

**EFFECTIVENESS MONITORING REPORT  
FOR REMEDIAL ACTIVITIES CONDUCTED TROUGH OCTOBER 30, 2013**

**ANDERSON CLEANERS  
JAMESTOWN, NEW YORK  
BCP SITE #C907027**

Prepared For: Anderson Cleaners  
5 Hunt Road  
Jamestown, New York

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Project No.: 3563S-04

Date: December 12, 2013

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## 1.0 INTRODUCTION

Day Environmental, Inc. (DAY), on behalf of Anderson Cleaners, prepared a document titled *Draft Remedial Action Work Plan, Anderson Cleaners, 5 Hunt Road, Jamestown, New York NYSDEC Brownfield Cleanup Program Site #C907027* dated March 2013 (the Work Plan). In a letter dated March 28, 2013, the New York State Department of Environmental Conservation (NYSDEC) approved portions of the Work Plan and authorized implementation of the remedial activities described the following sections.

- Section 2.0 of the Work Plan, which describes the installation and operation of a dense non-aqueous phase liquid (DNAPL) removal system at the Anderson Cleaners Site (the Site).
- Section 3.0 of the Work Plan, which describes a Plume Containment Remedy to be implemented in a hydraulically downgradient location in proximity of the property line of the Site for the purpose of containing the plume of dissolved phase contaminants of concern (i.e., PCE and PCE breakdown products) within the overburden groundwater to preclude migration away from the Site.
- Section 5.0 of the Work Plan, which describes the long-term groundwater monitoring program to be implemented to evaluate the on-going effectiveness of the cumulative remedial efforts conducted at the Site.

This report documents the status of the various remedial activities and associated monitoring conducted at the Site through October 30, 2013, presents conclusions regarding the effectiveness of the remedial efforts, and describes additional monitoring/remedial actions proposed for the Site.

## **2.0 DNAPL REMOVAL SYSTEM STATUS**

The DNAPL removal system was installed at the Anderson Cleaners facility in June and July 2012, in accordance with the provisions outlined in the Work Plan, and the system began operation on August 17, 2012. Figures showing the components of the DNAPL removal system, the location of the extraction wells included in the DNAPL removal system, and test boring/installation logs for the extractions wells are presented in a report prepared by DAY titled *DNAPL Removal Status Report for the Period August 17, 2012 through January 10, 2013* dated February 14, 2013.

### **2.1 Summary of DNAPL Removal Conducted between August 17, 2012 and January 10, 2013**

As documented in the February 14, 2013 status report, between August 17, 2012 and January 10, 2013 DNAPL was removed from four wells (i.e., wells designated PW-3, MW-207, EW-1 and EW-2, refer to Figure 1) by rotating three pumps between these locations, and the combined pumping rates remained relatively consistent ranging between approximately 0.3 gallons per minute (gpm) and 0.5 gpm.

DNAPL was removed at an approximate rate of 0.61 gallons per day during the initial two months of operation (i.e., between August 17, 2012 and October 15, 2012). The rate of DNAPL removed during the next month (i.e., between October 15, 2012 and November 15, 2012) decreased to approximately 0.17 gallons per day. For the remainder of the report period (i.e., between about November 15, 2012 and January 10, 2013) the DNAPL removal rate decreased to about 0.02 gallons per day. On November 30, 2012, 39 gallons of DNAPL collected using the removal system was removed from the Site and disposed off-site by Solvents & Petroleum Services, Inc.

### **2.2 Current Monitoring Period: January 11, 2013 through October 30, 2013**

Although the system was shut down for various intervals, the DNAPL removal system operated throughout the period between January 11, 2013 and October 30, 2013. The sections below describe the operation of the DNAPL removal system in this time period.

#### *2.2.1 Pumping Rates*

During the current reporting period, the system operated continuously, except during system shutdowns that occurred: between March 4, 2013 and April 15, 2013, between August 19, 2013 and September 13, 2013, and between October 1, 2013 and October 7, 2013. During system operation one to three pumps, located in extraction wells PW-3, MW-207 and EW-2, were activated at any one time. [Note: Historically, DNAPL has not been identified in extraction well EW-1 and pumping was not conducted in this well during the reporting period.]

Depending on the number of recovery wells operating and the operational characteristics of the pumps, cumulative pumping rates fluctuated between 0.01 gpm to 0.76 gpm. The cumulative pumping rates of the DNAPL removal system during the report period are summarized on Table 1.

### *2.2.2 DNAPL Removal/Disposal*

Approximately 8.32 gallons of DNAPL was removed during the reporting period (refer to Table 1). As indicated on Table 1, the rate of DNAPL collection was not consistent during the reporting period. Specifically:

- Approximately 1.4 gallons of DNAPL was collected from recovery wells PW-3, MW-207 and/or EW-2 during a 53-day period of operation between January 11, 2013 and March 4, 2013.
- Less than 0.4 gallons of DNAPL was collected from recovery wells PW-3, MW-207 and/or EW-2 during a 62-day period of operation between April 16, 2013 and June 17, 2013.
- Approximately 4.8 gallons of DNAPL was collected from recovery wells EW-2 and/or PW-3 during a 25-day period of operation between June 18, 2013 and July 12, 2013. [Note: This period of enhanced recovery was preceded by approximately one month of higher than average precipitation.]
- Approximately 1.6 gallons of DNAPL was collected from recovery wells PW-3, MW-207 and/or EW-2 during a 38-day period of operation between July 13, 2013 and August 19, 2013.
- Approximately 0.3 gallons of DNAPL was collected from recovery wells PW-3 and/or EW-2 during a 47-day period between September 13, 2013 and November 30, 2013.

On September 27, 2013, Solvents & Petroleum Services, Inc. removed 13 gallons of DNAPL collected by the DNAPL removal system for off-site disposal. [Note: A portion of the DNAPL disposed of on September 27, 2013 was collected during the previous reporting period.] Copies of the completed waste manifest forms for the DNAPL removed/disposed are included in Attachment A.

### *2.2.3 Analytical Laboratory Results*

During the reporting period, water samples were collected from various points along the treatment train and submitted to Spectrum Analytical, Inc. (Spectrum) for testing of halogenated volatile organic compounds (VOCs). Specifically, samples were collected on February 13, 2013 from the following locations:

- a sample port located immediately before the granular activated carbon (GAC) drums (designated "GAC INF").
- at the discharge location to the sanitary sewer (designated "Sewer Discharge"); and
- the top of the gravity separator tank (designated "Air Tank INF").

The GAC INF sample contained a tetrachloroethene (PCE) concentration of 96,000 ug/l. The Sewer Discharge sample did not contain detectable concentrations of VOCs (detection limits ranging between 0.3 ug/l and 1.5 ug/l). The Air Tank Influent sample was not tested.

Additional water samples were collected on June 5, 2013 from the following locations:

- a sample port located between the initial and secondary GAC drum (designated “Carbon Drum #1 Outfall”); and
- at the discharge location to the sanitary sewer (designated “Sewer Outfall”).

The Carbon Drum #1 Outfall sample contained a PCE concentration of 16,200 ug/l, a trichloroethene (TCE) concentration of 635 ug/l, and a cis-1,2-dichloroethene (cis-1,2 DCE) concentration of 1,860 ug/l. The Sewer Discharge sample did not contain detectable concentrations of VOCs (detection limits ranging between 0.3 ug/l and 1.5 ug/l).

Copies of the laboratory reports prepared by Spectrum and executed chain-of-custody documentation for the samples collected are included in Attachment B.

#### *2.2.4 Granular Activated Carbon Drum Removal*

Based on the Carbon Drum #1 Outfall sample test results, the initial drum (i.e., the first of three in-line GAC drums that comprise the carbon filtration treatment for the DNAPL removal system) was removed from the DNAPL removal system subsequent to the system shutoff on August 19, 2013. The GAC from Drum #1 is scheduled to be transported off-Site for disposal in December 2013. Disposal documentation will be presented in a subsequent progress report.

### **2.3 Discussion**

During the reporting period:

- approximately 22 % of the DNAPL removed was collected during pumping isolated to extraction well EW-2 (representing 23% of the total volume of water pumped);
- approximately 3% of the DNAPL removed was collected during pumping isolated to extraction well MW-207 (representing 4% of the total volume of water pumped);
- less than 1% of the DNAPL removed was collected during pumping isolated to extraction well PW-3 (representing 2% of the total volume of water pumped);
- approximately 65% of the DNAPL removed was collected during simultaneous pumping in extraction wells EW-2 and PW-3 (representing 38% of the total volume of water pumped);
- approximately 5% of the DNAPL removed was collected during simultaneous pumping in extraction wells MW-207 and PW-3 (representing 3% of the total volume of water pumped);

- less than 1% of the DNAPL removed was collected during simultaneous pumping in extraction wells MW-207 and PW-3 (representing 5% of the total volume of water pumped); and
- approximately 4% of the DNAPL removed was collected during simultaneous pumping in extraction wells MW-207, EW-2 and PW-3 (representing 26% of the total volume of water pumped).

Based on the above, the most productive DNAPL removal scenario (i.e., greatest volume of DNAPL recovered per volume of water pumped) occurred during the simultaneous pumping of extraction wells EW-2 and PW-3, and the least productive DNAPL removal scenario was simultaneous pumping in all three extraction wells.

Pump rates did not have an obvious effect on DNAPL recovery during the reporting period. The period at which the highest average rate of pumping occurred (i.e., 0.65 gpm between approximately June 5, 2013 and July 12, 2013) does coincide with the greatest volume of DNAPL (i.e., 5.10 gallons) removed during the report period. However, other factors besides the pumping rate (e.g., the impact of increased precipitation and/or seasonal conditions) may have contributed to the quantity of DNAPL removed.

As indicated on Table 1, approximately 1.38 gallons of DNAPL was recovered from extraction well EW-2 between January 31, 2013 and February 27, 2013, when it was isolated and pumped at rates between approximately 0.24 gpm and 0.37 gpm (average of 0.29 gpm). However, only approximately 0.18 gallons of DNAPL was recovered from this well between September 13, 2013 and October 1, 2013 when it was again isolated and pumped at rates between approximately 0.32 gpm and 0.44 gpm (average of 0.36 gpm).

### **3.0 PLUME CONTAINMENT EFFECTIVENESS MONITORING**

As discussed during a June 7, 2013 meeting with the NYSDEC, a reduced scope of work (from that described in Section 3.0 of the Work Plan) was implemented to initially focus remedial efforts in the area where the highest concentrations of halogenated VOCs were detected in downgradient overburden monitoring wells. [Note: The Work Plan identified sixteen locations in the Primary Treatment Area, but as discussed during the June 7, 2013 meeting the initial injection event was scaled back due to economic constraints on the part of the Participant. Generally, this included eliminating overlapping injection points, and two injection points on the south flank of the Primary Treatment Area defined in the Work Plan.]

As described in a letter to the NYSDEC prepared by DAY dated August 9, 2013, the initial round of permeable reactive barrier (PRB) injections was completed in the portion of the Primary Treatment Area (i.e., as defined in the Work Plan) located hydraulically upgradient of containment monitoring wells CW-3 and CW-4 and off-site monitoring well MW-201. The injections took place on July 17, 2013 and July 24, 2013, and they included ten locations within the Primary Treatment Area, and two additional injections hydraulically upgradient of the Primary Treatment Area. The intent of the two additional injections was to increase the PRB concentration around potential preferential pathways (i.e., bedding materials surrounding a 21-inch storm sewer and a 4-inch sanitary sewer located in this area). The locations of the injections completed on July 17, 2013 and July 24, 2014, monitoring wells, and utilities in this area are shown on Figure 2.

The August 9, 2013 letter also presents the results of in-situ measurements and analytical laboratory test results for groundwater samples that were collected at the Site prior the PRB injections to establish background levels by which to gauge the effectiveness of the Plume Containment Remedy.

#### **3.1 Groundwater Sample Collection and Testing**

On October 30, 2013, groundwater samples were collected from select overburden/top of till monitoring wells (i.e., CW-1 through CW-5, MW-200 and MW-201) located in proximity of the PRB injection area, tested for in-situ parameters, and submitted to Spectrum for testing of halogenated VOCs. In addition, samples collected from monitoring wells CW-2 and CW-4 were also tested for total iron, dissolved carbon (DOC), total organic carbon (TOC) and volatile fatty acids (VFA), which serve as indicator parameters to assess whether the PRB material has reached a target area. Table 2 summarizes the in-situ measurements for the parameters: groundwater elevation, pH, dissolved oxygen (DO), oxygen reduction potential (ORP), and specific conductance that were collected as part of the Long-Term Monitoring Program for the Site and the effectiveness monitoring of the Plume Containment Remedy. A summary of the halogenated VOCs detected in groundwater samples collected from the overburden/top of till monitoring wells including the samples collected on October 30, 2013 is presented as Table 3a. A summary of the indicator parameter testing is included on Table 4. The in-situ readings and analytical laboratory test results for the background samples collected prior to the implementation of the Plume Containment Remedy are also included on Table 2, Table 3a, and Table 4.

A copy of the Spectrum Laboratory Report documenting the results of this testing is included as Attachment C.

### **3.2 Discussion of Test Results**

As indicated in Table 2, the in-situ water quality measurements made on October 30, 2013 in the monitoring wells located hydraulically downgradient of the July 2013 PRB injection area (i.e., CW-3, CW-4, and MW-201) indicate a general reduction in the DO, ORP, and pH levels, when compared to background measurements made on June 26, 2013. [Note: In-situ measurements of pH and ORP were also collected on December 1, 2013 from monitoring wells CW-2, CW-3 and CW-4 (refer to Table 1). The pH levels were slightly lower than previous measurements. The ORP in the sample from monitoring well CW-2, which is located outside the anticipated influence of the July 2013 injections remained positive, but the ORP values in samples collected from CW-3 and CW-4 (i.e., locations hydraulically downgradient of the July 2013 injections) were both negative and they exhibited an increasingly negative trend compared to previous measurements.]

As indicated in Table 3a, the total VOC concentrations measured in samples collected from monitoring wells CW-3 and CW-4 on October 30, 2013 increased compared to the background levels measured in these wells prior to the July 2013 injections, however the total VOC concentration measured in the sample collected from monitoring well MW-201 decreased in comparison to background levels. The total VOC concentrations measured in the samples collected on October 30, 2013 from the other overburden monitoring wells evaluated (i.e., CW-1, CW-2, CW-5 and MW-200) were generally comparable to the background concentrations measured in these locations. The October 30, 2013 samples collected from monitoring wells CW-3 and CW-4 contained increased concentrations of PCE breakdown products (i.e., generally TCE and cis-1,2-DCE) compared to samples collected prior to the July 2013 injection events. Specifically, the percentage of breakdown products in CW-3 increased from approximately 3% in the groundwater sample collected on March 6, 2013 to approximately 60% in the October 30, 2013 sample. The percentage of breakdown products in CW-4 increased from 0% in the groundwater sample collected on March 6, 2013 to approximately 13% in the October 30, 2013 sample. In addition, the total VOC concentration of the groundwater sample collected from monitoring well MW-201 on October 30, 2013 (i.e., 3,540 ug/l) is approximately 30% of the total VOC concentration of the groundwater sample collected from MW-201 on March 6, 2013 (i.e., 11,788 ug/l).

The indicator parameters measured in samples from monitoring wells CW-2 and CW-4 (refer to Table 4) do not indicate evidence of impact from the July 2013 injections. The October 30, 2013 indicator measurements in the sample from CW-2 are expected since this monitoring well is located outside the expected area of influence. However, the results for the sample collected from monitoring well CW-4, which is located hydraulically downgradient of the injection area, suggests that the impact of the injections has not yet reached this location. For example, the iron concentrations measured in the sample collected on October 30, 2013 were lower than the values measured in the background sample despite the PRB injections, which should have resulted in a significant increase in iron concentrations.

Based upon the results of the October 30, 2013 effectiveness monitoring event and subsequent discussions with the FMC Corporation (i.e., the supplier of EHC In-Situ Chemical Reduction

Reagent that was injected in July 2013), additional data is required to assess the effectiveness of the Plume Containment Remedy that has been implemented to date. While the indicator parameters measured in the groundwater sample from monitoring well CW-4 suggest that the material injected has not yet reached the target zone, the increase in PCE daughter compounds measured in samples collected from monitoring wells CW-3 and CW-4 suggest that the process has started. Furthermore, the increasing trend in ORP measured in samples collected from monitoring wells CW-3 and CW-4, as supported by the December 1, 2013 readings, also suggests that the process has started and should continue. It is theorized that the delay in response is attributable to the relatively slow rate of groundwater flow within the overburden at the Site. Specifically, the groundwater flow with the overburden was calculated to range between about 0.017 ft. /day and 0.024 ft. /day. Assuming an average flow rate of 0.02 ft. /day and a total of 105 days between the injection event and the monitoring conducted on October 30, 2013, the treated groundwater would have traveled approximately 2 ft. from the injection zone. As such, the water quality in monitoring wells CW-3 and CW-4 likely would not yet have been impacted to the maximum extent by the injections.

#### **4.0 LONG-TERM GROUNDWATER MONITORING**

On October 30, 2013, groundwater samples were collected from each of the long-term monitoring wells, evaluated for in-situ parameters, and submitted to Spectrum for testing of halogenated VOCs. The following groundwater monitoring wells comprise the long-term groundwater monitoring system.

##### *Overburden/Top of Till Monitoring Wells*

- MW-07
- MW-200\*
- MW-201\*
- CW-2\*
- CW-3\*
- CW-4\*

##### *Fractured Rock Monitoring Wells*

- BR-02FR
- MW-04
- MW-06

##### *Bedrock Monitoring Wells*

- BR-02R
- BR-03R

\*Monitoring well that is also evaluated to assess the effectiveness of the Plume Containment Remedy

The in-situ readings and analytical laboratory test results for the long-term groundwater monitoring wells are also included on Table 2 and Table 3a through Table 3c, respectively. A copy of the Spectrum Laboratory Report documenting the results of this testing is included as Attachment C.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based upon the work completed to date and the results of the monitoring conducted within the reporting period.

- The DNAPL removal system operated throughout the current reporting period, and it continued to remove impacted groundwater and DNAPL from the source area at the Site. The amount of DNAPL removed and the rate of removal has decreased from that identified during the preceding reporting period that extended from August 17, 2012 (the start-up of the system) through January 10, 2013. At times during the current reporting period increased amounts of DNAPL were recovered that may be related to seasonal conditions and/or precipitation events.

To assess the amount of DNAPL remaining and the effectiveness of continued pumping to remove this DNAPL, it is recommended that the system operate continuously through January 15, 2014 utilizing extraction wells EW-2 and PW-3, and that the pumping and DNAPL removal rates be monitored. Assuming that the DNAPL removal rates are similar to those identified in September/October 2013, it is recommended that the system be shut down at that time. Static water level and DNAPL (if any) measurements should be made in each of the extraction wells and at approximate 2 to 4 week intervals thereafter through about March 15, 2014. In the event DNAPL is identified in an extraction well during the monitoring events, the pump in that well should be activated and the pumping and DNAPL collection rates monitored/documentated. If DNAPL is not detected in the extraction wells through March 15, 2014, the system should be re-started utilizing extraction wells EW-2 and PW-3 and monitored through approximately June 30, 2014 to assess DNAPL collection rates (i.e., particularly in response to seasonal conditions (e.g., snow melt) and/or precipitation events).

Depending on the results of the monitoring conducted following the re-activation of the DNAPL removal system; alternative treatment options may be proposed to address the source area (e.g., chemical and/or biological treatment).

- The effectiveness of the Plume Containment Remedy, or the need to implement supplemental remedial actions, cannot be adequately evaluated based upon the data collected to date. While total VOC concentrations have not decreased in monitoring wells positioned hydraulically downgradient of the treatment area and indicator parameters have not increased in these locations to suggest that the PRB injections have reached the target zone, it appears that the process may have started. This conclusion is based on the increasingly higher trend negative in ORP values measured in samples collected from monitoring wells located within the target zone and the increase in the concentrations of PCE breakdown compounds in these same monitoring wells.

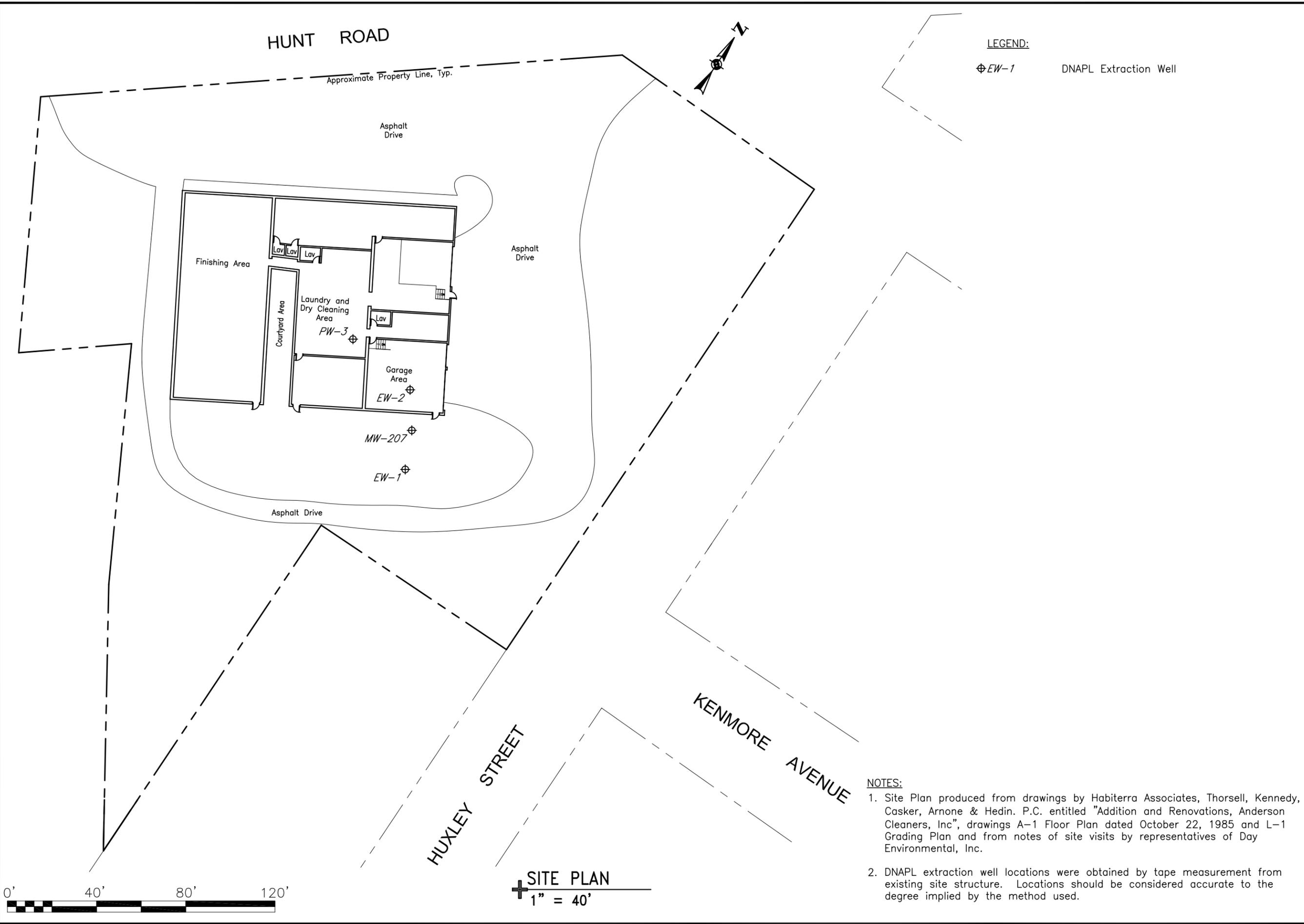
It is recommended that field indicator parameters be monitored on a regular basis in downgradient monitoring wells (i.e., CW-2, CW-3, CW-4 and MW-201) through January 15, 2014 (i.e., the date when the DNAPL removal system is shut down). At this time samples should be collected and tested to assess halogenated VOC concentrations and indicator parameters. Depending on the results of this testing, an evaluation should be made to determine whether additional placement of EHC In-Situ Chemical Reduction Reagent via additional injections or direct placement is warranted, and/or if alternative treatment methods are required.

## FIGURES

Ref1:  
Ref2:  
Ref3:

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Pen Setting File: 800psFullcolor.ctb

Time Plotted: Friday, December 13, 2013 7:47:15 AM  
File Name: P:\Drawings\Brownfield\3563\EMR\DNAPL Extraction Well Dec 2013.dwg



LEGEND:  
⊕EW-1 DNAPL Extraction Well

- NOTES:
1. Site Plan produced from drawings by Habiterra Associates, Thorsell, Kennedy, Casker, Arnone & Hedin. P.C. entitled "Addition and Renovations, Anderson Cleaners, Inc", drawings A-1 Floor Plan dated October 22, 1985 and L-1 Grading Plan and from notes of site visits by representatives of Day Environmental, Inc.
  2. DNAPL extraction well locations were obtained by tape measurement from existing site structure. Locations should be considered accurate to the degree implied by the method used.

PROJECT MANAGER	DATE
RLK	12-2013
DRAWN BY	DATE DRAWN
RJM	12-13-2013
SCALE	DATE ISSUED
As Noted	12-13-2013

**day**  
DAY ENVIRONMENTAL, INC.  
ENVIRONMENTAL CONSULTANTS  
ROCHESTER, NEW YORK 14606  
NEW YORK, NEW YORK 10170

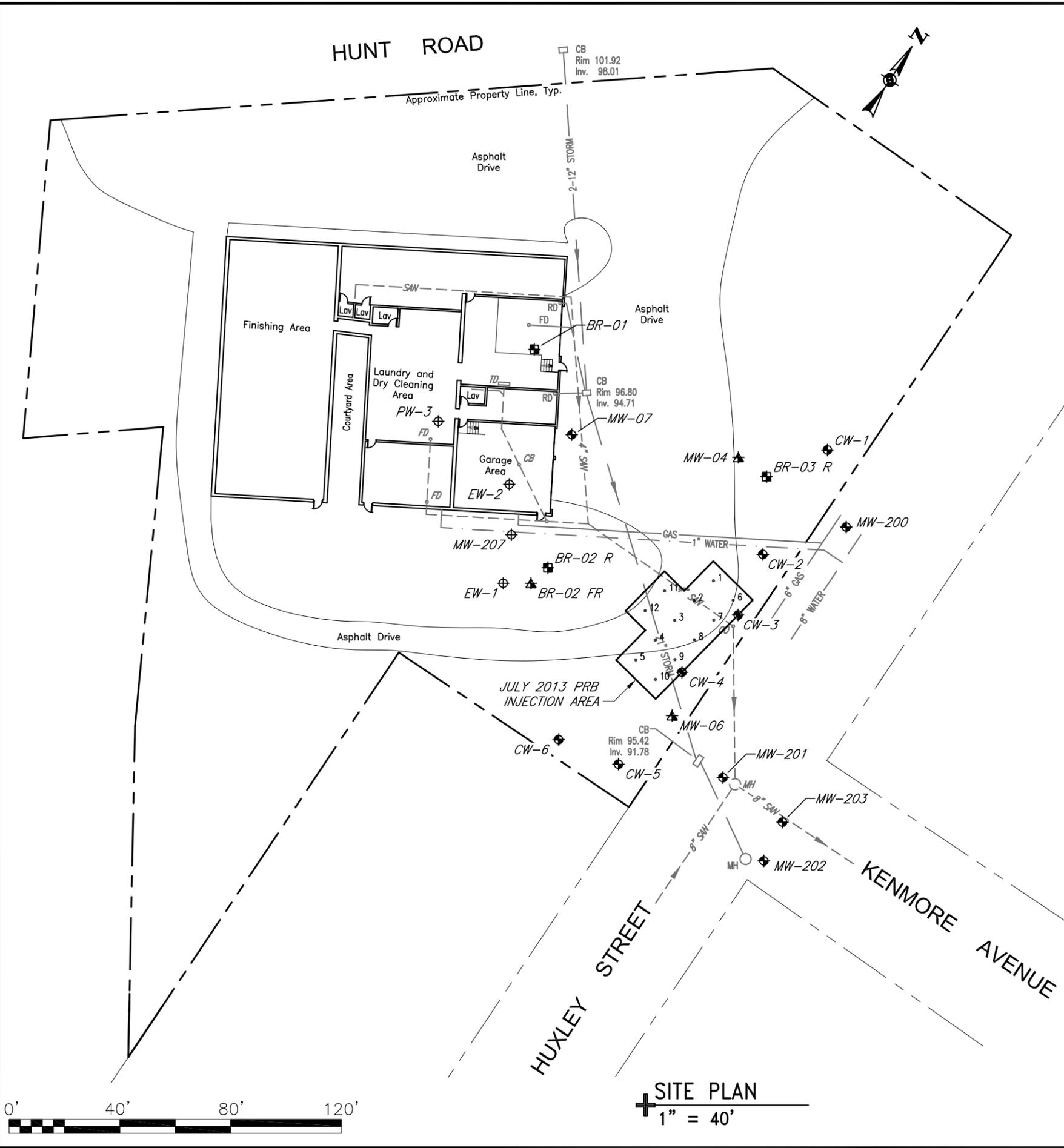
PROJECT TITLE
5 HUNT ROAD JAMESTOWN, NEW YORK
EFFECTIVENESS MONITORING REPORT
DRAWING TITLE
DNAPL Extraction Well Locations

PROJECT NO.
3563S-04
<b>FIGURE 1</b>

Ref1:  
Ref2:  
Ref3:

Xerox432AnsiB-2; 11 x 17  
Layout Name: Layout1  
Pen Setting File: 800psFullcolor.ctb

Time Plotted: Friday, December 13, 2013 7:37:13 AM  
File Name: P:\Drawings\Brownfield\3563\EMR\Site Plan.dwg



**LEGEND:**

- BR-03 R Bedrock Monitoring Well
- MW-04 Top of Rock/Fractured Rock Monitoring Well
- CW-1 Overburden/Top of Till Monitoring Well
- EW-1 DNAPL Extraction Well
- .1 Approximate Location and Designation of Injection Point Completed July 17, 2013 or July 24, 2013
- CB Catch Basin
- FD Floor Drain
- MH Manhole
- Rim 100.83 Rim Elevation In Feet
- Inv. 95.55 Invert Elevation In Feet
- RD Roof Drain
- TD Trench Drain
- 6" GAS Gas Line (Approx 2.5 feet below grade)
- 8" SAN Sanitary Sewer (Approx 5-7 feet below grade)
- STORM Storm Sewer (Approx 4-6 feet below grade)
- 8" WATER Water Line (Approx 5-7 feet below grade)

**NOTES:**

1. Site Plan produced from drawings by Habiterra Associates, Thorsell, Kennedy, Casker, Arnone & Hedin. P.C. entitled "Addition and Renovations, Anderson Cleaners, Inc", drawings A-1 Floor Plan dated October 22, 1985 and L-1 Grading Plan and from notes of site visits by representatives of Day Environmental, Inc.
2. Well locations MW-04, MW-06, MW-07 and MW-08 were obtained in the field by a Trimble GeoXT GPS. Other well and test boring locations were obtained by tape measurement from existing site structure. Locations should be considered accurate to the degree implied by the method used.
3. Utility locations were obtained in the field by a Trimble GeoXT GPS, from drawings referenced in Note 1, A 1967 map from Jamestown DPW showing the proposed location of a permanent easement for the purpose of constructing and maintaining a storm sewer from the existing catch basin on the west side of Huxley Street to the west city line, and from a 1951 DPW storm sewer filed book number 438S, page 107. Locations should be considered accurate to the degree implied by the method used.
4. Elevation survey data determined by Michael J. Rodgers, LS, PC, and referenced to an arbitrary site wide datum. Elevations should be considered accurate to the degree implied by the method used.
5. Approximate depths of gas line, sanitary sewer, storm sewer and water line were obtained from a hand drawn plan from "Jamestown Board of Public Utilities, Anderson Cleaners Sewer Connection Map", dated October 2, 1985.



**SITE PLAN**  
1" = 40'

PROJECT MANAGER	DATE
RLK	12-2013
DRAWN BY	DATE DRAWN
RJM	12-13-2013
SCALE	DATE ISSUED
As Noted	12-13-2013

**day**  
DAY ENVIRONMENTAL, INC.  
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NEW YORK, NEW YORK 10170

PROJECT TITLE
5 HUNT ROAD JAMESTOWN, NEW YORK
EFFECTIVENESS MONITORING REPORT
DRAWING TITLE
Site Plan Depicting Injection Locations Completed July 2013

PROJECT NO.
3563S-04
<b>FIGURE 2</b>

## TABLES

Table 1

5 Hunt Road  
Jamestown, New York  
NYSDEC BCP Site #C907027

Summary of DNAPL Removal January 10, 2013 through October 30, 2013

Date/Time	Treated Groundwater Effluent Meter Reading (gal)	DNAPL recovered (fl oz)	Extraction wells in operation	Groundwater pumped (gal)	System Pumping Rate (GPM)
1/10/13 10:50	65112		EW-2	--	--
1/11/13 14:00	65462			350	0.21
1/12/13 10:10	65751		MW-207	289	0.24
1/13/13 10:45	66249			498	0.34
1/14/13 13:00	66813	0.5		564	0.36
1/15/13 14:10	67297			484	0.32
1/16/13 9:30	67653			356	0.31
1/17/13 10:25	68086	0.1		433	0.29
1/21/13 9:10	69280	0.1		1194	0.21
1/22/13 9:50	69450			PW-3	170
1/23/13 13:45	69490		40		0.02
1/24/13 16:20	69558		68		0.04
1/25/13 16:20	69637		79		0.05
1/27/13 0:00	69637	1	0		0.00
1/29/13 10:25	69637		EW-2	0	0.00
1/31/13 13:10	70575	3		938	0.31
2/1/13 10:00	71038			463	0.37
2/5/13 13:10	72890	68		1852	0.31
2/7/13 15:00	73610	18		720	0.24
2/8/13 14:20	74023			413	0.30
2/9/13 11:35	74405	16		382	0.30
2/11/13 16:00	75322			917	0.29
2/13/13 12:30	76190	26		868	0.33
2/15/13 15:10	77130			940	0.31
2/16/13 11:15	77511	20		381	0.32
2/26/13 9:15	80610	21	3099	0.22	
2/27/13 12:00	80909	4	EW-2, MW-207, PW-3	299	0.19
2/28/13 13:05	81002		PW-3, EW-2	93	0.06
3/1/13 14:10	81456			454	0.30
3/2/13 10:45	81611	2		155	0.13
3/3/13 12:45	81719			108	0.07
3/4/13 10:45	81755			36	0.03
System Shut-Off					

Table 1

5 Hunt Road  
Jamestown, New York  
NYSDEC BCP Site #C907027

Summary of DNAPL Removal January 10, 2013 through October 30, 2013

Date/Time	Treated Groundwater Effluent Meter Reading (gal)	DNAPL recovered (fl oz)	Extraction wells in operation	Groundwater pumped (gal)	System Pumping Rate (GPM)
4/16/13 12:00	81756	4	EW-2	--	--
4/25/13 11:10	81893		MW-207, EW-2	137	0.01
4/26/13 10:30	82170			277	0.20
4/27/13 13:30	82487			317	0.20
4/29/13 11:45	83734			1247	0.45
4/30/13 12:20	84280	0.5		546	0.37
5/2/13 9:30	85182			902	0.33
5/4/13 9:35	86181	1		PW-3, EW-2	999
5/7/13 9:55	87398		1217		0.28
5/10/13 10:20	89238		EW-2, MW-207	1840	0.42
5/11/13 10:40	89690		EW-2, MW-207, PW-3	452	0.31
5/12/13 17:12	90730	1.5		1040	0.57
5/18/13 11:30	94646	1		3916	0.47
5/20/13 11:50	96300			1654	0.57
5/21/13 15:15	97209			909	0.55
5/23/13 10:30	98568	0.1		1359	0.52
5/24/13 11:40	99291			723	0.48
5/25/13 11:00	99983			692	0.49
5/28/13 15:40	102152	0.5		2169	0.47
5/31/13 11:10	104300			2148	0.53
6/5/13 11:35	109400	10		5100	0.71
6/14/13 11:25	118817	28	9417	0.73	
6/15/13 10:30	118903		86	0.06	
6/17/13 12:45	121172		2269	0.75	
6/18/13 11:45	122076	30	904	0.66	
6/20/13 14:20	124193		EW-2, PW-3	2117	0.70
6/22/13 9:40	126029	128		1836	0.71
6/24/13 11:15	127959	86		1930	0.65
6/26/13 11:45	129914			1955	0.67
6/27/13 10:25	130882	94		968	0.71
6/29/13 12:15	132718	86	EW-2, PW-3	1836	0.61
7/1/13 13:50	134887	49		2169	0.73
7/6/13 11:50	139930	46		5043	0.71
7/8/13 11:10	141955			2025	0.71
7/9/13 14:15	143155	44		1200	0.74
7/12/13 11:05	145384	52		2229	0.54
7/15/13 13:30	145560			176	0.04

Table 1

5 Hunt Road  
 Jamestown, New York  
 NYSDEC BCP Site #C907027

Summary of DNAPL Removal January 10, 2013 through October 30, 2013

Date/Time	Treated Groundwater Effluent Meter Reading (gal)	DNAPL recovered (fl oz)	Extraction wells in operation	Groundwater pumped (gal)	System Pumping Rate (GPM)
7/17/13 10:30	145613	36	MW-207	53	0.02
7/18/13 11:55	146060			447	0.29
7/22/13 11:20	146350	28	MW-207, PW-3	290	0.05
7/24/13 11:00	146633	17		283	0.10
7/26/13 12:00	148721			2088	0.71
7/27/13 11:00	149583	12	PW-3, EW-2	862	0.62
7/29/13 12:55	151586	2		2003	0.67
7/31/13 10:40	152760			1174	0.43
8/1/13 12:50	153505			745	0.47
8/2/13 11:50	154162	5		657	0.48
8/6/13 15:45	157065	18		2903	0.48
8/8/13 15:20	158420	13		1355	0.47
8/12/13 12:05	160823	20	2403	0.43	
8/15/13 10:45	163732	15	2909	0.69	
8/17/13 9:30	165230	8	EW-2	1498	0.53
8/19/13 10:45	166882	28		1652	0.56
System Shut-Off					
9/13/13 12:30	166882		EW-2	--	--
9/14/13 11:30	167488	14		606	0.44
9/16/13 11:25	168502	4		1014	0.35
9/20/13 10:25	170323	1		1821	0.32
9/23/13 11:10	171857	1		1534	0.35
9/25/13 12:45	172887	0.1		1030	0.35
10/1/13 12:20	175909	0.1		3022	0.35
System Shut-Off					
10/7/13 10:45	175909		PW-3	--	--
10/9/13 7:40	176724	1		815	0.30
10/16/13 15:00	177333	0.1		609	0.06
10/18/13 13:20	177741	0.1	408	0.15	
10/24/13 10:45	177796		EW-2	55	0.01
10/28/13 14:00	179855	0.1		2059	0.35
10/30/13 12:10	180834			979	0.35
<b>DNAPL Total (fl oz) = 1064.8</b>					
<b>DNAPL Total (gal) = 8.319</b>					

Table 2  
 Long Term Monitoring Program  
 5 Hunt Road  
 Jamestown, New York  
 NYSDEC BCP Site #C907027

Summary of Water Quality Parameters - Groundwater Samples

WELL ID	Parameter	DATE				
		8/8/2012	3/6/2013	6/26/2013	10/30/2013	12/1/2013
MW-07	GW Elevation (ft)	95.27	95.90	95.01	95.91	N/M
	pH (su)	N/M	7.04	7.73	7.04	N/M
	S.C. (mS/cm)	N/M	1.70	N/M	2.10	N/M
	D.O. (mg/l)	0.9	0.10	0.7	0.57	N/M
	O.R.P. (mV)	106	100	57	17	N/M
MW-200	GW Elevation (ft)	92.99	95.46	92.95	95.53	N/M
	pH (su)	N/M	8.23	7.74	7.26	N/M
	S.C. (mS/cm)	N/M	2.68	N/M	1.60	N/M
	D.O. (mg/l)	0.6	4.24	0.6	1.42	N/M
	O.R.P. (mV)	70	196	-57	37	N/M
MW-201	GW Elevation (ft)	92.08	92.44	93.69	92.74	N/M
	pH (su)	N/M	7.58	7.97	6.90	N/M
	S.C. (mS/cm)	N/M	2.11	N/M	1.86	N/M
	D.O. (mg/l)	2.3	1.38	0.7	0.52	N/M
	O.R.P. (mV)	-31	-53	-13	-116	N/M
CW-1	GW Elevation (ft)	--	96.64	95.62	96.62	N/M
	pH (su)	--	N/M	8.02	7.16	N/M
	S.C. (mS/cm)	--	N/M	N/M	2.30	N/M
	D.O. (mg/l)	--	N/M	4.0	1.69	N/M
	O.R.P. (mV)	--	N/M	122	-30	N/M
CW-2	GW Elevation (ft)	--	96.46	95.97	96.44	N/M
	pH (su)	--	7.65	7.79	7.11	6.76
	S.C. (mS/cm)	--	2.01	N/M	2.10	N/M
	D.O. (mg/l)	--	0.88	0.6	1.33	N/M
	O.R.P. (mV)	--	299	175	48	82
CW-3	GW Elevation (ft)	--	94.97	94.34	95.24	N/M
	pH (su)	--	7.77	7.82	6.89	6.46
	S.C. (mS/cm)	--	1.90	N/M	2.39	N/M
	D.O. (mg/l)	--	0.70	0.9	0.63	N/M
	O.R.P. (mV)	--	310	40	-115	-170
CW-4	GW Elevation (ft)	--	94.63	94.10	94.91	N/M
	pH (su)	--	8.10	7.69	7.07	6.75
	S.C. (mS/cm)	--	1.64	N/M	2.03	N/M
	D.O. (mg/l)	--	0.23	0.9	0.66	N/M
	O.R.P. (mV)	--	193	190	29	-95
CW-5	GW Elevation (ft)	--	94.42	93.97	94.66	N/M
	pH (su)	--	N/M	7.93	6.85	N/M
	S.C. (mS/cm)	--	N/M	N/M	1.53	N/M
	D.O. (mg/l)	--	N/M	1.2	0.94	N/M
	O.R.P. (mV)	--	N/M	33	86	N/M
CW-6	GW Elevation (ft)	--	95.87	95.19	95.86	N/M
	pH (su)	--	N/M	7.94	N/M	N/M
	S.C. (mS/cm)	--	N/M	N/M	N/M	N/M
	D.O. (mg/l)	--	N/M	1.3	N/M	N/M
	O.R.P. (mV)	--	N/M	32	N/M	N/M
MW-04	GW Elevation (ft)	97.72	100.16	N/M	99.92	N/M
	pH (su)	N/M	7.83	N/M	5.66	N/M
	S.C. (mS/cm)	N/M	1.11	N/M	2.02	N/M
	D.O. (mg/l)	0.7	0.14	N/M	1.86	N/M
	O.R.P. (mV)	95	133	N/M	168	N/M
MW-06	GW Elevation (ft)	96.95	100.09	N/M	99.68	N/M
	pH (su)	N/M	8.37	N/M	6.10	N/M
	S.C. (mS/cm)	N/M	0.70	N/M	1.24	N/M
	D.O. (mg/l)	2	0.00	N/M	0.77	N/M
	O.R.P. (mV)	-52	197	N/M	137	N/M
BR-02FR	GW Elevation (ft)	97.89	100.22	N/M	100.33	N/M
	pH (su)	N/M	7.58	N/M	6.44	N/M
	S.C. (mS/cm)	N/M	0.62	N/M	1.40	N/M
	D.O. (mg/l)	0.6	0.13	N/M	0.65	N/M
	O.R.P. (mV)	121	74	N/M	101	N/M
BR-02R	GW Elevation (ft)	97.99	100.46	N/M	99.68	N/M
	pH (su)	N/M	8.17	N/M	6.39	N/M
	S.C. (mS/cm)	N/M	0.60	N/M	0.92	N/M
	D.O. (mg/l)	0.8	0.00	N/M	0.62	N/M
	O.R.P. (mV)	88	-164	N/M	57	N/M
BR-03R	GW Elevation (ft)	98.39	100.01	N/M	99.97	N/M
	pH (su)	N/M	7.86	N/M	6.24	N/M
	S.C. (mS/cm)	N/M	0.51	N/M	2.14	N/M
	D.O. (mg/l)	0.3	0.00	N/M	2.14	N/M
	O.R.P. (mV)	69	131	N/M	128	N/M

N/M = Not Measured

O.R.P = oxygen reduction potential

D.O. = dissolved oxygen

S.C. = specific conductance

Table 3a

Summary of Analytical Laboratory Results  
Halogenated Volatile Organic Compounds  
Groundwater Samples

Anderson Cleaners Site  
Jamestown, New York  
BCP Site C907027

Overburden/ Top of Rock Wells

Constituent	Sample Locations and Sample Dates																					
	CW-1		CW-2			CW-3			CW-4			CW-5		CW-6	PW-2			PW-3				
	12/7/2012	10/30/2013	11/16/2012	3/6/2013	10/30/2013	11/16/2012	3/6/2013	10/30/2013	11/16/2012	3/6/2013	10/30/2013	11/16/2012	10/30/2013	11/16/2012	10/21/2004	1/12/2006	8/8/2006	10/21/2004	5/25/2005	1/12/2006	8/8/2006	9/12/2006
<b>PCE</b>	13.3	2.1	155	308	254	794	910	1,020 D	39,800	31,300	36,000 D	U (0.7)	U (0.7)	U (0.7)	91,400	29,700	50,400	108,000	74,000	64,700	34,100	23,100
<b>TCE</b>	1.0	1.1	60.8	40.0	32.8	U (7.6)	U (15.1)	61.0	U (378)	U (378)	2360 D	U (0.8)	U (0.8)	U (0.8)	U (2000)	U (1000)	U (1000)	9,070	8,100	7,360	8,150	9,040
<b>trans 1,2-DCE</b>	U (1.0)	U(0.8)	1.8	U (3.4)	U (4.2)	U (6.8)	U (13.6)	U(16.6)	U (340)	U (340)	U ( 416)	U (0.7)	U (0.8)	U (0.7)	U (2000)	U (1000)	U (1000)	U (2000)	290 E	U (1000)	U (1000)	U (400)
<b>cis 1,2-DCE</b>	1.3	0.9	37.4	24.4	23.6	28.5	25.4	1,440 D	U (358)	U (358)	2960 D	U (0.7)	U (0.7)	U (0.7)	U (2000)	-	-	72,500	57,000	-	-	-
<b>VC</b>	U (1.0)	U(0.8)	1.2	U (4.0)	U (4.0)	U (8.1)	U (16.1)	16.8 JD	U (404)	U (404)	U (404)	U (0.8)	U (0.8)	U (0.8)	U (2000)	U (1000)	U (1000)	13,800	12,000	17,900	20,400	5,490
<b>Total VOCs</b>	<b>15.6</b>	<b>4.1</b>	<b>256.2</b>	<b>372.4</b>	<b>310.4</b>	<b>822.5</b>	<b>935.4</b>	<b>2,537.8</b>	<b>39,800</b>	<b>31,300</b>	<b>41,050</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>91,400</b>	<b>29,700</b>	<b>50,400</b>	<b>203,370</b>	<b>151,390</b>	<b>89,960</b>	<b>62,650</b>	<b>37,630</b>

Notes:

All samples tested for halogenated VOCs by USEPA Method 8260B and concentrations are shown in ug/L or parts per billion.

U (200) = constituent not detected at the concentration shown in parenthesis.

E = estimated concentration

PCE = tetrachloroethene

TCE = trichloroethene

trans 1,2-DCE = trans 1,2-dichloroethene

cis 1,2-DCE = cis 1,2-dichloroethene

VC = vinyl chloride

Table 3a

Summary of Analytical Laboratory Results  
Halogenated Volatile Organic Compounds  
Groundwater Samples

Anderson Cleaners Site  
Jamestown, New York  
BCP Site C907027

Overburden/ Top of Rock Wells

Constituent	Sample Locations and Sample Dates																						
	MW-07											MW-7			MW-7.1			MW-200					
	5/25/2005	1/12/2006	9/12/2006	1/4/2007	2/13/2007	3/15/2007	7/24/2008	8/8/2012	11/16/2012	3/6/2013	10/30/2013	11/23/2003	10/21/2004	5/25/2005	8/9/2006	9/12/2006	7/24/2008	4/20/2006	7/24/2008	8/8/2012	11/16/2012	3/6/2013	10/30/2013
PCE	9,600 E	8,590	9,170	5,310	6,440	4,240	11,600	15,600	6,410	2,140	2,840 D	53,300	53,700	73,000	113,000	120,000	78,100	U (2.0)	U (2.0)	1.4	U (0.7)	1.8	7.3
TCE	6,500	U (200)	U (151)	U (151)	U (37.8)	U (37.8)	U (1000)	U (2000)	81	U (1000)	U (1000)	1,120	U (2.0)	U (2.0)	3.2	5.6	1.5	4.8					
trans 1,2-DCE	61	U (200)	U (136)	U (136)	U (34.0)	U (41.6)	U (1000)	U (2000)	U (10)	U (1000)	U (1000)	U (1000)	U (2.0)	U (2.0)	0.8	U (0.7)	U (0.7)	U (0.8)					
cis 1,2-DCE	7,100	-	-	U (200)	U (200)	U (200)	245	U (143)	U (143)	U (35.8)	U (35.8)	-	U (2000)	95	-	-	U (1000)	-	4.56	32.6	45.6	7.2	23.3
VC	1,000	U (200)	U (161)	U (161)	U (40.4)	U (40.4)	U (1000)	U (2000)	2 E	U (1000)	U (1000)	U (1000)	U (2.0)	U (2.0)	0.9	0.8	U (0.8)	U (0.8)					
<b>Total VOCs</b>	<b>24,261</b>	<b>8,590</b>	<b>9,170</b>	<b>5,310</b>	<b>6,440</b>	<b>4,240</b>	<b>11,845</b>	<b>15,600</b>	<b>6,410</b>	<b>2,140</b>	<b>2,840</b>	<b>53,300</b>	<b>53,700</b>	<b>73,178</b>	<b>113,000</b>	<b>120,000</b>	<b>79,220</b>	<b>ND</b>	<b>4.56</b>	<b>38.9</b>	<b>52.0</b>	<b>10.5</b>	<b>35.4</b>

Notes:

All samples tested for halogenated VOCs by USEPA Method 8260B and concentrations are shown in ug/L or parts per billion.

U (200) = constituent not detected at the concentration shown in parenthesis.

E = estimated concentration

PCE = tetrachloroethene

TCE = trichloroethene

trans 1,2-DCE = trans 1,2-dichloroethene

cis 1,2-DCE = cis 1,2-dichloroethene

VC = vinyl chloride

Table 3a

Summary of Analytical Laboratory Results  
Halogenated Volatile Organic Compounds  
Groundwater Samples

Anderson Cleaners Site  
Jamestown, New York  
BCP Site C907027

Overburden/ Top of Rock Wells

Constituent	Sample Locations and Sample Dates																
	MW-201														MW-202	MW-203	
	4/24/2006	1/4/2007	2/13/2007	3/15/2007	8/31/2007	11/8/2007	4/2/2008	7/24/2008	12/20/2008	8/8/2012	11/16/2012	12/7/2012	3/6/2013	10/30/2013	4/20/2006	7/12/2006	7/24/2008
PCE	10,500	14,200	2,610	423	1,000	402	U (100)	U (200)	U (200)	U (186)	U (0.7)	U (250)	U (186)	U (37.2)	U (2.0)	U (2.0)	U (2.0)
TCE	970	U (200)	17,500	937	772 E	232	U (100)	U (200)	U (200)	U (189)	U (0.8)	U (250)	U (189)	U (37.8)	U (2.0)	U (2.0)	U (2.0)
trans 1,2-DCE	U (200)	U (200)	1,290	94.4	361 E	141	U (100)	U (200)	U (200)	U (170)	U (0.7)	U (250)	U (170)	U (41.6)	U (2.0)	U (2.0)	U (2.0)
cis 1,2-DCE	-	U (200)	7,860	U (20)	16,000	9,130	4,040	7,820	752	10,400	27.7	9,570	11,200	2,350	-	-	3.66
VC	U (200)	U (200)	U (200)	U (20)	566 E	1,180	1,710	4,260	1,050	650	14.7	848	588	1,190	U (2.0)	3.38	U (2.0)
<b>Total VOCs</b>	<b>11,470</b>	<b>14,200</b>	<b>29,260</b>	<b>1,454</b>	<b>18,699</b>	<b>11,085</b>	<b>5,750</b>	<b>12,080</b>	<b>1,804</b>	<b>11,050</b>	<b>42.4</b>	<b>10,418</b>	<b>11,788</b>	<b>3,540</b>	<b>0</b>	<b>3.38</b>	<b>3.66</b>

Notes:

All samples tested for halogenated VOCs by USEPA Method 8260B and concentrations are shown in ug/L or parts per billion.

U (200) = constituent not detected at the concentration shown in parenthesis.

E = estimated concentration

PCE = tetrachloroethene

TCE = trichloroethene

trans 1,2-DCE = trans 1,2-dichloroethene

cis 1,2-DCE = cis 1,2-dichloroethene

VC = vinyl chloride

Table 3b

Summary of Analytical Laboratory Results  
 Halogenated Volatile Organic Compounds  
 Groundwater Samples

Anderson Cleaners Site  
 Jamestown, New York  
 BCP Site C907027

Fractured Rock Wells

Constituent	Sample Locations and Sample Dates																													
	MW-01	MW-02	MW-03			MW-04							MW-05		MW-06							BR-02 FR								
	5/25/2005	1/12/2006	5/25/2005	1/12/2006	9/12/2006	5/25/2005	1/12/2006	1/4/2007	2/13/2007	3/15/2007	11/8/2007	7/24/2008	1/15/2010	5/5/2010	8/8/2012	10/30/2013	5/25/2005	1/12/2006	5/25/2005	1/12/2006	1/4/2007	2/13/2007	3/15/2007	7/24/2008	8/8/2012	10/30/2013	1/15/2010	5/5/2010	8/8/2012	10/30/2013
PCE	U (10)	2,090	1,400	1,040	1,560	1,200	1,230	1,820	1,120	904	189	734	837	694	974	966 D	2 E	U (2)	620	392	369	256	246	329	187	156 D	15,000	30,000	5,880	15,500 D
TCE	U (10)	U (20)	U (10)	U (20)	U (20)	1 E	U (20)	U (200)	U (200)	U (100)	1,220	113	34.9	31.4	U (18.9)	U (18.9)	U (10)	U (2)	1 E	U (10)	U (4)	U (5)	U (5)	U (5)	U (3.8)	U (3.8)	U (200)	U (400)	499	3,230 D
trans 1,2-DCE	U (10)	U (20)	U (10)	U (20)	U (20)	U (10)	U (20)	U (200)	U (200)	U (100)	187	U (20)	U (20)	U (20)	U (17.0)	U (20.8)	U (10)	U (2)	U (10)	U (10)	U (4)	U (5)	U (5)	U (5)	U (3.4)	U (4.2)	U (200)	U (400)	U (68.1)	U (416)
cis 1,2-DCE	U (10)	-	U (10)	-	-	U (10)	-	U (200)	U (200)	U (100)	3,830	101	24.6	28.6	U (17.9)	U (17.9)	U (10)	-	U (10)	-	U (4)	U (5)	U (5)	U (5)	U (3.6)	U (3.6)	U (200)	U (400)	97.0	3,150 D
VC	U (10)	U (20)	U (10)	U (20)	U (20)	U (10)	U (20)	U (200)	U (200)	U (100)	U (100)	U (20)	U (20)	U (20)	U (20.2)	U (20.2)	U (10)	U (2)	U (10)	U (10)	U (4)	U (5)	U (5)	U (5)	U (4.0)	U (4.0)	U (200)	U (400)	U (80.7)	U (404)
<b>Total VOCs</b>	<b>0</b>	<b>2,090</b>	<b>1,400</b>	<b>1,040</b>	<b>1,560</b>	<b>1,201</b>	<b>1,230</b>	<b>1,820</b>	<b>1,120</b>	<b>904</b>	<b>5,426</b>	<b>948</b>	<b>896.5</b>	<b>754</b>	<b>974</b>	<b>966</b>	<b>2</b>	<b>0</b>	<b>621</b>	<b>392</b>	<b>369</b>	<b>256</b>	<b>246</b>	<b>329</b>	<b>187</b>	<b>156</b>	<b>15,000</b>	<b>30,000</b>	<b>6,476</b>	<b>21,880</b>

Notes:

All samples tested for halogenated VOCs by USEPA Method 8260B and concentrations are shown in ug/L or parts per billion.

U (200) = constituent not detected at the concentration shown in parenthesis.

E = estimated concentration

PCE = tetrachloroethene

TCE = trichloroethene

trans 1,2-DCE = trans 1,2-dichloroethene

cis 1,2-DCE = cis 1,2-dichloroethene

VC = vinyl chloride

Table 3c

Summary of Analytical Laboratory Results  
Halogenated Volatile Organic Compounds  
Groundwater Samples

Anderson Cleaners Site  
Jamestown, New York  
BCP Site C907027

Bedrock Wells

Constituent	Sample Locations and Sample Dates							
	BR-02 R				BR-03 R			
	1/15/2010	5/5/2010	8/8/2012	10/30/2013	1/15/2010	5/5/2010	8/8/2012	10/30/2013
PCE	334	371	1,620	5,570 D	115	37	129	76.5 D
TCE	79.8	550	1,330	2,600 D	221	18	67.0	9.9 D
trans 1,2-DCE	U (20)	U (20)	U (17.0)	U (166)	U (20)	U (2)	U (3.4)	U (4.2)
cis 1,2-DCE	U (20)	U (20)	364	692 D	468	124	70.3	27.8 D
VC	79.0	115	400	750 D	U (20)	U (2)	U (4.0)	U (4.0)
<b>Total VOCs</b>	<b>492.8</b>	<b>1,036</b>	<b>3,762.5</b>	<b>9,612</b>	<b>804</b>	<b>179</b>	<b>266.3</b>	<b>114.2</b>

Notes:

All samples tested for halogenated VOCs by USEPA Method 8260B and concentrations are shown in ug/L or parts per billion.

U (200) = constituent not detected at the concentration shown in parenthesis.

E = estimated concentration

PCE = tetrachloroethene

TCE = trichloroethene

trans 1,2-DCE = trans 1,2-dichloroethene

cis 1,2-DCE = cis 1,2-dichloroethene

VC = vinyl chloride

\* Sample intervals are approximately 1.3 feet higher than shown during the 7/24/2008 sample round.

Table 4  
 Long Term Monitoring Program  
 5 Hunt Road  
 Jamestown, New York  
 NYSDEC BCP Site #C907027

Summary of Indicator Parameter Testing - Groundwater Samples

Analyte	Test Location and Date			
	CW-2		CW-4	
	6/26/2013	10/30/2013	6/26/2013	10/30/2013
Iron	96.4	3.2	14.9	5.32
Magnesium	77.8	NT	34.9	NT
Manganese	2.25	NT	0.522	NT
Chloride	443	NT	284	NT
Nitrate as N	0.246	NT	0.218	NT
Sulfate as SO <sub>4</sub>	32.5	NT	19.4	NT
Dissolved Organic Carbon	1.82	2.16	2.17	2.08
Total Organic Carbon	2.42	1.82	2.17	1.84
Pyruvic Acid	U (5.0)	U (5.0)	U (5.0)	U (5.0)
Lactic Acid	U (5.0)	U (5.0)	U (5.0)	U (5.0)
Acetic Acid	U (5.0)	U (5.0)	U (5.0)	U (5.0)
Propionic Acid	U (5.0)	U (5.0)	U (5.0)	U (5.0)
Butyric Acid	U (5.0)	U (5.0)	U (5.0)	U (5.0)

Notes:

All results are in mg/l

U (5.0) = constituent not detected at the concentration shown in parenthesis.

NT = Sample Not Tested for this parameter

The 6-26-2013 samples represent background sample that were collected prior to the permeable reactive barrier (PRB) injections on 7-17-2013 and 7-24-2013.

The 10-30-2013 samples were collected approximately three months after the PRB injections

ATTACHMENT A

DNAPL DISPOSAL DOCUMENTATION

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number NY0012770003	2. Page 1 of 1	3. Emergency Response Phone 1-800-424-9300	4. Manifest Tracking Number 006031373 <b>FLE</b>		
5. Generator's Name and Mailing Address RIMMISON DRY CLEANERS 5 THIRD ROAD JAMESTOWN, NY 14091 Generator's Phone: 716-644-5630				Generator's Site Address (if different than mailing address) HUNT ROAD JAMESTOWN, NY 14091 716-644-5630			
6. Transporter 1 Company Name SOLVENTS & PETROLEUM SERVICE INC				U.S. EPA ID Number NY0012770003			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address SOLVENTS & PETROLEUM SERVICE INC 1405 DEWEYTON RD SYRACUSE NY 13208 Facility's Phone: 315-484-0957				U.S. EPA ID Number NY0012770003			
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		1. NO. HAZARDOUS WASTE TETRACHLOROETHYLENE, 6 S. 743 III	01	DRUM	13	G	R01, B
		2.					
		3.					
		4.					
14. Special Handling Instructions and Additional Information HAZARDOUS WASTE GUIDE 140 AMBERGEL							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offeror's Printed/Typed Name J. D. P. No				Signature <i>J. D. P. No</i>		Month Day Year 9 27 13	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name Shawm				Signature <i>Shawm</i>		Month Day Year 09 27 13	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
18b. Alternate Facility (or Generator)				Manifest Reference Number: _____ U.S. EPA ID Number _____			
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year _____							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. 1004		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name Mark E Farrell Jr				Signature <i>Mark E Farrell Jr</i>		Month Day Year 9 27 13	

TRANSPORTER INTL

DESIGNATED FACILITY

ATTACHMENT B

ANALYTICAL LABORATORY REPORTS  
AND  
CHAIN OF CUSTODY DOCUMENTATION  
FOR  
DNAPL REMOVAL TREATMENT SYSTEM MONITORING

Report Date:  
26-Feb-13 14:41



- Final Report
- Re-Issued Report
- Revised Report

**SPECTRUM ANALYTICAL, INC.**

Featuring

**HANIBAL TECHNOLOGY**

**Laboratory Report**

Day Environmental, Inc.  
1563 Lyell Avenue  
Rochester, NY 14606  
Attn: Ray Kampff

Project: 5 Hunt Rd. Jamestown, NY  
Project #: 35635-04

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SB64624-01	Sewer Discharge	Waste Water	13-Feb-13 12:50	19-Feb-13 21:00
SB64624-02	GAC INF	Waste Water	13-Feb-13 13:05	19-Feb-13 21:00

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.  
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110  
Connecticut # PH-0777  
Florida # E87600/E87936  
Maine # MA138  
New Hampshire # 2538  
New Jersey # MA011/MA012  
New York # 11393/11840  
Pennsylvania # 68-04426/68-02924  
Rhode Island # 98  
USDA # S-51435



Authorized by:

Nicole Leja  
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 5 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

*Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at [www.spectrum-analytical.com](http://www.spectrum-analytical.com) for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).*

*Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.*

**CASE NARRATIVE:**

The samples were received 1.5 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

**SW846 8260C**

**Calibration:**

1302041

---

Analyte quantified by quadratic equation type calibration.

trans-1,3-Dichloropropene

This affected the following samples:

1304130-BLK1  
1304130-BS1  
1304130-BSD1  
GAC INF  
S301789-ICV1  
S301936-CCV1  
Sewer Discharge

S301789-ICV1

---

Analyte percent recovery is outside individual acceptance criteria (80-120).

Bromomethane (79%)  
Dichlorodifluoromethane (Freon12) (69%)

This affected the following samples:

1304130-BLK1  
1304130-BS1  
1304130-BSD1  
GAC INF  
S301936-CCV1  
Sewer Discharge

**Laboratory Control Samples:**

1304130 BS/BSD

---

Dichlorodifluoromethane (Freon12) percent recoveries (75/69) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GAC INF  
Sewer Discharge

**Samples:**

SB64624-02                      *GAC INF*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Sample Identification

**Sewer Discharge**  
SB64624-01

Client Project #  
35635-04

Matrix  
Waste Water

Collection Date/Time  
13-Feb-13 12:50

Received  
19-Feb-13

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
<b>Volatile Organic Compounds</b>													
<u>Volatile Organic Halocarbons</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
75-27-4	Bromodichloromethane	< 0.5	U	µg/l	0.5	0.5	1	SW846 8260C	21-Feb-13	22-Feb-13	eq	1304130	X
75-25-2	Bromoform	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 1.1	U	µg/l	2.0	1.1	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 0.5	U	µg/l	1.0	0.5	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 1.0	U	µg/l	2.0	1.0	1	"	"	"	"	"	X
67-66-3	Chloroform	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 1.5	U	µg/l	2.0	1.5	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.4	U	µg/l	2.0	0.4	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 0.5	U	µg/l	1.0	0.5	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5	U	µg/l	0.5	0.5	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 0.7	U	µg/l	2.0	0.7	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	96			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	96			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	105			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	95			70-130 %			"	"	"	"	"	

*This laboratory report is not valid without an authorized signature on the cover page.*

Sample Identification

GAC INF  
SB64624-02

Client Project #  
35635-04

Matrix  
Waste Water

Collection Date/Time  
13-Feb-13 13:05

Received  
19-Feb-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Halocarbons													
Prepared by method SW846 5030 Water MS													
75-27-4	Bromodichloromethane	< 958	U, D	µg/l	1000	958	2000	SW846 8260C	21-Feb-13	22-Feb-13	eq	1304130	X
75-25-2	Bromoform	< 1210	U, D	µg/l	2000	1210	2000	"	"	"	"	"	X
74-83-9	Bromomethane	< 2280	U, D	µg/l	4000	2280	2000	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1100	U, D	µg/l	2000	1100	2000	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1310	U, D	µg/l	2000	1310	2000	"	"	"	"	"	X
75-00-3	Chloroethane	< 2070	U, D	µg/l	4000	2070	2000	"	"	"	"	"	X
67-66-3	Chloroform	< 1380	U, D	µg/l	2000	1380	2000	"	"	"	"	"	X
74-87-3	Chloromethane	< 2950	U, D	µg/l	4000	2950	2000	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 578	U, D	µg/l	1000	578	2000	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1340	U, D	µg/l	2000	1340	2000	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1420	U, D	µg/l	2000	1420	2000	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1250	U, D	µg/l	2000	1250	2000	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 894	U, D	µg/l	4000	894	2000	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1360	U, D	µg/l	2000	1360	2000	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1560	U, D	µg/l	2000	1560	2000	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 976	U, D	µg/l	2000	976	2000	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1430	U, D	µg/l	2000	1430	2000	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1360	U, D	µg/l	2000	1360	2000	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1420	U, D	µg/l	2000	1420	2000	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 504	U, D	µg/l	1000	504	2000	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 998	U, D	µg/l	1000	998	2000	"	"	"	"	"	X
75-09-2	Methylene chloride	< 1380	U, D	µg/l	4000	1380	2000	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 698	U, D	µg/l	1000	698	2000	"	"	"	"	"	X
127-18-4	Tetrachloroethene	96,000	D	µg/l	2000	1490	2000	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 1160	U, D	µg/l	2000	1160	2000	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1280	U, D	µg/l	2000	1280	2000	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1510	U, D	µg/l	2000	1510	2000	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1260	U, D	µg/l	2000	1260	2000	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1610	U, D	µg/l	2000	1610	2000	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	99			70-130 %								
2037-26-5	Toluene-d8	100			70-130 %								
17060-07-0	1,2-Dichloroethane-d4	109			70-130 %								
1868-53-7	Dibromofluoromethane	102			70-130 %								

*This laboratory report is not valid without an authorized signature on the cover page.*

## Notes and Definitions

D	Data reported from a dilution
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:  
Kimberly Wisk





Report Date:  
24-Jun-13 17:27



- Final Report
- Re-Issued Report
- Revised Report

**SPECTRUM ANALYTICAL, INC.**

Featuring

**HANIBAL TECHNOLOGY**

**Laboratory Report**

Day Environmental, Inc.  
1563 Lyell Avenue  
Rochester, NY 14606  
Attn: Ray Kampff

Project: 5 Hunt Rd. Jamestown, NY  
Project #: 35635-04

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SB71307-01	Sewer Outfall	Waste Water	05-Jun-13 11:40	11-Jun-13 21:00
SB71307-02	Carbon Drum #1 Outfall	Waste Water	05-Jun-13 11:50	11-Jun-13 21:00

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.  
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110  
Connecticut # PH-0777  
Florida # E87600/E87936  
Maine # MA138  
New Hampshire # 2538  
New Jersey # MA011/MA012  
New York # 11393/11840  
Pennsylvania # 68-04426/68-02924  
Rhode Island # 98  
USDA # S-51435



Authorized by:

Nicole Leja  
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 7 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

*Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at [www.spectrum-analytical.com](http://www.spectrum-analytical.com) for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).*

*Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.*

**CASE NARRATIVE:**

The samples were received 1.4 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

**See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.**

**SW846 8260C**

**Calibration:**

S306376-ICV1

---

Analyte percent recovery is outside individual acceptance criteria (80-120).

Vinyl chloride (76%)

This affected the following samples:

1314093-BLK1  
1314093-BS1  
1314093-BSD1  
1314093-MS1  
1314093-MSD1  
Carbon Drum #1 Outfall  
S306900-CCV1  
Sewer Outfall

**Spikes:**

1314093-MS1                      *Source: SB71307-01*

---

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

1,1-Dichloroethene  
Bromomethane  
Chloroethane  
Chloromethane  
Dichlorodifluoromethane (Freon12)  
Methylene chloride  
Tetrachloroethene  
trans-1,2-Dichloroethene  
Trichlorofluoromethane (Freon 11)  
Vinyl chloride

1314093-MSD1                      *Source: SB71307-01*

---

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

1,1-Dichloroethene  
Bromomethane  
Carbon tetrachloride  
Chloroethane  
Chloromethane  
Dichlorodifluoromethane (Freon12)  
Methylene chloride  
Tetrachloroethene  
trans-1,2-Dichloroethene  
Trichlorofluoromethane (Freon 11)  
Vinyl chloride

**SW846 8260C**

**Samples:**

S306900-CCV1

---

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Chloromethane (21.1%)

This affected the following samples:

1314093-BLK1

1314093-BS1

1314093-BSD1

1314093-MS1

1314093-MSD1

Carbon Drum #1 Outfall

Sewer Outfall

SB71307-02

*Carbon Drum #1 Outfall*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

## Sample Acceptance Check Form

Client: Day Environmental, Inc.  
 Project: 5 Hunt Rd. Jamestown, NY / 35635-04  
 Work Order: SB71307  
 Sample(s) received on: 6/11/2013  
 Received by: Vickie Knowles

*The following outlines the condition of samples for the attached Chain of Custody upon receipt.*

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
1. Were custody seals present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Were custody seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Were samples received at a temperature of $\leq 6^{\circ}\text{C}$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Were samples cooled on ice upon transfer to laboratory representative?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Were samples refrigerated upon transfer to laboratory representative?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Were sample containers received intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Were samples accompanied by a Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Did sample container labels agree with Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Were samples received within method-specific holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sample Identification

**Sewer Outfall**

SB71307-01

Client Project #

35635-04

Matrix

Waste Water

Collection Date/Time

05-Jun-13 11:40

Received

11-Jun-13

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

**Volatile Organic Compounds**

Volatile Organic Halocarbons by SW846 8260

Prepared by method SW846 5030 Water MS

75-27-4	Bromodichloromethane	< 0.5	U	µg/l	0.5	0.5	1	SW846 8260C	14-Jun-13	14-Jun-13	GMA	1314093	X
75-25-2	Bromoform	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 1.1	U	µg/l	2.0	1.1	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 0.5	U	µg/l	1.0	0.5	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 1.0	U	µg/l	2.0	1.0	1	"	"	"	"	"	X
67-66-3	Chloroform	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 1.5	U	µg/l	2.0	1.5	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.4	U	µg/l	2.0	0.4	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 0.5	U	µg/l	1.0	0.5	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5	U	µg/l	0.5	0.5	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 0.7	U	µg/l	2.0	0.7	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X

*Surrogate recoveries:*

460-00-4	4-Bromofluorobenzene	78			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	103			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	112			70-130 %			"	"	"	"	"	

*This laboratory report is not valid without an authorized signature on the cover page.*

## Sample Identification

Carbon Drum #1 Outfall

SB71307-02

Client Project #

35635-04

Matrix

Waste Water

Collection Date/Time

05-Jun-13 11:50

Received

11-Jun-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Halocarbons by SW846 8260													
Prepared by method SW846 5030 Water MS													
75-27-4	Bromodichloromethane	< 240	U, D	µg/l	250	240	500	SW846 8260C	14-Jun-13	14-Jun-13	GMA	1314093	X
75-25-2	Bromoform	< 302	U, D	µg/l	500	302	500	"	"	"	"	"	X
74-83-9	Bromomethane	< 570	U, D	µg/l	1000	570	500	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 274	U, D	µg/l	500	274	500	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 327	U, D	µg/l	500	327	500	"	"	"	"	"	X
75-00-3	Chloroethane	< 516	U, D	µg/l	1000	516	500	"	"	"	"	"	X
67-66-3	Chloroform	< 344	U, D	µg/l	500	344	500	"	"	"	"	"	X
74-87-3	Chloromethane	< 736	U, D	µg/l	1000	736	500	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 144	U, D	µg/l	250	144	500	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 334	U, D	µg/l	500	334	500	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 356	U, D	µg/l	500	356	500	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 312	U, D	µg/l	500	312	500	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 224	U, D	µg/l	1000	224	500	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 340	U, D	µg/l	500	340	500	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 390	U, D	µg/l	500	390	500	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 244	U, D	µg/l	500	244	500	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	<b>1,860</b>	D	µg/l	500	358	500	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 340	U, D	µg/l	500	340	500	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 356	U, D	µg/l	500	356	500	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 126	U, D	µg/l	250	126	500	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 250	U, D	µg/l	250	250	500	"	"	"	"	"	X
75-09-2	Methylene chloride	< 345	U, D	µg/l	1000	345	500	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 174	U, D	µg/l	250	174	500	"	"	"	"	"	X
127-18-4	Tetrachloroethene	<b>16,200</b>	D	µg/l	500	372	500	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 291	U, D	µg/l	500	291	500	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 321	U, D	µg/l	500	321	500	"	"	"	"	"	X
79-01-6	Trichloroethene	<b>635</b>	D	µg/l	500	378	500	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 314	U, D	µg/l	500	314	500	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 404	U, D	µg/l	500	404	500	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	78			70-130 %								
2037-26-5	Toluene-d8	103			70-130 %								
1868-53-7	Dibromofluoromethane	111			70-130 %								

This laboratory report is not valid without an authorized signature on the cover page.

## Notes and Definitions

D	Data reported from a dilution
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:  
Kimberly Wisk



ATTACHMENT C

ANALYTICAL LABORATORY REPORTS  
AND  
CHAIN OF CUSTODY DOCUMENTATION  
FOR

PERFORMANCE MONITORING SAMPLES  
AND  
LONG TERM GROUNDWATER MONITORING SAMPLES

Report Date:  
13-Nov-13 15:36



- Final Report
- Re-Issued Report
- Revised Report

**SPECTRUM ANALYTICAL, INC.**

*Featuring*

**HANIBAL TECHNOLOGY**

***Laboratory Report***

Day Environmental, Inc.  
1563 Lyell Avenue  
Rochester, NY 14606  
Attn: Ray Kampff

Project: 5 Hunt Rd. Jamestown, NY  
Project #: 35635-04

---

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SB79601-01	CW-1	Ground Water	30-Oct-13 13:45	31-Oct-13 21:00
SB79601-02	CW-2	Ground Water	30-Oct-13 14:00	31-Oct-13 21:00
SB79601-03	CW-3	Ground Water	30-Oct-13 14:25	31-Oct-13 21:00
SB79601-04	CW-4	Ground Water	30-Oct-13 14:35	31-Oct-13 21:00
SB79601-05	CW-5	Ground Water	30-Oct-13 12:35	31-Oct-13 21:00
SB79601-06	MW-200	Ground Water	30-Oct-13 13:20	31-Oct-13 21:00
SB79601-07	MW-201	Ground Water	30-Oct-13 13:00	31-Oct-13 21:00
SB79601-08	MW-04	Ground Water	30-Oct-13 10:57	31-Oct-13 21:00
SB79601-09	MW-06	Ground Water	30-Oct-13 12:20	31-Oct-13 21:00
SB79601-10	MW-07	Ground Water	30-Oct-13 14:30	31-Oct-13 21:00
SB79601-11	BR-02 FR	Ground Water	30-Oct-13 11:58	31-Oct-13 21:00
SB79601-12	BR-02 R	Ground Water	30-Oct-13 11:23	31-Oct-13 21:00
SB79601-13	BR-03 R	Ground Water	30-Oct-13 10:25	31-Oct-13 21:00
SB79601-14	Trip Blank	Aqueous	30-Oct-13 00:00	31-Oct-13 21:00

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.

All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110  
Connecticut # PH-0777  
Florida # E87600/E87936  
Maine # MA138  
New Hampshire # 2538  
New Jersey # MA011/MA012  
New York # 11393/11840  
Pennsylvania # 68-04426/68-02924  
Rhode Island # 98  
USDA # S-51435



Authorized by:

Nicole Leja  
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 30 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

*Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at [www.spectrum-analytical.com](http://www.spectrum-analytical.com) for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, NJ-MA012, PA-68-04426 and FL-E87936).*

*Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.*

---

*This laboratory report is not valid without an authorized signature on the cover page.*

**CASE NARRATIVE:**

The samples were received 1.3 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

**EPA 300.0 Modified**

**Spikes:**

M2155-02AMS                      *Source: SB79601-04*

---

Spike recovery falls outside of the control limit

Lactic Acid

**SM 5310B**

**Samples:**

SB79601-02                      *CW-2*

---

The Reporting Limit has been raised to account for matrix interference.

Dissolved Organic Carbon

SB79601-04                      *CW-4*

---

The Reporting Limit has been raised to account for matrix interference.

Dissolved Organic Carbon

**SW846 8260C**

**Calibration:**

1310106

---

Analyte quantified by quadratic equation type calibration.

Bromoform  
cis-1,3-Dichloropropene  
Dibromochloromethane  
trans-1,3-Dichloropropene  
Vinyl chloride

## SW846 8260C

### Calibration:

1310106

---

This affected the following samples:

1327228-BLK1  
1327228-BS1  
1327228-BSD1  
1327228-MS1  
1327228-MSD1  
1327349-BLK1  
1327349-BS1  
1327349-BSD1  
BR-02 FR  
BR-02 R  
CW-5  
MW-07  
MW-201  
S312944-ICV1  
S313719-CCV1  
S313804-CCV1

1310107

---

Analyte quantified by quadratic equation type calibration.

1,1,1-Trichloroethane  
Bromodichloromethane  
Bromoform  
Carbon tetrachloride  
cis-1,3-Dichloropropene  
Dibromochloromethane  
trans-1,3-Dichloropropene

This affected the following samples:

1327118-BLK1  
1327118-BS1  
1327118-BSD1  
1327118-MS1  
BR-02 FR  
BR-02 R  
CW-1  
CW-2  
CW-3  
CW-4  
MW-04  
MW-06  
MW-07  
MW-200  
S312940-ICV1  
S313647-CCV1

1311013

---

Analyte quantified by quadratic equation type calibration.

Carbon tetrachloride

## SW846 8260C

### Calibration:

1311013

---

This affected the following samples:

1327223-BLK1  
1327223-BS1  
1327223-BSD1  
BR-03 R  
S313488-ICV1  
S313755-CCV1  
Trip Blank

### Laboratory Control Samples:

1327118-BSD1

---

LCS/LCSD were analyzed in place of MS/MSD.

### Spikes:

1327118-MS1      *Source: SB79601-03*

---

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

Chloromethane  
Vinyl chloride

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

cis-1,2-Dichloroethene

1327228-MS1      *Source: SB79601-05*

---

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

Bromomethane  
Chloromethane  
Dichlorodifluoromethane (Freon12)

1327228-MSD1      *Source: SB79601-05*

---

RPD out of acceptance range.

Bromomethane

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

Dichlorodifluoromethane (Freon12)

### Samples:

S313647-CCV1

---

## SW846 8260C

### Samples:

#### S313647-CCV1

---

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,2-Trichloroethane (54.7%)  
1,2-Dichlorobenzene (51.1%)  
1,2-Dichloroethane (39.8%)  
1,2-Dichloropropane (46.8%)  
1,3-Dichlorobenzene (77.3%)  
1,4-Dichlorobenzene (51.1%)  
Chlorobenzene (48.1%)  
Chloroform (43.4%)  
cis-1,2-Dichloroethene (22.4%)  
Dichlorodifluoromethane (Freon12) (27.4%)  
Tetrachloroethene (52.3%)  
Trichlorofluoromethane (Freon 11) (27.6%)

This affected the following samples:

1327118-BLK1  
1327118-BS1  
1327118-BSD1  
1327118-MS1  
BR-02 FR  
BR-02 R  
CW-1  
CW-2  
CW-3  
CW-4  
MW-04  
MW-06  
MW-07  
MW-200

#### S313719-CCV1

---

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromomethane (-21.8%)

This affected the following samples:

1327228-BLK1  
1327228-BS1  
1327228-BSD1  
1327228-MS1  
1327228-MSD1  
BR-02 FR  
BR-02 R  
MW-07  
MW-201

#### S313804-CCV1

---

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Vinyl chloride (21.0%)

**SW846 8260C**

**Samples:**

S313804-CCV1

---

This affected the following samples:

- 1327349-BLK1
- 1327349-BS1
- 1327349-BSD1
- CW-5

SB79601-02            *CW-2*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB79601-03            *CW-3*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB79601-04            *CW-4*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB79601-07            *MW-201*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB79601-08            *MW-04*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB79601-09            *MW-06*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB79601-10            *MW-07*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB79601-10RE1        *MW-07*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB79601-11            *BR-02 FR*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB79601-11RE1        *BR-02 FR*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB79601-12            *BR-02 R*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB79601-12RE1        *BR-02 R*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogates with three required by program methods.

Dibromofluoromethane

**SW846 8260C**

**Samples:**

SB79601-13

*BR-03 R*

---

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

## Sample Acceptance Check Form

Client: Day Environmental, Inc.  
 Project: 5 Hunt Rd. Jamestown, NY / 35635-04  
 Work Order: SB79601  
 Sample(s) received on: 10/31/2013  
 Received by: Vickie Knowles

*The following outlines the condition of samples for the attached Chain of Custody upon receipt.*

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
1. Were custody seals present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Were custody seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Were samples received at a temperature of $\leq 6^{\circ}\text{C}$ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Were samples cooled on ice upon transfer to laboratory representative?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Were samples refrigerated upon transfer to laboratory representative?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Were sample containers received intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Were samples accompanied by a Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Did sample container labels agree with Chain of Custody document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Were samples received within method-specific holding times?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sample Identification

CW-1  
SB79601-01

Client Project #  
35635-04

Matrix  
Ground Water

Collection Date/Time  
30-Oct-13 13:45

Received  
31-Oct-13

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
Volatile Organic Halocarbons by SW846 8260													
Prepared by method SW846 5030 Water MS													
75-27-4	Bromodichloromethane	< 0.5	U	µg/l	0.5	0.5	1	SW846 8260C	07-Nov-13	07-Nov-13	NAA	1327118	X
75-25-2	Bromoform	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 1.1	U	µg/l	2.0	1.1	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 0.5	U	µg/l	1.0	0.5	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 1.0	U	µg/l	2.0	1.0	1	"	"	"	"	"	X
67-66-3	Chloroform	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 1.5	U	µg/l	2.0	1.5	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.4	U	µg/l	2.0	0.4	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 0.5	U	µg/l	1.0	0.5	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	0.9	J	µg/l	1.0	0.7	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.4	U	µg/l	0.5	0.4	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5	U	µg/l	0.5	0.5	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 0.9	U	µg/l	2.0	0.9	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	2.1		µg/l	1.0	0.7	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
79-01-6	Trichloroethene	1.1		µg/l	1.0	0.8	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X

*Surrogate recoveries:*

460-00-4	4-Bromofluorobenzene	97			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	99			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	101			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	103			70-130 %			"	"	"	"	"	

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Sample Identification

CW-2 Client Project # 35635-04 Matrix Ground Water Collection Date/Time 30-Oct-13 14:00 Received 31-Oct-13  
 SB79601-02

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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**Volatile Organic Compounds**

Volatile Organic Halocarbons by SW846 8260

GS1

Prepared by method SW846 5030 Water MS

75-27-4	Bromodichloromethane	< 2.4	U, D	µg/l	2.5	2.4	5	SW846 8260C	07-Nov-13	07-Nov-13	NAA	1327118	X
75-25-2	Bromoform	< 3.0	U, D	µg/l	5.0	3.0	5	"	"	"	"	"	X
74-83-9	Bromomethane	< 5.7	U, D	µg/l	10.0	5.7	5	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 2.7	U, D	µg/l	5.0	2.7	5	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 3.3	U, D	µg/l	5.0	3.3	5	"	"	"	"	"	X
75-00-3	Chloroethane	< 5.0	U, D	µg/l	10.0	5.0	5	"	"	"	"	"	X
67-66-3	Chloroform	< 3.4	U, D	µg/l	5.0	3.4	5	"	"	"	"	"	X
74-87-3	Chloromethane	< 7.4	U, D	µg/l	10.0	7.4	5	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 1.7	U, D	µg/l	2.5	1.7	5	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 3.3	U, D	µg/l	5.0	3.3	5	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 3.6	U, D	µg/l	5.0	3.6	5	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 3.1	U, D	µg/l	5.0	3.1	5	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.2	U, D	µg/l	10.0	2.2	5	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 3.4	U, D	µg/l	5.0	3.4	5	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 3.9	U, D	µg/l	5.0	3.9	5	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 2.4	U, D	µg/l	5.0	2.4	5	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	<b>23.6</b>	D	µg/l	5.0	3.6	5	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 4.2	U, D	µg/l	5.0	4.2	5	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 3.9	U, D	µg/l	5.0	3.9	5	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 1.8	U, D	µg/l	2.5	1.8	5	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 2.5	U, D	µg/l	2.5	2.5	5	"	"	"	"	"	X
75-09-2	Methylene chloride	< 4.7	U, D	µg/l	10.0	4.7	5	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 1.6	U, D	µg/l	2.5	1.6	5	"	"	"	"	"	X
127-18-4	Tetrachloroethene	<b>254</b>	D	µg/l	5.0	3.7	5	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 2.9	U, D	µg/l	5.0	2.9	5	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 3.2	U, D	µg/l	5.0	3.2	5	"	"	"	"	"	X
79-01-6	Trichloroethene	<b>32.8</b>	D	µg/l	5.0	3.8	5	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 3.1	U, D	µg/l	5.0	3.1	5	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 4.0	U, D	µg/l	5.0	4.0	5	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	96			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	98			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	101			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	91			70-130 %			"	"	"	"	"	

**Total Metals by EPA 200/6000 Series Methods**

Preservation Field Preserved N/A 1 EPA 200/6000 methods LNB 1326615

**Total Metals by EPA 6000/7000 Series Methods**

7439-89-6 Iron 3.20 mg/l 0.0150 0.0074 1 SW846 6010C 11-Nov-13 12-Nov-13 tbc 1327241 X

**General Chemistry Parameters**

Dissolved Organic Carbon 2.16 R01 mg/l 2.00 0.572 1 SM 5310B 04-Nov-13 04-Nov-13 TDD 1327279  
 Total Organic Carbon 1.82 mg/l 1.00 0.283 1 " 04-Nov-13 " " 1327006 X

**Subcontracted Analyses**

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Sample Identification

<b>CW-2</b>	<u>Client Project #</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Received</u>
SB79601-02	35635-04	Ground Water	30-Oct-13 14:00	31-Oct-13

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
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**Subcontracted Analyses**

Subcontracted Analyses

Prepared by method DEFAULT

*Analysis performed by Spectrum Analytical, Inc. - North Kingstown, RI*

127-17-3	Pyruvic Acid	< 5.0		mg/L	5.0	1.0	1	EPA 300.0 Modified	08-Nov-13	08-Nov-13	11522	74683	
50-21-5	Lactic Acid	< 5.0		mg/L	5.0	0.18	1	"	"	"	"	"	"
64-19-7	Acetic Acid	< 5.0		mg/L	5.0	0.20	1	"	"	"	"	"	"
79-09-4	Propionic Acid	< 5.0		mg/L	5.0	0.22	1	"	"	"	"	"	"
107-92-6	Butyric Acid	< 5.0		mg/L	5.0	0.33	1	"	"	"	"	"	"

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Sample Identification

CW-3  
SB79601-03

Client Project #  
35635-04

Matrix  
Ground Water

Collection Date/Time  
30-Oct-13 14:25

Received  
31-Oct-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Halocarbons by SW846 8260 GS1													
Prepared by method SW846 5030 Water MS													
75-27-4	Bromodichloromethane	< 9.6	U, D	µg/l	10.0	9.6	20	SW846 8260C	07-Nov-13	07-Nov-13	NAA	1327118	X
75-25-2	Bromoform	< 12.1	U, D	µg/l	20.0	12.1	20	"	"	"	"	"	X
74-83-9	Bromomethane	< 22.8	U, D	µg/l	40.0	22.8	20	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 11.0	U, D	µg/l	20.0	11.0	20	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 13.1	U, D	µg/l	20.0	13.1	20	"	"	"	"	"	X
75-00-3	Chloroethane	< 20.0	U, D	µg/l	40.0	20.0	20	"	"	"	"	"	X
67-66-3	Chloroform	< 13.8	U, D	µg/l	20.0	13.8	20	"	"	"	"	"	X
74-87-3	Chloromethane	< 29.5	U, D	µg/l	40.0	29.5	20	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 6.9	U, D	µg/l	10.0	6.9	20	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 13.4	U, D	µg/l	20.0	13.4	20	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 14.2	U, D	µg/l	20.0	14.2	20	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 12.5	U, D	µg/l	20.0	12.5	20	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 8.9	U, D	µg/l	40.0	8.9	20	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 13.6	U, D	µg/l	20.0	13.6	20	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 15.6	U, D	µg/l	20.0	15.6	20	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 9.8	U, D	µg/l	20.0	9.8	20	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	<b>1,440</b>	D	µg/l	20.0	14.3	20	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 16.6	U, D	µg/l	20.0	16.6	20	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 15.4	U, D	µg/l	20.0	15.4	20	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 7.3	U, D	µg/l	10.0	7.3	20	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 10.0	U, D	µg/l	10.0	10.0	20	"	"	"	"	"	X
75-09-2	Methylene chloride	< 18.9	U, D	µg/l	40.0	18.9	20	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 6.3	U, D	µg/l	10.0	6.3	20	"	"	"	"	"	X
127-18-4	Tetrachloroethene	<b>1,020</b>	D	µg/l	20.0	14.9	20	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 11.6	U, D	µg/l	20.0	11.6	20	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 12.8	U, D	µg/l	20.0	12.8	20	"	"	"	"	"	X
79-01-6	Trichloroethene	<b>61.0</b>	D	µg/l	20.0	15.1	20	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 12.6	U, D	µg/l	20.0	12.6	20	"	"	"	"	"	X
75-01-4	Vinyl chloride	<b>16.8</b>	J, D	µg/l	20.0	16.1	20	"	"	"	"	"	X

*Surrogate recoveries:*

460-00-4	4-Bromofluorobenzene	95			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	101			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	102			70-130 %			"	"	"	"	"	

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Sample Identification

CW-4 Client Project # 35635-04 Matrix Ground Water Collection Date/Time 30-Oct-13 14:35 Received 31-Oct-13  
 SB79601-04

CAS No. Analyte(s) Result Flag Units \*RDL MDL Dilution Method Ref. Prepared Analyzed Analyst Batch Cert.

Volatile Organic Compounds

Volatile Organic Halocarbons by SW846 8260

GS1

Prepared by method SW846 5030 Water MS

75-27-4	Bromodichloromethane	< 240	U, D	µg/l	250	240	500	SW846 8260C	07-Nov-13	07-Nov-13	NAA	1327118	X
75-25-2	Bromoform	< 302	U, D	µg/l	500	302	500	"	"	"	"	"	X
74-83-9	Bromomethane	< 570	U, D	µg/l	1000	570	500	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 274	U, D	µg/l	500	274	500	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 327	U, D	µg/l	500	327	500	"	"	"	"	"	X
75-00-3	Chloroethane	< 500	U, D	µg/l	1000	500	500	"	"	"	"	"	X
67-66-3	Chloroform	< 344	U, D	µg/l	500	344	500	"	"	"	"	"	X
74-87-3	Chloromethane	< 736	U, D	µg/l	1000	736	500	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 172	U, D	µg/l	250	172	500	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 334	U, D	µg/l	500	334	500	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 356	U, D	µg/l	500	356	500	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 312	U, D	µg/l	500	312	500	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 224	U, D	µg/l	1000	224	500	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 340	U, D	µg/l	500	340	500	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 390	U, D	µg/l	500	390	500	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 244	U, D	µg/l	500	244	500	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	2,960	D	µg/l	500	358	500	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 416	U, D	µg/l	500	416	500	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 386	U, D	µg/l	500	386	500	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 182	U, D	µg/l	250	182	500	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 250	U, D	µg/l	250	250	500	"	"	"	"	"	X
75-09-2	Methylene chloride	< 474	U, D	µg/l	1000	474	500	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 158	U, D	µg/l	250	158	500	"	"	"	"	"	X
127-18-4	Tetrachloroethene	36,000	D	µg/l	500	372	500	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 291	U, D	µg/l	500	291	500	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 321	U, D	µg/l	500	321	500	"	"	"	"	"	X
79-01-6	Trichloroethene	2,360	D	µg/l	500	378	500	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 314	U, D	µg/l	500	314	500	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 404	U, D	µg/l	500	404	500	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	98			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	99			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	99			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	102			70-130 %			"	"	"	"	"	

Total Metals by EPA 200/6000 Series Methods

Preservation Field Preserved N/A 1 EPA 200/6000 methods LNB 1326615

Total Metals by EPA 6000/7000 Series Methods

7439-89-6 Iron 5.32 mg/l 0.0150 0.0074 1 SW846 6010C 11-Nov-13 12-Nov-13 tbc 1327241 X

General Chemistry Parameters

Dissolved Organic Carbon 2.08 R01 mg/l 2.00 0.572 1 SM 5310B 04-Nov-13 04-Nov-13 TDD 1327279  
 Total Organic Carbon 1.84 mg/l 1.00 0.283 1 " 04-Nov-13 " " 1327006 X

Subcontracted Analyses

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Sample Identification

<b>CW-4</b>	<u>Client Project #</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Received</u>
SB79601-04	35635-04	Ground Water	30-Oct-13 14:35	31-Oct-13

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
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**Subcontracted Analyses**

Subcontracted Analyses

Prepared by method DEFAULT

*Analysis performed by Spectrum Analytical, Inc. - North Kingstown, RI*

127-17-3	Pyruvic Acid	< 5.0		mg/L	5.0	1.0	1	EPA 300.0 Modified	08-Nov-13	08-Nov-13	11522	74683	
50-21-5	Lactic Acid	< 5.0		mg/L	5.0	0.18	1	"	"	"	"	"	"
64-19-7	Acetic Acid	< 5.0		mg/L	5.0	0.20	1	"	"	"	"	"	"
79-09-4	Propionic Acid	< 5.0		mg/L	5.0	0.22	1	"	"	"	"	"	"
107-92-6	Butyric Acid	< 5.0		mg/L	5.0	0.33	1	"	"	"	"	"	"

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Sample Identification

CW-5 Client Project # 35635-04 Matrix Ground Water Collection Date/Time 30-Oct-13 12:35 Received 31-Oct-13  
 SB79601-05

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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**Volatile Organic Compounds**

Re-analysis of Volatile Organic Halocarbons by SW846

8260

Prepared by method SW846 5030 Water MS

75-27-4	Bromodichloromethane	< 0.5	U	µg/l	0.5	0.5	1	SW846 8260C	11-Nov-13	11-Nov-13	naa	1327349	X
75-25-2	Bromoform	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 1.1	U	µg/l	2.0	1.1	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 0.5	U	µg/l	1.0	0.5	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 1.0	U	µg/l	2.0	1.0	1	"	"	"	"	"	X
67-66-3	Chloroform	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 1.5	U	µg/l	2.0	1.5	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.4	U	µg/l	2.0	0.4	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 0.5	U	µg/l	1.0	0.5	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.4	U	µg/l	0.5	0.4	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5	U	µg/l	0.5	0.5	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 0.9	U	µg/l	2.0	0.9	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	89			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	88			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	106			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	105			70-130 %			"	"	"	"	"	

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Sample Identification

MW-200  
SB79601-06

Client Project #  
35635-04

Matrix  
Ground Water

Collection Date/Time  
30-Oct-13 13:20

Received  
31-Oct-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Halocarbons by SW846 8260													
Prepared by method SW846 5030 Water MS													
75-27-4	Bromodichloromethane	< 0.5	U	µg/l	0.5	0.5	1	SW846 8260C	07-Nov-13	07-Nov-13	NAA	1327118	X
75-25-2	Bromoform	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 1.1	U	µg/l	2.0	1.1	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 0.5	U	µg/l	1.0	0.5	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 1.0	U	µg/l	2.0	1.0	1	"	"	"	"	"	X
67-66-3	Chloroform	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 1.5	U	µg/l	2.0	1.5	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.4	U	µg/l	2.0	0.4	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 0.5	U	µg/l	1.0	0.5	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	23.3		µg/l	1.0	0.7	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.4	U	µg/l	0.5	0.4	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5	U	µg/l	0.5	0.5	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 0.9	U	µg/l	2.0	0.9	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	7.3		µg/l	1.0	0.7	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
79-01-6	Trichloroethene	4.8		µg/l	1.0	0.8	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	97			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	100			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	104			70-130 %			"	"	"	"	"	

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Sample Identification

MW-201  
SB79601-07

Client Project #  
35635-04

Matrix  
Ground Water

Collection Date/Time  
30-Oct-13 13:00

Received  
31-Oct-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Halocarbons by SW846 8260 GS1													
Prepared by method SW846 5030 Water MS													
75-27-4	Bromodichloromethane	< 24.0	U, D	µg/l	25.0	24.0	50	SW846 8260C	08-Nov-13	08-Nov-13	naa	1327228	X
75-25-2	Bromoform	< 30.2	U, D	µg/l	50.0	30.2	50	"	"	"	"	"	X
74-83-9	Bromomethane	< 57.0	U, D	µg/l	100	57.0	50	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 27.4	U, D	µg/l	50.0	27.4	50	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 32.7	U, D	µg/l	50.0	32.7	50	"	"	"	"	"	X
75-00-3	Chloroethane	< 50.0	U, D	µg/l	100	50.0	50	"	"	"	"	"	X
67-66-3	Chloroform	< 34.4	U, D	µg/l	50.0	34.4	50	"	"	"	"	"	X
74-87-3	Chloromethane	< 73.6	U, D	µg/l	100	73.6	50	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 17.2	U, D	µg/l	25.0	17.2	50	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 33.4	U, D	µg/l	50.0	33.4	50	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 35.6	U, D	µg/l	50.0	35.6	50	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 31.2	U, D	µg/l	50.0	31.2	50	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 22.4	U, D	µg/l	100	22.4	50	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 34.0	U, D	µg/l	50.0	34.0	50	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 39.0	U, D	µg/l	50.0	39.0	50	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 24.4	U, D	µg/l	50.0	24.4	50	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	<b>2,350</b>	D	µg/l	50.0	35.8	50	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 41.6	U, D	µg/l	50.0	41.6	50	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 38.6	U, D	µg/l	50.0	38.6	50	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 18.2	U, D	µg/l	25.0	18.2	50	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 25.0	U, D	µg/l	25.0	25.0	50	"	"	"	"	"	X
75-09-2	Methylene chloride	< 47.4	U, D	µg/l	100	47.4	50	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 15.8	U, D	µg/l	25.0	15.8	50	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 37.2	U, D	µg/l	50.0	37.2	50	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 29.1	U, D	µg/l	50.0	29.1	50	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 32.1	U, D	µg/l	50.0	32.1	50	"	"	"	"	"	X
79-01-6	Trichloroethene	< 37.8	U, D	µg/l	50.0	37.8	50	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 31.4	U, D	µg/l	50.0	31.4	50	"	"	"	"	"	X
75-01-4	Vinyl chloride	<b>1,190</b>	D	µg/l	50.0	40.4	50	"	"	"	"	"	X

*Surrogate recoveries:*

460-00-4	4-Bromofluorobenzene	91			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	95			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	116			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	111			70-130 %			"	"	"	"	"	

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Sample Identification

MW-04  
SB79601-08

Client Project #  
35635-04

Matrix  
Ground Water

Collection Date/Time  
30-Oct-13 10:57

Received  
31-Oct-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Halocarbons by SW846 8260													
Prepared by method SW846 5030 Water MS													
75-27-4	Bromodichloromethane	< 12.0	U, D	µg/l	12.5	12.0	25	SW846 8260C	07-Nov-13	07-Nov-13	NAA	1327118	X
75-25-2	Bromoform	< 15.1	U, D	µg/l	25.0	15.1	25	"	"	"	"	"	X
74-83-9	Bromomethane	< 28.5	U, D	µg/l	50.0	28.5	25	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 13.7	U, D	µg/l	25.0	13.7	25	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 16.4	U, D	µg/l	25.0	16.4	25	"	"	"	"	"	X
75-00-3	Chloroethane	< 25.0	U, D	µg/l	50.0	25.0	25	"	"	"	"	"	X
67-66-3	Chloroform	< 17.2	U, D	µg/l	25.0	17.2	25	"	"	"	"	"	X
74-87-3	Chloromethane	< 36.8	U, D	µg/l	50.0	36.8	25	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 8.6	U, D	µg/l	12.5	8.6	25	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 16.7	U, D	µg/l	25.0	16.7	25	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 17.8	U, D	µg/l	25.0	17.8	25	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 15.6	U, D	µg/l	25.0	15.6	25	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 11.2	U, D	µg/l	50.0	11.2	25	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 17.0	U, D	µg/l	25.0	17.0	25	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 19.5	U, D	µg/l	25.0	19.5	25	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 12.2	U, D	µg/l	25.0	12.2	25	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 17.9	U, D	µg/l	25.0	17.9	25	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 20.8	U, D	µg/l	25.0	20.8	25	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 19.3	U, D	µg/l	25.0	19.3	25	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 9.1	U, D	µg/l	12.5	9.1	25	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 12.5	U, D	µg/l	12.5	12.5	25	"	"	"	"	"	X
75-09-2	Methylene chloride	< 23.7	U, D	µg/l	50.0	23.7	25	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 7.9	U, D	µg/l	12.5	7.9	25	"	"	"	"	"	X
127-18-4	Tetrachloroethene	966	D	µg/l	25.0	18.6	25	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 14.6	U, D	µg/l	25.0	14.6	25	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 16.0	U, D	µg/l	25.0	16.0	25	"	"	"	"	"	X
79-01-6	Trichloroethene	< 18.9	U, D	µg/l	25.0	18.9	25	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 15.7	U, D	µg/l	25.0	15.7	25	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 20.2	U, D	µg/l	25.0	20.2	25	"	"	"	"	"	X

*Surrogate recoveries:*

460-00-4	4-Bromofluorobenzene	96			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	101			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	104			70-130 %			"	"	"	"	"	

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Sample Identification

MW-06  
SB79601-09

Client Project #  
35635-04

Matrix  
Ground Water

Collection Date/Time  
30-Oct-13 12:20

Received  
31-Oct-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Halocarbons by SW846 8260 GS1													
Prepared by method SW846 5030 Water MS													
75-27-4	Bromodichloromethane	< 2.4	U, D	µg/l	2.5	2.4	5	SW846 8260C	07-Nov-13	07-Nov-13	NAA	1327118	X
75-25-2	Bromoform	< 3.0	U, D	µg/l	5.0	3.0	5	"	"	"	"	"	X
74-83-9	Bromomethane	< 5.7	U, D	µg/l	10.0	5.7	5	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 2.7	U, D	µg/l	5.0	2.7	5	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 3.3	U, D	µg/l	5.0	3.3	5	"	"	"	"	"	X
75-00-3	Chloroethane	< 5.0	U, D	µg/l	10.0	5.0	5	"	"	"	"	"	X
67-66-3	Chloroform	< 3.4	U, D	µg/l	5.0	3.4	5	"	"	"	"	"	X
74-87-3	Chloromethane	< 7.4	U, D	µg/l	10.0	7.4	5	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 1.7	U, D	µg/l	2.5	1.7	5	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 3.3	U, D	µg/l	5.0	3.3	5	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 3.6	U, D	µg/l	5.0	3.6	5	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 3.1	U, D	µg/l	5.0	3.1	5	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.2	U, D	µg/l	10.0	2.2	5	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 3.4	U, D	µg/l	5.0	3.4	5	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 3.9	U, D	µg/l	5.0	3.9	5	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 2.4	U, D	µg/l	5.0	2.4	5	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 3.6	U, D	µg/l	5.0	3.6	5	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 4.2	U, D	µg/l	5.0	4.2	5	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 3.9	U, D	µg/l	5.0	3.9	5	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 1.8	U, D	µg/l	2.5	1.8	5	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 2.5	U, D	µg/l	2.5	2.5	5	"	"	"	"	"	X
75-09-2	Methylene chloride	< 4.7	U, D	µg/l	10.0	4.7	5	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 1.6	U, D	µg/l	2.5	1.6	5	"	"	"	"	"	X
127-18-4	Tetrachloroethene	156	D	µg/l	5.0	3.7	5	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 2.9	U, D	µg/l	5.0	2.9	5	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 3.2	U, D	µg/l	5.0	3.2	5	"	"	"	"	"	X
79-01-6	Trichloroethene	< 3.8	U, D	µg/l	5.0	3.8	5	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 3.1	U, D	µg/l	5.0	3.1	5	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 4.0	U, D	µg/l	5.0	4.0	5	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	93			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	98			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	100			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	94			70-130 %			"	"	"	"	"	

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Sample Identification

MW-07 Client Project # 35635-04 Matrix Ground Water Collection Date/Time 30-Oct-13 14:30 Received 31-Oct-13  
 SB79601-10

**CAS No. Analyte(s) Result Flag Units \*RDL MDL Dilution Method Ref. Prepared Analyzed Analyst Batch Cert.**

**Volatile Organic Compounds**

Volatile Organic Halocarbons by SW846 8260

GS1

Prepared by method SW846 5030 Water MS

75-27-4	Bromodichloromethane	< 12.0	U, D	µg/l	12.5	12.0	25	SW846 8260C	07-Nov-13	07-Nov-13	NAA	1327118	X
75-25-2	Bromoform	< 15.1	U, D	µg/l	25.0	15.1	25	"	"	"	"	"	X
74-83-9	Bromomethane	< 28.5	U, D	µg/l	50.0	28.5	25	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 13.7	U, D	µg/l	25.0	13.7	25	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 16.4	U, D	µg/l	25.0	16.4	25	"	"	"	"	"	X
75-00-3	Chloroethane	< 25.0	U, D	µg/l	50.0	25.0	25	"	"	"	"	"	X
67-66-3	Chloroform	< 17.2	U, D	µg/l	25.0	17.2	25	"	"	"	"	"	X
74-87-3	Chloromethane	< 36.8	U, D	µg/l	50.0	36.8	25	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 8.6	U, D	µg/l	12.5	8.6	25	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 16.7	U, D	µg/l	25.0	16.7	25	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 17.8	U, D	µg/l	25.0	17.8	25	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 15.6	U, D	µg/l	25.0	15.6	25	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 11.2	U, D	µg/l	50.0	11.2	25	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 17.0	U, D	µg/l	25.0	17.0	25	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 19.5	U, D	µg/l	25.0	19.5	25	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 12.2	U, D	µg/l	25.0	12.2	25	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 17.9	U, D	µg/l	25.0	17.9	25	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 20.8	U, D	µg/l	25.0	20.8	25	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 19.3	U, D	µg/l	25.0	19.3	25	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 9.1	U, D	µg/l	12.5	9.1	25	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 12.5	U, D	µg/l	12.5	12.5	25	"	"	"	"	"	X
75-09-2	Methylene chloride	< 23.7	U, D	µg/l	50.0	23.7	25	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 7.9	U, D	µg/l	12.5	7.9	25	"	"	"	"	"	X
127-18-4	Tetrachloroethene	2,540	E, D	µg/l	25.0	18.6	25	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 14.6	U, D	µg/l	25.0	14.6	25	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 16.0	U, D	µg/l	25.0	16.0	25	"	"	"	"	"	X
79-01-6	Trichloroethene	< 18.9	U, D	µg/l	25.0	18.9	25	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 15.7	U, D	µg/l	25.0	15.7	25	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 20.2	U, D	µg/l	25.0	20.2	25	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	95			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	101			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	103			70-130 %			"	"	"	"	"	

Re-analysis of Volatile Organic Halocarbons by SW846

GS1

8260

Prepared by method SW846 5030 Water MS

75-27-4	Bromodichloromethane	< 24.0	U, D	µg/l	25.0	24.0	50	SW846 8260C	08-Nov-13	08-Nov-13	naa	1327228	X
75-25-2	Bromoform	< 30.2	U, D	µg/l	50.0	30.2	50	"	"	"	"	"	X
74-83-9	Bromomethane	< 57.0	U, D	µg/l	100	57.0	50	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 27.4	U, D	µg/l	50.0	27.4	50	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 32.7	U, D	µg/l	50.0	32.7	50	"	"	"	"	"	X
75-00-3	Chloroethane	< 50.0	U, D	µg/l	100	50.0	50	"	"	"	"	"	X

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Sample Identification

MW-07  
SB79601-10

Client Project #  
35635-04

Matrix  
Ground Water

Collection Date/Time  
30-Oct-13 14:30

Received  
31-Oct-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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**Volatile Organic Compounds**

Re-analysis of Volatile Organic Halocarbons by SW846

GS1

8260

Prepared by method SW846 5030 Water MS

67-66-3	Chloroform	< 34.4	U, D	µg/l	50.0	34.4	50	SW846 8260C	08-Nov-13	08-Nov-13	naa	1327228	X
74-87-3	Chloromethane	< 73.6	U, D	µg/l	100	73.6	50	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 17.2	U, D	µg/l	25.0	17.2	50	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 33.4	U, D	µg/l	50.0	33.4	50	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 35.6	U, D	µg/l	50.0	35.6	50	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 31.2	U, D	µg/l	50.0	31.2	50	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 22.4	U, D	µg/l	100	22.4	50	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 34.0	U, D	µg/l	50.0	34.0	50	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 39.0	U, D	µg/l	50.0	39.0	50	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 24.4	U, D	µg/l	50.0	24.4	50	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 35.8	U, D	µg/l	50.0	35.8	50	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 41.6	U, D	µg/l	50.0	41.6	50	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 38.6	U, D	µg/l	50.0	38.6	50	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 18.2	U, D	µg/l	25.0	18.2	50	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 25.0	U, D	µg/l	25.0	25.0	50	"	"	"	"	"	X
75-09-2	Methylene chloride	< 47.4	U, D	µg/l	100	47.4	50	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 15.8	U, D	µg/l	25.0	15.8	50	"	"	"	"	"	X
127-18-4	Tetrachloroethene	<b>2,840</b>	D	µg/l	50.0	37.2	50	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 29.1	U, D	µg/l	50.0	29.1	50	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 32.1	U, D	µg/l	50.0	32.1	50	"	"	"	"	"	X
79-01-6	Trichloroethene	< 37.8	U, D	µg/l	50.0	37.8	50	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 31.4	U, D	µg/l	50.0	31.4	50	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 40.4	U, D	µg/l	50.0	40.4	50	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	87			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	102			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	120			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	120			70-130 %			"	"	"	"	"	

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## Sample Identification

BR-02 FR Client Project # 35635-04 Matrix Ground Water Collection Date/Time 30-Oct-13 11:58 Received 31-Oct-13  
SB79601-11

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Halocarbons by SW846 8260 GS1													
Prepared by method SW846 5030 Water MS													
75-27-4	Bromodichloromethane	< 47.9	U, D	µg/l	50.0	47.9	100	SW846 8260C	07-Nov-13	07-Nov-13	NAA	1327118	X
75-25-2	Bromoform	< 60.3	U, D	µg/l	100	60.3	100	"	"	"	"	"	X
74-83-9	Bromomethane	< 114	U, D	µg/l	200	114	100	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 54.9	U, D	µg/l	100	54.9	100	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 65.4	U, D	µg/l	100	65.4	100	"	"	"	"	"	X
75-00-3	Chloroethane	< 100	U, D	µg/l	200	100	100	"	"	"	"	"	X
67-66-3	Chloroform	< 68.9	U, D	µg/l	100	68.9	100	"	"	"	"	"	X
74-87-3	Chloromethane	< 147	U, D	µg/l	200	147	100	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 34.3	U, D	µg/l	50.0	34.3	100	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 66.8	U, D	µg/l	100	66.8	100	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 71.2	U, D	µg/l	100	71.2	100	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 62.4	U, D	µg/l	100	62.4	100	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 44.7	U, D	µg/l	200	44.7	100	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 68.0	U, D	µg/l	100	68.0	100	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 78.1	U, D	µg/l	100	78.1	100	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 48.8	U, D	µg/l	100	48.8	100	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	3,420	D	µg/l	100	71.6	100	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 83.2	U, D	µg/l	100	83.2	100	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 77.1	U, D	µg/l	100	77.1	100	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 36.4	U, D	µg/l	50.0	36.4	100	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 49.9	U, D	µg/l	50.0	49.9	100	"	"	"	"	"	X
75-09-2	Methylene chloride	< 94.7	U, D	µg/l	200	94.7	100	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 31.7	U, D	µg/l	50.0	31.7	100	"	"	"	"	"	X
127-18-4	Tetrachloroethene	24,500	E, D	µg/l	100	74.3	100	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 58.2	U, D	µg/l	100	58.2	100	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 64.2	U, D	µg/l	100	64.2	100	"	"	"	"	"	X
79-01-6	Trichloroethene	4,080	D	µg/l	100	75.5	100	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 62.8	U, D	µg/l	100	62.8	100	"	"	"	"	"	X
75-01-4	Vinyl chloride	85.0	J, D	µg/l	100	80.7	100	"	"	"	"	"	X

## Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	96			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	99			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	103			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	102			70-130 %			"	"	"	"	"	

## Re-analysis of Volatile Organic Halocarbons by SW846 8260 GS1

Prepared by method SW846 5030 Water MS

75-27-4	Bromodichloromethane	< 240	U, D	µg/l	250	240	500	SW846 8260C	08-Nov-13	08-Nov-13	naa	1327228	X
75-25-2	Bromoform	< 302	U, D	µg/l	500	302	500	"	"	"	"	"	X
74-83-9	Bromomethane	< 570	U, D	µg/l	1000	570	500	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 274	U, D	µg/l	500	274	500	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 327	U, D	µg/l	500	327	500	"	"	"	"	"	X
75-00-3	Chloroethane	< 500	U, D	µg/l	1000	500	500	"	"	"	"	"	X

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Sample Identification

BR-02 FR  
SB79601-11

Client Project #  
35635-04

Matrix  
Ground Water

Collection Date/Time  
30-Oct-13 11:58

Received  
31-Oct-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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**Volatile Organic Compounds**

Re-analysis of Volatile Organic Halocarbons by SW846

GS1

8260

Prepared by method SW846 5030 Water MS

67-66-3	Chloroform	< 344	U, D	µg/l	500	344	500	SW846 8260C	08-Nov-13	08-Nov-13	naa	1327228	X
74-87-3	Chloromethane	< 736	U, D	µg/l	1000	736	500	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 172	U, D	µg/l	250	172	500	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 334	U, D	µg/l	500	334	500	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 356	U, D	µg/l	500	356	500	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 312	U, D	µg/l	500	312	500	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 224	U, D	µg/l	1000	224	500	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 340	U, D	µg/l	500	340	500	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 390	U, D	µg/l	500	390	500	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 244	U, D	µg/l	500	244	500	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	<b>3,150</b>	D	µg/l	500	358	500	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 416	U, D	µg/l	500	416	500	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 386	U, D	µg/l	500	386	500	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 182	U, D	µg/l	250	182	500	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 250	U, D	µg/l	250	250	500	"	"	"	"	"	X
75-09-2	Methylene chloride	< 474	U, D	µg/l	1000	474	500	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 158	U, D	µg/l	250	158	500	"	"	"	"	"	X
127-18-4	Tetrachloroethene	<b>15,500</b>	D	µg/l	500	372	500	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 291	U, D	µg/l	500	291	500	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 321	U, D	µg/l	500	321	500	"	"	"	"	"	X
79-01-6	Trichloroethene	<b>3,230</b>	D	µg/l	500	378	500	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 314	U, D	µg/l	500	314	500	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 404	U, D	µg/l	500	404	500	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	85			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	73			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	93			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	90			70-130 %			"	"	"	"	"	

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Sample Identification

BR-02 R  
SB79601-12

Client Project #  
35635-04

Matrix  
Ground Water

Collection Date/Time  
30-Oct-13 11:23

Received  
31-Oct-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
<b>Volatile Organic Compounds</b>													
Volatile Organic Halocarbons by SW846 8260 GS1													
Prepared by method SW846 5030 Water MS													
75-27-4	Bromodichloromethane	< 12.0	U, D	µg/l	12.5	12.0	25	SW846 8260C	07-Nov-13	07-Nov-13	NAA	1327118	X
75-25-2	Bromoform	< 15.1	U, D	µg/l	25.0	15.1	25	"	"	"	"	"	X
74-83-9	Bromomethane	< 28.5	U, D	µg/l	50.0	28.5	25	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 13.7	U, D	µg/l	25.0	13.7	25	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 16.4	U, D	µg/l	25.0	16.4	25	"	"	"	"	"	X
75-00-3	Chloroethane	< 25.0	U, D	µg/l	50.0	25.0	25	"	"	"	"	"	X
67-66-3	Chloroform	< 17.2	U, D	µg/l	25.0	17.2	25	"	"	"	"	"	X
74-87-3	Chloromethane	< 36.8	U, D	µg/l	50.0	36.8	25	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 8.6	U, D	µg/l	12.5	8.6	25	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 16.7	U, D	µg/l	25.0	16.7	25	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 17.8	U, D	µg/l	25.0	17.8	25	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 15.6	U, D	µg/l	25.0	15.6	25	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 11.2	U, D	µg/l	50.0	11.2	25	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 17.0	U, D	µg/l	25.0	17.0	25	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 19.5	U, D	µg/l	25.0	19.5	25	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	51.0	D	µg/l	25.0	12.2	25	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	543	D	µg/l	25.0	17.9	25	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 20.8	U, D	µg/l	25.0	20.8	25	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 19.3	U, D	µg/l	25.0	19.3	25	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 9.1	U, D	µg/l	12.5	9.1	25	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 12.5	U, D	µg/l	12.5	12.5	25	"	"	"	"	"	X
75-09-2	Methylene chloride	< 23.7	U, D	µg/l	50.0	23.7	25	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 7.9	U, D	µg/l	12.5	7.9	25	"	"	"	"	"	X
127-18-4	Tetrachloroethene	6,270	E, D	µg/l	25.0	18.6	25	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 14.6	U, D	µg/l	25.0	14.6	25	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 16.0	U, D	µg/l	25.0	16.0	25	"	"	"	"	"	X
79-01-6	Trichloroethene	2,570	E, D	µg/l	25.0	18.9	25	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 15.7	U, D	µg/l	25.0	15.7	25	"	"	"	"	"	X
75-01-4	Vinyl chloride	635	D	µg/l	25.0	20.2	25	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	93			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	102			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	104			70-130 %			"	"	"	"	"	

Re-analysis of Volatile Organic Halocarbons by SW846 8260 GS1

Prepared by method SW846 5030 Water MS

75-27-4	Bromodichloromethane	< 95.8	U, D	µg/l	100	95.8	200	SW846 8260C	08-Nov-13	08-Nov-13	naa	1327228	X
75-25-2	Bromoform	< 121	U, D	µg/l	200	121	200	"	"	"	"	"	X
74-83-9	Bromomethane	< 228	U, D	µg/l	400	228	200	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 110	U, D	µg/l	200	110	200	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 131	U, D	µg/l	200	131	200	"	"	"	"	"	X
75-00-3	Chloroethane	< 200	U, D	µg/l	400	200	200	"	"	"	"	"	X

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Sample Identification

BR-02 R  
SB79601-12

Client Project #  
35635-04

Matrix  
Ground Water

Collection Date/Time  
30-Oct-13 11:23

Received  
31-Oct-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.	
<b>Volatile Organic Compounds</b>														
Re-analysis of Volatile Organic Halocarbons by SW846			GS1											
8260														
Prepared by method SW846 5030 Water MS														
67-66-3	Chloroform	< 138	U, D	µg/l	200	138	200	SW846 8260C	08-Nov-13	08-Nov-13	naa	1327228	X	
74-87-3	Chloromethane	< 295	U, D	µg/l	400	295	200	"	"	"	"	"	X	
124-48-1	Dibromochloromethane	< 68.6	U, D	µg/l	100	68.6	200	"	"	"	"	"	X	
95-50-1	1,2-Dichlorobenzene	< 134	U, D	µg/l	200	134	200	"	"	"	"	"	X	
541-73-1	1,3-Dichlorobenzene	< 142	U, D	µg/l	200	142	200	"	"	"	"	"	X	
106-46-7	1,4-Dichlorobenzene	< 125	U, D	µg/l	200	125	200	"	"	"	"	"	X	
75-71-8	Dichlorodifluoromethane (Freon12)	< 89.4	U, D	µg/l	400	89.4	200	"	"	"	"	"	X	
75-34-3	1,1-Dichloroethane	< 136	U, D	µg/l	200	136	200	"	"	"	"	"	X	
107-06-2	1,2-Dichloroethane	< 156	U, D	µg/l	200	156	200	"	"	"	"	"	X	
75-35-4	1,1-Dichloroethene	< 97.6	U, D	µg/l	200	97.6	200	"	"	"	"	"	X	
156-59-2	cis-1,2-Dichloroethene	692	D	µg/l	200	143	200	"	"	"	"	"	X	
156-60-5	trans-1,2-Dichloroethene	< 166	U, D	µg/l	200	166	200	"	"	"	"	"	X	
78-87-5	1,2-Dichloropropane	< 154	U, D	µg/l	200	154	200	"	"	"	"	"	X	
10061-01-5	cis-1,3-Dichloropropene	< 72.8	U, D	µg/l	100	72.8	200	"	"	"	"	"	X	
10061-02-6	trans-1,3-Dichloropropene	< 99.8	U, D	µg/l	100	99.8	200	"	"	"	"	"	X	
75-09-2	Methylene chloride	< 189	U, D	µg/l	400	189	200	"	"	"	"	"	X	
79-34-5	1,1,2,2-Tetrachloroethane	< 63.4	U, D	µg/l	100	63.4	200	"	"	"	"	"	X	
127-18-4	Tetrachloroethene	5,570	D	µg/l	200	149	200	"	"	"	"	"	X	
71-55-6	1,1,1-Trichloroethane	< 116	U, D	µg/l	200	116	200	"	"	"	"	"	X	
79-00-5	1,1,2-Trichloroethane	< 128	U, D	µg/l	200	128	200	"	"	"	"	"	X	
79-01-6	Trichloroethene	2,600	D	µg/l	200	151	200	"	"	"	"	"	X	
75-69-4	Trichlorofluoromethane (Freon 11)	< 126	U, D	µg/l	200	126	200	"	"	"	"	"	X	
75-01-4	Vinyl chloride	750	D	µg/l	200	161	200	"	"	"	"	"	X	
Surrogate recoveries:														
460-00-4	4-Bromofluorobenzene	82				70-130 %		"	"	"	"	"		
2037-26-5	Toluene-d8	104				70-130 %		"	"	"	"	"		
17060-07-0	1,2-Dichloroethane-d4	127				70-130 %		"	"	"	"	"		
1868-53-7	Dibromofluoromethane	131	SGCMSV OC			70-130 %		"	"	"	"	"		

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Sample Identification

BR-03 R  
SB79601-13

Client Project #  
35635-04

Matrix  
Ground Water

Collection Date/Time  
30-Oct-13 10:25

Received  
31-Oct-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
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**Volatile Organic Compounds**

Volatile Organic Halocarbons by SW846 8260

GS1

Prepared by method SW846 5030 Water MS

75-27-4	Bromodichloromethane	< 2.4	U, D	µg/l	2.5	2.4	5	SW846 8260C	08-Nov-13	08-Nov-13	GMA	1327223	X
75-25-2	Bromoform	< 3.0	U, D	µg/l	5.0	3.0	5	"	"	"	"	"	X
74-83-9	Bromomethane	< 5.7	U, D	µg/l	10.0	5.7	5	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 2.7	U, D	µg/l	5.0	2.7	5	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 3.3	U, D	µg/l	5.0	3.3	5	"	"	"	"	"	X
75-00-3	Chloroethane	< 5.0	U, D	µg/l	10.0	5.0	5	"	"	"	"	"	X
67-66-3	Chloroform	< 3.4	U, D	µg/l	5.0	3.4	5	"	"	"	"	"	X
74-87-3	Chloromethane	< 7.4	U, D	µg/l	10.0	7.4	5	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 1.7	U, D	µg/l	2.5	1.7	5	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 3.3	U, D	µg/l	5.0	3.3	5	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 3.6	U, D	µg/l	5.0	3.6	5	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 3.1	U, D	µg/l	5.0	3.1	5	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.2	U, D	µg/l	10.0	2.2	5	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 3.4	U, D	µg/l	5.0	3.4	5	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 3.9	U, D	µg/l	5.0	3.9	5	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 2.4	U, D	µg/l	5.0	2.4	5	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	27.8	D	µg/l	5.0	3.6	5	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 4.2	U, D	µg/l	5.0	4.2	5	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 3.9	U, D	µg/l	5.0	3.9	5	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 1.8	U, D	µg/l	2.5	1.8	5	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 2.5	U, D	µg/l	2.5	2.5	5	"	"	"	"	"	X
75-09-2	Methylene chloride	< 4.7	U, D	µg/l	10.0	4.7	5	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 1.6	U, D	µg/l	2.5	1.6	5	"	"	"	"	"	X
127-18-4	Tetrachloroethene	76.5	D	µg/l	5.0	3.7	5	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 2.9	U, D	µg/l	5.0	2.9	5	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 3.2	U, D	µg/l	5.0	3.2	5	"	"	"	"	"	X
79-01-6	Trichloroethene	9.9	D	µg/l	5.0	3.8	5	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 3.1	U, D	µg/l	5.0	3.1	5	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 4.0	U, D	µg/l	5.0	4.0	5	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	90			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	101			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	102			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	103			70-130 %			"	"	"	"	"	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

**Trip Blank**  
SB79601-14

Client Project #  
35635-04

Matrix  
Aqueous

Collection Date/Time  
30-Oct-13 00:00

Received  
31-Oct-13

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
<b>Volatile Organic Compounds</b>													
Volatile Organic Halocarbons by SW846 8260													
Prepared by method SW846 5030 Water MS													
75-27-4	Bromodichloromethane	< 0.5	U	µg/l	0.5	0.5	1	SW846 8260C	08-Nov-13	08-Nov-13	GMA	1327223	X
75-25-2	Bromoform	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 1.1	U	µg/l	2.0	1.1	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 0.5	U	µg/l	1.0	0.5	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 1.0	U	µg/l	2.0	1.0	1	"	"	"	"	"	X
67-66-3	Chloroform	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 1.5	U	µg/l	2.0	1.5	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 0.4	U	µg/l	2.0	0.4	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 0.5	U	µg/l	1.0	0.5	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.4	U	µg/l	0.5	0.4	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.5	U	µg/l	0.5	0.5	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 0.9	U	µg/l	2.0	0.9	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.3	U	µg/l	0.5	0.3	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 0.7	U	µg/l	1.0	0.7	1	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 0.6	U	µg/l	1.0	0.6	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 0.8	U	µg/l	1.0	0.8	1	"	"	"	"	"	X

*Surrogate recoveries:*

460-00-4	4-Bromofluorobenzene	91			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	101			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	101			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	101			70-130 %			"	"	"	"	"	

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## Notes and Definitions

D	Data reported from a dilution
E	This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
QM10	LCS/LCSD were analyzed in place of MS/MSD.
QM4X	The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR5	RPD out of acceptance range.
R01	The Reporting Limit has been raised to account for matrix interference.
S	Spike recovery falls outside of the control limit
SGCMSVOC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogates with three required by program methods.
U	Analyte included in the analysis, but not detected at or above the MDL.
Ua	Compound not detected below method detection limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

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Validated by:  
Rebecca Merz



SPECTRUM ANALYTICAL, INC.  
Featuring  
HAMBURG TECHNOLOGY

# CHAIN OF CUSTODY RECORD

Page 1 of 2

**Special Handling:**  
 Standard TAT - 7 to 10 business days  
 Rush TAT - Date Needed: \_\_\_\_\_  
 All TATs subject to laboratory approval.  
 Min. 24-hour notification needed for rushes.  
 Samples disposed of after 60 days unless otherwise instructed.

Report To: Day Environmental, Inc  
1563 Lyell Avenue  
Rochester NY 14606

Invoice To: Mike Lyons  
Anderson Cleaners  
5 Hunt Road  
James town, NY

Project No.: 35635-04

Site Name: 5 Hunt Road, Jamestown

Location: Jamestown State: NY

Sampler(s): C. Kampff / R. Kampff

Telephone #: 585 454 0210

P.O. No.: \_\_\_\_\_ RQN: \_\_\_\_\_

Project Mgr: R. Kampff / C. Hampff

List preservative code below:

1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid 7=CH<sub>3</sub>OH  
 8=NaHSO<sub>4</sub> 9=Deionized Water 10=H<sub>3</sub>PO<sub>4</sub> 11= \_\_\_\_\_ 12= \_\_\_\_\_

DW=Drinking Water GW=Groundwater WW=Wastewater  
 O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air  
 X1= \_\_\_\_\_ X2= \_\_\_\_\_ X3= \_\_\_\_\_

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Containers:				Temp °C	Condition upon receipt: <input type="checkbox"/> Ambient <input checked="" type="checkbox"/> Iced <input type="checkbox"/> Refrigerated <input type="checkbox"/> DV VOA Frozen <input type="checkbox"/> Soil Jar Frozen	
						# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic			
191001-01	CW-1	10/30/13	13:45	G	GW	2						
	CW-2		14:00	G	GW	4						
	CW-3		14:25	G	GW	2						
	CW-4		14:35	G	GW	4			2			
	CW-5		12:35	G	GW	2						
	MW-200		13:20	G	GW	2						
	MW-201		13:00	G	GW	2						
	MW-04		10:57	G	GW	2						
	MW-06		12:20	G	GW	2						
	MW-07		14:30	G	GW	2						

Reinquished by: \_\_\_\_\_

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Temp °C

EDD Format

E-mail to R. Kampff / C. Hampff

Condition upon receipt:  
 Ambient  Iced  Refrigerated  DV VOA Frozen  Soil Jar Frozen

MA DEP MCP CAM Report: Yes  No   
 CT DPH RCP Report: Yes  No

QA/QC Reporting Notes:  
 \* additional charges may apply

QA/QC Reporting Level  
 Standard  No QC  DQA\*  
 NY ASP A\*  NY ASP B\*  
 NJ Reduced\*  NJ Full\*  
 TIER II\*  TIER IV\*  
 Other \_\_\_\_\_

State-specific reporting standards:  
ELHBLIR

191001-01

JB



# CHAIN OF CUSTODY RECORD

Page 2 of 2

Special Handling:

- Standard TAT - 7 to 10 business days
- Rush TAT - Date Needed: \_\_\_\_\_
- All TATS subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

8879601  
JK

Report To: Day Environmental, Inc.

1563 Lyell Avenue  
Rochester NY 14606

Invoice To:

Mike Lyons c/o  
Anderson Cleaners  
5 Hunt Rd  
Jamestown NY

Project No.:

35635-04

Site Name:

5 Hunt Road, Jamestown

Location:

Jamestown State: NY

Sampler(s):

c. Hampton / R. Kempff

Telephone #: 585 464 0210

P.O. No.:

RON:

Project Mgr: R. Kempff / c. Hampton

List preservative code below:

N

QA/QC Reporting Notes:  
\* additional changes may apply

MA DEP MCP CAM Report: Yes  No

CT DPH RCP Report: Yes  No

QA/QC Reporting Level

- Standard  No QC  DQA\*
- NY ASP A\*  NY ASP B\*
- NJ Reduced\*\*  NJ Full\*
- TIER II\*  TIER IV\*
- Other \_\_\_\_\_

State-specific reporting standards:

DW=Drinking Water GW=Groundwater WW=Wastewater  
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air  
X1= \_\_\_\_\_ X2= \_\_\_\_\_ X3= \_\_\_\_\_

G=Grab C=Composite

Lab Id:

Sample Id:

Date:

Time:

Type

Matrix

# of VOA Vials

# of Amber Glass

# of Clear Glass

# of Plastic

Halogenated VOCs 8260

Containers:

Analyses:

79601-11

BR-02 FR

BR-02 R

BR-03 R

10/30/13

11:58

11:23

10:25

G

GW

2

2

2

2

X

X

X

Relinquished by:

[Signature]

Received by:

[Signature]

Date:

10/31/13

Time:

9:25

Temp °C

EDD Format

E-mail to R. Kempff / c. Hampton

Condition upon receipt:

Ambient

Iced

Refrigerated

DJ VOA Frozen

Soil In Frozen

31121 IR

# CHAIN OF CUSTODY RECORD

Special Handling:

- Standard TAT - 7 to 10 business days
- Rush TAT - Date Needed: \_\_\_\_\_
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

8879601 JB

Report To: Day Environmental, Inc.

1563 Lyell Avenue  
Rochester NY 14606

Invoice To: Mike Lyons c/o

Anderson Cleaners  
5 Hunt Rd  
Tamewain NY

Telephone #: 585 464 0210

Project Mgr: R Kemper / c. Hampton

P.O. No.: \_\_\_\_\_ RQN: \_\_\_\_\_

Project No.: 35635-04  
Site Name: 5 Hunt Road, Tamewain  
Location: Tamewain State: NY  
Sampler(s): c. Hampton / R Kemper

1=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 2=HCl 3=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=Ascorbic Acid 7=CH<sub>3</sub>OH  
8=NaHSO<sub>4</sub> 9=Deionized Water 10=H<sub>3</sub>PO<sub>4</sub> 11= \_\_\_\_\_ 12= \_\_\_\_\_

DW=Drinking Water GW=Groundwater WW=Wastewater  
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air  
X1= \_\_\_\_\_ X2= \_\_\_\_\_ X3= \_\_\_\_\_

G=Grab C=Composite

Lab Id.	Sample Id.	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Containers:	Analyses:	Temp °C
19601-11	BR-02 FR	10/30/13	11:58	G	GW	2						
	BR-02 R		11:23	G	GW	2						
	BR-03 R		10:25	G	GW	2						
	TRP BLANK					1						

Halogenated VOCs 8260

Relinquished by: [Signature]

Received by: [Signature]

Date: 10/31/13 Time: 9:25

Condition upon receipt:  
 Ambient  Iced  Refrigerated  DV VOA Frozen  Soil Jar Frozen  
 EDD Format  
 E-mail to R. Kemper / c. Hampton

311/12/13 IR  
Added TB per client request 11/1/13 JB

310/13 IR