Midler City Industrial Park

Site No. C734103

Fifth Annual Periodic Review Report

Prepared by

C&S Engineers, Inc.
499 Colonel Eileen Collins Blvd.
Syracuse, New York 13212

August 2013 – revised October 2013

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EXECUTIVE SUMMARY

Effectiveness of the Remedial Program

Data and discussion presented in this report indicate that chlorinated volatile organic compounds (CVOCs) in groundwater at the Midler City Industrial Park site (Site No. C734103) continue to decrease. Current concentrations are significantly less than those observed at the commencement of the Remedial Investigation and ensuing in-situ thermal treatment of significant source areas, and, except for MW-10D and MW-13D, have declined to levels consistent with Class GA Groundwater Standards since the end of the cool-down period (assumed to be December 2008). The decrease in contaminant levels in most wells, combined with the lines of evidence associated with reductive dechlorination, indicate that Monitored Natural Attenuation (MNA) continues to be an appropriate remedial technology for site groundwater.

At this point in the monitoring program for this site, several trends with respect to the presence and extent of CVOCs and MNA parameters in groundwater have been established:

- The original source contaminant, PCE, and the primary level reductive product, TCE, are no longer present at concentrations exceeding the 5 ug/l NYSDEC Class GA Groundwater Standard at any of the monitoring locations;
- The lower level degradation compounds (cis- and trans- DCE and vinyl chloride) exhibit marked variability in the short term; and
- Lines of evidence associated with reductive dechlorination indicate the dechlorination pathways remain viable.

Based on the past several monitoring rounds showing non-detect or below standards results, we request that, beginning in the first monitoring event in 2014, monitoring wells MW-14D and MW-16D be removed from the semi-annual monitoring for the site,. Starting in June 2014, the semi-annual monitoring will be continued for monitoring wells MW-9D, MW-10D, MW-13D and MW-15D and we will continue providing annual PRRs as scheduled.

Compliance

There are no areas of non-compliance regarding the major elements of the Site Management Plan that require corrective measures.

Recommendations

Relative to institutional controls and engineering controls (ICs/ECs) for the site, no changes are recommended.

SECTION 1 - INTRODUCTION AND HISTORICAL OVERVIEW

C&S Engineers, Inc., on behalf of our client Pioneer Midler Avenue, LLC, submits this fifth Annual Periodic Review Report (PRR) for the site known as Midler City Industrial Park - Site No. C734103.

The Midler City Industrial Park site encompasses approximately 22 acres and is located in the eastern portion of the City of Syracuse, as shown on Figure 1. Further detail concerning the property boundary is shown on Figure 2 (ASB-01 from the December 2007 *Final Engineering Report* for the site).

Developed as an industrial facility in the late nineteenth century and utilized as such through the mid-twentieth century, the Midler City Industrial Park is relatively flat and is bounded as follows:

- North by Interstate Route 690.
- East by undeveloped property owned by the City of Syracuse
- South by property owned by CSX Transportation.
- West by Midler Avenue.

The site was one of the last undeveloped accessible tracts of land adjacent to the highly urbanized Erie Boulevard corridor. Currently, a Lowe's home center and a branch of SEFCU occupy much of the site. Vacant outparcels remain available for development.

During the RI and demolition activities that occurred in 2004-2006, areas impacted by petroleum and chlorinated volatile organic compounds were discovered. The main CVOCs found at the site were tetrachloroethene (PCE), trichloroethene (TCE), vinyl chloride (VC), cis-1,2-dichloroethene (cis-1,2-DCE), and trans-1,2-dichloroethene (trans-1,2-DCE). The occurrence of CVOCs was found within the marl and peat layers and extended to depths of approximately 26 feet below ground surface. The source of the CVOCs is attributed to past manufacturing and or waste management practices of the former Prosperity Laundry Equipment Company. No.6 fuel oil and other petroleum hydrocarbons were discovered during earthwork where several underground storage tanks were once present for the boiler house and beneath certain floor slabs of the manufacturing complex where equipment was once located. Those areas of petroleum contamination were excavated and disposed of off-site. Clean-up objectives for petroleum impacted media were consistent with NYSDEC TAGM 4046/STARS which were in effect at the time the work was completed.

An IRM was conducted from 2006-2007 to remove CVOCs from four source areas identified during the RI. The technology adopted to remove CVOCs was ISTD. The smallest of the four source areas ("B-5" Area) was excavated and the impacted materials were placed within the two largest areas ("B-1" and "B-3" Areas) for CVOC removal via ISTD. Based upon the high organic content of subsurface soils (10.8% average), a site specific soil clean-up objective of 31,200 µg/kg total CVOCs was established consistent with TAGM 4046 guidance which was in affect at the time of the IRM. As a result of the ISTD treatment, approximately 86,000 pounds

of CVOCs were removed from the subsurface and treated on site via thermal oxidation. Further information regarding remedial efforts is presented in the December 2007 IRM report prepared by C&S.

Monitored Natural Attenuation (MNA), using protocol established by the United States Environmental Protection Agency (USEPA), was the final remedy selected for the site relative to groundwater, given:

- The significant source removal effort;
- Presence of soils with high organic content (10.8% average);
- Nature of CVOCs over 40 years of site inactivity;
- 40 years of site inactivity;
- Evidence of reductive dechlorination;
- Characteristics of groundwater including Oxidation-Reduction Potential (ORP), methane/ethane/ethene concentrations; and,
- The presence of *Dehalococcoides*, a genus of bacteria that obtains energy via the oxidation of hydrogen gas and subsequent reductive dehalogenation of halogenated organic compounds.

The groundwater MNA program commenced in 2008 and has been documented in a series of periodic data reports since that time. Evaluation of the data has been presented in reports to the NYSDEC entitled:

- *First Annual Site Monitoring Report* (February 2009),
- *Second Annual Periodic Review Report* (April 2010),
- *Third Annual Site Monitoring Report* (March 2011) and
- *Fourth Annual Periodic Review Report* (April 2012).

Quarterly groundwater monitoring was conducted through the third quarter of 2010 with results transmitted to NYSDEC Region 7 on a regular basis. Based on the progress of CVOC attenuation observed, the New York State Department of Environmental Conservation (NYSDEC) Region 7 office, in a letter dated September 14, 2010 agreed to reduce the frequency of groundwater sampling and analysis to twice per year, with those events occurring in Spring and Fall.. That same letter also allowed the deletion of monitoring well MW-2D from the sampling program. A copy of that letter is provided in Appendix A. Implementation of the modified groundwater monitoring program began in 2011 with full annual reporting as specified in the December 2007 Remedial Work Plan, Site Management Plan and, as required by the Brownfield Cleanup Agreement for the site. This *Fifth Annual Periodic Review Report* constitutes the second report under the modified program.

Elevated groundwater temperatures recorded during the first year after the shutdown of the ISTD system were determined to be the result of the heating process which took place over a period of approximately 11 months. The *Remedial Work Plan* issued in December 2007 established that the cool-down period would be considered complete when the range of groundwater temperatures recorded at the monitoring wells stabilized to within five degrees Fahrenheit (F) of each other.

The 2012data indicate that, for the June 2012 sampling event, the groundwater temperatures for the six monitoring wells (9D, 10D, 13D, 14D, 15D, and 16D) ranged from 61.2 degrees F to 71.6 degrees F, a range of approximately ten degrees F.. For the December 2012 sampling event, the range was from 54.3 degrees F to 62.2 degrees F, a range of approximately eight degrees F.. These water temperature data suggest that since the cool down period has undoubtedly run its course, the range of groundwater temperatures observed appears to be indicative of a natural variability at the site.

SECTION 2 - EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

Natural Attenuation Parameters

Samples collected during 2012 were analyzed for a variety of parameters associated with MNA including inorganic parameters, microbial indicators, and CVOCs. The resultant data were examined for evidence indicating overall reduction of contaminant levels. In addition, degradation rate constants were calculated using USEPA protocol.

Groundwater quality data (relative to chlorinated compounds) for each of the wells are presented on tables shown in Appendix B-1. Data Usability Summary reports for the 2012 groundwater quality monitoring are provided in Appendix B-2. Analytical results for the MNA parameters are shown on the table that is Appendix B-3 of this report. Appendix B-4 presents the groundwater contour maps for each sampling event conducted in 2012.

Other parameters of interest during 2012 include:

- Oxidation-reduction Potential - The ORP measurements generally remained at levels of -300 mV or less (more negative) for the warm weather (June) sampling event. For the cold weather (December) event ORP measurements ranged from -253 to -301 mV. Values more negative than -100 mV are indicative of an environment that issupportive of reductive dechlorination.
- Dissolved Oxygen - Other than limited instances, the presence of dissolved oxygen in each of the monitoring wells continues to be essentially non-existent and indicative of a reducing environment.
- Sulfate - In MW-9D, MW-10D, and MW-15D concentrations exceeding 466 mg/l were recorded in 2012. Lower concentrations ranging from 63 mg/l to 184 mg/l were found in wells MW-13D, MW-14D, and MW-16D, which is a similar range to that recorded during past events. According to USEPA MNA guidance, sulfate in excess of 20 mg/l may cause competitive exclusion of dechlorination. However, in many plumes with high concentrations of sulfate, reductive dechlorination still occurs. Based on CVOC data collected at the Midler Avenue site, it would appear that reductive dechlorination is occurring.

- Dehalococcoides (Dhc) - Concentrations exceeding 1 x10^5 gene copies per liter of this microbe were found during 2012 in MW-10D, MW-13D, MW-14D and MW-16D. The notable increase in the estimated percentage of Dhc within the overall microbial population at MW-13D that was observed in 2010 and 2011 remained evident at that location during the 2012 sampling events.
- Vinyl chloride reductase (vcrA) - vcrA concentrations have been observed to vary in proportion with Dhc concentrations in the site groundwater. Therefore, analysis for vcrA was dropped from the analytical protocol for the site following the June 2012 sampling.

Evaluation of Data Trends and Rate Constants

The February 2009 *First Annual Site Monitoring Report* developed rate constants from cool-down period data which were determined to be of minimal relevance with respect to long-term natural attenuation trends. The USEPA instructs that, to make a statistically valid projection of the rate of monitored natural attenuation, monitoring periods of at least three years should be considered. With data from fourteen sampling events since 2008 (which includes data from the cool down period) we offer the following observations and calculations regarding the apparent rate of CVOC reduction at each of the site monitoring wells during the 1,771 day (4.85 years) period extending from February12, 2008 through December 17, 2012.

CVOC Trendlines and Concentration Versus Time Rate Constants

The following discussion refers to recent trendlines and first order rate constants derived from a comparison of individual CVOC analytical results for each monitoring well. In this evaluation all of the data since 2008 were considered to see if a "best fit" linear relationship was evident. These data include the "cool down" data. By using all the data, there was much scatter and in some instances the resultant trend line suggested that concentrations of certain CVOCs were increasing. Nevertheless, groundwater quality has generally improved and at certain wells, detected CVOCs do not exceed Class GA Groundwater Standards.

The following is an evaluation of the recent trendlines including, when appropriate, rate constants; these will become more statistically valid as more data are generated and more time passes.

During past sampling events, non-detects at elevated detection limits has introduced an element of ambiguity to some of the trendlines and rate constant calculations. Therefore, the analytical laboratory was asked to provide lower detection limits, when possible, to document whether specific CVOCs are present at levels above their respective Class GA Groundwater Standard. In response to that request, in December 2012 Test America began to utilize USEPA Method OLC02.1 instead of Method OLM04.2 for project volatiles analyses.

MW-9D - Trans-1,2-DCE and cis-1,2-DCE have both been reported at concentrations less than the Class GA groundwater standard of 5 µg/l since October 2008. Given the data, further

evaluation of first order rate constants for these two CVOCs was not performed. For vinyl chloride, the concentration increased from 3.0 µg/l in May 2011 to 4.6 µg/l in December 2012. That result reversed the recent trend of declining vinyl chloride concentrations at this location.

MW-10D - The data indicate wide variability for vinyl chloride over the monitoring period, as the concentration of that compound decreased to 28 µg/l in June 2012, then increased to 270 µg/l in December 2012. Cis-1,2-DCE data exhibited an opposite variation, increasing to 550 µg/l in June 2012 and decreasing to 260 µg/l in December 2012. The trans-1,2-DCE concentration has remained generally stable around 16 ug/l since February 2008.

MW-13D – The vinyl chloride concentration has declined from 3,100 µg/l in February 2008 to 2,100 µg/l in December 2012, resulting in an estimated time of 87 years to achieve the 2 ug/l Class GA Standard. However when all the data are plotted, including the spike in the concentration of vinyl chloride seen in the March 2010 event (7,400 µg/l as compared to 760 µg/l in December 2009), this creates a positive slope.

Cis-1,2-DCE concentrations declined from 430 µg/l to 260 µg/l during the February 2008 through October 2010 timeframe, but a spike in concentration occurred in March 2010, after which the concentrations have been varying with a general trend of decreasing. The 2012 data exhibited a marked decrease to 170 µg/l for the June sampling, followed by an increase to 1,100 µg/l for the December sampling. Given that spikes of both cis-1,2-DCE and vinyl chloride were followed by general decreases in four consecutive sampling events, it would appear that long-term improvements to groundwater quality should continue. This "positive slope" condition appears to be a function of a small data set generated during a short time frame.

Trans-1,2-DCE concentrations declined from 36 µg/l to 13 µg/l during the February 2008 to May 2011 time period (in December 2011, trans-1,2-DCE was "non-detect" at 50 ug/l) which resulted in a theoretical "Time to Meet Standard" of approximately three years. This trend was confirmed by the 2012 sampling, for which trans-1,2-DCE was not detected. With regard to PCE and TCE, neither of these compounds was detected in either of the 2012 sampling events for this location, thus no further evaluation of the data relative to prediction of "Time to Meet Standards" was performed.

MW-14D - Since March 2010 concentrations of both cis-1,2-DCE and trans-1,2-DCE, as well as PCE and TCE, have declined to less than the Class GA Groundwater Standard (5 µg/l) for these compounds. VC concentrations have declined from12,000 µg/l to 3.6 µg/l during the period from February 2008 through the 2011 sampling events, resulting in a theoretical time of approximately three years to achieve the 2 µg/l Class GA Standard for that compound. No CVOCs were detected in groundwater samples from MW-14D during either of the 2012 sampling events, apparently confirming the earlier trend.

MW-15D and MW-16D – No rate constants have been established for these wells since the CVOC concentrations have been generally less than their respective Class GA groundwater Standards. In December 2012, the concentration of cis-1,2-Dichloroethene at MW-15D exhibited a decline to 5.1 ug/l (from 6.4 ug/l in December 2011, resulting in an estimated time of

less than one year to achieve the 5 ug/l Class GA Standard, when compared with the 6 ug/l concentration for that compound in February 2008.

Conclusions

Data and discussion presented in the preceding text and accompanying data tables confirm that CVOCs in groundwater, while variable in the short term, continue to decrease. Current concentrations are consistently less than those observed at the commencement of the RI and ensuing in-situ thermal treatment of significant source areas, and with the exception of MW-10D and MW-13D, have declined significantly since the end of the cool-down period. The decrease in contaminant levels in most wells combined with the lines of evidence associated with reductive dechlorination, indicate that MNA continues to be the appropriate remedial technology for site groundwater.

SECTION 3 - IC/EC PLAN COMPLIANCE REPORT

Residual subsurface contamination remained after completion of the IRM performed under the BCP. Engineering Controls were incorporated into the site remedy to provide proper management of this contamination to ensure protection of public health and the environment. A site-specific Environmental Easement has been recorded with the Onondaga County Clerk that provides an enforceable means to ensure the continued and proper management of residual contamination and protection of public health and the environment. It requires strict adherence to ICs and ECs placed on this Site by NYSDEC by the grantor of the Environmental Easement and any and all successors and assigns of the grantor.

Site Specific Engineering Controls

As described in the December 2007 Site Management Plan (SMP), as approved by NYSDEC, the following site specific ECs have been implemented.

Sub-slab depressurization systems (SSDSs) - SSDSs have been installed and maintained on both the Lowe's home center and SEFCU branch building. A site plan showing the location of the monitoring points for each building is provided in Appendix C of this report. Inspection of the systems is performed on a regular basis by Pioneer Midler Avenue, LLC as documented on the forms in Appendix C of this PRR. No operational problems occurred with the systems during calendar year 2012.

If in the future additional buildings are constructed on the site, similar type SSDS will be designed, installed, and maintained. The designs and system performance requirements will be in accordance with applicable regulations and/or guidance.

Public water supply - The site and surrounding properties receive their domestic water from municipal service connections supplied by the City of Syracuse. The source of the municipal water supply is surface water from Skaneateles Lake, Otisco Lake, and Lake Ontario. The

Lowe's home center and SEFCU branch office are connected to and obtain potable water from the municipal water supply described above. Currently there are no other buildings or users of water on the site.

Paved and concrete surfaces -- To the extent reasonable, surfaces outside of the building footprints were paved or covered with conventional asphalt or concrete. Areas beneath the asphalt and/or concrete pavement received one foot of clean Type 1 or 2 crushed limestone from an approved quarry (i.e., T. H. Kinsella, Hansen). Areas beyond the footprint of the buildings and limits of paved areas received either a combination of clean crushed limestone fill, and/or clean topsoil to a depth of one foot. The clean crushed limestone fill and/or topsoil has been maintained to avoid direct contact with pre-existing urban fill material and native soils. As required by the Site Management Plan, Pioneer Midler Avenue, LLC performs a visual inspection of the site twice each year. Those inspections completed during 2012 are documented on the forms shown in Appendix D of this PRR.

Site-Specific Institutional Controls

As described in the December 2007 Site Management Plan (SMP) the following site specific ICs have been implemented.

Environmental Easement - Pioneer has granted the NYSDEC an environmental easement for the Site to ensure that use restrictions or engineering controls remain in place and will be binding to future owners and lessees, or until modified, extinguished, or amended by a written instrument executed by the Commissioner of the NYSDEC. No changes to the Environmental Easement occurred during 2012.

Groundwater Use Restriction - The use or discharge of untreated groundwater for any purpose will not be permitted at the Site. As stated above, each building is connected to City of Syracuse municipal water supply.

Soil Management Plan - A site-specific Soil Management Plan (SoMP) dated December 2007 was been approved by NYSDEC and has been implemented at this Site. The objective of the SoMP is to set guidelines for management of soil material during any future activities which would breach the cover system at the site. No excavation, construction, or dewatering activities were conducted at the site during 2012.

Recommendations

Relative to the SoMP, no changes to the plan are recommended for 2013.

SECTION 4 - MONITORING PLAN COMPLIANCE REPORT

The December 2007 *Monitoring Plan* and the December 2007 *Remedial Work Plan* described the measures for evaluating the performance and effectiveness of Monitored Natural Attenuation. The elements of these plans, relative to groundwater monitoring, consisted of sampling and laboratory analysis for chlorinated volatile organic compounds via EPA Method 8260. Additionally, each sample was further evaluated for the following MNA parameters:

- ORP
- Temperature
- pH
- Dissolved oxygen
- Ferric iron
- Ferrous iron
- Total Iron
- Sulfate
- Sulfide
- Dissolved Organic Carbon
- Dissolved Inorganic Carbon
- Microbial analysis to determine presence and concentration of Dhc populations and gene analysis to determine presence/concentrations of Dhc capable of dechlorinating vinyl chloride to ethene

Groundwater data (quality and water levels) are tabulated and entered into the cumulative summary tables after each sampling event. That information, accompanied by a Data Usability Summary Report (DUSR) and groundwater contour map, is submitted to NYSDEC Region 7 following each monitoring event. The cumulative groundwater data summary tables (groundwater quality and MNA parameters) are shown in Appendix B-1 and Appendix B-3, respectively, of this PRR. The individual laboratory reports are also provided in Appendices B-1 and B-3. Data Usability Summary Reports for the 2012 groundwater quality samples are provided in Appendix B-2. Also, groundwater contour maps for each 2012 sampling event are shown in Appendix B-4.

SECTION 5 - OPERATION AND MAINTENANCE PLAN

The December 2007 *Operation and Maintenance Plan* for the site describes the measures necessary to operate and maintain mechanical components of the SSDS systems installed at each of the buildings. The *Operation & Maintenance Plan* also included a description of visual inspections to be conducted to document the condition of the exterior paved surfaces.

SSDS Operation and Maintenance

During 2012 verification of normal operating status was conducted on an approximately weekly basis. This verification, performed by Pioneer Midler Avenue, LLC, is by visual observation of the magnehelic gauge attached to each discharge stack. These observations are recorded and kept on file. Copies of the inspection forms for 2012 are presented in Appendix C of this PRR.

Routine maintenance is performed every 12 months and includes:

- Visual inspection of above grade components
- Verification that no building intakes have been added within ten feet of the SSDS ventilation stacks
- Verification that floor penetrations are not leaking and if leaks are detected appropriate repairs are to be completed.

As appropriate, preventative maintenance, repairs, and/or adjustments will be made to the system to ensure its continued effectiveness. If significant changes are made to the building, the system will be modified and/or expanded to ensure the system is functioning properly.

No operational problems or significant building modifications have occurred with the systems installed at the SEFCU branch and Lowe's home center during 2012.

Pavement and Concrete Surfaces

All paved and concreted surfaces are maintained such that extensive perforations or cracks are sealed or repaired on an on-going basis. The Property Manager performs a semiannual inspection of these surfaces. Documentation of the visual inspections performed in 2012 is presented in Appendix D of this PRR.

Conclusion

Based on the information gathered during 2012, it is our opinion that no changes in the Operation and Maintenance Plan should be implemented for calendar year 2013.

SECTION 6 - OVERALL PRR CONCLUSIONS AND RECOMMENDATIONS

Compliance with Site Management Plan

During calendar year 2012, all the requirements of the *Site Management Plan* prepared in 2007 and amended in September 2010 were satisfied and no changes or modifications are contemplated at this time.

Performance and Effectiveness of the Remedy

Data from site monitoring confirm that CVOCs in groundwater, while displaying some variability in the short term, continue to decrease. Current CVOC concentrations are greatly reduced compared to those observed at the commencement of the Remedial Investigation and ensuing in-situ thermal treatment, and, with the exception ofMW-10D and MW-13D, have declined significantly since the end of the cool-down period. The decrease in CVOC levels (in most wells) combined with the lines of evidence associated with reductive dechlorination, indicate that MNA continues to be an appropriate remedial technology for site groundwater.

At this point in the monitoring program for this site, several trends with respect to the presence and extent of CVOCs and MNA parameters in groundwater have been established:

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Based on the past several monitoring rounds showing non-detect or below standards results, we request that, beginning in the first monitoring event in 2014, monitoring wells MW-14D and MW-16D be removed from the semi-annual monitoring for the site,. Starting in June 2014, the semi-annual monitoring will be continued for monitoring wells MW-9D, MW-10D, MW-13D and MW-15D and we will continue providing annual PRRs as scheduled.

Future PRR Submittals

The PRR for calendar year 2013 will be issued during the second quarter of 2014.

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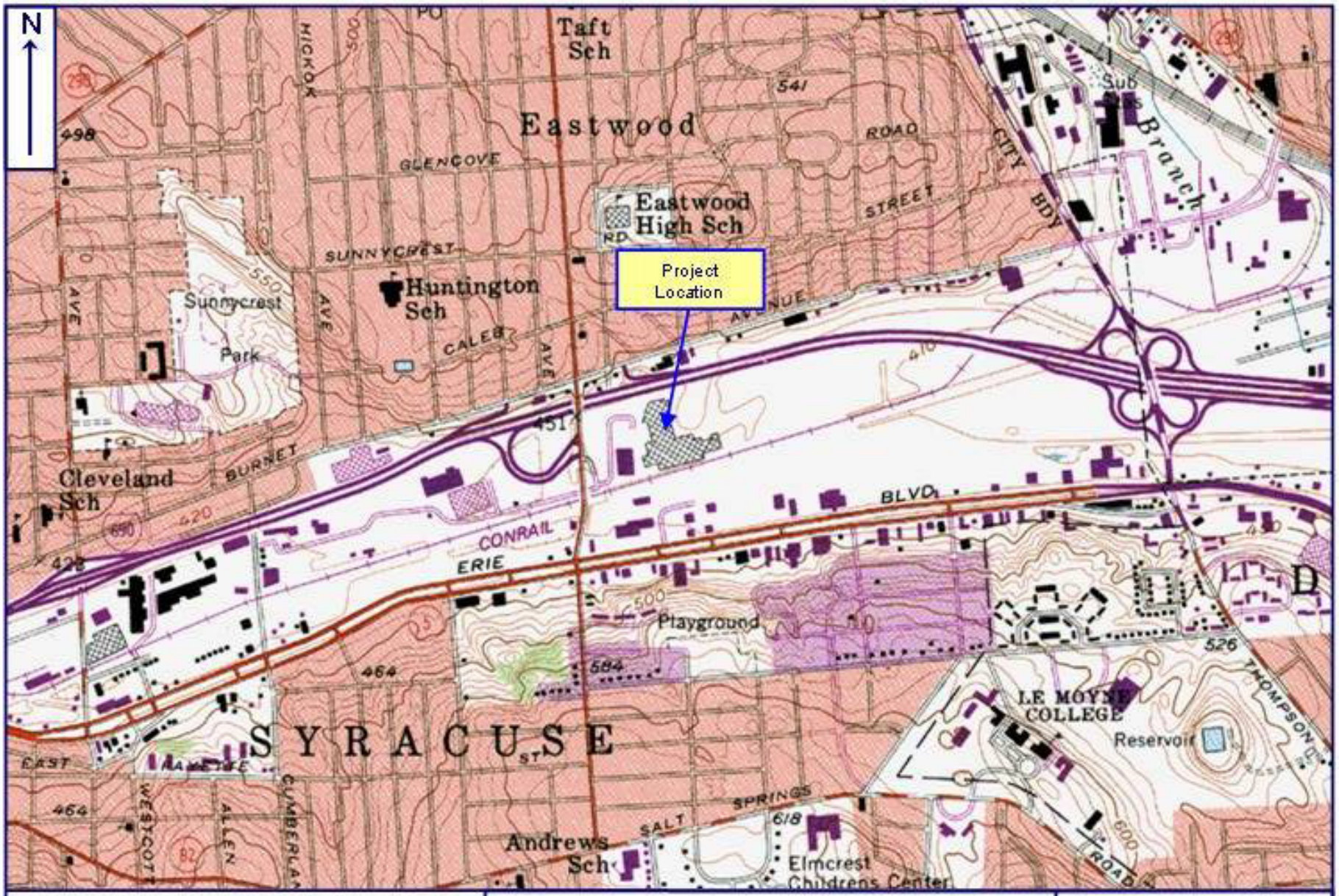
FIGURES

FIGURE 1

SITE LOCATION MAP
SYRACUSE EAST USGS



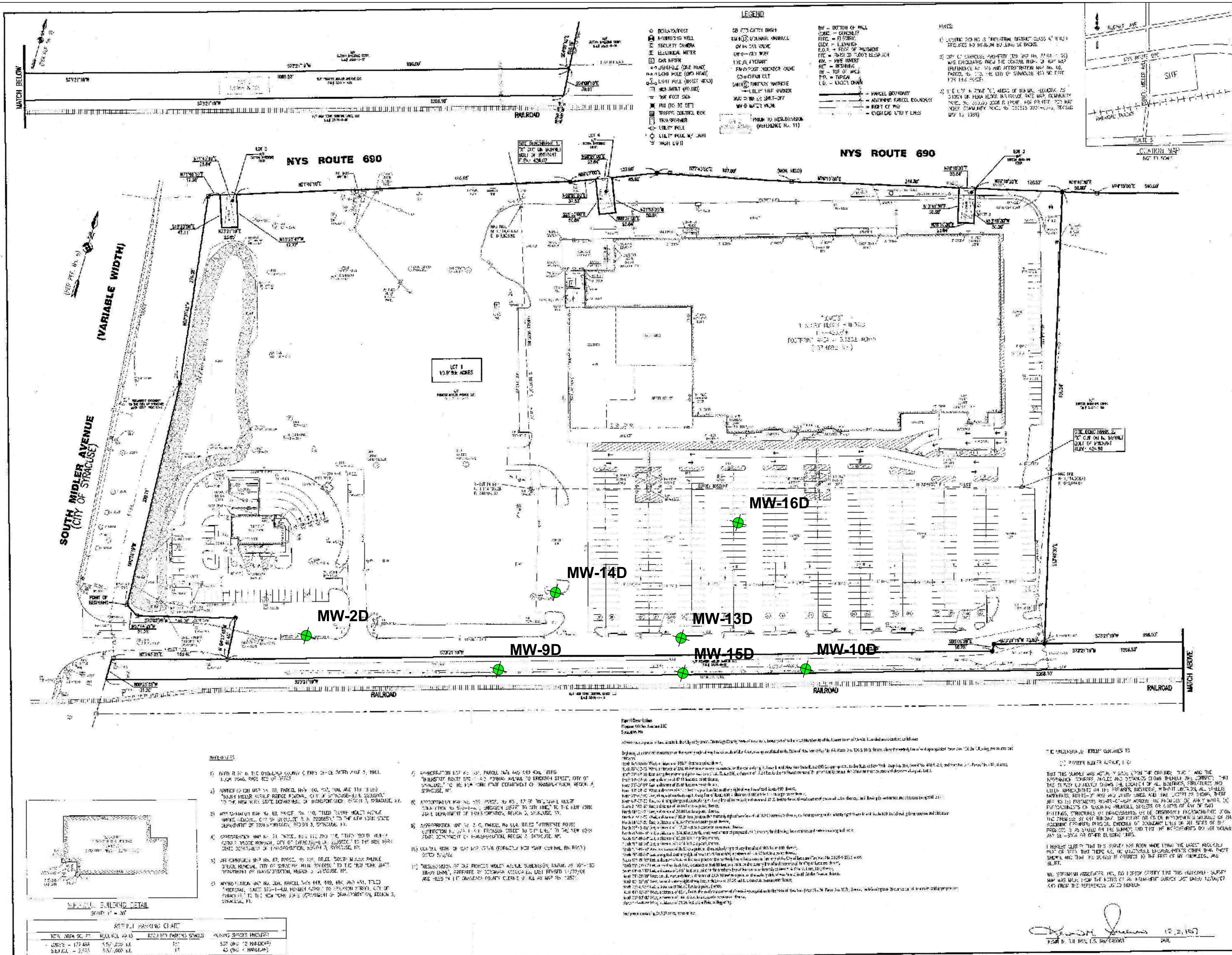
Source: USGS Topographic Maps (Terrain Navigator)
Syracuse East, NY

Figure 1
Site Location Map
Pioneer Milder LLC Brownfield Project
City of Syracuse, Onondaga County, New York

C&S COMPANIES
ENGINEERS
DESIGN BUILD
TECHNICAL RESOURCES
OPERATIONS

FIGURE 2

ASB-01 FROM DECEMBER 2007 FINAL ENGINEERING REPORT



PROPOSED RETAIL DEVELOPMENT

621 S. MIDLER AVENUE
SYRACUSE, NY

PIONEER MIDLER AVENUE LLC.
250 SOUTH CLINTON
SYRACUSE, NY 13202

PIONEER
COMPANIES

PREPARED BY:

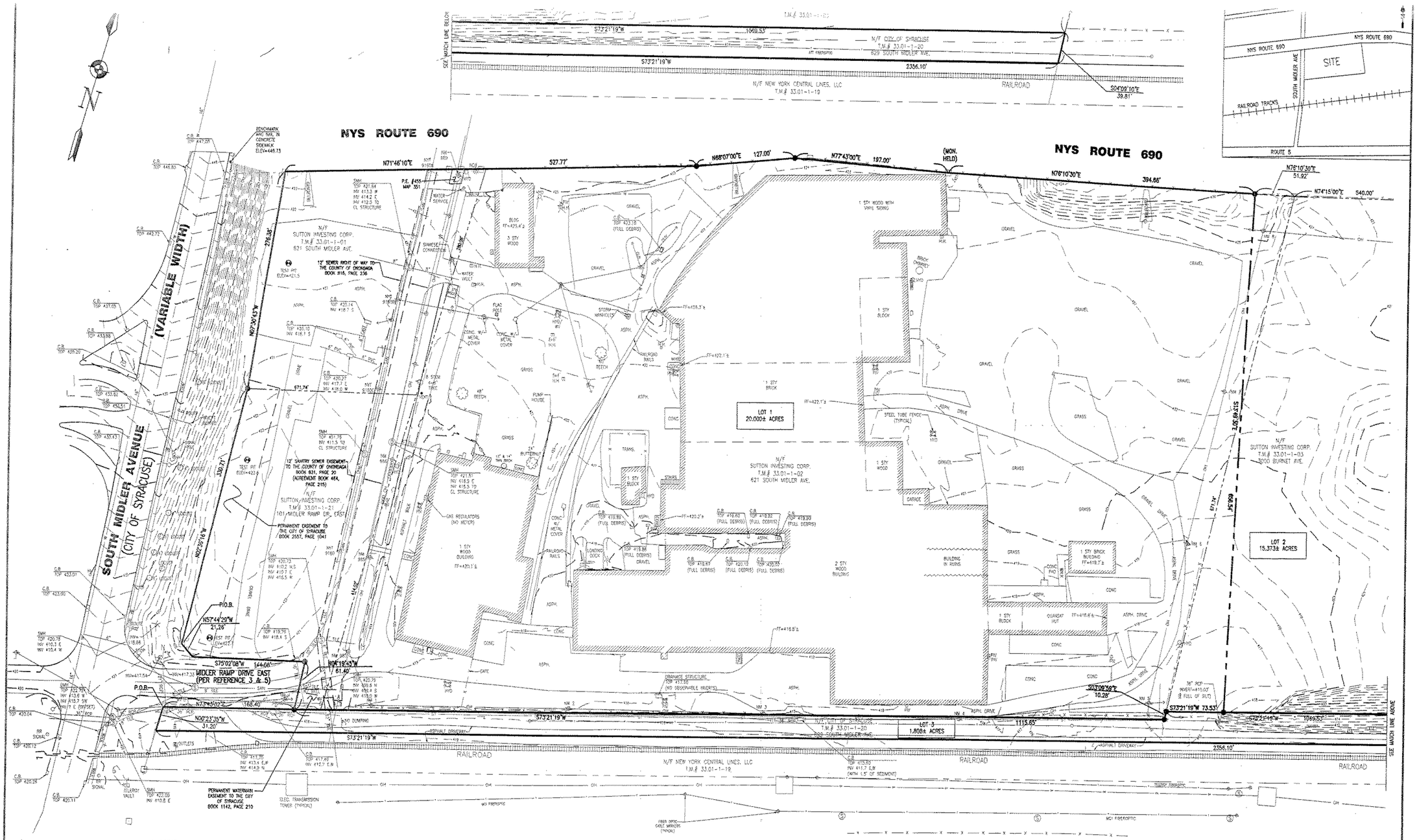
BERGMANN
associates
Engineers / Architects / Surveyors

ALTA/ACSM LAND TITLE ASBUILT SURVEY MAP

ASB-01

FIGURE 3

RE-SUBDIVISION MAP - 2006



LEGEND

- DECIDUOUS TREE
- ONE-POST SIGN
- TWO-POST SIGN
- REBAR FOUND
- IRON PIPE FOUND
- CONCRETE MONUMENT
- CORNER TO BE SET
- WALKWAY LIGHT
- ELECTRIC TRANSFORMER
- LIGHT POLE
- UTILITY POLE
- UTILITY POLE WITH LIGHT
- TRAFFIC CONTROL BOX
- TELEPHONE BOX
- ELECTRIC METER
- GAS METER
- GAS MARKER
- GV GAS VALVE
- HANDHOLES
- 420.5 SPOT ELEVATION
- —420— EXISTING CONTOUR LINE
- WV WATER VALVE
- HYD HYDRANT
- CATCH BASIN
- Ⓢ SANITARY SEWER MANHOLE
- Ⓓ STORM SEWER MANHOLE
- Ⓧ UNKNOWN MANHOLE
- Ⓣ TRAFFIC MANHOLE
- BOLLARD/POST
- TEST PIT LOCATION
- GUY WIRE
- —SAN— SANITARY SEWER
- —ST— STORM SEWER
- —E— ELECTRIC LINE
- —FO— FIBER OPTIC LINE
- —T— TELEPHONE LINE
- —W— WATER LINE
- —G— GAS LINE
- —OH— OVERHEAD ELECTRIC
- —X—X— FENCE LINE
- GUIDE RAIL
- EDGE WOODS
- EASEMENT LINE
- PROPERTY LINE
- TAX PARCEL LINE
- RIGHT-OF-WAY LINE
- PROPOSED SUBDIVISION LINE

NOTES:

1) UTILITIES SHOWN WERE PLOTTED FROM RECORD INFORMATION AQUIRED FROM THE UTILITY PROVIDERS SERVICING THIS AREA. THEY ARE NOT CERTIFIED AS TO THE ACCURACY OF THEIR LOCATION OR THEIR COMPLETENESS.

2) EXISTING ZONING IS "INDUSTRIAL DISTRICT CLASS A" WHICH REQUIRES NO MINIMUM BUILDING SETBACKS.

3) CITY OF SYRACUSE PROPERTY (TAX MAP No. 33.01-1-20) WAS CALCULATED FROM THE CONRAIL RIGHT OF WAY MAP (REFERENCE No. 10) AND APPROPRIATION MAP No. 68, PARCEL No. 110. THE CITY OF SYRACUSE HAD NO DEED FOR THIS PARCEL.

4) SITE IS NOT WITHIN A FLOOD HAZARD ZONE PER COMMUNITY PANEL No. 3605950060

REFERENCES:

1) DEED FILED IN THE ONONDAGA COUNTY CLERKS OFFICE DATED JUNE 2, 1951. BOOK 2046, PAGE 402 OF DEEDS.

2) APPROPRIATION MAP No. 66, PARCEL No's 106, 107, 108, AND 118, TITLED "SOUTH MIDLER AVENUE BRIDGE REMOVAL, CITY OF SYRACUSE-B.I.N. 2208550," TO THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, REGION 3, SYRACUSE, NY.

3) APPROPRIATION MAP No. 68, PARCEL No. 110, TITLED "SOUTH MIDLER AVENUE BRIDGE REMOVAL, CITY OF SYRACUSE-B.I.N. 2208650," TO THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, REGION 3, SYRACUSE, NY.

4) APPROPRIATION MAP No. 71, PARCEL No's 115 AND 118, TITLED "SOUTH MIDLER AVENUE BRIDGE REMOVAL, CITY OF SYRACUSE-B.I.N. 2208650," TO THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, REGION 3, SYRACUSE, NY.

5) APPROPRIATION MAP No. 67, PARCEL No 109, TITLED "SOUTH MIDLER AVENUE BRIDGE REMOVAL, CITY OF SYRACUSE-B.I.N. 2208650," TO THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, REGION 3, SYRACUSE, NY.

6) APPROPRIATION MAP No. 354, PARCEL No's 448, 449, 450, AND 451, TITLED "INTERSTATE ROUTE 570-1-4.0, FORMAN AVENUE TO ERICKSON STREET, CITY OF SYRACUSE," TO THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, REGION 3, SYRACUSE, NY.

7) APPROPRIATION MAP No. 351, PARCEL No's 445 AND 455, TITLED "INTERSTATE ROUTE 570-1-4.0, FORMAN AVENUE TO ERICKSON STREET, CITY OF SYRACUSE," TO THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, REGION 3, SYRACUSE, NY.

REFERENCES: CONTINUED

8) APPROPRIATION MAP No. 529, PARCEL No 631, TITLED "INTERSTATE ROUTE CONNECTION No 570-1-4.1, ERICKSON STREET TO CITY LINE," TO THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, REGION 3, SYRACUSE, NY.

9) APPROPRIATION MAP No. 3-C, PARCEL No 664, TITLED "INTERSTATE ROUTE CONNECTION No 570-1-4.1, ERICKSON STREET TO CITY LINE," TO THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, REGION 3, SYRACUSE, NY.

10) CONRAIL RIGHT OF WAY MAP V73/6 (FORMERLY NEW YORK CENTRAL RAILROAD,) DATED 5/5/92.

11) ABSTRACT OF TITLE PREPARED BY TICOR TITLE INSURANCE COMPANY, TITLE No. 530420350.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT WAS BASED WERE MADE IN ACCORDANCE WITH "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA, ACSM AND NSPS IN 1999, AND INCLUDES ITEMS 1-11 AND 13 OF TABLE A THEREOF. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA, NSPS, AND ACSM AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT THE SURVEY MEASUREMENTS WERE MADE IN ACCORDANCE WITH THE "MINIMUM ANGLE, DISTANCE, AND CLOSURE REQUIREMENTS FOR SURVEY MEASUREMENTS WHICH CONTROL LAND BOUNDARIES FOR ALTA/ACSM LAND TITLE SURVEYS."

THE UNDERSIGNED HEREBY CERTIFIES TO
1) LOWE'S HOME CENTERS, INC
2) TICOR TITLE INSURANCE COMPANY
THAT THIS SURVEY WAS ACTUALLY MADE UPON THE GROUND; THAT IT AND THE INFORMATION, COURSES, ANGLES AND DISTANCES SHOWN THEREON ARE CORRECT; THAT THIS SURVEY CORRECTLY SHOWS THE LOCATION OF ALL BUILDINGS, STRUCTURES AND OTHER IMPROVEMENTS ON THE PREMISES, INCLUDING, WITHOUT LIMITAION, ALL STREETS, EASEMENTS, RIGHTS-OF-WAY AND UTILITY LINES; AND THAT, EXCEPT AS SHOWN, THERE ARE NO (a) EASEMENTS RIGHTS-OF-WAY ACROSS THE PREMISES; (b) PARTY WALLS, (c) ENCROACHMENTS ON ADJOINING PREMISES, STREETS OR ALLEYS OF ANY OF SAID BUILDINGS, STRUCTURES OR IMPROVEMENTS, OR (d) OBSERVABLE ENCROACHMENTS UPON THE PREMISES BY ANY BUILDING, STRUCTURE OR OTHER IMPROVEMENTS SITUATED ON ANY ADJOINING PREMISES; PHYSICAL EVIDENCE OF BOUNDARY LINES ON ALL SIDES OF THE PREMISES IS AS STATED ON THE SURVEY; AND THAT THE IMPROVEMENTS DO NOT VIOLATE ANY SET-BACK OR OTHER BUILDING LINES.

I HEREBY CERTIFY THAT THIS SURVEY HAS BEEN MADE USING THE LATEST RECORDED PLAT OR DEED, THAT THERE ARE NO OBSERVABLE ENCROACHMENTS OTHER THAN THOSE SHOWN, AND THAT THE SURVEY IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WE, BERGMANN ASSOCIATES, INC., DO HEREBY CERTIFY THAT THIS INSTRUMENT SURVEY MAP WAS MADE FROM THE NOTES OF AN INSTRUMENT SURVEY DATED 12/23/03 AND FROM THE REFERENCES LISTED HEREON.

Kevin M. Sullivan 8/16/04
KEVIN M. SULLIVAN, L.S. No. 049963 DATE

DEVELOPMENT
621 S. MIDLER AVENUE SYRACUSE, NY

PIONEER MIDLER AVENUE LLC.
250 SOUTH.CLINTON
SYRACUSE, NY 13202

PIONEER
COMPANIES

PREPARED BY:

BERGMANN
associates
Engineers / Architects / Surveyors

REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D

NOTE:
Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.

AUG 17 2004

0 60 120 180 FT
SCALE BAR

ALTA/ACSM LAND TITLE SURVEY

KEVIN M. SULLIVAN
049963

Project Manager: **K. Sullivan**
Designed by:
Drawn by: **C. Wood**
Checked by: **K. Sullivan**
Date Issued: **August 13, 2004**
Scale: **1" = 60'**
Project Number: **8197.00**
File Name: **f\dev\pioneer\midler\8197base.dwg**
Drawing Number:

EX-1

1 of 1

FIGURE 4

ISTD LAYOUT PLAN

SPARGE POINT

AREA B3

SPARGE POINT

ISTD ELECTRICAL DISTRIBUTION GEAR

ISTD OFF GAS TREATMENT EQUIPMENT

AREA B1

B-1 SHEET PILE

SPARGE POINT

AREA MW-3D

MW3D-SHEET PILE

671.74'

656.54'

APPROX. SCALE
0 30 60 90 FEET

LEGEND

- ISTD HEATER WELL (18 FT. TREATMENT DEPTH)
- ISTD HEATER WELL (20 FT. TREATMENT DEPTH)
- ISTD HEATER WELL (25 FT. TREATMENT DEPTH)
- ISTD HORIZONTAL VACUUM SCREENS
- ISTD MANIFOLD PIPE
- ISTD TREATMENT ZONE
- ISTD TEMPERATURE MONITORING POINT
- ISTD SURFACE COVER PERIMETER
- ISTD SURVEY POINTS (H-5S)
- SPARGE POINTS
- SHEET PILE

C&S ENGINEERS, INC.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
Phone 315-455-2000
Fax 315-455-9667
www.cscos.com

DATE: APRIL 2006
SCALE: AS SHOWN
FILE NO. C81.002.001

Pioneer Midler Avenue LLC
Interim Remedial Measure Report
Heater Well Layout & ISTD Enhancements

Figure 2

Oct 15, 2007 - 2:30pm
F:\Project\C81 - Pioneer Development\Cadd IRM Reports\Figure 2.dwg

APPENDIX A

SEPTEMBER 14, 2010 LETTER CONCERNING REDUCTION OF GROUNDWATER SAMPLING FREQUENCY

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 7
615 Erie Boulevard West, Syracuse, New York 13204-2400
Phone: (315) 426-7551 • **Fax:** (315) 426-7499
Website: www.dec.ny.gov

Alexander B. Grannis
Commissioner

September 14, 2010

Mr. Jed Schneider
Pioneer Midler Avenue, LLC
250 South Clinton Street, Suite 200
Syracuse, New York 13202-1258

Re: Midler City Industrial Park
Site No. C734103
Groundwater Sampling Frequency

Dear Mr. Schneider:

The New York State Department of Environmental Conservation (NYSDEC) has reviewed your August 3, 2010 letter requesting that the groundwater sampling frequency be reduced from quarterly to bi-annually (spring and fall). This request is hereby approved. In addition, based on the analytical data (i.e. non-detect levels of contaminants of concern since 2005), MW-2D can be removed from the list of wells sampled.

Respectfully,

Karen A. Cahill
Project Manager
Division of Environmental Remediation

cc: T. Barba/S. Vinci, C&S
R. Jones, DOH

ec: M. Peachey, DEC
G. Townsend, DEC

APPENDIX B-1

GROUNDWATER QUALITY SUMMARY THROUGH DECEMBER 2012 AND 2012 LABORATORY REPORTS

Pioneer Midler Avenue LLC

Summary of Groundwater VOC Data

Parameter	Units	NYSDEC GA		MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D
Sample Date		Std	Guid	01/31/05	5/2/2006	08/23/07	02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10
1,1,1-Trichloroethane	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,1,2,2-Tetrachloroethane	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,1,2-Trichloroethane	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,1,2-Tricloro-1,2,2,-triflouroethane	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,1-Dichloroethane	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,1-Dichloroethene	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,2,4-Trichlorobenzene	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,2-Dibromo-3-chloropropane	ug/l	0.04		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,2-Dibromoethane	ug/l			10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,2-Dichlorobenzene	ug/l	3		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,2-Dichloroethane	ug/l	0.6		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,2-Dichloropropane	ug/l	1		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,3-Dichlorobenzene	ug/l	3		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
1,4-Dichlorobenzene	ug/l	3		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
2-Butanone (MEK)	ug/l		50	15	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
2-Hexanone	ug/l		50	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
4-Methyl-2-pentanone (MIBK)	ug/l			10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Acetone	ug/l		50	10 U	50 U	10 U	10 U	10 U	0.39 U	10 U	1 U	0.38 U	0.55 JB	0.41 JB	0.71 J B	2.6 JB
Benzene	ug/l	1		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Bromodichloromethane	ug/l		50	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Bromoform	ug/l		50	10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Bromomethane	ug/l			10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Carbon disulfide	ug/l	60		10 U	50 U	10 U	10 U	10 U	0.17 U	10 U	10 U	0.66 J	0.26 J	0.75 J	0.67 J	0.27 J
Carbon tetrachloride	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Chlorobenzene	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Chloroethane	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Chloroform	ug/l	7		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Chloromethane	ug/l			10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	0.48 J
cis-1,2-Dichloroethene	ug/l	5		10 U	50 U	2.0 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.2 J	0.52 J
cis-1,3-Dichloropropene	ug/l	0.4		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Cyclohexane	ug/l			10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Dibromochloromethane	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Dichlorodifluoromethane	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Ethylbenzene	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Isopropylbenzene	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Methyl acetate	ug/l			10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Methyl tert butyl ether	ug/l	10		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Methylcyclohexane	ug/l			10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Methylene chloride	ug/l	5		10 U	50 U	10 U	10 U	10 U	0.19 U	10 U	10 U	0.13 U	0.28 JB	0.32 JB	0.24 J B	0.18 JB
Styrene	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Tetrachloroethene	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Toluene	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	0.13 U	10 U	0.11 U	10 U	0.14 J	0.12 J
trans-1,2-Dichloroethene	ug/l	5		10 U	50 U	10 U	10 U	10 U	0.15 J	10 U	10 U	0.1 J	0.17 J	10 U	0.14 J	10 U
trans-1,3-Dichloropropene	ug/l	0.4		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Trichloroethene	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Trichlorofluoromethane	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U
Vinyl chloride	ug/l	2		10 U	50 U	10 U	10 U	10 U	0.15 J	10 U	0.19 J	0.19 J	0.15 J	0.28 J	0.55 J	1.1 J
Xylenes, Total	ug/l	5		10 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	3 U	10 U

Notes: - indicates value exceeds Class GA Standard or Guidance level.

Data Qualifiers:
ND - Not Detected, U-undetected,
J or E - Estimated value,
RE - re-extraction, D-Diluted
B-Analyte found in associated blank as well as in the sample.
NA-Parameter Not Analyzed

Pioneer Midler Avenue LLC

Summary of Groundwater VOC Data

Parameter	Units	NYSDEC GA		MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D
Sample Date		Std	Guid	5/3/2006	08/23/07	02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/03/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11	12/07/11	06/27/12	12/17/12
1,1,1-Trichloroethane	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
1,1,2,2-Tetrachloroethane	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
1,1,2-Trichloroethane	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
1,1,2-Tricloro-1,2,2,-triflouroethane	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
1,1-Dichloroethane	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
1,1-Dichloroethene	ug/l	5		20 U	10 U	10 U	10 U	11 U	10 U	10 U	10 U	0.13 J	0.1 J	0.13 J	10 U	1 U	1 U	10 U	10 U	2 U
1,2,4-Trichlorobenzene	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
1,2-Dibromo-3-chloropropane	ug/l	0.04		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	NA	NA
1,2-Dibromoethane	ug/l			20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
1,2-Dichlorobenzene	ug/l	3		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
1,2-Dichloroethane	ug/l	0.6		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
1,2-Dichloropropane	ug/l	1		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
1,3-Dichlorobenzene	ug/l	3		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
1,4-Dichlorobenzene	ug/l	3		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
2-Butanone (MEK)	ug/l		50	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	10 U
2-Hexanone	ug/l		50	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)	ug/l			20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	10 U
Acetone	ug/l		50	20 U	10 U	0.7 J	2 U	1 U	10 U	10 U	0.41 U	1.7 JB	0.6 JB	0.69 JB	3 JB	0.45 JB	0.91 J B	10 U	10 U	10 U
Benzene	ug/l	1		20 U	10 U	10 U	10 U	0.15 J	10 U	0.18 J	0.11 J	0.12 J	0.14 J	0.13 J	10 U	0.16 J	1 U	10 U	10 U	2 U
Bromodichloromethane	ug/l		50	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Bromoform	ug/l		50	20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Bromomethane	ug/l			20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Carbon disulfide	ug/l	60		20 U	10 U	10 U	10 U	0.23 U	10 U	10 U	10 U	0.31 J	1.3 J	0.41 J	0.38 J	1 U	0.48 J	10 U	10 U	1.2 J
Carbon tetrachloride	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Chlorobenzene	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Chloroethane	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Chloroform	ug/l	7		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Chloromethane	ug/l			20 U	10 U	10 U	10 U	0.1 J	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
cis-1,2-Dichloroethene	ug/l	5		9 J	6 J	5 J	5 J	4.3 J	4 J	4.4 J	3.2 J	3.5 J	3.5 J	3.9	3.1 J	3.9	2.3	4.8 J	10 U	3.4
cis-1,3-Dichloropropene	ug/l	0.4		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Cyclohexane	ug/l			20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	NA
Dibromochloromethane	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Dichlorodifluoromethane	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	NA
Ethylbenzene	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Isopropylbenzene	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	NA
Methyl acetate	ug/l			20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	0.1 J	10 U	10 U	NA
Methyl tert butyl ether	ug/l	10		20 U	10 U	10 U	10 U	0.33 J	10 U	0.25 J	0.34 J	0.31 J	0.32 J	0.36 J	0.29 J	0.32 J	0.15 J	10 U	10 U	NA
Methylcyclohexane	ug/l			20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	NA
Methylene chloride	ug/l	5		20 U	10 U	10 U	10 U	0.19 U	10 U	10 U	0.15 U	0.28 U	0.31 JB	0.21 JB	0.14 JB	0.33 JB	0.28 J B	10 U	10 U	4 U
Styrene	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Tetrachloroethene	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Toluene	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.14 J	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
trans-1,2-Dichloroethene	ug/l	5		20 U	10 U	10 U	10 U	0.36 J	10 U	0.35 J	0.32 J	0.38 J	0.36 J	0.32 J	0.41 J	0.28 J	0.18 J	10 U	10 U	2 U
trans-1,3-Dichloropropene	ug/l	0.4		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	2 U
Trichloroethene	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.1 J	10 U	0.17 J	1 U	10 U	10 U	2 U
Trichlorofluoromethane	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	10 U	NA
Vinyl chloride	ug/l	2		6 J	6 J	4 J	5 J	4.4 J	4 J	4.4 J	3.3 J	3.4 J	3.1 J	3.6	3.1 J	3.5	3	10 U	10 U	4.6
Xylenes, Total	ug/l	5		20 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	3	10 U	3 U	3 U	10 U	10 U	2 U

Notes: - indicates value exceeds Class GA Standard or Guidance level.

Data Qualifiers:
ND - Not Detected, U-undetected,
J or E - Estimated value,
RE - re-extraction, D-Diluted
B-Analyte found in associated blank as well as in the sample.
NA-Parameter Not Analyzed

Pioneer Midler Avenue LLC

Summary of Groundwater VOC Data

Parameter	Units	NYSDEC GA		MW-10D DL		MW-10D		MW-10D DL		MW-10D		MW-10D		MW-10D		MW-10D		MW-10D		MW-10D		MW-10D		MW-10D		MW-10D		MW-10D		MW-10D DL		MW-10D DL		MW-10D		MW-10D		MW-10D DL	
Sample Date		Std	Guid	01/31/05		05/02/06		05/02/06		08/23/07		02/12/08		06/02/08		10/06/08		12/23/08		03/02/09		06/02/09		09/30/09		12/21/09		03/02/10		06/07/10		10/26/10		05/12/11		12/7/2011		06/27/12		12/17/12		12/17/12	
1,1,1-Trichloroethane	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
1,1,2,2-Tetrachloroethane	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
1,1,2-Trichloroethane	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
1,1,2-Tricloro-1,2,2,-triflouroethane	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
1,1-Dichloroethane	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	0.67	J	20	U	20	U	4	U	20	U
1,1-Dichloroethene	ug/l	5		80	U	10	U	40	U	28		20	U	20	U	0.33	J	20	U	0.65	J	0.43	J	0.56	J	0.41	J	0.38	J	0.52	J	0.51	J	4	U	20	U	20	U	4	U	20	U
1,2,4-Trichlorobenzene	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
1,2-Dibromo-3-chloropropane	ug/l	0.04		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	NA		NA		NA	
1,2-Dibromoethane	ug/l			80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
1,2-Dichlorobenzene	ug/l	3		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
1,2-Dichloroethane	ug/l	0.6		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
1,2-Dichloropropane	ug/l	1		80	U	10	U	40	U	20	`	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
1,3-Dichlorobenzene	ug/l	3		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
1,4-Dichlorobenzene	ug/l	3		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
2-Butanone (MEK)	ug/l		50	80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	20	U	100	U
2-Hexanone	ug/l		50	80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	20	U	100	U
4-Methyl-2-pentanone (MIBK)	ug/l			80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	20	U	100	U
Acetone	ug/l		50	80	U	10	U	40	U	20	U	20	U	2	U	0.74	U	20	U	0.68	U	1.8	U	1.5	JB	1.6	JB	1.9	J B	3.2	JB	1.7	JB	3.2	J B	20	U	20	U	20	U	100	U
Benzene	ug/l	1		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Bromodichloromethane	ug/l		50	80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Bromoform	ug/l		50	80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Bromomethane	ug/l			80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	0.47	J	20	U	20	U	4	U	20	U
Carbon disulfide	ug/l	60		80	U	10	U	40	U	20	U	20	U	20	U	0.49	U	20	U	10	U	0.72	U	0.61	J	3.5	J	0.37	J	0.51	J	2	U	1.1	J B	20	U	20	U	4	U	20	U
Carbon tetrachloride	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Chlorobenzene	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Chloroethane	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Chloroform	ug/l	7		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Chloromethane	ug/l			80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
cis-1,2-Dichloroethene	ug/l	5		700	D	420		420	D	220		200		320		190		340		200		220		280		200		210		190		290		380		440		550		260	E	310	
cis-1,3-Dichloropropene	ug/l	0.4		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Cyclohexane	ug/l			80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	NA		NA	
Dibromochloromethane	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Dichlorodifluoromethane	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	NA		NA	
Ethylbenzene	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Isopropylbenzene	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	NA		NA	
Methyl acetate	ug/l			80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	NA		NA	
Methyl tert butyl ether	ug/l	10		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	NA		NA	
Methylcyclohexane	ug/l			80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	NA		NA	
Methylene chloride	ug/l	5		80	U	10	U	40	U	2	J	20	U	20	U	0.16	U	20	U	0.11	U	1	U	2.2	JB	0.86	JB	0.99	J B	1.5	JB	1.7	JB	6.1	B	20	U	20	U	8		40	
Styrene	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Tetrachloroethene	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Toluene	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	0.14	U	20	U	0.21	J	0.22	J	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
trans-1,2-Dichloroethene	ug/l	5		46	DJ	25		22	DJ	25		16	J	19	J	13		25		18		14	J	13	J	12	J	12		11	J	14		19		17	J	28		16		17	J
trans-1,3-Dichloropropene	ug/l	0.4		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	4	U	20	U
Trichloroethene	ug/l	5		80	U	2	J	40	U	20	U	1	J	2	J	1.1	J	1	J	0.69	J	0.41	J	0.53	J	0.59	J	0.59	J	0.52	J	0.88	J	4	U	20	U	20	U	4	U	20	U
Trichlorofluoromethane	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	2	U	20	U	2	U	4	U	20	U	20	U	NA		NA	
Vinyl chloride	ug/l	2		32	DJ	60	J	58	D	78		96		82		160		76		170		160		180		170		150		170		140		93		120		28		270	E	320	
Xylenes, Total	ug/l	5		80	U	10	U	40	U	20	U	20	U	20	U	10	U	20	U	10	U	20	U	20	U	20	U	6	U	20	U	6		12	U	20	U	20	U	4	4	20	U

Notes: [ ] - indicates value exceeds Class GA Standard or Guidance level.

Data Qualifiers:
ND - Not Detected, U-undetected,
J or E - Estimated value,
RE - re-extraction, D-Diluted
B-Analyte found in associated blank as well as in the sample.
NA-Parameter Not Analyzed

Pioneer Midler Avenue LLC

Summary of Groundwater VOC Data

Parameter	Units	NYSDEC GA		MW-13D DL		MW-13D RE		MW-13D		MW-13D		MW-13D DL		MW-13D		MW-13D DL		MW-13D		MW-13D DL		MW-13D DL		MW-13D		MW-13D DL		MW-13D	
Sample Date		Std	Guid	05/03/06		05/03/06		04/11/07		07/20/07		07/20/07		08/23/07		08/23/07		10/11/07		10/11/07		10/11/07		02/12/08		06/02/08		06/02/08		10/06/08	
1,1,1-Trichloroethane	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,1,2,2-Tetrachloroethane	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,1,2-Trichloroethane	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,1,2-Tricloro-1,2,2,-triflouroethane	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,1-Dichloroethane	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,1-Dichloroethene	ug/l	5		100	U	50	U	40	U	5.3	J	110	J	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,2,4-Trichlorobenzene	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,2-Dibromo-3-chloropropane	ug/l	0.04		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,2-Dibromoethane	ug/l			100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,2-Dichlorobenzene	ug/l	3		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,2-Dichloroethane	ug/l	0.6		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,2-Dichloropropane	ug/l	1		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,3-Dichlorobenzene	ug/l	3		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
1,4-Dichlorobenzene	ug/l	3		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
2-Butanone (MEK)	ug/l		50	100	U	50	U	1,300		50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	2	J	200	U	10	U
2-Hexanone	ug/l		50	100	U	50	U	200	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
4-Methyl-2-pentanone (MIBK)	ug/l			100	U	50	U	170	J	23	J	800	U	44	J	1,000	U	14		2,000		2,000		200	U	2	J	200	U	4.3	J
Acetone	ug/l		50	100	U	50	U	5,000		24	J	130	J	22	J	1,000	U	10	U	2,000	U	2,000	U	200	U	6	U	200	U	5.5	J
Benzene	ug/l	1		100	U	50	U	37	J	16	J	15	J	100	U	1,000	U	8	J	2,000	U	2,000	U	200	U	6	J	200	U	5.5	J
Bromodichloromethane	ug/l		50	100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Bromoform	ug/l		50	100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Bromomethane	ug/l			100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Carbon disulfide	ug/l	60		100	U	50	U	40	U	14	J	800	U	100	U	1,000	U	9	J	2,000	U	2,000	U	200	U	20	U	200	U	0.7	U
Carbon tetrachloride	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Chlorobenzene	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Chloroethane	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	3	J	200	U	10	U
Chloroform	ug/l	7		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Chloromethane	ug/l			100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
cis-1,2-Dichloroethene	ug/l	5		750	D	630		980		3,400	E	3,200		1,600		1,700	D	10	D	2,000	D	2,000	D	430		39		39	DJ	38	
cis-1,3-Dichloropropene	ug/l	0.4		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	560	J	560	J	200	U	20	U	200	U	10	U
Cyclohexane	ug/l			100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Dibromochloromethane	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Dichlorodifluoromethane	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	310	EJ	2,000	EJ	2,000	EJ	200	U	20	U	200	U	10	U
Ethylbenzene	ug/l	5		100	U	50	U	40	U	0.86	J	800	U	100	U	1,000	U	1	J	2,000	U	2,000	U	200	U	20	U	200	U	0.49	J
Isopropylbenzene	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	0.23	JM	2,000	JM	2,000	JM	200	U	20	U	200	U	10	U
Methyl acetate	ug/l			100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	5	J	2,000	J	2,000	J	200	U	20	U	200	U	3.3	J
Methyl tert butyl ether	ug/l	10		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Methylcyclohexane	ug/l			100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	3	J	200	U	4.7	J
Methylene chloride	ug/l	5		100	U	50	U	32	B	2.6	JB	800	U	14	J	1,000	U	10	U	49	U	49	U	13	J	20	U	200	U	0.2	U
Styrene	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Tetrachloroethene	ug/l	5		36	B	50	U	40	U	160		160	J	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Toluene	ug/l	5		100	U	50	U	40		18	J	16	J	17	J	1,000	U	10	U	2,000	U	2,000	U	10	J	6	J	200	U	9.2	J
trans-1,2-Dichloroethene	ug/l	5		13	DJ	13	J	95		150		93	J	93	J	1,000	U	60		2,000		2,000		36	J	9	J	200	U	10	
trans-1,3-Dichloropropene	ug/l	0.4		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Trichloroethene	ug/l	5		100	U	50	U	40	U	91		98	J	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	0.17	J
Trichlorofluoromethane	ug/l	5		100	U	50	U	40	U	50	U	800	U	100	U	1,000	U	10	U	2,000	U	2,000	U	200	U	20	U	200	U	10	U
Vinyl chloride	ug/l	2		900	D	720	J	2,000		9,500	E	7,200		13,000	E	16,000	D	650	EJ	21,000		21,000		3100		450	E	380	D	290	J
Xylenes, Total	ug/l	5		U	U	50	U	120	U	4.8	J	800	U	100	U	1,000	U	7	J	2,000	J	2,000	J	200	U	20	U	200	U	2.6	J

Notes: [ ] - indicates value exceeds Class GA Standard or Guidance level.

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ND - Not Detected, U-undetected,
J or E - Estimated value,
RE - re-extraction, D-Diluted
B-Analyte found in associated blank as well as in the sample.
NA-Parameter Not Analyzed

Pioneer Midler Avenue LLC

Summary of Groundwater VOC Data

Parameter	Units	NYSDEC GA		MW-13D DL		MW-13D		MW-13D		MW-13D		MW-13D		MW-13D		MW-13D DL		MW-13D DL		MW-13D DL		MW-13D DL		MW-13D DL		MW-13D		MW-13D DL	
Sample Date		Std	Guid	10/06/08		12/23/08		03/02/09		06/02/09		09/30/09		12/21/09		03/02/10		06/07/10		10/26/10		05/12/11		12/07/11		06/27/12		12/17/12		12/17/12	
1,1,1-Trichloroethane	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
1,1,2,2-Tetrachloroethane	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
1,1,2-Trichloroethane	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
1,1,2-Tricloro-1,2,2,-triflouroethane	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	NA		NA	
1,1-Dichloroethane	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
1,1-Dichloroethene	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5.1		6.5	J	1.6	J	0.57	J	3.3	J	50	U	50	U	10	U	200	U
1,2,4-Trichlorobenzene	ug/l	5		20	U	200	U	0.83	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
1,2-Dibromo-3-chloropropane	ug/l	0.04		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	NA		NA		NA	
1,2-Dibromoethane	ug/l			20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
1,2-Dichlorobenzene	ug/l	3		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
1,2-Dichloroethane	ug/l	0.6		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
1,2-Dichloropropane	ug/l	1		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
1,3-Dichlorobenzene	ug/l	3		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
1,4-Dichlorobenzene	ug/l	3		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
2-Butanone (MEK)	ug/l		50	20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	50	U	1000	U
2-Hexanone	ug/l		50	20	U	200	U	200	U	100	U	50	U	50	U	5	U	49	J	100	U	5	U	10	U	50	U	50	U	50	U	1000	U
4-Methyl-2-pentanone (MIBK)	ug/l			3.7	J	200	U	200	U	4.2	J	50	U	2.1	J	5	U	50	U	100	U	5	U	10	U	50	U	50	U	50	U	1000	U
Acetone	ug/l		50	20	U	200	U	23	JB	12	U	7.5	JB	6.3	JB	7.6	B	29	J B	15	JB	2.7	JB	9	J B	50	U	50	U	50	U	1000	U
Benzene	ug/l	1		5.0	J	200	U	4.9	J	4	J	3.7	J	4.1	J	5.4		50	U	5.4	J	5.3		3.6	J	50	U	50	U	3.9	J	200	U
Bromodichloromethane	ug/l		50	20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
Bromoform	ug/l		50	20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
Bromomethane	ug/l			20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
Carbon disulfide	ug/l	60		1.0	U	200	U	200	U	3.5	J	1.9	J	9.5	J	1.4	J	27	J	2.1	J	0.59	J	2.2	J	50	U	50	U	10	U	200	U
Carbon tetrachloride	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
Chlorobenzene	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
Chloroethane	ug/l	5		20	U	200	U	15	J	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
Chloroform	ug/l	7		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
Chloromethane	ug/l			20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
cis-1,2-Dichloroethene	ug/l	5		36		50	J	86		81	J	61		120		2900	E	3200		970		260		670		1100		170		1100	E	1200	
cis-1,3-Dichloropropene	ug/l	0.4		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
Cyclohexane	ug/l			20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	NA		NA	
Dibromochloromethane	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
Dichlorodifluoromethane	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	NA		NA	
Ethylbenzene	ug/l	5		0.42	J	200	U	0.88	J	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
Isopropylbenzene	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	NA		NA	
Methyl acetate	ug/l			1.7	J	200	U	200	U	100	U	50	U	50	U	5	U	50	U	30	J	5	U	10	U	50	U	50	U	NA		NA	
Methyl tert butyl ether	ug/l	10		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	NA		NA	
Methylcyclohexane	ug/l			4	J	200	U	4.7	J	100	U	50	U	2.5	J	5	U	50	U	100	U	5	U	10	U	50	U	50	U	NA		NA	
Methylene chloride	ug/l	5		1.2	U	200	U	4.3	U	17	U	8.8	JB	2.2	JB	3	J B	33	J B	9.8	JB	6.9	B	19	B	50	U	50	U	20	U	400	U
Styrene	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
Tetrachloroethene	ug/l	5		20	U	200	U	1.3	U	100	U	50	U	50	U	46		50	U	2	J	5	U	10	U	50	U	50	U	10	U	200	U
Toluene	ug/l	5		9.2	J	200	U	12	J	13	J	7.9	J	5.8	J	7		8.5	J	7.1	J	5.8		4.3	J	50	U	50	U	28		200	U
trans-1,2-Dichloroethene	ug/l	5		9.9	J	200	U	6.8	J	7.2	J	8.2	J	11	J	28		36	J	11	J	8.3		13		50	U	50	U	10	U	200	U
trans-1,3-Dichloropropene	ug/l	0.4		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	10	U	200	U
Trichloroethene	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	67		78		2.1	J	5	U	10	U	50	U	50	U	10	U	200	U
Trichlorofluoromethane	ug/l	5		20	U	200	U	200	U	100	U	50	U	50	U	5	U	50	U	100	U	5	U	10	U	50	U	50	U	NA		NA	
Vinyl chloride	ug/l	2		270	J	150	J	570		1600		580		760		5800	E	7400		1500		510		1000		1800		320		2100	E	2100	
Xylenes, Total	ug/l	5		2.3	J	200	U	2.6	U	1.5	J	1.3	J	2.3	J	3.9	J	150		100	U	1.8		30	U	50	U	50	U	10	U	200	U

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RE - re-extraction, D-Diluted
B-Analyte found in associated blank as well as in the sample.
NA-Parameter Not Analyzed

Pioneer Midler Avenue LLC

Summary of Groundwater VOC Data

Parameter	Units	NYSDEC GA		MW-14D		MW-14D		MW-14D		MW-14D		MW-14D		MW-14D		MW-14D		MW-14D		MW-14D		MW-14D		MW-14D		MW-14D	
Sample Date		Std	Guid	06/02/08		10/06/08		12/23/08		03/02/09		06/02/09		09/30/09		12/21/09		03/02/10		06/07/10		10/26/10		05/12/11		12/07/11		06/27/12		12/17/12	
1,1,1-Trichloroethane	ug/l	5		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
1,1,2,2-Tetrachloroethane	ug/l	5		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
1,1,2-Trichloroethane	ug/l	5		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
1,1,2-Tricloro-1,2,2,-triflouroethane	ug/l	5		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	NA	
1,1-Dichloroethane	ug/l	5		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
1,1-Dichloroethene	ug/l	5		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	200	U	100	U	20	U
1,2,4-Trichlorobenzene	ug/l	5		1000	U	50	U	400	U	0.32	J	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
1,2-Dibromo-3-chloropropane	ug/l	0.04		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	NA		NA	
1,2-Dibromoethane	ug/l			1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
1,2-Dichlorobenzene	ug/l	3		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
1,2-Dichloroethane	ug/l	0.6		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
1,2-Dichloropropane	ug/l	1		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
1,3-Dichlorobenzene	ug/l	3		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
1,4-Dichlorobenzene	ug/l	3		1000	U	50	U	400	U	0.3	J	0.14	J	10	U	10	U	0.12	J	10	U	1	U	1	U	100	U	100	U	100	U
2-Butanone (MEK)	ug/l		50	2100	J	290		56	J	2.5	J	10	U	10	U	0.72	J	1	U	10	U	1	U	1	U	100	U	100	U	100	U
2-Hexanone	ug/l		50	1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	100	U
4-Methyl-2-pentanone (MIBK)	ug/l			1000	U	17	J	400	U	5.5	J	2.8	J	1.4	J	10	U	0.98	J	0.86	J	0.71	J	1	U	100	U	100	U	100	U
Acetone	ug/l		50	8000	J	840		170	J	7.8	JB	120	J	2.6	JB	2.4	JB	1.3	B	4	JB	1.5	B	1.2	B	100	U	100	U	20	U
Benzene	ug/l	1		1000	U	5.8	J	400	U	3	J	3.6	J	2.7	J	2.9	J	2.7		2.3	J	2.3		1.6		100	U	100	U	20	U
Bromodichloromethane	ug/l		50	1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
Bromoform	ug/l		50	1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
Bromomethane	ug/l			1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
Carbon disulfide	ug/l	60		1000	U	2.7	U	400	U	10	U	10	U	19		2.6	J	1	U	0.68	J	0.53	J	1.4		100	U	100	U	20	U
Carbon tetrachloride	ug/l	5		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
Chlorobenzene	ug/l	5		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
Chloroethane	ug/l	5		1000	U	50	U	400	U	3.7	J	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
Chloroform	ug/l	7		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
Chloromethane	ug/l			1000	U	50	U	400	U	10	U	10	U	0.47	J	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
cis-1,2-Dichloroethene	ug/l	5		1000	U	50	U	400	U	10	U	0.12	J	0.18	J	0.29	J	0.8	J	0.77	J	0.43	J	0.23	J	100	U	100	U	20	U
cis-1,3-Dichloropropene	ug/l	0.4		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
Cyclohexane	ug/l			1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	NA	
Dibromochloromethane	ug/l	5		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
Dichlorodifluoromethane	ug/l	5		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	NA	
Ethylbenzene	ug/l	5		1000	U	2.3	J	400	U	1.4	J	1.4	J	0.99	J	1.3	J	1.1		0.92	J	1		0.65	J	100	U	100	U	20	U
Isopropylbenzene	ug/l	5		1000	U	50	U	400	U	10	U	0.11	J	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	NA	
Methyl acetate	ug/l			1000	U	30	J	400	U	10	U	10	U	6.3	J	10	U	3.3		10	U	1	U	1	U	100	U	100	U	NA	
Methyl tert butyl ether	ug/l	10		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	0.1	J	10	U	1	U	1	U	100	U	100	U	NA	
Methylcyclohexane	ug/l			1000	U	50	U	400	U	0.83	J	0.75	J	10	U	0.63	J	0.96	J	10	U	0.72	J	1	U	100	U	100	U	NA	
Methylene chloride	ug/l	5		1000	U	3.2	U	83	J	0.19	U	0.12	U	0.27	JB	0.35	JB	0.25	J B	0.18	JB	0.29	JB	0.3	J B	100	U	100	U	20	U
Styrene	ug/l	5		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
Tetrachloroethene	ug/l	5		1000	U	50	U	400	U	0.28	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
Toluene	ug/l	5		1000	U	24	J	400	U	14		17		14		15		14		13		12		8.9		100	U	100	U	20	U
trans-1,2-Dichloroethene	ug/l	5		1200		270		150	J	21		13		6.9	J	4	J	3.4		3.1	J	2		2.4		100	U	100	U	20	U
trans-1,3-Dichloropropene	ug/l	0.4		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	20	U
Trichloroethene	ug/l	5		1000	U	50	U	400	U	10	U	0.13	J	0.24	J	0.35	J	0.45	J	0.32	J	0.34	J	0.21	J	100	U	100	U	20	U
Trichlorofluoromethane	ug/l	5		1000	U	50	U	400	U	10	U	10	U	10	U	10	U	1	U	10	U	1	U	1	U	100	U	100	U	NA	
Vinyl chloride	ug/l	2		12000		530		400	U	4.5	J	5.4	J	3.7	J	3.1	J	5.3		4.3	J	3.6		3.6		100	U	100	U	20	U
Xylenes, Total	ug/l	5		1000	U	10	J	400	U	6.3	JB	6.9	J	4.9	J	6.2	J	5.2		4.6	J	4.8		3.1		100	U	100	U	20	U

- indicates value exceeds Class GA Standard or Guidance level.

Data Qualifiers:
ND - Not Detected, U-undetected,
J or E - Estimated value,
RE - re-extraction, D-Diluted
B-Analyte found in associated blank as well as in the sample.
NA-Parameter Not Analyzed

Pioneer Midler Avenue LLC

Summary of Groundwater VOC Data

Parameter	Units	NYSDEC GA		MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D
Sample Date		Std	Guid	02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11	12/07/11	06/27/12	12/17/12
1,1,1-Trichloroethane	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
1,1,2,2-Tetrachloroethane	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
1,1,2-Trichloroethane	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
1,1,2-Tricloro-1,2,2,-trifflouroethane	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	NA
1,1-Dichloroethane	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
1,1-Dichloroethene	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
1,2,4-Trichlorobenzene	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
1,2-Dibromo-3-chloropropane	ug/l	0.04		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	NA	NA
1,2-Dibromoethane	ug/l			40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
1,2-Dichlorobenzene	ug/l	3		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
1,2-Dichloroethane	ug/l	0.6		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
1,2-Dichloropropane	ug/l	1		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
1,3-Dichlorobenzene	ug/l	3		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
1,4-Dichlorobenzene	ug/l	3		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
2-Butanone (MEK)	ug/l		50	40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	20 U
2-Hexanone	ug/l		50	40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	20 U
4-Methyl-2-pentanone (MIBK)	ug/l			40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	20 U
Acetone	ug/l		50	5 J	40 U	1 U	10 U	10 U	1.6 U	1.6 JB	0.72 JB	1.5 B	2.9 JB	0.6 JB	0.71 J B	10 U	20 U	20 U
Benzene	ug/l	1		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Bromodichloromethane	ug/l		50	40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Bromoform	ug/l		50	40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Bromomethane	ug/l			40 U	40 U	0.32 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Carbon disulfide	ug/l	60		40 U	40 U	0.35 U	10 U	10 U	1.1 J	3.8 J	1.3 J	0.71 J	0.45 J	0.14 J	0.87 J	10 U	20 U	4 U
Carbon tetrachloride	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Chlorobenzene	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Chloroethane	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Chloroform	ug/l	7		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Chloromethane	ug/l			40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
cis-1,2-Dichloroethene	ug/l	5		6 J	4 J	4.1 J	10 U	4.9 J	4.4 J	4.4 J	4.4 J	4.5	5.3 J	3.6	4	6.4 J	20 U	5.1
cis-1,3-Dichloropropene	ug/l	0.4		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Cyclohexane	ug/l			40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	NA
Dibromochloromethane	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Dichlorodifluoromethane	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	NA
Ethylbenzene	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Isopropylbenzene	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	NA
Methyl acetate	ug/l			40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	NA
Methyl tert butyl ether	ug/l	10		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	NA
Methylcyclohexane	ug/l			40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	NA
Methylene chloride	ug/l	5		4 J	4 U	0.16 U	10 U	10 U	0.11 U	0.28 JB	0.34 JB	0.28 J B	0.18 JB	0.3 JB	0.28 J B	10 U	20 U	8 U
Styrene	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Tetrachloroethene	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Toluene	ug/l	5		40 U	40 U	0.11 U	10 U	0.12 U	10 U	0.15 J	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
trans-1,2-Dichloroethene	ug/l	5		40 U	40 U	0.67 J	10 U	1.1 J	1.2 J	1.2 J	1.2 J	0.91 J	1.1 J	0.58 J	0.86 J	10 U	20 U	4 U
trans-1,3-Dichloropropene	ug/l	0.4		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	4 U
Trichloroethene	ug/l	5		40 U	40 U	10 U	10 U	0.25 J	0.21 J	0.2 J	0.23 J	0.27 J	10 U	1 U	0.16 J	10 U	20 U	4 U
Trichlorofluoromethane	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	10 U	20 U	NA
Vinyl chloride	ug/l	2		40 U	40 U	2.7 J	10 U	2.6 J	2.3 J	1.9 J	1.9 J	2.2	2.5 J	1.8	2	10 U	20 U	4 U
Xylenes, Total	ug/l	5		40 U	40 U	10 U	10 U	10 U	10 U	10 U	10 U	3 U	10 U	1 U	3 U	10 U	20 U	4 U

Notes: [ ] - indicates value exceeds Class GA Standard or Guidance level.

Data Qualifiers:
ND - Not Detected, U-undetected,
J or E - Estimated value,
RE - re-extraction, D-Diluted
B-Analyte found in associated blank as well as in the sample.
NA-Parameter Not Analyzed

Pioneer Midler Avenue LLC

Summary of Groundwater VOC Data

Parameter	Units	NYSDEC GA		MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D
Sample Date		Std	Guid	02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11	12/07/11	06/27/12	12/17/12
1,1,1-Trichloroethane	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
1,1,2,2-Tetrachloroethane	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	0.64 J	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
1,1,2-Trichloroethane	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
1,1,2-Tricloro-1,2,2,-triflouroethane	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	NA
1,1-Dichloroethane	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
1,1-Dichloroethene	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	10 U	0.12 J	1 U	10 U	1 U	1 U	50 U	25 U	5 U
1,2,4-Trichlorobenzene	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	0.33 J	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
1,2-Dibromo-3-chloropropane	ug/l	0.04		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	NA	NA
1,2-Dibromoethane	ug/l			400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
1,2-Dichlorobenzene	ug/l	3		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
1,2-Dichloroethane	ug/l	0.6		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
1,2-Dichloropropane	ug/l	1		400 U	400 U	10 U	200 U	10 U	10 U	0.12 J	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
1,3-Dichlorobenzene	ug/l	3		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	0.14 J	25 U	25 U	5 U
1,4-Dichlorobenzene	ug/l	3		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
2-Butanone (MEK)	ug/l		50	400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	25 U
2-Hexanone	ug/l		50	400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	25 U
4-Methyl-2-pentanone (MIBK)	ug/l			400 U	400 U	1.6 J	200 U	10 U	10 U	2.3 J	10 U	1 U	10 U	1 U	1 U	25 U	25 U	25 U
Acetone	ug/l		50	81 J	400 U	10 U	200 U	1 U	1.2 U	10 JB	1.6 JB	1.4 B	3.5 JB	1.3 B	0.95 J B	25 U	25 U	25 U
Benzene	ug/l	1		400 U	400 U	0.71 J	200 U	0.58 J	0.36 J	10 U	0.36 J	0.42 J	0.27 J	0.31 J	0.23 J	25 U	25 U	5 U
Bromodichloromethane	ug/l		50	400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
Bromoform	ug/l		50	400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
Bromomethane	ug/l			400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
Carbon disulfide	ug/l	60		400 U	400 U	0.52 U	200 U	10 U	0.68 J	0.36 J	1.5 J	0.58 J B	0.22 J	0.26 J	1.4 B	25 U	25 U	5 U
Carbon tetrachloride	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	0.33 J	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
Chlorobenzene	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	0.2 J	0.2 J	1 U	10 U	1 U	1 U	25 U	25 U	5 U
Chloroethane	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
Chloroform	ug/l	7		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
Chloromethane	ug/l			400 U	400 U	10 U	200 U	10 U	10 U	1.9 J	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
cis-1,2-Dichloroethene	ug/l	5		64 J	400 U	0.29 J	200 U	10 U	0.13 J	2.8 J	0.3 J	0.38 J	10 U	0.28 J	0.22 J	25 U	25 U	5 U
cis-1,3-Dichloropropene	ug/l	0.4		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
Cyclohexane	ug/l			400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	NA
Dibromochloromethane	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
Dichlorodifluoromethane	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	NA
Ethylbenzene	ug/l	5		400 U	400 U	0.35 J	200 U	0.37 J	0.22 J	10 U	0.2 J	0.24 J	10 U	1 U	0.12 J	25 U	25 U	5 U
Isopropylbenzene	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	NA
Methyl acetate	ug/l			400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	NA
Methyl tert butyl ether	ug/l	10		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	NA
Methylcyclohexane	ug/l			400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	NA
Methylene chloride	ug/l	5		31 J	33 J	0.15 U	200 U	10 U	0.12 U	0.25 JB	0.3 JB	0.29 J B	0.19 JB	0.3 J B	0.27 J B	25 U	25 U	10 U
Styrene	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
Tetrachloroethene	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
Toluene	ug/l	5		400 U	400 U	4.9 J	200 U	3.7 J	3 J	10 U	2 J	2	1.2 J	0.83 J	0.14 J	25 U	25 U	5 U
trans-1,2-Dichloroethene	ug/l	5		30 J	400 U	1.6 J	200 U	2.5 J	2.7 J	10 U	2.9 J	2.5	2 J	2.2	2.2	25 U	25 U	2.5 J
trans-1,3-Dichloropropene	ug/l	0.4		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	5 U
Trichloroethene	ug/l	5		400 U	400 U	10 U	200 U	10 U	0.12 J	10 U	0.21 J	0.26 J	10 U	0.19 J	0.2 J	25 U	25 U	5 U
Trichlorofluoromethane	ug/l	5		400 U	400 U	10 U	200 U	10 U	10 U	10 U	10 U	1 U	10 U	1 U	1 U	25 U	25 U	NA
Vinyl chloride	ug/l	2		190 J	400 U	1.6 J	200 U	1.9 J	1.6 J	1.9 J	1.9 J	2.6	1.3 J	1.6	1 U	25 U	25 U	5 U
Xylenes, Total	ug/l	5		400 U	400 U	1.3 J	200 U	1 JB	0.9 J	0.31 J	0.59 J	0.82 J	0.34 J	0.53 J	3 U	25 U	25 U	5 U

Notes: [ ] - indicates value exceeds Class GA Standard or Guidance level.

Data Qualifiers:
ND - Not Detected, U-undetected,
J or E - Estimated value,
RE - re-extraction, D-Diluted
B-Analyte found in associated blank as well as in the sample.
NA-Parameter Not Analyzed

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-21938-1
Client Project/Site: Midler Quarterly Groundwater

For:
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212

Attn: Mr. Wayne N Randall

Candace L. Fox

Authorized for release by:
7/12/2012 4:08:41 PM

Candace Fox
Project Manager II
candace.fox@testamericainc.com

Table of Contents

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Job ID: 480-21938-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-21938-1

Comments
No additional comments.

Receipt
The samples were received on 6/28/2012 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8º C.

GC/MS VOA
Method(s) OLM04.2/Vol: The following compounds were outside control limits in the continuing calibration verification (CCV) associated with batch 70972: Trichloroethene. These compounds are not classified as Calibration Check Compounds (CCCs) in the reference method, and the laboratory defaults to in-house and/or project-specific criteria for evaluation. Due to the large number of analytes contained in the CCV, the laboratory's SOP allows for 2 analytes to be outside limits; therefore, the data have been reported.

Method(s) OLM04.2/Vol: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 70972 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) OLM04.2/Vol: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: MW-10D (480-21938-6), MW-13D (480-21938-3), MW-14D (480-21938-2), MW-15D (480-21938-5), MW-16D (480-21938-1), MW-16D (480-21938-1 MS), MW-16D (480-21938-1 MSD), MW-9D (480-21938-4). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

IC
Method(s) 300.0: The following samples were diluted due to the abundance of target analytes: MW-10D (480-21938-6), MW-13D (480-21938-3), MW-14D (480-21938-2), MW-16D (480-21938-1), MW-9D (480-21938-4). Elevated reporting limits (RLs) are provided.

Method(s) 300.0: In batch 71271, the following samples were diluted to bring the concentration of target analytes within the calibration range: MW-15D (480-21938-5). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Field Service / Mobile Lab
No analytical or quality issues were noted.

General Chemistry
Method(s) SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MW-10D (480-21938-6), MW-13D (480-21938-3), MW-14D (480-21938-2), MW-15D (480-21938-5), MW-16D (480-21938-1), MW-9D (480-21938-4)

No other analytical or quality issues were noted.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Client Sample ID: MW-16D — Lab Sample ID: 480-21938-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.18		0.050	0.019	mg/L	1		6010B	Total/NA
Sulfate	91.3		20.0	3.5	mg/L	10		300.0	Total/NA
Sulfide	11.0		1.0	0.67	mg/L	1		SM 4500 S2 F	Total/NA
Dissolved Inorganic Carbon Result 1	129		5.0	1.9	mg/L	5		SM 5310C	Dissolved
Dissolved Organic Carbon	13.4		1.0	0.43	mg/L	1		SM5310_D	Dissolved

Client Sample ID: MW-14D — Lab Sample ID: 480-21938-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.076		0.050	0.019	mg/L	1		6010B	Total/NA
Sulfate	99.0		10.0	1.7	mg/L	5		300.0	Total/NA
Ferrous Iron	0.16	HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
Sulfide	48.0		3.3	2.2	mg/L	1		SM 4500 S2 F	Total/NA
Dissolved Inorganic Carbon Result 1	202		5.0	1.9	mg/L	5		SM 5310C	Dissolved
Dissolved Organic Carbon	64.1		1.0	0.43	mg/L	1		SM5310_D	Dissolved

Client Sample ID: MW-13D — Lab Sample ID: 480-21938-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	170		50	18	ug/L	10		OLM04.2/Vol	Total/NA
Vinyl chloride	320		50	23	ug/L	10		OLM04.2/Vol	Total/NA
Iron	0.051		0.050	0.019	mg/L	1		6010B	Total/NA
Sulfate	184		10.0	1.7	mg/L	5		300.0	Total/NA
Nitrate as N	0.048	J	0.050	0.011	mg/L	1		Nitrate by calc	Total/NA
Sulfide	27.2		2.0	1.3	mg/L	1		SM 4500 S2 F	Total/NA
Dissolved Inorganic Carbon Result 1	47.4		5.0	1.9	mg/L	5		SM 5310C	Dissolved
Dissolved Organic Carbon	12.4		1.0	0.43	mg/L	1		SM5310_D	Dissolved

Client Sample ID: MW-9D — Lab Sample ID: 480-21938-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.033	J	0.050	0.019	mg/L	1		6010B	Total/NA
Sulfate	466		10.0	1.7	mg/L	5		300.0	Total/NA
Sulfide	20.4		2.0	1.3	mg/L	1		SM 4500 S2 F	Total/NA
Dissolved Inorganic Carbon Result 1	81.7		5.0	1.9	mg/L	5		SM 5310C	Dissolved
Dissolved Organic Carbon	5.7		1.0	0.43	mg/L	1		SM5310_D	Dissolved

Client Sample ID: MW-15D — Lab Sample ID: 480-21938-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.087		0.050	0.019	mg/L	1		6010B	Total/NA
Sulfate	612		20.0	3.5	mg/L	10		300.0	Total/NA
Sulfide	32.8		2.0	1.3	mg/L	1		SM 4500 S2 F	Total/NA
Dissolved Inorganic Carbon Result 1	101		5.0	1.9	mg/L	5		SM 5310C	Dissolved
Dissolved Organic Carbon	7.4		1.0	0.43	mg/L	1		SM5310_D	Dissolved

Client Sample ID: MW-10D — Lab Sample ID: 480-21938-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	550		20	7.2	ug/L	4		OLM04.2/Vol	Total/NA
trans-1,2-Dichloroethene	28		20	7.6	ug/L	4		OLM04.2/Vol	Total/NA
Sulfate	497		10.0	1.7	mg/L	5		300.0	Total/NA
Sulfide	28.0		2.0	1.3	mg/L	1		SM 4500 S2 F	Total/NA

Client Sample ID: MW-10D (Continued)

Lab Sample ID: 480-21938-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dissolved Inorganic Carbon Result 1	72.5		5.0	1.9	mg/L	5		SM 5310C	Dissolved
Dissolved Organic Carbon	4.5		1.0	0.43	mg/L	1		SM5310_D	Dissolved

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Client Sample ID: MW-16D
Date Collected: 06/27/12 09:00
Date Received: 06/28/12 09:00

Lab Sample ID: 480-21938-1
Matrix: Water

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		25	11	ug/L			07/03/12 11:35	5
1,1,2,2-Tetrachloroethane	ND		25	7.5	ug/L			07/03/12 11:35	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25	7.5	ug/L			07/03/12 11:35	5
1,1,2-Trichloroethane	ND		25	9.5	ug/L			07/03/12 11:35	5
1,1-Dichloroethane	ND		25	8.5	ug/L			07/03/12 11:35	5
1,1-Dichloroethene	ND		25	13	ug/L			07/03/12 11:35	5
1,2,4-Trichlorobenzene	ND		25	2.9	ug/L			07/03/12 11:35	5
1,2-Dibromoethane	ND		25	10	ug/L			07/03/12 11:35	5
1,2-Dichlorobenzene	ND		25	6.0	ug/L			07/03/12 11:35	5
1,2-Dichloroethane	ND		25	4.2	ug/L			07/03/12 11:35	5
1,2-Dichloropropane	ND		25	8.5	ug/L			07/03/12 11:35	5
1,3-Dichlorobenzene	ND		25	6.0	ug/L			07/03/12 11:35	5
1,4-Dichlorobenzene	ND		25	5.5	ug/L			07/03/12 11:35	5
2-Butanone (MEK)	ND		25	7.5	ug/L			07/03/12 11:35	5
2-Hexanone	ND		25	9.0	ug/L			07/03/12 11:35	5
4-Methyl-2-pentanone (MIBK)	ND		25	8.5	ug/L			07/03/12 11:35	5
Acetone	ND		25	9.5	ug/L			07/03/12 11:35	5
Benzene	ND		25	8.0	ug/L			07/03/12 11:35	5
Bromodichloromethane	ND		25	7.5	ug/L			07/03/12 11:35	5
Bromoform	ND		25	25	ug/L			07/03/12 11:35	5
Bromomethane	ND		25	22	ug/L			07/03/12 11:35	5
Carbon disulfide	ND		25	11	ug/L			07/03/12 11:35	5
Carbon tetrachloride	ND		25	10	ug/L			07/03/12 11:35	5
Chlorobenzene	ND		25	8.0	ug/L			07/03/12 11:35	5
Chloroethane	ND		25	13	ug/L			07/03/12 11:35	5
Chloroform	ND		25	9.5	ug/L			07/03/12 11:35	5
Chloromethane	ND		25	12	ug/L			07/03/12 11:35	5
cis-1,2-Dichloroethene	ND		25	9.0	ug/L			07/03/12 11:35	5
cis-1,3-Dichloropropene	ND		25	7.0	ug/L			07/03/12 11:35	5
Cyclohexane	ND		25	2.9	ug/L			07/03/12 11:35	5
Dibromochloromethane	ND		25	8.5	ug/L			07/03/12 11:35	5
Dichlorodifluoromethane	ND		25	11	ug/L			07/03/12 11:35	5
Ethylbenzene	ND		25	8.0	ug/L			07/03/12 11:35	5
Isopropylbenzene	ND		25	1.9	ug/L			07/03/12 11:35	5
Methyl acetate	ND		25	3.3	ug/L			07/03/12 11:35	5
Methyl tert-butyl ether	ND		25	2.3	ug/L			07/03/12 11:35	5
Methylcyclohexane	ND		25	3.0	ug/L			07/03/12 11:35	5
Methylene Chloride	ND		25	6.5	ug/L			07/03/12 11:35	5
Styrene	ND		25	8.5	ug/L			07/03/12 11:35	5
Tetrachloroethene	ND		25	11	ug/L			07/03/12 11:35	5
Toluene	ND		25	8.0	ug/L			07/03/12 11:35	5
trans-1,2-Dichloroethene	ND		25	9.5	ug/L			07/03/12 11:35	5
trans-1,3-Dichloropropene	ND		25	8.0	ug/L			07/03/12 11:35	5
Trichloroethene	ND		25	9.5	ug/L			07/03/12 11:35	5
Trichlorofluoromethane	ND		25	6.5	ug/L			07/03/12 11:35	5
Vinyl chloride	ND		25	12	ug/L			07/03/12 11:35	5
Xylenes, Total	ND		25	4.1	ug/L			07/03/12 11:35	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*76 - 114*		*07/03/12 11:35*	*5*
4-Bromofluorobenzene (Surr)	*98*		*86 - 115*		*07/03/12 11:35*	*5*

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Client Sample ID: MW-16D

Lab Sample ID: 480-21938-1

Date Collected: 06/27/12 09:00

Matrix: Water

Date Received: 06/28/12 09:00

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		88 - 110		07/03/12 11:35	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.18**		0.050	0.019	mg/L		06/29/12 08:45	06/29/12 19:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**91.3**		20.0	3.5	mg/L			07/04/12 16:10	10
Nitrate as N	ND		0.050	0.011	mg/L			06/28/12 22:25	1
Ferrous Iron	ND	HF	0.10	0.075	mg/L			06/28/12 16:21	1
Sulfide	**11.0**		1.0	0.67	mg/L			06/30/12 14:10	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon	**129**		5.0	1.9	mg/L			07/05/12 09:50	5
Result 1									
Dissolved Organic Carbon	**13.4**		1.0	0.43	mg/L			07/06/12 08:12	1

Client Sample ID: MW-14D

Lab Sample ID: 480-21938-2

Date Collected: 06/27/12 10:00

Matrix: Water

Date Received: 06/28/12 09:00

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	42	ug/L			07/03/12 12:50	20
1,1,2,2-Tetrachloroethane	ND		100	30	ug/L			07/03/12 12:50	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	30	ug/L			07/03/12 12:50	20
1,1,2-Trichloroethane	ND		100	38	ug/L			07/03/12 12:50	20
1,1-Dichloroethane	ND		100	34	ug/L			07/03/12 12:50	20
1,1-Dichloroethene	ND		100	50	ug/L			07/03/12 12:50	20
1,2,4-Trichlorobenzene	ND		100	11	ug/L			07/03/12 12:50	20
1,2-Dibromoethane	ND		100	40	ug/L			07/03/12 12:50	20
1,2-Dichlorobenzene	ND		100	24	ug/L			07/03/12 12:50	20
1,2-Dichloroethane	ND		100	17	ug/L			07/03/12 12:50	20
1,2-Dichloropropane	ND		100	34	ug/L			07/03/12 12:50	20
1,3-Dichlorobenzene	ND		100	24	ug/L			07/03/12 12:50	20
1,4-Dichlorobenzene	ND		100	22	ug/L			07/03/12 12:50	20
2-Butanone (MEK)	ND		100	30	ug/L			07/03/12 12:50	20
2-Hexanone	ND		100	36	ug/L			07/03/12 12:50	20
4-Methyl-2-pentanone (MIBK)	ND		100	34	ug/L			07/03/12 12:50	20
Acetone	ND		100	38	ug/L			07/03/12 12:50	20
Benzene	ND		100	32	ug/L			07/03/12 12:50	20
Bromodichloromethane	ND		100	30	ug/L			07/03/12 12:50	20
Bromoform	ND		100	100	ug/L			07/03/12 12:50	20
Bromomethane	ND		100	86	ug/L			07/03/12 12:50	20
Carbon disulfide	ND		100	42	ug/L			07/03/12 12:50	20
Carbon tetrachloride	ND		100	40	ug/L			07/03/12 12:50	20
Chlorobenzene	ND		100	32	ug/L			07/03/12 12:50	20
Chloroethane	ND		100	50	ug/L			07/03/12 12:50	20
Chloroform	ND		100	38	ug/L			07/03/12 12:50	20
Chloromethane	ND		100	46	ug/L			07/03/12 12:50	20

Client Sample ID: MW-14D

Lab Sample ID: 480-21938-2

Date Collected: 06/27/12 10:00

Matrix: Water

Date Received: 06/28/12 09:00

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		100	36	ug/L			07/03/12 12:50	20
cis-1,3-Dichloropropene	ND		100	28	ug/L			07/03/12 12:50	20
Cyclohexane	ND		100	12	ug/L			07/03/12 12:50	20
Dibromochloromethane	ND		100	34	ug/L			07/03/12 12:50	20
Dichlorodifluoromethane	ND		100	42	ug/L			07/03/12 12:50	20
Ethylbenzene	ND		100	32	ug/L			07/03/12 12:50	20
Isopropylbenzene	ND		100	7.5	ug/L			07/03/12 12:50	20
Methyl acetate	ND		100	13	ug/L			07/03/12 12:50	20
Methyl tert-butyl ether	ND		100	9.1	ug/L			07/03/12 12:50	20
Methylcyclohexane	ND		100	12	ug/L			07/03/12 12:50	20
Methylene Chloride	ND		100	26	ug/L			07/03/12 12:50	20
Styrene	ND		100	34	ug/L			07/03/12 12:50	20
Tetrachloroethene	ND		100	42	ug/L			07/03/12 12:50	20
Toluene	ND		100	32	ug/L			07/03/12 12:50	20
trans-1,2-Dichloroethene	ND		100	38	ug/L			07/03/12 12:50	20
trans-1,3-Dichloropropene	ND		100	32	ug/L			07/03/12 12:50	20
Trichloroethene	ND		100	38	ug/L			07/03/12 12:50	20
Trichlorofluoromethane	ND		100	26	ug/L			07/03/12 12:50	20
Vinyl chloride	ND		100	46	ug/L			07/03/12 12:50	20
Xylenes, Total	ND		100	16	ug/L			07/03/12 12:50	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*76 - 114*		*07/03/12 12:50*	*20*
4-Bromofluorobenzene (Surr)	*96*		*86 - 115*		*07/03/12 12:50*	*20*
Toluene-d8 (Surr)	*100*		*88 - 110*		*07/03/12 12:50*	*20*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.076**		0.050	0.019	mg/L		06/29/12 08:45	06/29/12 19:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**99.0**		10.0	1.7	mg/L			07/04/12 16:21	5
Nitrate as N	ND		0.050	0.011	mg/L			06/28/12 22:26	1
Ferrous Iron	**0.16**	**HF**	0.10	0.075	mg/L			06/28/12 16:21	1
Sulfide	**48.0**		3.3	2.2	mg/L			06/30/12 14:10	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon Result 1	**202**		5.0	1.9	mg/L			07/05/12 10:26	5
Dissolved Organic Carbon	**64.1**		1.0	0.43	mg/L			07/06/12 08:32	1

Client Sample ID: MW-13D

Lab Sample ID: 480-21938-3

Date Collected: 06/27/12 11:00

Matrix: Water

Date Received: 06/28/12 09:00

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		50	21	ug/L			07/03/12 13:15	10
1,1,2,2-Tetrachloroethane	ND		50	15	ug/L			07/03/12 13:15	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	15	ug/L			07/03/12 13:15	10

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Client Sample ID: MW-13D
Date Collected: 06/27/12 11:00
Date Received: 06/28/12 09:00

Lab Sample ID: 480-21938-3
Matrix: Water

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		50	19	ug/L			07/03/12 13:15	10
1,1-Dichloroethane	ND		50	17	ug/L			07/03/12 13:15	10
1,1-Dichloroethene	ND		50	25	ug/L			07/03/12 13:15	10
1,2,4-Trichlorobenzene	ND		50	5.7	ug/L			07/03/12 13:15	10
1,2-Dibromoethane	ND		50	20	ug/L			07/03/12 13:15	10
1,2-Dichlorobenzene	ND		50	12	ug/L			07/03/12 13:15	10
1,2-Dichloroethane	ND		50	8.3	ug/L			07/03/12 13:15	10
1,2-Dichloropropane	ND		50	17	ug/L			07/03/12 13:15	10
1,3-Dichlorobenzene	ND		50	12	ug/L			07/03/12 13:15	10
1,4-Dichlorobenzene	ND		50	11	ug/L			07/03/12 13:15	10
2-Butanone (MEK)	ND		50	15	ug/L			07/03/12 13:15	10
2-Hexanone	ND		50	18	ug/L			07/03/12 13:15	10
4-Methyl-2-pentanone (MIBK)	ND		50	17	ug/L			07/03/12 13:15	10
Acetone	ND		50	19	ug/L			07/03/12 13:15	10
Benzene	ND		50	16	ug/L			07/03/12 13:15	10
Bromodichloromethane	ND		50	15	ug/L			07/03/12 13:15	10
Bromoform	ND		50	50	ug/L			07/03/12 13:15	10
Bromomethane	ND		50	43	ug/L			07/03/12 13:15	10
Carbon disulfide	ND		50	21	ug/L			07/03/12 13:15	10
Carbon tetrachloride	ND		50	20	ug/L			07/03/12 13:15	10
Chlorobenzene	ND		50	16	ug/L			07/03/12 13:15	10
Chloroethane	ND		50	25	ug/L			07/03/12 13:15	10
Chloroform	ND		50	19	ug/L			07/03/12 13:15	10
Chloromethane	ND		50	23	ug/L			07/03/12 13:15	10
cis-1,2-Dichloroethene	**170**		50	18	ug/L			07/03/12 13:15	10
cis-1,3-Dichloropropene	ND		50	14	ug/L			07/03/12 13:15	10
Cyclohexane	ND		50	5.9	ug/L			07/03/12 13:15	10
Dibromochloromethane	ND		50	17	ug/L			07/03/12 13:15	10
Dichlorodifluoromethane	ND		50	21	ug/L			07/03/12 13:15	10
Ethylbenzene	ND		50	16	ug/L			07/03/12 13:15	10
Isopropylbenzene	ND		50	3.7	ug/L			07/03/12 13:15	10
Methyl acetate	ND		50	6.6	ug/L			07/03/12 13:15	10
Methyl tert-butyl ether	ND		50	4.6	ug/L			07/03/12 13:15	10
Methylcyclohexane	ND		50	5.9	ug/L			07/03/12 13:15	10
Methylene Chloride	ND		50	13	ug/L			07/03/12 13:15	10
Styrene	ND		50	17	ug/L			07/03/12 13:15	10
Tetrachloroethene	ND		50	21	ug/L			07/03/12 13:15	10
Toluene	ND		50	16	ug/L			07/03/12 13:15	10
trans-1,2-Dichloroethene	ND		50	19	ug/L			07/03/12 13:15	10
trans-1,3-Dichloropropene	ND		50	16	ug/L			07/03/12 13:15	10
Trichloroethene	ND		50	19	ug/L			07/03/12 13:15	10
Trichlorofluoromethane	ND		50	13	ug/L			07/03/12 13:15	10
Vinyl chloride	**320**		50	23	ug/L			07/03/12 13:15	10
Xylenes, Total	ND		50	8.2	ug/L			07/03/12 13:15	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*76 - 114*		*07/03/12 13:15*	*10*
4-Bromofluorobenzene (Surr)	*94*		*86 - 115*		*07/03/12 13:15*	*10*
Toluene-d8 (Surr)	*98*		*88 - 110*		*07/03/12 13:15*	*10*

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Client Sample ID: MW-13D

Lab Sample ID: 480-21938-3

Date Collected: 06/27/12 11:00

Matrix: Water

Date Received: 06/28/12 09:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.051		0.050	0.019	mg/L		06/29/12 08:45	06/29/12 19:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	184		10.0	1.7	mg/L			07/04/12 16:31	5
Nitrate as N	0.048	J	0.050	0.011	mg/L			06/28/12 22:27	1
Ferrous Iron	ND	HF	0.10	0.075	mg/L			06/28/12 16:21	1
Sulfide	27.2		2.0	1.3	mg/L			06/30/12 14:10	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon	47.4		5.0	1.9	mg/L			07/05/12 10:42	5
Result 1									
Dissolved Organic Carbon	12.4		1.0	0.43	mg/L			07/06/12 09:31	1

Client Sample ID: MW-9D

Lab Sample ID: 480-21938-4

Date Collected: 06/27/12 12:00

Matrix: Water

Date Received: 06/28/12 09:00

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	4.2	ug/L			07/03/12 13:40	2
1,1,2,2-Tetrachloroethane	ND		10	3.0	ug/L			07/03/12 13:40	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		10	3.0	ug/L			07/03/12 13:40	2
1,1,2-Trichloroethane	ND		10	3.8	ug/L			07/03/12 13:40	2
1,1-Dichloroethane	ND		10	3.4	ug/L			07/03/12 13:40	2
1,1-Dichloroethene	ND		10	5.0	ug/L			07/03/12 13:40	2
1,2,4-Trichlorobenzene	ND		10	1.1	ug/L			07/03/12 13:40	2
1,2-Dibromoethane	ND		10	4.0	ug/L			07/03/12 13:40	2
1,2-Dichlorobenzene	ND		10	2.4	ug/L			07/03/12 13:40	2
1,2-Dichloroethane	ND		10	1.7	ug/L			07/03/12 13:40	2
1,2-Dichloropropane	ND		10	3.4	ug/L			07/03/12 13:40	2
1,3-Dichlorobenzene	ND		10	2.4	ug/L			07/03/12 13:40	2
1,4-Dichlorobenzene	ND		10	2.2	ug/L			07/03/12 13:40	2
2-Butanone (MEK)	ND		10	3.0	ug/L			07/03/12 13:40	2
2-Hexanone	ND		10	3.6	ug/L			07/03/12 13:40	2
4-Methyl-2-pentanone (MIBK)	ND		10	3.4	ug/L			07/03/12 13:40	2
Acetone	ND		10	3.8	ug/L			07/03/12 13:40	2
Benzene	ND		10	3.2	ug/L			07/03/12 13:40	2
Bromodichloromethane	ND		10	3.0	ug/L			07/03/12 13:40	2
Bromoform	ND		10	10	ug/L			07/03/12 13:40	2
Bromomethane	ND		10	8.6	ug/L			07/03/12 13:40	2
Carbon disulfide	ND		10	4.2	ug/L			07/03/12 13:40	2
Carbon tetrachloride	ND		10	4.0	ug/L			07/03/12 13:40	2
Chlorobenzene	ND		10	3.2	ug/L			07/03/12 13:40	2
Chloroethane	ND		10	5.0	ug/L			07/03/12 13:40	2
Chloroform	ND		10	3.8	ug/L			07/03/12 13:40	2
Chloromethane	ND		10	4.6	ug/L			07/03/12 13:40	2
cis-1,2-Dichloroethene	ND		10	3.6	ug/L			07/03/12 13:40	2
cis-1,3-Dichloropropene	ND		10	2.8	ug/L			07/03/12 13:40	2
Cyclohexane	ND		10	1.2	ug/L			07/03/12 13:40	2
Dibromochloromethane	ND		10	3.4	ug/L			07/03/12 13:40	2

Client Sample ID: MW-9D

Lab Sample ID: 480-21938-4

Date Collected: 06/27/12 12:00

Matrix: Water

Date Received: 06/28/12 09:00

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		10	4.2	ug/L			07/03/12 13:40	2
Ethylbenzene	ND		10	3.2	ug/L			07/03/12 13:40	2
Isopropylbenzene	ND		10	0.75	ug/L			07/03/12 13:40	2
Methyl acetate	ND		10	1.3	ug/L			07/03/12 13:40	2
Methyl tert-butyl ether	ND		10	0.91	ug/L			07/03/12 13:40	2
Methylcyclohexane	ND		10	1.2	ug/L			07/03/12 13:40	2
Methylene Chloride	ND		10	2.6	ug/L			07/03/12 13:40	2
Styrene	ND		10	3.4	ug/L			07/03/12 13:40	2
Tetrachloroethene	ND		10	4.2	ug/L			07/03/12 13:40	2
Toluene	ND		10	3.2	ug/L			07/03/12 13:40	2
trans-1,2-Dichloroethene	ND		10	3.8	ug/L			07/03/12 13:40	2
trans-1,3-Dichloropropene	ND		10	3.2	ug/L			07/03/12 13:40	2
Trichloroethene	ND		10	3.8	ug/L			07/03/12 13:40	2
Trichlorofluoromethane	ND		10	2.6	ug/L			07/03/12 13:40	2
Vinyl chloride	ND		10	4.6	ug/L			07/03/12 13:40	2
Xylenes, Total	ND		10	1.6	ug/L			07/03/12 13:40	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*76 - 114*		*07/03/12 13:40*	*2*
4-Bromofluorobenzene (Surr)	*94*		*86 - 115*		*07/03/12 13:40*	*2*
Toluene-d8 (Surr)	*98*		*88 - 110*		*07/03/12 13:40*	*2*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.033**	**J**	0.050	0.019	mg/L		06/29/12 08:45	06/29/12 20:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**466**		10.0	1.7	mg/L			07/04/12 16:41	5
Nitrate as N	ND		0.050	0.011	mg/L			06/28/12 22:28	1
Ferrous Iron	ND	HF	0.10	0.075	mg/L			06/28/12 16:21	1
Sulfide	**20.4**		2.0	1.3	mg/L			06/30/12 14:10	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon	**81.7**		5.0	1.9	mg/L			07/05/12 10:59	5
Result 1									
Dissolved Organic Carbon	**5.7**		1.0	0.43	mg/L			07/06/12 09:51	1

Client Sample ID: MW-15D

Lab Sample ID: 480-21938-5

Date Collected: 06/27/12 13:00

Matrix: Water

Date Received: 06/28/12 09:00

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	8.4	ug/L			07/03/12 14:06	4
1,1,2,2-Tetrachloroethane	ND		20	6.0	ug/L			07/03/12 14:06	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.0	ug/L			07/03/12 14:06	4
1,1,2-Trichloroethane	ND		20	7.6	ug/L			07/03/12 14:06	4
1,1-Dichloroethane	ND		20	6.8	ug/L			07/03/12 14:06	4
1,1-Dichloroethene	ND		20	10	ug/L			07/03/12 14:06	4
1,2,4-Trichlorobenzene	ND		20	2.3	ug/L			07/03/12 14:06	4

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Client Sample ID: MW-15D
Date Collected: 06/27/12 13:00
Date Received: 06/28/12 09:00

Lab Sample ID: 480-21938-5
Matrix: Water

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		20	8.0	ug/L			07/03/12 14:06	4
1,2-Dichlorobenzene	ND		20	4.8	ug/L			07/03/12 14:06	4
1,2-Dichloroethane	ND		20	3.3	ug/L			07/03/12 14:06	4
1,2-Dichloropropane	ND		20	6.8	ug/L			07/03/12 14:06	4
1,3-Dichlorobenzene	ND		20	4.8	ug/L			07/03/12 14:06	4
1,4-Dichlorobenzene	ND		20	4.4	ug/L			07/03/12 14:06	4
2-Butanone (MEK)	ND		20	6.0	ug/L			07/03/12 14:06	4
2-Hexanone	ND		20	7.2	ug/L			07/03/12 14:06	4
4-Methyl-2-pentanone (MIBK)	ND		20	6.8	ug/L			07/03/12 14:06	4
Acetone	ND		20	7.6	ug/L			07/03/12 14:06	4
Benzene	ND		20	6.4	ug/L			07/03/12 14:06	4
Bromodichloromethane	ND		20	6.0	ug/L			07/03/12 14:06	4
Bromoform	ND		20	20	ug/L			07/03/12 14:06	4
Bromomethane	ND		20	17	ug/L			07/03/12 14:06	4
Carbon disulfide	ND		20	8.4	ug/L			07/03/12 14:06	4
Carbon tetrachloride	ND		20	8.0	ug/L			07/03/12 14:06	4
Chlorobenzene	ND		20	6.4	ug/L			07/03/12 14:06	4
Chloroethane	ND		20	10	ug/L			07/03/12 14:06	4
Chloroform	ND		20	7.6	ug/L			07/03/12 14:06	4
Chloromethane	ND		20	9.2	ug/L			07/03/12 14:06	4
cis-1,2-Dichloroethene	ND		20	7.2	ug/L			07/03/12 14:06	4
cis-1,3-Dichloropropene	ND		20	5.6	ug/L			07/03/12 14:06	4
Cyclohexane	ND		20	2.3	ug/L			07/03/12 14:06	4
Dibromochloromethane	ND		20	6.8	ug/L			07/03/12 14:06	4
Dichlorodifluoromethane	ND		20	8.4	ug/L			07/03/12 14:06	4
Ethylbenzene	ND		20	6.4	ug/L			07/03/12 14:06	4
Isopropylbenzene	ND		20	1.5	ug/L			07/03/12 14:06	4
Methyl acetate	ND		20	2.7	ug/L			07/03/12 14:06	4
Methyl tert-butyl ether	ND		20	1.8	ug/L			07/03/12 14:06	4
Methylcyclohexane	ND		20	2.4	ug/L			07/03/12 14:06	4
Methylene Chloride	ND		20	5.2	ug/L			07/03/12 14:06	4
Styrene	ND		20	6.8	ug/L			07/03/12 14:06	4
Tetrachloroethene	ND		20	8.4	ug/L			07/03/12 14:06	4
Toluene	ND		20	6.4	ug/L			07/03/12 14:06	4
trans-1,2-Dichloroethene	ND		20	7.6	ug/L			07/03/12 14:06	4
trans-1,3-Dichloropropene	ND		20	6.4	ug/L			07/03/12 14:06	4
Trichloroethene	ND		20	7.6	ug/L			07/03/12 14:06	4
Trichlorofluoromethane	ND		20	5.2	ug/L			07/03/12 14:06	4
Vinyl chloride	ND		20	9.2	ug/L			07/03/12 14:06	4
Xylenes, Total	ND		20	3.3	ug/L			07/03/12 14:06	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*76 - 114*		*07/03/12 14:06*	*4*
4-Bromofluorobenzene (Surr)	*96*		*86 - 115*		*07/03/12 14:06*	*4*
Toluene-d8 (Surr)	*99*		*88 - 110*		*07/03/12 14:06*	*4*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.087**		0.050	0.019	mg/L		06/29/12 08:45	06/29/12 20:02	1

Client Sample ID: MW-15D

Lab Sample ID: 480-21938-5

Date Collected: 06/27/12 13:00

Matrix: Water

Date Received: 06/28/12 09:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**612**		20.0	3.5	mg/L			07/06/12 19:16	10
Nitrate as N	ND		0.050	0.011	mg/L			06/28/12 22:30	1
Ferrous Iron	ND	HF	0.10	0.075	mg/L			06/28/12 16:21	1
Sulfide	**32.8**		2.0	1.3	mg/L			06/30/12 14:10	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon	**101**		5.0	1.9	mg/L			07/05/12 11:16	5
Result 1									
Dissolved Organic Carbon	**7.4**		1.0	0.43	mg/L			07/06/12 10:11	1

Client Sample ID: MW-10D

Lab Sample ID: 480-21938-6

Date Collected: 06/27/12 14:00

Matrix: Water

Date Received: 06/28/12 09:00

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	8.4	ug/L			07/03/12 14:30	4
1,1,2,2-Tetrachloroethane	ND		20	6.0	ug/L			07/03/12 14:30	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.0	ug/L			07/03/12 14:30	4
1,1,2-Trichloroethane	ND		20	7.6	ug/L			07/03/12 14:30	4
1,1-Dichloroethane	ND		20	6.8	ug/L			07/03/12 14:30	4
1,1-Dichloroethene	ND		20	10	ug/L			07/03/12 14:30	4
1,2,4-Trichlorobenzene	ND		20	2.3	ug/L			07/03/12 14:30	4
1,2-Dibromoethane	ND		20	8.0	ug/L			07/03/12 14:30	4
1,2-Dichlorobenzene	ND		20	4.8	ug/L			07/03/12 14:30	4
1,2-Dichloroethane	ND		20	3.3	ug/L			07/03/12 14:30	4
1,2-Dichloropropane	ND		20	6.8	ug/L			07/03/12 14:30	4
1,3-Dichlorobenzene	ND		20	4.8	ug/L			07/03/12 14:30	4
1,4-Dichlorobenzene	ND		20	4.4	ug/L			07/03/12 14:30	4
2-Butanone (MEK)	ND		20	6.0	ug/L			07/03/12 14:30	4
2-Hexanone	ND		20	7.2	ug/L			07/03/12 14:30	4
4-Methyl-2-pentanone (MIBK)	ND		20	6.8	ug/L			07/03/12 14:30	4
Acetone	ND		20	7.6	ug/L			07/03/12 14:30	4
Benzene	ND		20	6.4	ug/L			07/03/12 14:30	4
Bromodichloromethane	ND		20	6.0	ug/L			07/03/12 14:30	4
Bromoform	ND		20	20	ug/L			07/03/12 14:30	4
Bromomethane	ND		20	17	ug/L			07/03/12 14:30	4
Carbon disulfide	ND		20	8.4	ug/L			07/03/12 14:30	4
Carbon tetrachloride	ND		20	8.0	ug/L			07/03/12 14:30	4
Chlorobenzene	ND		20	6.4	ug/L			07/03/12 14:30	4
Chloroethane	ND		20	10	ug/L			07/03/12 14:30	4
Chloroform	ND		20	7.6	ug/L			07/03/12 14:30	4
Chloromethane	ND		20	9.2	ug/L			07/03/12 14:30	4
cis-1,2-Dichloroethene	**550**		20	7.2	ug/L			07/03/12 14:30	4
cis-1,3-Dichloropropene	ND		20	5.6	ug/L			07/03/12 14:30	4
Cyclohexane	ND		20	2.3	ug/L			07/03/12 14:30	4
Dibromochloromethane	ND		20	6.8	ug/L			07/03/12 14:30	4
Dichlorodifluoromethane	ND		20	8.4	ug/L			07/03/12 14:30	4
Ethylbenzene	ND		20	6.4	ug/L			07/03/12 14:30	4
Isopropylbenzene	ND		20	1.5	ug/L			07/03/12 14:30	4
Methyl acetate	ND		20	2.7	ug/L			07/03/12 14:30	4

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Client Sample ID: MW-10D
Date Collected: 06/27/12 14:00
Date Received: 06/28/12 09:00

Lab Sample ID: 480-21938-6
Matrix: Water

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		20	1.8	ug/L			07/03/12 14:30	4
Methylcyclohexane	ND		20	2.4	ug/L			07/03/12 14:30	4
Methylene Chloride	ND		20	5.2	ug/L			07/03/12 14:30	4
Styrene	ND		20	6.8	ug/L			07/03/12 14:30	4
Tetrachloroethene	ND		20	8.4	ug/L			07/03/12 14:30	4
Toluene	ND		20	6.4	ug/L			07/03/12 14:30	4
trans-1,2-Dichloroethene	**28**		20	7.6	ug/L			07/03/12 14:30	4
trans-1,3-Dichloropropene	ND		20	6.4	ug/L			07/03/12 14:30	4
Trichloroethene	ND		20	7.6	ug/L			07/03/12 14:30	4
Trichlorofluoromethane	ND		20	5.2	ug/L			07/03/12 14:30	4
Vinyl chloride	ND		20	9.2	ug/L			07/03/12 14:30	4
Xylenes, Total	ND		20	3.3	ug/L			07/03/12 14:30	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*76 - 114*		*07/03/12 14:30*	*4*
4-Bromofluorobenzene (Surr)	*96*		*86 - 115*		*07/03/12 14:30*	*4*
Toluene-d8 (Surr)	*100*		*88 - 110*		*07/03/12 14:30*	*4*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	0.019	mg/L		06/29/12 08:45	06/29/12 20:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**497**		10.0	1.7	mg/L			07/04/12 17:01	5
Nitrate as N	ND		0.050	0.011	mg/L			06/28/12 22:31	1
Ferrous Iron	ND	HF	0.10	0.075	mg/L			06/28/12 16:21	1
Sulfide	**28.0**		2.0	1.3	mg/L			06/30/12 14:10	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon	**72.5**		5.0	1.9	mg/L			07/05/12 11:32	5
Result 1									
Dissolved Organic Carbon	**4.5**		1.0	0.43	mg/L			07/06/12 10:30	1

Surrogate Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(76-114)	(86-115)	(88-110)
480-21938-1	MW-16D	103	98	103
480-21938-1 MS	MW-16D	101	97	100
480-21938-1 MSD	MW-16D	99	96	99
480-21938-2	MW-14D	98	96	100
480-21938-3	MW-13D	96	94	98
480-21938-4	MW-9D	98	94	98
480-21938-5	MW-15D	97	96	99
480-21938-6	MW-10D	99	96	100
LCS 480-70972/4	Lab Control Sample	97	94	99
MB 480-70972/5	Method Blank	99	94	100

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-70972/5
Matrix: Water
Analysis Batch: 70972

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	2.1	ug/L			07/03/12 10:55	1
1,1,2,2-Tetrachloroethane	ND		5.0	1.5	ug/L			07/03/12 10:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.5	ug/L			07/03/12 10:55	1
1,1,2-Trichloroethane	ND		5.0	1.9	ug/L			07/03/12 10:55	1
1,1-Dichloroethane	ND		5.0	1.7	ug/L			07/03/12 10:55	1
1,1-Dichloroethene	ND		5.0	2.5	ug/L			07/03/12 10:55	1
1,2,4-Trichlorobenzene	ND		5.0	0.57	ug/L			07/03/12 10:55	1
1,2-Dibromoethane	ND		5.0	2.0	ug/L			07/03/12 10:55	1
1,2-Dichlorobenzene	ND		5.0	1.2	ug/L			07/03/12 10:55	1
1,2-Dichloroethane	ND		5.0	0.83	ug/L			07/03/12 10:55	1
1,2-Dichloropropane	ND		5.0	1.7	ug/L			07/03/12 10:55	1
1,3-Dichlorobenzene	ND		5.0	1.2	ug/L			07/03/12 10:55	1
1,4-Dichlorobenzene	ND		5.0	1.1	ug/L			07/03/12 10:55	1
2-Butanone (MEK)	ND		5.0	1.5	ug/L			07/03/12 10:55	1
2-Hexanone	ND		5.0	1.8	ug/L			07/03/12 10:55	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.7	ug/L			07/03/12 10:55	1
Acetone	ND		5.0	1.9	ug/L			07/03/12 10:55	1
Benzene	ND		5.0	1.6	ug/L			07/03/12 10:55	1
Bromodichloromethane	ND		5.0	1.5	ug/L			07/03/12 10:55	1
Bromoform	ND		5.0	5.0	ug/L			07/03/12 10:55	1
Bromomethane	ND		5.0	4.3	ug/L			07/03/12 10:55	1
Carbon disulfide	ND		5.0	2.1	ug/L			07/03/12 10:55	1
Carbon tetrachloride	ND		5.0	2.0	ug/L			07/03/12 10:55	1
Chlorobenzene	ND		5.0	1.6	ug/L			07/03/12 10:55	1
Chloroethane	ND		5.0	2.5	ug/L			07/03/12 10:55	1
Chloroform	ND		5.0	1.9	ug/L			07/03/12 10:55	1
Chloromethane	ND		5.0	2.3	ug/L			07/03/12 10:55	1
cis-1,2-Dichloroethene	ND		5.0	1.8	ug/L			07/03/12 10:55	1
cis-1,3-Dichloropropene	ND		5.0	1.4	ug/L			07/03/12 10:55	1
Cyclohexane	ND		5.0	0.59	ug/L			07/03/12 10:55	1
Dibromochloromethane	ND		5.0	1.7	ug/L			07/03/12 10:55	1
Dichlorodifluoromethane	ND		5.0	2.1	ug/L			07/03/12 10:55	1
Ethylbenzene	ND		5.0	1.6	ug/L			07/03/12 10:55	1
Isopropylbenzene	ND		5.0	0.37	ug/L			07/03/12 10:55	1
Methyl acetate	ND		5.0	0.66	ug/L			07/03/12 10:55	1
Methyl tert-butyl ether	ND		5.0	0.46	ug/L			07/03/12 10:55	1
Methylcyclohexane	ND		5.0	0.59	ug/L			07/03/12 10:55	1
Methylene Chloride	ND		5.0	1.3	ug/L			07/03/12 10:55	1
Styrene	ND		5.0	1.7	ug/L			07/03/12 10:55	1
Tetrachloroethene	ND		5.0	2.1	ug/L			07/03/12 10:55	1
Toluene	ND		5.0	1.6	ug/L			07/03/12 10:55	1
trans-1,2-Dichloroethene	ND		5.0	1.9	ug/L			07/03/12 10:55	1
trans-1,3-Dichloropropene	ND		5.0	1.6	ug/L			07/03/12 10:55	1
Trichloroethene	ND		5.0	1.9	ug/L			07/03/12 10:55	1
Trichlorofluoromethane	ND		5.0	1.3	ug/L			07/03/12 10:55	1
Vinyl chloride	ND		5.0	2.3	ug/L			07/03/12 10:55	1
Xylenes, Total	ND		5.0	0.82	ug/L			07/03/12 10:55	1

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-70972/5
Matrix: Water
Analysis Batch: 70972

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*99*		*76 - 114*		*07/03/12 10:55*	*1*
4-Bromofluorobenzene (Surr)	*94*		*86 - 115*		*07/03/12 10:55*	*1*
Toluene-d8 (Surr)	*100*		*88 - 110*		*07/03/12 10:55*	*1*

Lab Sample ID: LCS 480-70972/4
Matrix: Water
Analysis Batch: 70972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	50.0	57.4		ug/L		115	61 - 145
Benzene	50.0	51.0		ug/L		102	76 - 127
Chlorobenzene	50.0	50.0		ug/L		100	75 - 130
Toluene	50.0	51.5		ug/L		103	76 - 125
Trichloroethene	50.0	52.1		ug/L		104	71 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*97*		*76 - 114*
4-Bromofluorobenzene (Surr)	*94*		*86 - 115*
Toluene-d8 (Surr)	*99*		*88 - 110*

Lab Sample ID: 480-21938-1 MS
Matrix: Water
Analysis Batch: 70972

Client Sample ID: MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		250000	290	F	ug/L		0.1	61 - 145
Benzene	ND		250000	258	F	ug/L		0.1	76 - 127
Chlorobenzene	ND		250000	251	F	ug/L		0.1	75 - 130
Toluene	ND		250000	257	F	ug/L		0.1	76 - 125
Trichloroethene	ND		250000	263	F	ug/L		0.1	71 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*101*		*76 - 114*
4-Bromofluorobenzene (Surr)	*97*		*86 - 115*
Toluene-d8 (Surr)	*100*		*88 - 110*

Lab Sample ID: 480-21938-1 MSD
Matrix: Water
Analysis Batch: 70972

Client Sample ID: MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		250000	299	F	ug/L		0.1	61 - 145	3	14
Benzene	ND		250000	263	F	ug/L		0.1	76 - 127	2	11
Chlorobenzene	ND		250000	256	F	ug/L		0.1	75 - 130	2	13
Toluene	ND		250000	265	F	ug/L		0.1	76 - 125	3	13
Trichloroethene	ND		250000	272	F	ug/L		0.1	71 - 120	3	14

Method: OLM04.2/Vol - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-21938-1 MSD
Matrix: Water
Analysis Batch: 70972

Client Sample ID: MW-16D
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*99*		*76 - 114*
4-Bromofluorobenzene (Surr)	*96*		*86 - 115*
Toluene-d8 (Surr)	*99*		*88 - 110*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-70474/1-A
Matrix: Water
Analysis Batch: 70829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 70474

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	0.019	mg/L		06/29/12 08:45	06/29/12 19:11	1

Lab Sample ID: LCS 480-70474/2-A
Matrix: Water
Analysis Batch: 70829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 70474

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10.0	9.83		mg/L		98	80 - 120

Method: 300.0 - Sulfate

Lab Sample ID: MB 480-71028/148
Matrix: Water
Analysis Batch: 71028

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		2.0	0.35	mg/L			07/04/12 14:09	1

Lab Sample ID: LCS 480-71028/147
Matrix: Water
Analysis Batch: 71028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.90		mg/L		100	90 - 110

Lab Sample ID: MB 480-71271/28
Matrix: Water
Analysis Batch: 71271

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		2.0	0.35	mg/L			07/06/12 18:45	1

Lab Sample ID: LCS 480-71271/27
Matrix: Water
Analysis Batch: 71271

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.00		mg/L		100	90 - 110

Method: SM 3500 FE D - Iron, Ferrous and Ferric

Lab Sample ID: MB 480-70463/3
Matrix: Water
Analysis Batch: 70463

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	ND		0.10	0.075	mg/L			06/28/12 16:21	1

Lab Sample ID: LCS 480-70463/4
Matrix: Water
Analysis Batch: 70463

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	2.00	2.17		mg/L		109	90 - 110

Lab Sample ID: 480-21938-3 MS
Matrix: Water
Analysis Batch: 70463

Client Sample ID: MW-13D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	ND	HF	1.00	0.943		mg/L		94	90 - 110

Lab Sample ID: 480-21938-1 DU
Matrix: Water
Analysis Batch: 70463

Client Sample ID: MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	ND	HF	ND		mg/L		NC	20

Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 480-70726/3
Matrix: Water
Analysis Batch: 70726

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0	0.67	mg/L			06/30/12 14:10	1

Lab Sample ID: LCS 480-70726/4
Matrix: Water
Analysis Batch: 70726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	10.0	9.20		mg/L		92	90 - 110

Method: SM 5310C - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 500-155243/3
Matrix: Water
Analysis Batch: 155243

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon Result 1	ND		1.0	0.38	mg/L			07/05/12 09:00	1

Method: SM 5310C - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: LCS 500-155243/4
Matrix: Water
Analysis Batch: 155243

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Dissolved Inorganic Carbon Result 1			10.0	9.31		mg/L		93	80 - 120		

Lab Sample ID: 480-21938-1 MS
Matrix: Water
Analysis Batch: 155243

Client Sample ID: MW-16D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Dissolved Inorganic Carbon Result 1	129		50.0	167.4		mg/L		77	75 - 125		

Lab Sample ID: 480-21938-1 MSD
Matrix: Water
Analysis Batch: 155243

Client Sample ID: MW-16D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dissolved Inorganic Carbon Result 1	129		50.0	169.1		mg/L		80	75 - 125	1	20

Method: SM5310_D - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 480-71814/67
Matrix: Water
Analysis Batch: 71814

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		1.0	0.43	mg/L			07/06/12 13:29	1

Lab Sample ID: LCS 480-71814/68
Matrix: Water
Analysis Batch: 71814

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Dissolved Organic Carbon			30.0	27.87		mg/L		93	90 - 110		

GC/MS VOA

Analysis Batch: 70972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-21938-1	MW-16D	Total/NA	Water	OLM04.2/Vol	
480-21938-1 MS	MW-16D	Total/NA	Water	OLM04.2/Vol	
480-21938-1 MSD	MW-16D	Total/NA	Water	OLM04.2/Vol	
480-21938-2	MW-14D	Total/NA	Water	OLM04.2/Vol	
480-21938-3	MW-13D	Total/NA	Water	OLM04.2/Vol	
480-21938-4	MW-9D	Total/NA	Water	OLM04.2/Vol	
480-21938-5	MW-15D	Total/NA	Water	OLM04.2/Vol	
480-21938-6	MW-10D	Total/NA	Water	OLM04.2/Vol	
LCS 480-70972/4	Lab Control Sample	Total/NA	Water	OLM04.2/Vol	
MB 480-70972/5	Method Blank	Total/NA	Water	OLM04.2/Vol	

Metals

Prep Batch: 70474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-21938-1	MW-16D	Total/NA	Water	3005A	
480-21938-2	MW-14D	Total/NA	Water	3005A	
480-21938-3	MW-13D	Total/NA	Water	3005A	
480-21938-4	MW-9D	Total/NA	Water	3005A	
480-21938-5	MW-15D	Total/NA	Water	3005A	
480-21938-6	MW-10D	Total/NA	Water	3005A	
LCS 480-70474/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 480-70474/1-A	Method Blank	Total/NA	Water	3005A	

Analysis Batch: 70829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-21938-1	MW-16D	Total/NA	Water	6010B	70474
480-21938-2	MW-14D	Total/NA	Water	6010B	70474
480-21938-3	MW-13D	Total/NA	Water	6010B	70474
480-21938-4	MW-9D	Total/NA	Water	6010B	70474
480-21938-5	MW-15D	Total/NA	Water	6010B	70474
480-21938-6	MW-10D	Total/NA	Water	6010B	70474
LCS 480-70474/2-A	Lab Control Sample	Total/NA	Water	6010B	70474
MB 480-70474/1-A	Method Blank	Total/NA	Water	6010B	70474

General Chemistry

Analysis Batch: 70463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-21938-1	MW-16D	Total/NA	Water	SM 3500 FE D	
480-21938-1 DU	MW-16D	Total/NA	Water	SM 3500 FE D	
480-21938-2	MW-14D	Total/NA	Water	SM 3500 FE D	
480-21938-3	MW-13D	Total/NA	Water	SM 3500 FE D	
480-21938-3 MS	MW-13D	Total/NA	Water	SM 3500 FE D	
480-21938-4	MW-9D	Total/NA	Water	SM 3500 FE D	
480-21938-5	MW-15D	Total/NA	Water	SM 3500 FE D	
480-21938-6	MW-10D	Total/NA	Water	SM 3500 FE D	
LCS 480-70463/4	Lab Control Sample	Total/NA	Water	SM 3500 FE D	
MB 480-70463/3	Method Blank	Total/NA	Water	SM 3500 FE D	

General Chemistry (Continued)

Analysis Batch: 70508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-21938-1	MW-16D	Total/NA	Water	Nitrate by calc	
480-21938-2	MW-14D	Total/NA	Water	Nitrate by calc	
480-21938-3	MW-13D	Total/NA	Water	Nitrate by calc	
480-21938-4	MW-9D	Total/NA	Water	Nitrate by calc	
480-21938-5	MW-15D	Total/NA	Water	Nitrate by calc	
480-21938-6	MW-10D	Total/NA	Water	Nitrate by calc	

Analysis Batch: 70726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-21938-1	MW-16D	Total/NA	Water	SM 4500 S2 F	
480-21938-2	MW-14D	Total/NA	Water	SM 4500 S2 F	
480-21938-3	MW-13D	Total/NA	Water	SM 4500 S2 F	
480-21938-4	MW-9D	Total/NA	Water	SM 4500 S2 F	
480-21938-5	MW-15D	Total/NA	Water	SM 4500 S2 F	
480-21938-6	MW-10D	Total/NA	Water	SM 4500 S2 F	
LCS 480-70726/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	
MB 480-70726/3	Method Blank	Total/NA	Water	SM 4500 S2 F	

Analysis Batch: 71028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-21938-1	MW-16D	Total/NA	Water	300.0	
480-21938-2	MW-14D	Total/NA	Water	300.0	
480-21938-3	MW-13D	Total/NA	Water	300.0	
480-21938-4	MW-9D	Total/NA	Water	300.0	
480-21938-6	MW-10D	Total/NA	Water	300.0	
LCS 480-71028/147	Lab Control Sample	Total/NA	Water	300.0	
MB 480-71028/148	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 71271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-21938-5	MW-15D	Total/NA	Water	300.0	
LCS 480-71271/27	Lab Control Sample	Total/NA	Water	300.0	
MB 480-71271/28	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 71814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-21938-1	MW-16D	Dissolved	Water	SM5310_D	
480-21938-2	MW-14D	Dissolved	Water	SM5310_D	
480-21938-3	MW-13D	Dissolved	Water	SM5310_D	
480-21938-4	MW-9D	Dissolved	Water	SM5310_D	
480-21938-5	MW-15D	Dissolved	Water	SM5310_D	
480-21938-6	MW-10D	Dissolved	Water	SM5310_D	
LCS 480-71814/68	Lab Control Sample	Dissolved	Water	SM5310_D	
MB 480-71814/67	Method Blank	Dissolved	Water	SM5310_D	

Analysis Batch: 155243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-21938-1	MW-16D	Dissolved	Water	SM 5310C	
480-21938-1 MS	MW-16D	Dissolved	Water	SM 5310C	
480-21938-1 MSD	MW-16D	Dissolved	Water	SM 5310C	
480-21938-2	MW-14D	Dissolved	Water	SM 5310C	
480-21938-3	MW-13D	Dissolved	Water	SM 5310C	

General Chemistry (Continued)

Analysis Batch: 155243 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-21938-4	MW-9D	Dissolved	Water	SM 5310C	
480-21938-5	MW-15D	Dissolved	Water	SM 5310C	
480-21938-6	MW-10D	Dissolved	Water	SM 5310C	
LCS 500-155243/4	Lab Control Sample	Dissolved	Water	SM 5310C	
MB 500-155243/3	Method Blank	Dissolved	Water	SM 5310C	

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Client Sample ID: MW-16D

Lab Sample ID: 480-21938-1

Date Collected: 06/27/12 09:00

Matrix: Water

Date Received: 06/28/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLM04.2/Vol		5	70972	07/03/12 11:35	JMB	TAL BUF
Total/NA	Prep	3005A			70474	06/29/12 08:45	SS	TAL BUF
Total/NA	Analysis	6010B		1	70829	06/29/12 19:53	MM	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	70463	06/28/12 16:21	NH	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	70508	06/28/12 22:25	KS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	70726	06/30/12 14:10	LAW	TAL BUF
Total/NA	Analysis	300.0		10	71028	07/04/12 16:10	KAC	TAL BUF
Dissolved	Analysis	SM5310_D		1	71814	07/06/12 08:12	KAC	TAL BUF
Dissolved	Analysis	SM 5310C		5	155243	07/05/12 09:50	KD	TAL CHI

Client Sample ID: MW-14D

Lab Sample ID: 480-21938-2

Date Collected: 06/27/12 10:00

Matrix: Water

Date Received: 06/28/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLM04.2/Vol		20	70972	07/03/12 12:50	JMB	TAL BUF
Total/NA	Prep	3005A			70474	06/29/12 08:45	SS	TAL BUF
Total/NA	Analysis	6010B		1	70829	06/29/12 19:55	MM	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	70463	06/28/12 16:21	NH	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	70508	06/28/12 22:26	KS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	70726	06/30/12 14:10	LAW	TAL BUF
Total/NA	Analysis	300.0		5	71028	07/04/12 16:21	KAC	TAL BUF
Dissolved	Analysis	SM5310_D		1	71814	07/06/12 08:32	KAC	TAL BUF
Dissolved	Analysis	SM 5310C		5	155243	07/05/12 10:26	KD	TAL CHI

Client Sample ID: MW-13D

Lab Sample ID: 480-21938-3

Date Collected: 06/27/12 11:00

Matrix: Water

Date Received: 06/28/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLM04.2/Vol		10	70972	07/03/12 13:15	JMB	TAL BUF
Total/NA	Prep	3005A			70474	06/29/12 08:45	SS	TAL BUF
Total/NA	Analysis	6010B		1	70829	06/29/12 19:57	MM	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	70463	06/28/12 16:21	NH	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	70508	06/28/12 22:27	KS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	70726	06/30/12 14:10	LAW	TAL BUF
Total/NA	Analysis	300.0		5	71028	07/04/12 16:31	KAC	TAL BUF
Dissolved	Analysis	SM5310_D		1	71814	07/06/12 09:31	KAC	TAL BUF
Dissolved	Analysis	SM 5310C		5	155243	07/05/12 10:42	KD	TAL CHI

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Client Sample ID: MW-9D

Lab Sample ID: 480-21938-4

Date Collected: 06/27/12 12:00
Matrix: Water
Date Received: 06/28/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLM04.2/Vol		2	70972	07/03/12 13:40	JMB	TAL BUF
Total/NA	Prep	3005A			70474	06/29/12 08:45	SS	TAL BUF
Total/NA	Analysis	6010B		1	70829	06/29/12 20:00	MM	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	70463	06/28/12 16:21	NH	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	70508	06/28/12 22:28	KS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	70726	06/30/12 14:10	LAW	TAL BUF
Total/NA	Analysis	300.0		5	71028	07/04/12 16:41	KAC	TAL BUF
Dissolved	Analysis	SM5310_D		1	71814	07/06/12 09:51	KAC	TAL BUF
Dissolved	Analysis	SM 5310C		5	155243	07/05/12 10:59	KD	TAL CHI

Client Sample ID: MW-15D

Lab Sample ID: 480-21938-5

Date Collected: 06/27/12 13:00
Matrix: Water
Date Received: 06/28/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLM04.2/Vol		4	70972	07/03/12 14:06	JMB	TAL BUF
Total/NA	Prep	3005A			70474	06/29/12 08:45	SS	TAL BUF
Total/NA	Analysis	6010B		1	70829	06/29/12 20:02	MM	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	70463	06/28/12 16:21	NH	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	70508	06/28/12 22:30	KS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	70726	06/30/12 14:10	LAW	TAL BUF
Total/NA	Analysis	300.0		10	71271	07/06/12 19:16	KAC	TAL BUF
Dissolved	Analysis	SM5310_D		1	71814	07/06/12 10:11	KAC	TAL BUF
Dissolved	Analysis	SM 5310C		5	155243	07/05/12 11:16	KD	TAL CHI

Client Sample ID: MW-10D

Lab Sample ID: 480-21938-6

Date Collected: 06/27/12 14:00
Matrix: Water
Date Received: 06/28/12 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLM04.2/Vol		4	70972	07/03/12 14:30	JMB	TAL BUF
Total/NA	Prep	3005A			70474	06/29/12 08:45	SS	TAL BUF
Total/NA	Analysis	6010B		1	70829	06/29/12 20:05	MM	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	70463	06/28/12 16:21	NH	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	70508	06/28/12 22:31	KS	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	70726	06/30/12 14:10	LAW	TAL BUF
Total/NA	Analysis	300.0		5	71028	07/04/12 17:01	KAC	TAL BUF
Dissolved	Analysis	SM5310_D		1	71814	07/06/12 10:30	KAC	TAL BUF
Dissolved	Analysis	SM 5310C		5	155243	07/05/12 11:32	KD	TAL CHI

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas DEQ	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Georgia	State Program	4	N/A
TestAmerica Buffalo	Illinois	NELAC	5	200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Kentucky (UST)	State Program	4	30
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY00044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Hampshire	NELAC	1	2973
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
TestAmerica Buffalo	Texas	NELAC	6	T104704412-11-2
TestAmerica Buffalo	USDA	Federal		P330-11-00386
TestAmerica Buffalo	Virginia	NELAC	3	460185
TestAmerica Buffalo	Washington	State Program	10	C784
TestAmerica Buffalo	West Virginia DEP	State Program	3	252
TestAmerica Buffalo	Wisconsin	State Program	5	998310390
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Georgia	State Program	4	N/A
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Kentucky (UST)	State Program	4	66
TestAmerica Chicago	L-A-B	DoD ELAP		L2304
TestAmerica Chicago	L-A-B	ISO/IEC 17025		L2304
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina DENR	State Program	4	291
TestAmerica Chicago	North Dakota	State Program	8	R-194
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX

Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Chicago	USDA	Federal		P330-12-00038
TestAmerica Chicago	Virginia	NELAC	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Method	Method Description	Protocol	Laboratory
OLM04.2/Vol	Volatile Organic Compounds (GC/MS)	OLM04.2	TAL BUF
6010B	Metals (ICP)	SW846	TAL BUF
300.0	Sulfate	40CFR136A	TAL BUF
Nitrate by calc	Nitrogen, Nitrate-Nitrite	SM	TAL BUF
SM 3500 FE D	Iron, Ferrous and Ferric	SM	TAL BUF
SM 4500 S2 F	Sulfide, Total	SM	TAL BUF
SM 5310C	Organic Carbon, Dissolved (DOC)	SM	TAL CHI
SM5310_D	Organic Carbon, Dissolved (DOC)	SM	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
OLM04.2 = "Statement of Work for Organic Analysis", Multi-Media, Multi-Concentration September 1998
SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-21938-1	MW-16D	Water	06/27/12 09:00	06/28/12 09:00
480-21938-2	MW-14D	Water	06/27/12 10:00	06/28/12 09:00
480-21938-3	MW-13D	Water	06/27/12 11:00	06/28/12 09:00
480-21938-4	MW-9D	Water	06/27/12 12:00	06/28/12 09:00
480-21938-5	MW-15D	Water	06/27/12 13:00	06/28/12 09:00
480-21938-6	MW-10D	Water	06/27/12 14:00	06/28/12 09:00

Detection Limit Exceptions Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-21938-1

The requested project specific reporting limits listed below were less than lab standard quantitation limits but greater than or equal to the lab MDL. It must be noted that results reported below lab standard quantitation limits (PQL) may result in false positive/false negative values and less accurate quantitation. Routine laboratory procedures do not indicate corrective action for detections below the laboratory's PQL.

Method	Matrix	Analyte	Units	Client RL	Lab PQL
OLM04.2/Vol	Water	1,1,1-Trichloroethane	ug/L	5.0	10
OLM04.2/Vol	Water	1,1,2,2-Tetrachloroethane	ug/L	5.0	10
OLM04.2/Vol	Water	1,1,2-Trichloro-1,2,2-trifluoroethane	ug/L	5.0	10
OLM04.2/Vol	Water	1,1,2-Trichloroethane	ug/L	5.0	10
OLM04.2/Vol	Water	1,1-Dichloroethane	ug/L	5.0	10
OLM04.2/Vol	Water	1,1-Dichloroethene	ug/L	5.0	10
OLM04.2/Vol	Water	1,2,4-Trichlorobenzene	ug/L	5.0	10
OLM04.2/Vol	Water	1,2-Dibromoethane	ug/L	5.0	10
OLM04.2/Vol	Water	1,2-Dichlorobenzene	ug/L	5.0	10
OLM04.2/Vol	Water	1,2-Dichloroethane	ug/L	5.0	10
OLM04.2/Vol	Water	1,2-Dichloropropane	ug/L	5.0	10
OLM04.2/Vol	Water	1,3-Dichlorobenzene	ug/L	5.0	10
OLM04.2/Vol	Water	1,4-Dichlorobenzene	ug/L	5.0	10
OLM04.2/Vol	Water	2-Butanone (MEK)	ug/L	5.0	10
OLM04.2/Vol	Water	2-Hexanone	ug/L	5.0	10
OLM04.2/Vol	Water	4-Methyl-2-pentanone (MIBK)	ug/L	5.0	10
OLM04.2/Vol	Water	Acetone	ug/L	5.0	10
OLM04.2/Vol	Water	Benzene	ug/L	5.0	10
OLM04.2/Vol	Water	Bromodichloromethane	ug/L	5.0	10
OLM04.2/Vol	Water	Bromoform	ug/L	5.0	10
OLM04.2/Vol	Water	Bromomethane	ug/L	5.0	10
OLM04.2/Vol	Water	Carbon disulfide	ug/L	5.0	10
OLM04.2/Vol	Water	Carbon tetrachloride	ug/L	5.0	10
OLM04.2/Vol	Water	Chlorobenzene	ug/L	5.0	10
OLM04.2/Vol	Water	Chloroethane	ug/L	5.0	10
OLM04.2/Vol	Water	Chloroform	ug/L	5.0	10
OLM04.2/Vol	Water	Chloromethane	ug/L	5.0	10
OLM04.2/Vol	Water	cis-1,2-Dichloroethene	ug/L	5.0	10
OLM04.2/Vol	Water	cis-1,3-Dichloropropene	ug/L	5.0	10
OLM04.2/Vol	Water	Cyclohexane	ug/L	5.0	10
OLM04.2/Vol	Water	Dibromochloromethane	ug/L	5.0	10
OLM04.2/Vol	Water	Dichlorodifluoromethane	ug/L	5.0	10
OLM04.2/Vol	Water	Ethylbenzene	ug/L	5.0	10
OLM04.2/Vol	Water	Isopropylbenzene	ug/L	5.0	10
OLM04.2/Vol	Water	Methyl acetate	ug/L	5.0	10
OLM04.2/Vol	Water	Methyl tert-butyl ether	ug/L	5.0	10
OLM04.2/Vol	Water	Methylcyclohexane	ug/L	5.0	10
OLM04.2/Vol	Water	Methylene Chloride	ug/L	5.0	10
OLM04.2/Vol	Water	Styrene	ug/L	5.0	10
OLM04.2/Vol	Water	Tetrachloroethene	ug/L	5.0	10
OLM04.2/Vol	Water	Toluene	ug/L	5.0	10
OLM04.2/Vol	Water	trans-1,2-Dichloroethene	ug/L	5.0	10
OLM04.2/Vol	Water	trans-1,3-Dichloropropene	ug/L	5.0	10
OLM04.2/Vol	Water	Trichloroethene	ug/L	5.0	10
OLM04.2/Vol	Water	Trichlorofluoromethane	ug/L	5.0	10
OLM04.2/Vol	Water	Vinyl chloride	ug/L	5.0	10
OLM04.2/Vol	Water	Xylenes, Total	ug/L	5.0	10

Chain of Custody Record

TestAmerica

Client Information	Sampler: Wayne Randall	Lab PM: Fox, Candace	Carrier Tracking No(s):	COC No: 480-25375-2208.1
Client Contact: Mr. Wayne Randall	Phone:	E-Mail: candace.fox@testamericainc.com		Page: Page 1 of 1
Company: C&S Engineers, Inc.				Job #:
Address: 499 Col. Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not requir			
Email: wrandall@cscos.com	WO #: C81.006.001			
Project Name: Midler Quarterly Groundwater	Project #: 48002877			
Site: Midler Ave	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	300.0_28D - Sulfate	200.7, 6010B	8260B - (MOD) TCL list OLM04.2	SM5310_DOC_D - Dissolved Organic Carbon	SM4500_S2_F - Sulfide	SUBCONTRACT - Dissolved Inorganic Carbon	3500_FE_D, 353.2, 353.2_Nitrite, Nitrate_Calc	Total Number of containers	Special Instructions/Note:
Preservation Code:						N	D	A	A	CB	N	N		
MW-16D	6/27/12	900	G	Water		1	1	3	2	1	2	3		
MW-16D MS		900		Water										
MW-16D MSD		900		Water										DOC - Field filtered
MW-14D		1000		Water										
MW-13D		1100		Water										
MW-9D		1200		Water										
MW-15D		100		Water										
MW-10P		200		Water										

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) ASP CC on VOAs

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company		Date/Time:	Company
Relinquished by:	6/27/12, 14:50	C&S	Received by:	6-27-12, 14:50	Syn
Relinquished by: Received by	06.27.12, 16:00	Syn	Received by:	6280 0800	BLO
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.9 C

Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-21938-1

Login Number: 21938

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl

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

Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-21938-1

Login Number: 21938
List Number: 1
Creator: Kelsey, Shawn M

List Source: TestAmerica Chicago
List Creation: 06/29/12 11:05 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-30368-1
Client Project/Site: Midler Quarterly Groundwater

For:
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212

Attn: Mr. Wayne N Randall

Candace L. Fox

Authorized for release by:
1/16/2013 12:11:18 PM

Candace Fox
Project Manager II
candace.fox@testamericainc.com

Table of Contents

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 480-30368-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-30368-1

Comments
No additional comments.

Receipt
The samples were received on 12/18/2012 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.5º C, 2.7º C and 3.1º C.

GC/MS VOA
Method(s) OLC02.1: The following volatiles sample(s) was diluted due to foaming at the time of purging during the original sample analysis: MW-10D (480-30368-4), MW-13D (480-30368-2), MW-14D (480-30368-3), MW-15D (480-30368-5), MW-16D (480-30368-1), MW-16D (480-30368-1 MS), MW-16D (480-30368-1 MSD), MW-9D (480-30368-6). Elevated reporting limits (RLs) are provided.

Method(s) OLC02.1: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: MW-10D (480-30368-4), MW-13D (480-30368-2). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

IC
Method(s) 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: (480-30368-2 MS), MW-13D (480-30368-2), MW-14D (480-30368-3), MW-16D (480-30368-1), MW-10D (480-30368-4), MW-15D (480-30368-5), MW-9D (480-30368-6). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
Method(s) SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MW-10D (480-30368-4), MW-13D (480-30368-2), MW-14D (480-30368-3), MW-15D (480-30368-5), MW-16D (480-30368-1), MW-9D (480-30368-6)

Method(s) SM 3500 FE D: The matrix spike recovery for batch 96493 was outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. (480-30368-4 MS)

Method(s) SM 5310C: The method blank for batch 50320 contained dissolved inorganic carbon above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) SM 5310C: Due to the high concentration of dissolved inorganic carbon, the matrix spike (MS) for batch 50320 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Client Sample ID: MW-16D — Lab Sample ID: 480-30368-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
trans-1,2-Dichloroethene	2.5	J	5.0	2.1	ug/L	5		OLC02.1	Total/NA
Iron	0.11		0.050	0.019	mg/L	1		6010B	Total/NA
Sulfate	69.2		20.0	3.5	mg/L	10		300.0	Total/NA
Ferrous Iron	0.10	HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
Sulfide	16.0		1.0	0.67	mg/L	1		SM 4500 S2 F	Total/NA
Dissolved Inorganic Carbon	115	B	5.0	0.70	mg/L	5		SM 5310C	Dissolved
Dissolved Organic Carbon	16.6		1.0	0.43	mg/L	1		SM5310_D	Dissolved

Client Sample ID: MW-13D — Lab Sample ID: 480-30368-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.9	J	10	1.8	ug/L	10		OLC02.1	Total/NA
trans-1,2-Dichloroethene	28		10	4.3	ug/L	10		OLC02.1	Total/NA
cis-1,2-Dichloroethene - DL	1200		200	68	ug/L	200		OLC02.1	Total/NA
Vinyl chloride - DL	2100		200	54	ug/L	200		OLC02.1	Total/NA
Iron	0.23		0.050	0.019	mg/L	1		6010B	Total/NA
Sulfate	159		10.0	1.7	mg/L	5		300.0	Total/NA
Ferrous Iron	0.094	J HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
Sulfide	24.0		1.0	0.67	mg/L	1		SM 4500 S2 F	Total/NA
Dissolved Inorganic Carbon	54.5	B	2.0	0.28	mg/L	2		SM 5310C	Dissolved
Dissolved Organic Carbon	11.5		1.0	0.43	mg/L	1		SM5310_D	Dissolved

Client Sample ID: MW-14D — Lab Sample ID: 480-30368-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	0.056		0.050	0.019	mg/L	1		6010B	Total/NA
Sulfate	62.6		10.0	1.7	mg/L	5		300.0	Total/NA
Ferrous Iron	0.082	J HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
Sulfide	56.4		1.0	0.67	mg/L	1		SM 4500 S2 F	Total/NA
Dissolved Inorganic Carbon	167	B	10.0	1.4	mg/L	10		SM 5310C	Dissolved
Dissolved Organic Carbon	52.4		1.0	0.43	mg/L	1		SM5310_D	Dissolved

Client Sample ID: MW-10D — Lab Sample ID: 480-30368-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
trans-1,2-Dichloroethene	16		4.0	1.7	ug/L	4		OLC02.1	Total/NA
cis-1,2-Dichloroethene - DL	310		20	6.8	ug/L	20		OLC02.1	Total/NA
Vinyl chloride - DL	320		20	5.4	ug/L	20		OLC02.1	Total/NA
Iron	0.052		0.050	0.019	mg/L	1		6010B	Total/NA
Sulfate	541		20.0	3.5	mg/L	10		300.0	Total/NA
Sulfide	16.8		1.0	0.67	mg/L	1		SM 4500 S2 F	Total/NA
Dissolved Inorganic Carbon	70.4	B	5.0	0.70	mg/L	5		SM 5310C	Dissolved
Dissolved Organic Carbon	5.5		1.0	0.43	mg/L	1		SM5310_D	Dissolved

Client Sample ID: MW-15D — Lab Sample ID: 480-30368-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	5.1		4.0	1.4	ug/L	4		OLC02.1	Total/NA
Iron	0.36		0.050	0.019	mg/L	1		6010B	Total/NA
Sulfate	569		20.0	3.5	mg/L	10		300.0	Total/NA
Ferrous Iron	0.076	J HF	0.10	0.075	mg/L	1		SM 3500 FE D	Total/NA
Sulfide	37.2		1.0	0.67	mg/L	1		SM 4500 S2 F	Total/NA

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Client Sample ID: MW-15D (Continued)

Lab Sample ID: 480-30368-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dissolved Inorganic Carbon	114	B	5.0	0.70	mg/L	5		SM 5310C	Dissolved
Dissolved Organic Carbon	7.7		1.0	0.43	mg/L	1		SM5310_D	Dissolved

Client Sample ID: MW-9D

Lab Sample ID: 480-30368-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	1.2	J	2.0	0.42	ug/L	2		OLC02.1	Total/NA
cis-1,2-Dichloroethene	3.4		2.0	0.68	ug/L	2		OLC02.1	Total/NA
Vinyl chloride	4.6		2.0	0.54	ug/L	2		OLC02.1	Total/NA
Iron	0.049	J	0.050	0.019	mg/L	1		6010B	Total/NA
Sulfate	590		20.0	3.5	mg/L	10		300.0	Total/NA
Sulfide	24.4		1.0	0.67	mg/L	1		SM 4500 S2 F	Total/NA
Dissolved Inorganic Carbon	78.6	B	5.0	0.70	mg/L	5		SM 5310C	Dissolved
Dissolved Organic Carbon	6.4		1.0	0.43	mg/L	1		SM5310_D	Dissolved

Client Sample ID: TB

Lab Sample ID: 480-30368-7

No Detections

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Client Sample ID: MW-16D
Date Collected: 12/17/12 08:00
Date Received: 12/18/12 08:00

Lab Sample ID: 480-30368-1
Matrix: Water

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	1.4	ug/L			12/26/12 11:37	5
1,1,2,2-Tetrachloroethane	ND		5.0	2.0	ug/L			12/26/12 11:37	5
1,1,2-Trichloroethane	ND		5.0	1.0	ug/L			12/26/12 11:37	5
1,1-Dichloroethane	ND		5.0	1.6	ug/L			12/26/12 11:37	5
1,1-Dichloroethene	ND		5.0	1.3	ug/L			12/26/12 11:37	5
1,2,4-Trichlorobenzene	ND		5.0	1.4	ug/L			12/26/12 11:37	5
1,2-Dibromoethane	ND		5.0	1.2	ug/L			12/26/12 11:37	5
1,2-Dichlorobenzene	ND		5.0	0.75	ug/L			12/26/12 11:37	5
1,2-Dichloroethane	ND		5.0	0.80	ug/L			12/26/12 11:37	5
1,2-Dichloropropane	ND		5.0	0.85	ug/L			12/26/12 11:37	5
1,3-Dichlorobenzene	ND		5.0	1.5	ug/L			12/26/12 11:37	5
1,4-Dichlorobenzene	ND		5.0	1.3	ug/L			12/26/12 11:37	5
2-Butanone (MEK)	ND		25	9.1	ug/L			12/26/12 11:37	5
2-Hexanone	ND		25	2.8	ug/L			12/26/12 11:37	5
4-Methyl-2-pentanone (MIBK)	ND		25	5.8	ug/L			12/26/12 11:37	5
Acetone	ND		25	7.3	ug/L			12/26/12 11:37	5
Benzene	ND		5.0	0.90	ug/L			12/26/12 11:37	5
Bromodichloromethane	ND		5.0	1.3	ug/L			12/26/12 11:37	5
Bromoform	ND		5.0	1.5	ug/L			12/26/12 11:37	5
Bromomethane	ND		5.0	1.0	ug/L			12/26/12 11:37	5
Carbon disulfide	ND		5.0	1.1	ug/L			12/26/12 11:37	5
Carbon tetrachloride	ND		5.0	1.5	ug/L			12/26/12 11:37	5
Chlorobenzene	ND		5.0	1.4	ug/L			12/26/12 11:37	5
Dibromochloromethane	ND		5.0	0.75	ug/L			12/26/12 11:37	5
Chloroethane	ND		5.0	0.85	ug/L			12/26/12 11:37	5
Chloroform	ND		5.0	1.4	ug/L			12/26/12 11:37	5
Chloromethane	ND		5.0	1.1	ug/L			12/26/12 11:37	5
cis-1,2-Dichloroethene	ND		5.0	1.7	ug/L			12/26/12 11:37	5
cis-1,3-Dichloropropene	ND		5.0	1.1	ug/L			12/26/12 11:37	5
Ethylbenzene	ND		5.0	1.6	ug/L			12/26/12 11:37	5
Methylene Chloride	ND		10	2.3	ug/L			12/26/12 11:37	5
Styrene	ND		5.0	1.4	ug/L			12/26/12 11:37	5
Tetrachloroethene	ND		5.0	1.8	ug/L			12/26/12 11:37	5
Toluene	ND		5.0	1.5	ug/L			12/26/12 11:37	5
trans-1,2-Dichloroethene	**2.5**	**J**	5.0	2.1	ug/L			12/26/12 11:37	5
trans-1,3-Dichloropropene	ND		5.0	1.5	ug/L			12/26/12 11:37	5
Trichloroethene	ND		5.0	1.3	ug/L			12/26/12 11:37	5
Vinyl chloride	ND		5.0	1.4	ug/L			12/26/12 11:37	5
Xylenes, Total	ND		5.0	2.1	ug/L			12/26/12 11:37	5
m-Xylene & p-Xylene	ND		5.0	2.1	ug/L			12/26/12 11:37	5
o-Xylene	ND		5.0	2.1	ug/L			12/26/12 11:37	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*12/26/12 11:37*	*5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.11**		0.050	0.019	mg/L		12/19/12 08:00	12/19/12 16:19	1

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Client Sample ID: MW-16D

Lab Sample ID: 480-30368-1

Date Collected: 12/17/12 08:00

Matrix: Water

Date Received: 12/18/12 08:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**69.2**		20.0	3.5	mg/L			12/18/12 23:23	10
Nitrate as N	ND		0.050	0.011	mg/L			12/18/12 18:36	1
Ferrous Iron	**0.10**	**HF**	0.10	0.075	mg/L			12/18/12 23:25	1
Sulfide	**16.0**		1.0	0.67	mg/L			12/20/12 16:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon	**115**	**B**	5.0	0.70	mg/L			01/10/13 16:57	5
Dissolved Organic Carbon	**16.6**		1.0	0.43	mg/L			12/21/12 16:39	1

Client Sample ID: MW-13D

Lab Sample ID: 480-30368-2

Date Collected: 12/17/12 09:00

Matrix: Water

Date Received: 12/18/12 08:00

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	2.8	ug/L			12/26/12 12:52	10
1,1,2,2-Tetrachloroethane	ND		10	3.9	ug/L			12/26/12 12:52	10
1,1,2-Trichloroethane	ND		10	2.0	ug/L			12/26/12 12:52	10
1,1-Dichloroethane	ND		10	3.2	ug/L			12/26/12 12:52	10
1,1-Dichloroethene	ND		10	2.6	ug/L			12/26/12 12:52	10
1,2,4-Trichlorobenzene	ND		10	2.7	ug/L			12/26/12 12:52	10
1,2-Dibromoethane	ND		10	2.5	ug/L			12/26/12 12:52	10
1,2-Dichlorobenzene	ND		10	1.5	ug/L			12/26/12 12:52	10
1,2-Dichloroethane	ND		10	1.6	ug/L			12/26/12 12:52	10
1,2-Dichloropropane	ND		10	1.7	ug/L			12/26/12 12:52	10
1,3-Dichlorobenzene	ND		10	2.9	ug/L			12/26/12 12:52	10
1,4-Dichlorobenzene	ND		10	2.7	ug/L			12/26/12 12:52	10
2-Butanone (MEK)	ND		50	18	ug/L			12/26/12 12:52	10
2-Hexanone	ND		50	5.5	ug/L			12/26/12 12:52	10
4-Methyl-2-pentanone (MIBK)	ND		50	12	ug/L			12/26/12 12:52	10
Acetone	ND		50	15	ug/L			12/26/12 12:52	10
Benzene	**3.9**	**J**	10	1.8	ug/L			12/26/12 12:52	10
Bromodichloromethane	ND		10	2.6	ug/L			12/26/12 12:52	10
Bromoform	ND		10	3.0	ug/L			12/26/12 12:52	10
Bromomethane	ND		10	2.0	ug/L			12/26/12 12:52	10
Carbon disulfide	ND		10	2.1	ug/L			12/26/12 12:52	10
Carbon tetrachloride	ND		10	3.0	ug/L			12/26/12 12:52	10
Chlorobenzene	ND		10	2.9	ug/L			12/26/12 12:52	10
Dibromochloromethane	ND		10	1.5	ug/L			12/26/12 12:52	10
Chloroethane	ND		10	1.7	ug/L			12/26/12 12:52	10
Chloroform	ND		10	2.8	ug/L			12/26/12 12:52	10
Chloromethane	ND		10	2.2	ug/L			12/26/12 12:52	10
cis-1,3-Dichloropropene	ND		10	2.2	ug/L			12/26/12 12:52	10
Ethylbenzene	ND		10	3.2	ug/L			12/26/12 12:52	10
Methylene Chloride	ND		20	4.6	ug/L			12/26/12 12:52	10
Styrene	ND		10	2.8	ug/L			12/26/12 12:52	10
Tetrachloroethene	ND		10	3.5	ug/L			12/26/12 12:52	10
Toluene	ND		10	3.0	ug/L			12/26/12 12:52	10
trans-1,2-Dichloroethene	**28**		10	4.3	ug/L			12/26/12 12:52	10

Client Sample ID: MW-13D

Date Collected: 12/17/12 09:00
Date Received: 12/18/12 08:00

Lab Sample ID: 480-30368-2
Matrix: Water

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		10	2.9	ug/L			12/26/12 12:52	10
Trichloroethene	ND		10	2.7	ug/L			12/26/12 12:52	10
Xylenes, Total	ND		10	4.2	ug/L			12/26/12 12:52	10
m-Xylene & p-Xylene	ND		10	4.2	ug/L			12/26/12 12:52	10
o-Xylene	ND		10	4.2	ug/L			12/26/12 12:52	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/26/12 12:52*	*10*

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**1200**		200	68	ug/L			12/26/12 15:58	200
Vinyl chloride	**2100**		200	54	ug/L			12/26/12 15:58	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/26/12 15:58*	*200*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.23**		0.050	0.019	mg/L		12/19/12 08:00	12/19/12 16:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**159**		10.0	1.7	mg/L			12/18/12 23:33	5
Nitrate as N	ND		0.050	0.011	mg/L			12/18/12 18:37	1
Ferrous Iron	**0.094**	**J HF**	0.10	0.075	mg/L			12/18/12 23:25	1
Sulfide	**24.0**		1.0	0.67	mg/L			12/20/12 16:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon	**54.5**	**B**	2.0	0.28	mg/L			01/10/13 16:57	2
Dissolved Organic Carbon	**11.5**		1.0	0.43	mg/L			12/21/12 17:05	1

Client Sample ID: MW-14D

Date Collected: 12/17/12 10:00
Date Received: 12/18/12 08:00

Lab Sample ID: 480-30368-3
Matrix: Water

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	5.7	ug/L			12/26/12 13:17	20
1,1,2,2-Tetrachloroethane	ND		20	7.8	ug/L			12/26/12 13:17	20
1,1,2-Trichloroethane	ND		20	4.0	ug/L			12/26/12 13:17	20
1,1-Dichloroethane	ND		20	6.3	ug/L			12/26/12 13:17	20
1,1-Dichloroethene	ND		20	5.2	ug/L			12/26/12 13:17	20
1,2,4-Trichlorobenzene	ND		20	5.4	ug/L			12/26/12 13:17	20
1,2-Dibromoethane	ND		20	4.9	ug/L			12/26/12 13:17	20
1,2-Dichlorobenzene	ND		20	3.0	ug/L			12/26/12 13:17	20
1,2-Dichloroethane	ND		20	3.2	ug/L			12/26/12 13:17	20
1,2-Dichloropropane	ND		20	3.4	ug/L			12/26/12 13:17	20
1,3-Dichlorobenzene	ND		20	5.9	ug/L			12/26/12 13:17	20
1,4-Dichlorobenzene	ND		20	5.3	ug/L			12/26/12 13:17	20

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Client Sample ID: MW-14D
Date Collected: 12/17/12 10:00
Date Received: 12/18/12 08:00

Lab Sample ID: 480-30368-3
Matrix: Water

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		100	36	ug/L			12/26/12 13:17	20
2-Hexanone	ND		100	11	ug/L			12/26/12 13:17	20
4-Methyl-2-pentanone (MIBK)	ND		100	23	ug/L			12/26/12 13:17	20
Acetone	ND		100	29	ug/L			12/26/12 13:17	20
Benzene	ND		20	3.6	ug/L			12/26/12 13:17	20
Bromodichloromethane	ND		20	5.1	ug/L			12/26/12 13:17	20
Bromoform	ND		20	6.0	ug/L			12/26/12 13:17	20
Bromomethane	ND		20	4.0	ug/L			12/26/12 13:17	20
Carbon disulfide	ND		20	4.2	ug/L			12/26/12 13:17	20
Carbon tetrachloride	ND		20	6.0	ug/L			12/26/12 13:17	20
Chlorobenzene	ND		20	5.7	ug/L			12/26/12 13:17	20
Dibromochloromethane	ND		20	3.0	ug/L			12/26/12 13:17	20
Chloroethane	ND		20	3.4	ug/L			12/26/12 13:17	20
Chloroform	ND		20	5.6	ug/L			12/26/12 13:17	20
Chloromethane	ND		20	4.4	ug/L			12/26/12 13:17	20
cis-1,2-Dichloroethene	ND		20	6.8	ug/L			12/26/12 13:17	20
cis-1,3-Dichloropropene	ND		20	4.3	ug/L			12/26/12 13:17	20
Ethylbenzene	ND		20	6.3	ug/L			12/26/12 13:17	20
Methylene Chloride	ND		40	9.2	ug/L			12/26/12 13:17	20
Styrene	ND		20	5.6	ug/L			12/26/12 13:17	20
Tetrachloroethene	ND		20	7.0	ug/L			12/26/12 13:17	20
Toluene	ND		20	6.1	ug/L			12/26/12 13:17	20
trans-1,2-Dichloroethene	ND		20	8.5	ug/L			12/26/12 13:17	20
trans-1,3-Dichloropropene	ND		20	5.9	ug/L			12/26/12 13:17	20
Trichloroethene	ND		20	5.4	ug/L			12/26/12 13:17	20
Vinyl chloride	ND		20	5.4	ug/L			12/26/12 13:17	20
Xylenes, Total	ND		20	8.4	ug/L			12/26/12 13:17	20
m-Xylene & p-Xylene	ND		20	8.4	ug/L			12/26/12 13:17	20
o-Xylene	ND		20	8.4	ug/L			12/26/12 13:17	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/26/12 13:17*	*20*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.056**		0.050	0.019	mg/L		12/19/12 08:00	12/19/12 16:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**62.6**		10.0	1.7	mg/L			12/19/12 00:14	5
Nitrate as N	ND		0.050	0.011	mg/L			12/18/12 18:38	1
Ferrous Iron	**0.082**	**J HF**	0.10	0.075	mg/L			12/18/12 23:25	1
Sulfide	**56.4**		1.0	0.67	mg/L			12/20/12 16:13	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon	**167**	**B**	10.0	1.4	mg/L			01/10/13 16:57	10
Dissolved Organic Carbon	**52.4**		1.0	0.43	mg/L			12/21/12 17:31	1

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Client Sample ID: MW-10D
Date Collected: 12/17/12 11:30
Date Received: 12/18/12 08:00

Lab Sample ID: 480-30368-4
Matrix: Water

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	1.1	ug/L			12/26/12 13:42	4
1,1,2,2-Tetrachloroethane	ND		4.0	1.6	ug/L			12/26/12 13:42	4
1,1,2-Trichloroethane	ND		4.0	0.80	ug/L			12/26/12 13:42	4
1,1-Dichloroethane	ND		4.0	1.3	ug/L			12/26/12 13:42	4
1,1-Dichloroethene	ND		4.0	1.0	ug/L			12/26/12 13:42	4
1,2,4-Trichlorobenzene	ND		4.0	1.1	ug/L			12/26/12 13:42	4
1,2-Dibromoethane	ND		4.0	0.98	ug/L			12/26/12 13:42	4
1,2-Dichlorobenzene	ND		4.0	0.60	ug/L			12/26/12 13:42	4
1,2-Dichloroethane	ND		4.0	0.64	ug/L			12/26/12 13:42	4
1,2-Dichloropropane	ND		4.0	0.68	ug/L			12/26/12 13:42	4
1,3-Dichlorobenzene	ND		4.0	1.2	ug/L			12/26/12 13:42	4
1,4-Dichlorobenzene	ND		4.0	1.1	ug/L			12/26/12 13:42	4
2-Butanone (MEK)	ND		20	7.2	ug/L			12/26/12 13:42	4
2-Hexanone	ND		20	2.2	ug/L			12/26/12 13:42	4
4-Methyl-2-pentanone (MIBK)	ND		20	4.6	ug/L			12/26/12 13:42	4
Acetone	ND		20	5.8	ug/L			12/26/12 13:42	4
Benzene	ND		4.0	0.72	ug/L			12/26/12 13:42	4
Bromodichloromethane	ND		4.0	1.0	ug/L			12/26/12 13:42	4
Bromoform	ND		4.0	1.2	ug/L			12/26/12 13:42	4
Bromomethane	ND		4.0	0.80	ug/L			12/26/12 13:42	4
Carbon disulfide	ND		4.0	0.84	ug/L			12/26/12 13:42	4
Carbon tetrachloride	ND		4.0	1.2	ug/L			12/26/12 13:42	4
Chlorobenzene	ND		4.0	1.1	ug/L			12/26/12 13:42	4
Dibromochloromethane	ND		4.0	0.60	ug/L			12/26/12 13:42	4
Chloroethane	ND		4.0	0.68	ug/L			12/26/12 13:42	4
Chloroform	ND		4.0	1.1	ug/L			12/26/12 13:42	4
Chloromethane	ND		4.0	0.88	ug/L			12/26/12 13:42	4
cis-1,3-Dichloropropene	ND		4.0	0.86	ug/L			12/26/12 13:42	4
Ethylbenzene	ND		4.0	1.3	ug/L			12/26/12 13:42	4
Methylene Chloride	ND		8.0	1.8	ug/L			12/26/12 13:42	4
Styrene	ND		4.0	1.1	ug/L			12/26/12 13:42	4
Tetrachloroethene	ND		4.0	1.4	ug/L			12/26/12 13:42	4
Toluene	ND		4.0	1.2	ug/L			12/26/12 13:42	4
trans-1,2-Dichloroethene	**16**		4.0	1.7	ug/L			12/26/12 13:42	4
trans-1,3-Dichloropropene	ND		4.0	1.2	ug/L			12/26/12 13:42	4
Trichloroethene	ND		4.0	1.1	ug/L			12/26/12 13:42	4
Xylenes, Total	ND		4.0	1.7	ug/L			12/26/12 13:42	4
m-Xylene & p-Xylene	ND		4.0	1.7	ug/L			12/26/12 13:42	4
o-Xylene	ND		4.0	1.7	ug/L			12/26/12 13:42	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/26/12 13:42*	*4*

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**310**		20	6.8	ug/L			12/26/12 16:23	20
Vinyl chloride	**320**		20	5.4	ug/L			12/26/12 16:23	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/26/12 16:23*	*20*

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Client Sample ID: MW-10D

Lab Sample ID: 480-30368-4

Date Collected: 12/17/12 11:30

Matrix: Water

Date Received: 12/18/12 08:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.052**		0.050	0.019	mg/L		12/19/12 08:00	12/19/12 16:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**541**		20.0	3.5	mg/L			12/20/12 19:58	10
Nitrate as N	ND		0.050	0.011	mg/L			12/18/12 18:39	1
Ferrous Iron	ND	HF	0.10	0.075	mg/L			12/18/12 23:25	1
Sulfide	**16.8**		1.0	0.67	mg/L			12/20/12 16:34	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon	**70.4**	**B**	5.0	0.70	mg/L			01/10/13 16:57	5
Dissolved Organic Carbon	**5.5**		1.0	0.43	mg/L			12/21/12 17:57	1

Client Sample ID: MW-15D

Lab Sample ID: 480-30368-5

Date Collected: 12/17/12 12:15

Matrix: Water

Date Received: 12/18/12 08:00

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	1.1	ug/L			12/26/12 16:48	4
1,1,2,2-Tetrachloroethane	ND		4.0	1.6	ug/L			12/26/12 16:48	4
1,1,2-Trichloroethane	ND		4.0	0.80	ug/L			12/26/12 16:48	4
1,1-Dichloroethane	ND		4.0	1.3	ug/L			12/26/12 16:48	4
1,1-Dichloroethene	ND		4.0	1.0	ug/L			12/26/12 16:48	4
1,2,4-Trichlorobenzene	ND		4.0	1.1	ug/L			12/26/12 16:48	4
1,2-Dibromoethane	ND		4.0	0.98	ug/L			12/26/12 16:48	4
1,2-Dichlorobenzene	ND		4.0	0.60	ug/L			12/26/12 16:48	4
1,2-Dichloroethane	ND		4.0	0.64	ug/L			12/26/12 16:48	4
1,2-Dichloropropane	ND		4.0	0.68	ug/L			12/26/12 16:48	4
1,3-Dichlorobenzene	ND		4.0	1.2	ug/L			12/26/12 16:48	4
1,4-Dichlorobenzene	ND		4.0	1.1	ug/L			12/26/12 16:48	4
2-Butanone (MEK)	ND		20	7.2	ug/L			12/26/12 16:48	4
2-Hexanone	ND		20	2.2	ug/L			12/26/12 16:48	4
4-Methyl-2-pentanone (MIBK)	ND		20	4.6	ug/L			12/26/12 16:48	4
Acetone	ND		20	5.8	ug/L			12/26/12 16:48	4
Benzene	ND		4.0	0.72	ug/L			12/26/12 16:48	4
Bromodichloromethane	ND		4.0	1.0	ug/L			12/26/12 16:48	4
Bromoform	ND		4.0	1.2	ug/L			12/26/12 16:48	4
Bromomethane	ND		4.0	0.80	ug/L			12/26/12 16:48	4
Carbon disulfide	ND		4.0	0.84	ug/L			12/26/12 16:48	4
Carbon tetrachloride	ND		4.0	1.2	ug/L			12/26/12 16:48	4
Chlorobenzene	ND		4.0	1.1	ug/L			12/26/12 16:48	4
Dibromochloromethane	ND		4.0	0.60	ug/L			12/26/12 16:48	4
Chloroethane	ND		4.0	0.68	ug/L			12/26/12 16:48	4
Chloroform	ND		4.0	1.1	ug/L			12/26/12 16:48	4
Chloromethane	ND		4.0	0.88	ug/L			12/26/12 16:48	4
cis-1,2-Dichloroethene	**5.1**		4.0	1.4	ug/L			12/26/12 16:48	4
cis-1,3-Dichloropropene	ND		4.0	0.86	ug/L			12/26/12 16:48	4
Ethylbenzene	ND		4.0	1.3	ug/L			12/26/12 16:48	4

Client Sample ID: MW-15D

Lab Sample ID: 480-30368-5

Date Collected: 12/17/12 12:15

Matrix: Water

Date Received: 12/18/12 08:00

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		8.0	1.8	ug/L			12/26/12 16:48	4
Styrene	ND		4.0	1.1	ug/L			12/26/12 16:48	4
Tetrachloroethene	ND		4.0	1.4	ug/L			12/26/12 16:48	4
Toluene	ND		4.0	1.2	ug/L			12/26/12 16:48	4
trans-1,2-Dichloroethene	ND		4.0	1.7	ug/L			12/26/12 16:48	4
trans-1,3-Dichloropropene	ND		4.0	1.2	ug/L			12/26/12 16:48	4
Trichloroethene	ND		4.0	1.1	ug/L			12/26/12 16:48	4
Vinyl chloride	ND		4.0	1.1	ug/L			12/26/12 16:48	4
Xylenes, Total	ND		4.0	1.7	ug/L			12/26/12 16:48	4
m-Xylene & p-Xylene	ND		4.0	1.7	ug/L			12/26/12 16:48	4
o-Xylene	ND		4.0	1.7	ug/L			12/26/12 16:48	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*12/26/12 16:48*	*4*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.36**		0.050	0.019	mg/L		12/19/12 08:00	12/19/12 16:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**569**		20.0	3.5	mg/L			12/20/12 20:08	10
Nitrate as N	ND		0.050	0.011	mg/L			12/18/12 18:40	1
Ferrous Iron	**0.076**	**J HF**	0.10	0.075	mg/L			12/18/12 23:25	1
Sulfide	**37.2**		1.0	0.67	mg/L			12/20/12 17:04	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon	**114**	**B**	5.0	0.70	mg/L			01/10/13 16:57	5
Dissolved Organic Carbon	**7.7**		1.0	0.43	mg/L			12/21/12 18:23	1

Client Sample ID: MW-9D

Lab Sample ID: 480-30368-6

Date Collected: 12/17/12 13:00

Matrix: Water

Date Received: 12/18/12 08:00

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	0.57	ug/L			12/26/12 14:32	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.78	ug/L			12/26/12 14:32	2
1,1,2-Trichloroethane	ND		2.0	0.40	ug/L			12/26/12 14:32	2
1,1-Dichloroethane	ND		2.0	0.63	ug/L			12/26/12 14:32	2
1,1-Dichloroethene	ND		2.0	0.52	ug/L			12/26/12 14:32	2
1,2,4-Trichlorobenzene	ND		2.0	0.54	ug/L			12/26/12 14:32	2
1,2-Dibromoethane	ND		2.0	0.49	ug/L			12/26/12 14:32	2
1,2-Dichlorobenzene	ND		2.0	0.30	ug/L			12/26/12 14:32	2
1,2-Dichloroethane	ND		2.0	0.32	ug/L			12/26/12 14:32	2
1,2-Dichloropropane	ND		2.0	0.34	ug/L			12/26/12 14:32	2
1,3-Dichlorobenzene	ND		2.0	0.59	ug/L			12/26/12 14:32	2
1,4-Dichlorobenzene	ND		2.0	0.53	ug/L			12/26/12 14:32	2
2-Butanone (MEK)	ND		10	3.6	ug/L			12/26/12 14:32	2
2-Hexanone	ND		10	1.1	ug/L			12/26/12 14:32	2

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Client Sample ID: MW-9D
Date Collected: 12/17/12 13:00
Date Received: 12/18/12 08:00

Lab Sample ID: 480-30368-6
Matrix: Water

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		10	2.3	ug/L			12/26/12 14:32	2
Acetone	ND		10	2.9	ug/L			12/26/12 14:32	2
Benzene	ND		2.0	0.36	ug/L			12/26/12 14:32	2
Bromodichloromethane	ND		2.0	0.51	ug/L			12/26/12 14:32	2
Bromoform	ND		2.0	0.60	ug/L			12/26/12 14:32	2
Bromomethane	ND		2.0	0.40	ug/L			12/26/12 14:32	2
Carbon disulfide	**1.2**	**J**	2.0	0.42	ug/L			12/26/12 14:32	2
Carbon tetrachloride	ND		2.0	0.60	ug/L			12/26/12 14:32	2
Chlorobenzene	ND		2.0	0.57	ug/L			12/26/12 14:32	2
Dibromochloromethane	ND		2.0	0.30	ug/L			12/26/12 14:32	2
Chloroethane	ND		2.0	0.34	ug/L			12/26/12 14:32	2
Chloroform	ND		2.0	0.56	ug/L			12/26/12 14:32	2
Chloromethane	ND		2.0	0.44	ug/L			12/26/12 14:32	2
cis-1,2-Dichloroethene	**3.4**		2.0	0.68	ug/L			12/26/12 14:32	2
cis-1,3-Dichloropropene	ND		2.0	0.43	ug/L			12/26/12 14:32	2
Ethylbenzene	ND		2.0	0.63	ug/L			12/26/12 14:32	2
Methylene Chloride	ND		4.0	0.92	ug/L			12/26/12 14:32	2
Styrene	ND		2.0	0.56	ug/L			12/26/12 14:32	2
Tetrachloroethene	ND		2.0	0.70	ug/L			12/26/12 14:32	2
Toluene	ND		2.0	0.61	ug/L			12/26/12 14:32	2
trans-1,2-Dichloroethene	ND		2.0	0.85	ug/L			12/26/12 14:32	2
trans-1,3-Dichloropropene	ND		2.0	0.59	ug/L			12/26/12 14:32	2
Trichloroethene	ND		2.0	0.54	ug/L			12/26/12 14:32	2
Vinyl chloride	**4.6**		2.0	0.54	ug/L			12/26/12 14:32	2
Xylenes, Total	ND		2.0	0.84	ug/L			12/26/12 14:32	2
m-Xylene & p-Xylene	ND		2.0	0.84	ug/L			12/26/12 14:32	2
o-Xylene	ND		2.0	0.84	ug/L			12/26/12 14:32	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/26/12 14:32*	*2*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**0.049**	**J**	0.050	0.019	mg/L		12/19/12 08:00	12/19/12 16:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**590**		20.0	3.5	mg/L			12/20/12 20:18	10
Nitrate as N	ND		0.050	0.011	mg/L			12/18/12 18:42	1
Ferrous Iron	ND	HF	0.10	0.075	mg/L			12/18/12 23:25	1
Sulfide	**24.4**		1.0	0.67	mg/L			12/20/12 17:15	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon	**78.6**	**B**	5.0	0.70	mg/L			01/10/13 16:57	5
Dissolved Organic Carbon	**6.4**		1.0	0.43	mg/L			12/21/12 18:49	1

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Client Sample ID: TB
Date Collected: 12/17/12 00:00
Date Received: 12/18/12 08:00

Lab Sample ID: 480-30368-7
Matrix: Water

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.28	ug/L			12/26/12 14:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.39	ug/L			12/26/12 14:57	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			12/26/12 14:57	1
1,1-Dichloroethane	ND		1.0	0.32	ug/L			12/26/12 14:57	1
1,1-Dichloroethene	ND		1.0	0.26	ug/L			12/26/12 14:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.27	ug/L			12/26/12 14:57	1
1,2-Dibromoethane	ND		1.0	0.25	ug/L			12/26/12 14:57	1
1,2-Dichlorobenzene	ND		1.0	0.15	ug/L			12/26/12 14:57	1
1,2-Dichloroethane	ND		1.0	0.16	ug/L			12/26/12 14:57	1
1,2-Dichloropropane	ND		1.0	0.17	ug/L			12/26/12 14:57	1
1,3-Dichlorobenzene	ND		1.0	0.29	ug/L			12/26/12 14:57	1
1,4-Dichlorobenzene	ND		1.0	0.27	ug/L			12/26/12 14:57	1
2-Butanone (MEK)	ND		5.0	1.8	ug/L			12/26/12 14:57	1
2-Hexanone	ND		5.0	0.55	ug/L			12/26/12 14:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.2	ug/L			12/26/12 14:57	1
Acetone	ND		5.0	1.5	ug/L			12/26/12 14:57	1
Benzene	ND		1.0	0.18	ug/L			12/26/12 14:57	1
Bromodichloromethane	ND		1.0	0.26	ug/L			12/26/12 14:57	1
Bromoform	ND		1.0	0.30	ug/L			12/26/12 14:57	1
Bromomethane	ND		1.0	0.20	ug/L			12/26/12 14:57	1
Carbon disulfide	ND		1.0	0.21	ug/L			12/26/12 14:57	1
Carbon tetrachloride	ND		1.0	0.30	ug/L			12/26/12 14:57	1
Chlorobenzene	ND		1.0	0.29	ug/L			12/26/12 14:57	1
Dibromochloromethane	ND		1.0	0.15	ug/L			12/26/12 14:57	1
Chloroethane	ND		1.0	0.17	ug/L			12/26/12 14:57	1
Chloroform	ND		1.0	0.28	ug/L			12/26/12 14:57	1
Chloromethane	ND		1.0	0.22	ug/L			12/26/12 14:57	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/L			12/26/12 14:57	1
cis-1,3-Dichloropropene	ND		1.0	0.22	ug/L			12/26/12 14:57	1
Ethylbenzene	ND		1.0	0.32	ug/L			12/26/12 14:57	1
Methylene Chloride	ND		2.0	0.46	ug/L			12/26/12 14:57	1
Styrene	ND		1.0	0.28	ug/L			12/26/12 14:57	1
Tetrachloroethene	ND		1.0	0.35	ug/L			12/26/12 14:57	1
Toluene	ND		1.0	0.30	ug/L			12/26/12 14:57	1
trans-1,2-Dichloroethene	ND		1.0	0.43	ug/L			12/26/12 14:57	1
trans-1,3-Dichloropropene	ND		1.0	0.29	ug/L			12/26/12 14:57	1
Trichloroethene	ND		1.0	0.27	ug/L			12/26/12 14:57	1
Vinyl chloride	ND		1.0	0.27	ug/L			12/26/12 14:57	1
Xylenes, Total	ND		1.0	0.42	ug/L			12/26/12 14:57	1
m-Xylene & p-Xylene	ND		1.0	0.42	ug/L			12/26/12 14:57	1
o-Xylene	ND		1.0	0.42	ug/L			12/26/12 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/26/12 14:57*	*1*

Surrogate Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		BFB							
Lab Sample ID	Client Sample ID	(80-120)							
480-30368-1	MW-16D	99							
480-30368-1 MS	MW-16D	107							
480-30368-1 MSD	MW-16D	105							
480-30368-2 - DL	MW-13D	101							
480-30368-2	MW-13D	102							
480-30368-3	MW-14D	101							
480-30368-4	MW-10D	102							
480-30368-4 - DL	MW-10D	100							
480-30368-5	MW-15D	103							
480-30368-6	MW-9D	102							
480-30368-7	TB	101							
LCS 480-97346/4	Lab Control Sample	102							
MB 480-97346/5	Method Blank	103							

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS)

Lab Sample ID: MB 480-97346/5
Matrix: Water
Analysis Batch: 97346

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.28	ug/L			12/26/12 10:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.39	ug/L			12/26/12 10:59	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			12/26/12 10:59	1
1,1-Dichloroethane	ND		1.0	0.32	ug/L			12/26/12 10:59	1
1,1-Dichloroethene	ND		1.0	0.26	ug/L			12/26/12 10:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.27	ug/L			12/26/12 10:59	1
1,2-Dibromoethane	ND		1.0	0.25	ug/L			12/26/12 10:59	1
1,2-Dichlorobenzene	ND		1.0	0.15	ug/L			12/26/12 10:59	1
1,2-Dichloroethane	ND		1.0	0.16	ug/L			12/26/12 10:59	1
1,2-Dichloropropane	ND		1.0	0.17	ug/L			12/26/12 10:59	1
1,3-Dichlorobenzene	ND		1.0	0.29	ug/L			12/26/12 10:59	1
1,4-Dichlorobenzene	ND		1.0	0.27	ug/L			12/26/12 10:59	1
2-Butanone (MEK)	ND		5.0	1.8	ug/L			12/26/12 10:59	1
2-Hexanone	ND		5.0	0.55	ug/L			12/26/12 10:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	1.2	ug/L			12/26/12 10:59	1
Acetone	ND		5.0	1.5	ug/L			12/26/12 10:59	1
Benzene	ND		1.0	0.18	ug/L			12/26/12 10:59	1
Bromodichloromethane	ND		1.0	0.26	ug/L			12/26/12 10:59	1
Bromoform	ND		1.0	0.30	ug/L			12/26/12 10:59	1
Bromomethane	ND		1.0	0.20	ug/L			12/26/12 10:59	1
Carbon disulfide	ND		1.0	0.21	ug/L			12/26/12 10:59	1
Carbon tetrachloride	ND		1.0	0.30	ug/L			12/26/12 10:59	1
Chlorobenzene	ND		1.0	0.29	ug/L			12/26/12 10:59	1
Dibromochloromethane	ND		1.0	0.15	ug/L			12/26/12 10:59	1
Chloroethane	ND		1.0	0.17	ug/L			12/26/12 10:59	1
Chloroform	ND		1.0	0.28	ug/L			12/26/12 10:59	1
Chloromethane	ND		1.0	0.22	ug/L			12/26/12 10:59	1
cis-1,2-Dichloroethene	ND		1.0	0.34	ug/L			12/26/12 10:59	1
cis-1,3-Dichloropropene	ND		1.0	0.22	ug/L			12/26/12 10:59	1
Ethylbenzene	ND		1.0	0.32	ug/L			12/26/12 10:59	1
Methylene Chloride	ND		2.0	0.46	ug/L			12/26/12 10:59	1
Styrene	ND		1.0	0.28	ug/L			12/26/12 10:59	1
Tetrachloroethene	ND		1.0	0.35	ug/L			12/26/12 10:59	1
Toluene	ND		1.0	0.30	ug/L			12/26/12 10:59	1
trans-1,2-Dichloroethene	ND		1.0	0.43	ug/L			12/26/12 10:59	1
trans-1,3-Dichloropropene	ND		1.0	0.29	ug/L			12/26/12 10:59	1
Trichloroethene	ND		1.0	0.27	ug/L			12/26/12 10:59	1
Vinyl chloride	ND		1.0	0.27	ug/L			12/26/12 10:59	1
Xylenes, Total	ND		1.0	0.42	ug/L			12/26/12 10:59	1
m-Xylene & p-Xylene	ND		1.0	0.42	ug/L			12/26/12 10:59	1
o-Xylene	ND		1.0	0.42	ug/L			12/26/12 10:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*12/26/12 10:59*	*1*

Method: OLC02.1 - Volatile Organic Compounds, Low Concetration (GC/MS) (Continued)

Lab Sample ID: LCS 480-97346/4
Matrix: Water
Analysis Batch: 97346

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			5.00	4.94		ug/L		99	60 - 140		
Benzene			5.00	5.04		ug/L		101	60 - 140		
Chlorobenzene			5.00	4.93		ug/L		99	60 - 140		
Toluene			5.00	4.93		ug/L		99	60 - 140		
Trichloroethene			5.00	5.26		ug/L		105	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*

Lab Sample ID: 480-30368-1 MS
Matrix: Water
Analysis Batch: 97346

Client Sample ID: MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene	ND		25.0	30.9		ug/L		124	60 - 140		
Benzene	ND		25.0	28.7		ug/L		115	60 - 140		
Chlorobenzene	ND		25.0	27.5		ug/L		110	60 - 140		
Toluene	ND		25.0	28.1		ug/L		113	60 - 140		
Trichloroethene	ND		25.0	29.6		ug/L		118	60 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*

Lab Sample ID: 480-30368-1 MSD
Matrix: Water
Analysis Batch: 97346

Client Sample ID: MW-16D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		25.0	29.5		ug/L		118	60 - 140	5	20
Benzene	ND		25.0	27.4		ug/L		110	60 - 140	4	20
Chlorobenzene	ND		25.0	26.3		ug/L		105	60 - 140	4	20
Toluene	ND		25.0	27.0		ug/L		108	60 - 140	4	20
Trichloroethene	ND		25.0	28.5		ug/L		114	60 - 140	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-96426/1-A
Matrix: Water
Analysis Batch: 96766

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 96426

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	0.019	mg/L		12/19/12 08:00	12/19/12 15:51	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-96426/2-A
Matrix: Water
Analysis Batch: 96766

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 96426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10.0	10.11		mg/L		101	80 - 120

Lab Sample ID: 480-30368-3 MS
Matrix: Water
Analysis Batch: 96766

Client Sample ID: MW-14D
Prep Type: Total/NA
Prep Batch: 96426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.056		10.0	10.16		mg/L		101	75 - 125

Lab Sample ID: 480-30368-3 MSD
Matrix: Water
Analysis Batch: 96766

Client Sample ID: MW-14D
Prep Type: Total/NA
Prep Batch: 96426

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	0.056		10.0	10.17		mg/L		101	75 - 125	0	20

Method: 300.0 - Sulfate

Lab Sample ID: MB 480-96404/52
Matrix: Water
Analysis Batch: 96404

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		2.0	0.35	mg/L			12/18/12 22:22	1

Lab Sample ID: LCS 480-96404/51
Matrix: Water
Analysis Batch: 96404

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.63		mg/L		98	90 - 110

Lab Sample ID: 480-30368-2 MS
Matrix: Water
Analysis Batch: 96404

Client Sample ID: MW-13D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	159		125	284.4		mg/L		100	90 - 110

Lab Sample ID: MB 480-96842/28
Matrix: Water
Analysis Batch: 96842

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		2.0	0.35	mg/L			12/20/12 17:56	1

Method: 300.0 - Sulfate (Continued)

Lab Sample ID: LCS 480-96842/27
Matrix: Water
Analysis Batch: 96842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.68		mg/L		98	90 - 110

Method: SM 3500 FE D - Iron, Ferrous and Ferric

Lab Sample ID: MB 480-96493/3
Matrix: Water
Analysis Batch: 96493

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ferrous Iron	ND		0.10	0.075	mg/L			12/18/12 23:25	1

Lab Sample ID: LCS 480-96493/4
Matrix: Water
Analysis Batch: 96493

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	2.00	1.88		mg/L		94	90 - 110

Lab Sample ID: 480-30368-4 MS
Matrix: Water
Analysis Batch: 96493

Client Sample ID: MW-10D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ferrous Iron	ND	HF	1.00	1.29	F	mg/L		129	90 - 110

Lab Sample ID: 480-30368-2 DU
Matrix: Water
Analysis Batch: 96493

Client Sample ID: MW-13D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ferrous Iron	0.094	J HF	0.0758	J	mg/L		22	20

Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 480-96924/27
Matrix: Water
Analysis Batch: 96924

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0	0.67	mg/L			12/20/12 16:54	1

Lab Sample ID: MB 480-96924/3
Matrix: Water
Analysis Batch: 96924

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0	0.67	mg/L			12/20/12 14:52	1

Method: SM 4500 S2 F - Sulfide, Total (Continued)

Lab Sample ID: LCS 480-96924/28
Matrix: Water
Analysis Batch: 96924

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	10.0	9.60		mg/L		96	90 - 110

Lab Sample ID: LCS 480-96924/4
Matrix: Water
Analysis Batch: 96924

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	10.0	9.60		mg/L		96	90 - 110

Lab Sample ID: 480-30368-4 MS
Matrix: Water
Analysis Batch: 96924

Client Sample ID: MW-10D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	16.8		5.00	23.20		mg/L		128	40 - 150

Lab Sample ID: 480-30368-3 DU
Matrix: Water
Analysis Batch: 96924

Client Sample ID: MW-14D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	56.4		60.00		mg/L		6	20

Method: SM 5310C - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 490-50320/6
Matrix: Water
Analysis Batch: 50320

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Inorganic Carbon	0.384	J	1.0	0.14	mg/L			01/10/13 16:57	1

Lab Sample ID: LCS 490-50320/5
Matrix: Water
Analysis Batch: 50320

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Inorganic Carbon	10.1	9.28		mg/L		92	90 - 110

Method: SM5310_D - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 480-97391/3
Matrix: Water
Analysis Batch: 97391

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		1.0	0.43	mg/L			12/21/12 15:47	1

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Method: SM5310_D - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: LCS 480-97391/4
Matrix: Water
Analysis Batch: 97391

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Organic Carbon	60.0	58.49		mg/L		97	90 - 110

GC/MS VOA

Analysis Batch: 97346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-1	MW-16D	Total/NA	Water	OLC02.1	
480-30368-1 MS	MW-16D	Total/NA	Water	OLC02.1	
480-30368-1 MSD	MW-16D	Total/NA	Water	OLC02.1	
480-30368-2 - DL	MW-13D	Total/NA	Water	OLC02.1	
480-30368-2	MW-13D	Total/NA	Water	OLC02.1	
480-30368-3	MW-14D	Total/NA	Water	OLC02.1	
480-30368-4	MW-10D	Total/NA	Water	OLC02.1	
480-30368-4 - DL	MW-10D	Total/NA	Water	OLC02.1	
480-30368-5	MW-15D	Total/NA	Water	OLC02.1	
480-30368-6	MW-9D	Total/NA	Water	OLC02.1	
480-30368-7	TB	Total/NA	Water	OLC02.1	
LCS 480-97346/4	Lab Control Sample	Total/NA	Water	OLC02.1	
MB 480-97346/5	Method Blank	Total/NA	Water	OLC02.1	

Metals

Prep Batch: 96426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-1	MW-16D	Total/NA	Water	3005A	
480-30368-2	MW-13D	Total/NA	Water	3005A	
480-30368-3	MW-14D	Total/NA	Water	3005A	
480-30368-3 MS	MW-14D	Total/NA	Water	3005A	
480-30368-3 MSD	MW-14D	Total/NA	Water	3005A	
480-30368-4	MW-10D	Total/NA	Water	3005A	
480-30368-5	MW-15D	Total/NA	Water	3005A	
480-30368-6	MW-9D	Total/NA	Water	3005A	
LCS 480-96426/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 480-96426/1-A	Method Blank	Total/NA	Water	3005A	

Analysis Batch: 96766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-1	MW-16D	Total/NA	Water	6010B	96426
480-30368-2	MW-13D	Total/NA	Water	6010B	96426
480-30368-3	MW-14D	Total/NA	Water	6010B	96426
480-30368-3 MS	MW-14D	Total/NA	Water	6010B	96426
480-30368-3 MSD	MW-14D	Total/NA	Water	6010B	96426
480-30368-4	MW-10D	Total/NA	Water	6010B	96426
480-30368-5	MW-15D	Total/NA	Water	6010B	96426
480-30368-6	MW-9D	Total/NA	Water	6010B	96426
LCS 480-96426/2-A	Lab Control Sample	Total/NA	Water	6010B	96426
MB 480-96426/1-A	Method Blank	Total/NA	Water	6010B	96426

General Chemistry

Analysis Batch: 50320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-1	MW-16D	Dissolved	Water	SM 5310C	
480-30368-2	MW-13D	Dissolved	Water	SM 5310C	
480-30368-3	MW-14D	Dissolved	Water	SM 5310C	
480-30368-4	MW-10D	Dissolved	Water	SM 5310C	

General Chemistry (Continued)

Analysis Batch: 50320 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-5	MW-15D	Dissolved	Water	SM 5310C	
480-30368-6	MW-9D	Dissolved	Water	SM 5310C	
LCS 490-50320/5	Lab Control Sample	Dissolved	Water	SM 5310C	
MB 490-50320/6	Method Blank	Dissolved	Water	SM 5310C	

Analysis Batch: 96404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-1	MW-16D	Total/NA	Water	300.0	
480-30368-2	MW-13D	Total/NA	Water	300.0	
480-30368-2 MS	MW-13D	Total/NA	Water	300.0	
480-30368-3	MW-14D	Total/NA	Water	300.0	
LCS 480-96404/51	Lab Control Sample	Total/NA	Water	300.0	
MB 480-96404/52	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 96470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-1	MW-16D	Total/NA	Water	Nitrate by calc	
480-30368-2	MW-13D	Total/NA	Water	Nitrate by calc	
480-30368-3	MW-14D	Total/NA	Water	Nitrate by calc	
480-30368-4	MW-10D	Total/NA	Water	Nitrate by calc	
480-30368-5	MW-15D	Total/NA	Water	Nitrate by calc	
480-30368-6	MW-9D	Total/NA	Water	Nitrate by calc	

Analysis Batch: 96493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-1	MW-16D	Total/NA	Water	SM 3500 FE D	
480-30368-2	MW-13D	Total/NA	Water	SM 3500 FE D	
480-30368-2 DU	MW-13D	Total/NA	Water	SM 3500 FE D	
480-30368-3	MW-14D	Total/NA	Water	SM 3500 FE D	
480-30368-4	MW-10D	Total/NA	Water	SM 3500 FE D	
480-30368-4 MS	MW-10D	Total/NA	Water	SM 3500 FE D	
480-30368-5	MW-15D	Total/NA	Water	SM 3500 FE D	
480-30368-6	MW-9D	Total/NA	Water	SM 3500 FE D	
LCS 480-96493/4	Lab Control Sample	Total/NA	Water	SM 3500 FE D	
MB 480-96493/3	Method Blank	Total/NA	Water	SM 3500 FE D	

Analysis Batch: 96842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-4	MW-10D	Total/NA	Water	300.0	
480-30368-5	MW-15D	Total/NA	Water	300.0	
480-30368-6	MW-9D	Total/NA	Water	300.0	
LCS 480-96842/27	Lab Control Sample	Total/NA	Water	300.0	
MB 480-96842/28	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 96924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-1	MW-16D	Total/NA	Water	SM 4500 S2 F	
480-30368-2	MW-13D	Total/NA	Water	SM 4500 S2 F	
480-30368-3	MW-14D	Total/NA	Water	SM 4500 S2 F	
480-30368-3 DU	MW-14D	Total/NA	Water	SM 4500 S2 F	
480-30368-4	MW-10D	Total/NA	Water	SM 4500 S2 F	

General Chemistry (Continued)

Analysis Batch: 96924 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-4 MS	MW-10D	Total/NA	Water	SM 4500 S2 F	
480-30368-5	MW-15D	Total/NA	Water	SM 4500 S2 F	
480-30368-6	MW-9D	Total/NA	Water	SM 4500 S2 F	
LCS 480-96924/28	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	
LCS 480-96924/4	Lab Control Sample	Total/NA	Water	SM 4500 S2 F	
MB 480-96924/27	Method Blank	Total/NA	Water	SM 4500 S2 F	
MB 480-96924/3	Method Blank	Total/NA	Water	SM 4500 S2 F	

Analysis Batch: 97391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-1	MW-16D	Dissolved	Water	SM5310_D	
480-30368-2	MW-13D	Dissolved	Water	SM5310_D	
480-30368-3	MW-14D	Dissolved	Water	SM5310_D	
480-30368-4	MW-10D	Dissolved	Water	SM5310_D	
480-30368-5	MW-15D	Dissolved	Water	SM5310_D	
480-30368-6	MW-9D	Dissolved	Water	SM5310_D	
LCS 480-97391/4	Lab Control Sample	Dissolved	Water	SM5310_D	
MB 480-97391/3	Method Blank	Dissolved	Water	SM5310_D	

Analysis Batch: 96766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-30368-3 MS	MW-14D	Total/NA	Water	200.7	
480-30368-3 MSD	MW-14D	Total/NA	Water	200.7	

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Client Sample ID: MW-16D

Lab Sample ID: 480-30368-1

Date Collected: 12/17/12 08:00

Matrix: Water

Date Received: 12/18/12 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLC02.1		5	97346	12/26/12 11:37	JMB	TAL BUF
Total/NA	Prep	3005A			96426	12/19/12 08:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	96766	12/19/12 16:19	AH	TAL BUF
Total/NA	Analysis	300.0		10	96404	12/18/12 23:23	KAC	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	96470	12/18/12 18:36	NH	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	96493	12/18/12 23:25	JB	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	96924	12/20/12 16:03	KS	TAL BUF
Dissolved	Analysis	SM5310_D		1	97391	12/21/12 16:39	KC	TAL BUF
Dissolved	Analysis	SM 5310C		5	50320	01/10/13 16:57	JF	TAL NSH

Client Sample ID: MW-13D

Lab Sample ID: 480-30368-2

Date Collected: 12/17/12 09:00

Matrix: Water

Date Received: 12/18/12 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLC02.1	DL	200	97346	12/26/12 15:58	JMB	TAL BUF
Total/NA	Analysis	OLC02.1		10	97346	12/26/12 12:52	JMB	TAL BUF
Total/NA	Prep	3005A			96426	12/19/12 08:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	96766	12/19/12 16:26	AH	TAL BUF
Total/NA	Analysis	300.0		5	96404	12/18/12 23:33	KAC	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	96470	12/18/12 18:37	NH	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	96493	12/18/12 23:25	JB	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	96924	12/20/12 16:08	KS	TAL BUF
Dissolved	Analysis	SM5310_D		1	97391	12/21/12 17:05	KC	TAL BUF
Dissolved	Analysis	SM 5310C		2	50320	01/10/13 16:57	JF	TAL NSH

Client Sample ID: MW-14D

Lab Sample ID: 480-30368-3

Date Collected: 12/17/12 10:00

Matrix: Water

Date Received: 12/18/12 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLC02.1		20	97346	12/26/12 13:17	JMB	TAL BUF
Total/NA	Prep	3005A			96426	12/19/12 08:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	96766	12/19/12 16:28	AH	TAL BUF
Total/NA	Analysis	300.0		5	96404	12/19/12 00:14	KAC	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	96470	12/18/12 18:38	NH	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	96493	12/18/12 23:25	JB	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	96924	12/20/12 16:13	KS	TAL BUF
Dissolved	Analysis	SM5310_D		1	97391	12/21/12 17:31	KC	TAL BUF
Dissolved	Analysis	SM 5310C		10	50320	01/10/13 16:57	JF	TAL NSH

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Client Sample ID: MW-10D

Date Collected: 12/17/12 11:30
Date Received: 12/18/12 08:00

Lab Sample ID: 480-30368-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLC02.1		4	97346	12/26/12 13:42	JMB	TAL BUF
Total/NA	Analysis	OLC02.1	DL	20	97346	12/26/12 16:23	JMB	TAL BUF
Total/NA	Prep	3005A			96426	12/19/12 08:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	96766	12/19/12 16:40	AH	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	96470	12/18/12 18:39	NH	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	96493	12/18/12 23:25	JB	TAL BUF
Total/NA	Analysis	300.0		10	96842	12/20/12 19:58	KC	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	96924	12/20/12 16:34	KS	TAL BUF
Dissolved	Analysis	SM5310_D		1	97391	12/21/12 17:57	KC	TAL BUF
Dissolved	Analysis	SM 5310C		5	50320	01/10/13 16:57	JF	TAL NSH

Client Sample ID: MW-15D

Date Collected: 12/17/12 12:15
Date Received: 12/18/12 08:00

Lab Sample ID: 480-30368-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLC02.1		4	97346	12/26/12 16:48	JMB	TAL BUF
Total/NA	Prep	3005A			96426	12/19/12 08:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	96766	12/19/12 16:42	AH	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	96470	12/18/12 18:40	NH	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	96493	12/18/12 23:25	JB	TAL BUF
Total/NA	Analysis	300.0		10	96842	12/20/12 20:08	KC	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	96924	12/20/12 17:04	KS	TAL BUF
Dissolved	Analysis	SM5310_D		1	97391	12/21/12 18:23	KC	TAL BUF
Dissolved	Analysis	SM 5310C		5	50320	01/10/13 16:57	JF	TAL NSH

Client Sample ID: MW-9D

Date Collected: 12/17/12 13:00
Date Received: 12/18/12 08:00

Lab Sample ID: 480-30368-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLC02.1		2	97346	12/26/12 14:32	JMB	TAL BUF
Total/NA	Prep	3005A			96426	12/19/12 08:00	SS	TAL BUF
Total/NA	Analysis	6010B		1	96766	12/19/12 16:45	AH	TAL BUF
Total/NA	Analysis	Nitrate by calc		1	96470	12/18/12 18:42	NH	TAL BUF
Total/NA	Analysis	SM 3500 FE D		1	96493	12/18/12 23:25	JB	TAL BUF
Total/NA	Analysis	300.0		10	96842	12/20/12 20:18	KC	TAL BUF
Total/NA	Analysis	SM 4500 S2 F		1	96924	12/20/12 17:15	KS	TAL BUF
Dissolved	Analysis	SM5310_D		1	97391	12/21/12 18:49	KC	TAL BUF
Dissolved	Analysis	SM 5310C		5	50320	01/10/13 16:57	JF	TAL NSH

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Client Sample ID: TB
Date Collected: 12/17/12 00:00
Date Received: 12/18/12 08:00

Lab Sample ID: 480-30368-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OLC02.1		1	97346	12/26/12 14:57	JMB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13
Georgia	State Program	4	956	06-30-13
Georgia	State Program	4	956	06-30-13
Illinois	NELAP	5	200003	09-30-13
Iowa	State Program	7	374	03-01-13
Kansas	NELAP	7	E-10187	01-31-13
Kentucky	State Program	4	90029	12-31-12
Kentucky (UST)	State Program	4	30	04-01-13
Louisiana	NELAP	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-13
Maryland	State Program	3	294	03-31-13
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-13
New Hampshire	NELAP	1	2337	11-17-13
New Jersey	NELAP	2	NY455	06-30-13
New York	NELAP	2	10026	03-31-13
North Dakota	State Program	8	R-176	03-31-13
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAP	10	NY200003	06-09-13
Pennsylvania	NELAP	3	68-00281	07-31-13
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-13
Texas	NELAP	6	T104704412-11-2	07-31-13
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-13
Washington	State Program	10	C784	02-10-13
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-13

Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	ACIL		393	10-30-13
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	4	41150	05-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
Arizona	State Program	9	AZ0473	05-05-13
Arkansas DEQ	State Program	6	88-0737	04-25-13
California	NELAP	9	1168CA	10-31-13
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Colorado	State Program	8	N/A	02-28-13
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-13
Illinois	NELAP	5	200010	12-09-13
Iowa	State Program	7	131	05-01-14

Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Laboratory: TestAmerica Nashville (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAP	6	30613	06-30-13
Maryland	State Program	3	316	03-31-13
Massachusetts	State Program	1	M-TN032	06-30-13
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA	01-01-15
Nevada	State Program	9	TN00032	07-31-13
New Hampshire	NELAP	1	2963	10-09-13
New Jersey	NELAP	2	TN965	06-30-13
New York	NELAP	2	11342	04-01-13
North Carolina DENR	State Program	4	387	12-31-13
North Dakota	State Program	8	R-146	06-30-13
Ohio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-13
Oregon	NELAP	10	TN200001	04-30-13
Pennsylvania	NELAP	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	02-28-13
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-13
USDA	Federal		S-48469	11-02-13
Utah	NELAP	8	TAN	06-30-13
Virginia	NELAP	3	460152	06-14-13
Washington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-13
Wisconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13

Method Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Method	Method Description	Protocol	Laboratory
OLC02.1	Volatile Organic Compounds, Low Concetration (GC/MS)	OCLP	TAL BUF
6010B	Metals (ICP)	SW846	TAL BUF
300.0	Sulfate	40CFR136A	TAL BUF
Nitrate by calc	Nitrogen, Nitrate-Nitrite	SM	TAL BUF
SM 3500 FE D	Iron, Ferrous and Ferric	SM	TAL BUF
SM 4500 S2 F	Sulfide, Total	SM	TAL BUF
SM 5310C	Organic Carbon, Dissolved (DOC)	SM	TAL NSH
SM5310_D	Organic Carbon, Dissolved (DOC)	SM	TAL BUF
200.7			TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater ", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

OCLP = USEPA Contract Laboratory Program Statement Of Work For Inorganics Analysis, Multi-Media, Multi-Concentration.

SM = "Standard Methods For The Examination Of Water And Wastewater",

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

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: C&S Engineers, Inc.
Project/Site: Midler Quarterly Groundwater

TestAmerica Job ID: 480-30368-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-30368-1	MW-16D	Water	12/17/12 08:00	12/18/12 08:00
480-30368-2	MW-13D	Water	12/17/12 09:00	12/18/12 08:00
480-30368-3	MW-14D	Water	12/17/12 10:00	12/18/12 08:00
480-30368-4	MW-10D	Water	12/17/12 11:30	12/18/12 08:00
480-30368-5	MW-15D	Water	12/17/12 12:15	12/18/12 08:00
480-30368-6	MW-9D	Water	12/17/12 13:00	12/18/12 08:00
480-30368-7	TB	Water	12/17/12 00:00	12/18/12 08:00

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Wayne Randall	Lab PM: Fox, Candace	Carrier Tracking No(s):	COC No: 480-30162-2208.1
Client Contact: Mr. Wayne Randall	Phone: 315 455 2000	E-Mail: candace.fox@testamericainc.com		Page: Page 1 of 1
Company: C&S Engineers, Inc.				Job #:
Address: 499 Col. Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days): 14 days			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not requir			
Email: wrandall@cscos.com	WO #:			
Project Name: Midler Quarterly Groundwater	Project #: 48002877			
Site: Midler Ave Semi Annual	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300.0_28D - Sulfate	200.7, 6010B	8260B - (MOD) TCL list OLM04.2	SM5310_DOC_D - Dissolved Organic Carbon	SM4500_S2_F - Sulfide	SUBCONTRACT - Dissolved Inorganic Carbon	3500_FE_D, 353.2, 353.2_Nitrite, Nitrate_Calc	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	A	A	CB	N	N		
MW-16D	12/17/12	800		Water			1	1	3	2	1	2	3		
MW-16D MS		800		Water	X				3						Matrix Spike / Matrix Spike Dupe VOAS only
MW-16D MSD		800		Water	X				3						
MW-13D		900		Water			1	1	3	2	1	2	3		
MW-14D		1000		Water			1	1	3	2	1	2	3		
MW-10D		1130		Water			1	1	3	2	1	2	3		DOC - Field Filtered
MW-15D		1215		Water			1	1	3	2	1	2	3		
MW-9D		1300		Water			1	1	3	2	1	2	3		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		12/17/12 1317	C&S		12-17-13	
2		12-17-12 1812			12/18/12 0910	
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 1.5, 2.7, 3.1 #2

Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-30368-1

Login Number: 30368

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl

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

APPENDIX B-2

DATA USABILITY SUMMARY REPORTS FOR 2012 GROUNDWATER QUALITY SAMPLES

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Remediation
Water Supply

February 18, 2013

Mr. Wayne N. Randall
C&S Companies
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212

Re: DUSR and Data Validation Report
Midler Ave. Project
June & December 2012 Ground Water Sampling Events

Dear Mr. Randall:

The data usability summary reports (DUSRs) and data validation QA/QC reviews for the June and December 2012 ground water sampling events are enclosed with this letter. The data were acceptable for TestAmerica Buffalo job numbers 480-21938-1 and 480-30368-1 with minor issues outlined in the QA/QC reviews. There were no data that were flagged as unusable (R) in these data packs.

A list of data validation acronyms and qualifiers is attached to assist you in interpreting the data validation reviews. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist C&S Companies.

Sincerely,
Alpha Geoscience

Donald Anné

Donald Anné
Senior Chemist

DCA:dca
enclosures

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Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U = Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.

R = Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.

N = Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.

J = Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

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Hydrology
Remediation
Water Supply

Data Usability Summary Report for
TestAmerica Buffalo, Job No. 480-21938-1

6 Ground Water Samples
Collected June 27, 2012

Prepared by: Donald Anné
February 18, 2013

The data packages contain the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data packs contained the results for 6 ground water samples blank analyzed for volatiles.

The overall performances of the analyses are acceptable. TestAmerica Buffalo did fulfill the requirements of the analytical method.

The data are acceptable with some minor issues that are identified in the accompanying data validation review. There were no data flagged as either estimated (J) or unusable (R); therefore, all data are considered usable. Detailed information on data quality is included in the data validation review.

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Hydrology
Remediation
Water Supply

QA/QC Review of OLM04.2 Volatiles Data for TestAmerica Buffalo, Job No. 480-21938-1

6 Ground Water Samples and 1 Trip Blank Collected June 27, 2012

Prepared by: Donald Anné
February 18, 2013

Holding Times: Samples were analyzed within NYSDEC ASP holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The compounds with ASP criteria for maximum %RSDs met those requirements. The average RRF for trichloroethene was below the method minimum (0.300), but was not below 0.010 for HP5973P on 07-02-12. No action is taken on two or fewer compounds not meeting criteria, provided the %RSDs were not above 40% and the average RRFs were not below 0.010.

The average RRFs for target compounds were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The compounds with ASP criteria for maximum %Ds met those requirements. The RRF for trichloroethene was below the method minimum (0.300), but was not below 0.010 on 07-03-12 (P1877.D). No action is taken on two or fewer compounds not meeting criteria, provided the %Ds were not above 40% and the RRFs were not below 0.010.

The RRFs for target compounds were above the allowable minimum (0.010), as required.

The %D for chloroethane was above the allowable maximum (25%) on 07-03-12 (P1877.D). Positive results for chloroethane should be considered estimated (J) in associated samples.

Blanks: The analyses of method and trip blanks reported target compounds as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

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Surrogate Recovery: The surrogate recoveries were within control limits for environmental samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for spiked compounds were below the allowable maximums and the percent recoveries were within QC limits for aqueous MS/MSD sample MW-16D.

Laboratory Control Sample: The percent recoveries for spiked compounds were within QC limits for aqueous sample LCS 480-70972/3.

Compound ID: Checked compounds were within GC/MS quantitation and qualitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in SW846.

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February 18, 2013

Mr. Wayne N. Randall
C&S Companies
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212

Re: DUSR and Data Validation Report
Midler Ave. Project
June & December 2012 Ground Water Sampling Events

Dear Mr. Randall:

The data usability summary reports (DUSRs) and data validation QA/QC reviews for the June and December 2012 ground water sampling events are enclosed with this letter. The data were acceptable for TestAmerica Buffalo job numbers 480-21938-1 and 480-30368-1 with minor issues outlined in the QA/QC reviews. There were no data that were flagged as unusable (R) in these data packs.

A list of data validation acronyms and qualifiers is attached to assist you in interpreting the data validation reviews. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist C&S Companies.

Sincerely,
Alpha Geoscience

Donald Anné
Senior Chemist

DCA:dca
enclosures

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Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U = Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.

R = Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.

N = Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.

J = Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

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Data Usability Summary Report for
TestAmerica Buffalo, Job No. 480-30368-1

6 Ground Water Samples and 1 Trip Blank
Collected December 17, 2012

Prepared by: Donald Anné
February 18, 2013

The data packages contain the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data packs contained the results for 6 ground water samples and 1 trip blank analyzed for volatiles.

The overall performances of the analyses are acceptable. TestAmerica Buffalo did fulfill the requirements of the analytical method.

The data are acceptable with some minor issues that are identified in the accompanying data validation review. The following data were flagged:

- The volatile results for vinyl chloride and cis-1,2-dichloroethene in samples MW-13D and MW-10D were quantitated using data that were extrapolated beyond the highest calibration standard and flagged "E" by the laboratory. The results for vinyl chloride and cis-1,2-dichloroethene marked "E" in the samples were qualified as estimated (J).

All data are considered usable, with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation review.

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QA/QC Review of OLM04.2 Volatiles Data for TestAmerica Buffalo, Job No. 480-30368-1

6 Ground Water Samples and 1 Trip Blank Collected December 17, 2012

Prepared by: Donald Anné
February 18, 2013

Holding Times: Samples were analyzed within NYSDEC ASP holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The compounds with ASP criteria for minimum RRFs and maximum %RSDs met those requirements.

The average RRFs for target compounds were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The compounds with ASP criteria for minimum RRFs and maximum %Ds met those requirements.

The RRF50s for target compounds were above the allowable minimum (0.010) and the %Ds were below the allowable maximum (25%), as required.

Blanks: The analyses of method and trip blanks reported target compounds as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for environmental samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for spiked compounds were below the allowable maximums and the percent recoveries were within QC limits for MS/MSD sample MW-16D.

Laboratory Control Sample: The percent recoveries for spiked compounds were within QC limits for aqueous sample LCS 480-97346/4.

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Compound ID: Checked compounds were within GC/MS quantitation and qualitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in SW846.

There are results for vinyl chloride and cis-1,2-dichloroethene in sample MW-13D and MW-10D that were quantitated by extrapolating data above the highest calibration standard and marked 'E' by the laboratory. The samples were diluted by the laboratory and re-analyzed; therefore, the results that are flagged as 'E' in the undiluted samples should be considered estimated (J). The use of the diluted results for vinyl chloride and cis-1,2-dichloroethene is recommended. It is recommended that the undiluted results for samples be used for all other compounds.

APPENDIX B-3

MONITORED NATURAL ATTENTION PARAMETERS SUMMARY THROUGH DECEMBER 2012 AND 2012 LABORATORY REPORTS

Pioneer Midler Avenue LLC
Monitoring Natural Attenuation
Water Quality Parameters

Parameter	Units	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D
Sample Date		02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10
Field Parameters											
pH		6.62	7.01	7.00	7.06	7.20	7.42	6.66	7.12	7.06	6.92
Conductivity	S/m	3.25	3.49	3.19	3.40	3.50	5.38	3.15	3.51	3.53	3.77
Temperature	°F	51.08	55.31	57.81	53.82	49.82	55.96	57.38	53.61	51.64	54.86
Oxidation/Reduction Potential (ORP)	mV	-325	-268	-273	-249	-286	-245	-192	-318	-300	-272
Dissolved Oxygen	mg/L	0.0	0.0	0.66	0.0	0.0	0.0	0.0	7.7	0.0	0.0
Laboratory Analytical Parameters											
Dissolved Inorganic Carbon	mg/L	110	69	92	81	77	81	47.7	49.8	88.23	67.3
Dissolved Organic Carbon	mg/L	11	3.10	1.60	2.40	1.10	1.50	4.22	2.90	4.00	3.80
Iron (total)	mg/L	0.128	0.094	0.233	0.339	0.32	0.501	0.023	0.176	0.742	0.171
Ferric Iron	mg/L	<0.10	<0.10	<0.10	<0.10	-0.036	0.293	<0.10	<0.10	0.408	<0.10
Ferrous Iron	mg/L	0.19	0.12	0.19	0.31	0.36	0.208	<0.10	<0.10	0.334	0.367
Nitrite-Nitrate as Nitrogen	mg/L	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS
Nitrate as Nitrogen	mg/L	NS	NS	NS	NS	<0.1	NS	<0.05	<0.05	<0.05	<0.10
Sulfate	mg/L	441	435	549	530	630	580	496	589	542	546
Sulfide	mg/L	1.60	2.40	1.60	1.20	0.80	0.80	17.20	0.80	2.80	2.00
Methane	mg/L	1.80	0.35	0.53	0.27	0.33	0.29	0.50	0.37	0.50	0.55
Ethene	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02
Ethane	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02
Dehalococcoides (Dhc) Enumeration	per liter	ND[(2)]	1×10^{7}	ND[(2)]	7×10^{2}[(1,2)]	ND[(2,3)]	ND[(2,3)]	1×10^{3}	1×10^{4}	2×10^{3}	1×10^{4}
% Dhc		NA	0.3 - 0.8	NA	.00007 - .0002	NA	NA	.0003 - .0009	0.003 - 0.008	0.0002 - 0.0006	0.002 - 0.006
Vinyl Chloride Reductase (vcrA)	per liter	NA	2×10^{4}	NA	Inconclusive	NA	NA	ND[(4)]	8×10^{3}	Inconclusive	1×10^{4}
% vcrA		NA	0.003 - 0.008	NA	NA	NA	NA	NA	0.002 - 0.005	NA	0.002 - 0.006

[(1)] = Correction factor applied to correct for non-specific PCR amplification products.

[(2)] = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 4×10^{3}/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

[(3)] = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 5×10^{3}/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

[(4)] = vcrA DNA detected but below sample specific quantitation limit.

NS = Not Sampled.

NA = Not applicable as Dehalococcoides or vcrA DNA not detected.

ND [(1)] = Not Detected. The quantitation limit is 7×10^{3}/liter

ND [(2)]= Not Detected. The quantitation limit is 4×10^{3}/liter

ND [(3)]= Sample inhibited testing; this increases the probability that test result is a false negative.

NR = Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Inconclusive = Inconclusive results may indicate extremely low concentrations of *Dehalococcoides* DNA or *vcrA* DNA at or below the sample specific quantitation limit (4 x 103/liter), however, test results were insufficient to assign a conclusive positive result for this sample.

Pioneer Midler Avenue LLC
Monitoring Natural Attenuation
Water Quality Parameters

Parameter	Units	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D
Sample Date		02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11	12/07/11	06/27/12	12/17/12
Field Parameters																
pH		6.53	6.72	6.86	6.96	7.05	6.99	6.69	6.77	6.87	7.75	7.01	7.3	6.9	7.39	7.81
Conductivity	S/m	2.63	2.61	2.11	2.70	2.67	4.29	2.66	3.11	3.38	2.58	2.73	2.29	2.4	2.18	2
Temperature	°F	47.48	54.16	60.46	52.81	46.27	52.25	57.97	53.96	49.86	54.32	60.93	59.13	54.79	64.47	54.896
Oxidation/Reduction Potential (ORP)	mV	-356	-325	-352	-338	-349	-327	-377	-380	-350	-346	-343	-374	-318	-340	-291
Dissolved Oxygen	mg/L	0.0	0.0	0.74	4.56	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	5.1	0.0	0.0
Laboratory Analytical Parameters																
Dissolved Inorganic Carbon	mg/L	130	89	110	110	120	110	74	57	116	88	92	76	59	81.7	78.6
Dissolved Organic Carbon	mg/L	8	6.20	1.60	5.60	3.20	3.50	4.49	6.10	8.70	7.4	6.5	<1.0	6.3	5.7	6.4
Iron (total)	mg/L	0.123	<0.05	<0.05	0.68	0.06	0.029	21	0.095	<0.05	0.147	0.074	0.207	0.024	0.033	0.049
Ferric Iron	mg/L	0.12	<0.10	<0.10	0.68	0.00008	NR	<0.10	0.0946	<0.10	0.147	<0.100	<0.5	<0.10	NS	NS
Ferrous Iron	mg/L	<0.10	<0.10	0.19	<0.10	0.062	<.015	<0.10	<0.10	<0.10	<0.10	<0.100	0.18	0.16	<0.075	<0.075
Nitrite-Nitrate as Nitrogen	mg/L	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nitrate as Nitrogen	mg/L	NS	NS	NS	NS	<0.1	NS	<0.05	<0.05	<0.05	0.026	0.032	0.18	<0.050	<0.011	<0.011
Sulfate	mg/L	368	340	549	391	430	380	425	377	328	320	461	380	408	466	590
Sulfide	mg/L	13.20	12.40	1.60	13.60	22.00	17.20	18.40	14.00	18.40	13.6	29.6	22.4	18	20.4	24.4
Methane	mg/L	3.80	2.80	4.10	3.00	3.40	3.20	3.20	2.50	2.90	2.4	3	2.9	2.2	2.6	NS
Ethene	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	NS
Ethane	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	NS
Dehalococcoides (Dhc) Enumeration	per liter	ND[(2)]	Inconclusive	ND[(2)]	9 x 10^{2}[(1,3)]	ND[(1,3)]	4 x 10^{3}	NA	3 x 10^{4}	1 x 10^{3}	7 x 10^{3}	7 x 10^{2}	4 x 10^{4}	1 x 103	3 x 10^{3}[(1)]	3 x 10^{3}
% Dhc		NA	NA	NA	.00006 - .0002	NA	0.001 - 0.003	NA	0.004 - 0.01	0.0002 - 0.0005	0.0006 - 0.002	0.00002 - 0.00005	0.003 - 0.008	0.0001 - 0.0004	NA	NA
Vinyl Chloride Reductase (vcrA)	per liter	NA	Inconclusive	NA	4 x 10^{3}[(1)]	NA	NA	NA	4 x 10^{4}	5 x 10^{3}	3 x 10^{4}	ND	NA	8 x 10^{5}	NA	NS
% vcrA		NA	NA	NA	0.003 - 0.001	NA	ND[(2)]	NA	0.005 - 0.01	0.0007 - 0.002	0.002 - 0.007	NA	4 x 10^{3} U	0.08 - 0.3	NA	NS

[(1)] = Correction factor applied to correct for non-specific PCR amplification products.

[(2)] = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 4 x 10^{3}/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

[(3)] = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 5 x 10^{3}/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

[(4)] = vcrA DNA detected but below sample specific quantitation limit.

NS = Not Sampled.

NA = Not applicable as Dehalococcoides or vcrA DNA not detected.

ND [(1)] = Not Detected. The quantitation limit is 7 x 10^{3}/liter

ND [(2)]= Not Detected. The quantitation limit is 4 x 10^{3}/liter

ND [(3)]= Sample inhibited testing; this increases the probability that test result is a false negative.

NR = Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Inconclusive = Inconclusive results may indicate extremely low concentrations of *Dehalococcoides* DNA or *vcrA* DNA at or below the sample specific quantitation limit (4 x 103/liter), however, test results were insufficient to assign a conclusive positive result for this sample.

Pioneer Midler Avenue LLC
Monitoring Natural Attenuation
Water Quality Parameters

Parameter	Units	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D
Sample Date		02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11	12/07/11	06/27/12	12/17/12
Field Parameters																
pH		6.36	6.93	6.90	7.03	6.96	7.10	6.67	6.85	6.97	7.87	7.11	7.49	6.84	7.54	7.73
Conductivity	S/m	2.07	2.05	2.12	2.20	2.23	3.27	2.16	2.43	2.53	2.42	2.11	1.83	2.06	1.53	1.47
Temperature	°F	47.12	54.75	59.14	50.58	48.02	53.55	58.71	49.12	49.57	55.4	62	63.86	54	71.6	54.28
Oxidation/Reduction Potential (ORP)	mV	-297	-338	-342	-329	-341	-309	-346	-374	-349	-350	-313	-347	-321	-324	-280
Dissolved Oxygen	mg/L	0.0	0.0	0.69	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.09	0.00
Laboratory Analytical Parameters																
Dissolved Inorganic Carbon	mg/L	120	76	91	85	120	110	71.6	54.7	103	77.5	89	84.8	68.5	72.5	70.4
Dissolved Organic Carbon	mg/L	7.50	2.60	3.20	4.70	5.40	3.20	1.82	4.90	5.9	7.1	5	0.47	4.8	4.5	5.5
Iron (total)	mg/L	0.0641	<0.05	<0.05	0.0504	0.084	<0.019	0.11	0.07	0.065	<0.050	<0.050	0.0332	0.026	0.019	0.052
Ferric Iron	mg/L	<0.10	<0.10	<0.10	<0.10	-0.013	NR	0.109	<0.10	<0.10	<0.10	<0.100	<0.50	<0.10	NS	NS
Ferrous Iron	mg/L	<0.10	<0.10	<0.10	<0.10	0.096	<0.015	<0.10	<0.10	<0.10	<0.10	<0.100	0.17	0.15	<0.075	<0.075
Nitrite-Nitrate as Nitrogen	mg/L	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nitrate as Nitrogen	mg/L	NS	NS	NS	NS	<0.1	NS	<0.05	<0.05	<0.05	<0.10	<0.050	<0.10	<0.10	<0.011	<0.011
Sulfate	mg/L	572	609	621	594	430	640	545	684	614	565	557	506	614	497	541
Sulfide	mg/L	8.80	26.80	24.80	25.2	12	19.60	0.80	14.00	18.8	19.2	25.6	24	19.2	28	16.8
Methane	mg/L	2.60	0.82	1.10	1.30	6.50	3.30	3.80	1.30	2.5	2.2	1.1	2.2	1.6	1.6	NS
Ethene	mg/L	0.06	0.02	0.05	<0.02	<0.10	0.05	0.04	0.03	0.03	0.03	<0.01	0.01	<0.01	<0.01	NS
Ethane	mg/L	<0.02	<0.02	<0.02	<0.02	<0.10	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	NS
Dehalococcoides (Dhc) Enumeration	per liter	6×10^6	9×10^5	6×10^5	8×10^5	4×10^6	1×10^6	3×10^6	2×10^7	6×10^6	1×10^7	7×10^6	2×10^6	3×10^6	6×10^5	1×10^6
% Dhc		0.5 - 1.0	0.06 - 0.2	0.03 - 0.1	.08 - 0.2	0.7 - 2	0.2 - 0.7	0.5 - 1	2 - 5	0.7 - 2	0.8 - 2	0.8 - 2	0.3 - 0.8	0.2 - 0.6	0.08 - 0.2	0.1 - 0.3
Vinyl Chloride Reductase (vcrA)	per liter	2×10^7	7×10^6	1×10^6	2×10^6	4×10^6	8×10^5	4×10^6	7×10^7	2×10^7	3×10^7	2×10^7	7×10^6	5×10^6	1×10^6	NS
% vcrA		1 - 4	0.5 - 1	0.05 - 0.2	0.1 -0.4	0.6 - 2	0.2 - 0.6	0.6 - 2	6 - 17	2 - 6	2 - 6	2 - 7	1 - 3	0.4 - 1	0.3 - 1	NS

(1) = Correction factor applied to correct for non-specific PCR amplification products.

(2) = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 4×10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

(3) = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 5×10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

(4) = vcrA DNA detected but below sample specific quantitation limit.

NS = Not Sampled.

NA = Not applicable as Dehalococcoides or vcrA DNA not detected.

ND (1) = Not Detected. The quantitation limit is 7×10^3/liter

ND (2)= Not Detected. The quantitation limit is 4×10^3/liter

ND (3)= Sample inhibited testing; this increases the probability that test result is a false negative.

NR = Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Inconclusive = Inconclusive results may indicate extremely low concentrations of *Dehalococcoides* DNA or *vcrA* DNA at or below the sample specific quantitation limit (4 x 103/liter), however, test results were insufficient to assign a conclusive positive result for this sample.

Pioneer Midler Avenue LLC
Monitoring Natural Attenuation
Water Quality Parameters

Parameter	Units	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D
Sample Date		10/11/07	02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11	12/07/11	06/27/12	12/17/12
Field Parameters																	
pH		7.23	6.80	7.01	7.18	7.21	7.37	7.03	7.22	6.82	7.19	7.71	7.38	7.34	59.72	7.41	8
Conductivity	S/m	2.83	2.78	2.42	3.07	2.71	3.09	4.4	3.12	2.61	2.97	2.58	2.65	2.35	2.33	1.99	1.7
Temperature	°F	85.6	64.58	70.99	72.14	61.16	55.71	61.48	64.94	59.68	53.91	59.54	69.91	62.6	59.72	64.6	58.28
Oxidation/Reduction Potential (ORP)	mV	-324	-400	-334	-369	-350	-408	-377	-403	-409	-371	-347	-364	-374	-334	-335	-301
Dissolved Oxygen	mg/L	0.0	0.0	0.0	0.69	0.0	0.0	0.0	1.5	5.6	0.47	0.0	0.0	0.0	0.0	0.0	0.0
Laboratory Analytical Parameters																	
Dissolved Inorganic Carbon	mg/L	110	120	75	96	91	130	100	97	20	43.4	34.4	63	66.8	50.9	47.4	54.5
Dissolved Organic Carbon	mg/L	41.00	42.90	36.00	29.40	41.90	35	42.50	48.90	32.70	39.6	32.6	24.9	1.1	9.4	12.4	11.5
Iron (total)	mg/L	1.15	4.26	0.162	0.421	1.26	1.80	5.94	5.89	5.24	8.84	1.43	0.347	0.966	0.4	0.051	0.23
Ferric Iron	mg/L	1.20	4.3	<0.10	<0.10	1.3	1.80	5.95	5.82	4.98	8.84	1.43	0.347	0.04	0.4	NS	NS
Ferrous Iron	mg/L	<0.05	<0.10	0.13	0.36	<0.10	<0.10	<0.075	0.08	0.26	<0.10	<0.1	<0.100	0.93	<0.10	0.075	0.094
Nitrite-Nitrate as Nitrogen	mg/L	<0.05	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nitrate as Nitrogen	mg/L	NS	NS	NS	NS	NS	<0.1	NS	<0.05	<0.05	<0.05	<0.014	<0.050	<0.1	<0.50	0.048	<0.01
Sulfate	mg/L	<25.0	61.7	60.1	128	129	86	99	53	128	156	104	62.6	122	122	184	159
Sulfide	mg/L	0.80	8	27.2	14.4	14.4	13	13.60	9.60	9.60	20.4	27.2	4.4	37.7	22.4	27.2	24
Methane	mg/L	13	13	9.90	14	12	18	16	11	11	19	13	16	12	9.8	8.2	NS
Ethene	mg/L	6.00	9.10	3.90	7.00	3.00	5.30	9.10	4.90	5.50	3.2	0.59	0.53	1.4	1	0.76	NS
Ethane	mg/L	4.60	1.10	0.99	1.90	2.20	3.3	3.1	2.4	2.4	3.8	1.6	2.1	0.8	0.67	0.57	NS
Dehalococcoides (Dhc) Enumeration	per liter	2×10^8	8×10^8	7×10^6	3×10^7	9×10^6	6×10^7	5×10^7	2×10^8	3×10^8	5×10^7	5×10^8	4×10^8	2×10^8	3×10^8	5×10^7	6×10^7
% Dhc		100	13 - 34	0.2 - 0.6	0.5 - 1.0	0.2 - 0.7	5 - 15	3 - 9	8 - 22	7 - 20	2 - 7	22 - 52	9 - 25	10 - 28	8 - 23	1 - 4	3 - 8
Vinyl Chloride Reductase (vcrA)	per liter	6×10^7	2×10^9	8×10^7	4×10^7	2×10^6	4×10^7	5×10^7	8×10^7	4×10^8	1×10^8	5×10^8	4×10^8	2×10^8	2×10^8	4×10^7	NS
% vcrA		>93	36 - 75	2 - 6	0.7 - 2	0.1 - 0.4	3 - 10	3 - 9	3 - 10	9 - 24	4 - 13	23 - 54	8 - 23	12 - 30	6 - 17	3 - 7	NS

(1) = Correction factor applied to correct for non-specific PCR amplification products.

(2) = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 4×10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

(3) = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 5×10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

(4) = vcrA DNA detected but below sample specific quantitation limit.

NS = Not Sampled.

NA = Not applicable as Dehalococcoides or vcrA DNA not detected.

ND (1) = Not Detected. The quantitation limit is 7×10^3/liter

ND (2)= Not Detected. The quantitation limit is 4×10^3/liter

ND (3)= Sample inhibited testing; this increases the probability that test result is a false negative.

NR = Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Inconclusive = Inconclusive results may indicate extremely low concentrations of *Dehalococcoides* DNA or *vcrA* DNA at or below the sample specific quantitation limit (4 x 103/liter), however, test results were insufficient to assign a conclusive positive result for this sample.

Pioneer Midler Avenue LLC
Monitoring Natural Attenuation
Water Quality Parameters

Parameter	Units	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D
Sample Date		02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11	12/07/11	06/27/12	12/17/12
Field Parameters																
pH		6.08	6.33	6.35	6.56	6.66	6.58	6.55	6.27	6.46	7.39	6.57	7.00	6.60	6.67	7.36
Conductivity	S/m	7.10	5.57	5.10	4.22	4.36	6.87	4.53	4.90	5.17	4.89	4.66	4.31	4.25	3.99	3.3
Temperature	°F	46.94	59.28	61.88	59.66	57.00	59.94	61.52	60.28	59.18	59.36	64.31	63.7	57.85	64.05	61.448
Oxidation/Reduction Potential (ORP)	mV	-367	-333	-342	-338	-345	-344	-366	-397	-359	-365	-342	-379	-321	-348	-297
Dissolved Oxygen	mg/L	2.18	0.0	0.98	0.0	0.0	0.0	1.6	2.8	0.26	0.0	0.0	0.0	0.0	0.0	0.0
Laboratory Analytical Parameters																
Dissolved Inorganic Carbon	mg/L	240	220	260	260	290	270	209	206	250	172	210	169	205	202	167
Dissolved Organic Carbon	mg/L	570	900	179	181	190	124	95	123	118	89.8	79	28.1	72.7	64.1	52.4
Iron (total)	mg/L	1.34	0.152	0.107	0.209	0.14	0.093	0.076	0.048	0.058	0.133	0.051	0.0995	0.02	0.076	0.056
Ferric Iron	mg/L	1.30	0.15	0.11	0.21	0.14	NR	0.076	<0.10	<0.10	0.133	<0.100	<0.50	<0.100	NS	NS
Ferrous Iron	mg/L	<0.10	<0.10	<0.10	<0.50	<0.10	<0.015	<0.10	<0.10	<0.10	<0.10	<0.100	0.39	<0.100	0.16	0.082
Nitrite-Nitrate as Nitrogen	mg/L	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nitrate as Nitrogen	mg/L-N	NS	NS	NS	NS	0.14	NS	<0.50	<0.50	<0.50	<0.10	<0.050	<0.01	<0.050	<0.011	<0.01
Sulfate	mg/L	10.50	<2.0	<20.0	<4.0	<100	3.2	8.92	17.8	12	34.2	32.5	60.6	67	99	62.6
Sulfide	mg/L	62.40	65.60	74.40	69.60	66	73.20	70.80	58.40	69.2	62.8	69.2	48	36	48	56.4
Methane	mg/L	11	11	22	25	25	29	28	27	29	20	24	20	26	16	NS
Ethene	mg/L	0.48	0.63	2.70	1.9	1.7	2	1.9	1.9	1.7	1.2	0.88	0.18	0.23	0.13	NS
Ethane	mg/L	<0.10	<0.10	<0.02	<0.10	<0.10	<0.01	<0.10	<0.10	<0.02	<0.1	0.03	0.06	0.06	<0.01	NS
Dehalococcoides (Dhc) Enumeration	per liter	1×10^9	9×10^8	3×10^8	7×10^7	1×10^8	2×10^7	2×10^7	3×10^7	4×10^6	2×10^7	2×10^7	5×10^6	4×10^6	8×10^5	4×10^5
% Dhc		17 - 43	27 - 62	7 - 18	3 - 9	6 - 16	1 - 4	1 - 4	2 - 5	0.5 - 1	0.8 - 2	2 - 5	0.5 - 1	0.5 - 1	0.05 - 0.2	0.04 - 0.1
Vinyl Chloride Reductase (vcrA)	per liter	2×10^7	3×10^7	2×10^8	3×10^7	2×10^7	2×10^6	3×10^6	1×10^7	1×10^6	9×10^6	9×10^6	4×10^6	1×10^6	3×10^5	NS
% vcrA		0.5 - 2	0.9 - 3	4 - 11	1 - 4	1 - 3	0.2 -0.5	0.2 -0.7	0.7 - 2	0.2 -0.5	0.3 -0.9	0.6 - 2	0.3 - 1	0.1 -0.4	0.05 - 0.1	NS

(1) = Correction factor applied to correct for non-specific PCR amplification products.

(2) = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 4 x 10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

(3) = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 5 x 10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

(4) = vcrA DNA detected but below sample specific quantitation limit.

NS = Not Sampled.

NA = Not applicable as Dehalococcoides or vcrA DNA not detected.

ND (1) = Not Detected. The quantitation limit is 7 x 10^3/liter

ND (2)= Not Detected. The quantitation limit is 4 x 10^3/liter

ND (3)= Sample inhibited testing; this increases the probability that test result is a false negative.

NR = Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Inconclusive = Inconclusive results may indicate extremely low concentrations of *Dehalococcoides* DNA or *vcrA* DNA at or below the sample specific quantitation limit (4 x 103/liter), however, test results were insufficient to assign a conclusive positive result for this sample.

Pioneer Midler Avenue LLC
Monitoring Natural Attenuation
Water Quality Parameters

Parameter	Units	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D
Sample Date		02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11	12/07/11	06/27/12	12/17/12
Field Parameters																
pH		6.42	6.73	6.72	6.97	6.96	6.93	6.61	6.53	6.78	7.91	7.04	7.30	6.99	7.43	7.95
Conductivity	S/m	1.53	2.00	2.12	2.37	1.90	2.96	2.20	2.41	2.26	2.42	2.42	1.85	1.99	2.22	1.72
Temperature	°F	46.76	55.11	58.73	53.31	46.2	54.82	57.65	50.92	49.55	54.68	60.46	61.18	53.58	61.16	55.94
Oxidation/Reduction Potential (ORP)	mV	-218	-319	-347	-323	-340	-324	-373	-380	-344	-350	-291	-375	-320	-301	-292
Dissolved Oxygen	mg/L	4.39	0.0	0.69	0.0	0.0	0.0	0.0	0.0	0.0	3.23	0.0	0.0	0.0	0.0	0.0
Laboratory Analytical Parameters																
Dissolved Inorganic Carbon	mg/L	190	150	130	130	160	160	97.3	104	159	106	130	118	140	101	114
Dissolved Organic Carbon	mg/L	17	11.90	6.30	8.10	5.80	7.20	7.76	10.60	11.6	150	8.1	2.4	10.9	7.4	7.7
Iron (total)	mg/L	1.27	0.094	0.135	0.624	0.450	0.11	0.398	0.055	0.097	0.05	0.105	0.174	0.12	0.087	0.36
Ferric Iron	mg/L	1.10	<0.10	<0.10	0.62	0.37	0.11	0.398	<0.10	<0.10	<0.10	0.105	0.18	<0.10	NS	NS
Ferrous Iron	mg/L	0.14	0.55	0.22	<0.10	0.084	<0.0150	<0.10	<0.10	<0.10	<0.10	<0.100	<0.5	0.15	0.075	0.076
Nitrite-Nitrate as Nitrogen	mg/L	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nitrate as Nitrogen	mg/L-N	NS	NS	NS	NS	<0.10	NS	<0.05	<0.05	<0.05	<0.10	<0.050	<0.100	<0.05	<0.011	<0.011
Sulfate	mg/L	126	309	637	623	420	380	479	441	440	559	786	519	410	612	569
Sulfide	mg/L	4	16.80	17.20	22.40	14	0.80	20.00	16.40	18.4	26.4	32.4	36	34.4	32.8	37.2
Methane	mg/L	4.10	8.20	11	6.50	15	16	13	17	18	13	9.1	12	9.4	9.3	NS
Ethene	mg/L	<0.02	<0.10	<0.02	<0.02	<0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.04	<0.01	<0.01	NS
Ethane	mg/L	<0.02	<0.10	<0.02	<0.02	<0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.04	<0.01	<0.01	NS
Dehalococcoides (Dhc) Enumeration	per liter	ND [1]	7×10^6	ND[2]	NA	ND[1,3]	1×10^5	Inconclusive	1×10^4	NA	Inconclusive	1×10^3	4×10^3	3×10^3 J	$3 \times 10^{3(1)}$	3×10^3
% Dhc		NA	0.2 - 0.6	NA	Inconclusive	NA	0.2 - 0.05	NA	0.0008 - 0.002	ND[3]	NA	0.00001 - 0.00004	0.0009 - 0.003	0.0006 - 0.002	NA	NA
Vinyl Chloride Reductase (vcrA)	per liter	NA	Inconclusive	NA	ND[2]	NA	1×10^4	Inconclusive	4×10^4	NA	ND[2]	ND	4×10^3 U	1×10^4	NA	NS
% vcrA		NA	NA	ND[2]	NA	NA	0.001 - 0.004	NA	0.003 - 0.008	NA	NA	NA	NA	0.002 - 0.006	NA	NS

[1] = Correction factor applied to correct for non-specific PCR amplification products.

[2] = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 4×10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

[3] = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 5×10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

[4] = vcrA DNA detected but below sample specific quantitation limit.

NS = Not Sampled.

NA = Not applicable as Dehalococcoides or vcrA DNA not detected.

ND [1] = Not Detected. The quantitation limit is 7×10^3/liter

ND [2]= Not Detected. The quantitation limit is 4×10^3/liter

ND [3]= Sample inhibited testing; this increases the probability that test result is a false negative.

NR = Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Inconclusive = Inconclusive results may indicate extremely low concentrations of *Dehalococcoides* DNA or *vcrA* DNA at or below the sample specific quantitation limit (4 x 103/liter), however, test results were insufficient to assign a conclusive positive result for this sample.

Pioneer Midler Avenue LLC
Monitoring Natural Attenuation
Water Quality Parameters

Parameter	Units	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D
Sample Date		02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/10	03/02/10	06/07/10	10/26/10	05/12/11	12/07/11	06/27/12	12/17/12
Field Parameters																
pH		6.35	6.68	6.61	6.77	6.89	6.73	6.89	6.56	6.66	6.77	6.80	7.02	6.78	7.00	7.54
Conductivity	S/m	3.75	3.46	4.62	4.34	4.29	6.78	4.79	5.55	5.54	5.64	5.62	4.92	5.23	5.15	4.22
Temperature	°F	56.12	61.32	64.18	59.22	56.64	60.22	62.96	60.51	56.32	60.98	66.42	60.33	63.23	65.37	62.204
Oxidation/Reduction Potential (ORP)	mV	-375	-336	-342	-336	-340	-324	-366	-364	-324	-336	-337	-347	-278	-259	-253
Dissolved Oxygen	mg/L	0.79	0.0	0.84	1.51	0.0	0.0	1.6	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Laboratory Analytical Parameters																
Dissolved Inorganic Carbon	mg/L	240	160	150	160	170	140	129	117	150	113	130	123	106	129	115
Dissolved Organic Carbon	mg/L	194.00	105.00	45.70	35.00	19.00	16.80	18.10	27.20	26.20	19.00	20.40	4.90	578	13.40	16.60
Iron (total)	mg/L	0.338	0.076	0.512	0.094	0.18	0.106	0.031	0.138	0.163	0.118	0.039	0.181	0.098	0.18	0.11
Ferric Iron	mg/L	0.34	<0.10	0.51	<0.10	0.18	0.106	<0.10	0.138	0.163	<0.10	<0.100	<0.5	<0.10	NS	NS
Ferrous Iron	mg/L	<0.10	<0.20	<0.10	<0.10	<0.10	<0.0150	<0.10	<0.10	<0.10	0.184	<0.100	0.21	0.08	<0.100	0.1
Nitrite-Nitrate as Nitrogen	mg/L	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nitrate as Nitrogen	mg/L-N	NS	NS	NS	NS	<0.1	NS	<0.05	<0.05	<0.05	<0.1	<0.050	<0.1	<0.050	<0.011	<0.01
Sulfate	mg/L	10.40	<2.0	<20.0	13.4	24	44	63.4	155	91.6	147	83.6	98.8	107	91.3	69.2
Sulfide	mg/L	21.60	26.00	36.00	37.20	38.00	33.60	28.40	17.20	19.60	14.80	20.40	17.20	14.00	11.00	16.0
Methane	mg/L	22	19	27	23	24	27	29	24	24	12	22	21	17	13	NS
Ethene	mg/L	0.29	<0.10	0.06	<0.10	<0.10	0.1	0.11	<0.10	0.06	<0.1	0.01	<0.04	<0.01	<0.1	NS
Ethane	mg/L	<0.10	0.18	0.18	0.12	<0.10	<0.10	<0.10	<0.10	<0.02	<0.1	0.02	<0.04	0.02	<0.1	NS
Dehalococcoides (Dhc) Enumeration	per liter	2×10^8	1×10^7	1×10^7	3×10^7	3×10^6	1×10^6	1×10^6	2×10^7	2×10^6	2×10^6	2×10^6	8×10^5	2×10^6	2×10^5	2×10^5
% Dhc		5 - 14	0.3 - 0.8	0.2 - 0.6	3 - 9	0.5 - 2	0.2 - 0.7	0.3 - 0.9	3 - 9	0.3 - 1	0.3 - 0.8	0.2 - 0.6	0.1 - 0.3	0.2 - 0.7	0.03 - 0.09	0.02 - 0.06
Vinyl Chloride Reductase (vcrA)	per liter	2×10^8	3×10^7	6×10^6	2×10^6	9×10^5	5×10^5	3×10^5	3×10^6	2×10^6	2×10^6	1×10^6	9×10^5	1×10^6	3×10^5	NS
% vcrA		5 - 14	0.8 - 2	0.1 -0.4	0.1 - 0.4	0.1 - 0.4	0.08 - 0.3	0.06 - 0.2	0.4 - 1	0.2 - 0.6	0.2 - 0.6	0.2 - 0.5	0.1 - 0.4	0.1 - 0.4	0.1 - 0.3	NS

(1) = Correction factor applied to correct for non-specific PCR amplification products.

(2) = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 4×10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

(3) = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 5×10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

(4) = vcrA DNA detected but below sample specific quantitation limit.

NS = Not Sampled.

NA = Not applicable as Dehalococcoides or vcrA DNA not detected.

ND (1) = Not Detected. The quantitation limit is 7×10^3/liter

ND (2)= Not Detected. The quantitation limit is 4×10^3/liter

ND (3)= Sample inhibited testing; this increases the probability that test result is a false negative.

NR = Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Inconclusive = Inconclusive results may indicate extremely low concentrations of *Dehalococcoides* DNA or *vcrA* DNA at or below the sample specific quantitation limit (4 x 103/liter), however, test results were insufficient to assign a conclusive positive result for this sample.

Pioneer Midler Avenue LLC
Monitoring Natural Attenuation
Water Quality Parameters

Parameter	Units	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D	MW-9D
Sample Date		02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11
Field Parameters																							
pH		6.62	7.01	7.00	7.06	7.20	7.42	6.66	7.12	7.06	6.92	6.53	6.72	6.86	6.96	7.05	6.99	6.69	6.77	6.87	7.75	7.01	7.3
Conductivity	S/m	3.25	3.49	3.19	3.40	3.50	5.38	3.15	3.51	3.53	3.77	2.63	2.61	2.11	2.70	2.67	4.29	2.66	3.11	3.38	2.58	2.73	2.29
Temperature	°F	51.08	55.31	57.81	53.82	49.82	55.96	57.38	53.61	51.64	54.86	47.48	54.16	60.46	52.81	46.27	52.25	57.97	53.96	49.86	54.32	60.93	59.13
Oxidation/Reduction Potential (ORP)	mV	-325	-268	-273	-249	-286	-245	-192	-318	-300	-272	-356	-325	-352	-338	-349	-327	-377	-380	-350	-346	-343	-374
Dissolved Oxygen	mg/L	0.0	0.0	0.66	0.0	0.0	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.74	4.56	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Laboratory Analytical Parameters																							
Dissolved Inorganic Carbon	mg/L	110	69	92	81	77	81	47.7	49.8	88.23	67.3	130	89	110	110	120	110	74	57	116	88	92	76
Dissolved Organic Carbon	mg/L	11	3.10	1.60	2.40	1.10	1.50	4.22	2.90	4.00	3.80	8	6.20	1.60	5.60	3.20	3.50	4.49	6.10	8.70	7.4	6.5	<1.0
Iron (total)	mg/L	0.128	0.094	0.233	0.339	0.32	0.501	0.023	0.176	0.742	0.171	0.123	<0.05	<0.05	0.68	0.06	0.029	21	0.095	<0.05	0.147	0.074	0.207
Ferric Iron	mg/L	<0.10	<0.10	<0.10	<0.10	-0.036	0.293	<0.10	<0.10	0.408	<0.10	0.12	<0.10	<0.10	0.68	0.00008	NR	<0.10	0.0946	<0.10	0.147	<0.100	<0.5
Ferrous Iron	mg/L	0.19	0.12	0.19	0.31	0.36	0.208	<0.10	<0.10	0.334	0.367	<0.10	<0.10	0.19	<0.10	0.062	< 0.015	<0.10	<0.10	<0.10	<0.10	<0.100	0.18
Nitrite-Nitrate as Nitrogen	mg/L	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS
Nitrate as Nitriogen	mg/L	NS	NS	NS	NS	<0.1	NS	<0.05	<0.05	<0.05	<0.10	NS	NS	NS	NS	<0.1	NS	<0.05	<0.05	<0.05	0.026	0.032	0.18
Sulfate	mg/L	441	435	549	530	630	580	496	589	542	546	368	340	549	391	430	380	425	377	328	320	461	380
Sulfide	mg/L	1.60	2.40	1.60	1.20	0.80	0.80	17.20	0.80	2.80	2.00	13.20	12.40	1.60	13.60	22.00	17.20	18.40	14.00	18.40	13.6	29.6	22.4
Methane	mg/L	1.80	0.35	0.53	0.27	0.33	0.29	0.50	0.37	0.50	0.55	3.80	2.80	4.10	3.00	3.40	3.20	3.20	2.50	2.90	2.4	3	2.9
Ethene	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01
Ethane	mg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01
Dehalococcoides (Dhc) Enumeration	per liter	ND[2]	1 x 10^7	ND[2]	7 x $10^{2(1,2)}$	ND[2,3]	ND[2,3]	1 x 10^3	1 x 10^4	2 x 10^3	1 x 10^4	ND[2]	Inconclusive	ND[2]	9 x $10^{2(1,3)}$	ND[1,3]	4 x 10^3	NA	3 x 10^4	1 x 10^3	7 x 10^3	7 x 10^2	4 x 10^4
% Dhc		NA	0.3 - 0.8	NA	.00007 - .0002	NA	NA	.0003 - .0009	0.003 - 0.008	0.0002 - 0.0006	0.002 - 0.006	NA	NA	NA	.00006 - .0002	NA	0.001 - 0.003	NA	0.004 - 0.01	0.0002 - 0.0005	0.0006 - 0.002	0.00002 - 0.00005	0.003 - 0.008
Vinyl Chloride Reductase (vcrA)	per liter	NA	2 x 10^4	NA	Inconclusive	NA	NA	ND[4]	8 x 10^3	Inconclusive	1 x 10^4	NA	Inconclusive	NA	4 x $10^{3(1)}$	NA	NA	NA	4 x 10^4	5 x 10^3	3 x 10^4	ND	NA
% vcrA		NA	0.003 - 0.008	NA	NA	NA	NA	NA	0.002 - 0.005	NA	0.002 - 0.006	NA	NA	NA	0.003 - 0.001	NA	ND[2]	NA	0.005 - 0.01	0.0007 - 0.002	0.002 - 0.007	NA	4 x 10^3 U

Parameter	Units	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-10D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D	MW-13D
Sample Date		02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11	10/11/07	02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11
Field Parameters																										
pH		6.36	6.93	6.90	7.03	6.96	7.10	6.67	6.85	6.97	7.87	7.11	7.49	7.23	6.80	7.01	7.18	7.21	7.37	7.03	7.22	6.82	7.19	7.71	7.38	7.34
Conductivity	S/m	2.07	2.05	2.12	2.20	2.23	3.27	2.16	2.43	2.53	2.42	2.11	1.83	2.83	2.78	2.42	3.07	2.71	3.09	4.4	3.12	2.61	2.97	2.58	2.65	2.35
Temperature	°F	47.12	54.75	59.14	50.58	48.02	53.55	58.71	49.12	49.57	55.4	62	63.86	85.6	64.58	70.99	72.14	61.16	55.71	61.48	64.94	59.68	53.91	59.54	69.91	62.6
Oxidation/Reduction Potential (ORP)	mV	-297	-338	-342	-329	-341	-309	-346	-374	-349	-350	-313	-347	-324	-400	-334	-369	-350	-408	-377	-403	-409	-371	-347	-364	-374
Dissolved Oxygen	mg/L	0.0	0.0	0.69	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.69	0.0	0.0	0.0	1.5	5.6	0.47	0.0	0.0	0.0
Laboratory Analytical Parameters																										
Dissolved Inorganic Carbon	mg/L	120	76	91	85	120	110	71.6	54.7	103	77.5	89	84.8	110	120	75	96	91	130	100	97	20	43.4	34.4	63	66.8
Dissolved Organic Carbon	mg/L	7.50	2.60	3.20	4.70	5.40	3.20	1.82	4.90	5.9	7.1	5	0.47	41.00	42.90	36.00	29.40	41.90	35	42.50	48.90	32.70	39.6	32.6	24.9	1.1
Iron (total)	mg/L	0.0641	<0.05	<0.05	0.0504	0.084	<0.019	0.11	0.07	0.065	<0.050	<0.050	0.0332	1.15	4.26	0.162	0.421	1.26	1.80	5.94	5.89	5.24	8.84	1.43	0.347	0.966
Ferric Iron	mg/L	<0.10	<0.10	<0.10	<0.10	-0.013	NR	0.109	<0.10	<0.10	<0.10	<0.100	<0.50	1.20	4.3	<0.10	<0.10	1.3	1.80	5.95	5.82	4.98	8.84	1.43	0.347	0.04
Ferrous Iron	mg/L	<0.10	<0.10	<0.10	<0.10	0.096	<0.015	<0.10	<0.10	<0.10	<0.10	<0.100	0.17	<0.05	<0.10	0.13	0.36	<0.10	<0.10	<0.075	0.08	0.26	<0.10	<0.1	<0.100	0.93
Nitrite-Nitrate as Nitrogen	mg/L	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS	<0.05	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS	NS
Nitrate as Nitrogen	mg/L	NS	NS	NS	NS	<0.1	NS	<0.05	<0.05	<0.05	<0.10	<0.050	<0.10	NS	NS	NS	NS	NS	<0.1	NS	<0.05	<0.05	<0.05	<0.014	<0.050	<0.1
Sulfate	mg/L	572	609	621	594	430	640	545	684	614	565	557	506	<25.0	61.7	60.1	128	129	86	99	53	128	156	104	62.6	122
Sulfide	mg/L	8.80	26.80	24.80	25.2	12	19.60	0.80	14.00	18.8	19.2	25.6	24	0.80	8	27.2	14.4	14.4	13	13.60	9.60	9.60	20.4	27.2	4.4	37.7
Methane	mg/L	2.60	0.82	1.10	1.30	6.50	3.30	3.80	1.30	2.5	2.2	1.1	2.2	13	13	9.90	14	12	18	16	11	11	19	13	16	12
Ethene	mg/L	0.06	0.02	0.05	<0.02	<0.10	0.05	0.04	0.03	0.03	0.03	<0.01	0.01	6.00	9.10	3.90	7.00	3.00	5.30	9.10	4.90	5.50	3.2	0.59	0.53	1.4
Ethane	mg/L	<0.02	<0.02	<0.02	<0.02	<0.10	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	4.60	1.10	0.99	1.90	2.20	3.3	3.1	2.4	2.4	3.8	1.6	2.1	0.8
Dehalococcoides (Dhc) Enumeration	per liter	6 x 10^6	9 x 10^5	6 x 10^5	8 x 10^5	4 x 10^6	1 x 10^6	3 x 10^6	2 x 10^7	6 x 10^6	1 x 10^7	7 x 10^6	2 x 10^6	2 x 10^8	8 x 10^8	7 x 10^6	3 x 10^7	9 x 10^6	6 x 10^7	5 x 10^7	2 x 10^8	3 x 10^8	5 x 10^7	5 x 10^8	4 x 10^8	2 x 10^8
% Dhc		0.5 - 1.0	0.06 - 0.2	0.03 - 0.1	.08 - 0.2	0.7 - 2	0.2 - 0.7	0.5 - 1	2 - 5	0.7 - 2	0.8 - 2	0.8 - 2	0.3 - 0.8	100	13 - 34	0.2 - 0.6	0.5 - 1.0	0.2 - 0.7	5 - 15	3 - 9	8 - 22	7 - 20	2 - 7	22 - 52	9 - 25	10 - 28
Vinyl Chloride Reductase (vcrA)	per liter	2 x 10^7	7 x 10^6	1 x 10^6	2 x 10^6	4 x 10^6	8 x 10^5	4 x 10^6	7 x 10^7	2 x 10^7	3 x 10^7	2 x 10^7	7 x 10^6	6 X 10^7	2 x 10^9	8 x 10^7	4 x 10^7	2 x 10^6	4 x 10^7	5 x 10^7	8 x 10^7	4 x 10^8	1 x 10^8	5 x 10^8	4 x 10^8	2 x 10^8
% vcrA		1 - 4	0.5 - 1	0.05 - 0.2	0.1 -0.4	0.6 - 2	0.2 - 0.6	0.6 - 2	6 - 17	2 - 6	2 - 6	2 - 7	1 - 3	>93	36 - 75	2 - 6	0.7 - 2	0.1 - 0.4	3 - 10	3 - 9	3 - 10	9 - 24	4 - 13	23 - 54	8 - 23	12 - 30

[1] = Correction factor applied to correct for non-specific PCR amplification products.

[2] = Dehalococcoides DNA detected but below sample specific quantitation limit. Tha sample specific quantitation limit is 4 x 10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

[3] = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 5 x 10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

[4] = vcrA DNA detected but below sample specific quantitation limit.

NS = Not Sampled.

NA = Not applicable as Dehalococcoides or vcrA DNA not detected.

ND [1] = Not Detected. The quantitation limit is 7 x 10^3/liter

ND [2]= Not Detected. The quantitation limit is 4 x 10^3/liter

ND [3]= Sample inhibited testing; this increases the probability that test result is a false negative.

NR = Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Inconclusive = Inconclusive results may indicate extremely low concentrations of *Dehalococcoides* DNA or *vcrA* DNA at or below the sample specific quantitation limit (4 x 10^3/liter), however, test results were insufficient to assign a conclusive positive result for this sample.

Pioneer Midler Avenue LLC
Monitoring Natural Attenuation
Water Quality Parameters

Parameter	Units	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-14D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D
Sample Date		02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11	02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/09	03/02/10	06/07/10	10/26/10	05/12/11
Field Parameters																									
pH		6.08	6.33	6.35	6.56	6.66	6.58	6.55	6.27	6.46	7.39	6.57	7.00	6.42	6.73	6.72	6.97	6.96	6.93	6.61	6.53	6.78	7.91	7.04	7.3
Conductivity	S/m	7.10	5.57	5.10	4.22	4.36	6.87	4.53	4.90	5.17	4.89	4.66	4.31	1.53	2.00	2.12	2.37	1.90	2.96	2.20	2.41	2.26	2.42	2.42	1.85
Temperature	°F	46.94	59.28	61.88	59.66	57.00	59.94	61.52	60.28	59.18	59.36	64.31	63.7	46.76	55.11	58.73	53.31	46.2	54.82	57.65	50.92	49.55	54.68	60.46	61.18
Oxidation/Reduction Potential (ORP)	mV	-367	-333	-342	-338	-345	-344	-366	-397	-359	-365	-342	-379	-218	-319	-347	-323	-340	-324	-373	-380	-344	-350	-291	-375
Dissolved Oxygen	mg/L	2.18	0.0	0.98	0.0	0.0	0.0	1.6	2.8	0.26	0.0	0.0	0.0	4.39	0.0	0.69	0.0	0.0	0.0	0.0	0.0	0.0	3.23	0.0	0.0
Laboratory Analytical Parameters																									
Dissolved Inorganic Carbon	mg/L	240	220	260	260	290	270	209	206	250	172	210	169	190	150	130	130	160	160	97.3	104	159	106	130	118
Dissolved Organic Carbon	mg/L	570	900	179	181	190	124	95	123	118	89.8	79	28.1	17	11.90	6.30	8.10	5.80	7.20	7.76	10.60	11.6	150	8.1	2.4
Iron (total)	mg/L	1.34	0.152	0.107	0.209	0.14	0.093	0.076	0.048	0.058	0.133	0.051	0.0995	1.27	0.094	0.135	0.624	0.450	0.11	0.398	0.055	0.097	0.05	0.105	0.174
Ferric Iron	mg/L	1.30	0.15	0.11	0.21	0.14	NR	0.076	<0.10	<0.10	0.133	<0.100	<0.50	1.10	<0.10	<0.10	0.62	0.37	0.11	0.398	<0.10	<0.10	<0.10	0.105	0.18
Ferrous Iron	mg/L	<0.10	<0.10	<0.10	<0.50	<0.10	<0.015	<0.10	<0.10	<0.10	<0.10	<0.100	0.39	0.14	0.55	0.22	<0.10	0.084	<0.0150	<0.10	<0.10	<0.10	<0.10	<0.100	<0.5
Nitrite-Nitrate as Nitrogen	mg/L	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS
Nitrate as Nitrogen	mg/L-N	NS	NS	NS	NS	0.14	NS	<0.50	<0.50	<0.50	<0.10	<0.050	<0.01	NS	NS	NS	NS	<0.10	NS	<0.05	<0.05	<0.05	<0.10	<0.050	<0.100
Sulfate	mg/L	10.50	<2.0	<20.0	<4.0	<100	3.2	8.92	17.8	12	34.2	32.5	60.6	126	309	637	623	420	380	479	441	440	559	786	519
Sulfide	mg/L	62.40	65.60	74.40	69.60	66	73.20	70.80	58.40	69.2	62.8	69.2	48	4	16.80	17.20	22.40	14	0.80	20.00	16.40	18.4	26.4	32.4	36
Methane	mg/L	11	11	22	25	25	29	28	27	29	20	24	20	4.10	8.20	11	6.50	15	16	13	17	18	13	9.1	12
Ethene	mg/L	0.48	0.63	2.70	1.9	1.7	2	1.9	1.9	1.7	1.2	0.88	0.18	<0.02	<0.10	<0.02	<0.02	<0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.04
Ethane	mg/L	<0.10	<0.10	<0.02	<0.10	<0.10	<0.01	<0.10	<0.10	<0.02	<0.1	0.03	0.06	<0.02	<0.10	<0.02	<0.02	<0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.04
Dehalococcoides (Dhc) Enumeration	per liter	1×10^9	9×10^8	3×10^8	7×10^7	1×10^8	2×10^7	2×10^7	3×10^7	4×10^6	2×10^7	2×10^7	5×10^6	ND [1]	7×10^6	ND[2]	NA	ND[1,3]	1×10^5	Inconclusive	1×10^4	NA	Inconclusive	1×10^3	4×10^3
% Dhc		17 - 43	27 - 62	7 - 18	3 - 9	6 - 16	1 - 4	1 - 4	2 - 5	0.5 - 1	0.8 - 2	2 - 5	0.5 - 1	NA	0.2 - 0.6	NA	Inconclusive	NA	0.2 - 0.05	NA	0.0008 - 0.002	ND[3]	NA	0.00001 - 0.00004	0.0009 - 0.003
Vinyl Chloride Reductase (vcrA)	per liter	2×10^7	3×10^7	2×10^8	3×10^7	2×10^7	2×10^6	3×10^6	1×10^7	1×10^6	9×10^6	9×10^6	4×10^6	NA	Inconclusive	NA	ND[2]	NA	1×10^4	Inconclusive	4×10^1	NA	ND[2]	ND	4×10^2 U
% vcrA		0.5 - 2	0.9 - 3	4 - 11	1 - 4	1 - 3	0.2 -0.5	0.2 -0.7	0.7 - 2	0.2 -0.5	0.3 -0.9	0.6 - 2	0.3 - 1	NA	NA	ND[2]	NA	NA	0.001 - 0.004	NA	0.003 - 0.008	NA	NA	NA	NA

Parameter	Units	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D	MW-16D
Sample Date		02/12/08	06/02/08	10/06/08	12/23/08	03/02/09	06/02/09	09/30/09	12/21/10	03/02/10	06/07/10	10/26/10	05/12/11
Field Parameters													
pH		6.35	6.68	6.61	6.77	6.89	6.73	6.89	6.56	6.66	6.77	6.80	7.02
Conductivity	S/m	3.75	3.46	4.62	4.34	4.29	6.78	4.79	5.55	5.54	5.64	5.62	4.92
Temperature	°F	56.12	61.32	64.18	59.22	56.64	60.22	62.96	60.51	56.32	60.98	66.42	60.33
Oxidation/Reduction Potential (ORP)	mV	-375	-336	-342	-336	-340	-324	-366	-364	-324	-336	-337	-347
Dissolved Oxygen	mg/L	0.79	0.0	0.84	1.51	0.0	0.0	1.6	0.0	0.0	0.0	0.1	0.0
Laboratory Analytical Parameters													
Dissolved Inorganic Carbon	mg/L	240	160	150	160	170	140	129	117	150	113	130	123
Dissolved Organic Carbon	mg/L	194.00	105.00	45.70	35.00	19.00	16.80	18.10	27.20	26.20	19.00	20.40	4.90
Iron (total)	mg/L	0.338	0.076	0.512	0.094	0.18	0.106	0.031	0.138	0.163	0.118	0.039	0.181
Ferric Iron	mg/L	0.34	<0.10	0.51	<0.10	0.18	0.106	<0.10	0.138	0.163	<0.10	<0.100	<0.5
Ferrous Iron	mg/L	<0.10	<0.20	<0.10	<0.10	<0.10	<0.0150	<0.10	<0.10	<0.10	0.184	<0.100	0.21
Nitrite-Nitrate as Nitrogen	mg/L	NS	NS	<0.060	<0.060	NS	<0.02	NS	NS	NS	NS	NS	NS
Nitrate as Nitrogen	mg/L-N	NS	NS	NS	NS	<0.1	NS	<0.05	<0.05	<0.05	<0.1	<0.050	<0.1
Sulfate	mg/L	10.40	<2.0	<20.0	13.4	24	44	63.4	155	91.6	147	83.6	98.8
Sulfide	mg/L	21.60	26.00	36.00	37.20	38.00	33.60	28.40	17.20	19.60	14.80	20.40	17.20
Methane	mg/L	22	19	27	23	24	27	29	24	24	12	22	21
Ethene	mg/L	0.29	<0.10	0.06	<0.10	<0.10	0.1	0.11	<0.10	0.06	<0.1	0.01	<0.04
Ethane	mg/L	<0.10	0.18	0.18	0.12	<0.10	<0.10	<0.10	<0.10	<0.02	<0.1	0.02	<0.04
Dehalococcoides (Dhc) Enumeration	per liter	2×10^8	1×10^7	1×10^7	3×10^7	3×10^6	1×10^5	1×10^5	2×10^7	2×10^6	2×10^6	2×10^6	8×10^5
% Dhc		5 - 14	0.3 - 0.8	0.2 - 0.6	3 - 9	0.5 - 2	0.2 - 0.7	0.3 - 0.9	3 - 9	0.3 - 1	0.3 - 0.8	0.2 - 0.6	0.1 - 0.3
Vinyl Chloride Reductase (vcrA)	per liter	2×10^8	3×10^7	6×10^6	2×10^6	9×10^5	5×10^5	3×10^5	3×10^6	2×10^6	2×10^6	1×10^6	9×10^5
% vcrA		5 - 14	0.8 - 2	0.1 -0.4	0.1 - 0.4	0.1 - 0.4	0.08 - 0.3	0.06 - 0.2	0.4 - 1	0.2 - 0.6	0.2 - 0.6	0.2 - 0.5	0.1 - 0.4

[1] = Correction factor applied to correct for non-specific PCR amplification products.

[2] = Dehalococcoides DNA detected but below sample specific quantitation limit. Tha sample specific quantitation limit is 4×10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

[3] = Dehalococcoides DNA detected but below sample specific quantitation limit. The sample specific quantitation limit is 5×10^3/liter. Additional explanation provided in: Interpretation of Quantitative Gene-Trac Dehalococcoides Test Results.

[4] = vcrA DNA detected but below sample specific quantitation limit.

NS = Not Sampled.

NA = Not applicable as Dehalococcoides or vcrA DNA not detected.

ND [1] = Not Detected. The quantitation limit is 7×10^5/liter

ND [2]= Not Detected. The quantitation limit is 4×10^3/liter

ND [3]= Sample inhibited testing; this increases the probability that test result is a false negative.

NR = Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Inconclusive = Inconclusive results may indicate extremely low concentrations of *Dehalococcoides* DNA or *vcrA* DNA at or below the sample specific quantitation limit (4×10^3/liter), however, test results were insufficient to assign a conclusive positive result for this sample.

SiREM
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130 Research Lane, Ste 2
Guelph ON N1G 5G3
(519) 822-2265

Certificate of Analysis: Gene-Trac® *Dehalococcoides* Assay

Customer: Wayne Randall, C & S Engineers Inc.

Project: Pioneer Midler Ave GW

Customer Reference: C81.006.001

SiREM Reference: S-2549

Report Date: 13-Jul-12

Data Files: iQ5-GBA-QPCR-0020
MyiQ-DHC-QPCR-0915
MyiQ-DHC-QPCR-0916
DHC-QPCR-check-gel-0638
MyiQ-DB-DHC-QPCR-0299

Table 1a: Test Results

Customer Sample ID	SiREM Sample ID	Sample Collection Date	Sample Matrix	Percent Dhc *	*Dehalococcoides* Enumeration/Liter **
MW-14D	DHC-8371	27-Jun-12	Groundwater	0.05 - 0.2 %	8×10^5
MW-16D	DHC-8372	27-Jun-12	Groundwater	0.03 - 0.09 %	2×10^5
MW-13D	DHC-8361	27-Jun-12	Groundwater	1 - 4 %	5×10^7
MW-9D	DHC-8373	27-Jun-12	Groundwater	NA	3×10^3 U
MW-10D	DHC-8374	27-Jun-12	Groundwater	0.08 - 0.2 %	6×10^5
MW-15D	DHC-8375	27-Jun-12	Groundwater	NA	3×10^3 U

Notes:

* Percent *Dehalococcoides* (Dhc) in microbial population. This value is calculated by dividing the number of Dhc 16S ribosomal ribonucleic acid (rRNA) gene copies by the total number of bacteria as estimated by the mass of DNA extracted from the sample. Range represents normal variation in Dhc enumeration.

** Based on quantification of Dhc 16S rRNA gene copies. Dhc are generally reported to contain one 16S rRNA gene copy per cell; therefore, this number is often interpreted to represent the number of Dhc cells present in the sample.

J The associated value is an estimated quantity between the method detection limit and quantitation limit.
U Not detected, associated value is the quantification limit.
B Analyte was also detected in the method blank.
NA Not applicable as *Dehalococcoides* not detected and/or quantifiable DNA not extracted from the sample.
I Sample inhibited the test reaction based on inability to PCR amplify extracted DNA with universal primers.

Analyst: J. Wilkinson
Jennifer Wilkinson
Senior Laboratory Technician

Approved: Ximena Druar
Ximena Druar, B.Sc.
Genetic Testing Coordinator

SiREM
Leading Science · Lasting Solutions

130 Research Lane, Ste 2
Guelph ON N1G 5G3
(519) 822-2265

Certificate of Analysis: Gene-Trac® VC, Vinyl Chloride Reductase (vcrA) Assay

Customer: Wayne Randall, C & S Engineers Inc.

Project: Pioneer Midler Ave GW

Customer Reference: C81.006.001

SiREM Reference: S-2549

Report Date: 13-Jul-12

Data Files: MyiQ-VC-QPCR-0489
MyiQ-DB-VC-QPCR-0225
VC-QPCR-check-gel-0509

Table 1b: Test Results

Customer Sample ID	SiREM Sample ID	Sample Collection Date	Sample Matrix	Percent *vcrA* *	Vinyl Chloride Reductase (*vcrA*) Gene Copies/Liter
MW-14D	VCR-3288	27-Jun-12	Groundwater	0.05 - 0.1 %	3×10^5
MW-16D	VCR-3289	27-Jun-12	Groundwater	0.1 - 0.3 %	3×10^5
MW-13D	VCR-3290	27-Jun-12	Groundwater	3 - 7 %	4×10^7
MW-10D	VCR-3291	27-Jun-12	Groundwater	0.3 - 1 %	1×10^6

Notes:

* Percentage of bacteria in the microbial population that harbor the *vcrA* gene. This value is calculated by dividing the measured number of cells haboring the vinyl chloride reductase A (*vcrA*) gene by the total number of bacteria in the sample estimated using the mass of DNA extracted from the sample. Range represents normal variation in enumeration of *vcrA*.

J The associated value is an estimated quantity between the method detection limit and quantitation limit.
U Not detected, associated value is the quantification limit.
B Analyte was also detected in the method blank.
NA Not applicable as *vcrA* not detected and/or quantifiable DNA not extracted from the sample.
I Sample inhibited the test reaction based on inability to PCR amplify extracted DNA with universal primers.
C Correction factor applied to correct for non-specific PCR amplification products.

Analyst: J. Wilkinson
Jennifer Wilkinson
Senior Laboratory Technician

Approved: Ximena Druar
Ximena Druar, B.Sc.
Genetic Testing Coordinator

Table 2.1: Detailed Test Parameters, Gene-Trac Test Reference S-2549

Customer Sample ID	MW-14D	MW-16D	MW-13D
SiREM Dhc Sample ID	DHC-8371	DHC-8372	DHC-8361
SiREM *vcrA* Sample ID	VCR-3288	VCR-3289	VCR-3290
Date Received	29-Jun-12	29-Jun-12	29-Jun-12
Sample Temperature	10 ºC	10 ºC	10 ºC
Filtration Date	5-Jul-12	5-Jul-12	5-Jul-12
Volume Used for DNA Extraction	500 mL	500 mL	500 mL
DNA Extraction Date	9-Jul-12	9-Jul-12	9-Jul-12
DNA Concentration in Sample (extractable)	2927 ng/L	1337 ng/L	6732 ng/L
PCR Amplifiable DNA	Detected	Detected	Detected
Dhc qPCR Date Analyzed	11-Jul-12	11-Jul-12	10-Jul-12
***vcrA* qPCR Date Analyzed**	12-Jul-12	12-Jul-12	12-Jul-12
Laboratory Controls (see Tables 3 & 4)	Passed	Passed	Passed
Comments	- -	- -	- -

Notes:

Refer to Tables 3 & 4 for detailed results of controls.
NA - not applicable
ND = not detected
DNA = Deoxyribonucleic acid
PCR = polymerase chain reaction
qPCR = quantitative PCR
Dhc = Dehalococcoides
vcrA = vinyl chloride reductase
ng/L = nanograms per liter
mL = milliliters
°C = degrees Celsius

Table 2.2: Detailed Test Parameters, Gene-Trac Test Reference S-2549

Customer Sample ID	MW-9D	MW-10D	MW-15D
SiREM Dhc Sample ID	DHC-8373	DHC-8374	DHC-8375
SiREM *vcrA* Sample ID	NA	VCR-3291	NA
Date Received	29-Jun-12	29-Jun-12	29-Jun-12
Sample Temperature	10 ºC	10 ºC	10 ºC
Filtration Date	5-Jul-12	5-Jul-12	5-Jul-12
Volume Used for DNA Extraction	500 mL	500 mL	500 mL
DNA Extraction Date	9-Jul-12	9-Jul-12	9-Jul-12
DNA Concentration in Sample (extractable)	2493 ng/L	1599 ng/L	1383 ng/L
PCR Amplifiable DNA	Detected	Detected	Detected
Dhc qPCR Date Analyzed	11-Jul-12	11-Jul-12	11-Jul-12
***vcrA* qPCR Date Analyzed**	NA	12-Jul-12	NA
Laboratory Controls (see Tables 3 & 4)	Passed	Passed	Passed
Comments	*vcrA* test not performed as sample was ND for Dhc.	- -	vcrA test not performed as sample was ND for Dhc.

Notes:

Refer to Tables 3 & 4 for detailed results of controls.
NA - not applicable
ND = not detected
DNA = Deoxyribonucleic acid
PCR = polymerase chain reaction
qPCR = quantitative PCR
Dhc = Dehalococcoides
vcrA = vinyl chloride reductase
ng/L = nanograms per liter
mL = milliliters
°C = degrees Celsius

Table 3: Experimental Control Results, Gene-Trac Test Reference S-2549

Laboratory Control	Analysis Date	Control Description	Spiked Dhc 16S rRNA Gene Copies per Liter	Recovered Dhc 16S rRNA Gene Copies per Liter	Comments
Positive Control Low Concentration	10-Jul-12	qPCR with KB1 genomic DNA (CSLD-0552)	1.4×10^5	2.6×10^3 U	See Note 1
Positive Control High Concentration	10-Jul-12	qPCR with KB1 genomic DNA (CSHD-0552)	1.8×10^7	1.7×10^7	- -
Negative Control	10-Jul-12	Tris Reagent Blank (TBD-0512)	0	2.6×10^3 U	- -
Positive Control Low Concentration	11-Jul-12	qPCR with KB1 genomic DNA (CSLD-0553)	1.4×10^5	9.5×10^4	- -
Positive Control High Concentration	11-Jul-12	qPCR with KB1 genomic DNA (CSHD-0553)	1.8×10^7	1.3×10^7	- -
Filter Blank	11-Jul-12	DNA extraction sterile water (FB-1717)	0	2.6×10^3 U	- -
Negative Control	11-Jul-12	Tris Reagent Blank (TBD-0513)	0	2.6×10^3 U	- -

Notes:

Dhc = *Dehalococcoides*

DNA = Deoxyribonucleic acid

qPCR = quantitative PCR

16S rRNA = 16S ribosomal ribonucleic acid

U Not detected, associated value is the quantification limit.

[1]Outside recovery limit guideline of +/- 50%.

Table 4: Experimental Control Results, Gene-Trac Test Reference S-2549

Laboratory Control	Analysis Date	Control Description	Spiked *vcrA* reductase Gene Copies per Liter	Recovered *vcrA* reductase Gene Copies per Liter	Comments
Positive Control Low Concentration	12-Jul-12	qPCR with KB1 genomic DNA (CSLV-0357)	3.2×10^5	2.6×10^5	- -
Positive Control High Concentration	12-Jul-12	qPCR with KB1 genomic DNA (CSHV-0357)	3.6×10^7	3.6×10^7	- -
Filter Blank	12-Jul-12	DNA extraction sterile water (FB-1717)	0	2.6×10^3 U	- -
Negative Control	12-Jul-12	Tris Reagent Blank (TBV-0328)	0	2.6×10^3 U	- -

Notes:

DNA = Deoxyribonucleic acid

qPCR = quantitative PCR

16S rRNA = 16S ribosomal ribonucleic acid

U Not detected, associated value is the quantification limit.

vcrA = vinyl chloride reductase

SiREM
Leading Science · Lasting Solutions

130 Research Lane, Ste 2
Guelph ON N1G 5G3
(519) 822-2265

Certificate of Analysis: Gene-Trac® *Dehalococcoides* Assay

Customer: Wayne Randall, C & S Engineers, Inc.
Project: Midler
Customer Reference: C81

SiREM Reference: S-2702
Report Date: 9-Jan-13
Data Files: MyiQ-DHC-QPCR-0967
MyiQ-DB-DHC-QPCR-0338
iQ5-GBA-QPCR-0051

Table 1: Test Results

Customer Sample ID	SiREM Sample ID	Sample Collection Date	Sample Matrix	Percent Dhc *	*Dehalococcoides* Enumeration/Liter **
MW 16D	DHC-8899	17-Dec-12	Groundwater	0.02 - 0.06 %	2×10^5
MW 13D	DHC-8900	17-Dec-12	Groundwater	3 - 8 %	6×10^7
MW 14D	DHC-8901	17-Dec-12	Groundwater	0.04 - 0.1 %	4×10^5
MW 10D	DHC-8902	17-Dec-12	Groundwater	0.1 - 0.3 %	1×10^6
MW 15D	DHC-8903	17-Dec-12	Groundwater	NA	3×10^3 U
MW 9D	DHC-8904	17-Dec-12	Groundwater	NA	3×10^3 U

Notes:

* Percent *Dehalococcoides* (Dhc) in microbial population. This value is calculated by dividing the number of Dhc 16S ribosomal ribonucleic acid (rRNA) gene copies by the total number of bacteria as estimated by the mass of DNA extracted from the sample. Range represents normal variation in Dhc enumeration.

** Based on quantification of Dhc 16S rRNA gene copies. Dhc are generally reported to contain one 16S rRNA gene copy per cell; therefore, this number is often interpreted to represent the number of Dhc cells present in the sample.

J The associated value is an estimated quantity between the method detection limit and quantitation limit.
U Not detected, associated value is the quantification limit.
B Analyte was also detected in the method blank.
NA Not applicable as *Dehalococcoides* not detected and/or quantifiable DNA not extracted from the sample.
I Sample inhibited the test reaction based on inability to PCR amplify extracted DNA with universal primers.
E Extracted genomic DNA was not detected in the sample.

Analyst: Kela Bartle
Kela Bartle, B.Sc.
Laboratory Technician

Approved: Ximena Druar
Ximena Druar, B.Sc.
Genetic Testing Coordinator

Table 2.1: Detailed Test Parameters, Gene-Trac Test Reference S-2702

Customer Sample ID	MW 16D	MW 13D	MW 14D
SiREM Sample ID	DHC-8899	DHC-8900	DHC-8901
Date Received	20-Dec-12	20-Dec-12	20-Dec-12
Sample Temperature	8 ˚C	8 ˚C	8 ˚C
Filtration Date	31-Dec-12	31-Dec-12	31-Dec-12
Volume Used for DNA Extraction	500 mL	500 mL	500 mL
DNA Extraction Date	7-Jan-13	7-Jan-13	7-Jan-13
DNA Concentration in Sample (extractable)	1760 ng/L	4205 ng/L	1994 ng/L
PCR Amplifiable DNA	Detected	Detected	Detected
qPCR Date Analyzed	7-Jan-13	7-Jan-13	7-Jan-13
Laboratory Controls (see Table 3)	Passed	Passed	Passed
Comments	--	--	--

Notes:

Refer to Table 3 for detailed results of controls.
DNA = Deoxyribonucleic acid
Dhc = *Dehalococcoides*
PCR = polymerase chain reaction
qPCR = quantitative PCR
°C = degrees Celsius
ng/L = nanograms per liter
mL = milliliters

Table 2.2: Detailed Test Parameters, Gene-Trac Test Reference S-2702

Customer Sample ID	MW 10D	MW 15D	MW 9D
SiREM Sample ID	DHC-8902	DHC-8903	DHC-8904
Date Received	20-Dec-12	20-Dec-12	20-Dec-12
Sample Temperature	8 ˚C	8 ˚C	8 ˚C
Filtration Date	31-Dec-12	31-Dec-12	31-Dec-12
Volume Used for DNA Extraction	500 mL	500 mL	500 mL
DNA Extraction Date	7-Jan-13	7-Jan-13	7-Jan-13
DNA Concentration in Sample (extractable)	2196 ng/L	1472 ng/L	3797 ng/L
PCR Amplifiable DNA	Detected	Detected	Detected
qPCR Date Analyzed	7-Jan-13	7-Jan-13	7-Jan-13
Laboratory Controls (see Table 3)	Passed	Passed	Passed
Comments	--	--	--

Notes:

Refer to Table 3 for detailed results of controls.
DNA = Deoxyribonucleic acid
Dhc = *Dehalococcoides*
PCR = polymerase chain reaction
qPCR = quantitative PCR
°C = degrees Celsius
ng/L = nanograms per liter
mL = milliliters

Table 3: Laboratory Controls, Test Reference S-2702

Laboratory Control	Analysis Date	Control Description	Spiked Dhc 16S rRNA Gene Copies per Liter	Recovered Dhc 16S rRNA Gene Copies per Liter	Comments
Positive Control Low Concentration	7-Jan-13	qPCR with KB-1 genomic DNA (CSLD-0604)	8.4×10^4	7.2×10^4	- -
Positive Control High Concentration	7-Jan-13	qPCR with KB-1 genomic DNA (CSHD-0604)	1.2×10^7	1.1×10^7	- -
Negative Control	7-Jan-13	Tris Reagent Blank (TBD-0564)	0	2.6×10^3 U	- -
DNA Extraction Blank	7-Jan-13	DNA extraction sterile water (FB-1837)	0	2.6×10^3 U	- -

Notes:

Dhc = *Dehalococcoides*

DNA = Deoxyribonucleic acid

qPCR = quantitative PCR

16S rRNA = 16S ribosomal ribonucleic acid

U Not detected, associated value is the quantification limit.

№ 2413

SiREM
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Chain-of-Custody Form

130 Research Lane, Suite 2 · Guelph, Ontario, Canada N1G 5G3 · Phone (519) 822-2265 or toll free 1-866-251-1747 Fax (519) 822-3151
www.siremlab.com

Page 1 of 1

Lab # 5-2702

Project Name	Midler
Project #	C81
Project Manager	Wayne Randall
Email Address	Wrandall@cscos.com
Company	C&S Engineers Inc.
Address	499 Col. Eileen Collins Blvd.
Phone #	315 455 2000
Fax #	315 455 9667
Sampler's Signature	
Sampler's Printed Name	Wayne Randall

Analysis

Preservative

Gene-Trac Dhc | ~~Gene-Trac VC~~ | Gene-Trac DHB DHC

Preservative Key
0. None
1. HCl – Vials only
2. Other _____
3. Other _____

Customer Sample ID	Sampling Date	Sampling Time	Matrix	# of Containers	Gene-Trac Dhc	~~Gene-Trac VC~~	Gene-Trac DHB DHC	Other Information
MW 16D	12/17/12	800	H2O	2	X		X	
MW 13D		900			X		X	
MW 14D		1000			X		X	
MW 10D		1130			X		X	
MW 15D		1215			X		X	
MW 9D		1300			X		X	

Sample Receipt
Cooler Condition: GOOD.
Cooler Temperature: 8°C.
Custody Seals: Yes ☐ No ☒

Billing Information
P.O. # C81
Bill To: C&S

Turnaround Time Requested
Normal ☒
Rush ☐

For Lab Use Only
Proposal #: _____

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name Wayne Randall	Printed Name D. Vespoli	Printed Name	Printed Name	Printed Name	Printed Name
Firm C&S	Firm SiREM.	Firm	Firm	Firm	Firm
Date/Time 12/17/12 1700	Date/Time DEC 20 '12 12:00pm.	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator: Yellow - Lab Copy: Pink - Retained by Client

№ 2257

Chain-of-Custody Form

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www.siremlab.com

Page ____ of ____

Lab # S-2549

Project Name	Pioneer Miller Ave GW	Project #	C81.006.001
Project Manager	Wayne Randall		
Email Address	wrandall@cscos.com		
Company	C&S Engineers, Inc.		
Address	499 Col. Eileen Collins Blvd.		
Phone #	315 455 2000	Fax #	315 455 9667
Sampler's Signature		Sampler's Printed Name	Wayne Randall

Analysis

Preservative Key: 0. None; 1. HCl; 2. Other ____; 3. Other ____

Customer Sample ID	Sampling Date	Sampling Time	Matrix	# of Containers	Gene-Trac Dhc	Gene-Trac VC	Gene-Trac Dhb DHG	Other Information
MW-14D	6/27/12	1000a	H_2O	3	X	X	X	GT Methods 1&2 + DHG
MW-16D		900a			X	X	X	
MW-13D		1100a			X	X	X	
MW-9D		1200p			X	X	X	
MW-10D		100p			X	X	X	
MW-15D		200p			X	X	X	

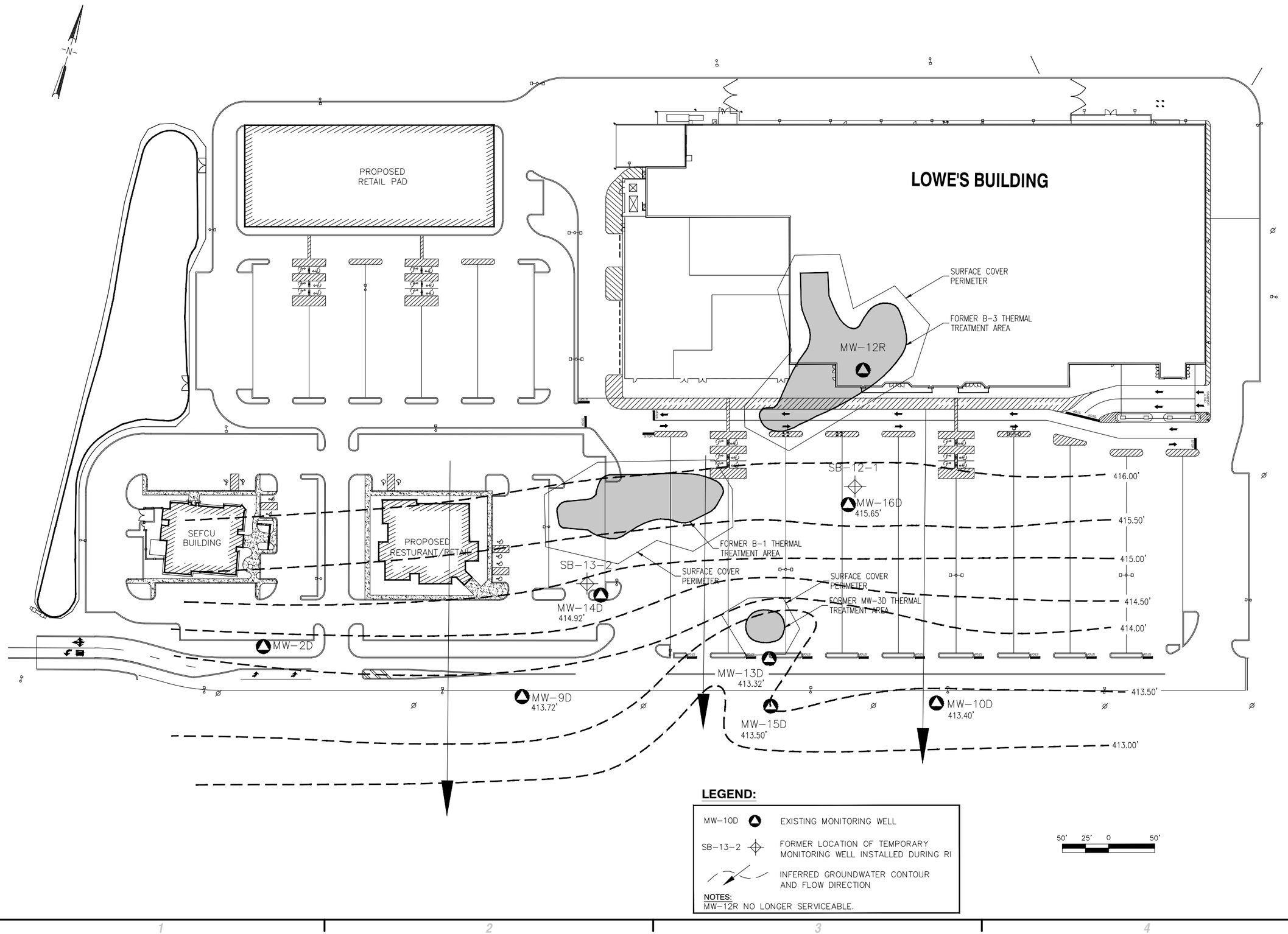
Sample Receipt		Billing Information		Turnaround Time Requested	For Lab Use Only
Cooler Condition:	good	P.O. #	C81.006.001	Normal ☐	
Cooler Temperature:	10°C	Bill To:	Tom Barba	Rush ☐	Proposal #: ____
Custody Seals: Yes ☐ No ☒					

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature Kela Bartle	Signature	Signature	Signature	Signature
Printed Name Wayne Randall	Printed Name Kela Bartle	Printed Name	Printed Name	Printed Name	Printed Name
Firm C&S Engineers	Firm SiREM	Firm	Firm	Firm	Firm
Date/Time 6/27/12 1600	Date/Time 6/29/12 13:30	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator: Yellow - Lab Copy: Pink - Retained by Client

APPENDIX B-4

GROUNDWATER CONTOUR MAPS 2012



LEGEND:

MW-10D	EXISTING MONITORING WELL
SB-13-2	FORMER LOCATION OF TEMPORARY MONITORING WELL INSTALLED DURING RI
	INFERRED GROUNDWATER CONTOUR AND FLOW DIRECTION

NOTES:
MW-12R NO LONGER SERVICEABLE.

C&S COMPANIES
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
Phone: 315-455-2000
Fax: 315-455-9667
www.cscos.com

PIONEER MIDLER AVENUE, LLC
POST IRM MONITORING
MIDLER CITY
INDUSTRIAL PARK
BROWNFIELD CLEANUP
SYRACUSE, NY
NYSDEC BROWNFIELD SITE No. C734103

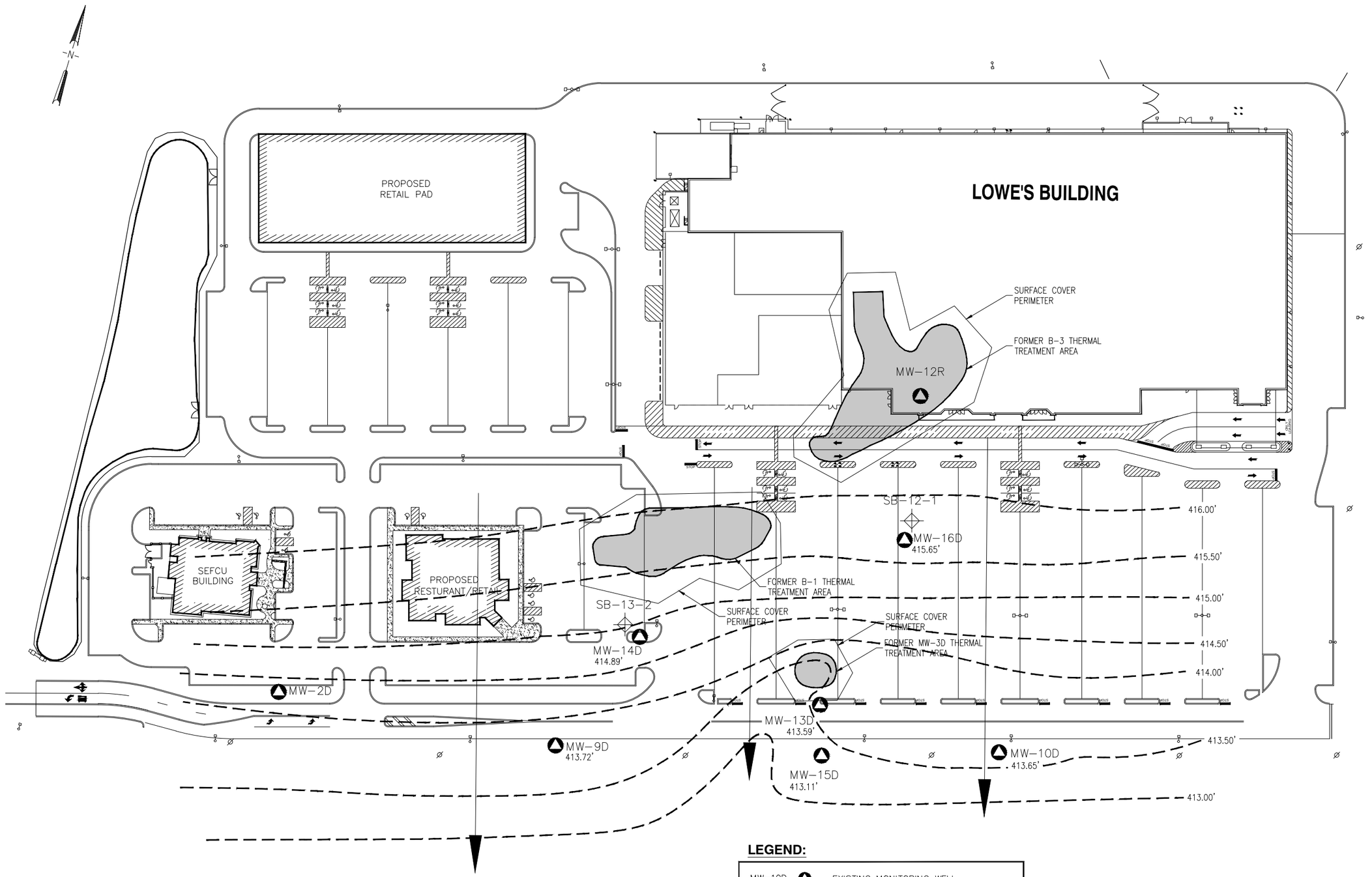
MARK	DATE	DESCRIPTION
		REVISIONS

PROJECT NO:	
DATE:	AUGUST 2011
SCALE:	AS SHOWN
DRAWN BY:	B. BUCKINGHAM
DESIGNED BY:	
CHECKED BY:	

JUNE, 2012
GROUNDWATER
CONTOUR MAP

FIGURE 1

Aug 02, 2012 - 5:23pm F:\Project\C81 - Pioneer Development\C81.006.001Post IRM GW Monitoring\2012 Groundwater Sampling\June 2012\CAD\FIGURE 1 12MAY2011.dwg



LEGEND:

MW-10D	EXISTING MONITORING WELL
SB-13-2	FORMER LOCATION OF TEMPORARY MONITORING WELL INSTALLED DURING RI
	INFERRED GROUNDWATER CONTOUR AND FLOW DIRECTION

NOTES:
MW-12R NO LONGER SERVICEABLE.

C&S COMPANIES
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
Phone: 315-455-2000
Fax: 315-455-9667
www.cscos.com

PIONEER MIDLER AVENUE, LLC
POST IRM MONITORING
MIDLER CITY
INDUSTRIAL PARK
BROWNFIELD CLEANUP
SYRACUSE, NY
NYSDEC BROWNFIELD SITE No. C734103

MARK	DATE	DESCRIPTION
		REVISIONS

PROJECT NO:	
DATE:	DECEMBER 2012
SCALE:	AS SHOWN
DRAWN BY:	M. BUCKINGHAM
DESIGNED BY:	
CHECKED BY:	

DECEMBER, 2012
GROUNDWATER
CONTOUR MAP

FIGURE 1

Mar 04, 2013 - 8:14am
F:\Project\C81 - Pioneer Development\C81.006.001Post IRM GW Monitoring\2012 Groundwater Sampling\December 2012\CAD\FIGURE 1 4March2013.dwg

APPENDIX C

SSDS LAYOUT AND INSPECTION/OPERATIONAL DOCUMENTATION

EF-6

EF-8

EF-5

EF-7

EF-10

EF-4

EF-9

EF-3

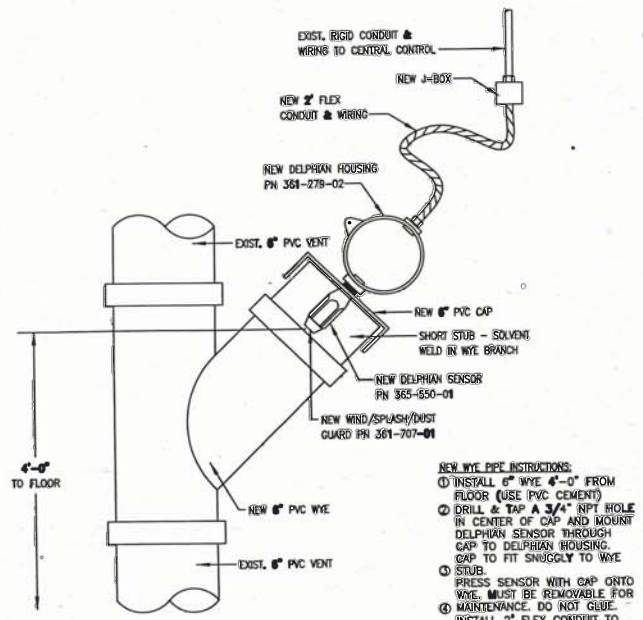
EF-2

1 SUBSLAB VENTILATION PLAN
SS-1 SCALE 1" = 20'-0"

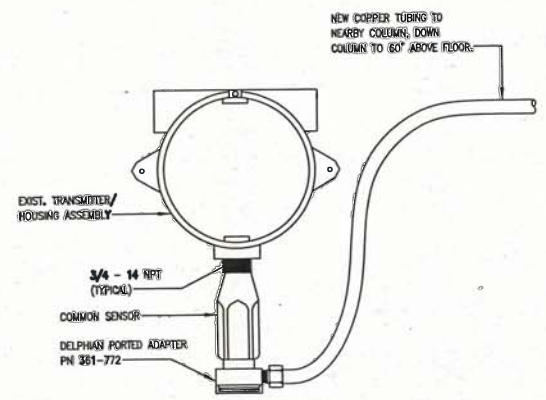
FLAG NOTES

1. 4" Schedule 40 PVC perimeter pipe perimeter.
2. 3" Schedule 40 PVC perforated pipe lateral.
3. 6" Schedule 80 PVC pipe riser with methane gas detector at 24" AB. Floor and Exhaust Fan between bar joists. See Detail 6-G Sheet SS-2.
4. Ceiling mounted methane gas detector, See Detail 3 this sheet
5. Wall mounted methane gas detector 24" above floor.
6. Control module in NEMA 4X panel on wall at 5'-0" above floor.
7. Horn and Strobe at 15 feet above floor
8. Alarm light
9. Vacuum monitoring point in floor, see detail sheet SS-2.

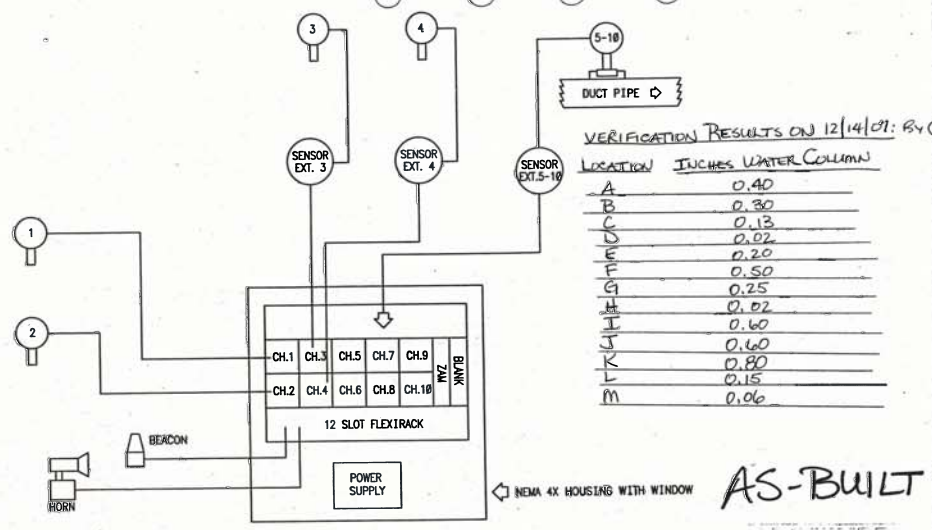
NOTE:
COORDINATE ALL WORK WITH THE FOUNDATION LOCATIONS AND WITH OTHER TRADES.



2 DUCT SENSOR INSTALLATION DETAIL
SS-1 SCALE NONE



3 CEILING MOUNTED DETECTORS IN SALES AREA
SS-1 SCALE NONE



VERIFICATION RESULTS ON 12/14/09: BY (SRT)

LOCATION	INCHES WATER COLUMN
A	0.40
B	0.30
C	0.12
D	0.02
E	0.20
F	0.50
G	0.25
H	0.02
I	0.60
J	0.60
K	0.80
L	0.15
M	0.06

AS-BUILT

JAN 11 2008

GAS DETECTION SYSTEM
NOT TO SCALE

REVISIONS

DATE	DESCRIPTION
11-14-07	1

ELECTRO-MECH ENGINEERING, INC.
3511 High Street NE
Canal Fulton, Ohio 44614-1158
(330) 854-0347 (voice) (330) 854-0492 (fax)
1-877-277-8849 (toll free)
design@electro-mech-engineers.com

DeWolff Partnership ARCHITECTS LLP

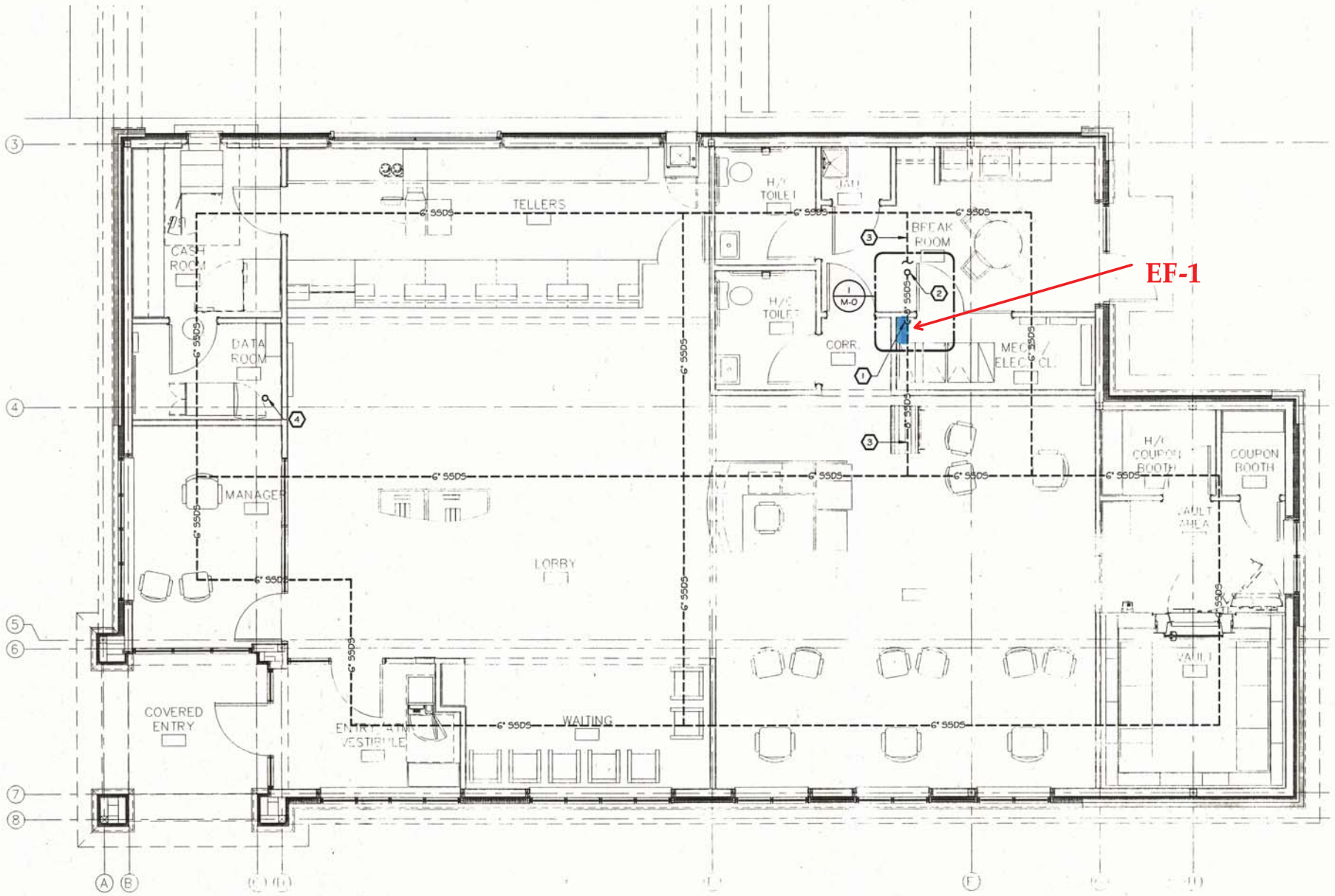
SUBSLAB VENTILATION PLAN

LOWE'S OF SYRACUSE
SYRACUSE, NEW YORK

PROJECT: 08-007 DRAWN BY: EME CHECKED BY: EME

CRITERIA ISSUE DATE:	09.01.06
PERMIT SET ISSUE DATE:	03.16.07
CONSTRUCTION SET ISSUE DATE:	
DRAWING NUMBER:	SS-1

116WSS01 03.30.04



PROJECT NORTH

1 SUB-SLAB PIPING PLAN
1/4" = 1'-0"

KEYED NOTES:

1. 6" SCHEDULE 40 PVC SUB-SLAB DEPRESSURIZATION SYSTEM RISER.
2. 6" SSDS PIPING UP. REFER TO DRAWING M-2 FOR CONTINUATION OF PIPING.
3. 6" SSDS COLLECTION HEADER SHALL BE NON-PERFORATED.
4. VACUUM MONITORING POINT CONSISTING OF 3/8" TUBE AND RUBBER CORK. TUBE SHALL EXTEND 2" BELOW VAPOR BARRIER. REFER TO 5/M-0.

GENERAL DRAWING NOTES:

A. CONTRACTOR SHALL SEAL ALL PENETRATIONS THROUGH CONCRETE FLOOR SLAB AIR-TIGHT WITH STEGO INDUSTRIES PRODUCTS UTILIZED IN ACCORDANCE WITH STEGO INDUSTRIES PROCEDURES AND RECOMMENDATIONS.

DEC 19 2007

NEW BRANCH
AT
MIDLER CROSSING
MIDLER AVENUE, CITY OF SYRACUSE
NEW YORK
ONONDAGA COUNTY
OF
SEFCU

NO.:	REVISION:	DATE:
1		00/00/01
2		/ /
3		/ /
4		/ /
5		/ /
6		/ /
7		/ /
8		/ /

Argus Engineering, PLLC
Hogan Block 251 West Fayette Street Syracuse, NY 13202
Phone: 315-475-6061 Fax: 315-475-6071

SCALE: AS SHOWN | DRWN / CHCK: EMD/GLL | DATE: 07-10-07

SHEET TITLE:
SUB-SLAB
PIPING PLAN

AS-BUILT

SHEET NO.:
M-1

DATE: 1-6-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	1 -1
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scrufari
(Print Name)

(Signature)

DATE: 1-13-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	1 -1
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scrufari
(Print Name)

(Signature)

DATE: 1-20-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scrafford
(Print Name)

(Signature)

DATE: 1-27-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
1		-1
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 2-3-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	1 -1
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scrutton
(Print Name)

(Signature)

DATE: 2-10-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 2-17-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 2-24-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	1 -1
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:
Fan #8 was replaced February 21, 2012 due to an increased noise. It was replaced with an Inline Centrifugal Fan w/ Duct that we keep on premise.

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 3-2-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 3-9-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	1 -1
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scrutar
(Print Name)

(Signature)

DATE: 3-16-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 3-23-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Tom Scrutton
(Print Name)

(Signature)

DATE: 3-30-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
1		-1
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scranton
(Print Name)

(Signature)

DATE: 4-5-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

Jim Scruton
(Signature)

DATE: 4-13-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 4-20-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	1 -1
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 4-27-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 5-4-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 5-11-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 5-18-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Smith
(Print Name)

(Signature)

DATE: 5-25-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
	-1	
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10		1 -1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Surton
(Print Name)

(Signature)

DATE: 6-1-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 6-8-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Sexton
(Print Name)

(Signature)

DATE: 6-15-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scratm
(Print Name)

(Signature)

DATE: 6-22-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 6-29-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Sexton
(Print Name)

(Signature)

DATE: 7/16/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scrutton
(Print Name)

(Signature)

DATE: 7-13-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scraton
(Print Name)

(Signature)

DATE: 7-1972

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 7-27-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 8-3-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 8-10-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

Fan #2 was replaced on 8-10-12 due to an increased noise.

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 8-17-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 8-24-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 8-31-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Surwton
(Print Name)

(Signature)

DATE: 9-7-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 9-14-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scanlon
(Print Name)

(Signature)

DATE: 9-21-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	1 -1
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 9-28-12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Jim Scruton
(Print Name)

(Signature)

DATE: 10/5/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

(Signature)

DATE: 10/12/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

(Signature)

DATE: 10/15/2012

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	1 -1
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

(Signature)

DATE: 10/26/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

(Signature)

DATE: 11/2/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

DSC
(Signature)

DATE: 11/9/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

DSC
(Signature)

DATE: 11/16/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

(Signature)

DATE: 11/23/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

(Signature)

DATE: 11/30/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

(Signature)

DATE: 12/7/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

(Signature)

DATE: 12/14/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

(Signature)

DATE: 12/21/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

(Signature)

DATE: 12/28/12

SUBSLAB DEPRESSURIZATION SYSTEMS
MIDLER CROSSING
SYRACUSE, NEW YORK

EXHAUST FAN #	LOWE'S	SEFCU
2	-1	
3	-1	
4	-1	
5	-1	
6	-1	
7	-1	
8	-1	
9	-1	
10	-1	
1		-1

*The above measurements are in "inches of water" taken from Dwyer Series 2000, Magnehelic gages.

COMMENTS:

INSPECTED BY:

Daryl Close
(Print Name)

(Signature)

APPENDIX D

PROPERTY INSPECTION FORMS

SHOPPING CENTER
PROPERTY INSPECTION

PROPERTY NAME Miller Crossing
PROPERTY NO. 650

Inspected By Greg Henson
Date 4/4/12
Approved 4/4/12

I. Exterior: Site ~~& Building~~ LOT CONDITION ONLY

* A. Parking Lot Asphalt (holes, fractures, low spots, liability hazards, oil & stone, shim).
No pot holes or tripping Hazards observed At time of Inspection

B. Storm Water Drainage (catch basins, swails, ditches, culverts: clean & operating, pumps operating and PM program in force, hour meters working; clean out catch basins). Weekly
All described work completed as of ~~Inspection~~ date

C. Fire Hydrants (protected, painted, visibility, access, shown on drawing).
All hydrants visible as of Inspection

D. Fire Lanes and Handicapped Parking (properly marked & signed).
As of Inspection date all items properly Marked

* E. Snow removal (stock pile areas established, delineator posts needed, drainage problems, damaged areas).
N/A

* F. Parking Lot Lighting (operation, test to verify operation, lens/lamp replacement, paint, photocell, timeclocks, manual override switch, anchor bolts & base secure, base cover secure).
N/A

G. Water/Gas Shutoffs, Sewer Cleanouts (properly covered, locations known and shown on drawing, test shutoffs).
N/A

*Monthly Inspection

* H. Buffer Areas (properly cut, debris removed).

All areas in good shape at time of inspection

* I. Sidewalks & Curbs (maintenance, drainage, handicap ramps, re-caulk, refuse containers, tripping hazards).

all areas in good shape at time of inspection

J. Striping (condition of paint, areas to be relined, skip next year).

To be completed next year

* K. Traffic Control Devices (traffic signal operation, speed limit/vehicle signage - faded/additions needed).

N/A

L. Paint (exterior walls, trim, service doors, trash areas, compactors, canopies).

N/A

M. Caulking (type of failures & extent).

N/A

* N. Landscaping (cleanliness, maintenance program, drainage, add plantings, weed killer at curbs, cracks, etc.).

Landscaping Service just starting at time of inspection

* O. Pylon & other signs (paint, rusting, fading, lighting, time clock control, reader board letter inventory).

N/A

* P. Other Items (compactor locked off, propane tank safety, water silcocks, loading areas; Put tenant info on tenant sheets).

N/A

*Monthly inspection

SHOPPING CENTER
PROPERTY INSPECTION

PROPERTY NAME Midtex Crossing
PROPERTY NO. 650

Inspected By Greg Henson AEM
Date 9/20/12 9/20/12
Approved _____

I. Exterior: Site ~~& Building~~ LOT CONDITION ONLY

* A. Parking Lot Asphalt (holes, fractures, low spots, liability hazards, oil & stone, shim).
No pot holes or trip hazards observed

B. Storm Water Drainage (catch basins, swails, ditches, culverts: clean & operating, pumps operating and PM program in force, hour meters working; clean out catch basins).
All areas in good condition

C. Fire Hydrants (protected, painted, visibility, access, shown on drawing).
All hydrants visible

D. Fire Lanes and Handicapped Parking (properly marked & signed).
All described areas properly Marked

* E. Snow removal (stock pile areas established, delineator posts needed, drainage problems, damaged areas).
N/A

* F. Parking Lot Lighting (operation, test to verify operation, lens/lamp replacement, paint, photocell, timeclocks, manual override switch, anchor bolts & base secure, base cover secure).
All lights operational at time of inspection

G. Water/Gas Shutoffs, Sewer Cleanouts (properly covered, locations known and shown on drawing, test shutoffs).
N/A

*Monthly Inspection

* H. Buffer Areas (properly cut, debris removed).

All buffer areas in good shape

* I. Sidewalks & Curbs (maintenance, drainage, handicap ramps, re-caulk, refuse containers, tripping hazards).

All areas in good shape at time of inspection

J. Striping (condition of paint, areas to be relined, skip next year).

To be completed next year

* K. Traffic Control Devices (traffic signal operation, speed limit/vehicle signage - faded/additions needed).

all observed in working condition

L. Paint (exterior walls, trim, service doors, trash areas, compactors, canopies).

N/A

M. Caulking (type of failures & extent).

N/A

* N. Landscaping (cleanliness, maintenance program, drainage, add plantings, weed killer at curbs, cracks, etc.).

All areas well kept at time of inspection

* O. Pylon & other signs (paint, rusting, fading, lighting, time clock control, reader board letter inventory).

N/A

* P. Other Items (compactor locked off, propane tank safety, water silcocks, loading areas; Put tenant info on tenant sheets).

N/A

APPENDIX E

INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORM

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. **C734103**

Site Name Midler City Industrial Park

Site Address: 621 S. Midler Ave. (aka 701 Nichols Ave.) Zip Code: 13206
City/Town: Syracuse
County: Onondaga
Site Acreage: 21.7

Reporting Period: March 01,2012 to March 01,2013

	YES	NO
1. Is the information above correct?	X	☐
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?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
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?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	☐
7. Are all ICs/ECs in place and functioning as designed?	X	☐

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 _____

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C734103

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
033.1-01-01.3	Pioneer Midler Avenue, LLC	Ground Water Use Restriction Site Management Plan Soil Management Plan
033.1-01-01.4	Pioneer Midler Avenue, LLC	Ground Water Use Restriction Site Management Plan Soil Management Plan
033.1-01-01.5	Pioneer Midler Avenue, LLC	Ground Water Use Restriction Site Management Plan Soil Management Plan
033.1-01-01.6	Pioneer Midler Avenue, LLC	Ground Water Use Restriction Site Management Plan Soil Management Plan
033.1-01-01.7	Pioneer Midler Avenue, LLC	Ground Water Use Restriction Site Management Plan Soil Management Plan
033.1-01-02.4	Lowe's Home Centers, Inc.	Ground Water Use Restriction Site Management Plan Soil Management Plan
033.1-01-20.0	Pioneer Midler Avenue, LLC	Ground Water Use Restriction Site Management Plan Soil Management Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
033.1-01-01.3	Cover System Vapor Mitigation
033.1-01-01.4	Cover System Vapor Mitigation
033.1-01-01.5	Cover System Vapor Mitigation
033.1-01-01.6	Cover System Vapor Mitigation
033.1-01-01.7	Cover System Vapor Mitigation

Parcel	Engineering Control
033.1-01-02.4	Cover System Vapor Mitigation
033.1-01-20.0	Cover System Vapor Mitigation

Engineering Control Details for Site No. C734103

Parcel: 033.1-01-01.3

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Parcel: 033.1-01-01.4

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Engineering Control Details for Site No. C734103

Parcel: 033.1-01-01.5

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Parcel: 033.1-01-01.6

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Engineering Control Details for Site No. C734103

Parcel: 033.1-01-01.7

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Parcel: 033.1-01-02.4

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Engineering Control Details for Site No. C734103

Parcel: 033.1-01-20.0

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Box 5

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 compete.

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

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. **C734103**

Site Name Midler City Industrial Park

Site Address: 621 S. Midler Ave. (aka 701 Nichols Ave.) Zip Code: 13206
City/Town: Syracuse
County: Onondaga
Site Acreage: 21.7

Reporting Period: March 01,2012 to March 01,2013

	YES	NO
1. Is the information above correct?	X	☐
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?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
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?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	☐
7. Are all ICs/ECs in place and functioning as designed?	X	☐

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 _____

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C734103

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
033.1-01-01.3	Pioneer Midler Avenue, LLC	Ground Water Use Restriction Site Management Plan Soil Management Plan
033.1-01-01.4	Pioneer Midler Avenue, LLC	Ground Water Use Restriction Site Management Plan Soil Management Plan
033.1-01-01.5	Pioneer Midler Avenue, LLC	Ground Water Use Restriction Site Management Plan Soil Management Plan
033.1-01-01.6	Pioneer Midler Avenue, LLC	Ground Water Use Restriction Site Management Plan Soil Management Plan
033.1-01-01.7	Pioneer Midler Avenue, LLC	Ground Water Use Restriction Site Management Plan Soil Management Plan
033.1-01-02.4	Lowe's Home Centers, Inc.	Ground Water Use Restriction Site Management Plan Soil Management Plan
033.1-01-20.0	Pioneer Midler Avenue, LLC	Ground Water Use Restriction Site Management Plan Soil Management Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
033.1-01-01.3	Cover System Vapor Mitigation
033.1-01-01.4	Cover System Vapor Mitigation
033.1-01-01.5	Cover System Vapor Mitigation
033.1-01-01.6	Cover System Vapor Mitigation
033.1-01-01.7	Cover System Vapor Mitigation

Parcel	Engineering Control
033.1-01-02.4	Cover System Vapor Mitigation
033.1-01-20.0	Cover System Vapor Mitigation

Engineering Control Details for Site No. C734103

Parcel: 033.1-01-01.3

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Parcel: 033.1-01-01.4

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Engineering Control Details for Site No. C734103

Parcel: 033.1-01-01.5

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Parcel: 033.1-01-01.6

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Engineering Control Details for Site No. C734103

Parcel: 033.1-01-01.7

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Parcel: 033.1-01-02.4

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Engineering Control Details for Site No. C734103

Parcel: 033.1-01-20.0

The Controlled Property may be used for commercial use as long as the following long-term engineering controls are employed:

(i) compliance with the Department-approved Site Management Plan ("SMP") for the implemented remedy until the remedial goals for the Controlled Property are attained or deemed complete by the Department;

(ii) maintenance at a minimum of a one foot cover system or a six inch pavement system or buildings over the Site and any disturbance of or excavation from the Site cover system at depths greater than the one foot shall be done in accordance of the requirements of the SMP;

(iii) the groundwater beneath the Controlled Property cannot be used as a potable water source or for any other use without prior written permission of the Department and the pumping and discharge of groundwater to the waters of the State shall not be allowed without appropriate treatment and approval of the governing State, County or Municipal authority;

(iv) continued groundwater monitoring in accordance with the SMP until the Department determines that such monitoring is unnecessary;

(v) installation and maintenance in accordance with the standards and procedures specified in the SMP of subslab depressurization ("SSD") systems for all buildings and building additions to be constructed on the Site and the continued operation and maintenance in accordance with the SMP of those SSD systems already installed on the Site;

Box 5

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 compete.

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. C734103

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 Edward A. Marshall (print name) at 333 West Washington St, Syracuse N.Y. 13202 (print business address)

am certifying as Agent for Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Edward A Marshall, as agent
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

9/5/2013
Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional 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 RORY WOODMANSEE at CES ENGINEERS, INC.,
print name — print business address

am certifying as a Qualified Environmental Professional for the PIONEER MIDLER LLC
(Owner or Remedial Party)

Rory Woodmansee — Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

9/23/2013 — Date