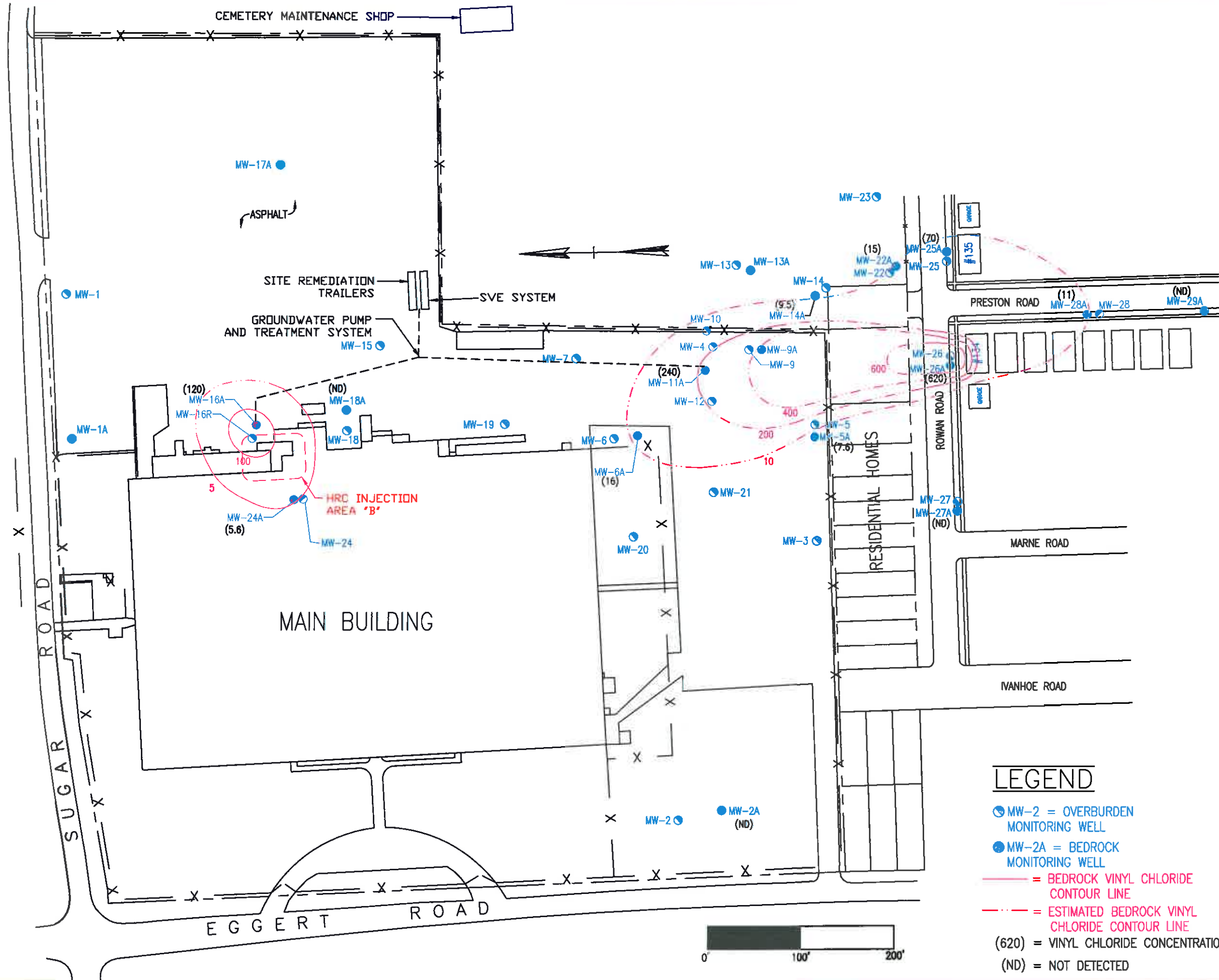
ENERGYSOLUTIONS
 100 MILL PLAIN RD
 DANBURY, CT. 06811
 (203)797-8301

LEICA MICROSYSTEMS INC.
 203 EGGERT RD
 CHEEKTOWAGA, NY
 GROUNDWATER CONTOURS, MARCH
 2012, BEDROCK WELLS

DOCUMENT CONTROL NO.
 REVISION NO.



DOCUMENT CONTROL NO.	PROJECT		PROJECT # 137015
	LEICA MICROSYSTEMS INC. 203 EGGERT RD CHEEKTOWAGA, NY		FILENAME:
REVISION NO.	DRAWING		SCALE: 1" = 100'
	VINYL CHLORIDE CONTAMINANT CONCENTRATION ISOPLETHS, MARCH 2012, OVERBURDEN WELLS		DATE: 4/16/13
			BY: MT CK: RM FIGURE # 4
			ENERGYSOLUTIONS 100 MILL PLAIN RD DANBURY, CT. 06811 (203)797-8301

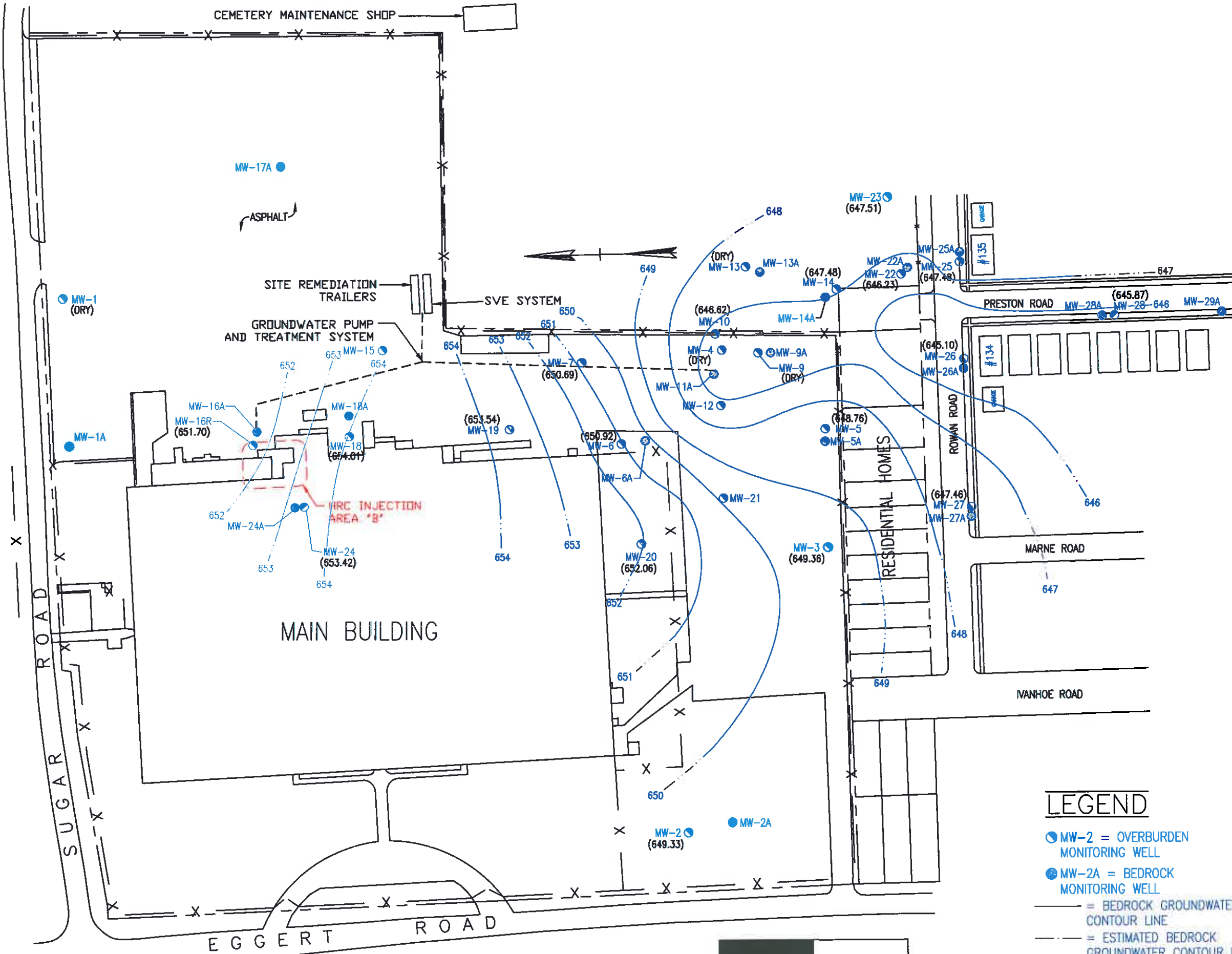


LEGEND

- MW-2 = OVERBURDEN MONITORING WELL
- MW-2A = BEDROCK MONITORING WELL
- = BEDROCK VINYL CHLORIDE CONTOUR LINE
- - - = ESTIMATED BEDROCK VINYL CHLORIDE CONTOUR LINE
- (620) = VINYL CHLORIDE CONCENTRATION (ug/L)
- (ND) = NOT DETECTED

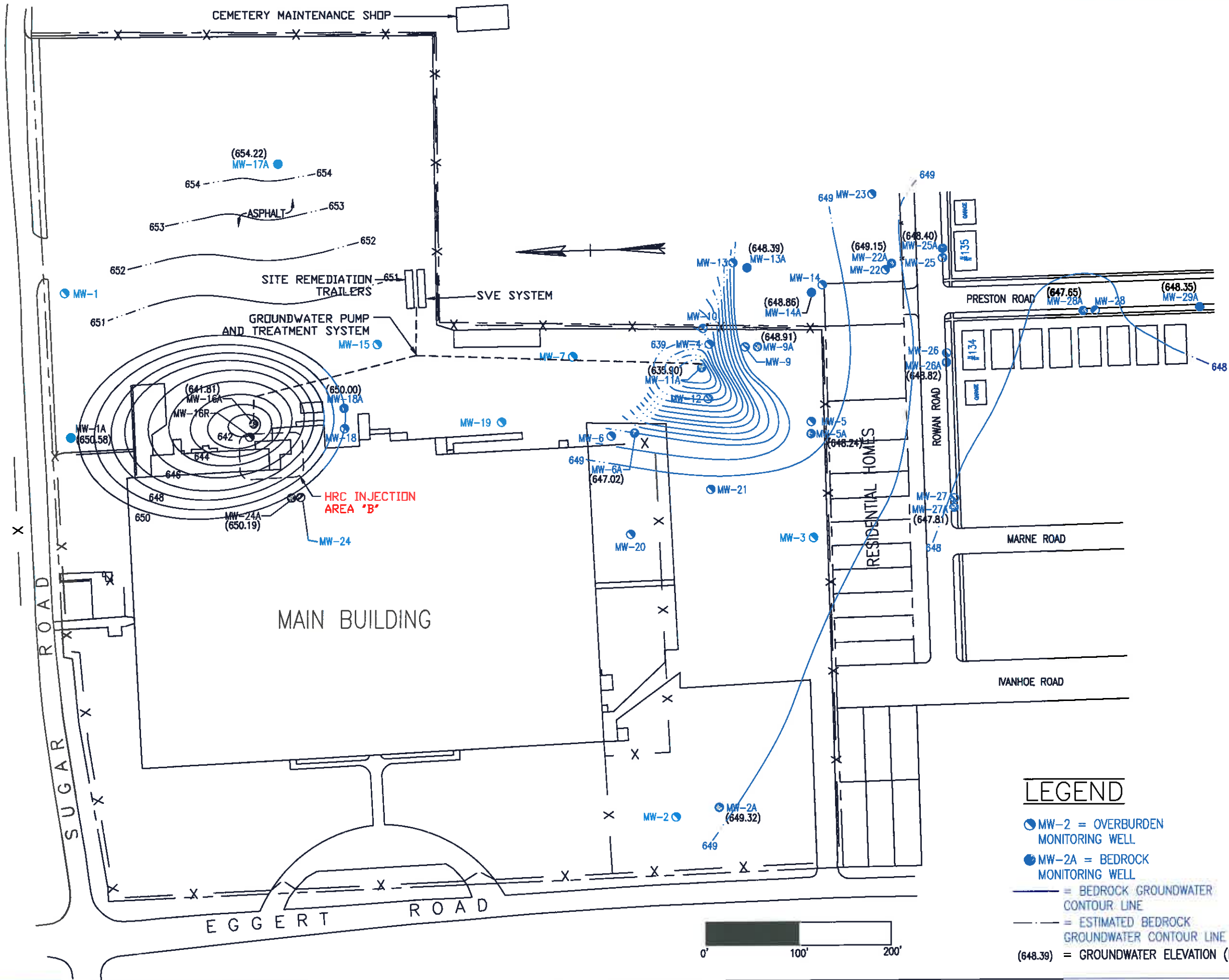


DOCUMENT CONTROL NO.	PROJECT # 137015	
	FILENAME:	DATE: 4/16/13
REVISION NO.	SCALE: 1" = 100'	BY: MT
		CK: RM
		FIGURE # 5
LEICA MICROSYSTEMS INC. 203 EGGERT RD CHEEKTOWAGA, NY		
VINYL CHLORIDE CONTAMINANT CONCENTRATION ISOPLETHS, MARCH 2012, BEDROCK WELLS		
100 MILL PLAN RD DANBURY, CT. 06811 (203)797-8301		



- LEGEND**
- MW-2 = OVERBURDEN MONITORING WELL
 - MW-2A = BEDROCK MONITORING WELL
 - = BEDROCK GROUNDWATER CONTOUR LINE
 - - - = ESTIMATED BEDROCK GROUNDWATER CONTOUR LINE
 - (649.33) = GROUNDWATER ELEVATION (FEET)

DOCUMENT CONTROL NO.	PROJECT		REVISION NO.
	PROJECT # 137015	FILENAME:	
REVISION NO.	PROJECT		FIGURE # 8
	SCALE: 1" = 100'	DATE: 4/15/13	
ENERGYSOLUTIONS		BY: MT	CK: RM
100 MILL PLAIN RD DANBURY, CT. 06811 (203)797-8301			
LEICA MICROSYSTEMS INC. 203 EGGERT RD CHEEKTOWAGA, NY		GROUNDWATER CONTOURS, NOVEMBER 2012, OVERBURDEN WELLS	



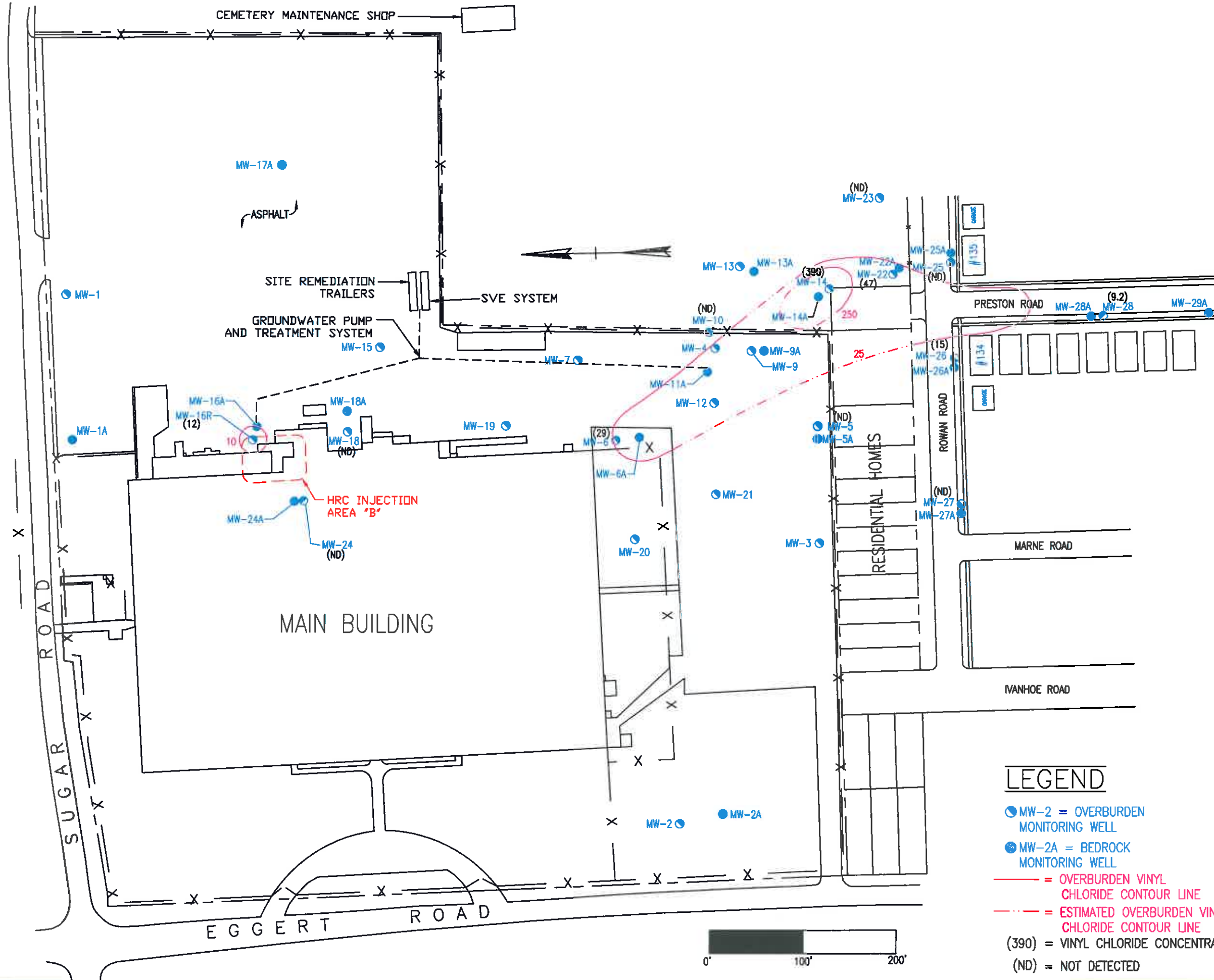
PROJECT # 137015
 FILENAME:
 SCALE: 1" = 100'
 DATE: 4/15/13
 BY: MT
 CK: RM
 FIGURE # 9

ENERGYSOLUTIONS
 100 MILL PLAIN RD
 DANBURY, CT. 06811
 (203)797-8301

LEICA MICROSYSTEMS INC.
 203 EGGERT RD
 CHEEKTOWAGA, NY
 GROUNDWATER CONTOURS, NOVEMBER 2012, BEDROCK WELLS

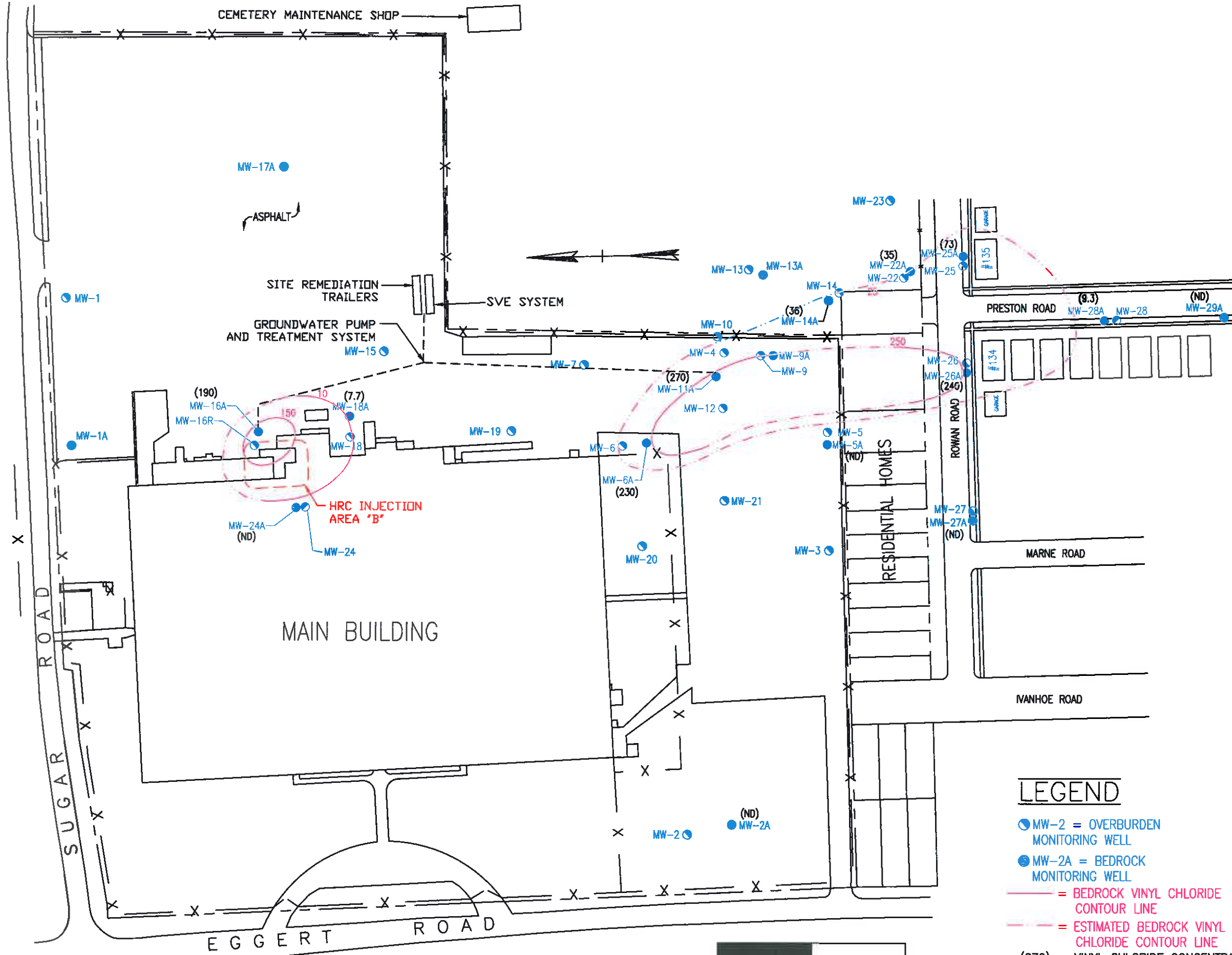
PROJECT
 DRAWING
 DOCUMENT CONTROL NO.
 REVISION NO.

LEGEND
 ● MW-2 = OVERBURDEN MONITORING WELL
 ● MW-2A = BEDROCK MONITORING WELL
 — = BEDROCK GROUNDWATER CONTOUR LINE
 - - - = ESTIMATED BEDROCK GROUNDWATER CONTOUR LINE
 (648.39) = GROUNDWATER ELEVATION (FEET)



- LEGEND**
- MW-2 = OVERBURDEN MONITORING WELL
 - MW-2A = BEDROCK MONITORING WELL
 - = OVERBURDEN VINYL CHLORIDE CONTOUR LINE
 - - - = ESTIMATED OVERBURDEN VINYL CHLORIDE CONTOUR LINE
 - (390) = VINYL CHLORIDE CONCENTRATION (ug/L)
 - (ND) = NOT DETECTED

DOCUMENT CONTROL NO.	PROJECT	PROJECT #	197015
		FILENAME:	
REVISION NO.	DRAWING	SCALE:	1" = 100'
		DATE:	4/16/13
		BY:	MT
		CK:	RM
		FIGURE #	10
		100 MILL PLAIN RD DANBURY, CT. 06811 (203)797-8301	
		LEICA MICROSYSTEMS INC. 203 EGGERT RD CHEEKTOWAGA, NY	
		VINYL CHLORIDE CONTAMINANT CONCENTRATION ISOPLETHS, NOVEMBER 2012, OVERBURDEN WELLS	



PROJECT # 137015
 FILENAME:
 SCALE: 1" = 100'
 DATE: 4/17/13
 BY: MT
 CK: RM
 FIGURE # 11

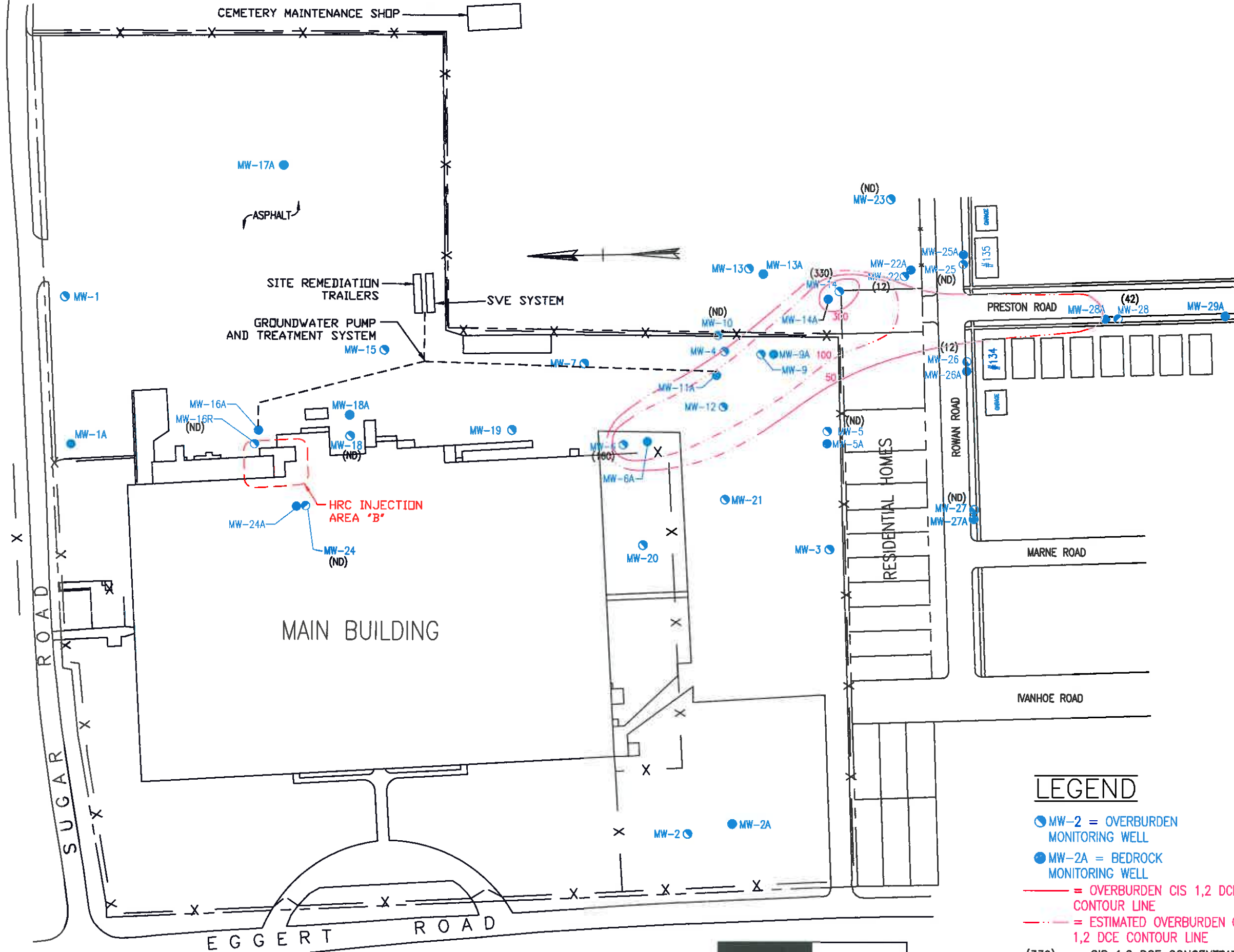
ENERGYSOLUTIONS
 100 MILL PLAIN RD
 DANBURY, CT. 06811
 (203)797-8301

LEICA MICROSYSTEMS INC.
 203 EGGERT RD
 CHEEKTOWAGA, NY

VINYL CHLORIDE CONTAMINANT
 CONCENTRATION ISOPLETHS, NOVEMBER
 2012, BEDROCK WELLS

PROJECT
 DRAWING

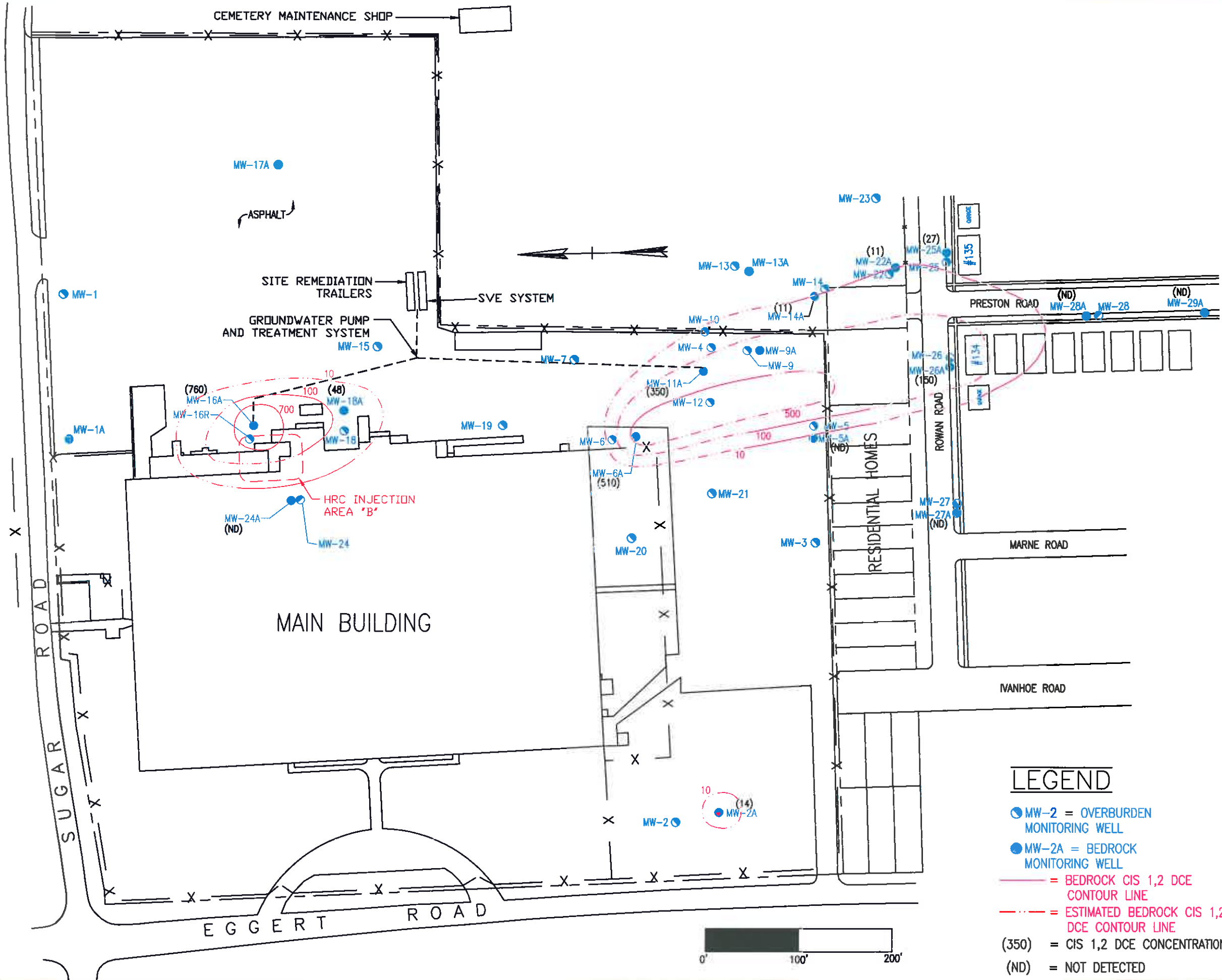
DOCUMENT CONTROL NO.
 REVISION NO.



LEGEND

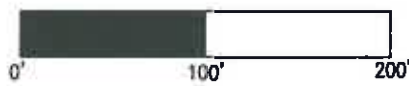
- MW-2 = OVERBURDEN MONITORING WELL
- MW-2A = BEDROCK MONITORING WELL
- = OVERBURDEN CIS 1,2 DCE CONTOUR LINE
- - - = ESTIMATED OVERBURDEN CIS 1,2 DCE CONTOUR LINE
- (330) = CIS 1,2 DCE CONCENTRATION (ug/L)
- (ND) = NOT DETECTED

DOCUMENT CONTROL NO.	PROJECT	PROJECT # 137015
		FILENAME:
REVISION NO.	DRAWING	ENERGYSOLUTIONS
		100 MILL PLAIN RD DANBURY, CT. 06811 (203)797-8301
LEICA MICROSYSTEMS INC. 203 EGGERT RD CHEEKTOWAGA, NY		SCALE: 1" = 100'
CIS 1,2 DCE CONTAMINANT CONCENTRATION ISOPLETHS, NOVEMBER 2012, OVERBURDEN WELLS		DATE: 4/18/13
		BY: MT
		CK: RM
		FIGURE # 12

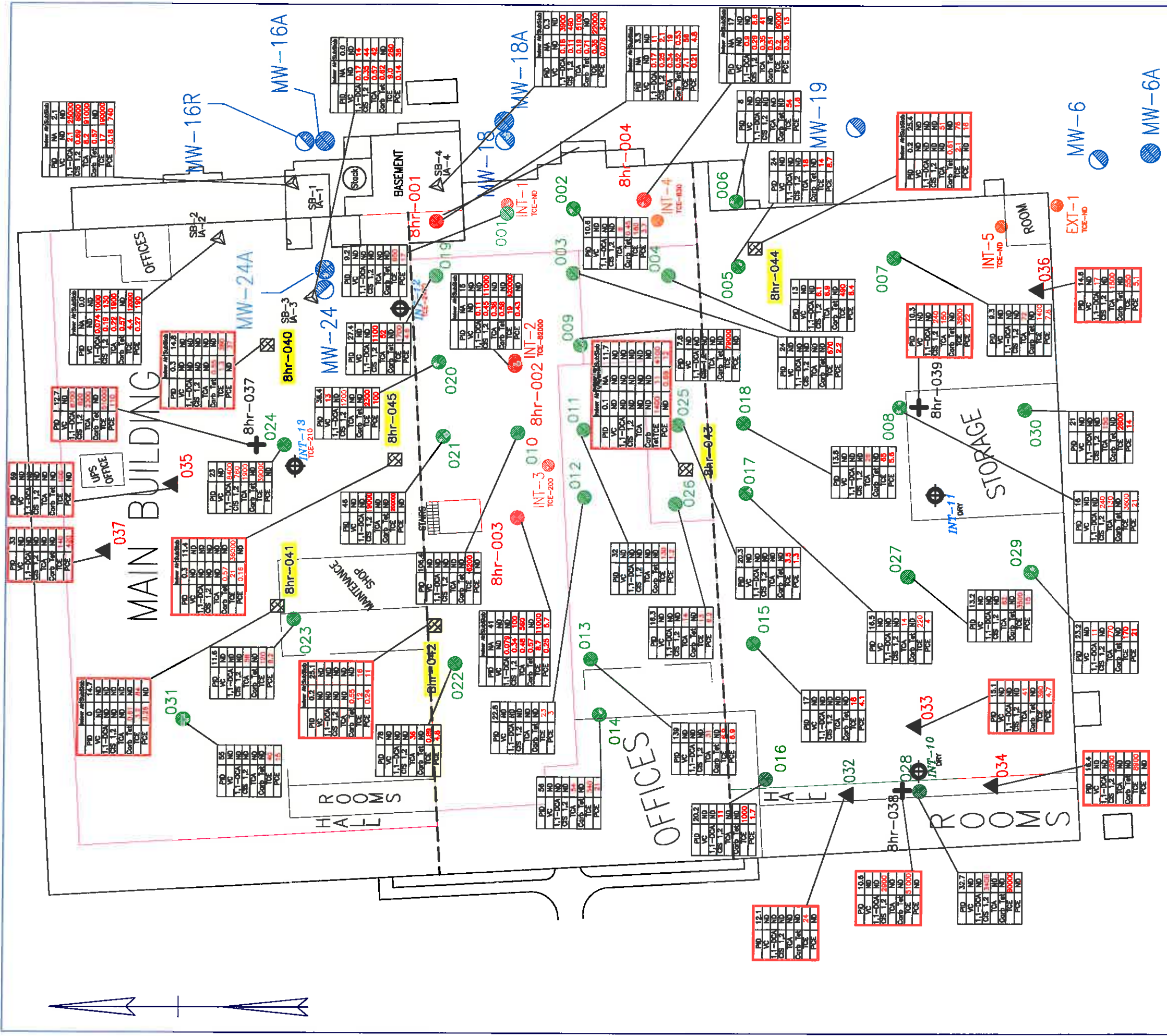


LEGEND

- MW-2 = OVERBURDEN MONITORING WELL
- MW-2A = BEDROCK MONITORING WELL
- = BEDROCK CIS 1,2 DCE CONTOUR LINE
- - - = ESTIMATED BEDROCK CIS 1,2 DCE CONTOUR LINE
- (350) = CIS 1,2 DCE CONCENTRATION (ug/L)
- (ND) = NOT DETECTED



DOCUMENT CONTROL NO.	PROJECT	PROJECT #	137015
		FILENAME:	
REVISION NO.	DRAWING	DATE:	4/18/13
		BY:	MT
		CK:	RM
		FIGURE #	13
LEICA MICROSYSYSTEMS INC. 203 EGGERT RD CHEEKTOWAGA, NY		ENERGYSOLUTIONS 100 MILL PLAIN RD DANBURY, CT. 06811 (203)797-8301	
CIS 1,2 DCE CONTAMINANT CONCENTRATION ISOPLETHS, NOVEMBER 2012, BEDROCK WELLS			



LEGEND

- MW-2 = OVERBURDEN MONITORING WELL
 - MW-2A = BEDROCK MONITORING WELL
 - 025 = 30 MINUTE SUBSLAB SAMPLES (9/2011)
 - 8hr-002 = DOH COMPLIANT INDOOR AIR AND SUBSLAB SAMPLES (9/2011)
 - INT-1 = GROUNDWATER GRAB SAMPLES WITH TCE DATA (6/2011)
 - SB-4 = INDOOR AIR AND SUBSLAB AIR SAMPLES (3/2010)
 - 8hr-037 = 8 hour subslab correlation samples (9/2012)
 - 033 = 30-minute Subslab samples (9/2012)
 - INT-12 = Groundwater grab samples with TCE data (9/2012)
 - 8hr-042 = DOH compliant indoor air & subslab samples (9/2012)
 - Courtyard Foundation
 - Possible Foundation
 - Non-support Interior Walls
 - 2012 Sample Data
- NOTE:**
All detections (above Lab MRL) are shown in red text
 Indoor Air Retest (11-19-2012)



DOCUMENT CONTROL NO.	PROJECT	ENERGYSOLUTIONS	PROJECT # 137015
REVISION NO.	DRAWING	100 MILL PLAIN RD DANBURY, CT. 06811 (203)797-8301	FILENAME:
			SCALE: See Scalebar 4/19/13
			BY: MT CK: RM
			DATE: 4/19/13
			FIGURE # 14

LEICA MICROSYSTEMS INC.

Monitoring Well Locations (INT 10-13) and Second Supplemental Sub-Slab Gas Investigation Sampling Locations

APPENDIX E

Analytical Data

Analytical Data	March, and November 2012 Groundwater Analytical Data
Analytical Data	September 2012 Groundwater Grab Samples Analytical Data
Analytical Data	September 2012 Sub-Slab and Indoor Air Analytical Data
Analytical Data	September 2012 Soil Sample Analytical Data
Analytical Data	November 2012 Indoor Air 8hr-043 Retest



April 16, 2012

Service Request No: R1202017

Mr. Robert McPeak
Energy Solutions, Inc.
100 Mill Plain Rd
2nd Floor Mailbox 106
Danbury, CT 06811

Laboratory Results for: Leica Wells 1st Quarter 2012

Dear Mr. McPeak:

Enclosed are the results of the sample(s) submitted to our laboratory on March 30, 2012. For your reference, these analyses have been assigned our service request number **R1202017**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

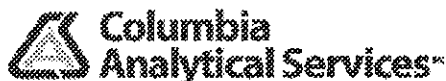
Please contact me if you have any questions. My extension is 7471. You may also contact me via email at KBunker@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Karen Bunker
Project Manager

Page 1 of 78



ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623
PHONE 585-288-5380 | FAX 585-288-8475
Columbia Analytical Services, Inc.
Part of the ALS Group A Campbell Brothers Limited Company

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Energy Solutions Service Request No.: R1202017
Project: Leica Wells March 2012 Date Received: 3/30/2012
Sample Matrix: Water

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Twenty-six (26) well samples were collected by the client on 3/28-30/12 and received for analysis at Columbia Analytical Services on 3/30/12 via CAS Courier. The samples were received in good condition at a cooler receipt temperature of 2.4°C, within the guidelines of 0-6°C.

Volatile Organics

Twenty-six (26) groundwater samples were analyzed for Volatile Organic compounds by GC/MS method 8260C.

The minimum response factor for Tetrachloroethene was not met in the ICV on 2/20/12. The data has been considered acceptable since the MRL has been verified by the low standard in the calibration. The Continuing Calibration Verification standard criteria were met for all samples except for Bromomethane on the 4/5/12 run which had a %D outside the $\pm 20\%$ limits on the Continuing Calibration Verification (CCV). Any hits for this compound found in the sample associated with this CCV should be considered as estimated, however no hits were noted for this compound in association with this CCV.

Site QC is included in the report for locations MW-24 and MW-2A (R1202017-021 and -024 respectively). All Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries were within acceptance limits. All Relative Percent Difference (RPD) calculations were acceptable. All Laboratory Control Sample (LCS) recoveries for target compounds were within QC limits.

Hits above the calibration range of the standards are flagged as "E", estimated. The sample is then repeated at the appropriate dilution for the hit. Both sets of data are included in the report. The subsequent hits are flagged as "D".

All Surrogate recoveries are within acceptance limits.

The Laboratory Method Blanks were free from contamination.

The samples were analyzed within the 14 day holding time for the method. All vials are checked for preservation after the analysis in order to maintain the integrity of the sample. All vials were found to be preserved to a pH of < 2 .

No problems were encountered during the analysis of these samples.

Approved by Jean Berlew Date 4/10/12

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1202017

<u>Lab ID</u>	<u>Client ID</u>
R1202017-001	MW 22A
R1202017-002	MW 22
R1202017-003	MW 14
R1202017-004	MW 14A
R1202017-005	MW 10
R1202017-006	MW 5
R1202017-007	MW 5A
R1202017-008	MW 6
R1202017-009	MW 6A
R1202017-010	MW 29A
R1202017-011	MW 28
R1202017-012	MW 28A
R1202017-013	MW 26
R1202017-014	MW 26A
R1202017-015	MW 25
R1202017-016	MW 25A
R1202017-017	MW 27
R1202017-018	MW 27A
R1202017-019	MW 18
R1202017-020	MW 18A
R1202017-021	MW 24
R1202017-022	MW 24A
R1202017-023	MW 16R
R1202017-024	MW 2A
R1202017-025	MW 11A
R1202017-026	MW 16A

REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.



CAS/Rochester Lab ID # for State Certifications¹

NELAP Accredited	Nevada ID # NY-00032
Connecticut ID # PH0556	New Jersey ID # NY004
Delaware Accredited	New York ID # 10145
DoD ELAP #65817	New Hampshire ID # 294100 A/B
Florida ID # E87674	North Carolina #676
Illinois ID #200047	Pennsylvania ID# 68-786
Maine ID #NY0032	Rhode Island ID # 158
Nebraska Accredited	Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0830
Date Received: 3/30/12
Date Analyzed: 4/9/12 14:41

Sample Name: MW 22A
Lab Code: R1202017-001

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4906.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	7.0		5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	15		5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0830
Date Received: 3/30/12
Date Analyzed: 4/9/12 14:41

Sample Name: MW 22A
Lab Code: R1202017-001

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUOTA\MSVOA8\DATA\040912\F4906.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	4/9/12 14:41	
Toluene-d8	102	87-121	4/9/12 14:41	
Dibromofluoromethane	104	89-119	4/9/12 14:41	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0840
Date Received: 3/30/12
Date Analyzed: 4/9/12 15:10

Sample Name: MW 22
Lab Code: R1202017-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4907.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.1		5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	17		5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0840
Date Received: 3/30/12
Date Analyzed: 4/9/12 15:10

Sample Name: MW 22
Lab Code: R1202017-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQU\DATA\MSVOA8\DATA\040912\F4907.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85-122	4/9/12 15:10	
Toluene-d8	105	87-121	4/9/12 15:10	
Dibromofluoromethane	105	89-119	4/9/12 15:10	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0850
Date Received: 3/30/12
Date Analyzed: 4/9/12 15:37

Sample Name: MW 14
Lab Code: R1202017-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4908.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	20	U	20	
71-43-2	Benzene	10	U	10	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
78-93-3	2-Butanone (MEK)	20	U	20	
75-15-0	Carbon Disulfide	20	U	20	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-34-3	1,1-Dichloroethane	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
75-35-4	1,1-Dichloroethene	10	U	10	
156-59-2	cis-1,2-Dichloroethene	260		10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	
100-41-4	Ethylbenzene	10	U	10	
591-78-6	2-Hexanone	20	U	20	
75-09-2	Methylene Chloride	10	U	10	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	
100-42-5	Styrene	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
127-18-4	Tetrachloroethene	10	U	10	
108-88-3	Toluene	10	U	10	
71-55-6	1,1,1-Trichloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
79-01-6	Trichloroethene	10	U	10	
75-01-4	Vinyl Chloride	290		10	
95-47-6	o-Xylene	10	U	10	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0850
Date Received: 3/30/12
Date Analyzed: 4/9/12 15:37

Sample Name: MW 14
Lab Code: R1202017-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQU\DATA\MSVOA8\DATA\040912\F4908.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85-122	4/9/12 15:37	
Toluene-d8	105	87-121	4/9/12 15:37	
Dibromofluoromethane	106	89-119	4/9/12 15:37	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0900
Date Received: 3/30/12
Date Analyzed: 4/9/12 16:05

Sample Name: MW 14A
Lab Code: R1202017-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4909.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	9.5		5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0900
Date Received: 3/30/12
Date Analyzed: 4/9/12 16:05

Sample Name: MW 14A
Lab Code: R1202017-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQU\DATA\MSVOA8\DATA\040912\F4909.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85-122	4/9/12 16:05	
Toluene-d8	103	87-121	4/9/12 16:05	
Dibromofluoromethane	104	89-119	4/9/12 16:05	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0920
Date Received: 3/30/12
Date Analyzed: 4/9/12 16:33

Sample Name: MW 10
Lab Code: R1202017-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4910.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	9.0	5.0	
95-47-6	o-Xylene	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0920
Date Received: 3/30/12
Date Analyzed: 4/9/12 16:33

Sample Name: MW 10
Lab Code: R1202017-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQU\DATA\MSVOA8\DATA\040912\F4910.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85-122	4/9/12 16:33	
Toluene-d8	106	87-121	4/9/12 16:33	
Dibromofluoromethane	106	89-119	4/9/12 16:33	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0945
Date Received: 3/30/12
Date Analyzed: 4/9/12 17:01

Sample Name: MW 5
Lab Code: R1202017-006

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4911.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0945
Date Received: 3/30/12
Date Analyzed: 4/9/12 17:01

Sample Name: MW 5
Lab Code: R1202017-006

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4911.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	85-122	4/9/12 17:01	
Toluene-d8	105	87-121	4/9/12 17:01	
Dibromofluoromethane	106	89-119	4/9/12 17:01	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0955
Date Received: 3/30/12
Date Analyzed: 4/9/12 17:28

Sample Name: MW 5A
Lab Code: R1202017-007

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4912.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	39		10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	7.6		5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 0955
Date Received: 3/30/12
Date Analyzed: 4/9/12 17:28

Sample Name: MW 5A
Lab Code: R1202017-007

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUATA\MSVOA8\DATA\040912\F4912.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0 U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85-122	4/9/12 17:28	
Toluene-d8	105	87-121	4/9/12 17:28	
Dibromofluoromethane	105	89-119	4/9/12 17:28	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1030
Date Received: 3/30/12
Date Analyzed: 4/9/12 17:56

Sample Name: MW 6
Lab Code: R1202017-008

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4913.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	200		5.0	
156-60-5	trans-1,2-Dichloroethene	5.0		5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	16		5.0	
75-01-4	Vinyl Chloride	52		5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1030
Date Received: 3/30/12
Date Analyzed: 4/9/12 17:56

Sample Name: MW 6
Lab Code: R1202017-008

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQU\DATA\MSVOA8\DATA\040912\F4913.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	4/9/12 17:56	
Toluene-d8	103	87-121	4/9/12 17:56	
Dibromofluoromethane	104	89-119	4/9/12 17:56	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1040
Date Received: 3/30/12
Date Analyzed: 4/6/12 11:09

Sample Name: MW 6A
Lab Code: R1202017-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040612\F4847.D\

Analysis Lot: 286356
Instrument Name: R-MS-08
Dilution Factor: 2

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	20 U	20	
71-43-2	Benzene	10 U	10	
75-27-4	Bromodichloromethane	10 U	10	
75-25-2	Bromoform	10 U	10	
74-83-9	Bromomethane	10 U	10	
78-93-3	2-Butanone (MEK)	20 U	20	
75-15-0	Carbon Disulfide	20 U	20	
56-23-5	Carbon Tetrachloride	10 U	10	
108-90-7	Chlorobenzene	10 U	10	
75-00-3	Chloroethane	10 U	10	
67-66-3	Chloroform	10 U	10	
74-87-3	Chloromethane	10 U	10	
124-48-1	Dibromochloromethane	10 U	10	
75-34-3	1,1-Dichloroethane	10 U	10	
107-06-2	1,2-Dichloroethane	10 U	10	
75-35-4	1,1-Dichloroethene	10 U	10	
156-59-2	cis-1,2-Dichloroethene	280	10	
156-60-5	trans-1,2-Dichloroethene	10 U	10	
78-87-5	1,2-Dichloropropane	10 U	10	
10061-01-5	cis-1,3-Dichloropropene	10 U	10	
10061-02-6	trans-1,3-Dichloropropene	10 U	10	
100-41-4	Ethylbenzene	10 U	10	
591-78-6	2-Hexanone	20 U	20	
75-09-2	Methylene Chloride	10 U	10	
108-10-1	4-Methyl-2-pentanone (MIBK)	20 U	20	
100-42-5	Styrene	10 U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10 U	10	
127-18-4	Tetrachloroethene	10 U	10	
108-88-3	Toluene	10 U	10	
71-55-6	1,1,1-Trichloroethane	10 U	10	
79-00-5	1,1,2-Trichloroethane	10 U	10	
79-01-6	Trichloroethene	10 U	10	
75-01-4	Vinyl Chloride	16	10	
95-47-6	o-Xylene	10 U	10	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1040
Date Received: 3/30/12
Date Analyzed: 4/6/12 11:09

Sample Name: MW 6A
Lab Code: R1202017-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040612\F4847.D\

Analysis Lot: 286356
Instrument Name: R-MS-08
Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	85-122	4/6/12 11:09	
Toluene-d8	106	87-121	4/6/12 11:09	
Dibromofluoromethane	108	89-119	4/6/12 11:09	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1130
Date Received: 3/30/12
Date Analyzed: 4/9/12 18:24

Sample Name: MW 29A
Lab Code: R1202017-010

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4914.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1130
Date Received: 3/30/12
Date Analyzed: 4/9/12 18:24

Sample Name: MW 29A
Lab Code: R1202017-010

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4914.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	4/9/12 18:24	
Toluene-d8	102	87-121	4/9/12 18:24	
Dibromofluoromethane	103	89-119	4/9/12 18:24	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1145
Date Received: 3/30/12
Date Analyzed: 4/9/12 18:51

Sample Name: MW 28
Lab Code: R1202017-011

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4915.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	32		5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	7.5		5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1145
Date Received: 3/30/12
Date Analyzed: 4/9/12 18:51

Sample Name: MW 28
Lab Code: R1202017-011

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4915.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	85-122	4/9/12 18:51	
Toluene-d8	106	87-121	4/9/12 18:51	
Dibromofluoromethane	107	89-119	4/9/12 18:51	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1155
Date Received: 3/30/12
Date Analyzed: 4/6/12 10:41

Sample Name: MW 28A
Lab Code: R1202017-012

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040612\F4846.D\

Analysis Lot: 286356
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	11	5.0	
95-47-6	o-Xylene	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1155
Date Received: 3/30/12
Date Analyzed: 4/6/12 10:41

Sample Name: MW 28A
Lab Code: R1202017-012

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040612\F4846.D\

Analysis Lot: 286356
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85-122	4/6/12 10:41	
Toluene-d8	103	87-121	4/6/12 10:41	
Dibromofluoromethane	104	89-119	4/6/12 10:41	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1330
Date Received: 3/30/12
Date Analyzed: 4/5/12 21:47

Sample Name: MW 26
Lab Code: R1202017-013

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4819.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	13		5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	23		5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1330
Date Received: 3/30/12
Date Analyzed: 4/5/12 21:47

Sample Name: MW 26
Lab Code: R1202017-013

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4819.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	85-122	4/5/12 21:47	
Toluene-d8	106	87-121	4/5/12 21:47	
Dibromofluoromethane	108	89-119	4/5/12 21:47	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1345
Date Received: 3/30/12
Date Analyzed: 4/5/12 22:15

Sample Name: MW 26A
Lab Code: R1202017-014

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4820.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	50	U	50	
71-43-2	Benzene	25	U	25	
75-27-4	Bromodichloromethane	25	U	25	
75-25-2	Bromoform	25	U	25	
74-83-9	Bromomethane	25	U	25	
78-93-3	2-Butanone (MEK)	50	U	50	
75-15-0	Carbon Disulfide	50	U	50	
56-23-5	Carbon Tetrachloride	25	U	25	
108-90-7	Chlorobenzene	25	U	25	
75-00-3	Chloroethane	25	U	25	
67-66-3	Chloroform	25	U	25	
74-87-3	Chloromethane	25	U	25	
124-48-1	Dibromochloromethane	25	U	25	
75-34-3	1,1-Dichloroethane	25	U	25	
107-06-2	1,2-Dichloroethane	25	U	25	
75-35-4	1,1-Dichloroethene	25	U	25	
156-59-2	cis-1,2-Dichloroethene	390		25	
156-60-5	trans-1,2-Dichloroethene	25	U	25	
78-87-5	1,2-Dichloropropane	25	U	25	
10061-01-5	cis-1,3-Dichloropropene	25	U	25	
10061-02-6	trans-1,3-Dichloropropene	25	U	25	
100-41-4	Ethylbenzene	25	U	25	
591-78-6	2-Hexanone	50	U	50	
75-09-2	Methylene Chloride	25	U	25	
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	
100-42-5	Styrene	25	U	25	
79-34-5	1,1,2,2-Tetrachloroethane	25	U	25	
127-18-4	Tetrachloroethene	25	U	25	
108-88-3	Toluene	25	U	25	
71-55-6	1,1,1-Trichloroethane	25	U	25	
79-00-5	1,1,2-Trichloroethane	25	U	25	
79-01-6	Trichloroethene	25	U	25	
75-01-4	Vinyl Chloride	620		25	
95-47-6	o-Xylene	25	U	25	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1345
Date Received: 3/30/12
Date Analyzed: 4/5/12 22:15

Sample Name: MW 26A
Lab Code: R1202017-014

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQU\DATA\MSVOA8\DATA\040512\F4820.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	25	U	25	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	85-122	4/5/12 22:15	
Toluene-d8	107	87-121	4/5/12 22:15	
Dibromofluoromethane	107	89-119	4/5/12 22:15	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1415
Date Received: 3/30/12
Date Analyzed: 4/5/12 22:43

Sample Name: MW 25
Lab Code: R1202017-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4821.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1415
Date Received: 3/30/12
Date Analyzed: 4/5/12 22:43

Sample Name: MW 25
Lab Code: R1202017-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQU\DATA\MSVOA8\DATA\040512\F4821.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	85-122	4/5/12 22:43	
Toluene-d8	105	87-121	4/5/12 22:43	
Dibromofluoromethane	106	89-119	4/5/12 22:43	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1430
Date Received: 3/30/12
Date Analyzed: 4/5/12 23:10

Sample Name: MW 25A
Lab Code: R1202017-016

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4822.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	34		5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	70		5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1430
Date Received: 3/30/12
Date Analyzed: 4/5/12 23:10

Sample Name: MW 25A
Lab Code: R1202017-016

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQU\DATA\MSVOA8\DATA\040512\F4822.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	85-122	4/5/12 23:10	
Toluene-d8	106	87-121	4/5/12 23:10	
Dibromofluoromethane	108	89-119	4/5/12 23:10	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1500
Date Received: 3/30/12
Date Analyzed: 4/5/12 23:38

Sample Name: MW 27
Lab Code: R1202017-017

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4823.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1500
Date Received: 3/30/12
Date Analyzed: 4/5/12 23:38

Sample Name: MW 27
Lab Code: R1202017-017

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4823.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85-122	4/5/12 23:38	
Toluene-d8	105	87-121	4/5/12 23:38	
Dibromofluoromethane	107	89-119	4/5/12 23:38	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1510
Date Received: 3/30/12
Date Analyzed: 4/6/12 00:06

Sample Name: MW 27A
Lab Code: R1202017-018

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4824.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1510
Date Received: 3/30/12
Date Analyzed: 4/6/12 00:06

Sample Name: MW 27A
Lab Code: R1202017-018

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4824.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85-122	4/6/12 00:06	
Toluene-d8	103	87-121	4/6/12 00:06	
Dibromofluoromethane	105	89-119	4/6/12 00:06	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1600
Date Received: 3/30/12
Date Analyzed: 4/6/12 00:34

Sample Name: MW 18
Lab Code: R1202017-019

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4825.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1600
Date Received: 3/30/12
Date Analyzed: 4/6/12 00:34

Sample Name: MW 18
Lab Code: R1202017-019

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4825.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85-122	4/6/12 00:34	
Toluene-d8	105	87-121	4/6/12 00:34	
Dibromofluoromethane	105	89-119	4/6/12 00:34	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1610
Date Received: 3/30/12
Date Analyzed: 4/6/12 01:02

Sample Name: MW 18A
Lab Code: R1202017-020

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4826.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	7.3		5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	22		5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	43		5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/28/12 1610
Date Received: 3/30/12
Date Analyzed: 4/6/12 01:02

Sample Name: MW 18A
Lab Code: R1202017-020

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4826.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85-122	4/6/12 01:02	
Toluene-d8	102	87-121	4/6/12 01:02	
Dibromofluoromethane	104	89-119	4/6/12 01:02	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/29/12 1300
Date Received: 3/30/12
Date Analyzed: 4/6/12 01:29

Sample Name: MW 24
Lab Code: R1202017-021

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4827.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 10

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	130		100	
71-43-2	Benzene	110		50	
75-27-4	Bromodichloromethane	50	U	50	
75-25-2	Bromoform	50	U	50	
74-83-9	Bromomethane	50	U	50	
78-93-3	2-Butanone (MEK)	170		100	
75-15-0	Carbon Disulfide	100	U	100	
56-23-5	Carbon Tetrachloride	50	U	50	
108-90-7	Chlorobenzene	50	U	50	
75-00-3	Chloroethane	290		50	
67-66-3	Chloroform	50	U	50	
74-87-3	Chloromethane	50	U	50	
124-48-1	Dibromochloromethane	50	U	50	
75-34-3	1,1-Dichloroethane	84		50	
107-06-2	1,2-Dichloroethane	50	U	50	
75-35-4	1,1-Dichloroethene	50	U	50	
156-59-2	cis-1,2-Dichloroethene	50	U	50	
156-60-5	trans-1,2-Dichloroethene	50	U	50	
78-87-5	1,2-Dichloropropane	50	U	50	
10061-01-5	cis-1,3-Dichloropropene	50	U	50	
10061-02-6	trans-1,3-Dichloropropene	50	U	50	
100-41-4	Ethylbenzene	570		50	
591-78-6	2-Hexanone	100	U	100	
75-09-2	Methylene Chloride	50	U	50	
108-10-1	4-Methyl-2-pentanone (MIBK)	100	U	100	
100-42-5	Styrene	50	U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	
127-18-4	Tetrachloroethene	50	U	50	
108-88-3	Toluene	1100		50	
71-55-6	1,1,1-Trichloroethane	50	U	50	
79-00-5	1,1,2-Trichloroethane	50	U	50	
79-01-6	Trichloroethene	50	U	50	
75-01-4	Vinyl Chloride	50	U	50	
95-47-6	o-Xylene	210		50	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/29/12 1300
Date Received: 3/30/12
Date Analyzed: 4/6/12 01:29

Sample Name: MW 24
Lab Code: R1202017-021

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQDATA\MSVOA8\DATA\040512\F4827.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 10

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	2200		50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85-122	4/6/12 01:29	
Toluene-d8	104	87-121	4/6/12 01:29	
Dibromofluoromethane	105	89-119	4/6/12 01:29	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/29/12 1315
Date Received: 3/30/12
Date Analyzed: 4/6/12 01:57

Sample Name: MW 24A
Lab Code: R1202017-022

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4828.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	14	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	20	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	6.8	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.6	5.0	
95-47-6	o-Xylene	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/29/12 1315
Date Received: 3/30/12
Date Analyzed: 4/6/12 01:57

Sample Name: MW 24A
Lab Code: R1202017-022

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQU\DATA\MSVOA8\DATA\040512\F4828.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85-122	4/6/12 01:57	
Toluene-d8	104	87-121	4/6/12 01:57	
Dibromofluoromethane	107	89-119	4/6/12 01:57	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/29/12 1500
Date Received: 3/30/12
Date Analyzed: 4/6/12 02:25

Sample Name: MW 16R
Lab Code: R1202017-023

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4829.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	150		5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	120		5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	51		5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
95-47-6	o-Xylene	62		5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/29/12 1500
Date Received: 3/30/12
Date Analyzed: 4/6/12 02:25

Sample Name: MW 16R
Lab Code: R1202017-023

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4829.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	140		5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85-122	4/6/12 02:25	
Toluene-d8	104	87-121	4/6/12 02:25	
Dibromofluoromethane	104	89-119	4/6/12 02:25	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/30/12 0900
Date Received: 3/30/12
Date Analyzed: 4/6/12 02:52

Sample Name: MW 2A
Lab Code: R1202017-024

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4830.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 2.5

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	25 U	25	
71-43-2	Benzene	13 U	13	
75-27-4	Bromodichloromethane	13 U	13	
75-25-2	Bromoform	13 U	13	
74-83-9	Bromomethane	13 U	13	
78-93-3	2-Butanone (MEK)	25 U	25	
75-15-0	Carbon Disulfide	25 U	25	
56-23-5	Carbon Tetrachloride	13 U	13	
108-90-7	Chlorobenzene	13 U	13	
75-00-3	Chloroethane	13 U	13	
67-66-3	Chloroform	13 U	13	
74-87-3	Chloromethane	13 U	13	
124-48-1	Dibromochloromethane	13 U	13	
75-34-3	1,1-Dichloroethane	13 U	13	
107-06-2	1,2-Dichloroethane	13 U	13	
75-35-4	1,1-Dichloroethene	13 U	13	
156-59-2	cis-1,2-Dichloroethene	130	13	
156-60-5	trans-1,2-Dichloroethene	13 U	13	
78-87-5	1,2-Dichloropropane	13 U	13	
10061-01-5	cis-1,3-Dichloropropene	13 U	13	
10061-02-6	trans-1,3-Dichloropropene	13 U	13	
100-41-4	Ethylbenzene	13 U	13	
591-78-6	2-Hexanone	25 U	25	
75-09-2	Methylene Chloride	13 U	13	
108-10-1	4-Methyl-2-pentanone (MIBK)	25 U	25	
100-42-5	Styrene	13 U	13	
79-34-5	1,1,2,2-Tetrachloroethane	13 U	13	
127-18-4	Tetrachloroethene	13 U	13	
108-88-3	Toluene	13 U	13	
71-55-6	1,1,1-Trichloroethane	13 U	13	
79-00-5	1,1,2-Trichloroethane	13 U	13	
79-01-6	Trichloroethene	760 E	13	
75-01-4	Vinyl Chloride	13 U	13	
95-47-6	o-Xylene	13 U	13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/30/12 0900
Date Received: 3/30/12
Date Analyzed: 4/6/12 02:52

Sample Name: MW 2A
Lab Code: R1202017-024

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4830.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	13	U	13	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85-122	4/6/12 02:52	
Toluene-d8	104	87-121	4/6/12 02:52	
Dibromofluoromethane	105	89-119	4/6/12 02:52	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/30/12 0900
Date Received: 3/30/12
Date Analyzed: 4/6/12 11:37

Sample Name: MW 2A
Lab Code: R1202017-024
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040612\F4848.D\

Analysis Lot: 286356
Instrument Name: R-MS-08
Dilution Factor: 5

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	50 U	50	
71-43-2	Benzene	25 U	25	
75-27-4	Bromodichloromethane	25 U	25	
75-25-2	Bromoform	25 U	25	
74-83-9	Bromomethane	25 U	25	
78-93-3	2-Butanone (MEK)	50 U	50	
75-15-0	Carbon Disulfide	50 U	50	
56-23-5	Carbon Tetrachloride	25 U	25	
108-90-7	Chlorobenzene	25 U	25	
75-00-3	Chloroethane	25 U	25	
67-66-3	Chloroform	25 U	25	
74-87-3	Chloromethane	25 U	25	
124-48-1	Dibromochloromethane	25 U	25	
75-34-3	1,1-Dichloroethane	25 U	25	
107-06-2	1,2-Dichloroethane	25 U	25	
75-35-4	1,1-Dichloroethene	25 U	25	
156-59-2	cis-1,2-Dichloroethene	120 D	25	
156-60-5	trans-1,2-Dichloroethene	25 U	25	
78-87-5	1,2-Dichloropropane	25 U	25	
10061-01-5	cis-1,3-Dichloropropene	25 U	25	
10061-02-6	trans-1,3-Dichloropropene	25 U	25	
100-41-4	Ethylbenzene	25 U	25	
591-78-6	2-Hexanone	50 U	50	
75-09-2	Methylene Chloride	25 U	25	
108-10-1	4-Methyl-2-pentanone (MIBK)	50 U	50	
100-42-5	Styrene	25 U	25	
79-34-5	1,1,2,2-Tetrachloroethane	25 U	25	
127-18-4	Tetrachloroethene	25 U	25	
108-88-3	Toluene	25 U	25	
71-55-6	1,1,1-Trichloroethane	25 U	25	
79-00-5	1,1,2-Trichloroethane	25 U	25	
79-01-6	Trichloroethene	680 D	25	
75-01-4	Vinyl Chloride	25 U	25	
95-47-6	o-Xylene	25 U	25	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/30/12 0900
Date Received: 3/30/12
Date Analyzed: 4/6/12 11:37

Sample Name: MW 2A
Lab Code: R1202017-024
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040612\F4848.D\

Analysis Lot: 286356
Instrument Name: R-MS-08
Dilution Factor: 5

CAS No.	Analyte Name	Result Q	MRL	Note
179601-23-1	m,p-Xylenes	25 U	25	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85-122	4/6/12 11:37	
Toluene-d8	103	87-121	4/6/12 11:37	
Dibromofluoromethane	105	89-119	4/6/12 11:37	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/30/12 0930
Date Received: 3/30/12
Date Analyzed: 4/6/12 03:20

Sample Name: MW 11A
Lab Code: R1202017-025

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4831.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	25	U	25	
71-43-2	Benzene	13	U	13	
75-27-4	Bromodichloromethane	13	U	13	
75-25-2	Bromoform	13	U	13	
74-83-9	Bromomethane	13	U	13	
78-93-3	2-Butanone (MEK)	25	U	25	
75-15-0	Carbon Disulfide	25	U	25	
56-23-5	Carbon Tetrachloride	13	U	13	
108-90-7	Chlorobenzene	13	U	13	
75-00-3	Chloroethane	13	U	13	
67-66-3	Chloroform	13	U	13	
74-87-3	Chloromethane	13	U	13	
124-48-1	Dibromochloromethane	13	U	13	
75-34-3	1,1-Dichloroethane	13	U	13	
107-06-2	1,2-Dichloroethane	13	U	13	
75-35-4	1,1-Dichloroethene	13	U	13	
156-59-2	cis-1,2-Dichloroethene	300		13	
156-60-5	trans-1,2-Dichloroethene	13	U	13	
78-87-5	1,2-Dichloropropane	13	U	13	
10061-01-5	cis-1,3-Dichloropropene	13	U	13	
10061-02-6	trans-1,3-Dichloropropene	13	U	13	
100-41-4	Ethylbenzene	13	U	13	
591-78-6	2-Hexanone	25	U	25	
75-09-2	Methylene Chloride	13	U	13	
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	
100-42-5	Styrene	13	U	13	
79-34-5	1,1,2,2-Tetrachloroethane	13	U	13	
127-18-4	Tetrachloroethene	13	U	13	
108-88-3	Toluene	13	U	13	
71-55-6	1,1,1-Trichloroethane	13	U	13	
79-00-5	1,1,2-Trichloroethane	13	U	13	
79-01-6	Trichloroethene	13	U	13	
75-01-4	Vinyl Chloride	240		13	
95-47-6	o-Xylene	13	U	13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/30/12 0930
Date Received: 3/30/12
Date Analyzed: 4/6/12 03:20

Sample Name: MW 11A
Lab Code: R1202017-025

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4831.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	13	U	13	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	85-122	4/6/12 03:20	
Toluene-d8	105	87-121	4/6/12 03:20	
Dibromofluoromethane	105	89-119	4/6/12 03:20	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/30/12 0940
Date Received: 3/30/12
Date Analyzed: 4/6/12 03:48

Sample Name: MW 16A
Lab Code: R1202017-026

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4832.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	25	U	25	
71-43-2	Benzene	13	U	13	
75-27-4	Bromodichloromethane	13	U	13	
75-25-2	Bromoform	13	U	13	
74-83-9	Bromomethane	13	U	13	
78-93-3	2-Butanone (MEK)	25	U	25	
75-15-0	Carbon Disulfide	25	U	25	
56-23-5	Carbon Tetrachloride	13	U	13	
108-90-7	Chlorobenzene	13	U	13	
75-00-3	Chloroethane	18		13	
67-66-3	Chloroform	13	U	13	
74-87-3	Chloromethane	13	U	13	
124-48-1	Dibromochloromethane	13	U	13	
75-34-3	1,1-Dichloroethane	61		13	
107-06-2	1,2-Dichloroethane	13	U	13	
75-35-4	1,1-Dichloroethene	13	U	13	
156-59-2	cis-1,2-Dichloroethene	490		13	
156-60-5	trans-1,2-Dichloroethene	13	U	13	
78-87-5	1,2-Dichloropropane	13	U	13	
10061-01-5	cis-1,3-Dichloropropene	13	U	13	
10061-02-6	trans-1,3-Dichloropropene	13	U	13	
100-41-4	Ethylbenzene	13	U	13	
591-78-6	2-Hexanone	25	U	25	
75-09-2	Methylene Chloride	13	U	13	
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	
100-42-5	Styrene	13	U	13	
79-34-5	1,1,2,2-Tetrachloroethane	13	U	13	
127-18-4	Tetrachloroethene	13	U	13	
108-88-3	Toluene	13	U	13	
71-55-6	1,1,1-Trichloroethane	40		13	
79-00-5	1,1,2-Trichloroethane	13	U	13	
79-01-6	Trichloroethene	65		13	
75-01-4	Vinyl Chloride	120		13	
95-47-6	o-Xylene	13	U	13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/30/12 0940
Date Received: 3/30/12
Date Analyzed: 4/6/12 03:48

Sample Name: MW 16A
Lab Code: R1202017-026

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4832.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	13	U	13	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85-122	4/6/12 03:48	
Toluene-d8	104	87-121	4/6/12 03:48	
Dibromofluoromethane	105	89-119	4/6/12 03:48	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: NA
Date Received: NA
Date Analyzed: 4/5/12 21:19

Sample Name: Method Blank
Lab Code: RQ1203222-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040512\F4818.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: NA
Date Received: NA
Date Analyzed: 4/5/12 21:19

Sample Name: Method Blank
Lab Code: RQ1203222-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQU\DATA\MSVOA8\DATA\040512\F4818.D\

Analysis Lot: 286165
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	85-122	4/5/12 21:19	
Toluene-d8	104	87-121	4/5/12 21:19	
Dibromofluoromethane	105	89-119	4/5/12 21:19	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: NA
Date Received: NA
Date Analyzed: 4/6/12 10:09

Sample Name: Method Blank
Lab Code: RQ1203288-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040612\F4845.D\

Analysis Lot: 286356
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: NA
Date Received: NA
Date Analyzed: 4/6/12 10:09

Sample Name: Method Blank
Lab Code: RQ1203288-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUATA\MSVOA8\DATA\040612\F4845.D\

Analysis Lot: 286356
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	85-122	4/6/12 10:09	
Toluene-d8	104	87-121	4/6/12 10:09	
Dibromofluoromethane	106	89-119	4/6/12 10:09	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: NA
Date Received: NA
Date Analyzed: 4/9/12 12:22

Sample Name: Method Blank
Lab Code: RQ1203371-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4901.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: NA
Date Received: NA
Date Analyzed: 4/9/12 12:22

Sample Name: Method Blank
Lab Code: RQ1203371-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA8\DATA\040912\F4901.D\

Analysis Lot: 286610
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
179601-23-1	m,p-Xylenes	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	85-122	4/9/12 12:22	
Toluene-d8	105	87-121	4/9/12 12:22	
Dibromofluoromethane	105	89-119	4/9/12 12:22	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/29/12
Date Received: 3/30/12
Date Analyzed: 4/6/12

**Matrix Spike Summary
 Volatile Organic Compounds by GC/MS**

Sample Name: MW 24
Lab Code: R1202017-021

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MW 24MS Matrix Spike RQ1203222-05			MW 24DMS Duplicate Matrix Spike RQ1203222-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Acetone	130	668	500	108	729	500	121	37 - 152	9	30
Benzene	110	598	500	97	601	500	98	81 - 124	<1	30
Bromodichloromethane	ND	483	500	97	484	500	97	81 - 126	<1	30
Bromoform	ND	528	500	106	549	500	110	61 - 126	4	30
Bromomethane	ND	436	500	87	519	500	104	45 - 154	17	30
2-Butanone (MEK)	170	576	500	81	620	500	90	54 - 130	7	30
Carbon Disulfide	ND	533	500	107	541	500	108	32 - 149	2	30
Carbon Tetrachloride	ND	494	500	99	506	500	101	71 - 146	2	30
Chlorobenzene	ND	504	500	101	514	500	103	80 - 125	2	30
Chloroethane	290	750	500	92	757	500	94	68 - 148	1	30
Chloroform	ND	464	500	93	473	500	95	81 - 131	2	30
Chloromethane	ND	502	500	100	512	500	102	61 - 151	2	30
Dibromochloromethane	ND	514	500	103	527	500	105	74 - 130	2	30
1,1-Dichloroethane	84	574	500	98	583	500	100	79 - 134	2	30
1,2-Dichloroethane	ND	464	500	93	468	500	94	73 - 133	<1	30
1,1-Dichloroethene	ND	514	500	103	528	500	106	71 - 143	3	30
cis-1,2-Dichloroethene	ND	474	500	95	484	500	97	72 - 137	2	30
trans-1,2-Dichloroethene	ND	492	500	98	500	500	100	77 - 130	2	30
1,2-Dichloropropane	ND	462	500	92	465	500	93	84 - 124	<1	30
cis-1,3-Dichloropropene	ND	410	500	82	422	500	84	71 - 120	3	30
trans-1,3-Dichloropropene	ND	409	500	82	420	500	84	67 - 122	3	30
Ethylbenzene	570	1010	500	88	1030	500	92	84 - 127	2	30
2-Hexanone	ND	446	500	89	470	500	94	55 - 125	5	30
Methylene Chloride	ND	456	500	91	463	500	93	78 - 125	2	30
4-Methyl-2-pentanone (MIBK)	ND	451	500	90	464	500	93	59 - 131	3	30
Styrene	ND	470	500	94	480	500	96	43 - 146	2	30
1,1,2,2-Tetrachloroethane	ND	442	500	88	476	500	95	71 - 120	7	30

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COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/29/12
Date Received: 3/30/12
Date Analyzed: 4/ 6/12

**Matrix Spike Summary
 Volatile Organic Compounds by GC/MS**

Sample Name: MW 24
Lab Code: R1202017-021

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MW 24MS Matrix Spike RQ1203222-05			MW 24DMS Duplicate Matrix Spike RQ1203222-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Tetrachloroethene	ND	483	500	97	493	500	99	66 - 142	2	30
Toluene	1100	1520	500	82	1550	500	88	81 - 125	2	30
1,1,1-Trichloroethane	ND	474	500	95	482	500	96	76 - 142	2	30
1,1,2-Trichloroethane	ND	453	500	91	456	500	91	80 - 119	<1	30
Trichloroethene	ND	464	500	93	474	500	95	71 - 133	2	30
Vinyl Chloride	ND	502	500	100	524	500	105	72 - 154	4	30
o-Xylene	210	691	500	96	705	500	99	80 - 126	2	30
m,p-Xylenes	2200	3080	1000	85	3160	1000	93	80 - 129	3	30

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COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/30/12
Date Received: 3/30/12
Date Analyzed: 4/6/12

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW 2A
Lab Code: R1202017-024

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MW 2AMS Matrix Spike RQ1203288-05			MW 2ADMS Duplicate Matrix Spike RQ1203288-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Acetone	ND	230	250	92	234	250	93	37 - 152	2	30
Benzene	ND	249	250	100	239	250	96	81 - 124	4	30
Bromodichloromethane	ND	242	250	97	235	250	94	81 - 126	3	30
Bromoform	ND	268	250	107	259	250	104	61 - 126	3	30
Bromomethane	ND	200	250	80	236	250	94	45 - 154	16	30
2-Butanone (MEK)	ND	215	250	86	215	250	86	54 - 130	<1	30
Carbon Disulfide	ND	275	250	110	267	250	107	32 - 149	3	30
Carbon Tetrachloride	ND	258	250	103	244	250	98	71 - 146	5	30
Chlorobenzene	ND	239	250	96	228	250	91	80 - 125	5	30
Chloroethane	ND	258	250	103	243	250	97	68 - 148	6	30
Chloroform	ND	243	250	97	231	250	93	81 - 131	5	30
Chloromethane	ND	270	250	108	253	250	101	61 - 151	6	30
Dibromochloromethane	ND	261	250	104	255	250	102	74 - 130	2	30
1,1-Dichloroethane	ND	255	250	102	243	250	97	79 - 134	5	30
1,2-Dichloroethane	ND	231	250	92	226	250	90	73 - 133	2	30
1,1-Dichloroethene	ND	276	250	110	255	250	102	71 - 143	8	30
cis-1,2-Dichloroethene	120	377	250	103	356	250	95	72 - 137	6	30
trans-1,2-Dichloroethene	ND	267	250	107	252	250	101	77 - 130	6	30
1,2-Dichloropropane	ND	234	250	93	226	250	91	84 - 124	3	30
cis-1,3-Dichloropropene	ND	219	250	87	212	250	85	71 - 120	3	30
trans-1,3-Dichloropropene	ND	215	250	86	210	250	84	67 - 122	2	30
Ethylbenzene	ND	244	250	98	230	250	92	84 - 127	6	30
2-Hexanone	ND	220	250	88	222	250	89	55 - 125	1	30
Methylene Chloride	ND	235	250	94	227	250	91	78 - 125	3	30
4-Methyl-2-pentanone (MIBK)	ND	217	250	87	220	250	88	59 - 131	2	30
Styrene	ND	240	250	96	229	250	92	43 - 146	5	30
1,1,2,2-Tetrachloroethane	ND	236	250	94	225	250	90	71 - 120	5	30

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COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Collected: 3/30/12
Date Received: 3/30/12
Date Analyzed: 4/6/12

**Matrix Spike Summary
 Volatile Organic Compounds by GC/MS**

Sample Name: MW 2A
Lab Code: R1202017-024

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MW 2AMS Matrix Spike RQ1203288-05			MW 2ADMS Duplicate Matrix Spike RQ1203288-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Tetrachloroethene	ND	250	250	100	240	250	96	66 - 142	4	30
Toluene	ND	242	250	97	230	250	92	81 - 125	5	30
1,1,1-Trichloroethane	ND	248	250	99	235	250	94	76 - 142	5	30
1,1,2-Trichloroethane	ND	231	250	92	221	250	88	80 - 119	4	30
Trichloroethene	680	967	250	114	909	250	90	71 - 133	6	30
Vinyl Chloride	ND	264	250	106	255	250	102	72 - 154	3	30
o-Xylene	ND	245	250	98	233	250	93	80 - 126	5	30
m,p-Xylenes	ND	495	500	99	469	500	94	80 - 129	5	30

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COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Analyzed: 4/ 5/12

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 286165

**Lab Control Sample
 RQ1203222-04**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Acetone	22.4	20.0	112	54 - 139
Benzene	18.1	20.0	90	78 - 121
Bromodichloromethane	18.9	20.0	94	80 - 125
Bromoform	20.4	20.0	102	68 - 130
Bromomethane	24.4	20.0	122	57 - 144
2-Butanone (MEK)	17.6	20.0	88	60 - 133
Carbon Disulfide	20.6	20.0	103	52 - 140
Carbon Tetrachloride	18.6	20.0	93	68 - 133
Chlorobenzene	18.5	20.0	93	80 - 121
Chloroethane	19.7	20.0	98	71 - 130
Chloroform	19.2	20.0	96	78 - 125
Chloromethane	20.9	20.0	105	61 - 138
Dibromochloromethane	20.5	20.0	102	78 - 133
1,1-Dichloroethane	19.3	20.0	96	76 - 124
1,2-Dichloroethane	18.7	20.0	94	73 - 127
1,1-Dichloroethene	20.4	20.0	102	72 - 129
cis-1,2-Dichloroethene	19.0	20.0	95	78 - 122
trans-1,2-Dichloroethene	18.9	20.0	94	75 - 121
1,2-Dichloropropane	17.8	20.0	89	80 - 123
cis-1,3-Dichloropropene	16.5	20.0	83	77 - 125
trans-1,3-Dichloropropene	17.1	20.0	85	69 - 127
Ethylbenzene	18.4	20.0	92	78 - 123
2-Hexanone	17.6	20.0	88	61 - 131
Methylene Chloride	18.5	20.0	93	75 - 125
4-Methyl-2-pentanone (MIBK)	17.8	20.0	89	61 - 132
Styrene	18.4	20.0	92	80 - 132
1,1,2,2-Tetrachloroethane	17.7	20.0	88	72 - 131
Tetrachloroethene	18.6	20.0	93	72 - 131
Toluene	18.2	20.0	91	78 - 122
1,1,1-Trichloroethane	18.9	20.0	95	72 - 128
1,1,2-Trichloroethane	18.1	20.0	91	80 - 122
Trichloroethene	18.3	20.0	91	74 - 127

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Analyzed: 4/ 5/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 286165

Lab Control Sample

RQ1203222-04

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	19.3	20.0	97	72 - 138
o-Xylene	18.6	20.0	93	77 - 118
m,p-Xylenes	36.8	40.0	92	79 - 126

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COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Analyzed: 4/6/12

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 286356

**Lab Control Sample
 RQ1203288-04**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Acetone	19.3	20.0	96	54 - 139
Benzene	18.5	20.0	92	78 - 121
Bromodichloromethane	19.2	20.0	96	80 - 125
Bromoform	22.3	20.0	112	68 - 130
Bromomethane	23.4	20.0	117	57 - 144
2-Butanone (MEK)	18.5	20.0	93	60 - 133
Carbon Disulfide	19.1	20.0	95	52 - 140
Carbon Tetrachloride	19.6	20.0	98	68 - 133
Chlorobenzene	18.6	20.0	93	80 - 121
Chloroethane	18.8	20.0	94	71 - 130
Chloroform	18.2	20.0	91	78 - 125
Chloromethane	20.6	20.0	103	61 - 138
Dibromochloromethane	21.6	20.0	108	78 - 133
1,1-Dichloroethane	18.9	20.0	94	76 - 124
1,2-Dichloroethane	19.3	20.0	97	73 - 127
1,1-Dichloroethene	20.0	20.0	100	72 - 129
cis-1,2-Dichloroethene	18.5	20.0	93	78 - 122
trans-1,2-Dichloroethene	18.3	20.0	91	75 - 121
1,2-Dichloropropane	17.9	20.0	90	80 - 123
cis-1,3-Dichloropropene	17.5	20.0	88	77 - 125
trans-1,3-Dichloropropene	18.0	20.0	90	69 - 127
Ethylbenzene	18.6	20.0	93	78 - 123
2-Hexanone	19.1	20.0	95	61 - 131
Methylene Chloride	18.3	20.0	91	75 - 125
4-Methyl-2-pentanone (MIBK)	18.6	20.0	93	61 - 132
Styrene	18.7	20.0	94	80 - 132
1,1,2,2-Tetrachloroethane	19.0	20.0	95	72 - 131
Tetrachloroethene	19.4	20.0	97	72 - 131
Toluene	18.5	20.0	93	78 - 122
1,1,1-Trichloroethane	18.6	20.0	93	72 - 128
1,1,2-Trichloroethane	18.6	20.0	93	80 - 122
Trichloroethene	18.1	20.0	91	74 - 127

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COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Analyzed: 4/ 6/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 286356

Lab Control Sample
RQ1203288-04

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	18.8	20.0	94	72 - 138
o-Xylene	18.6	20.0	93	77 - 118
m,p-Xylenes	37.7	40.0	94	79 - 126

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COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Analyzed: 4/ 9/12

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 286610

**Lab Control Sample
 RQ1203371-04**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Acetone	21.8	20.0	109	54 - 139
Benzene	17.9	20.0	90	78 - 121
Bromodichloromethane	18.6	20.0	93	80 - 125
Bromoform	21.9	20.0	110	68 - 130
Bromomethane	25.0	20.0	125	57 - 144
2-Butanone (MEK)	18.7	20.0	94	60 - 133
Carbon Disulfide	19.8	20.0	99	52 - 140
Carbon Tetrachloride	18.3	20.0	92	68 - 133
Chlorobenzene	18.4	20.0	92	80 - 121
Chloroethane	19.7	20.0	98	71 - 130
Chloroform	19.1	20.0	95	78 - 125
Chloromethane	21.4	20.0	107	61 - 138
Dibromochloromethane	20.2	20.0	101	78 - 133
1,1-Dichloroethane	19.9	20.0	100	76 - 124
1,2-Dichloroethane	18.0	20.0	90	73 - 127
1,1-Dichloroethene	21.2	20.0	106	72 - 129
cis-1,2-Dichloroethene	19.9	20.0	100	78 - 122
trans-1,2-Dichloroethene	20.1	20.0	101	75 - 121
1,2-Dichloropropane	17.5	20.0	88	80 - 123
cis-1,3-Dichloropropene	16.4	20.0	82	77 - 125
trans-1,3-Dichloropropene	16.8	20.0	84	69 - 127
Ethylbenzene	18.0	20.0	90	78 - 123
2-Hexanone	17.3	20.0	87	61 - 131
Methylene Chloride	19.5	20.0	97	75 - 125
4-Methyl-2-pentanone (MIBK)	17.5	20.0	88	61 - 132
Styrene	18.3	20.0	92	80 - 132
1,1,2,2-Tetrachloroethane	18.4	20.0	92	72 - 131
Tetrachloroethene	18.1	20.0	90	72 - 131
Toluene	18.2	20.0	91	78 - 122
1,1,1-Trichloroethane	19.3	20.0	96	72 - 128
1,1,2-Trichloroethane	17.3	20.0	87	80 - 122
Trichloroethene	17.9	20.0	90	74 - 127

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COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Wells 1st Quarter 2012
Sample Matrix: Water

Service Request: R1202017
Date Analyzed: 4/9/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 286610

Lab Control Sample
RQ1203371-04

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	20.0	20.0	100	72 - 138
o-Xylene	18.7	20.0	93	77 - 118
m,p-Xylenes	36.9	40.0	92	79 - 126

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Project Name Leica		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager Bob McPeak		Report CC		PRESERVATIVE	
Company/Address Energy Solutions 100 Mill Plain Rd and Floor Box 106 Danbury, CT 06811		E-mail r.mcpeak@energysolutions.com		PRELIMINARY ANALYSIS (List in comments below)	
Phone # 801-303-1092		Sampler's Printed Name Wayne DeGolier		METALS, TOTAL (List in comments below)	
Sampler's Signature <i>Wayne DeGolier</i>		FOR OFFICE USE ONLY		METALS, DISSOLVED (List in comments below)	
CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	REMARKS/ALTERNATE DESCRIPTION
MW22A	-001	3/28/12	08:30	HaO	
MW22	-002		08:40		
MW14	-003		08:50		
MW14 A	-004		09:00		
MW10	-005		09:30		
MW5	-006		09:45		
MW5A	-007		09:55		
MW6	-008		10:30		
MW6 A	-009		10:40		
MW29A	-010		11:30		

GC/MS VOAs CLP
GC/MS VOAs 624
GC/MS VOAs 625
GC VOAs 601/602
PESTICIDES 8081 608
PCBs 8082 608
METALS, TOTAL (List in comments below)
METALS, DISSOLVED (List in comments below)

TURNAROUND REQUIREMENTS
RUSH (SURCHARGES APPLY)
1 day 2 day 3 day
4 day 5 day
 Standard

REPORT REQUIREMENTS
I. Results Only
II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
III. Results + CC and Calibration Summaries
IV. Data Validation Report with Raw Data

INVOICE INFORMATION
PO #:
BILL TO:

RECEIVED BY: *Wayne DeGolier*
Signature: *Wayne DeGolier*
Printed Name: Wayne DeGolier
Firm: EnviroSite

RECEIVED BY: *Ami Hentschke*
Signature: *Ami Hentschke*
Printed Name: Ami Hentschke
Firm: ALS

DATE/TIME: 3/30/12 12:00
DATE/TIME: 3/30/12 1345

See OAPP
STATE WHERE SAMPLES WERE COLLECTED: **NY**

REQUESTED REPORT DATE: _____
R1202017
Energy Solutions, Inc.
Leica Wells 1st Quarter 2012

Distribution: White - Lab Copy; Yellow - Return to Originator



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1565 Jefferson Rd., Bldg. 300, Rochester, NY 14623 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 2 OF 3

Project Name		Project Number		Report CC		ANALYSIS REQUESTED (include Method Number and Container Preservative)	
Levee		801-303-1092		Bob McPeak		PRESERVATIVE	
Energy Solutions		Wayne DeGallier		Wayne DeGallier		PREPARATIVE	
100 Mill Plain Rd. 2nd Floor Box 106		Wayne DeGallier		Wayne DeGallier		METALS, TOTAL (List in comments below)	
Danbury, CT 06811		Wayne DeGallier		Wayne DeGallier		METALS, DISSOLVED (List in comments below)	
Phone #		E-mail		Rush (SURCHARGES APPLY)		PCBs 8082 <input type="checkbox"/> 608	
801-303-1092		r.mcpeak@energy-solutions.com		1 day <input type="checkbox"/> 2 day <input type="checkbox"/> 3 day <input type="checkbox"/>		PESTICIDES 8081 <input type="checkbox"/> 608	
Wayne DeGallier		Wayne DeGallier		4 day <input type="checkbox"/> 5 day <input type="checkbox"/>		GC VOAs 8021 <input type="checkbox"/> 601/602	
Wayne DeGallier		Wayne DeGallier		<input checked="" type="checkbox"/> Standard		GC/MMS SVOAs 8270 <input type="checkbox"/> 625	
Wayne DeGallier		Wayne DeGallier		REQUESTED REPORT DATE		GC/MMS VOAs 8260 <input type="checkbox"/> 624 CIP	
CLIENT SAMPLE ID	FOR OFFICE USE ONLY	LAB ID	SAMPLING DATE	TIME	MATRIX	TURNAROUND REQUIREMENTS	
MW 28	-011	-011	3/28/12	11:45	H ₂ O	I. Results Only <input type="checkbox"/>	
MW 28 A	-012	-012	11:55			II. Results + QC Summaries (LCS, DUP, MS/MSD as required) <input checked="" type="checkbox"/>	
MW 26	-013	-013	13:30			III. Results + CC and Calibration Summaries <input type="checkbox"/>	
MW 26 A	-014	-014	13:45			IV. Data Validation Report with Raw Data <input type="checkbox"/>	
MW 25	-015	-015	14:15			Extra <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
MW 25 A	-016	-016	14:30			RECEIVED BY	
MW 27	-017	-017	15:00			Signature	
MW 27 A	-018	-018	15:10			Printed Name	
MW 18	-019	-019	16:00			Firm	
MW 18 A	-020	-020	16:10			Date/Time	
SPECIAL INSTRUCTIONS/COMMENTS						RECEIVED BY	
Metals						Signature	
See OAPP <input type="checkbox"/>						Printed Name	
STATE WHERE SAMPLES WERE COLLECTED: NY						Firm	
RELINQUISHED BY						Date/Time	
Signature						RECEIVED BY	
Wayne DeGallier						Signature	
Wayne DeGallier						Printed Name	
Envirosite						Firm	
3/30/12 12:00 3-30-12 1200						Date/Time	
RELINQUISHED BY						RECEIVED BY	
Signature						Signature	
Wayne DeGallier						Printed Name	
Wayne DeGallier						Firm	
Envirosite						Date/Time	
3/30/12 12:00 3-30-12 1200						Date/Time	
RELINQUISHED BY						RECEIVED BY	
Signature						Signature	
Wayne DeGallier						Printed Name	
Wayne DeGallier						Firm	
Envirosite						Date/Time	
3/30/12 12:00 3-30-12 1200						Date/Time	
RELINQUISHED BY						RECEIVED BY	
Signature						Signature	
Wayne DeGallier						Printed Name	
Wayne DeGallier						Firm	
Envirosite						Date/Time	
3/30/12 12:00 3-30-12 1200						Date/Time	

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Leica					
Project Manager		Report CC		PRESERVATIVE	
Bob McPeak					
Company/Address		Energy Solutions		METALS, TOTAL (list in comments below)	
100 Mill Plain Rd. and Floor Box 106				METALS, DISSOLVED (list in comments below)	
Danbury, CT 06811				PCBs 8082 608	
Phone #	801-303-1092	E-mail	rmp@peakenergy.com	PESTICIDES 8021 601/602	
Sampler's Signature	Wayne DeGallier	Sampler's Printed Name	Wayne DeGallier	GC VOAs 8260 624 624 CIP	
				GCMS SVOAs 8270 625	
FOR OFFICE USE ONLY		SAMPLING DATE		MATRIX	
CLIENT SAMPLE ID	LAB ID	DATE	TIME		
MW 24	021	3/29/12	13:00	H ₂ O	
MW 24 A	022	3/29/12	13:15		
MW 16 R	023	3/29/12	15:00		
MW 2 A	024	3/30/12	09:00		
MW 11 A	025	3/30/12	09:30		
MW 16 A	026	3/30/12	09:40		
Temp Blank					

SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION	
Metals		RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day Standard		I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		PO #: BILL TO:	
See QAPP <input type="checkbox"/>		REQUESTED REPORT DATE		Edata <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		R1202017	
RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY		RECEIVED BY	
Signature: Wayne DeGallier	Signature: Amy Pentecoste	Signature: Amy Pentecoste	Signature: Amy Pentecoste	Signature: Amy Pentecoste	Signature: Amy Pentecoste	Signature: Amy Pentecoste	Signature: Amy Pentecoste
Printed Name: Wayne DeGallier	Printed Name: Amy Pentecoste	Printed Name: Amy Pentecoste	Printed Name: Amy Pentecoste	Printed Name: Amy Pentecoste	Printed Name: Amy Pentecoste	Printed Name: Amy Pentecoste	Printed Name: Amy Pentecoste
Firm: EnviroSite	Firm: ALS	Firm: ALS	Firm: ALS	Firm: ALS	Firm: ALS	Firm: ALS	Firm: ALS
Date/Time: 3/30/12 12:00	Date/Time: 3/30/12 13:45	Date/Time: 3/30/12 13:45	Date/Time: 3/30/12 13:45	Date/Time: 3/30/12 13:45	Date/Time: 3/30/12 13:45	Date/Time: 3/30/12 13:45	Date/Time: 3/30/12 13:45



Cooler Receipt and Preservation Check Form

Project/Client Energy Soln Folder Number R1201017

Cooler received on 3/30/12 by: AKH COURIER: ALS UPS FEDEX VELOCITY CLIENT

- Were custody seals on outside of cooler? YES NO
- Were custody papers properly filled out (ink, signed, etc.)? YES NO
- Did all bottles arrive in good condition (unbroken)? YES NO
- Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
- Were Ice or Ice packs present? YES NO
- Where did the bottles originate? ALS/ROC CLIENT
- Temperature of cooler(s) upon receipt: 24°

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 3/30/12 1358

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location B-002 by AKH on 3/30/12 at 1400
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: AKH 3/30/12

Cooler Breakdown: Date: 3/30/12 Time: 1605 by: AKH

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO
- Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

pH	Reagent	Lot Received		Exp	Sample ID	Vol. Added	Lot Added	Final pH
		YES	NO					
≥12	NaOH							
≤2	HNO ₃							
≤2	H ₂ SO ₄							
<4	NaHSO ₄							
Residual Chlorine (-)	For TCN Phenol and 522				If present, contact PM to add ascorbic acid Or sodium sulfite (522)			
	Na ₂ S ₂ O ₃	-	-					
	Zn Aceta	-	-					
	HCl	*	*		<u>4/11/060</u>		<u>3/13</u>	

Yes = All samples OK
No = Samples were preserved at lab as listed
PM OK to Adjust: _____

*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet

Bottle lot numbers: 1-3/5-002
Other Comments: _____

PC Secondary Review: AKH 4/11/12
H:\SMODOCS\Cooler Receipt 5.doc

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



November 27, 2012

Service Request No: R1207701

Mr. Robert McPeak
Energy Solutions, Inc.
100 Mill Plain Rd
2nd Floor Mailbox 106
Danbury, CT 06811

Laboratory Results for: Leica/Wells

Dear Mr. McPeak:

Enclosed are the results of the sample(s) submitted to our laboratory on November 8, 2012. For your reference, these analyses have been assigned our service request number **R1207701**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Karen.Bunker@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Karen Bunker
Project Manager

Page 1 of 1



ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623

PHONE 585-288-5380 | FAX 585-288-8475

Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company

Environmental

www.caslab.com ■ www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

00001

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Energy Solutions
Project: Leica Wells
Sample Matrix: Water

Service Request No.: R1207701
Date Received: 11/8/12

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Sixteen (16) samples were collected by the client on 11/6-7/12 and received for analysis at ALS/Columbia Analytical Services on 11/8/12 via CAS Courier.

Volatile Organics

Sixteen (16) water samples including one (1) Trip Blank were analyzed for Volatile Organic compounds by GC/MS method 8260C.

The Initial and Continuing Calibration criteria were met.

Batch QC is included in the report. All Laboratory Control Sample (LCS) and LCS Duplicate (LCSD) recoveries for target compounds were within QC limits except for Bromomethane on the 11/16/12 LCS and Bromomethane on the 11/19/12 LCS/LCSD. The exceeded recoveries have been flagged as "**". All Relative Percent Difference (RPD) calculations were acceptable.

All Surrogate recoveries are within acceptance limits.

Hits above the Calibration range of the standards are flagged as "E", estimated. The sample is then repeated at the appropriate dilution for the hit. Both sets of data are included in the report. The subsequent hits on the dilution are flagged as "D".

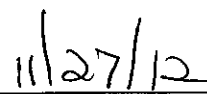
The Laboratory Method Blanks were free from contamination.

No other problems were encountered during the analysis of these samples.

Approved by



Date



CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1207701

<u>Lab ID</u>	<u>Client ID</u>
R1207701-001	MW 10
R1207701-002	MW 14
R1207701-003	MW 14A
R1207701-004	MW 22
R1207701-005	MW 22A
R1207701-006	MW 6
R1207701-007	MW 6A
R1207701-008	MW 18
R1207701-009	MW 18A
R1207701-010	MW 5
R1207701-011	MW 5A
R1207701-012	MW 23
R1207701-013	MW 11A
R1207701-014	MW 16A
R1207701-015	MW 16R
R1207701-016	TRIP BLANK

REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.



Rochester Lab ID # for State Certifications¹

NELAP Accredited	Maine ID #NY0032	New Hampshire ID #
Connecticut ID # PH0556	Nebraska Accredited	294100 A/B
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://alsglobal.com/environmental/laboratories/rochester-environmental-lab.aspx>

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1500
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 08:07

Sample Name: MW 10
Lab Code: R1207701-001

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111512\T2799.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1500
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 08:07

Sample Name: MW 10
Lab Code: R1207701-001

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111512\T2799.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	98	85-122	11/16/12 08:07	
	Toluene-d8	94	87-121	11/16/12 08:07	
	Dibromofluoromethane	98	89-119	11/16/12 08:07	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1515
Date Received: 11/ 8/12
Date Analyzed: 11/17/12 09:57

Sample Name: MW 14
Lab Code: R1207701-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111612\T2846.D\

Analysis Lot: 318855
Instrument Name: R-MS-12
Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	20	U	20	
71-43-2	Benzene	10	U	10	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
78-93-3	2-Butanone (MEK)	20	U	20	
75-15-0	Carbon Disulfide	20	U	20	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-34-3	1,1-Dichloroethane	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
75-35-4	1,1-Dichloroethene	10	U	10	
156-59-2	cis-1,2-Dichloroethene	330		10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	
100-41-4	Ethylbenzene	10	U	10	
591-78-6	2-Hexanone	20	U	20	
75-09-2	Methylene Chloride	10	U	10	
108-10-1	4-Methyl-2-pentanone (MIBK)	20	U	20	
100-42-5	Styrene	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
127-18-4	Tetrachloroethene	10	U	10	
108-88-3	Toluene	10	U	10	
71-55-6	1,1,1-Trichloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
79-01-6	Trichloroethene	10	U	10	
75-01-4	Vinyl Chloride	390		10	
95-47-6	o-Xylene	10	U	10	
179601-23-1	m,p-Xylenes	10	U	10	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1520
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 08:40

Sample Name: MW 14A
Lab Code: R1207701-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111512\T2800.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	11	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	36	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1520
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 08:40

Sample Name: MW 14A
Lab Code: R1207701-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111512\T2800.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	101	85-122	11/16/12 08:40	
	Toluene-d8	95	87-121	11/16/12 08:40	
	Dibromofluoromethane	100	89-119	11/16/12 08:40	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1530
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 09:13

Sample Name: MW 22
Lab Code: R1207701-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111512\T2801.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	12	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	47	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1530
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 09:13

Sample Name: MW 22
Lab Code: R1207701-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\MSVOA12\DATA\111512\T2801.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	100	85-122	11/16/12 09:13	
	Toluene-d8	93	87-121	11/16/12 09:13	
	Dibromofluoromethane	99	89-119	11/16/12 09:13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/6/12 1535
Date Received: 11/8/12
Date Analyzed: 11/16/12 09:46

Sample Name: MW 22A
Lab Code: R1207701-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111512\T2802.DA

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	11		5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	35		5.0	
95-47-6	o-Xylene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1535
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 09:46

Sample Name: MW 22A
Lab Code: R1207701-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111512\T2802.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	100	85-122	11/16/12 09:46	
	Toluene-d8	100	87-121	11/16/12 09:46	
	Dibromofluoromethane	99	89-119	11/16/12 09:46	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical ReportClient: Energy Solutions
Project: Leica/Wells
Sample Matrix: WaterService Request: R1207701
Date Collected: 11/ 6/12 1600
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 10:19Sample Name: MW 6
Lab Code: R1207701-006Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111512\T2803.D\Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	160	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	23	5.0	
75-01-4	Vinyl Chloride	29	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/6/12 1600
Date Received: 11/8/12
Date Analyzed: 11/16/12 10:19

Sample Name: MW 6
Lab Code: R1207701-006

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111512\T2803.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	100	85-122	11/16/12 10:19	
	Toluene-d8	100	87-121	11/16/12 10:19	
	Dibromofluoromethane	100	89-119	11/16/12 10:19	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1610
Date Received: 11/ 8/12
Date Analyzed: 11/17/12 10:30

Sample Name: MW 6A
Lab Code: R1207701-007

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111612\T2847.D\

Analysis Lot: 318855
Instrument Name: R-MS-12
Dilution Factor: 2

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	20 U	20	
71-43-2	Benzene	10 U	10	
75-27-4	Bromodichloromethane	10 U	10	
75-25-2	Bromoform	10 U	10	
74-83-9	Bromomethane	10 U	10	
78-93-3	2-Butanone (MEK)	20 U	20	
75-15-0	Carbon Disulfide	20 U	20	
56-23-5	Carbon Tetrachloride	10 U	10	
108-90-7	Chlorobenzene	10 U	10	
75-00-3	Chloroethane	10 U	10	
67-66-3	Chloroform	10 U	10	
74-87-3	Chloromethane	10 U	10	
124-48-1	Dibromochloromethane	10 U	10	
75-34-3	1,1-Dichloroethane	10 U	10	
107-06-2	1,2-Dichloroethane	10 U	10	
75-35-4	1,1-Dichloroethene	10 U	10	
156-59-2	cis-1,2-Dichloroethene	490 E	10	
156-60-5	trans-1,2-Dichloroethene	11	10	
78-87-5	1,2-Dichloropropane	10 U	10	
10061-01-5	cis-1,3-Dichloropropene	10 U	10	
10061-02-6	trans-1,3-Dichloropropene	10 U	10	
100-41-4	Ethylbenzene	10 U	10	
591-78-6	2-Hexanone	20 U	20	
75-09-2	Methylene Chloride	10 U	10	
108-10-1	4-Methyl-2-pentanone (MIBK)	20 U	20	
100-42-5	Styrene	10 U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10 U	10	
127-18-4	Tetrachloroethene	10 U	10	
108-88-3	Toluene	10 U	10	
71-55-6	1,1,1-Trichloroethane	10 U	10	
79-00-5	1,1,2-Trichloroethane	10 U	10	
79-01-6	Trichloroethene	10 U	10	
75-01-4	Vinyl Chloride	220	10	
95-47-6	o-Xylene	10 U	10	
179601-23-1	m,p-Xylenes	10 U	10	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1610
Date Received: 11/ 8/12
Date Analyzed: 11/18/12 21:29

Sample Name: MW 6A
Lab Code: R1207701-007
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111812\T2882.D\

Analysis Lot: 318991
Instrument Name: R-MS-12
Dilution Factor: 5

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	50 U	50	
71-43-2	Benzene	25 U	25	
75-27-4	Bromodichloromethane	25 U	25	
75-25-2	Bromoform	25 U	25	
74-83-9	Bromomethane	25 U	25	
78-93-3	2-Butanone (MEK)	50 U	50	
75-15-0	Carbon Disulfide	50 U	50	
56-23-5	Carbon Tetrachloride	25 U	25	
108-90-7	Chlorobenzene	25 U	25	
75-00-3	Chloroethane	25 U	25	
67-66-3	Chloroform	25 U	25	
74-87-3	Chloromethane	25 U	25	
124-48-1	Dibromochloromethane	25 U	25	
75-34-3	1,1-Dichloroethane	25 U	25	
107-06-2	1,2-Dichloroethane	25 U	25	
75-35-4	1,1-Dichloroethene	25 U	25	
156-59-2	cis-1,2-Dichloroethene	510 D	25	
156-60-5	trans-1,2-Dichloroethene	25 U	25	
78-87-5	1,2-Dichloropropane	25 U	25	
10061-01-5	cis-1,3-Dichloropropene	25 U	25	
10061-02-6	trans-1,3-Dichloropropene	25 U	25	
100-41-4	Ethylbenzene	25 U	25	
591-78-6	2-Hexanone	50 U	50	
75-09-2	Methylene Chloride	25 U	25	
108-10-1	4-Methyl-2-pentanone (MIBK)	50 U	50	
100-42-5	Styrene	25 U	25	
79-34-5	1,1,2,2-Tetrachloroethane	25 U	25	
127-18-4	Tetrachloroethene	25 U	25	
108-88-3	Toluene	25 U	25	
71-55-6	1,1,1-Trichloroethane	25 U	25	
79-00-5	1,1,2-Trichloroethane	25 U	25	
79-01-6	Trichloroethene	25 U	25	
75-01-4	Vinyl Chloride	230 D	25	
95-47-6	o-Xylene	25 U	25	
179601-23-1	m,p-Xylenes	25 U	25	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1645
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 10:52

Sample Name: MW 18
Lab Code: R1207701-008

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111512\T2804.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/6/12 1645
Date Received: 11/8/12
Date Analyzed: 11/16/12 10:52

Sample Name: MW 18
Lab Code: R1207701-008

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111512\T2804.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	102	85-122	11/16/12 10:52	
	Toluene-d8	97	87-121	11/16/12 10:52	
	Dibromofluoromethane	100	89-119	11/16/12 10:52	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1650
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 11:25

Sample Name: MW 18A
Lab Code: R1207701-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111512\T2805.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	48	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	180	5.0	
75-01-4	Vinyl Chloride	7.7	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 6/12 1650
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 11:25

Sample Name: MW 18A
Lab Code: R1207701-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111512\T2805.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	100	85-122	11/16/12 11:25	
	Toluene-d8	95	87-121	11/16/12 11:25	
	Dibromofluoromethane	99	89-119	11/16/12 11:25	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 7/12 0900
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 11:58

Sample Name: MW 5
Lab Code: R1207701-010

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111512\T2806.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/7/12 0900
Date Received: 11/8/12
Date Analyzed: 11/16/12 11:58

Sample Name: MW 5
Lab Code: R1207701-010

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111512\T2806.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	100	85-122	11/16/12 11:58	
	Toluene-d8	98	87-121	11/16/12 11:58	
	Dibromofluoromethane	98	89-119	11/16/12 11:58	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical ReportClient: Energy Solutions
Project: Leica/Wells
Sample Matrix: WaterService Request: R1207701
Date Collected: 11/7/12 0910
Date Received: 11/8/12
Date Analyzed: 11/16/12 12:31Sample Name: MW 5A
Lab Code: R1207701-011Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111512\T2807.D\Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	22	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/7/12 0910
Date Received: 11/8/12
Date Analyzed: 11/16/12 12:31

Sample Name: MW 5A
Lab Code: R1207701-011

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111512\T2807.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	100	85-122	11/16/12 12:31	
	Toluene-d8	93	87-121	11/16/12 12:31	
	Dibromofluoromethane	100	89-119	11/16/12 12:31	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 7/12 0930
Date Received: 11/ 8/12
Date Analyzed: 11/16/12 13:04

Sample Name: MW 23
Lab Code: R1207701-012

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\11512\T2808.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 7/12 1000
Date Received: 11/ 8/12
Date Analyzed: 11/17/12 11:03

Sample Name: MW 11A
Lab Code: R1207701-013

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111612\T2848.D

Analysis Lot: 318855
Instrument Name: R-MS-12
Dilution Factor: 2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	25	U	25	
71-43-2	Benzene	13	U	13	
75-27-4	Bromodichloromethane	13	U	13	
75-25-2	Bromoform	13	U	13	
74-83-9	Bromomethane	13	U	13	
78-93-3	2-Butanone (MEK)	25	U	25	
75-15-0	Carbon Disulfide	25	U	25	
56-23-5	Carbon Tetrachloride	13	U	13	
108-90-7	Chlorobenzene	13	U	13	
75-00-3	Chloroethane	13	U	13	
67-66-3	Chloroform	13	U	13	
74-87-3	Chloromethane	13	U	13	
124-48-1	Dibromochloromethane	13	U	13	
75-34-3	1,1-Dichloroethane	13	U	13	
107-06-2	1,2-Dichloroethane	13	U	13	
75-35-4	1,1-Dichloroethene	13	U	13	
156-59-2	cis-1,2-Dichloroethene	350		13	
156-60-5	trans-1,2-Dichloroethene	13	U	13	
78-87-5	1,2-Dichloropropane	13	U	13	
10061-01-5	cis-1,3-Dichloropropene	13	U	13	
10061-02-6	trans-1,3-Dichloropropene	13	U	13	
100-41-4	Ethylbenzene	13	U	13	
591-78-6	2-Hexanone	25	U	25	
75-09-2	Methylene Chloride	13	U	13	
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	
100-42-5	Styrene	13	U	13	
79-34-5	1,1,2,2-Tetrachloroethane	13	U	13	
127-18-4	Tetrachloroethene	13	U	13	
108-88-3	Toluene	13	U	13	
71-55-6	1,1,1-Trichloroethane	13	U	13	
79-00-5	1,1,2-Trichloroethane	13	U	13	
79-01-6	Trichloroethene	13	U	13	
75-01-4	Vinyl Chloride	270		13	
95-47-6	o-Xylene	13	U	13	
179601-23-1	m,p-Xylenes	13	U	13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 7/12 1000
Date Received: 11/ 8/12
Date Analyzed: 11/17/12 11:03

Sample Name: MW 11A
Lab Code: R1207701-013

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111612\T2848.D\

Analysis Lot: 318855
Instrument Name: R-MS-12
Dilution Factor: 2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	100	85-122	11/17/12 11:03	
	Toluene-d8	92	87-121	11/17/12 11:03	
	Dibromofluoromethane	100	89-119	11/17/12 11:03	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 7/12 1020
Date Received: 11/ 8/12
Date Analyzed: 11/17/12 11:36

Sample Name: MW 16A
Lab Code: R1207701-014

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111612\T2849.D\

Analysis Lot: 318855
Instrument Name: R-MS-12
Dilution Factor: 2.5

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	25 U	25	
71-43-2	Benzene	13 U	13	
75-27-4	Bromodichloromethane	13 U	13	
75-25-2	Bromoform	13 U	13	
74-83-9	Bromomethane	13 U	13	
78-93-3	2-Butanone (MEK)	25 U	25	
75-15-0	Carbon Disulfide	25 U	25	
56-23-5	Carbon Tetrachloride	13 U	13	
108-90-7	Chlorobenzene	13 U	13	
75-00-3	Chloroethane	21	13	
67-66-3	Chloroform	13 U	13	
74-87-3	Chloromethane	13 U	13	
124-48-1	Dibromochloromethane	13 U	13	
75-34-3	1,1-Dichloroethane	88	13	
107-06-2	1,2-Dichloroethane	13 U	13	
75-35-4	1,1-Dichloroethene	13 U	13	
156-59-2	cis-1,2-Dichloroethene	700 E	13	
156-60-5	trans-1,2-Dichloroethene	13 U	13	
78-87-5	1,2-Dichloropropane	13 U	13	
10061-01-5	cis-1,3-Dichloropropene	13 U	13	
10061-02-6	trans-1,3-Dichloropropene	13 U	13	
100-41-4	Ethylbenzene	13 U	13	
591-78-6	2-Hexanone	25 U	25	
75-09-2	Methylene Chloride	13 U	13	
108-10-1	4-Methyl-2-pentanone (MIBK)	25 U	25	
100-42-5	Styrene	13 U	13	
79-34-5	1,1,2,2-Tetrachloroethane	13 U	13	
127-18-4	Tetrachloroethene	13 U	13	
108-88-3	Toluene	13 U	13	
71-55-6	1,1,1-Trichloroethane	67	13	
79-00-5	1,1,2-Trichloroethane	13 U	13	
79-01-6	Trichloroethene	140	13	
75-01-4	Vinyl Chloride	180	13	
95-47-6	o-Xylene	13 U	13	
179601-23-1	m,p-Xylenes	15	13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 7/12 1020
Date Received: 11/ 8/12
Date Analyzed: 11/17/12 11:36

Sample Name: MW 16A
Lab Code: R1207701-014

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111612\T2849.D\

Analysis Lot: 318855
Instrument Name: R-MS-12
Dilution Factor: 2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	100	85-122	11/17/12 11:36	
	Toluene-d8	98	87-121	11/17/12 11:36	
	Dibromofluoromethane	100	89-119	11/17/12 11:36	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/7/12 1020
Date Received: 11/8/12
Date Analyzed: 11/18/12 22:02

Sample Name: MW 16A
Lab Code: R1207701-014
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATAMSVOA12\DATA\111812\T2883.D\

Analysis Lot: 318991
Instrument Name: R-MS-12
Dilution Factor: 5

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	50 U	50	
71-43-2	Benzene	25 U	25	
75-27-4	Bromodichloromethane	25 U	25	
75-25-2	Bromoform	25 U	25	
74-83-9	Bromomethane	25 U	25	
78-93-3	2-Butanone (MEK)	50 U	50	
75-15-0	Carbon Disulfide	50 U	50	
56-23-5	Carbon Tetrachloride	25 U	25	
108-90-7	Chlorobenzene	25 U	25	
75-00-3	Chloroethane	25 U	25	
67-66-3	Chloroform	25 U	25	
74-87-3	Chloromethane	25 U	25	
124-48-1	Dibromochloromethane	25 U	25	
75-34-3	1,1-Dichloroethane	94 D	25	
107-06-2	1,2-Dichloroethane	25 U	25	
75-35-4	1,1-Dichloroethene	25 U	25	
156-59-2	cis-1,2-Dichloroethene	760 D	25	
156-60-5	trans-1,2-Dichloroethene	25 U	25	
78-87-5	1,2-Dichloropropane	25 U	25	
10061-01-5	cis-1,3-Dichloropropene	25 U	25	
10061-02-6	trans-1,3-Dichloropropene	25 U	25	
100-41-4	Ethylbenzene	25 U	25	
591-78-6	2-Hexanone	50 U	50	
75-09-2	Methylene Chloride	25 U	25	
108-10-1	4-Methyl-2-pentanone (MIBK)	50 U	50	
100-42-5	Styrene	25 U	25	
79-34-5	1,1,2,2-Tetrachloroethane	25 U	25	
127-18-4	Tetrachloroethene	25 U	25	
108-88-3	Toluene	25 U	25	
71-55-6	1,1,1-Trichloroethane	69 D	25	
79-00-5	1,1,2-Trichloroethane	25 U	25	
79-01-6	Trichloroethene	140 D	25	
75-01-4	Vinyl Chloride	190 D	25	
95-47-6	o-Xylene	25 U	25	
179601-23-1	m,p-Xylenes	25 U	25	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/7/12 1020
Date Received: 11/8/12
Date Analyzed: 11/18/12 22:02

Sample Name: MW 16A
Lab Code: R1207701-014
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111812\T2883.D\

Analysis Lot: 318991
Instrument Name: R-MS-12
Dilution Factor: 5

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	100	85-122	11/18/12 22:02	
	Toluene-d8	100	87-121	11/18/12 22:02	
	Dibromofluoromethane	99	89-119	11/18/12 22:02	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 7/12 1045
Date Received: 11/ 8/12
Date Analyzed: 11/17/12 09:24

Sample Name: MW 16R
Lab Code: R1207701-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111612\T2845.D\

Analysis Lot: 318855
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	290 E	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	170	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	19	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	12	5.0	
95-47-6	o-Xylene	11	5.0	
179601-23-1	m,p-Xylenes	33	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 7/12 1045
Date Received: 11/ 8/12
Date Analyzed: 11/17/12 09:24

Sample Name: MW 16R
Lab Code: R1207701-015

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111612\T2845.D\

Analysis Lot: 318855
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	
4-Bromofluorobenzene	99	85-122	11/17/12 09:24		
Toluene-d8	100	87-121	11/17/12 09:24		
Dibromofluoromethane	99	89-119	11/17/12 09:24		

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/ 7/12 1045
Date Received: 11/ 8/12
Date Analyzed: 11/19/12 15:58

Sample Name: MW 16R
Lab Code: R1207701-015
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\msvoa12\Data\111912\T2915.D\

Analysis Lot: 318992
Instrument Name: R-MS-12
Dilution Factor: 2

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	20 U	20	
71-43-2	Benzene	10 U	10	
75-27-4	Bromodichloromethane	10 U	10	
75-25-2	Bromoform	10 U	10	
74-83-9	Bromomethane	10 U	10	
78-93-3	2-Butanone (MEK)	20 U	20	
75-15-0	Carbon Disulfide	20 U	20	
56-23-5	Carbon Tetrachloride	10 U	10	
108-90-7	Chlorobenzene	10 U	10	
75-00-3	Chloroethane	280 D	10	
67-66-3	Chloroform	10 U	10	
74-87-3	Chloromethane	10 U	10	
124-48-1	Dibromochloromethane	10 U	10	
75-34-3	1,1-Dichloroethane	160 D	10	
107-06-2	1,2-Dichloroethane	10 U	10	
75-35-4	1,1-Dichloroethene	10 U	10	
156-59-2	cis-1,2-Dichloroethene	10 U	10	
156-60-5	trans-1,2-Dichloroethene	10 U	10	
78-87-5	1,2-Dichloropropane	10 U	10	
10061-01-5	cis-1,3-Dichloropropene	10 U	10	
10061-02-6	trans-1,3-Dichloropropene	10 U	10	
100-41-4	Ethylbenzene	18 D	10	
591-78-6	2-Hexanone	20 U	20	
75-09-2	Methylene Chloride	10 U	10	
108-10-1	4-Methyl-2-pentanone (MIBK)	20 U	20	
100-42-5	Styrene	10 U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10 U	10	
127-18-4	Tetrachloroethene	10 U	10	
108-88-3	Toluene	10 U	10	
71-55-6	1,1,1-Trichloroethane	10 U	10	
79-00-5	1,1,2-Trichloroethane	10 U	10	
79-01-6	Trichloroethene	10 U	10	
75-01-4	Vinyl Chloride	12 D	10	
95-47-6	o-Xylene	10 D	10	
179601-23-1	m,p-Xylenes	31 D	10	

COLUMBIA ANALYTICAL SERVICES, INC.
Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Sample Name: MW 16R
Lab Code: R1207701-015
Run Type: Dilution

Service Request: R1207701
Date Collected: 11/ 7/12 1045
Date Received: 11/ 8/12
Date Analyzed: 11/19/12 15:58

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\msvoa12\Data\111912\T2915.D\

Analysis Lot: 318992
Instrument Name: R-MS-12
Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	100	85-122	11/19/12 15:58	
	Toluene-d8	98	87-121	11/19/12 15:58	
	Dibromofluoromethane	97	89-119	11/19/12 15:58	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/6/12
Date Received: 11/8/12
Date Analyzed: 11/17/12 08:51

Sample Name: TRIP BLANK
Lab Code: R1207701-016

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQDATA\MSVOA12\DATA\111612\T2844.D\

Analysis Lot: 318855
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: 11/6/12
Date Received: 11/8/12
Date Analyzed: 11/17/12 08:51

Sample Name: TRIP BLANK
Lab Code: R1207701-016

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111612\T2844.D\

Analysis Lot: 318855
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	99	85-122	11/17/12 08:51	
	Toluene-d8	99	87-121	11/17/12 08:51	
	Dibromofluoromethane	100	89-119	11/17/12 08:51	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: NA
Date Received: NA
Date Analyzed: 11/16/12 05:21

Sample Name: Method Blank
Lab Code: RQ1213961-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111512\T2794.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: NA
Date Received: NA
Date Analyzed: 11/16/12 05:21

Sample Name: Method Blank
Lab Code: RQ1213961-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111512\T2794.D\

Analysis Lot: 318685
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
Surrogate Name	%Rec	Control Limits		Date Analyzed	Q
4-Bromofluorobenzene	100	85-122		11/16/12 05:21	
Toluene-d8	100	87-121		11/16/12 05:21	
Dibromofluoromethane	100	89-119		11/16/12 05:21	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: NA
Date Received: NA
Date Analyzed: 11/17/12 06:40

Sample Name: Method Blank
Lab Code: RQ1214071-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111612\T2840.D\

Analysis Lot: 318855
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: NA
Date Received: NA
Date Analyzed: 11/17/12 06:40

Sample Name: Method Blank
Lab Code: RQ1214071-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\MSVOA12\DATA\111612\T2840.D\

Analysis Lot: 318855
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	99	85-122	11/17/12 06:40	
	Toluene-d8	100	87-121	11/17/12 06:40	
	Dibromofluoromethane	100	89-119	11/17/12 06:40	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: NA
Date Received: NA
Date Analyzed: 11/18/12 14:19

Sample Name: Method Blank
Lab Code: RQ1214072-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA12\DATA\111812\T2869.D\

Analysis Lot: 318991
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: NA
Date Received: NA
Date Analyzed: 11/18/12 14:19

Sample Name: Method Blank
Lab Code: RQ1214072-04

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA12\DATA\111812\T2869.D\

Analysis Lot: 318991
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	101	85-122	11/18/12 14:19	
	Toluene-d8	100	87-121	11/18/12 14:19	
	Dibromofluoromethane	100	89-119	11/18/12 14:19	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: NA
Date Received: NA
Date Analyzed: 11/19/12 15:25

Sample Name: Method Blank
Lab Code: RQ1214073-05

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\msvoa12\Data\111912\T2914.D\

Analysis Lot: 318992
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Collected: NA
Date Received: NA
Date Analyzed: 11/19/12 15:25

Sample Name: Method Blank
Lab Code: RQ1214073-05

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUADATA\msvoa12\Data\111912\T2914.D\

Analysis Lot: 318992
Instrument Name: R-MS-12
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	101	85-122	11/19/12 15:25	
	Toluene-d8	101	87-121	11/19/12 15:25	
	Dibromofluoromethane	99	89-119	11/19/12 15:25	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
 Project: Leica/Wells
 Sample Matrix: Water

Service Request: R1207701
 Date Analyzed: 11/16/12

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 318685

Lab Control Sample
 RQ1213961-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Acetone	21.1	20.0	105	64 - 133
Benzene	18.3	20.0	92	78 - 118
Bromodichloromethane	18.9	20.0	94	79 - 123
Bromoform	18.6	20.0	93	69 - 126
Bromomethane	25.6	20.0	128 *	49 - 124
2-Butanone (MEK)	22.1	20.0	110	60 - 133
Carbon Disulfide	20.8	20.0	104	67 - 138
Carbon Tetrachloride	18.0	20.0	90	64 - 129
Chlorobenzene	18.6	20.0	93	80 - 121
Chloroethane	18.7	20.0	93	72 - 130
Chloroform	19.3	20.0	97	75 - 123
Chloromethane	19.3	20.0	97	55 - 139
Dibromochloromethane	19.4	20.0	97	78 - 127
1,1-Dichloroethane	19.2	20.0	96	76 - 124
1,2-Dichloroethane	19.2	20.0	96	72 - 130
1,1-Dichloroethene	20.7	20.0	104	67 - 119
cis-1,2-Dichloroethene	18.3	20.0	91	77 - 123
trans-1,2-Dichloroethene	18.8	20.0	94	72 - 120
1,2-Dichloropropane	19.3	20.0	97	83 - 119
cis-1,3-Dichloropropene	18.9	20.0	94	77 - 125
trans-1,3-Dichloropropene	19.3	20.0	97	69 - 127
Ethylbenzene	18.9	20.0	94	75 - 123
2-Hexanone	20.9	20.0	105	61 - 131
Methylene Chloride	18.8	20.0	94	73 - 122
4-Methyl-2-pentanone (MIBK)	21.9	20.0	109	61 - 132
Styrene	19.2	20.0	96	80 - 121
1,1,2,2-Tetrachloroethane	18.6	20.0	93	72 - 124
Tetrachloroethene	18.4	20.0	92	71 - 127
Toluene	18.8	20.0	94	77 - 120
1,1,1-Trichloroethane	18.0	20.0	90	67 - 121
1,1,2-Trichloroethane	20.4	20.0	102	81 - 117
Trichloroethene	19.2	20.0	96	75 - 122

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Analyzed: 11/16/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 318685

Lab Control Sample
RQ1213961-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	19.1	20.0	95	68 - 139
o-Xylene	18.8	20.0	94	77 - 131
m,p-Xylenes	37.7	40.0	94	77 - 124

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701

Date Analyzed: 11/17/12

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 318855

**Lab Control Sample
 RQ1214071-03**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Acetone	20.2	20.0	101	64 - 133
Benzene	19.5	20.0	97	78 - 118
Bromodichloromethane	20.5	20.0	103	79 - 123
Bromoform	20.1	20.0	100	69 - 126
Bromomethane	21.7	20.0	109	49 - 124
2-Butanone (MEK)	19.1	20.0	95	60 - 133
Carbon Disulfide	19.1	20.0	95	67 - 138
Carbon Tetrachloride	19.7	20.0	98	64 - 129
Chlorobenzene	20.3	20.0	102	80 - 121
Chloroethane	19.7	20.0	98	72 - 130
Chloroform	20.4	20.0	102	75 - 123
Chloromethane	21.8	20.0	109	55 - 139
Dibromochloromethane	20.7	20.0	103	78 - 127
1,1-Dichloroethane	20.2	20.0	101	76 - 124
1,2-Dichloroethane	20.6	20.0	103	72 - 130
1,1-Dichloroethene	21.7	20.0	108	67 - 119
cis-1,2-Dichloroethene	19.3	20.0	97	77 - 123
trans-1,2-Dichloroethene	19.4	20.0	97	72 - 120
1,2-Dichloropropane	20.8	20.0	104	83 - 119
cis-1,3-Dichloropropene	19.7	20.0	99	77 - 125
trans-1,3-Dichloropropene	20.0	20.0	100	69 - 127
Ethylbenzene	19.5	20.0	98	75 - 123
2-Hexanone	19.0	20.0	95	61 - 131
Methylene Chloride	19.8	20.0	99	73 - 122
4-Methyl-2-pentanone (MIBK)	19.4	20.0	97	61 - 132
Styrene	21.3	20.0	107	80 - 121
1,1,2,2-Tetrachloroethane	17.4	20.0	87	72 - 124
Tetrachloroethene	18.5	20.0	92	71 - 127
Toluene	19.7	20.0	99	77 - 120
1,1,1-Trichloroethane	19.2	20.0	96	67 - 121
1,1,2-Trichloroethane	20.7	20.0	104	81 - 117
Trichloroethene	21.4	20.0	107	75 - 122

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Analyzed: 11/17/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 318855

Lab Control Sample
RQ1214071-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	21.2	20.0	106	68 - 139
o-Xylene	19.9	20.0	99	77 - 131
m,p-Xylenes	39.7	40.0	99	77 - 124

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Analyzed: 11/18/12

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 318991

**Lab Control Sample
 RQ1214072-03**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Acetone	18.3	20.0	91	64 - 133
Benzene	18.3	20.0	92	78 - 118
Bromodichloromethane	19.9	20.0	99	79 - 123
Bromoform	19.3	20.0	96	69 - 126
Bromomethane	22.9	20.0	114	49 - 124
2-Butanone (MEK)	20.4	20.0	102	60 - 133
Carbon Disulfide	19.0	20.0	95	67 - 138
Carbon Tetrachloride	17.3	20.0	86	64 - 129
Chlorobenzene	18.5	20.0	93	80 - 121
Chloroethane	18.3	20.0	91	72 - 130
Chloroform	19.0	20.0	95	75 - 123
Chloromethane	20.1	20.0	101	55 - 139
Dibromochloromethane	19.7	20.0	98	78 - 127
1,1-Dichloroethane	19.0	20.0	95	76 - 124
1,2-Dichloroethane	20.4	20.0	102	72 - 130
1,1-Dichloroethene	19.8	20.0	99	67 - 119
cis-1,2-Dichloroethene	18.1	20.0	91	77 - 123
trans-1,2-Dichloroethene	18.5	20.0	92	72 - 120
1,2-Dichloropropane	19.1	20.0	95	83 - 119
cis-1,3-Dichloropropene	19.8	20.0	99	77 - 125
trans-1,3-Dichloropropene	20.6	20.0	103	69 - 127
Ethylbenzene	17.4	20.0	87	75 - 123
2-Hexanone	19.0	20.0	95	61 - 131
Methylene Chloride	18.5	20.0	93	73 - 122
4-Methyl-2-pentanone (MIBK)	20.5	20.0	103	61 - 132
Styrene	19.9	20.0	99	80 - 121
1,1,2,2-Tetrachloroethane	19.9	20.0	99	72 - 124
Tetrachloroethene	17.3	20.0	86	71 - 127
Toluene	18.3	20.0	91	77 - 120
1,1,1-Trichloroethane	17.5	20.0	88	67 - 121
1,1,2-Trichloroethane	20.3	20.0	101	81 - 117
Trichloroethene	18.1	20.0	90	75 - 122

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Analyzed: 11/18/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 318991

Lab Control Sample
RQ1214072-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	20.0	20.0	100	68 - 139
o-Xylene	18.4	20.0	92	77 - 131
m,p-Xylenes	36.2	40.0	90	77 - 124

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Analyzed: 11/19/12

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 318992

Analyte Name	Lab Control Sample RQ1214073-03			Duplicate Lab Control Sample RQ1214073-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Acetone	19.0	20.0	95	19.5	20.0	98	64 - 133	3	30
Benzene	20.9	20.0	104	20.0	20.0	100	78 - 118	4	30
Bromodichloromethane	21.7	20.0	109	20.9	20.0	105	79 - 123	4	30
Bromoform	20.2	20.0	101	19.2	20.0	96	69 - 126	5	30
Bromomethane	26.3	20.0	132 *	25.1	20.0	125 *	49 - 124	5	30
2-Butanone (MEK)	20.3	20.0	102	19.5	20.0	97	60 - 133	4	30
Carbon Disulfide	20.0	20.0	100	21.3	20.0	107	67 - 138	7	30
Carbon Tetrachloride	20.1	20.0	100	21.6	20.0	108	64 - 129	7	30
Chlorobenzene	20.6	20.0	103	20.6	20.0	103	80 - 121	<1	30
Chloroethane	21.9	20.0	109	21.7	20.0	108	72 - 130	1	30
Chloroform	21.8	20.0	109	20.8	20.0	104	75 - 123	5	30
Chloromethane	24.1	20.0	120	22.7	20.0	114	55 - 139	6	30
Dibromochloromethane	20.4	20.0	102	20.4	20.0	102	78 - 127	<1	30
1,1-Dichloroethane	21.3	20.0	107	20.8	20.0	104	76 - 124	2	30
1,2-Dichloroethane	21.3	20.0	107	21.0	20.0	105	72 - 130	1	30
1,1-Dichloroethene	23.7	20.0	118	22.1	20.0	110	67 - 119	7	30
cis-1,2-Dichloroethene	20.7	20.0	104	19.7	20.0	99	77 - 123	5	30
trans-1,2-Dichloroethene	21.1	20.0	106	20.4	20.0	102	72 - 120	4	30
1,2-Dichloropropane	21.4	20.0	107	21.1	20.0	105	83 - 119	1	30
cis-1,3-Dichloropropene	21.2	20.0	106	21.0	20.0	105	77 - 125	1	30
trans-1,3-Dichloropropene	21.1	20.0	106	20.7	20.0	104	69 - 127	2	30
Ethylbenzene	19.4	20.0	97	20.2	20.0	101	75 - 123	4	30
2-Hexanone	19.3	20.0	97	19.2	20.0	96	61 - 131	<1	30
Methylene Chloride	20.5	20.0	103	20.3	20.0	101	73 - 122	1	30
4-Methyl-2-pentanone (MIBK)	20.6	20.0	103	20.4	20.0	102	61 - 132	<1	30
Styrene	21.4	20.0	107	21.7	20.0	109	80 - 121	2	30
1,1,2,2-Tetrachloroethane	20.1	20.0	100	20.1	20.0	100	72 - 124	<1	30
Tetrachloroethene	19.3	20.0	96	20.5	20.0	102	71 - 127	6	30
Toluene	20.7	20.0	104	20.3	20.0	102	77 - 120	2	30
1,1,1-Trichloroethane	21.1	20.0	105	20.1	20.0	101	67 - 121	5	30
1,1,2-Trichloroethane	21.5	20.0	107	21.2	20.0	106	81 - 117	1	30
Trichloroethene	20.8	20.0	104	20.9	20.0	104	75 - 122	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207701
Date Analyzed: 11/19/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 318992

Analyte Name	Lab Control Sample RQ1214073-03			Duplicate Lab Control Sample RQ1214073-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Vinyl Chloride	24.1	20.0	121	22.8	20.0	114	68 - 139	6	30
o-Xylene	20.1	20.0	101	20.4	20.0	102	77 - 131	2	30
m,p-Xylenes	40.0	40.0	100	41.6	40.0	104	77 - 124	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Project Name Leica		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager Bob McPeak		Report CC		PRESERVATIVE 1	
Company/Address Energy Solutions				PRESERVATIVE 8	
100 Mill Plain Rd. and Fl. Box 106				METALS, DISSOLVED (List in comments below)	
Danbury, CT. 06811				METALS, TOTAL (List in comments below)	
Phone # 801 303 1092		Email Energy Solutions		PCBs 8082 • 608	
Sampler's Signature Wayne Degalier		Sampler's Printed Name Wayne Degalier		PESTICIDES 8081 • 808	
				GC VOAs 8021 • 801/602	
				GCMS SVOCs 8270 • 625	
				GCMS VOAs 8260 • 624 • CLP	
				REMARKS/ALTERNATE DESCRIPTION	
				PRESERVATIVE KEY	
				0. NONE	
				1. HCl	
				2. HNO3	
				3. H2SO4	
				4. NaOH	
				5. Zn. Acetate	
				6. MeOH	
				7. NaHSO4	
				8. Other ICE	
CLIENT SAMPLE ID		DATE		SAMPLING TIME	
MW 10	11/6/12	15:00	H2O	1	✓
MW 14		15:15			
MW 14 A		15:30			
MW 22		15:30			
MW 22 A		15:35			
MW 6		16:00			
MW 6 A		16:10			
MW 18		16:45			
MW 18 A		16:50			
MW 5	11/7/12	09:00			
MW 5 A		09:10			
SPECIAL INSTRUCTIONS/COMMENTS Metals					
FOR OFFICE USE ONLY LAB ID		DATE		SAMPLING TIME	
MATRIX					
TURNAROUND REQUIREMENTS		RUSH (SURCHARGES APPLY)		REQUESTED REPORT DATE	
I. Results Only		1 day 2 day 3 day		4 day 5 day	
II. Results + QC Summaries (LCS, DUP, MS/MSD as required)		Standard			
III. Results + QC and Calibration Summaries					
IV. Data Validation Report with Raw Data					
RECEIVED BY		RECEIVED BY		RECEIVED BY	
Signature Wayne Degalier		Signature Wayne Degalier		Signature Wayne Degalier	
Printed Name Wayne Degalier		Printed Name Wayne Degalier		Printed Name Wayne Degalier	
Firm Energy Solutions		Firm Energy Solutions		Firm Energy Solutions	
Date/Time 11/7/12 12:00		Date/Time 11/7/12 1:20		Date/Time 11/8/12 14:55	
See QAPP <input type="checkbox"/>		STATE WHERE SAMPLES WERE COLLECTED		RELINQUISHED BY	
RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY	
Signature Wayne Degalier		Signature Wayne Degalier		Signature Wayne Degalier	
Printed Name Wayne Degalier		Printed Name Wayne Degalier		Printed Name Wayne Degalier	
Firm Energy Solutions		Firm Energy Solutions		Firm Energy Solutions	
Date/Time 11/7/12 12:00		Date/Time 11/7/12 1:20		Date/Time 11/8/12 14:55	
INVOICE INFORMATION		REPORT REQUIREMENTS		TURNAROUND REQUIREMENTS	
PO #		I. Results Only		RUSH (SURCHARGES APPLY)	
BILL TO:		II. Results + QC Summaries (LCS, DUP, MS/MSD as required)		1 day 2 day 3 day	
		III. Results + QC and Calibration Summaries		4 day 5 day	
		IV. Data Validation Report with Raw Data		Standard	
				REQUESTED REPORT DATE	
Energy Solutions, Inc.		Edata Yes			
Leica		RELINQUISHED BY			
R1207701 5		Signature Wayne Degalier		Signature Wayne Degalier	
		Printed Name Wayne Degalier		Printed Name Wayne Degalier	
		Firm Energy Solutions		Firm Energy Solutions	
		Date/Time 11/7/12 12:00		Date/Time 11/7/12 1:20	

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Leica		1		PRESERVATIVE 1	
Project Manager		Report CC		PRESERVATIVE 8	
Bob McPeak				8	
Company/Address		Energy Solutions		METALS, TOTAL (List in comments below)	
100 Mill Plain Rd, 2nd Fl, Box 106				METALS, DISSOLVED (List in comments below)	
City/State		Energy Solutions		PCBs	
Danbury, CT				Pesticides	
Phone #		Email		GC VOA's	
801 303 1092		rmp@peakenergysolutions.com		GCMS VOA's	
Sampler's Signature		Sampler's Printed Name		GCMS VOA's	
Wayne Degolier		Wayne Degolier		GCMS VOA's	
FOR OFFICE USE ONLY		DATE		SAMPLING TIME	
CLIENT SAMPLE ID		DATE		MATRIX	
MW 23	012	11/7/12	09:30	H ₂ O	1 ✓
MW 11A	013		10:00		1
MW 16A	014		10:20		1
MW 16B	015		10:45		1
Temp Blank	016				
Trip Blank	017				

SPECIAL INSTRUCTIONS/COMMENTS		TURNAROUND REQUIREMENTS		REPORT REQUIREMENTS		INVOICE INFORMATION	
Metals		RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day Standard		I. Results Only II. Results + QC Summaries (LOS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		PO # BILL TO:	
See QAPP <input type="checkbox"/>		REQUESTED REPORT DATE		Eclata <input checked="" type="checkbox"/> Yes		R1207701 5	
STATE WHERE SAMPLES WERE COLLECTED NY		RECEIVED BY		RELINQUISHED BY		Energy Solutions, Inc. Leica	
RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY		RELINQUISHED BY	
Signature: Wayne Degolier	Signature: Amy Jentsch	Signature: Amy Jentsch	Signature: Amy Jentsch	Signature: Amy Jentsch	Signature: Amy Jentsch	Signature: Amy Jentsch	Signature: Amy Jentsch
Printed Name: Wayne Degolier	Printed Name: Amy Jentsch	Printed Name: Amy Jentsch	Printed Name: Amy Jentsch	Printed Name: Amy Jentsch	Printed Name: Amy Jentsch	Printed Name: Amy Jentsch	Printed Name: Amy Jentsch
Firm: ENVIRO SITE	Firm: ALS	Firm: ALS	Firm: ALS	Firm: ALS	Firm: ALS	Firm: ALS	Firm: ALS
Date/Time: 11/7/12 12:00	Date/Time: 11/12/12 12:00	Date/Time: 11/12/12 14:55	Date/Time: 11/12/12 14:55	Date/Time: 11/12/12 14:55	Date/Time: 11/12/12 14:55	Date/Time: 11/12/12 14:55	Date/Time: 11/12/12 14:55



Cooler Receipt and Preservation Check Form

Project/Client Leica Folder Number R12-7701

Cooler received on 11/8/12 by: AP COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? ALS/ROE, CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
8. Temperature of cooler(s) upon receipt: 2.0°

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: 11/8/12 1457

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location	<u>R-002</u>	by <u>AP</u>	on <u>11/8/12</u>	at <u>1458</u>
5035 samples placed in storage location		by	on	at

PC Secondary Review: 11/27/12 EB

Cooler Breakdown: Date: 11/8/12 Time: 1935 by: AP

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	YES NO		Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK
		YES	NO							
≥2	NaOH									No = Samples were preserved at lab as listed
≤	HNO ₃									
≤	H ₂ SO ₄									
<4	NaHSO ₄									
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)						PM OK to Adjust:
	Na ₂ S ₂ O ₃	-	-			*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet				
	Zn Aceta	-	-							
	HCl	*	*	<u>411100</u>	<u>10/13</u>					

Bottle lot numbers: 2-206-007

Other Comments:

PC Secondary Review: KB 11/27/12

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



November 29, 2012

Service Request No: R1207740

Mr. Robert McPeak
Energy Solutions, Inc.
100 Mill Plain Rd
2nd Floor Mailbox 106
Danbury, CT 06811

Laboratory Results for: Leica/Wells 11/2012

Dear Mr. McPeak:

Enclosed are the results of the sample(s) submitted to our laboratory on November 9, 2012. For your reference, these analyses have been assigned our service request number **R1207740**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Karen.Bunker@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Karen Bunker
Project Manager

Page 1 of 41



ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623

PHONE 585-288-5380 | FAX 585-288-8475

Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company



www.caslab.com • www.alsglobal.com

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COLUMBIA ANALYTICAL SERVICES, INC.

Client: Energy Solutions
Project: Leica Wells
Sample Matrix: Water

Service Request No.: R1207740
Date Received: 11/9/12

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Thirteen (13) samples were collected by the client on 11/8-9/12 and received for analysis at ALS/Columbia Analytical Services on 11/9/12 via CAS Courier.

Volatile Organics

Thirteen (13) water samples including one (1) Trip Blank were analyzed for Volatile Organic compounds by GC/MS method 8260C.

The minimum response factor for the Tetrachloroethane was not met in the run from 11/19/12. The data has been considered acceptable since the MRL has been verified by the low standard in the calibration. The Continuing Calibration criteria were met except for the %D which was outside the $\pm 20\%$ limits for the compound Bromomethane on the 11/19/12 run. Any hits for this compound on the associated CCV should be considered as estimated.

Batch QC is included in the report. All Laboratory Control Sample (LCS) and LCS Duplicate (LCSD) recoveries for target compounds were within QC limits. All Relative Percent Difference (RPD) calculations were acceptable.

All Surrogate recoveries are within acceptance limits.

The Laboratory Method Blanks were free from contamination.

No other problems were encountered during the analysis of these samples.

Approved by



Date



CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1207740

<u>Lab ID</u>	<u>Client ID</u>
R1207740-001	MW 24
R1207740-002	MW 24A
R1207740-003	MW 2A
R1207740-004	MW 29A
R1207740-005	MW 28
R1207740-006	MW 28A
R1207740-007	MW 27
R1207740-008	WM 27A
R1207740-009	MW 26
R1207740-010	MW 26A
R1207740-011	MW 25
R1207740-012	MW 25A
R1207740-013	Trip Blank

REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.



Rochester Lab ID # for State Certifications¹

NELAP Accredited	Maine ID #NY0032	New Hampshire ID #
Connecticut ID # PH0556	Nebraska Accredited	294100 A/B
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://alsglobal.com/environmental/laboratories/rochester-environmental-lab.aspx>

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/ 8/12 1230
Date Received: 11/ 9/12
Date Analyzed: 11/18/12 13:42

Sample Name: MW 24
Lab Code: R1207740-001

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1368.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 10

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	100 U	100	
71-43-2	Benzene	93	50	
75-27-4	Bromodichloromethane	50 U	50	
75-25-2	Bromoform	50 U	50	
74-83-9	Bromomethane	50 U	50	
78-93-3	2-Butanone (MEK)	100 U	100	
75-15-0	Carbon Disulfide	100 U	100	
56-23-5	Carbon Tetrachloride	50 U	50	
108-90-7	Chlorobenzene	50	50	
75-00-3	Chloroethane	270	50	
67-66-3	Chloroform	50 U	50	
74-87-3	Chloromethane	50 U	50	
124-48-1	Dibromochloromethane	50 U	50	
75-34-3	1,1-Dichloroethane	50 U	50	
107-06-2	1,2-Dichloroethane	50 U	50	
75-35-4	1,1-Dichloroethene	50 U	50	
156-59-2	cis-1,2-Dichloroethene	50 U	50	
156-60-5	trans-1,2-Dichloroethene	50 U	50	
78-87-5	1,2-Dichloropropane	50 U	50	
10061-01-5	cis-1,3-Dichloropropene	50 U	50	
10061-02-6	trans-1,3-Dichloropropene	50 U	50	
100-41-4	Ethylbenzene	740	50	
591-78-6	2-Hexanone	100 U	100	
75-09-2	Methylene Chloride	50 U	50	
108-10-1	4-Methyl-2-pentanone (MIBK)	100 U	100	
100-42-5	Styrene	50 U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50 U	50	
127-18-4	Tetrachloroethene	50 U	50	
108-88-3	Toluene	920	50	
71-55-6	1,1,1-Trichloroethane	50 U	50	
79-00-5	1,1,2-Trichloroethane	50 U	50	
79-01-6	Trichloroethene	50 U	50	
75-01-4	Vinyl Chloride	50 U	50	
95-47-6	o-Xylene	340	50	
179601-23-1	m,p-Xylenes	2900	50	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/ 8/12 1230
Date Received: 11/ 9/12
Date Analyzed: 11/18/12 13:42

Sample Name: MW 24
Lab Code: R1207740-001

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA8\DATA\111812\A1368.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 10

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	104	85-122	11/18/12 13:42	
	Toluene-d8	100	87-121	11/18/12 13:42	
	Dibromofluoromethane	102	89-119	11/18/12 13:42	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/ 8/12 1235
Date Received: 11/ 9/12
Date Analyzed: 11/18/12 14:09

Sample Name: MW 24A
Lab Code: R1207740-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1369.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	38	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	74	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	27	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	6.7	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/ 8/12 1235
Date Received: 11/ 9/12
Date Analyzed: 11/18/12 14:09

Sample Name: MW 24A
Lab Code: R1207740-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA8\DATA\111812\A1369.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	106	85-122	11/18/12 14:09	
	Toluene-d8	101	87-121	11/18/12 14:09	
	Dibromofluoromethane	103	89-119	11/18/12 14:09	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/ 8/12 1600
Date Received: 11/ 9/12
Date Analyzed: 11/20/12 00:03

Sample Name: MW 2A
Lab Code: R1207740-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111912\A1426.D\

Analysis Lot: 319166
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	14	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	6.4	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	



COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/ 8/12 1600
Date Received: 11/ 9/12
Date Analyzed: 11/20/12 00:03

Sample Name: MW 2A
Lab Code: R1207740-003

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA8\DATA\111912\A1426.D\

Analysis Lot: 319166
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	101	85-122	11/20/12 00:03	
	Toluene-d8	98	87-121	11/20/12 00:03	
	Dibromofluoromethane	102	89-119	11/20/12 00:03	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 0845
Date Received: 11/9/12
Date Analyzed: 11/18/12 15:05

Sample Name: MW 29A
Lab Code: R1207740-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1371.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.3	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 0845
Date Received: 11/9/12
Date Analyzed: 11/18/12 15:05

Sample Name: MW 29A
Lab Code: R1207740-004

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA8\DATA\111812\A1371.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	105	85-122	11/18/12 15:05	
	Toluene-d8	101	87-121	11/18/12 15:05	
	Dibromofluoromethane	102	89-119	11/18/12 15:05	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 0900
Date Received: 11/9/12
Date Analyzed: 11/18/12 15:32

Sample Name: MW 28
Lab Code: R1207740-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1372.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	42	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	9.2	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 0900
Date Received: 11/9/12
Date Analyzed: 11/18/12 15:32

Sample Name: MW 28
Lab Code: R1207740-005

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA8\DATA\111812\A1372.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	102	85-122	11/18/12 15:32	
	Toluene-d8	99	87-121	11/18/12 15:32	
	Dibromofluoromethane	102	89-119	11/18/12 15:32	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 0905
Date Received: 11/9/12
Date Analyzed: 11/18/12 16:00

Sample Name: MW 28A
Lab Code: R1207740-006

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1373.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	9.3	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/ 9/12 0905
Date Received: 11/ 9/12
Date Analyzed: 11/18/12 16:00

Sample Name: MW 28A
Lab Code: R1207740-006

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA8\DATA\111812\A1373.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	104	85-122	11/18/12 16:00	
	Toluene-d8	101	87-121	11/18/12 16:00	
	Dibromofluoromethane	103	89-119	11/18/12 16:00	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 0915
Date Received: 11/9/12
Date Analyzed: 11/18/12 16:28

Sample Name: MW 27
Lab Code: R1207740-007

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1374.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 0925
Date Received: 11/9/12
Date Analyzed: 11/18/12 16:56

Sample Name: WM 27A
Lab Code: R1207740-008

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1375.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 0925
Date Received: 11/9/12
Date Analyzed: 11/18/12 16:56

Sample Name: WM 27A
Lab Code: R1207740-008

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA8\DATA\111812\A1375.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	101	85-122	11/18/12 16:56	
	Toluene-d8	99	87-121	11/18/12 16:56	
	Dibromofluoromethane	103	89-119	11/18/12 16:56	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 1000
Date Received: 11/9/12
Date Analyzed: 11/18/12 17:24

Sample Name: MW 26
Lab Code: R1207740-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1376.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	12	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	15	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 1000
Date Received: 11/9/12
Date Analyzed: 11/18/12 17:24

Sample Name: MW 26
Lab Code: R1207740-009

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MS\VOA8\DATA\111812\A1376.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	102	85-122	11/18/12 17:24	
	Toluene-d8	99	87-121	11/18/12 17:24	
	Dibromofluoromethane	102	89-119	11/18/12 17:24	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 1010
Date Received: 11/9/12
Date Analyzed: 11/20/12 00:31

Sample Name: MW 26A
Lab Code: R1207740-010

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111912\A1427.D\

Analysis Lot: 319166
Instrument Name: R-MS-08
Dilution Factor: 2

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	20 U	20	
71-43-2	Benzene	10 U	10	
75-27-4	Bromodichloromethane	10 U	10	
75-25-2	Bromoform	10 U	10	
74-83-9	Bromomethane	10 U	10	
78-93-3	2-Butanone (MEK)	20 U	20	
75-15-0	Carbon Disulfide	20 U	20	
56-23-5	Carbon Tetrachloride	10 U	10	
108-90-7	Chlorobenzene	10 U	10	
75-00-3	Chloroethane	10 U	10	
67-66-3	Chloroform	10 U	10	
74-87-3	Chloromethane	10 U	10	
124-48-1	Dibromochloromethane	10 U	10	
75-34-3	1,1-Dichloroethane	10 U	10	
107-06-2	1,2-Dichloroethane	10 U	10	
75-35-4	1,1-Dichloroethene	10 U	10	
156-59-2	cis-1,2-Dichloroethene	150	10	
156-60-5	trans-1,2-Dichloroethene	10 U	10	
78-87-5	1,2-Dichloropropane	10 U	10	
10061-01-5	cis-1,3-Dichloropropene	10 U	10	
10061-02-6	trans-1,3-Dichloropropene	10 U	10	
100-41-4	Ethylbenzene	10 U	10	
591-78-6	2-Hexanone	20 U	20	
75-09-2	Methylene Chloride	10 U	10	
108-10-1	4-Methyl-2-pentanone (MIBK)	20 U	20	
100-42-5	Styrene	10 U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10 U	10	
127-18-4	Tetrachloroethene	10 U	10	
108-88-3	Toluene	10 U	10	
71-55-6	1,1,1-Trichloroethane	10 U	10	
79-00-5	1,1,2-Trichloroethane	10 U	10	
79-01-6	Trichloroethene	10 U	10	
75-01-4	Vinyl Chloride	240	10	
95-47-6	o-Xylene	10 U	10	
179601-23-1	m,p-Xylenes	10 U	10	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 1010
Date Received: 11/9/12
Date Analyzed: 11/20/12 00:31

Sample Name: MW 26A
Lab Code: R1207740-010

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111912\A1427.D\

Analysis Lot: 319166
Instrument Name: R-MS-08
Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	104	85-122	11/20/12 00:31	
	Toluene-d8	100	87-121	11/20/12 00:31	
	Dibromofluoromethane	103	89-119	11/20/12 00:31	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 1030
Date Received: 11/9/12
Date Analyzed: 11/18/12 18:19

Sample Name: MW 25
Lab Code: R1207740-011

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1378.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 1030
Date Received: 11/9/12
Date Analyzed: 11/18/12 18:19

Sample Name: MW 25
Lab Code: R1207740-011

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1378.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	105	85-122	11/18/12 18:19	
	Toluene-d8	104	87-121	11/18/12 18:19	
	Dibromofluoromethane	107	89-119	11/18/12 18:19	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 1040
Date Received: 11/9/12
Date Analyzed: 11/18/12 18:47

Sample Name: MW 25A
Lab Code: R1207740-012

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1379.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	27	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	73	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12 1040
Date Received: 11/9/12
Date Analyzed: 11/18/12 18:47

Sample Name: MW 25A
Lab Code: R1207740-012

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA8\DATA\111812\A1379.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	105	85-122	11/18/12 18:47	
	Toluene-d8	103	87-121	11/18/12 18:47	
	Dibromofluoromethane	105	89-119	11/18/12 18:47	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/ 9/12
Date Received: 11/ 9/12
Date Analyzed: 11/18/12 19:15

Sample Name: Trip Blank
Lab Code: R1207740-013

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\VA1380.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: 11/9/12
Date Received: 11/9/12
Date Analyzed: 11/18/12 19:15

Sample Name: Trip Blank
Lab Code: R1207740-013

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1380.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	102	85-122	11/18/12 19:15	
	Toluene-d8	99	87-121	11/18/12 19:15	
	Dibromofluoromethane	100	89-119	11/18/12 19:15	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: NA
Date Received: NA
Date Analyzed: 11/18/12 12:18

Sample Name: Method Blank
Lab Code: RQ1214058-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\MSVOA8\DATA\111812\A1365.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: NA
Date Received: NA
Date Analyzed: 11/18/12 12:18

Sample Name: Method Blank
Lab Code: RQ1214058-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA8\DATA\111812\A1365.D\

Analysis Lot: 318963
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	103	85-122	11/18/12 12:18	
	Toluene-d8	100	87-121	11/18/12 12:18	
	Dibromofluoromethane	102	89-119	11/18/12 12:18	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: NA
Date Received: NA
Date Analyzed: 11/19/12 23:35

Sample Name: Method Blank
Lab Code: RQ1214138-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA8\DATA\111912\VA1425.D\

Analysis Lot: 319166
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
75-35-4	1,1-Dichloroethene	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
591-78-6	2-Hexanone	10	U	10	
75-09-2	Methylene Chloride	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
127-18-4	Tetrachloroethene	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
79-01-6	Trichloroethene	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Collected: NA
Date Received: NA
Date Analyzed: 11/19/12 23:35

Sample Name: Method Blank
Lab Code: RQ1214138-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA8\DATA\111912\A1425.D\

Analysis Lot: 319166
Instrument Name: R-MS-08
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	102	85-122	11/19/12 23:35	
	Toluene-d8	97	87-121	11/19/12 23:35	
	Dibromofluoromethane	101	89-119	11/19/12 23:35	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Analyzed: 11/18/12

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 318963

**Lab Control Sample
 RQ1214058-04**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Acetone	19.8	20.0	99	64 - 133
Benzene	18.0	20.0	90	78 - 118
Bromodichloromethane	19.0	20.0	95	79 - 123
Bromoform	19.7	20.0	98	69 - 126
Bromomethane	17.2	20.0	86	49 - 124
2-Butanone (MEK)	18.4	20.0	92	60 - 133
Carbon Disulfide	17.0	20.0	85	67 - 138
Carbon Tetrachloride	17.1	20.0	85	64 - 129
Chlorobenzene	17.8	20.0	89	80 - 121
Chloroethane	17.5	20.0	87	72 - 130
Chloroform	18.5	20.0	93	75 - 123
Chloromethane	20.0	20.0	100	55 - 139
Dibromochloromethane	19.1	20.0	95	78 - 127
1,1-Dichloroethane	18.2	20.0	91	76 - 124
1,2-Dichloroethane	18.9	20.0	95	72 - 130
1,1-Dichloroethene	19.2	20.0	96	67 - 119
cis-1,2-Dichloroethene	18.1	20.0	91	77 - 123
trans-1,2-Dichloroethene	18.5	20.0	92	72 - 120
1,2-Dichloropropane	18.6	20.0	93	83 - 119
cis-1,3-Dichloropropene	18.9	20.0	95	77 - 125
trans-1,3-Dichloropropene	18.9	20.0	94	69 - 127
Ethylbenzene	17.6	20.0	88	75 - 123
2-Hexanone	19.6	20.0	98	61 - 131
Methylene Chloride	18.7	20.0	94	73 - 122
4-Methyl-2-pentanone (MIBK)	19.9	20.0	100	61 - 132
Styrene	18.8	20.0	94	80 - 121
1,1,2,2-Tetrachloroethane	19.7	20.0	98	72 - 124
Tetrachloroethene	16.2	20.0	81	71 - 127
Toluene	17.7	20.0	88	77 - 120
1,1,1-Trichloroethane	17.2	20.0	86	67 - 121
1,1,2-Trichloroethane	18.7	20.0	94	81 - 117
Trichloroethene	16.9	20.0	85	75 - 122

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Analyzed: 11/18/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 318963

Lab Control Sample
RQ1214058-04

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	19.1	20.0	95	68 - 139
o-Xylene	18.0	20.0	90	77 - 131
m,p-Xylenes	35.0	40.0	88	77 - 124

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
 Project: Leica/Wells 11/2012
 Sample Matrix: Water

Service Request: R1207740

Date Analyzed: 11/19/12

Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 319166

Lab Control Sample
 RQ1214138-04

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Acetone	23.0	20.0	115	64 - 133
Benzene	20.6	20.0	103	78 - 118
Bromodichloromethane	21.0	20.0	105	79 - 123
Bromoform	20.0	20.0	100	69 - 126
Bromomethane	20.2	20.0	101	49 - 124
2-Butanone (MEK)	19.1	20.0	96	60 - 133
Carbon Disulfide	19.8	20.0	99	67 - 138
Carbon Tetrachloride	21.1	20.0	105	64 - 129
Chlorobenzene	20.1	20.0	101	80 - 121
Chloroethane	21.0	20.0	105	72 - 130
Chloroform	21.0	20.0	105	75 - 123
Chloromethane	21.8	20.0	109	55 - 139
Dibromochloromethane	20.1	20.0	100	78 - 127
1,1-Dichloroethane	21.6	20.0	108	76 - 124
1,2-Dichloroethane	21.3	20.0	107	72 - 130
1,1-Dichloroethene	23.8	20.0	119	67 - 119
cis-1,2-Dichloroethene	20.5	20.0	103	77 - 123
trans-1,2-Dichloroethene	21.5	20.0	108	72 - 120
1,2-Dichloropropane	21.5	20.0	108	83 - 119
cis-1,3-Dichloropropene	20.7	20.0	104	77 - 125
trans-1,3-Dichloropropene	19.7	20.0	99	69 - 127
Ethylbenzene	20.3	20.0	102	75 - 123
2-Hexanone	20.9	20.0	105	61 - 131
Methylene Chloride	20.6	20.0	103	73 - 122
4-Methyl-2-pentanone (MIBK)	20.3	20.0	101	61 - 132
Styrene	21.0	20.0	105	80 - 121
1,1,2,2-Tetrachloroethane	18.7	20.0	93	72 - 124
Tetrachloroethene	19.9	20.0	99	71 - 127
Toluene	20.0	20.0	100	77 - 120
1,1,1-Trichloroethane	21.1	20.0	105	67 - 121
1,1,2-Trichloroethane	20.0	20.0	100	81 - 117
Trichloroethene	21.4	20.0	107	75 - 122

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica/Wells 11/2012
Sample Matrix: Water

Service Request: R1207740
Date Analyzed: 11/19/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 319166

Lab Control Sample
RQ1214138-04

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	21.8	20.0	109	68 - 139
o-Xylene	20.8	20.0	104	77 - 131
m,p-Xylenes	39.9	40.0	100	77 - 124

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 4336

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name Leica		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager Bob McPeak		Report CC		PRESERVATIVE 1	
Company/Address Energy Solutions 100 Mill Plain Rd. 2nd Floor Box 106 Dunbury, CT 06811		Email Energy Solutions		METALS, DISSOLVED (List in comments below)	
Phone # 801 303 1092		Sampler's Printed Name Wayne DeGallier		METALS, TOTAL (List in comments below)	
Samples Signature <i>Wayne DeGallier</i>		FOR OFFICE USE ONLY LAB ID		PCBS • 8082 • 608	
CLIENT SAMPLE ID	DATE	SAMPLING TIME	MATRIX	PESTICIDES • 8021 • 801/802	
MW 24	11/8/12	12:30	H ₂ O	GC VOAS • 8270 • 825	
MW 24 A		12:35		GC/MS SVOAS • 8260 • 824 • CLP	
MW 24 A		16:00		METALS, TOTAL (List in comments below)	
MW 28 A	11/9/12	08:45		METALS, DISSOLVED (List in comments below)	
MW 28 A		09:00		PCBS • 8082 • 608	
MW 27		09:15		PESTICIDES • 8021 • 801/802	
MW 26		09:25		GC VOAS • 8270 • 825	
MW 26 A		10:00		GC/MS SVOAS • 8260 • 824 • CLP	
MW 25		10:10		METALS, TOTAL (List in comments below)	
MW 25		10:30		METALS, DISSOLVED (List in comments below)	

- Preservative Key
0. NONE
 1. HCl
 2. HNO₃
 3. H₂SO₄
 4. NaOH
 5. Zn, Acetate
 6. MeOH
 7. NaHSO₄
 8. Other ICE

REMARKS/
ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals

TURNAROUND REQUIREMENTS
RUSH (SURCHARGES APPLY)
1 day ___ 2 day ___ 3 day ___
4 day ___ 5 day ___
Standard
REQUESTED REPORT DATE

REPORT REQUIREMENTS
I. Results Only
II. Results + QC Summaries (LCS, DUP, MSMSD as required)
III. Results + QC and Calibration Summaries
IV. Data Validation Report with Raw Data

RECEIVED BY
Signature: *[Signature]*
Printed Name: **Wayne DeGallier**
Firm: **ALS**
Date/Time: **11/9/12 12:00**

RECEIVED BY
Signature: *[Signature]*
Printed Name: **Wayne DeGallier**
Firm: **ALS**
Date/Time: **11/9/12 12:00**

See QAPP R1207740 Energy Solutions, Inc. Leica



RELINQUISHED BY
Signature: *[Signature]*
Printed Name: **Wayne DeGallier**
Firm: **ALS**
Date/Time: **11/9/12 12:00**

RELINQUISHED BY
Signature: *[Signature]*
Printed Name: **Wayne DeGallier**
Firm: **ALS**
Date/Time: **11/9/12 12:00**

STATE WHERE SAMPLES WERE COLLECTED
RELINQUISHED BY
Signature: *[Signature]*
Printed Name: **Wayne DeGallier**
Firm: **ALS**
Date/Time: **11/9/12 12:00**



Cooler Receipt and Preservation Check Form

Project/Client Luca Folder Number R1207740

Cooler received on 11/9/12 by: ALT COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? ALS/ROC, CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
8. Temperature of cooler(s) upon receipt: 5.8° 4.4° _____

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N
If No, Explain Below Date/Time Temperatures Taken: 11/9/12 1353

Thermometer ID: IR GUN#3 IR GUN#4 Reading From: Temp Blank Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location R-002 by ALT on 11/9/12 at 1356
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: UB 11/9/12

Cooler Breakdown: Date: 11/9/12 Time: 1438 by: ALT

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	YES NO		Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes = All samples OK No = Samples were preserved at lab as listed PM OK to Adjust:
		YES	NO							
≥2	NaOH									
≤2	HNO ₃									
≤2	H ₂ SO ₄									
<4	NaHSO ₄									
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)						*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet
	Na ₂ S ₂ O ₃	-	-							
	Zn Aceta	-	-							
	HCl	*	*	4111100	10/13					

Bottle lot numbers: 2-2016-002
Other Comments:

PC Secondary Review: UB 11/29/12 *significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



November 16, 2012

Service Request No: R1207489

Mr. Robert McPeak
Energy Solutions, Inc.
100 Mill Plain Rd
2nd Floor Mailbox 106
Danbury, CT 06811

Laboratory Results for: Leica/Wells

Dear Mr. McPeak:

Enclosed are the results of the sample(s) submitted to our laboratory on November 1, 2012. For your reference, these analyses have been assigned our service request number **R1207489**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Karen.Bunker@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Karen Bunker
Project Manager

Page 1 of 18



ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623

PHONE 585-288-5380 | FAX 585-288-8475

Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company

Environmental

www.caslab.com ■ www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

00001

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Energy Solutions
Project: Leica
Sample Matrix: Water

Service Request No.: R1207489
Date Received: 11/1/12

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Two (2) samples were collected by the client on 10/31/12 and received for analysis at ALS/Columbia Analytical Services on 11/1/12 via CAS Courier.

Volatile Organics

Two (2) water samples were analyzed for Volatile Organic compounds by GC/MS method 8260C.

The Initial and Continuing Calibration criteria were met except for the CCV %D for Bromomethane on the 11/7/12 run. Any hits for this compound associated with this CCV should be considered as estimated.

Batch QC is included in the report. All Laboratory Control Sample (LCS) and LCS Duplicate (LCSD) recoveries for target compounds were within QC limits. All Relative Percent Difference (RPD) calculations were acceptable.

All Surrogate recoveries are within acceptance limits.

Hits above the Calibration range of the standards are flagged as "E", estimated. The sample is then repeated at the appropriate dilution for the hit. Both sets of data are included in the report. The subsequent hits on the dilution are flagged as "D".

The Laboratory Method Blanks were free from contamination.

No other problems were encountered during the analysis of these samples.

Approved by



Date



CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1207489

<u>Lab ID</u>	<u>Client ID</u>
R1207489-001	INT-12
R1207489-002	INT-13

REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.



Rochester Lab ID # for State Certifications¹

NELAP Accredited	Maine ID #NY0032	New Hampshire ID #
Connecticut ID # PH0556	Nebraska Accredited	294100 A/B
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://alsglobal.com/environmental/laboratories/rochester-environmental-lab.aspx>

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207489
Date Collected: 10/31/12 1100
Date Received: 11/ 1/12
Date Analyzed: 11/7/12 14:21

Sample Name: INT-12
Lab Code: R1207489-001

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\110712\Z4171.D\

Analysis Lot: 317377
Instrument Name: R-MS-06
Dilution Factor: 10

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	100 U	100	
71-43-2	Benzene	50 U	50	
75-27-4	Bromodichloromethane	50 U	50	
75-25-2	Bromoform	50 U	50	
74-83-9	Bromomethane	50 U	50	
78-93-3	2-Butanone (MEK)	100 U	100	
75-15-0	Carbon Disulfide	100 U	100	
56-23-5	Carbon Tetrachloride	50 U	50	
108-90-7	Chlorobenzene	50 U	50	
75-00-3	Chloroethane	50 U	50	
67-66-3	Chloroform	50 U	50	
74-87-3	Chloromethane	50 U	50	
124-48-1	Dibromochloromethane	50 U	50	
75-34-3	1,1-Dichloroethane	190	50	
107-06-2	1,2-Dichloroethane	50 U	50	
75-35-4	1,1-Dichloroethene	50 U	50	
156-59-2	cis-1,2-Dichloroethene	820	50	
156-60-5	trans-1,2-Dichloroethene	50 U	50	
78-87-5	1,2-Dichloropropane	50 U	50	
10061-01-5	cis-1,3-Dichloropropene	50 U	50	
10061-02-6	trans-1,3-Dichloropropene	50 U	50	
100-41-4	Ethylbenzene	50 U	50	
591-78-6	2-Hexanone	100 U	100	
75-09-2	Methylene Chloride	50 U	50	
108-10-1	4-Methyl-2-pentanone (MIBK)	100 U	100	
100-42-5	Styrene	50 U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50 U	50	
127-18-4	Tetrachloroethene	50 U	50	
108-88-3	Toluene	50 U	50	
71-55-6	1,1,1-Trichloroethane	50 U	50	
79-00-5	1,1,2-Trichloroethane	50 U	50	
79-01-6	Trichloroethene	2400 E	50	
75-01-4	Vinyl Chloride	50 U	50	
95-47-6	o-Xylene	50 U	50	
179601-23-1	m,p-Xylenes	50 U	50	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207489
Date Collected: 10/31/12 1100
Date Received: 11/ 1/12
Date Analyzed: 11/7/12 14:59

Sample Name: INT-12
Lab Code: R1207489-001
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\MSVOA6\DATA\110712\Z4172.D\

Analysis Lot: 317377
Instrument Name: R-MS-06
Dilution Factor: 20

CAS No.	Analyte Name	Result	Q	MRL	Note
67-64-1	Acetone	200	U	200	
71-43-2	Benzene	100	U	100	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
78-93-3	2-Butanone (MEK)	200	U	200	
75-15-0	Carbon Disulfide	200	U	200	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-34-3	1,1-Dichloroethane	200	D	100	
107-06-2	1,2-Dichloroethane	100	U	100	
75-35-4	1,1-Dichloroethene	100	U	100	
156-59-2	cis-1,2-Dichloroethene	810	D	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	
100-41-4	Ethylbenzene	100	U	100	
591-78-6	2-Hexanone	200	U	200	
75-09-2	Methylene Chloride	100	U	100	
108-10-1	4-Methyl-2-pentanone (MIBK)	200	U	200	
100-42-5	Styrene	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
127-18-4	Tetrachloroethene	100	U	100	
108-88-3	Toluene	100	U	100	
71-55-6	1,1,1-Trichloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
79-01-6	Trichloroethene	2400	D	100	
75-01-4	Vinyl Chloride	100	U	100	
95-47-6	o-Xylene	100	U	100	
179601-23-1	m,p-Xylenes	100	U	100	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207489
Date Collected: 10/31/12 1130
Date Received: 11/1/12
Date Analyzed: 11/7/12 13:15

Sample Name: INT-13
Lab Code: R1207489-002

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\110712\Z4169.D\

Analysis Lot: 317377
Instrument Name: R-MS-06
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	69	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	11	5.0	
156-59-2	cis-1,2-Dichloroethene	49	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	25	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	220 E	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207489
Date Collected: 10/31/12 1130
Date Received: 11/1/12
Date Analyzed: 11/7/12 13:46

Sample Name: INT-13
Lab Code: R1207489-002
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUDATA\MSVOA6\DATA\110712\Z4170.D\

Analysis Lot: 317377
Instrument Name: R-MS-06
Dilution Factor: 2

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	20 U	20	
71-43-2	Benzene	10 U	10	
75-27-4	Bromodichloromethane	10 U	10	
75-25-2	Bromoform	10 U	10	
74-83-9	Bromomethane	10 U	10	
78-93-3	2-Butanone (MEK)	20 U	20	
75-15-0	Carbon Disulfide	20 U	20	
56-23-5	Carbon Tetrachloride	10 U	10	
108-90-7	Chlorobenzene	10 U	10	
75-00-3	Chloroethane	10 U	10	
67-66-3	Chloroform	10 U	10	
74-87-3	Chloromethane	10 U	10	
124-48-1	Dibromochloromethane	10 U	10	
75-34-3	1,1-Dichloroethane	66 D	10	
107-06-2	1,2-Dichloroethane	10 U	10	
75-35-4	1,1-Dichloroethene	10 D	10	
156-59-2	cis-1,2-Dichloroethene	44 D	10	
156-60-5	trans-1,2-Dichloroethene	10 U	10	
78-87-5	1,2-Dichloropropane	10 U	10	
10061-01-5	cis-1,3-Dichloropropene	10 U	10	
10061-02-6	trans-1,3-Dichloropropene	10 U	10	
100-41-4	Ethylbenzene	10 U	10	
591-78-6	2-Hexanone	20 U	20	
75-09-2	Methylene Chloride	10 U	10	
108-10-1	4-Methyl-2-pentanone (MIBK)	20 U	20	
100-42-5	Styrene	10 U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10 U	10	
127-18-4	Tetrachloroethene	10 U	10	
108-88-3	Toluene	10 U	10	
71-55-6	1,1,1-Trichloroethane	23 D	10	
79-00-5	1,1,2-Trichloroethane	10 U	10	
79-01-6	Trichloroethene	210 D	10	
75-01-4	Vinyl Chloride	10 U	10	
95-47-6	o-Xylene	10 U	10	
179601-23-1	m,p-Xylenes	10 U	10	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207489
Date Collected: 10/31/12 1130
Date Received: 11/ 1/12
Date Analyzed: 11/7/12 13:46

Sample Name: INT-13
Lab Code: R1207489-002
Run Type: Dilution

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQU\DATA\MSVOA6\DATA\110712\Z4170.D\

Analysis Lot: 317377
Instrument Name: R-MS-06
Dilution Factor: 2

CAS No.	Analyte Name	Result	Q	MRL	Note
	Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
	4-Bromofluorobenzene	103	85-122	11/7/12 13:46	
	Toluene-d8	99	87-121	11/7/12 13:46	
	Dibromofluoromethane	103	89-119	11/7/12 13:46	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207489
Date Collected: NA
Date Received: NA
Date Analyzed: 11/7/12 12:11

Sample Name: Method Blank
Lab Code: RQ1213517-03

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: I:\ACQUATA\MSVOA6\DATA\110712\Z4167.D\

Analysis Lot: 317377
Instrument Name: R-MS-06
Dilution Factor: 1

CAS No.	Analyte Name	Result Q	MRL	Note
67-64-1	Acetone	10 U	10	
71-43-2	Benzene	5.0 U	5.0	
75-27-4	Bromodichloromethane	5.0 U	5.0	
75-25-2	Bromoform	5.0 U	5.0	
74-83-9	Bromomethane	5.0 U	5.0	
78-93-3	2-Butanone (MEK)	10 U	10	
75-15-0	Carbon Disulfide	10 U	10	
56-23-5	Carbon Tetrachloride	5.0 U	5.0	
108-90-7	Chlorobenzene	5.0 U	5.0	
75-00-3	Chloroethane	5.0 U	5.0	
67-66-3	Chloroform	5.0 U	5.0	
74-87-3	Chloromethane	5.0 U	5.0	
124-48-1	Dibromochloromethane	5.0 U	5.0	
75-34-3	1,1-Dichloroethane	5.0 U	5.0	
107-06-2	1,2-Dichloroethane	5.0 U	5.0	
75-35-4	1,1-Dichloroethene	5.0 U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0 U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0 U	5.0	
78-87-5	1,2-Dichloropropane	5.0 U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	5.0	
100-41-4	Ethylbenzene	5.0 U	5.0	
591-78-6	2-Hexanone	10 U	10	
75-09-2	Methylene Chloride	5.0 U	5.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	10	
100-42-5	Styrene	5.0 U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	5.0	
127-18-4	Tetrachloroethene	5.0 U	5.0	
108-88-3	Toluene	5.0 U	5.0	
71-55-6	1,1,1-Trichloroethane	5.0 U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0 U	5.0	
79-01-6	Trichloroethene	5.0 U	5.0	
75-01-4	Vinyl Chloride	5.0 U	5.0	
95-47-6	o-Xylene	5.0 U	5.0	
179601-23-1	m,p-Xylenes	5.0 U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207489
Date Analyzed: 11/ 7/12

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 317377

**Lab Control Sample
 RQ1213517-04**

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Acetone	19.7	20.0	98	64 - 133
Benzene	19.8	20.0	99	78 - 118
Bromodichloromethane	22.1	20.0	110	79 - 123
Bromoform	22.2	20.0	111	69 - 126
Bromomethane	13.6	20.0	68	49 - 124
2-Butanone (MEK)	15.4	20.0	77	60 - 133
Carbon Disulfide	19.0	20.0	95	67 - 138
Carbon Tetrachloride	22.4	20.0	112	64 - 129
Chlorobenzene	20.8	20.0	104	80 - 121
Chloroethane	17.9	20.0	90	72 - 130
Chloroform	21.0	20.0	105	75 - 123
Chloromethane	18.3	20.0	92	55 - 139
Dibromochloromethane	22.1	20.0	110	78 - 127
1,1-Dichloroethane	19.9	20.0	100	76 - 124
1,2-Dichloroethane	22.1	20.0	111	72 - 130
1,1-Dichloroethene	21.9	20.0	110	67 - 119
cis-1,2-Dichloroethene	19.9	20.0	99	77 - 123
trans-1,2-Dichloroethene	19.3	20.0	97	72 - 120
1,2-Dichloropropane	19.1	20.0	96	83 - 119
cis-1,3-Dichloropropene	19.4	20.0	97	77 - 125
trans-1,3-Dichloropropene	21.1	20.0	105	69 - 127
Ethylbenzene	20.4	20.0	102	75 - 123
2-Hexanone	18.6	20.0	93	61 - 131
Methylene Chloride	19.8	20.0	99	73 - 122
4-Methyl-2-pentanone (MIBK)	18.7	20.0	94	61 - 132
Styrene	20.9	20.0	104	80 - 121
1,1,2,2-Tetrachloroethane	21.3	20.0	107	72 - 124
Tetrachloroethene	21.6	20.0	108	71 - 127
Toluene	21.2	20.0	106	77 - 120
1,1,1-Trichloroethane	21.6	20.0	108	67 - 121
1,1,2-Trichloroethane	22.3	20.0	111	81 - 117
Trichloroethene	21.1	20.0	105	75 - 122

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica/Wells
Sample Matrix: Water

Service Request: R1207489
Date Analyzed: 11/ 7/12

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L

Basis: NA

Analysis Lot: 317377

Lab Control Sample

RQ1213517-04

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Vinyl Chloride	20.5	20.0	103	68 - 139
o-Xylene	20.5	20.0	102	77 - 131
m,p-Xylenes	42.0	40.0	105	77 - 124

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Project Name Leica		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)	
Project Manager Bob McPeak		Report CC		PRESERVATIVE 1	
Company/Address EnergySolutions 100 Mill Plain Rd Danbury, CT, 06811				PREPARATION 8	
Phone # 801-303-1092		Email RMcPeak@energysolutions.com		METALS, TOTAL (List in comments below)	
Sampler's Signature Wayne Decolier		Sampler's Printed Name Wayne Decolier		METALS, DISSOLVED (List in comments below)	
FOR OFFICE USE ONLY LAB ID		DATE		PCBS ° 8082 ° 808	
CLIENT SAMPLE ID	SAMPLING TIME	MATRIX		PESTICIDES ° 8021 ° 801/802	
IANT-12	10/31/12 11:00	H₂O		GC VOAs ° 8270 ° 825	
IANT-13	10/31/12 11:30	H₂O		GC/MS SVoAs ° 8260 ° 824 ° CLP	
				REMARKS/ALTERNATE DESCRIPTION	
				Some sediment 1st vial for each well was clear.	
				waited about a hr for recovery to get all three vials for each well	
SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day — 2 day — 3 day 4 day — 5 day Regular		REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with	
See QAPP <input type="checkbox"/>		REQUESTED REPORT DATE		INVOICE INFORMATION PO # BILL TO:	
STATE WHERE SAMPLES WERE COLLECTED NY		RECEIVED BY Wayne Decolier Signature Wayne Decolier Printed Name ALS Firm		RELINQUISHED BY Amy Hentschke Signature Amy Hentschke Printed Name ALS Firm	
DATE/TIME 11/12 12:00		DATE/TIME 11/12 12:00		EDATA Yes <input type="checkbox"/> No <input type="checkbox"/>	
DATE/TIME 11/12 12:00		DATE/TIME 11/12 10:25		RELINQUISHED BY R1207489 Leica Energy Solutions, Inc.	

00017



Cooler Receipt and Preservation Check Form

Project/Client Leica Folder Number R12-7484

Cooler received on 11/1/12 by: AKK COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES* NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? ALS/ROC CLIENT
7. Temperature of cooler(s) upon receipt: 0.2°

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 11/1/12 1541

Thermometer ID: IR GUN#3 IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location R-002 by AKK on 11/1/12 at 1547
 5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: 11/1/12

Cooler Breakdown: Date: 11/1/12 Time: 2000 by: SPW

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

pH	Reagent			Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
		YES	NO						
≥12	NaOH								
≤2	HNO ₃								
≤2	H ₂ SO ₄								
<4	NaHSO ₄								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	Na ₂ S ₂ O ₃	-	-			*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet			
	Zn Aceta	-	-						
	HCl	*	*	411100	8/15				

Yes = All samples OK
 No = Samples were preserved at lab as listed
 PM OK to Adjust: _____

Bottle lot numbers: 2-143-001

Other Comments: 2 vials for TB w/ bubbles

PC Secondary Review: 11/1/12 *significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter
 H:\SMODOCS\Cooler Receipt 5.doc



October 08, 2012

Service Request No: R1206262

Mr. Robert McPeak
Energy Solutions, Inc.
100 Mill Plain Rd
2nd Floor Mailbox 106
Danbury, CT 06811

Laboratory Results for: Leica Airs 9/17,19/12

Dear Mr. McPeak:

Enclosed are the results of the sample(s) submitted to our laboratory between September 19, 2012 and September 21, 2012. For your reference, these analyses have been assigned our service request number **R1206262**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Karen.Bunker@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Karen Bunker
Project Manager

Page 1 of 71



ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623

PHONE 585-288-5380 | FAX 585-288-8475

Columbia Analytical Services, Inc.

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RIGHT SOLUTIONS RIGHT PARTNER

00001

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Energy Solutions
Project: Leica Airs 9/19,20/2012
Sample Matrix: Water

Service Request No.: R1206262
Date Received: 9/19,21/12

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Twenty-two (22) samples were collected by the client over the period from 9/19-20/12 and received for analysis at Columbia Analytical Services on 9/19/12 and 9/21/12 via CAS Courier. The sample canisters were received in good condition.

Volatile Organics

Twenty-two (22) air samples were analyzed for Volatile Organic compounds by GC/MS method TO-15.

The Initial and Continuing Calibration criteria were met.

Batch QC is included in the report. All Laboratory Control Sample (LCS) and LCS Duplicate (LCSD) recoveries for target compounds were within QC limits. All Relative Percent Difference (RPD) calculations were acceptable.

All Surrogate recoveries are within acceptance limits.

Hits between the Minimum Detection Limit and (MDL) and Minimum Reporting Limit (MRL) have been flagged as "J", estimated.

Hits above the Calibration range of the standards are flagged as "E", estimated. The sample is then repeated at the appropriate dilution for the hit. Both sets of data are included in the report. The subsequent hits on the dilution are flagged as "D".

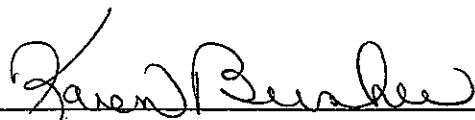
The Laboratory Method Blanks were free from contamination.

No other problems were encountered during the analysis of these samples.

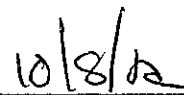
Subcontracted Analyses

Seven (7) sample canisters were subcontracted to the ALS/CAS Simi Valley laboratory after the TO-15 analysis done in Rochester to analyze for Helium. Their report is included in its entirety immediately following the Rochester report.

Approved by



Date



CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1206262

<u>Lab ID</u>	<u>Client ID</u>
R1206262-001	SS-30MIN-036
R1206262-002	SS-30MIN-032
R1206262-003	SS-30MIN-033
R1206262-004	SS-30MIN-034
R1206262-005	SS-8HR-040
R1206262-006	AA-8HR-040
R1206262-007	SS-8HR-041
R1206262-008	AA-8HR-041
R1206262-009	SS-8HR-41 DUP
R1206262-010	SS-8HR-037
R1206262-011	SS-8HR-045
R1206262-012	AA-8HR-045
R1206262-013	AA-8HR-042
R1206262-014	SS-8HR-042
R1206262-015	SS-30MIN-035
R1206262-016	SS-30MIN-037
R1206262-017	SS-8HR-038
R1206262-018	SS-8HR-039
R1206262-019	SS-8HR-043
R1206262-020	AA-8HR-043
R1206262-021	SS-8HR-044
R1206262-022	AA-8HR-044

Samples have been subcontracted to the following laboratory(ies). The subcontractor's analytical report is attached:

Columbia Analytical Services, Inc. - SIMIVALLE
Simi Valley, CA

00003

REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.



CAS/Rochester Lab ID # for State Certifications¹

NELAP Accredited
Connecticut ID # PH0556
Delaware Accredited
DoD ELAP #65817
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Nebraska Accredited

Nevada ID # NY-00032
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
North Carolina #676
Pennsylvania ID# 68-786
Rhode Island ID # 158
Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-30MIN-036
Lab Code: R1206262-001

Service Request: R1206262
Date Collected: 9/19/12 0900
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1557
Canister Dilution Factor: 1.71

Initial Pressure (psig): -3.98 Final Pressure (psig): 3.62

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	70	11	11	5.3	5.3	U
75-01-4	Vinyl Chloride	70	1.5	1.5	0.57	0.57	U
74-83-9	Bromomethane	70	11	11	2.7	2.7	U
75-00-3	Chloroethane	70	14	14	5.4	5.4	U
67-64-1	Acetone	70	290	120	120	51	
75-69-4	Trichlorofluoromethane (CFC 11)	70	15	15	2.7	2.7	U
75-35-4	1,1-Dichloroethene	70	11	11	2.7	2.7	U
75-09-2	Methylene Chloride	70	9.3	9.3	2.7	2.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	70	46	4.2	6.0	0.54	
75-15-0	Carbon Disulfide	70	19	8.3	6.2	2.7	
156-60-5	trans-1,2-Dichloroethene	70	11	11	2.7	2.7	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	70	17	11	4.3	2.7	
1634-04-4	Methyl tert-Butyl Ether	70	19	19	5.4	5.4	U
108-05-4	Vinyl Acetate	70	120	120	35	35	U
78-93-3	2-Butanone (MEK)	70	25	16	8.4	5.4	
156-59-2	cis-1,2-Dichloroethene	70	11	11	2.7	2.7	U
67-66-3	Chloroform	70	13	13	2.7	2.7	U
107-06-2	1,2-Dichloroethane	70	11	11	2.7	2.7	U
71-55-6	1,1,1-Trichloroethane (TCA)	70	1400	15	260	2.7	E
71-43-2	Benzene	70	140	8.6	44	2.7	
56-23-5	Carbon Tetrachloride	70	1.7	1.7	0.27	0.27	U
78-87-5	1,2-Dichloropropane	70	12	12	2.7	2.7	U
75-27-4	Bromodichloromethane	70	3.7	3.7	0.55	0.55	U
79-01-6	Trichloroethene (TCE)	70	520	1.5	98	0.27	
10061-01-5	cis-1,3-Dichloropropene	70	24	24	5.4	5.4	U
108-10-1	4-Methyl-2-pentanone	70	22	22	5.4	5.4	U
10061-02-6	trans-1,3-Dichloropropene	70	12	12	2.7	2.7	U
79-00-5	1,1,2-Trichloroethane	70	15	15	2.7	2.7	U
108-88-3	Toluene	70	370	10	97	2.7	
591-78-6	2-Hexanone	70	11	11	2.7	2.7	U
124-48-1	Dibromochloromethane	70	4.6	4.6	0.55	0.55	U
106-93-4	1,2-Dibromoethane	70	4.2	4.2	0.54	0.54	U
127-18-4	Tetrachloroethene (PCE)	70	5.3	2.0	0.78	0.29	
108-90-7	Chlorobenzene	70	12	12	2.7	2.7	U
100-41-4	Ethylbenzene	70	45	23	10	5.3	
179601-23-1	m,p-Xylenes	70	260	47	61	11	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-30MIN-036
Lab Code: R1206262-001

Service Request: R1206262
Date Collected: 9/19/12 0900
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1557
Canister Dilution Factor: 1.71

Initial Pressure (psig): -3.98 Final Pressure (psig): 3.62

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	70	28	28	2.7	2.7	U
100-42-5	Styrene	70	23	23	5.4	5.4	U
95-47-6	o-Xylene	70	87	23	20	5.3	
79-34-5	1,1,2,2-Tetrachloroethane	70	3.7	3.7	0.53	0.53	U
541-73-1	1,3-Dichlorobenzene	70	32	32	5.4	5.4	U
106-46-7	1,4-Dichlorobenzene	70	32	32	5.4	5.4	U
95-50-1	1,2-Dichlorobenzene	70	32	32	5.4	5.4	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	109	70-130	9/21/12 1557	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-30MIN-036
Lab Code: R1206262-001
Run Type: Dilution

Service Request: R1206262
Date Collected: 9/19/12 0900
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1639
Canister Dilution Factor: 1.71

Initial Pressure (psig): -3.98 Final Pressure (psig): 3.62

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	50	15	15	7.5	7.5	U
75-01-4	Vinyl Chloride	50	2.1	2.1	0.80	0.80	U
74-83-9	Bromomethane	50	15	15	3.8	3.8	U
75-00-3	Chloroethane	50	20	20	7.5	7.5	U
67-64-1	Acetone	50	280	170	120	72	D
75-69-4	Trichlorofluoromethane (CFC 11)	50	21	21	3.8	3.8	U
75-35-4	1,1-Dichloroethene	50	15	15	3.8	3.8	U
75-09-2	Methylene Chloride	50	13	13	3.7	3.7	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	50	46	5.8	6.0	0.76	D
75-15-0	Carbon Disulfide	50	19	12	6.1	3.7	D
156-60-5	trans-1,2-Dichloroethene	50	15	15	3.8	3.8	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	17	15	4.2	3.8	D
1634-04-4	Methyl tert-Butyl Ether	50	27	27	7.5	7.5	U
108-05-4	Vinyl Acetate	50	170	170	49	49	U
78-93-3	2-Butanone (MEK)	50	23	22	8.0	7.5	D
156-59-2	cis-1,2-Dichloroethene	50	15	15	3.8	3.8	U
67-66-3	Chloroform	50	18	18	3.8	3.8	U
107-06-2	1,2-Dichloroethane	50	15	15	3.8	3.8	U
71-55-6	1,1,1-Trichloroethane (TCA)	50	1500	21	270	3.8	D
71-43-2	Benzene	50	140	12	45	3.7	D
56-23-5	Carbon Tetrachloride	50	2.4	2.4	0.38	0.38	U
78-87-5	1,2-Dichloropropane	50	17	17	3.8	3.8	U
75-27-4	Bromodichloromethane	50	5.1	5.1	0.77	0.77	U
79-01-6	Trichloroethene (TCE)	50	550	2.1	100	0.38	D
10061-01-5	cis-1,3-Dichloropropene	50	34	34	7.5	7.5	U
108-10-1	4-Methyl-2-pentanone	50	31	31	7.5	7.5	U
10061-02-6	trans-1,3-Dichloropropene	50	17	17	3.8	3.8	U
79-00-5	1,1,2-Trichloroethane	50	21	21	3.8	3.8	U
108-88-3	Toluene	50	380	14	100	3.7	D
591-78-6	2-Hexanone	50	15	15	3.8	3.8	U
124-48-1	Dibromochloromethane	50	6.5	6.5	0.76	0.76	U
106-93-4	1,2-Dibromoethane	50	5.8	5.8	0.76	0.76	U
127-18-4	Tetrachloroethene (PCE)	50	5.1	2.7	0.76	0.40	D
108-90-7	Chlorobenzene	50	17	17	3.8	3.8	U
100-41-4	Ethylbenzene	50	46	32	11	7.5	D
179601-23-1	m,p-Xylenes	50	270	65	62	15	D

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-30MIN-036
Lab Code: R1206262-001
Run Type: Dilution

Service Request: R1206262
Date Collected: 9/19/12 0900
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1639
Canister Dilution Factor: 1.71

Initial Pressure (psig): -3.98 Final Pressure (psig): 3.62

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	50	39	39	3.8	3.8	U
100-42-5	Styrene	50	32	32	7.6	7.6	U
95-47-6	o-Xylene	50	89	32	20	7.5	D
79-34-5	1,1,2,2-Tetrachloroethane	50	5.1	5.1	0.75	0.75	U
541-73-1	1,3-Dichlorobenzene	50	45	45	7.5	7.5	U
106-46-7	1,4-Dichlorobenzene	50	45	45	7.5	7.5	U
95-50-1	1,2-Dichlorobenzene	50	45	45	7.5	7.5	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	109	70-130	9/21/12 1639	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: SS-30MIN-032
 Lab Code: R1206262-002

Service Request: R1206262
 Date Collected: 9/19/12 0945
 Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1805
 Canister Dilution Factor: 1.51

Initial Pressure (psig): -2.65 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	50	14	14	6.6	6.6	U
75-01-4	Vinyl Chloride	50	1.8	1.8	0.71	0.71	U
74-83-9	Bromomethane	50	13	13	3.3	3.3	U
75-00-3	Chloroethane	50	18	18	6.6	6.6	U
67-64-1	Acetone	50	430	150	180	64	
75-69-4	Trichlorofluoromethane (CFC 11)	50	19	19	3.3	3.3	U
75-35-4	1,1-Dichloroethene	50	13	13	3.4	3.4	U
75-09-2	Methylene Chloride	50	11	11	3.3	3.3	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	50	5.1	5.1	0.67	0.67	U
75-15-0	Carbon Disulfide	50	10	10	3.3	3.3	U
156-60-5	trans-1,2-Dichloroethene	50	13	13	3.4	3.4	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	14	14	3.4	3.4	U
1634-04-4	Methyl tert-Butyl Ether	50	24	24	6.6	6.6	U
108-05-4	Vinyl Acetate	50	150	150	43	43	U
78-93-3	2-Butanone (MEK)	50	22	20	7.4	6.7	
156-59-2	cis-1,2-Dichloroethene	50	13	13	3.4	3.4	U
67-66-3	Chloroform	50	16	16	3.3	3.3	U
107-06-2	1,2-Dichloroethane	50	14	14	3.4	3.4	U
71-55-6	1,1,1-Trichloroethane (TCA)	50	18	18	3.3	3.3	U
71-43-2	Benzene	50	140	11	42	3.3	
56-23-5	Carbon Tetrachloride	50	2.1	2.1	0.34	0.34	U
78-87-5	1,2-Dichloropropane	50	15	15	3.3	3.3	U
75-27-4	Bromodichloromethane	50	4.5	4.5	0.68	0.68	U
79-01-6	Trichloroethene (TCE)	50	24	1.8	4.5	0.34	
10061-01-5	cis-1,3-Dichloropropene	50	30	30	6.7	6.7	U
108-10-1	4-Methyl-2-pentanone	50	27	27	6.6	6.6	U
10061-02-6	trans-1,3-Dichloropropene	50	15	15	3.3	3.3	U
79-00-5	1,1,2-Trichloroethane	50	18	18	3.3	3.3	U
108-88-3	Toluene	50	320	12	85	3.3	
591-78-6	2-Hexanone	50	14	14	3.3	3.3	U
124-48-1	Dibromochloromethane	50	5.7	5.7	0.67	0.67	U
106-93-4	1,2-Dibromoethane	50	5.1	5.1	0.67	0.67	U
127-18-4	Tetrachloroethene (PCE)	50	2.4	2.4	0.36	0.36	U
108-90-7	Chlorobenzene	50	15	15	3.3	3.3	U
100-41-4	Ethylbenzene	50	42	29	9.6	6.6	
179601-23-1	m,p-Xylenes	50	200	58	46	13	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-30MIN-032
Lab Code: R1206262-002

Service Request: R1206262
Date Collected: 9/19/12 0945
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1805
Canister Dilution Factor: 1.51

Initial Pressure (psig): -2.65 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	50	34	34	3.3	3.3	U
100-42-5	Styrene	50	28	28	6.7	6.7	U
95-47-6	o-Xylene	50	69	29	16	6.6	
79-34-5	1,1,2,2-Tetrachloroethane	50	4.5	4.5	0.66	0.66	U
541-73-1	1,3-Dichlorobenzene	50	40	40	6.6	6.6	U
106-46-7	1,4-Dichlorobenzene	50	40	40	6.6	6.6	U
95-50-1	1,2-Dichlorobenzene	50	40	40	6.6	6.6	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	110	70-130	9/21/12 1805	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-30MIN-033
Lab Code: R1206262-003

Service Request: R1206262
Date Collected: 9/19/12 0910
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1847
Canister Dilution Factor: 1.34

Initial Pressure (psig): -1.13 Final Pressure (psig): 3.54

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	50	12	12	5.8	5.8	U
75-01-4	Vinyl Chloride	50	1.6	1.6	0.63	0.63	U
74-83-9	Bromomethane	50	12	12	3.0	3.0	U
75-00-3	Chloroethane	50	16	16	5.9	5.9	U
67-64-1	Acetone	50	560	130	230	56	
75-69-4	Trichlorofluoromethane (CFC 11)	50	17	17	3.0	3.0	U
75-35-4	1,1-Dichloroethene	50	12	12	3.0	3.0	U
75-09-2	Methylene Chloride	50	10	10	2.9	2.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	50	10	4.6	1.4	0.59	
75-15-0	Carbon Disulfide	50	9.1	9.1	2.9	2.9	U
156-60-5	trans-1,2-Dichloroethene	50	12	12	3.0	3.0	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	12	12	3.0	3.0	U
1634-04-4	Methyl tert-Butyl Ether	50	21	21	5.9	5.9	U
108-05-4	Vinyl Acetate	50	130	130	38	38	U
78-93-3	2-Butanone (MEK)	50	17	17	5.9	5.9	U
156-59-2	cis-1,2-Dichloroethene	50	12	12	3.0	3.0	U
67-66-3	Chloroform	50	14	14	3.0	3.0	U
107-06-2	1,2-Dichloroethane	50	12	12	3.0	3.0	U
71-55-6	1,1,1-Trichloroethane (TCA)	50	41	16	7.5	2.9	
71-43-2	Benzene	50	67	9.4	21	2.9	
56-23-5	Carbon Tetrachloride	50	1.9	1.9	0.30	0.30	U
78-87-5	1,2-Dichloropropane	50	14	14	3.0	3.0	U
75-27-4	Bromodichloromethane	50	4.0	4.0	0.60	0.60	U
79-01-6	Trichloroethene (TCE)	50	390	1.6	73	0.30	
10061-01-5	cis-1,3-Dichloropropene	50	27	27	5.9	5.9	U
108-10-1	4-Methyl-2-pentanone	50	24	24	5.9	5.9	U
10061-02-6	trans-1,3-Dichloropropene	50	13	13	3.0	3.0	U
79-00-5	1,1,2-Trichloroethane	50	16	16	2.9	2.9	U
108-88-3	Toluene	50	240	11	65	2.9	
591-78-6	2-Hexanone	50	12	12	2.9	2.9	U
124-48-1	Dibromochloromethane	50	5.1	5.1	0.60	0.60	U
106-93-4	1,2-Dibromoethane	50	4.6	4.6	0.59	0.59	U
127-18-4	Tetrachloroethene (PCE)	50	4.7	2.1	0.69	0.32	
108-90-7	Chlorobenzene	50	14	14	3.0	3.0	U
100-41-4	Ethylbenzene	50	35	25	8.1	5.9	
179601-23-1	m,p-Xylenes	50	170	51	38	12	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-30MIN-033
Lab Code: R1206262-003

Service Request: R1206262
Date Collected: 9/19/12 0910
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1847
Canister Dilution Factor: 1.34

Initial Pressure (psig): -1.13 Final Pressure (psig): 3.54

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	50	31	31	3.0	3.0	U
100-42-5	Styrene	50	25	25	5.9	5.9	U
95-47-6	o-Xylene	50	37	25	8.6	5.9	
79-34-5	1,1,2,2-Tetrachloroethane	50	4.0	4.0	0.59	0.59	U
541-73-1	1,3-Dichlorobenzene	50	35	35	5.9	5.9	U
106-46-7	1,4-Dichlorobenzene	50	35	35	5.9	5.9	U
95-50-1	1,2-Dichlorobenzene	50	35	35	5.9	5.9	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	109	70-130	9/21/12 1847	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: SS-30MIN-034
 Lab Code: R1206262-004

Service Request: R1206262
 Date Collected: 9/19/12 0915
 Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1514
 Canister Dilution Factor: 1.42

Initial Pressure (psig): -1.87 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	9.9	65	65	31	31	U
75-01-4	Vinyl Chloride	9.9	8.6	8.6	3.4	3.4	U
74-83-9	Bromomethane	9.9	62	62	16	16	U
75-00-3	Chloroethane	9.9	83	83	32	32	U
67-64-1	Acetone	9.9	720	720	300	300	U
75-69-4	Trichlorofluoromethane (CFC 11)	9.9	89	89	16	16	U
75-35-4	1,1-Dichloroethene	9.9	63	63	16	16	U
75-09-2	Methylene Chloride	9.9	55	55	16	16	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	9.9	24	24	3.2	3.2	U
75-15-0	Carbon Disulfide	9.9	49	49	16	16	U
156-60-5	trans-1,2-Dichloroethene	9.9	300	63	75	16	
75-34-3	1,1-Dichloroethane (1,1-DCA)	9.9	65	65	16	16	U
1634-04-4	Methyl tert-Butyl Ether	9.9	110	110	31	31	U
108-05-4	Vinyl Acetate	9.9	720	720	200	200	U
78-93-3	2-Butanone (MEK)	9.9	93	93	32	32	U
156-59-2	cis-1,2-Dichloroethene	9.9	1700	63	420	16	
67-66-3	Chloroform	9.9	77	77	16	16	U
107-06-2	1,2-Dichloroethane	9.9	65	65	16	16	U
71-55-6	1,1,1-Trichloroethane (TCA)	9.9	86	86	16	16	U
71-43-2	Benzene	9.9	63	50	20	16	
56-23-5	Carbon Tetrachloride	9.9	10	10	1.6	1.6	U
78-87-5	1,2-Dichloropropane	9.9	73	73	16	16	U
75-27-4	Bromodichloromethane	9.9	22	22	3.2	3.2	U
79-01-6	Trichloroethene (TCE)	9.9	8400	8.6	1600	1.6	E
10061-01-5	cis-1,3-Dichloropropene	9.9	140	140	32	32	U
108-10-1	4-Methyl-2-pentanone	9.9	130	130	32	32	U
10061-02-6	trans-1,3-Dichloropropene	9.9	72	72	16	16	U
79-00-5	1,1,2-Trichloroethane	9.9	86	86	16	16	U
108-88-3	Toluene	9.9	270	59	70	16	
591-78-6	2-Hexanone	9.9	65	65	16	16	U
124-48-1	Dibromochloromethane	9.9	27	27	3.2	3.2	U
106-93-4	1,2-Dibromoethane	9.9	24	24	3.2	3.2	U
127-18-4	Tetrachloroethene (PCE)	9.9	11	11	1.7	1.7	U
108-90-7	Chlorobenzene	9.9	73	73	16	16	U
100-41-4	Ethylbenzene	9.9	140	140	31	31	U
179601-23-1	m,p-Xylenes	9.9	270	270	63	63	U

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-30MIN-034
Lab Code: R1206262-004

Service Request: R1206262
Date Collected: 9/19/12 0915
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1208
Canister Dilution Factor: 1.42

Initial Pressure (psig): -1.87 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m ³	MRL µg/m ³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	9.9	160	160	16	16	U
100-42-5	Styrene	9.9	130	130	32	32	U
95-47-6	o-Xylene	9.9	140	140	31	31	U
79-34-5	1,1,2,2-Tetrachloroethane	9.9	22	22	3.1	3.1	U
541-73-1	1,3-Dichlorobenzene	9.9	190	190	32	32	U
106-46-7	1,4-Dichlorobenzene	9.9	190	190	32	32	U
95-50-1	1,2-Dichlorobenzene	9.9	190	190	32	32	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	101	70-130	9/21/12 1208	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-30MIN-034
Lab Code: R1206262-004
Run Type: Dilution

Service Request: R1206262
Date Collected: 9/19/12 0915
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1514
Canister Dilution Factor: 1.42

Initial Pressure (psig): -1.87 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	6.0	110	110	52	52	U
75-01-4	Vinyl Chloride	6.0	14	14	5.6	5.6	U
74-83-9	Bromomethane	6.0	100	100	26	26	U
75-00-3	Chloroethane	6.0	140	140	52	52	U
67-64-1	Acetone	6.0	1200	1200	500	500	U
75-69-4	Trichlorofluoromethane (CFC 11)	6.0	150	150	26	26	U
75-35-4	1,1-Dichloroethene	6.0	100	100	26	26	U
75-09-2	Methylene Chloride	6.0	90	90	26	26	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	6.0	40	40	5.3	5.3	U
75-15-0	Carbon Disulfide	6.0	80	80	26	26	U
156-60-5	trans-1,2-Dichloroethene	6.0	490	100	120	26	D
75-34-3	1,1-Dichloroethane (1,1-DCA)	6.0	110	110	26	26	U
1634-04-4	Methyl tert-Butyl Ether	6.0	190	190	52	52	U
108-05-4	Vinyl Acetate	6.0	1200	1200	340	340	U
78-93-3	2-Butanone (MEK)	6.0	150	150	52	52	U
156-59-2	cis-1,2-Dichloroethene	6.0	2800	100	700	26	D
67-66-3	Chloroform	6.0	130	130	26	26	U
107-06-2	1,2-Dichloroethane	6.0	110	110	26	26	U
71-55-6	1,1,1-Trichloroethane (TCA)	6.0	140	140	26	26	U
71-43-2	Benzene	6.0	83	83	26	26	U
56-23-5	Carbon Tetrachloride	6.0	17	17	2.6	2.6	U
78-87-5	1,2-Dichloropropane	6.0	120	120	26	26	U
75-27-4	Bromodichloromethane	6.0	36	36	5.3	5.3	U
79-01-6	Trichloroethene (TCE)	6.0	8900	14	1700	2.6	D
10061-01-5	cis-1,3-Dichloropropene	6.0	240	240	52	52	U
108-10-1	4-Methyl-2-pentanone	6.0	210	210	52	52	U
10061-02-6	trans-1,3-Dichloropropene	6.0	120	120	26	26	U
79-00-5	1,1,2-Trichloroethane	6.0	140	140	26	26	U
108-88-3	Toluene	6.0	290	97	76	26	D
591-78-6	2-Hexanone	6.0	110	110	26	26	U
124-48-1	Dibromochloromethane	6.0	45	45	5.3	5.3	U
106-93-4	1,2-Dibromoethane	6.0	40	40	5.2	5.2	U
127-18-4	Tetrachloroethene (PCE)	6.0	19	19	2.8	2.8	U
108-90-7	Chlorobenzene	6.0	120	120	26	26	U
100-41-4	Ethylbenzene	6.0	220	220	52	52	U
179601-23-1	m,p-Xylenes	6.0	450	450	100	100	U

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-30MIN-034
Lab Code: R1206262-004
Run Type: Dilution

Service Request: R1206262
Date Collected: 9/19/12 0915
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1514
Canister Dilution Factor: 1.42

Initial Pressure (psig): -1.87 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	6.0	270	270	26	26	U
100-42-5	Styrene	6.0	220	220	52	52	U
95-47-6	o-Xylene	6.0	220	220	52	52	U
79-34-5	1,1,2,2-Tetrachloroethane	6.0	36	36	5.2	5.2	U
541-73-1	1,3-Dichlorobenzene	6.0	310	310	52	52	U
106-46-7	1,4-Dichlorobenzene	6.0	310	310	52	52	U
95-50-1	1,2-Dichlorobenzene	6.0	310	310	52	52	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	101	70-130	9/21/12 1514	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: SS-8HR-040
 Lab Code: R1206262-005

Service Request: R1206262
 Date Collected: 9/17/12 1030
 Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1930
 Canister Dilution Factor: 1.57

Initial Pressure (psig): -3.09

Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	58	12	12	5.9	5.9	U
75-01-4	Vinyl Chloride	58	1.6	1.6	0.64	0.64	U
74-83-9	Bromomethane	58	12	12	3.0	3.0	U
75-00-3	Chloroethane	58	16	16	6.0	6.0	U
67-64-1	Acetone	58	160	140	68	57	
75-69-4	Trichlorofluoromethane (CFC 11)	58	17	17	3.0	3.0	U
75-35-4	1,1-Dichloroethene	58	12	12	3.0	3.0	U
75-09-2	Methylene Chloride	58	10	10	3.0	3.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	58	4.6	4.6	0.60	0.60	U
75-15-0	Carbon Disulfide	58	9.2	9.2	3.0	3.0	U
156-60-5	trans-1,2-Dichloroethene	58	42	12	11	3.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	58	12	12	3.0	3.0	U
1634-04-4	Methyl tert-Butyl Ether	58	21	21	5.9	5.9	U
108-05-4	Vinyl Acetate	58	140	140	38	38	U
78-93-3	2-Butanone (MEK)	58	27	18	9.0	6.0	
156-59-2	cis-1,2-Dichloroethene	58	12	12	3.0	3.0	U
67-66-3	Chloroform	58	15	15	3.0	3.0	U
107-06-2	1,2-Dichloroethane	58	12	12	3.0	3.0	U
71-55-6	1,1,1-Trichloroethane (TCA)	58	16	16	3.0	3.0	U
71-43-2	Benzene	58	49	9.5	15	3.0	
56-23-5	Carbon Tetrachloride	58	1.9	1.9	0.30	0.30	U
78-87-5	1,2-Dichloropropane	58	14	14	3.0	3.0	U
75-27-4	Bromodichloromethane	58	4.1	4.1	0.61	0.61	U
79-01-6	Trichloroethene (TCE)	58	380	1.6	71	0.30	
10061-01-5	cis-1,3-Dichloropropene	58	27	27	6.0	6.0	U
108-10-1	4-Methyl-2-pentanone	58	24	24	5.9	5.9	U
10061-02-6	trans-1,3-Dichloropropene	58	14	14	3.0	3.0	U
79-00-5	1,1,2-Trichloroethane	58	16	16	3.0	3.0	U
108-88-3	Toluene	58	760	11	200	2.9	
591-78-6	2-Hexanone	58	12	12	3.0	3.0	U
124-48-1	Dibromochloromethane	58	5.1	5.1	0.60	0.60	U
106-93-4	1,2-Dibromoethane	58	4.6	4.6	0.60	0.60	U
127-18-4	Tetrachloroethene (PCE)	58	37	2.2	5.5	0.32	
108-90-7	Chlorobenzene	58	14	14	3.0	3.0	U
100-41-4	Ethylbenzene	58	26	26	5.9	5.9	U
179601-23-1	m,p-Xylenes	58	100	52	24	12	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-040
Lab Code: R1206262-005

Service Request: R1206262
Date Collected: 9/17/12 1030
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1930
Canister Dilution Factor: 1.57

Initial Pressure (psig): -3.09 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	58	31	31	3.0	3.0	U
100-42-5	Styrene	58	25	25	6.0	6.0	U
95-47-6	<i>o</i> -Xylene	58	47	26	11	5.9	
79-34-5	1,1,2,2-Tetrachloroethane	58	4.1	4.1	0.59	0.59	U
541-73-1	1,3-Dichlorobenzene	58	36	36	5.9	5.9	U
106-46-7	1,4-Dichlorobenzene	58	36	36	5.9	5.9	U
95-50-1	1,2-Dichlorobenzene	58	36	36	5.9	5.9	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	109	70-130	9/21/12 1930	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: AA-8HR-040
 Lab Code: R1206262-006

Service Request: R1206262
 Date Collected: 9/17/12 1028
 Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 2020
 Canister Dilution Factor: 1.52

Initial Pressure (psig): -2.75 Final Pressure (psig): 3.51

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	800	0.86	0.86	0.41	0.41	U
75-01-4	Vinyl Chloride	800	0.11	0.11	0.045	0.045	U
74-83-9	Bromomethane	800	0.82	0.82	0.21	0.21	U
75-00-3	Chloroethane	800	1.1	1.1	0.42	0.42	U
67-64-1	Acetone	800	9.5	9.5	4.0	4.0	U
75-69-4	Trichlorofluoromethane (CFC 11)	800	1.4	1.2	0.24	0.21	
75-35-4	1,1-Dichloroethene	800	0.84	0.84	0.21	0.21	U
75-09-2	Methylene Chloride	800	0.72	0.72	0.21	0.21	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	800	0.53	0.32	0.069	0.042	
75-15-0	Carbon Disulfide	800	0.65	0.65	0.21	0.21	U
156-60-5	trans-1,2-Dichloroethene	800	0.84	0.84	0.21	0.21	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	800	0.86	0.86	0.21	0.21	U
1634-04-4	Methyl tert-Butyl Ether	800	1.5	1.5	0.42	0.42	U
108-05-4	Vinyl Acetate	800	9.5	9.5	2.7	2.7	U
78-93-3	2-Butanone (MEK)	800	2.2	1.2	0.74	0.42	
156-59-2	cis-1,2-Dichloroethene	800	0.84	0.84	0.21	0.21	U
67-66-3	Chloroform	800	1.0	1.0	0.21	0.21	U
107-06-2	1,2-Dichloroethane	800	0.86	0.86	0.21	0.21	U
71-55-6	1,1,1-Trichloroethane (TCA)	800	1.1	1.1	0.21	0.21	U
71-43-2	Benzene	800	3.4	0.67	1.1	0.21	
56-23-5	Carbon Tetrachloride	800	0.55	0.13	0.088	0.021	
78-87-5	1,2-Dichloropropane	800	0.97	0.97	0.21	0.21	U
75-27-4	Bromodichloromethane	800	0.29	0.29	0.043	0.043	U
79-01-6	Trichloroethene (TCE)	800	1.3	0.11	0.25	0.021	
10061-01-5	cis-1,3-Dichloropropene	800	1.9	1.9	0.42	0.42	U
108-10-1	4-Methyl-2-pentanone	800	1.7	1.7	0.42	0.42	U
10061-02-6	trans-1,3-Dichloropropene	800	0.95	0.95	0.21	0.21	U
79-00-5	1,1,2-Trichloroethane	800	1.1	1.1	0.21	0.21	U
108-88-3	Toluene	800	36	0.78	9.5	0.21	
591-78-6	2-Hexanone	800	0.86	0.86	0.21	0.21	U
124-48-1	Dibromochloromethane	800	0.36	0.36	0.042	0.042	U
106-93-4	1,2-Dibromoethane	800	0.32	0.32	0.042	0.042	U
127-18-4	Tetrachloroethene (PCE)	800	0.15	0.15	0.022	0.022	U
108-90-7	Chlorobenzene	800	0.97	0.97	0.21	0.21	U
100-41-4	Ethylbenzene	800	3.5	1.8	0.81	0.42	
179601-23-1	m,p-Xylenes	800	10	3.6	2.3	0.84	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: AA-8HR-040
Lab Code: R1206262-006

Service Request: R1206262
Date Collected: 9/17/12 1028
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 2020
Canister Dilution Factor: 1.52

Initial Pressure (psig): -2.75 Final Pressure (psig): 3.51

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	800	2.2	2.2	0.21	0.21	U
100-42-5	Styrene	800	2.8	1.8	0.65	0.42	
95-47-6	o-Xylene	800	3.5	1.8	0.81	0.42	
79-34-5	1,1,2,2-Tetrachloroethane	800	0.29	0.29	0.042	0.042	U
541-73-1	1,3-Dichlorobenzene	800	2.5	2.5	0.42	0.42	U
106-46-7	1,4-Dichlorobenzene	800	2.5	2.5	0.42	0.42	U
95-50-1	1,2-Dichlorobenzene	800	2.5	2.5	0.42	0.42	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	106	70-130	9/21/12 2020	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-041
Lab Code: R1206262-007

Service Request: R1206262
Date Collected: 9/17/12 1038
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1255
Canister Dilution Factor: 1.73

Initial Pressure (psig): -4.17 Final Pressure (psig): 3.47

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	17	46	46	22	22	U
75-01-4	Vinyl Chloride	17	6.1	6.1	2.4	2.4	U
74-83-9	Bromomethane	17	44	44	11	11	U
75-00-3	Chloroethane	17	59	59	22	22	U
67-64-1	Acetone	17	1500	510	650	210	
75-69-4	Trichlorofluoromethane (CFC 11)	17	63	63	11	11	U
75-35-4	1,1-Dichloroethene	17	45	45	11	11	U
75-09-2	Methylene Chloride	17	39	39	11	11	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	17	17	17	2.3	2.3	U
75-15-0	Carbon Disulfide	17	35	35	11	11	U
156-60-5	trans-1,2-Dichloroethene	17	45	45	11	11	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	17	46	46	11	11	U
1634-04-4	Methyl tert-Butyl Ether	17	80	80	22	22	U
108-05-4	Vinyl Acetate	17	510	510	140	140	U
78-93-3	2-Butanone (MEK)	17	66	66	22	22	U
156-59-2	cis-1,2-Dichloroethene	17	45	45	11	11	U
67-66-3	Chloroform	17	55	55	11	11	U
107-06-2	1,2-Dichloroethane	17	46	46	11	11	U
71-55-6	1,1,1-Trichloroethane (TCA)	17	61	61	11	11	U
71-43-2	Benzene	17	74	36	23	11	
56-23-5	Carbon Tetrachloride	17	7.1	7.1	1.1	1.1	U
78-87-5	1,2-Dichloropropane	17	52	52	11	11	U
75-27-4	Bromodichloromethane	17	15	15	2.3	2.3	U
79-01-6	Trichloroethene (TCE)	17	84	6.1	16	1.1	
10061-01-5	cis-1,3-Dichloropropene	17	100	100	22	22	U
108-10-1	4-Methyl-2-pentanone	17	92	92	22	22	U
10061-02-6	trans-1,3-Dichloropropene	17	51	51	11	11	U
79-00-5	1,1,2-Trichloroethane	17	61	61	11	11	U
108-88-3	Toluene	17	570	42	150	11	
591-78-6	2-Hexanone	17	46	46	11	11	U
124-48-1	Dibromochloromethane	17	19	19	2.3	2.3	U
106-93-4	1,2-Dibromoethane	17	17	17	2.3	2.3	U
127-18-4	Tetrachloroethene (PCE)	17	8.1	8.1	1.2	1.2	U
108-90-7	Chlorobenzene	17	52	52	11	11	U
100-41-4	Ethylbenzene	17	97	97	22	22	U
179601-23-1	m,p-Xylenes	17	190	190	45	45	U

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-041
Lab Code: R1206262-007

Service Request: R1206262
Date Collected: 9/17/12 1038
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1255
Canister Dilution Factor: 1.73

Initial Pressure (psig): -4.17 Final Pressure (psig): 3.47

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	17	120	120	11	11	U
100-42-5	Styrene	17	96	96	22	22	U
95-47-6	o-Xylene	17	97	97	22	22	U
79-34-5	1,1,2,2-Tetrachloroethane	17	15	15	2.2	2.2	U
541-73-1	1,3-Dichlorobenzene	17	130	130	22	22	U
106-46-7	1,4-Dichlorobenzene	17	130	130	22	22	U
95-50-1	1,2-Dichlorobenzene	17	130	130	22	22	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	103	70-130	9/21/12 1255	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air

Service Request: R1206262
 Date Collected: 9/17/12 1040
 Date Received: 9/19/12

Sample Name: AA-8HR-041
 Lab Code: R1206262-008

Analytical Method: TO-15

Date Analyzed: 9/21/12 2109
 Canister Dilution Factor: 1.72

Initial Pressure (psig): -4.13 Final Pressure (psig): 3.52

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	800	0.97	0.97	0.47	0.47	U
75-01-4	Vinyl Chloride	800	0.13	0.13	0.050	0.050	U
74-83-9	Bromomethane	800	0.92	0.92	0.24	0.24	U
75-00-3	Chloroethane	800	1.2	1.2	0.47	0.47	U
67-64-1	Acetone	800	19	11	7.9	4.5	
75-69-4	Trichlorofluoromethane (CFC 11)	800	2.5	1.3	0.45	0.24	
75-35-4	1,1-Dichloroethene	800	0.95	0.95	0.24	0.24	U
75-09-2	Methylene Chloride	800	0.82	0.82	0.24	0.24	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	800	0.60	0.37	0.078	0.048	
75-15-0	Carbon Disulfide	800	0.73	0.73	0.23	0.23	U
156-60-5	trans-1,2-Dichloroethene	800	0.95	0.95	0.24	0.24	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	800	0.97	0.97	0.24	0.24	U
1634-04-4	Methyl tert-Butyl Ether	800	1.7	1.7	0.47	0.47	U
108-05-4	Vinyl Acetate	800	11	11	3.1	3.1	U
78-93-3	2-Butanone (MEK)	800	3.1	1.4	1.1	0.47	
156-59-2	cis-1,2-Dichloroethene	800	0.95	0.95	0.24	0.24	U
67-66-3	Chloroform	800	1.2	1.2	0.24	0.24	U
107-06-2	1,2-Dichloroethane	800	0.97	0.97	0.24	0.24	U
71-55-6	1,1,1-Trichloroethane (TCA)	800	1.3	1.3	0.24	0.24	U
71-43-2	Benzene	800	3.9	0.75	1.2	0.24	
56-23-5	Carbon Tetrachloride	800	0.61	0.15	0.096	0.024	
78-87-5	1,2-Dichloropropane	800	1.1	1.1	0.24	0.24	U
75-27-4	Bromodichloromethane	800	0.32	0.32	0.048	0.048	U
79-01-6	Trichloroethene (TCE)	800	3.2	0.13	0.59	0.024	
10061-01-5	cis-1,3-Dichloropropene	800	2.2	2.2	0.47	0.47	U
108-10-1	4-Methyl-2-pentanone	800	1.9	1.9	0.47	0.47	U
10061-02-6	trans-1,3-Dichloropropene	800	1.1	1.1	0.24	0.24	U
79-00-5	1,1,2-Trichloroethane	800	1.3	1.3	0.24	0.24	U
108-88-3	Toluene	800	30	0.88	8.1	0.23	
591-78-6	2-Hexanone	800	0.97	0.97	0.24	0.24	U
124-48-1	Dibromochloromethane	800	0.41	0.41	0.048	0.048	U
106-93-4	1,2-Dibromoethane	800	0.37	0.37	0.048	0.048	U
127-18-4	Tetrachloroethene (PCE)	800	0.26	0.17	0.039	0.025	
108-90-7	Chlorobenzene	800	1.1	1.1	0.24	0.24	U
100-41-4	Ethylbenzene	800	3.8	2.0	0.88	0.47	
179601-23-1	m,p-Xylenes	800	9.6	4.1	2.2	0.95	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: AA-8HR-041
Lab Code: R1206262-008

Service Request: R1206262
Date Collected: 9/17/12 1040
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 2109
Canister Dilution Factor: 1.72

Initial Pressure (psig): -4.13 Final Pressure (psig): 3.52

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	800	2.5	2.5	0.24	0.24	U
100-42-5	Styrene	800	3.9	2.0	0.91	0.47	
95-47-6	o-Xylene	800	3.5	2.0	0.81	0.47	
79-34-5	1,1,2,2-Tetrachloroethane	800	0.32	0.32	0.047	0.047	U
541-73-1	1,3-Dichlorobenzene	800	2.8	2.8	0.47	0.47	U
106-46-7	1,4-Dichlorobenzene	800	2.8	2.8	0.47	0.47	U
95-50-1	1,2-Dichlorobenzene	800	2.8	2.8	0.47	0.47	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	106	70-130	9/21/12 2109	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: SS-8HR-41 DUP
 Lab Code: R1206262-009

Service Request: R1206262
 Date Collected: 9/17/12 1038
 Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1341
 Canister Dilution Factor: 1.82

Initial Pressure (psig): -3.93 Final Pressure (psig): 4.93

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	20	41	41	20	20	U
75-01-4	Vinyl Chloride	20	5.5	5.5	2.1	2.1	U
74-83-9	Bromomethane	20	39	39	10	10	U
75-00-3	Chloroethane	20	53	53	20	20	U
67-64-1	Acetone	20	1500	460	620	190	
75-69-4	Trichlorofluoromethane (CFC 11)	20	56	56	10	10	U
75-35-4	1,1-Dichloroethene	20	40	40	10	10	U
75-09-2	Methylene Chloride	20	35	35	10	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	20	15	15	2.0	2.0	U
75-15-0	Carbon Disulfide	20	31	31	9.9	9.9	U
156-60-5	trans-1,2-Dichloroethene	20	40	40	10	10	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	41	41	10	10	U
1634-04-4	Methyl tert-Butyl Ether	20	72	72	20	20	U
108-05-4	Vinyl Acetate	20	460	460	130	130	U
78-93-3	2-Butanone (MEK)	20	59	59	20	20	U
156-59-2	cis-1,2-Dichloroethene	20	40	40	10	10	U
67-66-3	Chloroform	20	49	49	10	10	U
107-06-2	1,2-Dichloroethane	20	41	41	10	10	U
71-55-6	1,1,1-Trichloroethane (TCA)	20	55	55	10	10	U
71-43-2	Benzene	20	71	32	22	10	
56-23-5	Carbon Tetrachloride	20	6.4	6.4	1.0	1.0	U
78-87-5	1,2-Dichloropropane	20	46	46	10	10	U
75-27-4	Bromodichloromethane	20	14	14	2.0	2.0	U
79-01-6	Trichloroethene (TCE)	20	75	5.5	14	1.0	
10061-01-5	cis-1,3-Dichloropropene	20	91	91	20	20	U
108-10-1	4-Methyl-2-pentanone	20	82	82	20	20	U
10061-02-6	trans-1,3-Dichloropropene	20	46	46	10	10	U
79-00-5	1,1,2-Trichloroethane	20	55	55	10	10	U
108-88-3	Toluene	20	550	37	150	9.9	
591-78-6	2-Hexanone	20	41	41	10	10	U
124-48-1	Dibromochloromethane	20	17	17	2.0	2.0	U
106-93-4	1,2-Dibromoethane	20	15	15	2.0	2.0	U
127-18-4	Tetrachloroethene (PCE)	20	7.3	7.3	1.1	1.1	U
108-90-7	Chlorobenzene	20	46	46	10	10	U
100-41-4	Ethylbenzene	20	86	86	20	20	U
179601-23-1	m,p-Xylenes	20	170	170	40	40	U

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-41 DUP
Lab Code: R1206262-009

Service Request: R1206262
Date Collected: 9/17/12 1038
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1341
Canister Dilution Factor: 1.82

Initial Pressure (psig): -3.93 Final Pressure (psig): 4.93

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	20	100	100	10	10	U
100-42-5	Styrene	20	86	86	20	20	U
95-47-6	o-Xylene	20	86	86	20	20	U
79-34-5	1,1,2,2-Tetrachloroethane	20	14	14	2.0	2.0	U
541-73-1	1,3-Dichlorobenzene	20	120	120	20	20	U
106-46-7	1,4-Dichlorobenzene	20	120	120	20	20	U
95-50-1	1,2-Dichlorobenzene	20	120	120	20	20	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	103	70-130	9/21/12 1341	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-037
Lab Code: R1206262-010

Service Request: R1206262
Date Collected: 9/17/12 1120
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1428
Canister Dilution Factor: 1.47

Initial Pressure (psig): -2.06 Final Pressure (psig): 3.83

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1.5	440	440	210	210	U
75-01-4	Vinyl Chloride	1.5	59	59	23	23	U
74-83-9	Bromomethane	1.5	420	420	110	110	U
75-00-3	Chloroethane	1.5	570	570	220	220	U
67-64-1	Acetone	1.5	4900	4900	2100	2100	U
75-69-4	Trichlorofluoromethane (CFC 11)	1.5	610	610	110	110	U
75-35-4	1,1-Dichloroethene	1.5	490	430	120	110	
75-09-2	Methylene Chloride	1.5	370	370	110	110	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	170	170	22	22	U
75-15-0	Carbon Disulfide	1.5	330	330	110	110	U
156-60-5	trans-1,2-Dichloroethene	1.5	1200	430	310	110	
75-34-3	1,1-Dichloroethane (1,1-DCA)	1.5	8700	440	2200	110	
1634-04-4	Methyl tert-Butyl Ether	1.5	770	770	210	210	U
108-05-4	Vinyl Acetate	1.5	4900	4900	1400	1400	U
78-93-3	2-Butanone (MEK)	1.5	640	640	220	220	U
156-59-2	cis-1,2-Dichloroethene	1.5	820	430	210	110	
67-66-3	Chloroform	1.5	530	530	110	110	U
107-06-2	1,2-Dichloroethane	1.5	440	440	110	110	U
71-55-6	1,1,1-Trichloroethane (TCA)	1.5	2300	590	430	110	
71-43-2	Benzene	1.5	340	340	110	110	U
56-23-5	Carbon Tetrachloride	1.5	69	69	11	11	U
78-87-5	1,2-Dichloropropane	1.5	500	500	110	110	U
75-27-4	Bromodichloromethane	1.5	150	150	22	22	U
79-01-6	Trichloroethene (TCE)	1.5	51000	59	9400	11	
10061-01-5	cis-1,3-Dichloropropene	1.5	980	980	220	220	U
108-10-1	4-Methyl-2-pentanone	1.5	880	880	220	220	U
10061-02-6	trans-1,3-Dichloropropene	1.5	490	490	110	110	U
79-00-5	1,1,2-Trichloroethane	1.5	590	590	110	110	U
108-88-3	Toluene	1.5	400	400	110	110	U
591-78-6	2-Hexanone	1.5	440	440	110	110	U
124-48-1	Dibromochloromethane	1.5	190	190	22	22	U
106-93-4	1,2-Dibromoethane	1.5	170	170	22	22	U
127-18-4	Tetrachloroethene (PCE)	1.5	110	78	16	12	
108-90-7	Chlorobenzene	1.5	500	500	110	110	U
100-41-4	Ethylbenzene	1.5	930	930	210	210	U
179601-23-1	m,p-Xylenes	1.5	1900	1900	430	430	U

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-037
Lab Code: R1206262-010

Service Request: R1206262
Date Collected: 9/17/12 1120
Date Received: 9/19/12

Analytical Method: TO-15

Date Analyzed: 9/21/12 1428
Canister Dilution Factor: 1.47

Initial Pressure (psig): -2.06 Final Pressure (psig): 3.83

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	1.5	1100	1100	110	110	U
100-42-5	Styrene	1.5	920	920	220	220	U
95-47-6	o-Xylene	1.5	930	930	210	210	U
79-34-5	1,1,2,2-Tetrachloroethane	1.5	150	150	21	21	U
541-73-1	1,3-Dichlorobenzene	1.5	1300	1300	220	220	U
106-46-7	1,4-Dichlorobenzene	1.5	1300	1300	220	220	U
95-50-1	1,2-Dichlorobenzene	1.5	1300	1300	220	220	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	103	70-130	9/21/12 1428	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-045
Lab Code: R1206262-011

Service Request: R1206262
Date Collected: 9/19/12 1025
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 1423
Canister Dilution Factor: 1.77

Initial Pressure (psig): -4.42 Final Pressure (psig): 3.51

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	2.3	350	350	170	170	U
75-01-4	Vinyl Chloride	2.3	46	46	18	18	U
74-83-9	Bromomethane	2.3	330	330	85	85	U
75-00-3	Chloroethane	2.3	450	450	170	170	U
67-64-1	Acetone	2.3	3800	3800	1600	1600	U
75-69-4	Trichlorofluoromethane (CFC 11)	2.3	480	480	85	85	U
75-35-4	1,1-Dichloroethene	2.3	340	340	85	85	U
75-09-2	Methylene Chloride	2.3	290	290	84	84	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.3	130	130	17	17	U
75-15-0	Carbon Disulfide	2.3	260	260	84	84	U
156-60-5	trans-1,2-Dichloroethene	2.3	340	340	85	85	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.3	350	350	86	86	U
1634-04-4	Methyl tert-Butyl Ether	2.3	610	610	170	170	U
108-05-4	Vinyl Acetate	2.3	3800	3800	1100	1100	U
78-93-3	2-Butanone (MEK)	2.3	500	500	170	170	U
156-59-2	cis-1,2-Dichloroethene	2.3	340	340	85	85	U
67-66-3	Chloroform	2.3	420	420	85	85	U
107-06-2	1,2-Dichloroethane	2.3	350	350	86	86	U
71-55-6	1,1,1-Trichloroethane (TCA)	2.3	460	460	85	85	U
71-43-2	Benzene	2.3	270	270	84	84	U
56-23-5	Carbon Tetrachloride	2.3	54	54	8.6	8.6	U
78-87-5	1,2-Dichloropropane	2.3	390	390	85	85	U
75-27-4	Bromodichloromethane	2.3	120	120	17	17	U
79-01-6	Trichloroethene (TCE)	2.3	36000	46	6600	8.6	
10061-01-5	cis-1,3-Dichloropropene	2.3	770	770	170	170	U
108-10-1	4-Methyl-2-pentanone	2.3	690	690	170	170	U
10061-02-6	trans-1,3-Dichloropropene	2.3	380	380	85	85	U
79-00-5	1,1,2-Trichloroethane	2.3	460	460	85	85	U
108-88-3	Toluene	2.3	850	320	230	84	
591-78-6	2-Hexanone	2.3	350	350	85	85	U
124-48-1	Dibromochloromethane	2.3	150	150	17	17	U
106-93-4	1,2-Dibromoethane	2.3	130	130	17	17	U
127-18-4	Tetrachloroethene (PCE)	2.3	62	62	9.1	9.1	U
108-90-7	Chlorobenzene	2.3	390	390	85	85	U
100-41-4	Ethylbenzene	2.3	730	730	170	170	U
179601-23-1	m,p-Xylenes	2.3	1500	1500	340	340	U

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-045
Lab Code: R1206262-011

Service Request: R1206262
Date Collected: 9/19/12 1025
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 1423
Canister Dilution Factor: 1.77

Initial Pressure (psig): -4.42 Final Pressure (psig): 3.51

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	2.3	880	880	85	85	U
100-42-5	Styrene	2.3	720	720	170	170	U
95-47-6	o-Xylene	2.3	730	730	170	170	U
79-34-5	1,1,2,2-Tetrachloroethane	2.3	120	120	17	17	U
541-73-1	1,3-Dichlorobenzene	2.3	1000	1000	170	170	U
106-46-7	1,4-Dichlorobenzene	2.3	1000	1000	170	170	U
95-50-1	1,2-Dichlorobenzene	2.3	1000	1000	170	170	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	113	70-130	9/24/12 1423	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: AA-8HR-045
 Lab Code: R1206262-012

Service Request: R1206262
 Date Collected: 9/19/12 1030
 Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/25/12 1552
 Canister Dilution Factor: 1.82

Initial Pressure (psig): -4.72 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	1.0	0.82	0.49	0.40	
75-01-4	Vinyl Chloride	1000	0.11	0.11	0.043	0.043	U
74-83-9	Bromomethane	1000	0.78	0.78	0.20	0.20	U
75-00-3	Chloroethane	1000	1.1	1.1	0.40	0.40	U
67-64-1	Acetone	1000	16	9.1	6.5	3.8	
75-69-4	Trichlorofluoromethane (CFC 11)	1000	1.7	1.1	0.30	0.20	
75-35-4	1,1-Dichloroethene	1000	0.80	0.80	0.20	0.20	U
75-09-2	Methylene Chloride	1000	0.69	0.69	0.20	0.20	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1000	0.73	0.31	0.096	0.040	
75-15-0	Carbon Disulfide	1000	0.62	0.62	0.20	0.20	U
156-60-5	trans-1,2-Dichloroethene	1000	0.80	0.80	0.20	0.20	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.82	0.82	0.20	0.20	U
1634-04-4	Methyl tert-Butyl Ether	1000	1.4	1.4	0.40	0.40	U
108-05-4	Vinyl Acetate	1000	9.1	9.1	2.6	2.6	U
78-93-3	2-Butanone (MEK)	1000	3.7	1.2	1.3	0.40	
156-59-2	cis-1,2-Dichloroethene	1000	0.80	0.80	0.20	0.20	U
67-66-3	Chloroform	1000	0.98	0.98	0.20	0.20	U
107-06-2	1,2-Dichloroethane	1000	0.82	0.82	0.20	0.20	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	1.1	1.1	0.20	0.20	U
71-43-2	Benzene	1000	2.3	0.64	0.74	0.20	
56-23-5	Carbon Tetrachloride	1000	0.57	0.13	0.091	0.020	
78-87-5	1,2-Dichloropropane	1000	0.93	0.93	0.20	0.20	U
75-27-4	Bromodichloromethane	1000	0.27	0.27	0.041	0.041	U
79-01-6	Trichloroethene (TCE)	1000	21	0.11	3.9	0.020	
10061-01-5	cis-1,3-Dichloropropene	1000	1.8	1.8	0.40	0.40	U
108-10-1	4-Methyl-2-pentanone	1000	1.6	1.6	0.40	0.40	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.91	0.91	0.20	0.20	U
79-00-5	1,1,2-Trichloroethane	1000	1.1	1.1	0.20	0.20	U
108-88-3	Toluene	1000	13	0.75	3.5	0.20	
591-78-6	2-Hexanone	1000	0.82	0.82	0.20	0.20	U
124-48-1	Dibromochloromethane	1000	0.35	0.35	0.041	0.041	U
106-93-4	1,2-Dibromoethane	1000	0.31	0.31	0.040	0.040	U
127-18-4	Tetrachloroethene (PCE)	1000	0.16	0.15	0.024	0.021	
108-90-7	Chlorobenzene	1000	0.93	0.93	0.20	0.20	U
100-41-4	Ethylbenzene	1000	3.6	1.7	0.83	0.40	
179601-23-1	m,p-Xylenes	1000	8.5	3.5	2.0	0.80	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: AA-8HR-045
Lab Code: R1206262-012

Service Request: R1206262
Date Collected: 9/19/12 1030
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/25/12 1552
Canister Dilution Factor: 1.82

Initial Pressure (psig): -4.72 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	1000	2.1	2.1	0.20	0.20	U
100-42-5	Styrene	1000	4.7	1.7	1.1	0.40	
95-47-6	o-Xylene	1000	3.3	1.7	0.76	0.40	
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.27	0.27	0.040	0.040	U
541-73-1	1,3-Dichlorobenzene	1000	2.4	2.4	0.40	0.40	U
106-46-7	1,4-Dichlorobenzene	1000	2.4	2.4	0.40	0.40	U
95-50-1	1,2-Dichlorobenzene	1000	2.4	2.4	0.40	0.40	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	107	70-130	9/25/12 1552	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: AA-8HR-042
Lab Code: R1206262-013

Service Request: R1206262
Date Collected: 9/19/12 1100
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/25/12 1644
Canister Dilution Factor: 1.82

Initial Pressure (psig): -4.67 Final Pressure (psig): 3.52

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	1.0	0.82	0.49	0.40	
75-01-4	Vinyl Chloride	1000	0.11	0.11	0.043	0.043	U
74-83-9	Bromomethane	1000	0.78	0.78	0.20	0.20	U
75-00-3	Chloroethane	1000	1.1	1.1	0.40	0.40	U
67-64-1	Acetone	1000	26	9.1	11	3.8	
75-69-4	Trichlorofluoromethane (CFC 11)	1000	2.7	1.1	0.48	0.20	
75-35-4	1,1-Dichloroethene	1000	0.80	0.80	0.20	0.20	U
75-09-2	Methylene Chloride	1000	0.69	0.69	0.20	0.20	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1000	0.73	0.31	0.096	0.040	
75-15-0	Carbon Disulfide	1000	0.62	0.62	0.20	0.20	U
156-60-5	trans-1,2-Dichloroethene	1000	0.80	0.80	0.20	0.20	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.82	0.82	0.20	0.20	U
1634-04-4	Methyl tert-Butyl Ether	1000	1.4	1.4	0.40	0.40	U
108-05-4	Vinyl Acetate	1000	9.1	9.1	2.6	2.6	U
78-93-3	2-Butanone (MEK)	1000	5.1	1.2	1.7	0.40	
156-59-2	cis-1,2-Dichloroethene	1000	0.80	0.80	0.20	0.20	U
67-66-3	Chloroform	1000	0.98	0.98	0.20	0.20	U
107-06-2	1,2-Dichloroethane	1000	0.82	0.82	0.20	0.20	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	1.1	1.1	0.20	0.20	U
71-43-2	Benzene	1000	2.7	0.64	0.83	0.20	
56-23-5	Carbon Tetrachloride	1000	0.55	0.13	0.088	0.020	
78-87-5	1,2-Dichloropropane	1000	0.93	0.93	0.20	0.20	U
75-27-4	Bromodichloromethane	1000	0.27	0.27	0.041	0.041	U
79-01-6	Trichloroethene (TCE)	1000	12	0.11	2.3	0.020	
10061-01-5	cis-1,3-Dichloropropene	1000	1.8	1.8	0.40	0.40	U
108-10-1	4-Methyl-2-pentanone	1000	1.6	1.6	0.40	0.40	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.91	0.91	0.20	0.20	U
79-00-5	1,1,2-Trichloroethane	1000	1.1	1.1	0.20	0.20	U
108-88-3	Toluene	1000	16	0.75	4.4	0.20	
591-78-6	2-Hexanone	1000	0.82	0.82	0.20	0.20	U
124-48-1	Dibromochloromethane	1000	0.35	0.35	0.041	0.041	U
106-93-4	1,2-Dibromoethane	1000	0.31	0.31	0.040	0.040	U
127-18-4	Tetrachloroethene (PCE)	1000	0.24	0.15	0.035	0.021	
108-90-7	Chlorobenzene	1000	0.93	0.93	0.20	0.20	U
100-41-4	Ethylbenzene	1000	4.9	1.7	1.1	0.40	
179601-23-1	m,p-Xylenes	1000	11	3.5	2.6	0.80	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: AA-8HR-042
Lab Code: R1206262-013

Service Request: R1206262
Date Collected: 9/19/12 1100
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/25/12 1644
Canister Dilution Factor: 1.82

Initial Pressure (psig): -4.67 Final Pressure (psig): 3.52

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	1000	2.1	2.1	0.20	0.20	U
100-42-5	Styrene	1000	7.3	1.7	1.7	0.40	
95-47-6	o-Xylene	1000	4.4	1.7	1.0	0.40	
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.27	0.27	0.040	0.040	U
541-73-1	1,3-Dichlorobenzene	1000	2.4	2.4	0.40	0.40	U
106-46-7	1,4-Dichlorobenzene	1000	2.4	2.4	0.40	0.40	U
95-50-1	1,2-Dichlorobenzene	1000	2.4	2.4	0.40	0.40	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	110	70-130	9/25/12 1644	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-042
Lab Code: R1206262-014

Service Request: R1206262
Date Collected: 9/19/12 1115
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 1510
Canister Dilution Factor: 1.76

Initial Pressure (psig): -4.37 Final Pressure (psig): 3.49

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	15	53	53	26	26	U
75-01-4	Vinyl Chloride	15	7.0	7.0	2.8	2.8	U
74-83-9	Bromomethane	15	50	50	13	13	U
75-00-3	Chloroethane	15	68	68	26	26	U
67-64-1	Acetone	15	590	590	250	250	U
75-69-4	Trichlorofluoromethane (CFC 11)	15	73	73	13	13	U
75-35-4	1,1-Dichloroethene	15	52	52	13	13	U
75-09-2	Methylene Chloride	15	45	45	13	13	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	15	20	20	2.6	2.6	U
75-15-0	Carbon Disulfide	15	40	40	13	13	U
156-60-5	trans-1,2-Dichloroethene	15	52	52	13	13	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	15	53	53	13	13	U
1634-04-4	Methyl tert-Butyl Ether	15	93	93	26	26	U
108-05-4	Vinyl Acetate	15	590	590	170	170	U
78-93-3	2-Butanone (MEK)	15	76	76	26	26	U
156-59-2	cis-1,2-Dichloroethene	15	52	52	13	13	U
67-66-3	Chloroform	15	63	63	13	13	U
107-06-2	1,2-Dichloroethane	15	53	53	13	13	U
71-55-6	1,1,1-Trichloroethane (TCA)	15	70	70	13	13	U
71-43-2	Benzene	15	76	41	24	13	
56-23-5	Carbon Tetrachloride	15	8.2	8.2	1.3	1.3	U
78-87-5	1,2-Dichloropropane	15	60	60	13	13	U
75-27-4	Bromodichloromethane	15	18	18	2.6	2.6	U
79-01-6	Trichloroethene (TCE)	15	16	7.0	3.1	1.3	
10061-01-5	cis-1,3-Dichloropropene	15	120	120	26	26	U
108-10-1	4-Methyl-2-pentanone	15	110	110	26	26	U
10061-02-6	trans-1,3-Dichloropropene	15	59	59	13	13	U
79-00-5	1,1,2-Trichloroethane	15	70	70	13	13	U
108-88-3	Toluene	15	2700	48	710	13	
591-78-6	2-Hexanone	15	53	53	13	13	U
124-48-1	Dibromochloromethane	15	22	22	2.6	2.6	U
106-93-4	1,2-Dibromoethane	15	20	20	2.6	2.6	U
127-18-4	Tetrachloroethene (PCE)	15	11	9.4	1.6	1.4	
108-90-7	Chlorobenzene	15	60	60	13	13	U
100-41-4	Ethylbenzene	15	110	110	26	26	U
179601-23-1	m,p-Xylenes	15	280	220	65	52	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-042
Lab Code: R1206262-014

Service Request: R1206262
Date Collected: 9/19/12 1115
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 1510
Canister Dilution Factor: 1.76

Initial Pressure (psig): -4.37 Final Pressure (psig): 3.49

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	15	130	130	13	13	U
100-42-5	Styrene	15	110	110	26	26	U
95-47-6	o-Xylene	15	110	110	26	26	U
79-34-5	1,1,2,2-Tetrachloroethane	15	18	18	2.6	2.6	U
541-73-1	1,3-Dichlorobenzene	15	150	150	26	26	U
106-46-7	1,4-Dichlorobenzene	15	150	150	26	26	U
95-50-1	1,2-Dichlorobenzene	15	150	150	26	26	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	111	70-130	9/24/12 1510	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-3OMIN-035
Lab Code: R1206262-015

Service Request: R1206262
Date Collected: 9/19/12 1600
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 1556
Canister Dilution Factor: 2.04

Initial Pressure (psig): -5.75 Final Pressure (psig): 3.54

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	14.4	64	64	31	31	U
75-01-4	Vinyl Chloride	14.4	8.5	8.5	3.3	3.3	U
74-83-9	Bromomethane	14.4	61	61	16	16	U
75-00-3	Chloroethane	14.4	82	82	31	31	U
67-64-1	Acetone	14.4	2200	710	920	300	
75-69-4	Trichlorofluoromethane (CFC 11)	14.4	88	88	16	16	U
75-35-4	1,1-Dichloroethene	14.4	62	62	16	16	U
75-09-2	Methylene Chloride	14.4	54	54	16	16	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	14.4	24	24	3.1	3.1	U
75-15-0	Carbon Disulfide	14.4	48	48	15	15	U
156-60-5	trans-1,2-Dichloroethene	14.4	62	62	16	16	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	14.4	64	64	16	16	U
1634-04-4	Methyl tert-Butyl Ether	14.4	110	110	31	31	U
108-05-4	Vinyl Acetate	14.4	710	710	200	200	U
78-93-3	2-Butanone (MEK)	14.4	360	92	120	31	
156-59-2	cis-1,2-Dichloroethene	14.4	62	62	16	16	U
67-66-3	Chloroform	14.4	77	77	16	16	U
107-06-2	1,2-Dichloroethane	14.4	64	64	16	16	U
71-55-6	1,1,1-Trichloroethane (TCA)	14.4	85	85	16	16	U
71-43-2	Benzene	14.4	220	50	69	16	
56-23-5	Carbon Tetrachloride	14.4	9.9	9.9	1.6	1.6	U
78-87-5	1,2-Dichloropropane	14.4	72	72	16	16	U
75-27-4	Bromodichloromethane	14.4	21	21	3.2	3.2	U
79-01-6	Trichloroethene (TCE)	14.4	100	8.5	19	1.6	
10061-01-5	cis-1,3-Dichloropropene	14.4	140	140	31	31	U
108-10-1	4-Methyl-2-pentanone	14.4	130	130	31	31	U
10061-02-6	trans-1,3-Dichloropropene	14.4	71	71	16	16	U
79-00-5	1,1,2-Trichloroethane	14.4	85	85	16	16	U
108-88-3	Toluene	14.4	590	58	160	15	
591-78-6	2-Hexanone	14.4	64	64	16	16	U
124-48-1	Dibromochloromethane	14.4	27	27	3.2	3.2	U
106-93-4	1,2-Dibromoethane	14.4	24	24	3.1	3.1	U
127-18-4	Tetrachloroethene (PCE)	14.4	11	11	1.7	1.7	U
108-90-7	Chlorobenzene	14.4	72	72	16	16	U
100-41-4	Ethylbenzene	14.4	130	130	31	31	U
179601-23-1	m,p-Xylenes	14.4	470	270	110	62	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-3OMIN-035
Lab Code: R1206262-015

Service Request: R1206262
Date Collected: 9/19/12 1600
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 1556
Canister Dilution Factor: 2.04

Initial Pressure (psig): -5.75 Final Pressure (psig): 3.54

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	14.4	160	160	16	16	U
100-42-5	Styrene	14.4	130	130	31	31	U
95-47-6	o-Xylene	14.4	260	130	61	31	
79-34-5	1,1,2,2-Tetrachloroethane	14.4	21	21	3.1	3.1	U
541-73-1	1,3-Dichlorobenzene	14.4	190	190	31	31	U
106-46-7	1,4-Dichlorobenzene	14.4	190	190	31	31	U
95-50-1	1,2-Dichlorobenzene	14.4	190	190	31	31	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	119	70-130	9/24/12 1556	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: SS-30MIN-037
 Lab Code: R1206262-016

Service Request: R1206262
 Date Collected: 9/19/12 1725
 Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 1643
 Canister Dilution Factor: 1.40

Initial Pressure (psig): -1.72 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	8.5	74	74	36	36	U
75-01-4	Vinyl Chloride	8.5	9.9	9.9	3.9	3.9	U
74-83-9	Bromomethane	8.5	71	71	18	18	U
75-00-3	Chloroethane	8.5	96	96	36	36	U
67-64-1	Acetone	8.5	2700	820	1100	350	
75-69-4	Trichlorofluoromethane (CFC 11)	8.5	100	100	18	18	U
75-35-4	1,1-Dichloroethene	8.5	72	72	18	18	U
75-09-2	Methylene Chloride	8.5	63	63	18	18	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	8.5	28	28	3.7	3.7	U
75-15-0	Carbon Disulfide	8.5	56	56	18	18	U
156-60-5	trans-1,2-Dichloroethene	8.5	72	72	18	18	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	8.5	74	74	18	18	U
1634-04-4	Methyl tert-Butyl Ether	8.5	130	130	36	36	U
108-05-4	Vinyl Acetate	8.5	820	820	230	230	U
78-93-3	2-Butanone (MEK)	8.5	150	110	52	36	
156-59-2	cis-1,2-Dichloroethene	8.5	72	72	18	18	U
67-66-3	Chloroform	8.5	89	89	18	18	U
107-06-2	1,2-Dichloroethane	8.5	74	74	18	18	U
71-55-6	1,1,1-Trichloroethane (TCA)	8.5	99	99	18	18	U
71-43-2	Benzene	8.5	220	58	69	18	
56-23-5	Carbon Tetrachloride	8.5	12	12	1.8	1.8	U
78-87-5	1,2-Dichloropropane	8.5	84	84	18	18	U
75-27-4	Bromodichloromethane	8.5	25	25	3.7	3.7	U
79-01-6	Trichloroethene (TCE)	8.5	140	9.9	26	1.8	
10061-01-5	cis-1,3-Dichloropropene	8.5	160	160	36	36	U
108-10-1	4-Methyl-2-pentanone	8.5	150	150	36	36	U
10061-02-6	trans-1,3-Dichloropropene	8.5	82	82	18	18	U
79-00-5	1,1,2-Trichloroethane	8.5	99	99	18	18	U
108-88-3	Toluene	8.5	770	68	200	18	
591-78-6	2-Hexanone	8.5	74	74	18	18	U
124-48-1	Dibromochloromethane	8.5	31	31	3.7	3.7	U
106-93-4	1,2-Dibromoethane	8.5	28	28	3.6	3.6	U
127-18-4	Tetrachloroethene (PCE)	8.5	420	13	62	1.9	
108-90-7	Chlorobenzene	8.5	84	84	18	18	U
100-41-4	Ethylbenzene	8.5	160	160	36	36	U
179601-23-1	m,p-Xylenes	8.5	440	310	100	72	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-30MIN-037
Lab Code: R1206262-016

Service Request: R1206262
Date Collected: 9/19/12 1725
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 1643
Canister Dilution Factor: 1.40

Initial Pressure (psig): -1.72 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m ³	MRL µg/m ³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	8.5	190	190	18	18	U
100-42-5	Styrene	8.5	150	150	36	36	U
95-47-6	o-Xylene	8.5	160	160	37	36	
79-34-5	1,1,2,2-Tetrachloroethane	8.5	25	25	3.6	3.6	U
541-73-1	1,3-Dichlorobenzene	8.5	220	220	36	36	U
106-46-7	1,4-Dichlorobenzene	8.5	220	220	36	36	U
95-50-1	1,2-Dichlorobenzene	8.5	220	220	36	36	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	114	70-130	9/24/12 1643	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: SS-8HR-038
 Lab Code: R1206262-017

Service Request: R1206262
 Date Collected: 9/20/12 0915
 Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/25/12 0811
 Canister Dilution Factor: 1.41

Initial Pressure (psig): -1.82 Final Pressure (psig): 3.51

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1.3	490	490	240	240	U
75-01-4	Vinyl Chloride	1.3	65	65	25	25	U
74-83-9	Bromomethane	1.3	470	470	120	120	U
75-00-3	Chloroethane	1.3	630	630	240	240	U
67-64-1	Acetone	1.3	5400	5400	2300	2300	U
75-69-4	Trichlorofluoromethane (CFC 11)	1.3	670	670	120	120	U
75-35-4	1,1-Dichloroethene	1.3	480	480	120	120	U
75-09-2	Methylene Chloride	1.3	410	410	120	120	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.3	180	180	24	24	U
75-15-0	Carbon Disulfide	1.3	370	370	120	120	U
156-60-5	trans-1,2-Dichloroethene	1.3	4600	480	1200	120	
75-34-3	1,1-Dichloroethane (1,1-DCA)	1.3	490	490	120	120	U
1634-04-4	Methyl tert-Butyl Ether	1.3	860	860	240	240	U
108-05-4	Vinyl Acetate	1.3	5400	5400	1500	1500	U
78-93-3	2-Butanone (MEK)	1.3	710	710	240	240	U
156-59-2	cis-1,2-Dichloroethene	1.3	2900	480	730	120	
67-66-3	Chloroform	1.3	590	590	120	120	U
107-06-2	1,2-Dichloroethane	1.3	490	490	120	120	U
71-55-6	1,1,1-Trichloroethane (TCA)	1.3	650	650	120	120	U
71-43-2	Benzene	1.3	380	380	120	120	U
56-23-5	Carbon Tetrachloride	1.3	76	76	12	12	U
78-87-5	1,2-Dichloropropane	1.3	550	550	120	120	U
75-27-4	Bromodichloromethane	1.3	160	160	24	24	U
79-01-6	Trichloroethene (TCE)	1.3	51000	65	9600	12	
10061-01-5	cis-1,3-Dichloropropene	1.3	1100	1100	240	240	U
108-10-1	4-Methyl-2-pentanone	1.3	980	980	240	240	U
10061-02-6	trans-1,3-Dichloropropene	1.3	540	540	120	120	U
79-00-5	1,1,2-Trichloroethane	1.3	650	650	120	120	U
108-88-3	Toluene	1.3	440	440	120	120	U
591-78-6	2-Hexanone	1.3	490	490	120	120	U
124-48-1	Dibromochloromethane	1.3	210	210	24	24	U
106-93-4	1,2-Dibromoethane	1.3	180	180	24	24	U
127-18-4	Tetrachloroethene (PCE)	1.3	87	87	13	13	U
108-90-7	Chlorobenzene	1.3	550	550	120	120	U
100-41-4	Ethylbenzene	1.3	1000	1000	240	240	U
179601-23-1	m,p-Xylenes	1.3	2100	2100	480	480	U

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-038
Lab Code: R1206262-017

Service Request: R1206262
Date Collected: 9/20/12 0915
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/25/12 0811
Canister Dilution Factor: 1.41

Initial Pressure (psig): -1.82 Final Pressure (psig): 3.51

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	1.3	1200	1200	120	120	U
100-42-5	Styrene	1.3	1000	1000	240	240	U
95-47-6	o-Xylene	1.3	1000	1000	240	240	U
79-34-5	1,1,2,2-Tetrachloroethane	1.3	160	160	24	24	U
541-73-1	1,3-Dichlorobenzene	1.3	1400	1400	240	240	U
106-46-7	1,4-Dichlorobenzene	1.3	1400	1400	240	240	U
95-50-1	1,2-Dichlorobenzene	1.3	1400	1400	240	240	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	111	70-130	9/25/12 0811	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: SS-8HR-039
 Lab Code: R1206262-018

Service Request: R1206262
 Date Collected: 9/20/12 0935
 Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/25/12 0857
 Canister Dilution Factor: 1.55

Initial Pressure (psig): -2.95 Final Pressure (psig): 3.51

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	20	35	35	17	17	U
75-01-4	Vinyl Chloride	20	4.7	4.7	1.8	1.8	U
74-83-9	Bromomethane	20	33	33	8.6	8.6	U
75-00-3	Chloroethane	20	45	45	17	17	U
67-64-1	Acetone	20	390	390	160	160	U
75-69-4	Trichlorofluoromethane (CFC 11)	20	48	48	8.6	8.6	U
75-35-4	1,1-Dichloroethene	20	34	34	8.6	8.6	U
75-09-2	Methylene Chloride	20	29	29	8.5	8.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	20	13	13	1.7	1.7	U
75-15-0	Carbon Disulfide	20	26	26	8.5	8.5	U
156-60-5	trans-1,2-Dichloroethene	20	140	34	35	8.6	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	35	35	8.6	8.6	U
1634-04-4	Methyl tert-Butyl Ether	20	61	61	17	17	U
108-05-4	Vinyl Acetate	20	390	390	110	110	U
78-93-3	2-Butanone (MEK)	20	50	50	17	17	U
156-59-2	cis-1,2-Dichloroethene	20	240	34	61	8.6	
67-66-3	Chloroform	20	42	42	8.6	8.6	U
107-06-2	1,2-Dichloroethane	20	35	35	8.6	8.6	U
71-55-6	1,1,1-Trichloroethane (TCA)	20	150	47	28	8.5	
71-43-2	Benzene	20	27	27	8.5	8.5	U
56-23-5	Carbon Tetrachloride	20	5.4	5.4	0.86	0.86	U
78-87-5	1,2-Dichloropropane	20	40	40	8.6	8.6	U
75-27-4	Bromodichloromethane	20	12	12	1.7	1.7	U
79-01-6	Trichloroethene (TCE)	20	3800	4.7	710	0.87	
10061-01-5	cis-1,3-Dichloropropene	20	78	78	17	17	U
108-10-1	4-Methyl-2-pentanone	20	70	70	17	17	U
10061-02-6	trans-1,3-Dichloropropene	20	39	39	8.5	8.5	U
79-00-5	1,1,2-Trichloroethane	20	47	47	8.5	8.5	U
108-88-3	Toluene	20	330	32	87	8.4	
591-78-6	2-Hexanone	20	35	35	8.5	8.5	U
124-48-1	Dibromochloromethane	20	15	15	1.7	1.7	U
106-93-4	1,2-Dibromoethane	20	13	13	1.7	1.7	U
127-18-4	Tetrachloroethene (PCE)	20	22	6.2	3.3	0.91	
108-90-7	Chlorobenzene	20	40	40	8.6	8.6	U
100-41-4	Ethylbenzene	20	74	74	17	17	U
179601-23-1	m,p-Xylenes	20	150	150	34	34	U

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-039
Lab Code: R1206262-018

Service Request: R1206262
Date Collected: 9/20/12 0935
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/25/12 0857
Canister Dilution Factor: 1.55

Initial Pressure (psig): -2.95 Final Pressure (psig): 3.51

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	20	88	88	8.5	8.5	U
100-42-5	Styrene	20	73	73	17	17	U
95-47-6	o-Xylene	20	74	74	17	17	U
79-34-5	1,1,2,2-Tetrachloroethane	20	12	12	1.7	1.7	U
541-73-1	1,3-Dichlorobenzene	20	100	100	17	17	U
106-46-7	1,4-Dichlorobenzene	20	100	100	17	17	U
95-50-1	1,2-Dichlorobenzene	20	100	100	17	17	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	112	70-130	9/25/12 0857	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-043
Lab Code: R1206262-019

Service Request: R1206262
Date Collected: 9/20/12 0745
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 1811
Canister Dilution Factor: 1.63

Initial Pressure (psig): -3.54 Final Pressure (psig): 3.52

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	20	37	37	18	18	U
75-01-4	Vinyl Chloride	20	4.9	4.9	1.9	1.9	U
74-83-9	Bromomethane	20	35	35	9.0	9.0	U
75-00-3	Chloroethane	20	47	47	18	18	U
67-64-1	Acetone	20	410	410	170	170	U
75-69-4	Trichlorofluoromethane (CFC 11)	20	51	51	9.0	9.0	U
75-35-4	1,1-Dichloroethene	20	36	36	9.0	9.0	U
75-09-2	Methylene Chloride	20	31	31	8.9	8.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	20	52	14	6.8	1.8	
75-15-0	Carbon Disulfide	20	600	28	190	8.9	
156-60-5	trans-1,2-Dichloroethene	20	36	36	9.0	9.0	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	37	37	9.1	9.1	U
1634-04-4	Methyl tert-Butyl Ether	20	64	64	18	18	U
108-05-4	Vinyl Acetate	20	410	410	120	120	U
78-93-3	2-Butanone (MEK)	20	53	53	18	18	U
156-59-2	cis-1,2-Dichloroethene	20	36	36	9.0	9.0	U
67-66-3	Chloroform	20	44	44	9.0	9.0	U
107-06-2	1,2-Dichloroethane	20	37	37	9.1	9.1	U
71-55-6	1,1,1-Trichloroethane (TCA)	20	49	49	9.0	9.0	U
71-43-2	Benzene	20	29	29	8.9	8.9	U
56-23-5	Carbon Tetrachloride	20	5.7	5.7	0.91	0.91	U
78-87-5	1,2-Dichloropropane	20	42	42	9.0	9.0	U
75-27-4	Bromodichloromethane	20	12	12	1.8	1.8	U
79-01-6	Trichloroethene (TCE)	20	4100	4.9	770	0.91	
10061-01-5	cis-1,3-Dichloropropene	20	82	82	18	18	U
108-10-1	4-Methyl-2-pentanone	20	73	73	18	18	U
10061-02-6	trans-1,3-Dichloropropene	20	41	41	9.0	9.0	U
79-00-5	1,1,2-Trichloroethane	20	49	49	9.0	9.0	U
108-88-3	Toluene	20	1300	33	350	8.9	
591-78-6	2-Hexanone	20	37	37	9.0	9.0	U
124-48-1	Dibromochloromethane	20	15	15	1.8	1.8	U
106-93-4	1,2-Dibromoethane	20	14	14	1.8	1.8	U
127-18-4	Tetrachloroethene (PCE)	20	12	6.5	1.7	0.96	
108-90-7	Chlorobenzene	20	42	42	9.0	9.0	U
100-41-4	Ethylbenzene	20	77	77	18	18	U
179601-23-1	m,p-Xylenes	20	160	160	36	36	U

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-043
Lab Code: R1206262-019

Service Request: R1206262
Date Collected: 9/20/12 0745
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 1811
Canister Dilution Factor: 1.63

Initial Pressure (psig): -3.54 Final Pressure (psig): 3.52

CAS #	Analyte Name	Sample Amount mL	Result µg/m ³	MRL µg/m ³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	20	93	93	9.0	9.0	U
100-42-5	Styrene	20	77	77	18	18	U
95-47-6	o-Xylene	20	77	77	18	18	U
79-34-5	1,1,2,2-Tetrachloroethane	20	12	12	1.8	1.8	U
541-73-1	1,3-Dichlorobenzene	20	110	110	18	18	U
106-46-7	1,4-Dichlorobenzene	20	110	110	18	18	U
95-50-1	1,2-Dichlorobenzene	20	110	110	18	18	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	117	70-130	9/24/12 1811	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: AA-8HR-043
 Lab Code: R1206262-020

Service Request: R1206262
 Date Collected: 9/20/12 0750
 Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 2018
 Canister Dilution Factor: 1.76

Initial Pressure (psig): -4.37

Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	75	11	11	5.1	5.1	U
75-01-4	Vinyl Chloride	75	1.4	1.4	0.55	0.55	U
74-83-9	Bromomethane	75	10	10	2.6	2.6	U
75-00-3	Chloroethane	75	14	14	5.2	5.2	U
67-64-1	Acetone	75	120	120	49	49	U
75-69-4	Trichlorofluoromethane (CFC 11)	75	15	15	2.6	2.6	U
75-35-4	1,1-Dichloroethene	75	10	10	2.6	2.6	U
75-09-2	Methylene Chloride	75	8.9	8.9	2.6	2.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	75	4.0	4.0	0.52	0.52	U
75-15-0	Carbon Disulfide	75	13	8.0	4.2	2.6	
156-60-5	trans-1,2-Dichloroethene	75	10	10	2.6	2.6	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	75	11	11	2.6	2.6	U
1634-04-4	Methyl tert-Butyl Ether	75	19	19	5.1	5.1	U
108-05-4	Vinyl Acetate	75	120	120	33	33	U
78-93-3	2-Butanone (MEK)	75	15	15	5.2	5.2	U
156-59-2	cis-1,2-Dichloroethene	75	10	10	2.6	2.6	U
67-66-3	Chloroform	75	13	13	2.6	2.6	U
107-06-2	1,2-Dichloroethane	75	11	11	2.6	2.6	U
71-55-6	1,1,1-Trichloroethane (TCA)	75	14	14	2.6	2.6	U
71-43-2	Benzene	75	8.2	8.2	2.6	2.6	U
56-23-5	Carbon Tetrachloride	75	1.6	1.6	0.26	0.26	U
78-87-5	1,2-Dichloropropane	75	12	12	2.6	2.6	U
75-27-4	Bromodichloromethane	75	3.5	3.5	0.53	0.53	U
79-01-6	Trichloroethene (TCE)	75	1400	1.4	260	0.26	E
10061-01-5	cis-1,3-Dichloropropene	75	23	23	5.2	5.2	U
108-10-1	4-Methyl-2-pentanone	75	21	21	5.2	5.2	U
10061-02-6	trans-1,3-Dichloropropene	75	12	12	2.6	2.6	U
79-00-5	1,1,2-Trichloroethane	75	14	14	2.6	2.6	U
108-88-3	Toluene	75	75	9.6	20	2.6	
591-78-6	2-Hexanone	75	11	11	2.6	2.6	U
124-48-1	Dibromochloromethane	75	4.5	4.5	0.52	0.52	U
106-93-4	1,2-Dibromoethane	75	4.0	4.0	0.52	0.52	U
127-18-4	Tetrachloroethene (PCE)	75	1.9	1.9	0.28	0.28	U
108-90-7	Chlorobenzene	75	12	12	2.6	2.6	U
100-41-4	Ethylbenzene	75	22	22	5.1	5.1	U
179601-23-1	m,p-Xylenes	75	45	45	10	10	U

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: AA-8HR-043
Lab Code: R1206262-020

Service Request: R1206262
Date Collected: 9/20/12 0750
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 2018
Canister Dilution Factor: 1.76

Initial Pressure (psig): -4.37 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m ³	MRL µg/m ³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	75	27	27	2.6	2.6	U
100-42-5	Styrene	75	22	22	5.2	5.2	U
95-47-6	o-Xylene	75	22	22	5.1	5.1	U
79-34-5	1,1,2,2-Tetrachloroethane	75	3.5	3.5	0.51	0.51	U
541-73-1	1,3-Dichlorobenzene	75	31	31	5.2	5.2	U
106-46-7	1,4-Dichlorobenzene	75	31	31	5.2	5.2	U
95-50-1	1,2-Dichlorobenzene	75	31	31	5.2	5.2	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	115	70-130	9/24/12 2018	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air

Service Request: R1206262
 Date Collected: 9/20/12 0750
 Date Received: 9/21/12

Sample Name: AA-8HR-043
 Lab Code: R1206262-020
 Run Type: Dilution

Analytical Method: TO-15

Date Analyzed: 9/25/12 0940
 Canister Dilution Factor: 1.76

Initial Pressure (psig): -4.37

Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	50	16	16	7.7	7.7	U
75-01-4	Vinyl Chloride	50	2.1	2.1	0.83	0.83	U
74-83-9	Bromomethane	50	15	15	3.9	3.9	U
75-00-3	Chloroethane	50	20	20	7.7	7.7	U
67-64-1	Acetone	50	180	180	74	74	U
75-69-4	Trichlorofluoromethane (CFC 11)	50	22	22	3.9	3.9	U
75-35-4	1,1-Dichloroethene	50	15	15	3.9	3.9	U
75-09-2	Methylene Chloride	50	13	13	3.9	3.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	50	6.0	6.0	0.78	0.78	U
75-15-0	Carbon Disulfide	50	12	12	4.0	3.8	D
156-60-5	trans-1,2-Dichloroethene	50	15	15	3.9	3.9	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	16	16	3.9	3.9	U
1634-04-4	Methyl tert-Butyl Ether	50	28	28	7.7	7.7	U
108-05-4	Vinyl Acetate	50	180	180	50	50	U
78-93-3	2-Butanone (MEK)	50	23	23	7.8	7.8	U
156-59-2	cis-1,2-Dichloroethene	50	15	15	3.9	3.9	U
67-66-3	Chloroform	50	19	19	3.9	3.9	U
107-06-2	1,2-Dichloroethane	50	16	16	3.9	3.9	U
71-55-6	1,1,1-Trichloroethane (TCA)	50	21	21	3.9	3.9	U
71-43-2	Benzene	50	12	12	3.9	3.9	U
56-23-5	Carbon Tetrachloride	50	2.5	2.5	0.39	0.39	U
78-87-5	1,2-Dichloropropane	50	18	18	3.9	3.9	U
75-27-4	Bromodichloromethane	50	5.3	5.3	0.79	0.79	U
79-01-6	Trichloroethene (TCE)	50	1400	2.1	250	0.39	D
10061-01-5	cis-1,3-Dichloropropene	50	35	35	7.8	7.8	U
108-10-1	4-Methyl-2-pentanone	50	32	32	7.7	7.7	U
10061-02-6	trans-1,3-Dichloropropene	50	18	18	3.9	3.9	U
79-00-5	1,1,2-Trichloroethane	50	21	21	3.9	3.9	U
108-88-3	Toluene	50	72	14	19	3.8	D
591-78-6	2-Hexanone	50	16	16	3.9	3.9	U
124-48-1	Dibromochloromethane	50	6.7	6.7	0.79	0.79	U
106-93-4	1,2-Dibromoethane	50	6.0	6.0	0.78	0.78	U
127-18-4	Tetrachloroethene (PCE)	50	2.8	2.8	0.42	0.42	U
108-90-7	Chlorobenzene	50	18	18	3.9	3.9	U
100-41-4	Ethylbenzene	50	33	33	7.7	7.7	U
179601-23-1	m,p-Xylenes	50	67	67	15	15	U

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: AA-8HR-043
Lab Code: R1206262-020
Run Type: Dilution

Service Request: R1206262
Date Collected: 9/20/12 0750
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/25/12 0940
Canister Dilution Factor: 1.76

Initial Pressure (psig): -4.37 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m ³	MRL µg/m ³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	50	40	40	3.9	3.9	U
100-42-5	Styrene	50	33	33	7.8	7.8	U
95-47-6	o-Xylene	50	33	33	7.7	7.7	U
79-34-5	1,1,2,2-Tetrachloroethane	50	5.3	5.3	0.77	0.77	U
541-73-1	1,3-Dichlorobenzene	50	46	46	7.7	7.7	U
106-46-7	1,4-Dichlorobenzene	50	46	46	7.7	7.7	U
95-50-1	1,2-Dichlorobenzene	50	46	46	7.7	7.7	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	113	70-130	9/25/12 0940	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: SS-8HR-044
 Lab Code: R1206262-021

Service Request: R1206262
 Date Collected: 9/20/12 0820
 Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 2226
 Canister Dilution Factor: 1.94

Initial Pressure (psig): -5.30

Final Pressure (psig): 3.54

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	36	24	24	12	12	U
75-01-4	Vinyl Chloride	36	3.2	3.2	1.3	1.3	U
74-83-9	Bromomethane	36	23	23	6.0	6.0	U
75-00-3	Chloroethane	36	31	31	12	12	U
67-64-1	Acetone	36	430	270	180	110	
75-69-4	Trichlorofluoromethane (CFC 11)	36	33	33	5.9	5.9	U
75-35-4	1,1-Dichloroethene	36	24	24	6.0	6.0	U
75-09-2	Methylene Chloride	36	20	20	5.9	5.9	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	36	9.2	9.2	1.2	1.2	U
75-15-0	Carbon Disulfide	36	19	18	6.2	5.9	
156-60-5	trans-1,2-Dichloroethene	36	24	24	6.0	6.0	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	36	24	24	6.0	6.0	U
1634-04-4	Methyl tert-Butyl Ether	36	43	43	12	12	U
108-05-4	Vinyl Acetate	36	270	270	77	77	U
78-93-3	2-Butanone (MEK)	36	49	35	17	12	
156-59-2	cis-1,2-Dichloroethene	36	24	24	6.0	6.0	U
67-66-3	Chloroform	36	29	29	6.0	6.0	U
107-06-2	1,2-Dichloroethane	36	24	24	6.0	6.0	U
71-55-6	1,1,1-Trichloroethane (TCA)	36	51	32	9.4	5.9	
71-43-2	Benzene	36	93	19	29	5.9	
56-23-5	Carbon Tetrachloride	36	3.8	3.8	0.60	0.60	U
78-87-5	1,2-Dichloropropane	36	27	27	5.9	5.9	U
75-27-4	Bromodichloromethane	36	8.1	8.1	1.2	1.2	U
79-01-6	Trichloroethene (TCE)	36	76	3.2	14	0.60	
10061-01-5	cis-1,3-Dichloropropene	36	54	54	12	12	U
108-10-1	4-Methyl-2-pentanone	36	49	49	12	12	U
10061-02-6	trans-1,3-Dichloropropene	36	27	27	5.9	5.9	U
79-00-5	1,1,2-Trichloroethane	36	32	32	5.9	5.9	U
108-88-3	Toluene	36	1700	22	460	5.9	
591-78-6	2-Hexanone	36	24	24	5.9	5.9	U
124-48-1	Dibromochloromethane	36	10	10	1.2	1.2	U
106-93-4	1,2-Dibromoethane	36	9.2	9.2	1.2	1.2	U
127-18-4	Tetrachloroethene (PCE)	36	16	4.3	2.3	0.64	
108-90-7	Chlorobenzene	36	27	27	6.0	6.0	U
100-41-4	Ethylbenzene	36	51	51	12	12	U
179601-23-1	m,p-Xylenes	36	200	100	47	24	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: SS-8HR-044
Lab Code: R1206262-021

Service Request: R1206262
Date Collected: 9/20/12 0820
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/24/12 2226
Canister Dilution Factor: 1.94

Initial Pressure (psig): -5.30 Final Pressure (psig): 3.54

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	36	61	61	5.9	5.9	U
100-42-5	Styrene	36	51	51	12	12	U
95-47-6	<i>o</i> -Xylene	36	78	51	18	12	
79-34-5	1,1,2,2-Tetrachloroethane	36	8.1	8.1	1.2	1.2	U
541-73-1	1,3-Dichlorobenzene	36	71	71	12	12	U
106-46-7	1,4-Dichlorobenzene	36	71	71	12	12	U
95-50-1	1,2-Dichlorobenzene	36	71	71	12	12	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	115	70-130	9/24/12 2226	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: AA-8HR-044
 Lab Code: R1206262-022

Service Request: R1206262
 Date Collected: 9/20/12 0825
 Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/25/12 1735
 Canister Dilution Factor: 1.86

Initial Pressure (psig): -4.91 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	0.89	0.84	0.43	0.41	
75-01-4	Vinyl Chloride	1000	0.11	0.11	0.044	0.044	U
74-83-9	Bromomethane	1000	0.80	0.80	0.21	0.21	U
75-00-3	Chloroethane	1000	1.1	1.1	0.41	0.41	U
67-64-1	Acetone	1000	14	9.3	5.9	3.9	
75-69-4	Trichlorofluoromethane (CFC 11)	1000	1.9	1.2	0.34	0.21	
75-35-4	1,1-Dichloroethene	1000	0.82	0.82	0.21	0.21	U
75-09-2	Methylene Chloride	1000	0.71	0.71	0.20	0.20	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1000	0.58	0.32	0.076	0.041	
75-15-0	Carbon Disulfide	1000	0.63	0.63	0.20	0.20	U
156-60-5	trans-1,2-Dichloroethene	1000	0.82	0.82	0.21	0.21	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.84	0.84	0.21	0.21	U
1634-04-4	Methyl tert-Butyl Ether	1000	1.5	1.5	0.41	0.41	U
108-05-4	Vinyl Acetate	1000	9.3	9.3	2.6	2.6	U
78-93-3	2-Butanone (MEK)	1000	3.1	1.2	1.1	0.41	
156-59-2	cis-1,2-Dichloroethene	1000	0.82	0.82	0.21	0.21	U
67-66-3	Chloroform	1000	1.0	1.0	0.21	0.21	U
107-06-2	1,2-Dichloroethane	1000	0.84	0.84	0.21	0.21	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	1.1	1.1	0.20	0.20	U
71-43-2	Benzene	1000	1.4	0.65	0.45	0.20	
56-23-5	Carbon Tetrachloride	1000	0.61	0.13	0.097	0.021	
78-87-5	1,2-Dichloropropane	1000	0.95	0.95	0.21	0.21	U
75-27-4	Bromodichloromethane	1000	0.28	0.28	0.042	0.042	U
79-01-6	Trichloroethene (TCE)	1000	2.1	0.11	0.39	0.021	
10061-01-5	cis-1,3-Dichloropropene	1000	1.9	1.9	0.41	0.41	U
108-10-1	4-Methyl-2-pentanone	1000	1.7	1.7	0.41	0.41	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.93	0.93	0.20	0.20	U
79-00-5	1,1,2-Trichloroethane	1000	1.1	1.1	0.20	0.20	U
108-88-3	Toluene	1000	7.7	0.76	2.0	0.20	
591-78-6	2-Hexanone	1000	2.4	0.84	0.59	0.20	
124-48-1	Dibromochloromethane	1000	0.35	0.35	0.041	0.041	U
106-93-4	1,2-Dibromoethane	1000	0.32	0.32	0.041	0.041	U
127-18-4	Tetrachloroethene (PCE)	1000	0.15	0.15	0.022	0.022	U
108-90-7	Chlorobenzene	1000	0.95	0.95	0.21	0.21	U
100-41-4	Ethylbenzene	1000	2.5	1.8	0.57	0.41	
179601-23-1	m,p-Xylenes	1000	5.9	3.6	1.4	0.82	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: AA-8HR-044
Lab Code: R1206262-022

Service Request: R1206262
Date Collected: 9/20/12 0825
Date Received: 9/21/12

Analytical Method: TO-15

Date Analyzed: 9/25/12 1735
Canister Dilution Factor: 1.86

Initial Pressure (psig): -4.91 Final Pressure (psig): 3.50

CAS #	Analyte Name	Sample Amount mL	Result µg/m ³	MRL µg/m ³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	1000	2.1	2.1	0.21	0.21	U
100-42-5	Styrene	1000	3.4	1.7	0.79	0.41	
95-47-6	o-Xylene	1000	2.4	1.8	0.56	0.41	
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.28	0.28	0.041	0.041	U
541-73-1	1,3-Dichlorobenzene	1000	2.5	2.5	0.41	0.41	U
106-46-7	1,4-Dichlorobenzene	1000	2.5	2.5	0.41	0.41	U
95-50-1	1,2-Dichlorobenzene	1000	2.5	2.5	0.41	0.41	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	120	70-130	9/25/12 1735	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: Method Blank
 Lab Code: RQ1211334-01

Service Request: R1206262
 Date Collected: NA
 Date Received: NA

Analytical Method: TO-15

Date Analyzed: 9/21/12 1122

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	0.45	0.45	0.22	0.22	U
75-01-4	Vinyl Chloride	1000	0.060	0.060	0.023	0.023	U
74-83-9	Bromomethane	1000	0.43	0.43	0.11	0.11	U
75-00-3	Chloroethane	1000	0.58	0.58	0.22	0.22	U
67-64-1	Acetone	1000	5.0	5.0	2.1	2.1	U
75-69-4	Trichlorofluoromethane (CFC 11)	1000	0.62	0.62	0.11	0.11	U
75-35-4	1,1-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-09-2	Methylene Chloride	1000	0.38	0.38	0.11	0.11	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1000	0.17	0.17	0.022	0.022	U
75-15-0	Carbon Disulfide	1000	0.34	0.34	0.11	0.11	U
156-60-5	trans-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.45	0.45	0.11	0.11	U
1634-04-4	Methyl tert-Butyl Ether	1000	0.79	0.79	0.22	0.22	U
108-05-4	Vinyl Acetate	1000	5.0	5.0	1.4	1.4	U
78-93-3	2-Butanone (MEK)	1000	0.65	0.65	0.22	0.22	U
156-59-2	cis-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
67-66-3	Chloroform	1000	0.54	0.54	0.11	0.11	U
107-06-2	1,2-Dichloroethane	1000	0.45	0.45	0.11	0.11	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.60	0.60	0.11	0.11	U
71-43-2	Benzene	1000	0.35	0.35	0.11	0.11	U
56-23-5	Carbon Tetrachloride	1000	0.070	0.070	0.011	0.011	U
78-87-5	1,2-Dichloropropane	1000	0.51	0.51	0.11	0.11	U
75-27-4	Bromodichloromethane	1000	0.15	0.15	0.022	0.022	U
79-01-6	Trichloroethene (TCE)	1000	0.060	0.060	0.011	0.011	U
10061-01-5	cis-1,3-Dichloropropene	1000	1.0	1.0	0.22	0.22	U
108-10-1	4-Methyl-2-pentanone	1000	0.90	0.90	0.22	0.22	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.50	0.50	0.11	0.11	U
79-00-5	1,1,2-Trichloroethane	1000	0.60	0.60	0.11	0.11	U
108-88-3	Toluene	1000	0.41	0.41	0.11	0.11	U
591-78-6	2-Hexanone	1000	0.45	0.45	0.11	0.11	U
124-48-1	Dibromochloromethane	1000	0.19	0.19	0.022	0.022	U
106-93-4	1,2-Dibromoethane	1000	0.17	0.17	0.022	0.022	U
127-18-4	Tetrachloroethene (PCE)	1000	0.080	0.080	0.012	0.012	U
108-90-7	Chlorobenzene	1000	0.51	0.51	0.11	0.11	U
100-41-4	Ethylbenzene	1000	0.95	0.95	0.22	0.22	U
179601-23-1	m,p-Xylenes	1000	1.9	1.9	0.44	0.44	U

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: Method Blank
Lab Code: RQ1211334-01

Service Request: R1206262
Date Collected: NA
Date Received: NA

Analytical Method: TO-15

Date Analyzed: 9/21/12 1122

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	1000	1.1	1.1	0.11	0.11	U
100-42-5	Styrene	1000	0.94	0.94	0.22	0.22	U
95-47-6	o-Xylene	1000	0.95	0.95	0.22	0.22	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.15	0.15	0.022	0.022	U
541-73-1	1,3-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U
106-46-7	1,4-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U
95-50-1	1,2-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	102	70-130	9/21/12 1122	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: Method Blank
 Lab Code: RQ1211336-01

Service Request: R1206262
 Date Collected: NA
 Date Received: NA

Analytical Method: TO-15

Date Analyzed: 9/24/12 1337

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	0.45	0.45	0.22	0.22	U
75-01-4	Vinyl Chloride	1000	0.060	0.060	0.023	0.023	U
74-83-9	Bromomethane	1000	0.43	0.43	0.11	0.11	U
75-00-3	Chloroethane	1000	0.58	0.58	0.22	0.22	U
67-64-1	Acetone	1000	5.0	5.0	2.1	2.1	U
75-69-4	Trichlorofluoromethane (CFC 11)	1000	0.62	0.62	0.11	0.11	U
75-35-4	1,1-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-09-2	Methylene Chloride	1000	0.38	0.38	0.11	0.11	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1000	0.17	0.17	0.022	0.022	U
75-15-0	Carbon Disulfide	1000	0.34	0.34	0.11	0.11	U
156-60-5	trans-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.45	0.45	0.11	0.11	U
1634-04-4	Methyl tert-Butyl Ether	1000	0.79	0.79	0.22	0.22	U
108-05-4	Vinyl Acetate	1000	5.0	5.0	1.4	1.4	U
78-93-3	2-Butanone (MEK)	1000	0.65	0.65	0.22	0.22	U
156-59-2	cis-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
67-66-3	Chloroform	1000	0.54	0.54	0.11	0.11	U
107-06-2	1,2-Dichloroethane	1000	0.45	0.45	0.11	0.11	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.60	0.60	0.11	0.11	U
71-43-2	Benzene	1000	0.35	0.35	0.11	0.11	U
56-23-5	Carbon Tetrachloride	1000	0.070	0.070	0.011	0.011	U
78-87-5	1,2-Dichloropropane	1000	0.51	0.51	0.11	0.11	U
75-27-4	Bromodichloromethane	1000	0.15	0.15	0.022	0.022	U
79-01-6	Trichloroethene (TCE)	1000	0.060	0.060	0.011	0.011	U
10061-01-5	cis-1,3-Dichloropropene	1000	1.0	1.0	0.22	0.22	U
108-10-1	4-Methyl-2-pentanone	1000	0.90	0.90	0.22	0.22	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.50	0.50	0.11	0.11	U
79-00-5	1,1,2-Trichloroethane	1000	0.60	0.60	0.11	0.11	U
108-88-3	Toluene	1000	0.41	0.41	0.11	0.11	U
591-78-6	2-Hexanone	1000	0.45	0.45	0.11	0.11	U
124-48-1	Dibromochloromethane	1000	0.19	0.19	0.022	0.022	U
106-93-4	1,2-Dibromoethane	1000	0.17	0.17	0.022	0.022	U
127-18-4	Tetrachloroethene (PCE)	1000	0.080	0.080	0.012	0.012	U
108-90-7	Chlorobenzene	1000	0.51	0.51	0.11	0.11	U
100-41-4	Ethylbenzene	1000	0.95	0.95	0.22	0.22	U
179601-23-1	m,p-Xylenes	1000	1.9	1.9	0.44	0.44	U

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: Method Blank
Lab Code: RQ1211336-01

Service Request: R1206262
Date Collected: NA
Date Received: NA

Analytical Method: TO-15

Date Analyzed: 9/24/12 1337

CAS #	Analyte Name	Sample Amount mL	Result µg/m ³	MRL µg/m ³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	1000	1.1	1.1	0.11	0.11	U
100-42-5	Styrene	1000	0.94	0.94	0.22	0.22	U
95-47-6	o-Xylene	1000	0.95	0.95	0.22	0.22	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.15	0.15	0.022	0.022	U
541-73-1	1,3-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U
106-46-7	1,4-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U
95-50-1	1,2-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	111	70-130	9/24/12 1337	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air
 Sample Name: Method Blank
 Lab Code: RQ1211338-01

Service Request: R1206262
 Date Collected: NA
 Date Received: NA

Analytical Method: TO-15

Date Analyzed: 9/25/12 1501

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	0.45	0.45	0.22	0.22	U
75-01-4	Vinyl Chloride	1000	0.060	0.060	0.023	0.023	U
74-83-9	Bromomethane	1000	0.43	0.43	0.11	0.11	U
75-00-3	Chloroethane	1000	0.58	0.58	0.22	0.22	U
67-64-1	Acetone	1000	5.0	5.0	2.1	2.1	U
75-69-4	Trichlorofluoromethane (CFC 11)	1000	0.62	0.62	0.11	0.11	U
75-35-4	1,1-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-09-2	Methylene Chloride	1000	0.38	0.38	0.11	0.11	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1000	0.17	0.17	0.022	0.022	U
75-15-0	Carbon Disulfide	1000	0.34	0.34	0.11	0.11	U
156-60-5	trans-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.45	0.45	0.11	0.11	U
1634-04-4	Methyl tert-Butyl Ether	1000	0.79	0.79	0.22	0.22	U
108-05-4	Vinyl Acetate	1000	5.0	5.0	1.4	1.4	U
78-93-3	2-Butanone (MEK)	1000	0.65	0.65	0.22	0.22	U
156-59-2	cis-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
67-66-3	Chloroform	1000	0.54	0.54	0.11	0.11	U
107-06-2	1,2-Dichloroethane	1000	0.45	0.45	0.11	0.11	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.60	0.60	0.11	0.11	U
71-43-2	Benzene	1000	0.35	0.35	0.11	0.11	U
56-23-5	Carbon Tetrachloride	1000	0.070	0.070	0.011	0.011	U
78-87-5	1,2-Dichloropropane	1000	0.51	0.51	0.11	0.11	U
75-27-4	Bromodichloromethane	1000	0.15	0.15	0.022	0.022	U
79-01-6	Trichloroethene (TCE)	1000	0.060	0.060	0.011	0.011	U
10061-01-5	cis-1,3-Dichloropropene	1000	1.0	1.0	0.22	0.22	U
108-10-1	4-Methyl-2-pentanone	1000	0.90	0.90	0.22	0.22	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.50	0.50	0.11	0.11	U
79-00-5	1,1,2-Trichloroethane	1000	0.60	0.60	0.11	0.11	U
108-88-3	Toluene	1000	0.41	0.41	0.11	0.11	U
591-78-6	2-Hexanone	1000	0.45	0.45	0.11	0.11	U
124-48-1	Dibromochloromethane	1000	0.19	0.19	0.022	0.022	U
106-93-4	1,2-Dibromoethane	1000	0.17	0.17	0.022	0.022	U
127-18-4	Tetrachloroethene (PCE)	1000	0.080	0.080	0.012	0.012	U
108-90-7	Chlorobenzene	1000	0.51	0.51	0.11	0.11	U
100-41-4	Ethylbenzene	1000	0.95	0.95	0.22	0.22	U
179601-23-1	m,p-Xylenes	1000	1.9	1.9	0.44	0.44	U

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air
Sample Name: Method Blank
Lab Code: RQ1211338-01

Service Request: R1206262
Date Collected: NA
Date Received: NA

Analytical Method: TO-15

Date Analyzed: 9/25/12 1501

CAS #	Analyte Name	Sample Amount mL	Result µg/m ³	MRL µg/m ³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	1000	1.1	1.1	0.11	0.11	U
100-42-5	Styrene	1000	0.94	0.94	0.22	0.22	U
95-47-6	o-Xylene	1000	0.95	0.95	0.22	0.22	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.15	0.15	0.022	0.022	U
541-73-1	1,3-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U
106-46-7	1,4-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U
95-50-1	1,2-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	106	70-130	9/25/12 1501	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air

Service Request: R1206262
Date Analyzed: 9/21/12

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m³
Basis: NA

Analysis Lot: 311203

Lab Control Sample
RQ1211334-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Chloromethane	4.63	5.11	91	70 - 130
Vinyl Chloride	5.54	6.33	88	70 - 130
Bromomethane	7.99	9.60	83	70 - 130
Chloroethane	5.53	6.46	86	70 - 130
Acetone	5.62	6.29	89	70 - 130
Trichlorofluoromethane (CFC 11)	13.2	15.0	88	70 - 130
1,1-Dichloroethene	9.28	10.0	93	70 - 130
Methylene Chloride	8.05	8.86	91	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	17.6	19.2	92	70 - 130
Carbon Disulfide	8.11	7.94	102	70 - 130
trans-1,2-Dichloroethene	9.00	10.2	88	70 - 130
1,1-Dichloroethane (1,1-DCA)	9.27	10.2	91	70 - 130
Methyl tert-Butyl Ether	8.59	9.37	92	70 - 130
Vinyl Acetate	8.04	9.24	87	70 - 130
2-Butanone (MEK)	7.24	7.81	93	70 - 130
cis-1,2-Dichloroethene	9.25	10.2	91	70 - 130
Chloroform	11.5	12.8	90	70 - 130
1,2-Dichloroethane	10.6	10.4	102	70 - 130
1,1,1-Trichloroethane (TCA)	14.1	13.8	102	70 - 130
Benzene	7.91	8.14	97	70 - 130
Carbon Tetrachloride	17.0	16.2	105	70 - 130
1,2-Dichloropropane	11.6	11.9	98	70 - 130
Bromodichloromethane	17.6	17.2	102	70 - 130
Trichloroethene (TCE)	14.5	13.8	105	70 - 130
cis-1,3-Dichloropropene	12.0	11.9	101	70 - 130
4-Methyl-2-pentanone	10.2	11.0	93	70 - 130
trans-1,3-Dichloropropene	11.1	11.0	101	70 - 130
1,1,2-Trichloroethane	14.0	14.2	99	70 - 130
Toluene	9.53	9.80	97	70 - 130
2-Hexanone	10.5	11.7	90	70 - 130
Dibromochloromethane	23.2	23.6	98	70 - 130
1,2-Dibromoethane	19.7	19.8	99	70 - 130
Tetrachloroethene (PCE)	20.3	17.5	116	70 - 130
Chlorobenzene	12.6	12.1	104	70 - 130
Ethylbenzene	11.9	11.3	105	70 - 130
m,p-Xylenes	22.7	22.1	103	70 - 130
Bromoform	30.3	26.3	115	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air

Service Request: R1206262
Date Analyzed: 9/21/12

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: $\mu\text{g}/\text{m}^3$

Basis: NA

Analysis Lot: 311203

Lab Control Sample

RQ1211334-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Styrene	11.4	11.2	102	70 - 130
o-Xylene	11.7	12.3	96	70 - 130
1,1,2,2-Tetrachloroethane	17.2	19.4	89	70 - 130
1,3-Dichlorobenzene	17.1	16.2	105	70 - 130
1,4-Dichlorobenzene	16.2	15.8	103	70 - 130
1,2-Dichlorobenzene	16.2	15.8	103	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air

Service Request: R1206262
 Date Analyzed: 9/24/12

Lab Control Sample Summary
 Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m³

Basis: NA

Analysis Lot: 311205

Lab Control Sample

RQ1211336-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Chloromethane	4.24	5.11	83	70 - 130
Vinyl Chloride	5.29	6.33	84	70 - 130
Bromomethane	8.01	9.60	83	70 - 130
Chloroethane	5.27	6.46	82	70 - 130
Acetone	5.03	6.29	80	70 - 130
Trichlorofluoromethane (CFC 11)	13.3	15.0	88	70 - 130
1,1-Dichloroethene	8.88	10.0	89	70 - 130
Methylene Chloride	7.71	8.86	87	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	17.2	19.2	90	70 - 130
Carbon Disulfide	7.83	7.94	99	70 - 130
trans-1,2-Dichloroethene	8.58	10.2	84	70 - 130
1,1-Dichloroethane (1,1-DCA)	8.74	10.2	86	70 - 130
Methyl tert-Butyl Ether	7.98	9.37	85	70 - 130
Vinyl Acetate	6.97	9.24	75	70 - 130
2-Butanone (MEK)	6.47	7.81	83	70 - 130
cis-1,2-Dichloroethene	8.87	10.2	87	70 - 130
Chloroform	11.2	12.8	87	70 - 130
1,2-Dichloroethane	10.2	10.4	98	70 - 130
1,1,1-Trichloroethane (TCA)	13.7	13.8	100	70 - 130
Benzene	7.39	8.14	91	70 - 130
Carbon Tetrachloride	16.8	16.2	104	70 - 130
1,2-Dichloropropane	10.6	11.9	89	70 - 130
Bromodichloromethane	17.2	17.2	99	70 - 130
Trichloroethene (TCE)	14.1	13.8	102	70 - 130
cis-1,3-Dichloropropene	11.2	11.9	94	70 - 130
4-Methyl-2-pentanone	9.35	11.0	85	70 - 130
trans-1,3-Dichloropropene	10.3	11.0	94	70 - 130
1,1,2-Trichloroethane	13.2	14.2	93	70 - 130
Toluene	9.01	9.80	92	70 - 130
2-Hexanone	9.76	11.7	84	70 - 130
Dibromochloromethane	22.8	23.6	97	70 - 130
1,2-Dibromoethane	18.9	19.8	95	70 - 130
Tetrachloroethene (PCE)	20.3	17.5	116	70 - 130
Chlorobenzene	11.5	12.1	96	70 - 130
Ethylbenzene	10.3	11.3	91	70 - 130
m,p-Xylenes	19.9	22.1	90	70 - 130
Bromoform	29.5	26.3	112	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air

Service Request: R1206262
Date Analyzed: 9/24/12

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: $\mu\text{g}/\text{m}^3$

Basis: NA

Analysis Lot: 311205

Lab Control Sample
RQ1211336-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Styrene	10.1	11.2	90	70 - 130
o-Xylene	10.3	12.3	84	70 - 130
1,1,2,2-Tetrachloroethane	15.1	19.4	78	70 - 130
1,3-Dichlorobenzene	15.4	16.2	95	70 - 130
1,4-Dichlorobenzene	14.6	15.8	93	70 - 130
1,2-Dichlorobenzene	14.8	15.8	94	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
 Project: Leica Airs 9/17,19/12
 Sample Matrix: Air

Service Request: R1206262
 Date Analyzed: 9/25/12

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: µg/m³
 Basis: NA

Analysis Lot: 311206

Lab Control Sample
 RQ1211338-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Chloromethane	4.88	5.11	95	70 - 130
Vinyl Chloride	5.79	6.33	91	70 - 130
Bromomethane	8.36	9.60	87	70 - 130
Chloroethane	5.71	6.46	88	70 - 130
Acetone	6.04	6.29	96	70 - 130
Trichlorofluoromethane (CFC 11)	14.4	15.0	96	70 - 130
1,1-Dichloroethene	9.93	10.0	99	70 - 130
Methylene Chloride	8.33	8.86	94	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	18.3	19.2	95	70 - 130
Carbon Disulfide	8.47	7.94	107	70 - 130
trans-1,2-Dichloroethene	9.77	10.2	96	70 - 130
1,1-Dichloroethane (1,1-DCA)	9.76	10.2	96	70 - 130
Methyl tert-Butyl Ether	8.86	9.37	95	70 - 130
Vinyl Acetate	8.46	9.24	92	70 - 130
2-Butanone (MEK)	7.68	7.81	98	70 - 130
cis-1,2-Dichloroethene	9.57	10.2	94	70 - 130
Chloroform	12.5	12.8	97	70 - 130
1,2-Dichloroethane	11.2	10.4	108	70 - 130
1,1,1-Trichloroethane (TCA)	14.8	13.8	107	70 - 130
Benzene	7.96	8.14	98	70 - 130
Carbon Tetrachloride	17.8	16.2	110	70 - 130
1,2-Dichloropropane	11.9	11.9	100	70 - 130
Bromodichloromethane	18.6	17.2	108	70 - 130
Trichloroethene (TCE)	14.4	13.8	104	70 - 130
cis-1,3-Dichloropropene	12.2	11.9	102	70 - 130
4-Methyl-2-pentanone	11.1	11.0	101	70 - 130
trans-1,3-Dichloropropene	11.4	11.0	103	70 - 130
1,1,2-Trichloroethane	14.2	14.2	100	70 - 130
Toluene	9.66	9.80	99	70 - 130
2-Hexanone	11.5	11.7	98	70 - 130
Dibromochloromethane	23.9	23.6	101	70 - 130
1,2-Dibromoethane	19.8	19.8	100	70 - 130
Tetrachloroethene (PCE)	20.2	17.5	116	70 - 130
Chlorobenzene	12.0	12.1	99	70 - 130
Ethylbenzene	11.0	11.3	98	70 - 130
m,p-Xylenes	21.2	22.1	96	70 - 130
Bromoform	29.9	26.3	114	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Airs 9/17,19/12
Sample Matrix: Air

Service Request: R1206262
Date Analyzed: 9/25/12

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: $\mu\text{g}/\text{m}^3$
Basis: NA

Analysis Lot: 311206

Lab Control Sample
RQ1211338-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Styrene	10.6	11.2	94	70 - 130
o-Xylene	11.1	12.3	90	70 - 130
1,1,2,2-Tetrachloroethane	16.7	19.4	86	70 - 130
1,3-Dichlorobenzene	16.1	16.2	99	70 - 130
1,4-Dichlorobenzene	15.3	15.8	97	70 - 130
1,2-Dichlorobenzene	15.3	15.8	97	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



CHAIN OF CUSTODY - AIR

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 | 585.288.5380 | 585.288.8475 (fax) | www.caslab.com

Requested Turnaround Time in Business Days from Receipt, please circle: 1 Day 2 Day 3 Day 4 Day 5 Day 10 Day-Standard

CAS Project #:

Company Name: Energy Solutions Project Name: Leica CAS Contact:

Address: 100 Mill Plain Rd Project Number: 137015

City, State, Zip: DANBURY CT 06811 P.O. #/Billing Information:

Project Manager: Bob McPeak

Phone: 801 303 1292

Fax:

Email (for result reporting): mcpeak@energysolutions.com

Sampler (Print & Sign): DAN Sytker

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID		Flow Controller ID	on/off	Analysis Method and/or Analytes	Comments Specific Instructions
				Canister ID	Flow Controller ID				
SS-30min-036	-001	9/19/12	0900	SLC00218	FL00789	24"	7"	X	30 min sample
SS-30min-032	-002	9/19/12	0945	SLC0254	FL00747A	1"	6"	X	"
SS-30min-033	-003	9/19/12	0910	SL00084	FL00713	28"	2"	X	"
SS-30min-034	-004	9/19/12	0915	SLC00218	FL00739	29.5"	4.5"	X	"

What State were samples collected in:

Project Requirements (MRLs, QAPP, etc.):

Report Tier Levels - please select:

Tier I (Results/Default, if not specified)

Tier II (Results + QC)

Tier III (CLP Forms Only)

Tier IV (Data Validation)

EDD required: YES NO EDD Units:

Relinquished by: (Signature) Date: Time:

Relinquished by: (Signature) Date: Time:

Relinquished by: (Signature) Date: Time:

R1206262

Energy Solutions, Inc.
Leica Airs 9/17, 19/12



1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623 | 585.288.5380 | 585.288.8475 (fax) | www.caslab.com

Requested Turnaround Time in Business Days from Receipt, please circle:

1 Day 2 Day 3 Day 4 Day 5 Day 10 Day-Standard

CAS Project #:

Company Name: Energy Solutions		Project Name: Leica		CAS Contact: KAREAO BUNKER				
Address: 100 mill Plain Rd		Project Number: 137015		Analysis Method and/or Analytes				
City, State, Zip: Danbury CT 06811		P.O. #/Billing Information:		Comments Specific Instructions				
Project Manager: Bob McPeck								
Phone: 807 303 1092		Fax:		Helium TO-15 X X X X X X all shut off @ 1845 9/17 off @ 1900 9/17				
Email (for result reporting): R.McPeck@energysolutions.com		Sampler (Print & Sign): DAN SCYLSKA						
Client Sample ID	Laboratory ID Number	Date Collected	Time Collected			Canister ID	Flow Controller ID	on/off IIRL
SS-8hr-040	-005	9/17/12	1030			SLL00863	FL00799	29.5/5
AA-8hr-040	-006	9/17/12	1028			SLL00842	FL00883	26/6
SS-8hr-041	-007	9/17/12	1038			SLL00839	FL00880	28/8.5
AA-8hr-041	-008	9/17/12	1040	SLL00819	FL00749	29.5/8.5		
SS-8hr-041 dup	-009	9/17/12	1038	SLL00861	FL00825	26.5/6.5		
SS-8hr-037	-010	9/17/12	1100	SLL00176	FL00863	29.5/4.5		

What State were samples collected in:


Report Tier Levels - please select:
 Tier I (Results/Default, if not specified) _____
 Tier II (Results/DOC) _____
 Tier III (CLP Forms Only) _____
 Tier IV (Data Validation) _____

Reinquired by: (Signature) _____ Date: 9/19/12 Time: 1035
 Reinquired by: (Signature) _____ Date: 9/19/12 Time: 1215
 Reinquired by: (Signature) _____ Date: _____ Time: _____

EDD required: YES / NO EDD Units: _____
 Type: _____
 Received by: (Signature) _____ Date: 9/19/12 Time: 1035
 Received by: (Signature) _____ Date: 9/19/12 Time: 1215
 Received by: (Signature) _____ Date: _____ Time: _____

Project Requirements (MRLs, QAPP, etc.)

R1206262
 Energy Solutions, Inc.
 Leica Airs 9/17, 9/12





Cooler Receipt and Preservation

R1206262

5

Energy Solutions, Inc.
Leica Alrs 9/17, 19/12



Project/Client Leica Folder Number _____

Cooler received on 9/19/12 by: AD COURIER: ALS UPS FEDEX VELOCITY CLIENT

- Were custody seals on outside of cooler? YES NO
- Were custody papers properly filled out (ink, signed, etc.)? YES NO
- Did all bottles arrive in good condition (unbroken)? YES NO
- Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
- Were Ice or Ice packs present? YES NO
- Where did the bottles originate? ALS/ROC, CLIENT
- Temperature of cooler(s) upon receipt: AIR

Is the temperature within 0° - 6° C?: Yes Yes Yes Yes Yes
 If No, Explain Below No No No No No

Date/Time Temperatures Taken: AIR

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location SMO by AD on 9/19/12 at 1227
 5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: CB 10/1/12

Cooler Breakdown: Date: _____ Time: _____ by: _____

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO
- Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

pH	Reagent	Lot Received**		Exp	Sample ID	Vol. Added	Lot Added	Final pH
		YES	NO					
≥12	NaOH							
≤2	HNO ₃							
≤2	H ₂ SO ₄							
<4	NaHSO ₄							
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)				
	Na ₂ S ₂ O ₃	-	-					
	Zn Aceta	-	-					
	HCl	*	*					

Yes = All samples OK
 No = Samples were preserved at lab as listed
 PM OK to Adjust: _____

*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet

Bottle lot numbers: _____
Other Comments: _____

PC Secondary Review: CB 10/1/12
H:\SMODOCS\Cooler Receipt 5.doc

*significant air bubbles: VOA > 5-6 mm, WC > 1 in. diameter

Requested Turnaround Time in Business Days from Receipt, please circle:

1 Day 2 Day 3 Day 4 Day 5 Day 10 Day-Standard

CAS Project #:

Company Name: <u>Energy Solutions</u>		Project Name: <u>Leica</u>		CAS Contact: <u>KAREN BUNKER</u>	
Address: <u>100 Mill Plain Rd</u>		Project Number: <u>137015</u>		Analysis Method and/or Analytes	
City, State, Zip: <u>DANBURY CT 06811</u>		P.O. #/Billing Information:		Helium	
Project Manager: <u>Bob McPeak</u>		Sampler (Print & Sign): <u>Dan Synka</u>		F-15	
Phone: <u>8013031092</u>		Canister ID		Flow Controller ID	
Fax:		Time Collected		" No on/44	
Email (for result reporting): <u>RMcPeak@energysolutions.com</u>		Date Collected		Flow Controller ID	
Client Sample ID		Laboratory ID Number		Canister ID	
<u>SS-8hr-045</u>	<u>-011</u>	<u>9/19/12</u>	<u>1025</u>	<u>SLC00265</u>	<u>FC00750</u>
<u>AA-8hr-045</u>	<u>-013</u>		<u>1030</u>	<u>SLC00265</u>	<u>FC00750</u>
<u>AA-8hr-042</u>	<u>-013</u>		<u>1100</u>	<u>SLC00257</u>	<u>FC00710</u>
<u>SS-8hr-042</u>	<u>-014</u>		<u>1115</u>	<u>SLC00260</u>	<u>FC00719</u>
<u>SS-30 min-035</u>	<u>-015</u>		<u>1600</u>	<u>SLC00173</u>	<u>FC00758</u>
<u>SS-30 min-037</u>	<u>-016</u>		<u>1725</u>	<u>SLC00221</u>	<u>FC00843</u>
<u>SS-8hr-038</u>	<u>-017</u>	<u>9/20/12</u>	<u>0915</u>	<u>SLC00173</u>	<u>FC00658</u>
<u>SS-8hr-039</u>	<u>-018</u>		<u>0935</u>	<u>SLC00189</u>	<u>FC00844</u>
<u>SS-8hr-043</u>	<u>-019</u>		<u>0745</u>	<u>SLC00262</u>	<u>FC00850</u>
<u>AA-8hr-043</u>	<u>-020</u>		<u>0750</u>	<u>SLC00264</u>	<u>FC00853</u>
<u>SS-8hr-044</u>	<u>-021</u>		<u>0820</u>	<u>SLC00256</u>	<u>FC00822</u>
<u>AA-8hr-044</u>	<u>-022</u>		<u>0825</u>	<u>SLC00259</u>	<u>FC00758</u>

What State were samples collected in: NY Project Requirements (MRLs, GAPP, etc.):

Report Tier Levels - please select: Tier I (Results/Default, if not specified) _____ Tier II (Results + QC) _____ Tier III (CLP Forms Only) _____ Tier IV (Data Validation) _____	EDD required: <u>YES</u> / NO _____ Type: _____ EDD Units: _____
Relinquished by: (Signature) <u>[Signature]</u> Date: <u>9/19/12</u> Time: <u>11:30</u>	Received by: (Signature) <u>[Signature]</u> Date: <u>9-21-12</u> Time: <u>12:45</u>
Relinquished by: (Signature) <u>[Signature]</u> Date: <u>9-21-12</u> Time: <u>12:45</u>	Received by: (Signature) <u>[Signature]</u> Date: <u>9-21-12</u> Time: <u>12:45</u>

R1206262
Energy Solutions, Inc.
Leica Air 9/17, 19/12





Cooler Receipt and Preservation

R1206262

5

Project/Client Energy Solutions Folder NumberEnergy Solutions, Inc.
Leica Airs 9/17,19/12Cooler received on 9-21-12 by: ME COURIER: ALS UPS FEDEX VELOCITY CLIENT

- Were custody seals on outside of cooler? YES NO
- Were custody papers properly filled out (ink, signed, etc.)? YES NO
- Did all bottles arrive in good condition (unbroken)? YES NO
- Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
- Were Ice or Ice packs present? YES NO
- Where did the bottles originate? ALS/ROC, CLIENT
- Temperature of cooler(s) upon receipt: Aircanisters

Is the temperature within 0° - 6° C?: Yes N/A Yes Yes Yes YesIf No, Explain Below No N/A No No No NoDate/Time Temperatures Taken: N/A - Air samples

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location NA-Air by _____ on _____ at _____
5035 samples placed in storage location _____ by _____ on _____ at _____PC Secondary Review: KB 10/6/12Cooler Breakdown: Date: 9/21/12 Time: 1449 by: Ahd

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO
- Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies: _____

pH	Reagent	Lot Received		Exp	Sample ID	Vol. Added	Lot Added	Final pH
		YES	NO					
≥12	NaOH							
≤2	HNO ₃							
≤2	H ₂ SO ₄							
<4	NaHSO ₄							
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)				
	Na ₂ S ₂ O ₃	-	-					
	Zn Aceta	-	-					
	HCl	*	*					

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet

Bottle lot numbers: _____
Other Comments: _____PC Secondary Review: KB 10/6/12
H:\SMODOCS\Cooler Receipt 5.doc

*significant air bubbles: VOA > 5-6 mm ; WC -1 in. diameter

LABORATORY REPORT

October 4, 2012

Robert McPeak
Energy Solutions, Inc.
100 Mill Plain Rd 2nd Floor Mailbox 106
Danbury, CT 06811

RE: Leica Airs 9/17,19/12

Dear Robert:

Enclosed are the results of the samples submitted to our laboratory on September 19, 2012. For your reference, these analyses have been assigned our service request number R1206262.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA200007; The American Industrial Hygiene Association, Laboratory #101661; United States Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP), Certificate No. L11-203; Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-12-3; Minnesota Department of Health, NELAP Certificate No. 362188; Washington State Department of Ecology, ELAP Lab ID: C946, State of Utah Department of Health, NELAP Certificate No. CA01527Z012-Z; Los Angeles Department of Building and Safety, Approval No: TA00001. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

Kate Aguilera
Project Manager

Client: Energy Solutions, Inc.
Project: Leica Airs 9/17,19/12

Service Request No: R1206262

CASE NARRATIVE

The samples were received intact under chain of custody on September 19, 2012 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Helium Analysis

The samples were analyzed for helium according to modified EPA Method 3C (single injection) using a gas chromatograph equipped with a thermal conductivity detector (TCD).

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of Columbia Analytical Services, Inc. dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to AALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

ALS Contact: Karen Bunker

Project Name: Leica Aurs 9/17, 19/12
 Project Number:
 Project Manager: Robert McPeak
 Company: Energy Solutions, Inc

Lab Code	Client Sample ID	# of Cont	Matrix	Sample		Date Received	Send To	Helium Can 3C Modified	Rochester P.I.H.B. (P.I.S.)	Conister Pressure Swiper to Simi Valley (P.S.1)	
				Date	Time						
R1206262-005	SS-8HR-040	1	Air	9/17/12	1030	9/19/12	SIMIVALLEY	II	-6.30	3.50	3.14
R1206262-007	SS-8HR-041	1	Air	9/17/12	1038	9/19/12	SIMIVALLEY	II	-8.50	3.47	3.17
R1206262-009	SS-8HR-41 DUP	1	Air	9/17/12	1038	9/19/12	SIMIVALLEY	II	-8.00	4.93	4.63
R1206262-011	SS-8HR-045	1	Air	9/19/12	1025	9/21/12	SIMIVALLEY	II	-9.00	3.51	3.31
R1206262-014	SS-8HR-042	1	Air	9/19/12	1115	9/21/12	SIMIVALLEY	II	-8.90	3.49	3.21
R1206262-019	SS-8HR-043	1	Air	9/20/12	0745	9/21/12	SIMIVALLEY	II	-7.20	3.52	3.11
R1206262-021	SS-8HR-044	1	Air	9/20/12	0820	9/21/12	SIMIVALLEY	II	-10.80	3.54	3.14

Folder Comments:
 some cans require Helium analysis after TO-15 - must send them to Simi afterwards

Special Instructions/Comments		Turnaround Requirements		Report Requirements		Invoice Information	
Helium analysis only! ATTN: Kate Aguilera please return canisters to Rochester when finished		RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 STANDARD		I. Results Only II. Results + QC Summaries III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data		PO# R1206262 Bill to	
		Requested FAX Date: _____ Requested Report Date: 10/05/12		PQL/MDL/ EDD N N N			

Relinquished By: Paul Harris 9/21/12
 Received By: [Signature] 10/05/12
 Arbill Number: _____

ALS Contact: Karen Bunker

Project Name: Leica Aurs 9/17, 19/12
 Project Number:
 Project Manager: Robert McPeak
 Company: Energy Solutions, Inc

Lab Code Client Sample ID # of Cont. Matrix Sample Date Time Received Send To

Ship To: SIMIVALLEY
 Columbia Analytical Services, Inc
 2655 Park Center Drive, Suite A
 Simi Valley CA, 93065

Attn: Kate Aguilera

Special Instructions/Comments		Turnaround Requirements		Report Requirements		Invoice Information	
<p><i>JK</i> <i>ok</i></p>		<input type="checkbox"/> RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5		<input type="checkbox"/> I. Results Only <input type="checkbox"/> II. Results + QC Summaries <input type="checkbox"/> III. Results + QC and Calibration Summaries <input type="checkbox"/> IV. Data Validation Report with Raw Data		PO# R1206262	
		<input type="checkbox"/> STANDARD Requested FAX Date: _____ Requested Report Date: <u>10/05/12</u>		<input type="checkbox"/> POL/MDL/J <u> N </u> <input type="checkbox"/> EDD <u> N </u>		Bill to	

Relinquished By: *RedHerring 9/26/12*

Received By: *[Signature]*

Arbill Number: _____

Sample Acceptance Check Form

Client: Energy Solutions, Inc. Work order: R1206262

Project: Leica Airs 9/17,19/12

Sample(s) received on: 9/28/12 Date opened: 9/28/12 by: MZAMORA

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- | | <u>Yes</u> | <u>No</u> | <u>N/A</u> |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were sample containers properly marked with client sample ID? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Container(s) supplied by CAS ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Did sample containers arrive in good condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Were chain-of-custody papers used and filled out? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Did sample container labels and/or tags agree with custody papers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6 Was sample volume received adequate for analysis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7 Are samples within specified holding times? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 Was proper temperature (thermal preservation) of cooler at receipt adhered to? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9 Was a trip blank received? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10 Were custody seals on outside of cooler/Box? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were custody seals on outside of sample container? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Location of seal(s)? _____ Sealing Lid? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were signature and date included? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were seals intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 11 Do containers have appropriate preservation , according to method/SOP or Client specified information? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are pH preserved? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Were VOA vials checked for presence/absence of air bubbles? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 12 Tubes: Are the tubes capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Do they contain moisture? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 13 Badges: Are the badges properly capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
R1206262-005.02	6.0 L Source Can					
R1206262-007.02	6.0 L Source Can					
R1206262-009.02	6.0 L Source Can					
R1206262-011.02	6.0 L Source Can					
R1206262-014.02	6.0 L Source Can					
R1206262-019.02	6.0 L Source Can					
R1206262-021.02	6.0 L Source Can					

Explain any discrepancies: (include lab sample ID numbers): _____

RESULTS OF ANALYSIS

Page 1 of 1

Client: Energy Solutions, Inc.
Client Project ID: Leica Airs 9/17,19/12

CAS Project ID: R1206262

Helium

Test Code: EPA 3C Modified
 Instrument ID: HP5890 II/GC8/TCD
 Analyst: Wade Henton
 Sampling Media: 6.0 L Summa Canister(s)
 Test Notes:

Date(s) Collected: 9/17 - 9/20/12
 Date Received: 9/19 - 9/21/12
 Date Analyzed: 10/2/12

Client Sample ID	CAS Sample ID	Injection Volume ml(s)	Canister Dilution Factor	Result ppmV	MRL ppmV	Data Qualifier
SS-8HR-040	R1206262-005	0.10	1.57	110,000	390	
SS-8HR-041	R1206262-007	0.50	1.73	39,000	87	
SS-8HR-41 DUP	R1206262-009	0.50	1.82	41,000	91	
SS-8HR-045	R1206262-011	0.50	1.77	18,000	89	
SS-8HR-042	R1206262-014	0.50	1.76	30,000	88	
SS-8HR-043	R1206262-019	0.020	1.63	490,000	2,000	
SS-8HR-044	R1206262-021	0.50	1.94	48,000	97	
Method Blank	P121002-MB	1.00	1.00	ND	25	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

LABORATORY CONTROL SAMPLE SUMMARY

Page 1 of 1

Client: Energy Solutions, Inc.
Client Sample ID: Lab Control Sample
Client Project ID: Leica Airs 9/17,19/12

CAS Project ID: R1206262
CAS Sample ID: P121002-LCS

Test Code: EPA 3C Modified
Instrument ID: HP5890 II/GC8/TCD
Analyst: Wade Henton
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 10/02/12
Volume(s) Analyzed: NA ml(s)

CAS #	Compound	Spike Amount ppmV	Result ppmV	% Recovery	CAS Acceptance Limits	Data Qualifier
7440-59-7	Helium	10,000	10,700	107	70-132	

LABORATORY DUPLICATE SUMMARY RESULTS

Page 1 of 1

Client: Energy Solutions, Inc.
Client Sample ID: SS-8HR-043
Client Project ID: Leica Airs 9/17,19/12

CAS Project ID: R1206262
 CAS Sample ID: R1206262-019DUP

Test Code: EPA 3C Modified
 Instrument ID: HP5890 II/GC8/TCD
 Analyst: Wade Henton
 Sampling Media: 6.0 L Summa Canister
 Test Notes:
 Container ID: SLC00264

Date Collected: 9/20/12
 Date Received: 9/21/12
 Date Analyzed: 10/2/12
 Volume(s) Analyzed: 0.020 ml(s)

Initial Pressure (psig): -3.54 Final Pressure (psig): 3.52

Canister Dilution Factor: 1.63

CAS #	Compound	Sample Result ppmV	Duplicate Sample Result ppmV	Average	% RPD	RPD Limit	Data Qualifier
7440-59-7	Helium	492,000	474,000	483000	4	23	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.



October 04, 2012

Service Request No: R1206256

Mr. Robert McPeak
Energy Solutions, Inc.
100 Mill Plain Rd
2nd Floor Mailbox 106
Danbury, CT 06811

Laboratory Results for: Leica Soils

Dear Mr. McPeak:

Enclosed are the results of the sample(s) submitted to our laboratory on September 19, 2012. For your reference, these analyses have been assigned our service request number **R1206256**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Karen.Bunker@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Karen Bunker
Project Manager

Page 1 of 13



ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623
PHONE 585-288-5380 | FAX 585-288-8475
Columbia Analytical Services, Inc.
Part of the ALS Group A Campbell Brothers Limited Company

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1206256

Lab ID
R1206256-001

Client ID
INT 13 (6-7.5)

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.

00002

REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.



CAS/Rochester Lab ID # for State Certifications¹

NELAP Accredited
Connecticut ID # PH0556
Delaware Accredited
DoD ELAP #65817
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Nebraska Accredited

Nevada ID # NY-00032
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
North Carolina #676
Pennsylvania ID# 68-786
Rhode Island ID # 158
Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
Project: Leica Soils
Sample Matrix: Soil
Sample Name: INT 13 (6-7.5)
Lab Code: R1206256-001

Service Request: R1206256
Date Collected: 9/18/12 1500
Date Received: 9/19/12

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	85.5		Percent	1.0	1	NA	9/27/12 10:02	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Soils
Sample Matrix: Soil

Service Request: R1206256
Date Collected: 9/18/12 1500
Date Received: 9/19/12
Date Analyzed: 9/21/12 21:04

Sample Name: INT 13 (6-7.5)
Lab Code: R1206256-001

Units: µg/Kg
Basis: Dry
Percent Solids: 85.5

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQUDATA\MSVOA7\DATA\092112\K0532.D\

Analysis Lot: 310593
Instrument Name: R-MS-07
Dilution Factor: .97

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.7	U	5.7	
79-34-5	1,1,2,2-Tetrachloroethane	5.7	U	5.7	
79-00-5	1,1,2-Trichloroethane	5.7	U	5.7	
75-34-3	1,1-Dichloroethane (1,1-DCA)	32		5.7	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.7	U	5.7	
107-06-2	1,2-Dichloroethane	5.7	U	5.7	
78-87-5	1,2-Dichloropropane	5.7	U	5.7	
78-93-3	2-Butanone (MEK)	5.7	U	5.7	
591-78-6	2-Hexanone	5.7	U	5.7	
108-10-1	4-Methyl-2-pentanone	5.7	U	5.7	
67-64-1	Acetone	17		5.7	
71-43-2	Benzene	5.7	U	5.7	
75-27-4	Bromodichloromethane	5.7	U	5.7	
75-25-2	Bromoform	5.7	U	5.7	
74-83-9	Bromomethane	5.7	U	5.7	
75-15-0	Carbon Disulfide	5.7	U	5.7	
56-23-5	Carbon Tetrachloride	5.7	U	5.7	
108-90-7	Chlorobenzene	5.7	U	5.7	
75-00-3	Chloroethane	5.7	U	5.7	
67-66-3	Chloroform	5.7	U	5.7	
74-87-3	Chloromethane	5.7	U	5.7	
124-48-1	Dibromochloromethane	5.7	U	5.7	
75-09-2	Dichloromethane	5.7	U	5.7	
100-41-4	Ethylbenzene	5.7	U	5.7	
100-42-5	Styrene	5.7	U	5.7	
127-18-4	Tetrachloroethene (PCE)	5.7	U	5.7	
108-88-3	Toluene	5.7	U	5.7	
79-01-6	Trichloroethene (TCE)	140		5.7	
75-01-4	Vinyl Chloride	5.7	U	5.7	
156-59-2	cis-1,2-Dichloroethene	16		5.7	
10061-01-5	cis-1,3-Dichloropropene	5.7	U	5.7	
179601-23-1	m,p-Xylenes	11	U	11	
95-47-6	o-Xylene	5.7	U	5.7	
156-60-5	trans-1,2-Dichloroethene	5.7	U	5.7	
10061-02-6	trans-1,3-Dichloropropene	5.7	U	5.7	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
Project: Leica Soils
Sample Matrix: Soil
Sample Name: Method Blank
Lab Code: R1206256-MB

Service Request: R1206256
Date Collected: NA
Date Received: NA

Basis: As Received

General Chemistry Parameters

Analyte Name	Method	Result Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Solids, Total	160.3 Modified	1.0 U	Percent	1.0	1	NA	9/27/12 10:02	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group
Analytical Report

Client: Energy Solutions
Project: Leica Soils
Sample Matrix: Soil

Service Request: R1206256
Date Collected: NA
Date Received: NA
Date Analyzed: 9/21/12 14:10

Sample Name: Method Blank
Lab Code: RQ1211123-05

Units: µg/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analytical Method: 8260C
Data File Name: J:\ACQU\DATA\MSVOA7\DATA\092112\K0521.D\

Analysis Lot: 310593
Instrument Name: R-MS-07
Dilution Factor: 1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	5.0	U	5.0	
591-78-6	2-Hexanone	5.0	U	5.0	
108-10-1	4-Methyl-2-pentanone	5.0	U	5.0	
67-64-1	Acetone	5.0	U	5.0	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	10	U	10	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Soils
Sample Matrix: Soil

Service Request: R1206256
Date Analyzed: 9/21/12

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260C

Units: µg/Kg
Basis: Dry

Analysis Lot: 310593

Analyte Name	Lab Control Sample RQ1211123-03			Duplicate Lab Control Sample RQ1211123-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	20.4	20.0	102	19.3	20.0	97	65 - 127	5	30
1,1,2,2-Tetrachloroethane	18.6	20.0	93	18.5	20.0	92	71 - 134	<1	30
1,1,2-Trichloroethane	18.4	20.0	92	19.2	20.0	96	76 - 123	4	30
1,1-Dichloroethane (1,1-DCA)	20.6	20.0	103	20.5	20.0	102	75 - 126	<1	30
1,1-Dichloroethene (1,1-DCE)	22.1	20.0	110	20.6	20.0	103	64 - 124	7	30
1,2-Dichloroethane	20.3	20.0	101	19.8	20.0	99	75 - 132	2	30
1,2-Dichloropropane	20.1	20.0	100	20.2	20.0	101	79 - 124	<1	30
2-Butanone (MEK)	19.6	20.0	98	18.7	20.0	93	70 - 131	5	30
2-Hexanone	20.3	20.0	101	19.0	20.0	95	59 - 144	7	30
4-Methyl-2-pentanone	18.9	20.0	94	18.0	20.0	90	65 - 138	5	30
Acetone	23.5	20.0	118	20.9	20.0	105	55 - 143	12	30
Benzene	19.6	20.0	98	19.3	20.0	96	75 - 124	2	30
Bromodichloromethane	18.7	20.0	94	18.3	20.0	92	77 - 127	2	30
Bromoform	18.9	20.0	95	18.3	20.0	91	61 - 144	3	30
Bromomethane	19.6	20.0	98	18.4	20.0	92	46 - 133	6	30
Carbon Disulfide	18.4	20.0	92	18.1	20.0	91	70 - 147	1	30
Carbon Tetrachloride	21.8	20.0	109	20.5	20.0	102	62 - 134	6	30
Chlorobenzene	19.9	20.0	99	20.2	20.0	101	77 - 124	2	30
Chloroethane	19.3	20.0	97	19.6	20.0	98	66 - 136	1	30
Chloroform	19.1	20.0	96	18.7	20.0	94	75 - 126	2	30
Chloromethane	19.0	20.0	95	18.0	20.0	90	52 - 145	6	30
Dibromochloromethane	18.8	20.0	94	18.8	20.0	94	69 - 133	<1	30
Dichloromethane	18.8	20.0	94	18.1	20.0	91	75 - 122	3	30
Ethylbenzene	20.3	20.0	102	20.1	20.0	100	70 - 130	1	30
Styrene	19.2	20.0	96	19.4	20.0	97	71 - 127	<1	30
Tetrachloroethene (PCE)	20.5	20.0	103	20.8	20.0	104	67 - 133	1	30
Toluene	19.4	20.0	97	20.1	20.0	100	72 - 127	3	30
Trichloroethene (TCE)	20.6	20.0	103	21.2	20.0	106	72 - 128	3	30
Vinyl Chloride	20.0	20.0	100	19.2	20.0	96	58 - 152	4	30
cis-1,2-Dichloroethene	19.1	20.0	96	20.0	20.0	100	75 - 127	4	30
cis-1,3-Dichloropropene	19.2	20.0	96	18.0	20.0	90	73 - 120	7	30
m,p-Xylenes	40.8	40.0	102	41.1	40.0	103	70 - 131	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Soils
Sample Matrix: Soil

Service Request: R1206256
Date Analyzed: 9/21/12

**Lab Control Sample Summary
 Volatile Organic Compounds by GC/MS**

Analytical Method: 8260C

Units: µg/Kg

Basis: Dry

Analysis Lot: 310593

Analyte Name	Lab Control Sample RQ1211123-03			Duplicate Lab Control Sample RQ1211123-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
o-Xylene	20.6	20.0	103	19.6	20.0	98	71 - 127	5	30
trans-1,2-Dichloroethene	19.2	20.0	96	19.3	20.0	97	69 - 125	<1	30
trans-1,3-Dichloropropene	17.2	20.0	86	17.6	20.0	88	68 - 120	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 3521

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name Leica	Project Number 137015	ANALYSIS REQUESTED (Include Method Number and Container Preservative)		
Project Manager Bob McPeak	Report CC	PRESERVATIVE		
Company/Address 100 MILL PLAZA Rd DANBURY Ct 06811 ENERGY SOLUTIONS		METALS, DISSOLVED (List in comments below)		
Phone # 801 383 1092	Email BOB.MCPEAK@energysolutions.com	METALS, TOTAL (List in comments below)		
Sample # 2002	Sampler's Signature [Signature]	GC MS SVAS 8270 • 825	PCBs 8082 • 808	REMARKS/ ALTERNATE DESCRIPTION Benware + 202
CLIENT SAMPLE ID INT 13 (6-7.5)	DATE 9/18/12	GC VOLS 8021 • 801/802	PESTICIDES 8081 • 808	
FOR OFFICE USE ONLY LAB ID	SAMPLING TIME	PRESERVATIVE		
	DATE 9/18/12	METALS, DISSOLVED (List in comments below)		
	DATE 9/18/12	METALS, TOTAL (List in comments below)		
	DATE 9/18/12	PCBs 8082 • 808		
	DATE 9/18/12	PESTICIDES 8081 • 808		
	DATE 9/18/12	GC VOLS 8021 • 801/802		
	DATE 9/18/12	GC/MS SVAS 8270 • 825		
	DATE 9/18/12	GC MS SVAS 824 • CLP		
	DATE 9/18/12	GC MS SVAS 824 • CLP		
SPECIAL INSTRUCTIONS/COMMENTS Metals		TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day _____ 2 day _____ 3 day _____ 4 day _____ 5 day _____ Standard		
See QAPP <input type="checkbox"/>		REPORT REQUIREMENTS I. Results Only _____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required) <input checked="" type="checkbox"/> III. Results + QC and Calibration Summaries _____ IV. Data Validation Report with Raw Data _____		
STATE WHERE SAMPLES WERE COLLECTED NY		INVOICE INFORMATION PO # _____ BILL TO: _____		
RELINQUISHED BY		Edata _____ Yes _____		
Signature DAN SUTKA	Signature [Signature]	RECEIVED BY		
Printed Name DAN SUTKA	Printed Name [Name]	Signature [Signature]		
Firm ES	Firm ALS	Printed Name Amy Hentschke		
Date/Time 9/19/12	Date/Time 9/19/12 10:50	Firm ALS		
		Date/Time 9/19/12 12:15		

R1206256
Energy Solutions, Inc.
Leica Soils





Cooler Receipt and Preservation Check Form

Project/Client Energy Soln Folder Number R1206256

Cooler received on 9/19/12 by: AWA COURIER: ALS UPS FEDEX VELOCITY CLIENT

- Were custody seals on outside of cooler? YES (NO)
- Were custody papers properly filled out (ink, signed, etc.)? (YES) NO
- Did all bottles arrive in good condition (unbroken)? (YES) NO
- Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO (N/A)
- Were Ice or Ice packs present? (YES) NO
- Where did the bottles originate? (ALS/ROC) (CLIENT)
- Temperature of cooler(s) upon receipt: -1.6°

Is the temperature within 0° - 6° C?: (Yes) Yes Yes Yes Yes

If No, Explain Below No No No No No

Date/Time Temperatures Taken: 9/19/12 1223

Thermometer ID: (IR GUN#3 / IR GUN#4) Reading From: Temp Blank (Sample Bottle)

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location	<u>R-002</u> by <u>AWA</u> on <u>9/19/12</u> at <u>1224</u>
5035 samples placed in storage location	<u>F-005</u> by <u>AWA</u> on <u>9/19/12</u> at <u>1224</u>

PC Secondary Review: AS 9/19/12

Cooler Breakdown: Date: 9/19/12 Time: 1454 by: AWA

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? (YES) NO
- Did all bottle labels and tags agree with custody papers? (YES) NO
- Were correct containers used for the tests indicated? (YES) NO
- Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies: _____

pH	Reagent	Lot Received **		Exp	Sample ID	Vol. Added	Lot Added	Final pH
		YES	NO					
≥12	NaOH							
≤2	HNO ₃							
≤2	H ₂ SO ₄							
<4	NaHSO ₄							
Residual Chlorine (-)	For TCN Phenol and 522							
	Na ₂ S ₂ O ₃	-	-					
	Zn Aceta	-	-					
	HCl	*	*					

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet

Bottle lot numbers: Client
Other Comments: _____

PC Secondary Review: KB 10/12
H:\SMODOCS\Cooler Receipt 5.doc

*significant air bubbles: VOA > 5-6 mm, WC > 1 in. diameter



December 07, 2012

Service Request No: R1208018

Mr. Robert McPeak
Energy Solutions, Inc.
100 Mill Plain Rd
2nd Floor Mailbox 106
Danbury, CT 06811

Laboratory Results for: Leica Air 11/19/12

Dear Mr. McPeak:

Enclosed are the results of the sample(s) submitted to our laboratory on November 20, 2012. For your reference, these analyses have been assigned our service request number **R1208018**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Karen.Bunker@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Environmental

Karen Bunker

Karen Bunker
Project Manager

Page 1 of 11



ADDRESS 1565 Jefferson Rd, Building 300, Suite 360, Rochester, NY 14623

PHONE 585-288-5380 | FAX 585-288-8475

Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company



www.caslab.com ■ www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

00001

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1208018

Lab ID
R1208018-001

Client ID
AA-8hr-043A

All samples were received in good condition unless otherwise noted on the cooler receipt and preservation check form located at the end of this report.

All samples were preserved in accordance with approved analytical methods.

All samples have been analyzed by the approved methods cited on the analytical results pages.

All holding times and associated QC were within limits.

No analytical or QC problems were encountered.

All sampling activities performed by CAS personnel have been in accordance with "CAS Field Procedures and Measurements Manual" or by client specifications.

00002

REPORT QUALIFIERS

- U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
- J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).
- B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
- E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
- E Organics- Concentration has exceeded the calibration range for that specific analysis.
- D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
- * Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
- H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
- # Spike was diluted out.
- + Correlation coefficient for MSA is <0.995.
- N Inorganics- Matrix spike recovery was outside laboratory limits.
- N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
- S Concentration has been determined using Method of Standard Additions (MSA).
- W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
- P Concentration >40% (25% for CLP) difference between the two GC columns.
- C Confirmed by GC/MS
- Q DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
- X See Case Narrative for discussion.



Rochester Lab ID # for State Certifications¹

NELAP Accredited	Maine ID #NY0032	New Hampshire ID #
Connecticut ID # PH0556	Nebraska Accredited	294100 A/B
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://alsglobal.com/environmental/laboratories/rochester-environmental-lab.aspx>

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
Project: Leica Air 11/19/12
Sample Matrix: Air
Sample Name: AA-8hr-043A
Lab Code: R1208018-001

Service Request: R1208018
Date Collected: 11/19/12 0830
Date Received: 11/20/12

Analytical Method: TO-15

Date Analyzed: 11/27/12 1354
Canister Dilution Factor: 1.45

Initial Pressure (psig): -2.11 Final Pressure (psig): 3.52

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	0.95	0.65	0.46	0.32	
75-01-4	Vinyl Chloride	1000	0.087	0.087	0.034	0.034	U
74-83-9	Bromomethane	1000	0.62	0.62	0.16	0.16	U
75-00-3	Chloroethane	1000	0.84	0.84	0.32	0.32	U
67-64-1	Acetone	1000	18	7.3	7.5	3.1	
75-69-4	Trichlorofluoromethane (CFC 11)	1000	1.8	0.90	0.32	0.16	
75-35-4	1,1-Dichloroethene	1000	0.64	0.64	0.16	0.16	U
75-09-2	Methylene Chloride	1000	1.2	0.55	0.35	0.16	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1000	0.67	0.25	0.088	0.032	
75-15-0	Carbon Disulfide	1000	0.49	0.49	0.16	0.16	U
156-60-5	trans-1,2-Dichloroethene	1000	0.64	0.64	0.16	0.16	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.65	0.65	0.16	0.16	U
1634-04-4	Methyl tert-Butyl Ether	1000	1.1	1.1	0.32	0.32	U
108-05-4	Vinyl Acetate	1000	7.3	7.3	2.1	2.1	U
78-93-3	2-Butanone (MEK)	1000	6.5	0.94	2.2	0.32	
156-59-2	cis-1,2-Dichloroethene	1000	0.64	0.64	0.16	0.16	U
67-66-3	Chloroform	1000	0.78	0.78	0.16	0.16	U
107-06-2	1,2-Dichloroethane	1000	0.65	0.65	0.16	0.16	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.87	0.87	0.16	0.16	U
71-43-2	Benzene	1000	3.4	0.51	1.1	0.16	
56-23-5	Carbon Tetrachloride	1000	0.64	0.10	0.10	0.016	
78-87-5	1,2-Dichloropropane	1000	0.74	0.74	0.16	0.16	U
75-27-4	Bromodichloromethane	1000	0.22	0.22	0.032	0.032	U
79-01-6	Trichloroethene (TCE)	1000	11	0.087	2.1	0.016	
10061-01-5	cis-1,3-Dichloropropene	1000	1.5	1.5	0.32	0.32	U
108-10-1	4-Methyl-2-pentanone	1000	1.3	1.3	0.32	0.32	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.73	0.73	0.16	0.16	U
79-00-5	1,1,2-Trichloroethane	1000	0.87	0.87	0.16	0.16	U
108-88-3	Toluene	1000	18	0.59	4.8	0.16	
591-78-6	2-Hexanone	1000	0.65	0.65	0.16	0.16	U
124-48-1	Dibromochloromethane	1000	0.28	0.28	0.032	0.032	U
106-93-4	1,2-Dibromoethane	1000	0.25	0.25	0.032	0.032	U
127-18-4	Tetrachloroethene (PCE)	1000	0.69	0.12	0.10	0.017	
108-90-7	Chlorobenzene	1000	0.74	0.74	0.16	0.16	U
100-41-4	Ethylbenzene	1000	4.0	1.4	0.93	0.32	
179601-23-1	m,p-Xylenes	1000	11	2.8	2.6	0.64	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
Project: Leica Air 11/19/12
Sample Matrix: Air
Sample Name: AA-8hr-043A
Lab Code: R1208018-001

Service Request: R1208018
Date Collected: 11/19/12 0830
Date Received: 11/20/12

Analytical Method: TO-15

Date Analyzed: 11/27/12 1354
Canister Dilution Factor: 1.45

Initial Pressure (psig): -2.11 Final Pressure (psig): 3.52

CAS #	Analyte Name	Sample Amount mL	Result µg/m³	MRL µg/m³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	1000	1.7	1.7	0.16	0.16	U
100-42-5	Styrene	1000	2.9	1.4	0.69	0.32	
95-47-6	o-Xylene	1000	4.4	1.4	1.0	0.32	
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.22	0.22	0.032	0.032	U
541-73-1	1,3-Dichlorobenzene	1000	1.9	1.9	0.32	0.32	U
106-46-7	1,4-Dichlorobenzene	1000	1.9	1.9	0.32	0.32	U
95-50-1	1,2-Dichlorobenzene	1000	1.9	1.9	0.32	0.32	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	112	70-130	11/27/12 1354	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
 Project: Leica Air 11/19/12
 Sample Matrix: Air
 Sample Name: Method Blank
 Lab Code: RQ1214438-01

Service Request: R1208018
 Date Collected: NA
 Date Received: NA

Analytical Method: TO-15

Date Analyzed: 11/27/12 1043

CAS #	Analyte Name	Sample Amount mL	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbv	MRL ppbv	Data Qualifier
74-87-3	Chloromethane	1000	0.45	0.45	0.22	0.22	U
75-01-4	Vinyl Chloride	1000	0.060	0.060	0.023	0.023	U
74-83-9	Bromomethane	1000	0.43	0.43	0.11	0.11	U
75-00-3	Chloroethane	1000	0.58	0.58	0.22	0.22	U
67-64-1	Acetone	1000	5.0	5.0	2.1	2.1	U
75-69-4	Trichlorofluoromethane (CFC 11)	1000	0.62	0.62	0.11	0.11	U
75-35-4	1,1-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-09-2	Methylene Chloride	1000	0.38	0.38	0.11	0.11	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1000	0.17	0.17	0.022	0.022	U
75-15-0	Carbon Disulfide	1000	0.34	0.34	0.11	0.11	U
156-60-5	trans-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	0.45	0.45	0.11	0.11	U
1634-04-4	Methyl tert-Butyl Ether	1000	0.79	0.79	0.22	0.22	U
108-05-4	Vinyl Acetate	1000	5.0	5.0	1.4	1.4	U
78-93-3	2-Butanone (MEK)	1000	0.65	0.65	0.22	0.22	U
156-59-2	cis-1,2-Dichloroethene	1000	0.44	0.44	0.11	0.11	U
67-66-3	Chloroform	1000	0.54	0.54	0.11	0.11	U
107-06-2	1,2-Dichloroethane	1000	0.45	0.45	0.11	0.11	U
71-55-6	1,1,1-Trichloroethane (TCA)	1000	0.60	0.60	0.11	0.11	U
71-43-2	Benzene	1000	0.35	0.35	0.11	0.11	U
56-23-5	Carbon Tetrachloride	1000	0.070	0.070	0.011	0.011	U
78-87-5	1,2-Dichloropropane	1000	0.51	0.51	0.11	0.11	U
75-27-4	Bromodichloromethane	1000	0.15	0.15	0.022	0.022	U
79-01-6	Trichloroethene (TCE)	1000	0.060	0.060	0.011	0.011	U
10061-01-5	cis-1,3-Dichloropropene	1000	1.0	1.0	0.22	0.22	U
108-10-1	4-Methyl-2-pentanone	1000	0.90	0.90	0.22	0.22	U
10061-02-6	trans-1,3-Dichloropropene	1000	0.50	0.50	0.11	0.11	U
79-00-5	1,1,2-Trichloroethane	1000	0.60	0.60	0.11	0.11	U
108-88-3	Toluene	1000	0.41	0.41	0.11	0.11	U
591-78-6	2-Hexanone	1000	0.45	0.45	0.11	0.11	U
124-48-1	Dibromochloromethane	1000	0.19	0.19	0.022	0.022	U
106-93-4	1,2-Dibromoethane	1000	0.17	0.17	0.022	0.022	U
127-18-4	Tetrachloroethene (PCE)	1000	0.080	0.080	0.012	0.012	U
108-90-7	Chlorobenzene	1000	0.51	0.51	0.11	0.11	U
100-41-4	Ethylbenzene	1000	0.95	0.95	0.22	0.22	U
179601-23-1	m,p-Xylenes	1000	1.9	1.9	0.44	0.44	U

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: Energy Solutions
 Project: Leica Air 11/19/12
 Sample Matrix: Air
 Sample Name: Method Blank
 Lab Code: RQ1214438-01

Service Request: R1208018
 Date Collected: NA
 Date Received: NA

Analytical Method: TO-15

Date Analyzed: 11/27/12 1043

CAS #	Analyte Name	Sample Amount mL	Result µg/m ³	MRL µg/m ³	Result ppbv	MRL ppbv	Data Qualifier
75-25-2	Bromoform	1000	1.1	1.1	0.11	0.11	U
100-42-5	Styrene	1000	0.94	0.94	0.22	0.22	U
95-47-6	o-Xylene	1000	0.95	0.95	0.22	0.22	U
79-34-5	1,1,2,2-Tetrachloroethane	1000	0.15	0.15	0.022	0.022	U
541-73-1	1,3-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U
106-46-7	1,4-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U
95-50-1	1,2-Dichlorobenzene	1000	1.3	1.3	0.22	0.22	U

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromofluorobenzene	109	70-130	11/27/12 1043	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
 Project: Leica Air 11/19/12
 Sample Matrix: Air

Service Request: R1208018

Date Analyzed: 11/27/12

Lab Control Sample Summary
 Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: $\mu\text{g}/\text{m}^3$

Basis: NA

Analysis Lot: 320110

Lab Control Sample
 RQ1214438-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Chloromethane	4.70	5.11	92	70 - 130
Vinyl Chloride	5.82	6.33	92	70 - 130
Bromomethane	8.47	9.60	88	70 - 130
Chloroethane	5.68	6.46	88	70 - 130
Acetone	6.00	6.29	95	70 - 130
Trichlorofluoromethane (CFC 11)	14.9	15.0	99	70 - 130
1,1-Dichloroethene	9.82	10.0	98	70 - 130
Methylene Chloride	7.97	8.86	90	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	17.7	19.2	92	70 - 130
Carbon Disulfide	8.37	7.94	105	70 - 130
trans-1,2-Dichloroethene	9.34	10.2	92	70 - 130
1,1-Dichloroethane (1,1-DCA)	9.36	10.2	92	70 - 130
Methyl tert-Butyl Ether	8.57	9.37	91	70 - 130
Vinyl Acetate	8.04	9.24	87	70 - 130
2-Butanone (MEK)	7.06	7.81	90	70 - 130
cis-1,2-Dichloroethene	9.01	10.2	88	70 - 130
Chloroform	12.2	12.8	95	70 - 130
1,2-Dichloroethane	11.8	10.4	113	70 - 130
1,1,1-Trichloroethane (TCA)	14.9	13.8	108	70 - 130
Benzene	7.67	8.14	94	70 - 130
Carbon Tetrachloride	18.2	16.2	113	70 - 130
1,2-Dichloropropane	11.1	11.9	93	70 - 130
Bromodichloromethane	18.7	17.2	108	70 - 130
Trichloroethene (TCE)	13.9	13.8	100	70 - 130
cis-1,3-Dichloropropene	11.8	11.9	99	70 - 130
4-Methyl-2-pentanone	10.6	11.0	97	70 - 130
trans-1,3-Dichloropropene	11.2	11.0	102	70 - 130
1,1,2-Trichloroethane	13.7	14.2	97	70 - 130
Toluene	9.31	9.80	95	70 - 130
2-Hexanone	11.1	11.7	95	70 - 130
Dibromochloromethane	23.9	23.6	101	70 - 130
1,2-Dibromoethane	19.5	19.8	98	70 - 130
Tetrachloroethene (PCE)	20.2	17.5	116	70 - 130
Chlorobenzene	11.5	12.1	95	70 - 130
Ethylbenzene	10.6	11.3	94	70 - 130
m,p-Xylenes	20.4	22.1	92	70 - 130
Bromoform	29.8	26.3	113	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Energy Solutions
Project: Leica Air 11/19/12
Sample Matrix: Air

Service Request: R1208018
Date Analyzed: 11/27/12

Lab Control Sample Summary
Volatile Organic Compounds in Air Collected In SUMMA Passivated Canisters and Analyzed By GC/MS

Analytical Method: TO-15

Units: $\mu\text{g}/\text{m}^3$

Basis: NA

Analysis Lot: 320110

Lab Control Sample

RQ1214438-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Styrene	10.3	11.2	92	70 - 130
o-Xylene	10.6	12.3	87	70 - 130
1,1,2,2-Tetrachloroethane	15.5	19.4	80	70 - 130
1,3-Dichlorobenzene	15.8	16.2	97	70 - 130
1,4-Dichlorobenzene	15.1	15.8	96	70 - 130
1,2-Dichlorobenzene	15.0	15.8	95	70 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



Cooler Receipt and Preservation Check Form

Project/Client Leica Folder Number R1208018

Cooler received on 11/20/12 by: AJH COURIER: ALS UPS FEDEX VELOCITY CLIENT

1. Were custody seals on outside of cooler? YES NO
2. Were custody papers properly filled out (ink, signed, etc.)? YES NO
3. Did all bottles arrive in good condition (unbroken)? YES NO
4. Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles? YES NO N/A
5. Were Ice or Ice packs present? YES NO
6. Where did the bottles originate? ALS/ROC CLIENT
7. Soil VOA samples received as: Bulk Jar Encore TerraCore Lab5035set N/A
8. Temperature of cooler(s) upon receipt: NR

Is the temperature within 0° - 6° C?: Y N Y N Y N Y N Y N

If No, Explain Below Date/Time Temperatures Taken: _____

Thermometer ID: IR GUN#3 / IR GUN#4 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition & Client Approval to Run Samples:

All Samples held in storage location SMO by AJH on 11/20/12 at 1446
5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: KB 11/20/12

Cooler Breakdown: Date: 11/20/12 Time: 1639 by: DPW

1. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	YES NO		Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
		YES	NO						
≥2	NaOH								
≤	HNO ₃								
≤	H ₂ SO ₄								
<4	NaHSO ₄								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	Na ₂ S ₂ O ₃	-	-			*Not to be tested before analysis - pH tested and recorded by VOAs or GenChem on a separate worksheet			
	Zn Aceta	-	-						
	HCl	*	*						

Yes = All samples OK
No = Samples were preserved at lab as listed
PM OK to Adjust: _____

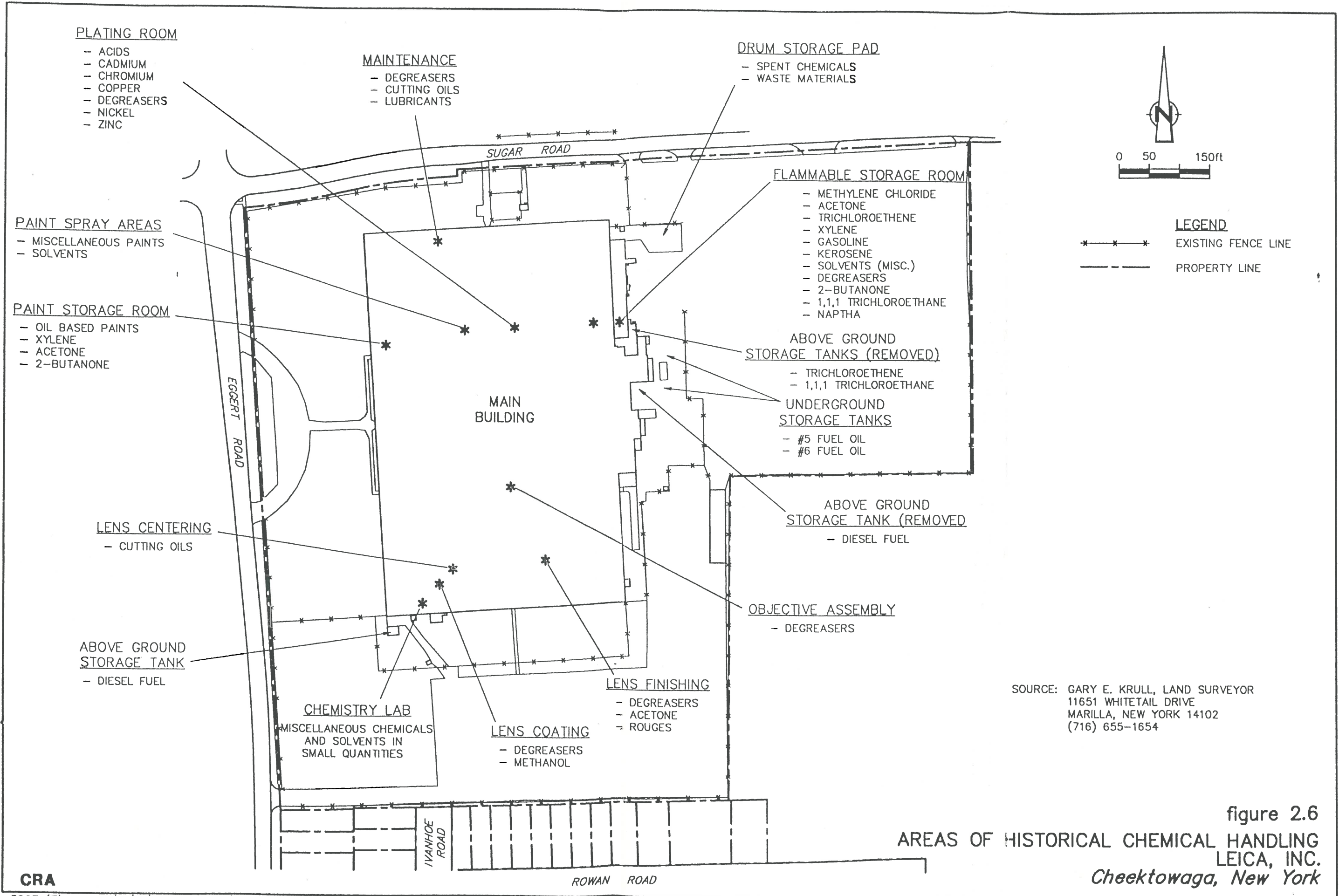
Bottle lot numbers: _____
Other Comments: _____

PC Secondary Review: Plan

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

APPENDIX F

Drawings of Former Facility Chemical Storage and Production Areas



SOURCE: GARY E. KRULL, LAND SURVEYOR
 11651 WHITETAIL DRIVE
 MARILLA, NEW YORK 14102
 (716) 655-1654

figure 2.6
 AREAS OF HISTORICAL CHEMICAL HANDLING
 LEICA, INC.
 Cheektowaga, New York

APPENDIX G

Monitoring Program Schedule

Well No.	VOCs, 8260	Field Parameters
MW-1A	annual	
MW-2	semi-annual	
MW-2A	semi-annual	
MW-3	annual	
MW-5	semi-annual	X
MW-5A	semi-annual	X
MW-6	semi-annual	X
MW-6A	semi-annual	X
MW-10	semi-annual	X
MW-11A	semi-annual	
MW-14	semi-annual	X
MW-14A	semi-annual	X
MW-16R	semi-annual ¹	X
MW-16A	semi-annual ¹	
MW-18	semi-annual ¹	X
MW-18A	semi-annual ¹	X
MW-19	annual	
MW-22	semi-annual	X
MW-22A	semi-annual	X
MW-23	semi-annual	
MW-24	semi-annual ¹	X
MW-24A	semi-annual ¹	X
MW-25	semi-annual	
MW-25A	semi-annual	
MW-26	semi-annual	
MW-26A	semi-annual	
MW-27	semi-annual	
MW-27A	semi-annual	
MW-28	semi-annual	
MW-28A	semi-annual	
MW-29A	semi-annual	

Field Parameters include: Dissolved Oxygen (DO), pH, and Oxygen Reduction Potential (ORP)

Notes

- 1.) Includes Semi-annual and two additional rounds collected simultaneously with other filed activities.

APPENDIX H

Certification Forms



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



	Site Details	Box 1	
Site No. 915156			
Site Name Leica, Inc.			
Site Address: Eggert and Sugar Roads	Zip Code: 14215		
City/Town: Cheektowaga			
County: Erie			
Site Acreage: 24.1			
Reporting Period: May 1, 2012 to April 30, 2013			
		YES	NO
1. Is the information above correct?		<input checked="" type="checkbox"/>	
If NO, include handwritten above or on a separate sheet.			
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?			<input checked="" type="checkbox"/>
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?			<input checked="" type="checkbox"/>
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?			<input checked="" type="checkbox"/>
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.			
5. Is the site currently undergoing development?			<input checked="" type="checkbox"/>
		Box 2	
		YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial		<input checked="" type="checkbox"/>	
7. Are all ICs/ECs in place and functioning as designed?			<input checked="" type="checkbox"/>
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.			
A Corrective Measures Work Plan must be submitted along with this form to address these issues.			
_____ Signature of Owner, Remedial Party or Designated Representative		_____ Date	

SITE NO. 915156

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
91.00-1-26.11	Leica, Inc.	Ground Water Use Restriction Landuse Restriction Monitoring Plan Site Management Plan Soil Management Plan
91.00-1-26.12	Calypso Development	Ground Water Use Restriction Landuse Restriction Monitoring Plan Site Management Plan Soil Management Plan

Description of Engineering Controls

<u>Parcel</u>	<u>Engineering Control</u>
91.00-1-26.11	Alternate Water Supply Fencing/Access Control Groundwater Treatment System Vapor Mitigation
91.00-1-26.12	Alternate Water Supply Fencing/Access Control Groundwater Treatment System Vapor Mitigation

Engineering Control Details for Site No. 915156

Parcel: 91.00-1-26.11

As per Declaration of Covenants and Restrictions (filed on February 28, 2012), the following controls are required :

- 1) Implementation of Site Management Plan, dated September 2011.
- 2) Prohibition of use of groundwater without treatment.
- 3) Prohibition of property use other than commercial or industrial.

Parcel: 91.00-1-26.12

As per Declaration of Covenants and Restrictions (filed on February 28, 2012), the following controls are required :

- 1) Implementation of Site Management Plan, dated September 2011.
- 2) Prohibition of use of groundwater without treatment.
- 3) Prohibition of property use other than commercial or industrial.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

X

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

X

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 915156

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I CARL S. GRABINSKI at 1500 MITTEL BLVD, WOOD DALE, IL 60191
print name print business address

am certifying as REMEDIAL PARTY (Owner or Remedial Party)

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

Carl S. Grabinski
Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

5/28/13
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Robert E. McPeak Jr. at 100 Mill Plain Rd. Danbury CT 06811.
print name print business address

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

Robert E. McPeak Jr.

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



Stamp
(Required for PE)

Date