## 2017

## PERIODIC REVIEW REPORT

## For

## FORMER MOBIL SERVICE STATION 99-MST 979 MAIN STREET (1001 MAIN STREET) NYSDEC SITE #C915260 CITY OF BUFFALO, ERIE COUNTY, NEW YORK

Prepared by:



**C&S ENGINEERS, INC.** 141 ELM STREET BUFFALO, NEW YORK 14203

Prepared on Behalf of:

Conventus Partners, LLC Kaleida Health Kaleida Properties, Inc. F.L.C 50 High Street Corporation

**JULY 2017** 

### **TABLE OF CONTENTS**

EXE	CUTIVE SUMMARY	1
<u>1</u>	SITE OVERVIEW	2
1.1	SITE DESCRIPTION	2
1.2	GEOLOGY AND HYDROGEOLOGY	2
1.3	NATURE AND EXTENT OF CONTAMINATION	3
<b>1.4</b>	SITE HISTORY IN-SITU INJECTIONS	3 5
	November 2016 On-site Groundwater Communication Pump Test	5
	2016 – 2017 GROUNDWATER PUMP AND TREAT	6
<u>2</u>	REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS	7
=		
2.1	IN-SITU CHEMICAL OXIDATION	7
2.1	2016 – 2017 GROUNDWATER PUMP AND TREAT	7
<u>3</u>	IC/EC PLAN COMPLIANCE REPORT	7
2.1		-
3.1	IC/EC REQUIREMENTS AND COMPLIANCE INSTITUTIONAL CONTROLS	<b>7</b> 7
	Engineering Controls	8
<b>3.1</b> .2	IC/EC CERTIFICATION	8
0.2		U
<u>4</u>	MONITORING PLAN COMPLIANCE REPORT	8
<u>5</u>	OPERATION AND MAINTENANCE PLAN COMPLIANCE	9
ž		
<u>6</u>	CONCLUSIONS	9
7	RECOMMENDATIONS	9
-		-
FIG	URES	

- FIGURE 2 PROJECT BOUNDARIES
- FIGURE 3 HISTORIC BTEX CONCENTRATIONS

### TABLES

 TABLE 1
 GROUNDWATER ANALYTICAL RESULTS

### GRAPHS

 $GRAPH \ 1 \quad GROUNDWATER \ TREATMENT \ MONITORING - \ TOTAL \ BTEX$ 

### APPENDICES

APPENDIX A	LABORATORY ANALYTICAL RESULTS
APPENDIX B	. INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORM
APPENDIX C	WASTER WATER DISCHARGE PERMIT

### ACRONYM LIST

C&S	C&S Engineers, Inc.
BGS	BELOW GROUND SURFACE
BCP	BROWNFIELD CLEANUP PROGRAM
BCA	BROWNFIELD CLEANUP AGREEMENT
BTEX	BENZENE, TOLUENE, ETHYLBENZENE AND XYLENE
DUSR	DATA USABILITY AND SUMMARY REPORT
LNAPL	LIGHT NON-AQUEOUS PHASE LIQUID
IRM	INTERIM REMEDIAL MEASURES
NYSDEC	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PCOC	PRIMARY CONTAMINATE OF CONCERN
PID	PHOTO-IONIZATION DETECTOR
PPM	PARTS PER MILLION
RI	Remedial Investigation
SCO	SOIL CLEANUP OBJECTIVES
SMP	SITE MANAGEMENT PLAN
SVOC	SEMI-VOLATILE ORGANIC COMPOUNDS
VOC	VOLATILE ORGANIC COMPOUNDS

### **EXECUTIVE SUMMARY**

C&S Engineers, Inc. (C&S) has prepared this 2017 Periodic Review Report for the former Mobil Service Station 99-MST - 979 Main Street (1001 Main Street) (hereinafter referred to as the Site) located at 1001 Main Street in Buffalo, New York.

The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index #C915260-03-12, Site #C915260, which was executed on June 15, 2012 and last amended on August 7, 2012. A figure showing the Site location and boundaries is provided in Figure 1 and Figure 2.

Remedial activities consisted of installing steel shoring around the property and removing contaminated soil and groundwater to 26 - 40 feet below ground surface. After completion of the remedial work, some contamination remained in the subsurface at this Site. A Site Management Plan (SMP) was prepared on November 28, 2014 to manage remaining groundwater contamination at the Site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36.

Petroleum contaminated groundwater is present within a discontinuous layer of coarse sand and gravel located between 32 and 35 feet below ground surface. This layer generally ranges from 6 inches to three feet thick, provides a preferential pathway for groundwater flow, and is confined within dense silt and fine sand present above and below the groundwater bearing zone.

During the remedial efforts, seven groundwater monitoring wells were installed prior to the installation of the two floors of underground parking. These monitoring wells were used to conduct in-situ injections by gravity feeding chemical oxidants into the groundwater bearing zone. A total of 2,480 pounds of chemical oxidant was used over three treatment events. Treatments occurred from December 2013 to June 2015. Groundwater samples following the in-situ injections show minor reductions in petroleum compounds.

In 2016, C&S conducted a limited groundwater extraction on the wells with the highest contaminant levels. Contaminated groundwater was pumped from the wells and treated with 200 pounds of activated carbon before discharging into the sanitary sewer. A total of 4,762.2 gallons of contaminated groundwater was removed. Groundwater samples collected in December 2015, January 2016 and March 2016 showed a slight reduction in petroleum compound concentrations.

All institutional and engineering controls are in compliance with the SMP. To address the continued elevated concentrations of petroleum compounds in the groundwater, C&S recommends the completion of additional treatment methods, including the implementation of a slow release chemical oxidation method.

The Institutional and Engineering Controls Certification form is provided in Appendix B.

### 1 **SITE OVERVIEW**

### **1.1 Site Description**

The Site is located in the City of Buffalo County of Erie County, New York and is identified below on the Erie County Tax Map.

SBL: 100.79 – 1- 1.1

Street Number: 1001 Main Street, Buffalo

(formerly 979 Main Street)

Owner: Kaleida Properties, Inc.

SBL: 100.79-1-2.11

Street Number: 818 Ellicott Street, Buffalo

Owner: Kaleida Health

The Site is an approximately 1.72-acre area bounded by Goodrich Street to the north, High Street to the south, parking lot to the east, and Main Street to the west (see Figure 1 and 2).

### **1.2 Geology and Hydrogeology**

The Conventus Medical Office Building currently occupies the Site. During remedial activities, steel shoring was installed to a depth of 40 to 50 feet below grade around the Site. Across the majority of the Site, soils were excavated to 26 feet below ground surface (bgs). Two floors of underground parking were constructed underneath the Conventus building.

The Site geology begins at 26 feet bgs. Subsurface soils consist of dry to moist fine sand and silt formation extends to nearly 70 feet bgs. Below this massive sand and silt formation is a coarse sand and gravel layer that grades to a sand, gravel; and clay till formation. Underlying the overburden is a grey cherty limestone formation at approximately 90 feet bgs.

The principal groundwater bearing zone beneath the site is located within the coarse sand and gravel layer between 32 and 35 feet bgs. This layer is of variable thickness (generally 6 inches to three feet) but is horizontally discontinuous. The layer is located within the central and northeastern portions of the Site, but does not extend completely to the southern, northwestern or southeastern areas of the Site and is confined by the dense fine sands and silt above and below the groundwater bearing zone.

### **1.3** Nature and Extent of Contamination

During the Interim Remedial Measure (IRM), grossly contaminated soil and groundwater were removed from the Site. In total, 67,458 tons of soils were sent for disposal or treatment due to gasoline contamination. The remaining contamination left on-site consists of petroleum impacted groundwater. Groundwater sampling that occurred prior to the IRM confirmed that the Primary Contaminants of Concern (PCOCs) are limited to petroleum hydrocarbons.

Groundwater flows within the coarse sand/gravel groundwater bearing zone to the northeast. Groundwater recharge from the surface has been eliminated due to the concrete floor of the parking garage, which effectively covers 100% of the Site recharge area. Additionally, below grade migration has been effectively stopped by the presence of deep sheet piling that cuts off the groundwater bearing zone from the remaining off-site formation around the majority of the Site. The lack of a vertical recharge from the surface and the horizontal containment in the groundwater bearing zone was designed to contain the remaining groundwater on-site and reduces the future contaminant loading into the surrounding off-site formation. However, a small gap in the sheet piling along the southwestern corner may provide a route for off-site contamination to impact the Site's groundwater.

### 1.4 Site History

Contamination is related to the historic use of the property as a gas station and originally was sourced from leaking underground storage tanks located above the "Deep Excavation Area" (see Figure 3).

For over 40 years, the light non-aqueous phase liquid (LNAPL) filtered downward from the base of the tank to a depth of approximately 40 feet bgs. LNAPL intercepted the groundwater at approximately 32 feet bgs. The water table is present within a semiconfined coarse sand and gravel lens. This lens varies in thickness (1/2 to 3 feet) and extends to the northeast, confined laterally to the east and west. Because of low carbon in the fine sand silt and gravel formations, breakdown of benzene, toluene, ethylbenzene and xylene (BTEX) compounds was slow. This resulted in high volatile organic compounds (VOC) soil gas in the unsaturated zone below the release area and the continual loading of BTEX into the groundwater from the LNAPL. Soil Contamination (exceeding Residential Use SCOs), below the LNAPL layer was noted to extend to a depth of 35 to 40 feet bgs. This area has been identified as the Source Area for groundwater contamination.

Dissolved BTEX, once entering the groundwater bearing zone was transported via localized, preferential groundwater flow to the northeast corner of the Site (Following the location of the coarse sand/gravel lens).

To redevelop the property into a medical office building, the Applicants (BCP F..L.C. 50 High Street, Corporation, Kaleida Health, Kaleida Properties, Inc. and Conventus Partners, LLC) acting as Brownfield Cleanup Program (BCP) Volunteers, submitted a BCP Application for the Site on November 28, 2011. The Applicants and the New York State Department of Environmental Conservation (NYSDEC) signed the Brownfield Cleanup Agreement (BCA) on June 15, 2012.

The NYSDEC approved IRM was implemented on January 2013. The following is a summary of the IRM performed at the Site:

- 1. Excavation of soil/fill exceeding restricted residential SCOs to 26 feet bgs;
- 2. Excavation of soil from the source area to 40 feet bgs;
- 3. Removal of LNAPL and contaminated groundwater;
- 4. Backfilling with clean fill and construction of concrete floor;
- 5. Backfilling the source area with flowable fill; and
- 6. Execution and recording of an Environmental Easement to restrict land use

and prevent future exposure to any contamination remaining at the Site.

The removal of soils in the source area ("Area of Deep Excavation" in Figure 3) also included the removal of the groundwater bearing zone. During soil removal, 1997 tons of groundwater and LNAPL was removed from the excavation and properly disposed off-site. The groundwater bearing zone within the source area was replaced with flowable fill, sealing this area off from the adjacent groundwater bearing zone beneath the Site.

Remedial activities were completed at the Site in October 2013. Implementation of the IRM, including source removal, was effective in removing any remaining free product grossly contaminated soils and the groundwater containing the highest dissolved BTEX. However, residual groundwater contamination remains on-site.

Following mass excavation activities, seven new wells were installed on-site.

Table 1-1: Post-I	Remediation Wells
Well ID	Diameter
BCP-MW-1	2"
BCP-MW-2	8"
BCP-MW-3	8"
BCP-MW-4	2"
BCP-MW-5	2"
BCP-MW-6	8"
BCP-MW-7	2"

Note that one well (BCP-MW-2) was installed adjacent to the flowable fill within the Source Area. This well did not produce water. A second well, BCP-MW-6, was installed along the western side of the deep excavation, along the tiered excavation area and did intercept the portion of the groundwater bearing zone remaining along the shoring. This well did produce water for sampling. All other wells were installed through native materials and the gravel water bearing layer. All wells were installed to an approximate depth of 43 feet below surrounding grade (approximately 16 feet below basement floor elevation).

The monitoring well locations were located in areas of previously identified groundwater contamination and to the south of the plume to confirm that contamination had not moved off-site to the south.

BCP-MW-2 was installed adjacent to the source area that was backfilled with flowable fill. Since its installation, this well has been dry. NYSDEC requested the well be modified to evaluate if groundwater underneath the flowable fill mass contains residual contamination. On October 7, 2015 Nature's Way Environmental installed a 1-inch PVC well through the existing BCP-MW-2 to a final depth of 50 feet bgs. The modified well has remained dry. This provides additional evidence that groundwater and petroleum contamination are limited to the coarse sand and gravel layer 32 to 35 feet bgs.

1.4.1 In-situ Injections

No in-situ injections were conducted during this reporting period.

### 1.4.2 November 2016 On-site Groundwater Communication Pump Test

The NYSDEC requested the removal of groundwater from the most contaminated on-site wells to determine if pump-and-treat is a viable remedial approach. The Department also requested the collection of additional data on the hydraulic communication between the on-site monitoring wells. The pump test was conducted on BCP-MW-4, a 2-inch diameter monitoring well, located approximately within the center of the Site. Pressure transducers were placed in BCP-MW-3, BCP-MW-4, BCP-MW-5 and BCP-MW-6.

The results of this pumping test demonstrated that groundwater flow is generally limited to a slight gradient from the corner of Main and High Streets toward the Site. The groundwater contours in the remainder of the Site suggest a general lack of flow, as gradients are generally towards the center of the Site. This result suggests that the sheet piling has been effective in eliminating hydraulic connection to areas outside the Site, with the exception of the southwestern corner. During pumping, water levels were affected in the monitoring wells with pressure transducers indicating that there is a hydraulic connection between these wells.

The July 2016 pump test demonstrated a hydraulic connection exists between on-site wells BCP-MW-01 and BCP-MW-06 and off-site wells MS-MW-02, -03, and -04. Coupled with the November 2016 pump test results, which demonstrated a connection between on-site wells BCP-MW-3, -4, -5, and 6, all on-site and off-site wells, with the exception of MS-MW-01, appear to have some level of hydraulic connection.

### $1.4.3 \quad 2016-2017 \ Groundwater \ Pump \ and \ Treat$

Limited groundwater extraction was conducted on the four monitoring wells that contain petroleum concentrations above NYSDEC guidance levels. Groundwater was removed from the following wells:

BCP-MW-3 BCP-MW-4 BCP-MW-5 BCP-MW-6

Groundwater pumping occurred once a week for three months (12 groundwater extraction events from November 3, 2016 to January 20, 2017).

Groundwater was removed using submersible electric pumps. Groundwater was transferred into a 55-gallon steel drum with 200 pounds of activated carbon. C&S obtained a temporary discharge permit from the Buffalo Sewer Authority to discharge treated groundwater into a sanitary sewer sump located in the sub-basement of the building. Discharge samples were collected and analyzed for VOCs. Sample results indicate that the activated carbon treatment removed 99% - 100% of VOCs in the groundwater.

Tab	le 1-2: Gallons	s Removed from	n Monitoring V	Nells
DATE	BCP-MW-3	BCP-MW-4	BCP-MW-5	BCP-MW-6
11/3/2016	47	132	3	473
11/8/2016	40	213	7	395
11/17/2016	30	202	6	294
11/22/2016	38	133	5	230
12/1/2016	26	182	5	366
12/8/2016	25	179	5	249
12/15/2016	24	108	5	164
12/21/2016	28	136	5	360
1/5/2017	29	176	5	411
1/12/2017	29	213	5	320
1/19/2017	28	148	5	245
1/20/2017	26	115	5	288
Totals	369	1939	61	3793

The waste water discharge permit is provided in Appendix C.

Total volume of groundwater removed was 6,161 gallons

### 2 <u>REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS</u>

### 2.1 In-situ Chemical Oxidation

No in-situ treatments were conducted during this reporting period.

### 2.2 2016 – 2017 Groundwater Pump and Treat

Samples were collected from the four wells prior to (November 1, 2016), at the mid-point (December 9, 2016), and at the end (January 20, 2017) of the 2016 - 2017 Pump-and-Treat Pilot Study period. Samples were also collected at the point of discharge into the sanitary sewer to confirm the efficacy of the treatment via activated carbon. The results are summarized in Table 1. Sample results indicate the following:

- Concentrations in BCP-MW-3 had decreased prior to the initiation of pumping and fluctuated slightly during the Pump-and-Treat Pilot Study period;
- ) Concentrations in BCP-MW-4 increased during the Pump-and-Treat Pilot Study to levels at are consistent with results of the March and June 2016 sampling;
- ) Concentrations in BCP-MW-5 and BCP-MW-6 have generally remained at asymptotic levels at 5,000 to 6,600 ug/L and 1,000 to 1,200 ug/L, respectively; and
- ) Discharge sample results indicate that the activated carbon treatment removed 99% 100% of VOCs in the groundwater.

Based on these results, the Pump-and-Treat Pilot study did not appear to have a significant effect on the groundwater contaminant concentrations.

### 3 IC/EC PLAN COMPLIANCE REPORT

### **3.1** IC/EC Requirements and Compliance

As stated in the 2014 Decision Document, the remedial action objectives (RAO) selected for this Site are:

### **RAOs for Public Health Protection**

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

### **RAOs for Environmental Protection**

- ) Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- 3.1.1 Institutional Controls

The institutional controls for this Site are:

- ) The Site may only be used for restricted residential use provided that the long-term Engineering and Institutional Controls included in this SMP are employed;
- ) The Site may not be used for a higher level of use, unrestricted or residential use, without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the Site that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- ) The use of the groundwater underlying the Site is prohibited by the City of Buffalo; and
- *V*egetable gardens and farming on the Site are prohibited.

The Site has not changed owners and the land use of the Site has not change. All intuitional controls for this Site are in accordance with requirements of the Environmental Easement.

### 3.1.2 Engineering Controls

The engineering controls for this Site are:

) Groundwater treatment and monitoring using the seven wells installed in the subbasement of the building

All engineering controls for this Site are in accordance with requirements of the Environmental Easement.

### **3.2 IC/EC Certification**

As required, the Site Management Periodic Review Report Notice – Institutional and Engineering Controls Certificate Form has been completed and a copy is provided in Appendix B.

### 4 MONITORING PLAN COMPLIANCE REPORT

The SMP identified the need for continued monitoring of groundwater conditions at the Site, including the periodic measuring of water levels and collecting groundwater samples for VOC analysis.

The following monitoring wells are included in the groundwater monitoring plan:

- J BCP-MW-1
- J BCP-MW-2
- J BCP-MW-3
- J BCP-MW-4

J BCP-MW-5 J BCP-MW-6

All monitoring wells were sampled with the exception of BCP-MW-2, which has remained dry since its installation.

The groundwater monitoring activities included the collection of depth-to-water measurements at each monitoring well and the collection of groundwater samples for laboratory analysis. Groundwater sampling was conducted in accordance with the U.S. Environmental Protection Agency Low flow sample procedure. Groundwater sample occurred on the dates below:

September 20, 2013	October 7, 2015	December 8, 2016
March 19, 2014	December 14, 2015	January 20, 2017
May 22, 2014	January 27, 2016	
March 11, 2015	March 22, 2016	
June 17, 2015	June 3, 2016	
August 3, 2015	October 25, 2016	

Figure 3 shows the location of the groundwater wells in the sub-basement of the Conventus building.

Table 1, attached to this letter, presents detected compounds over all monitoring events.

### 5 OPERATION AND MAINTENANCE PLAN COMPLIANCE

The only maintenance items are those associated with the monitoring wells. Minor maintenance to the well caps, PVC risers and road boxes is recommended for some of the monitoring wells. These issues do not interfere will groundwater monitoring or the integrity of the samples.

### 6 **CONCLUSIONS**

Based upon the remedial activities performed, the following conclusions have been formulated:

- All of the required work was completed and is reported herein.
- ) The remedial activities performed at the Site have prevented any adverse risk to human health and the environment.

### 7 <u>Recommendations</u>

For three years following the source removal, the residual groundwater contamination has been monitored and periodically treated using in-situ methods. Based on the

contaminant trends, petroleum concentrations have reached asymptotic levels in most onsite wells. The sheet piling around the Site has worked as designed and has eliminated all off-site migration of residual groundwater contamination. Additionally, potential exposure routes to the residual groundwater contamination have been eliminated due to the removal of the unsaturated source soils, the presence of the concrete slab of the building, and the cessation of off-site migration.

Due to the presence of infrastructure associated with NFTA's train tunnel, a gap in the sheet piling was necessary during construction, creating a hydraulic connection between the Site and more highly contaminated groundwater immediately upgradient of the Site. Because of this hydraulic connection, no method, including installing a pump and treat system, will be effective in the long-term to remediate the remaining contaminant concentrations at the Site. The upgradient, off-site area will act as a continuing source of contaminant concentrations at the Site.

Based on the positive results from the third chemical treatment, C&S recommends conducting a fourth treatment on the monitoring wells containing BTEX concentrations. The groundwater remediation will be performed using the In-Situ Chemical Oxidation (ISCO) treatment method on the monitoring wells located in the sub-basement of the Conventus Building. The proposed material also creates conditions amiable to aerobic bioremediation following chemical oxidant injection. The onsite treatment areas have exceedances for the BTEX compounds in a ½ - 3-foot zone located approximately 30 feet below ground surface. The goal of the ISCO injections for the on-site areas is to reduce the groundwater BTEX concentrations until they reach asymptotic levels. C&S will select the chemical mixture needed to treat the Site based on the BTEX concentration of the groundwater monitoring wells.

To address the residual contamination, oxidizing chemicals will be applied into the following wells:

BCP-MW-3 BCP-MW-4 BCP-MW-5 BCP-MW-6

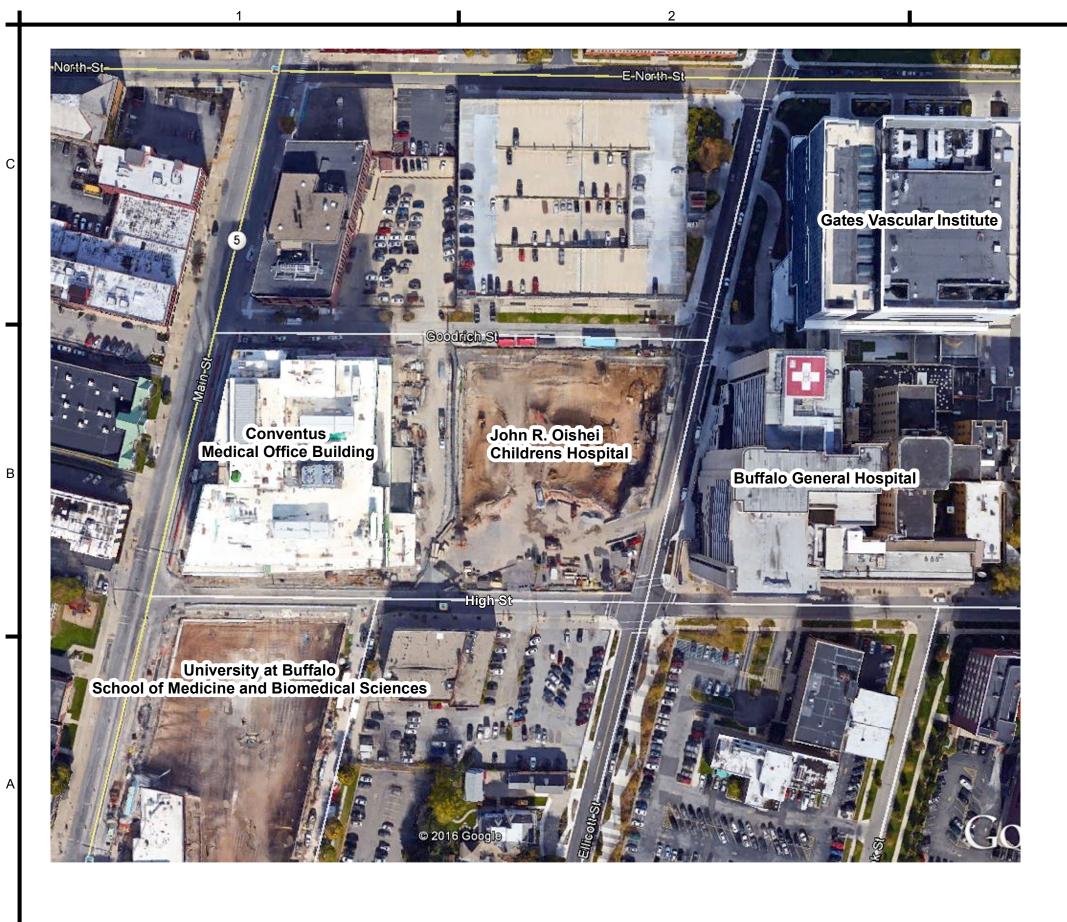
No treatments will be applied to BCP-MW-1, 2, and 7 because no contaminants have been detected in these monitoring wells.

In-situ treatment consists of gravity-feeding a chemical oxidizer mixed with water directly into monitoring wells. The ISCO product is RegenOX manufactured by Regensis. RegenOX is sodium percarbonate formulated to degrade petroleum hydrocarbons through direct oxidation and through the generation of free radical compounds which will also oxidize contaminants. RegenOx produces minimal heat and pressure and is non-corrosive, making it a relatively safe chemical oxidant that is compatible for use in direct contact with underground infrastructure such as utilities, tanks, piping, and communication lines. This was an important characteristic when selecting the ISCO product due to the close proximity of the monitoring wells to the earth retention sheeting for the Conventus Building.

At this time, one treatment event will be conducted followed by groundwater sampling 6 to 8 weeks after treatment. All groundwater samples will be collected for VOCs and analyzed using EPA Method 8260. The results will be compared to prior groundwater sample results. A report will be provided to the NYSDEC that describes the field program, evaluates performance of the selected remedy, and discusses the possible next steps for the Site.

 $F:\label{eq:resonance} F:\label{eq:resonance} F:\label{eq:resonanc$ 

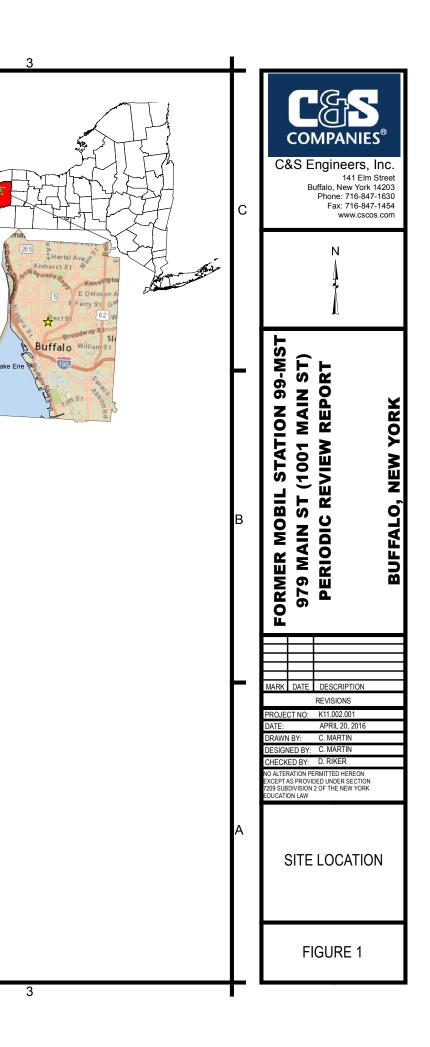
# FIGURES



2

SITE\_LOCATION.mxd IGURE CADD-GIS/GI MOB 002.001

1





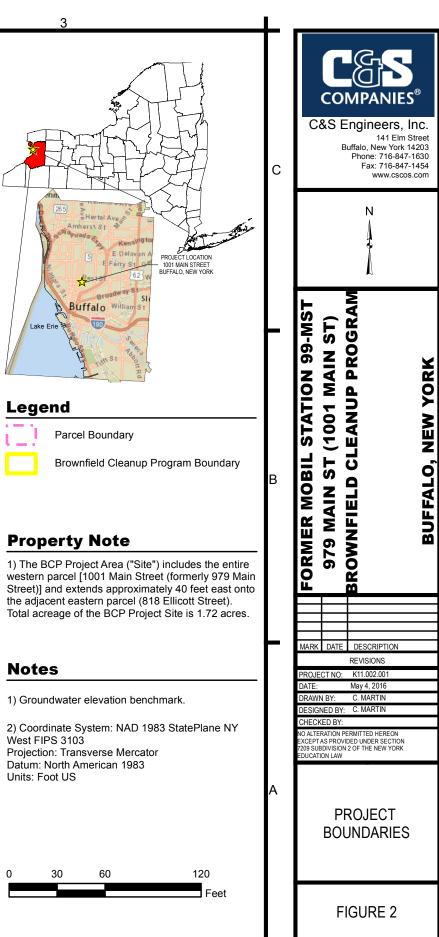
I

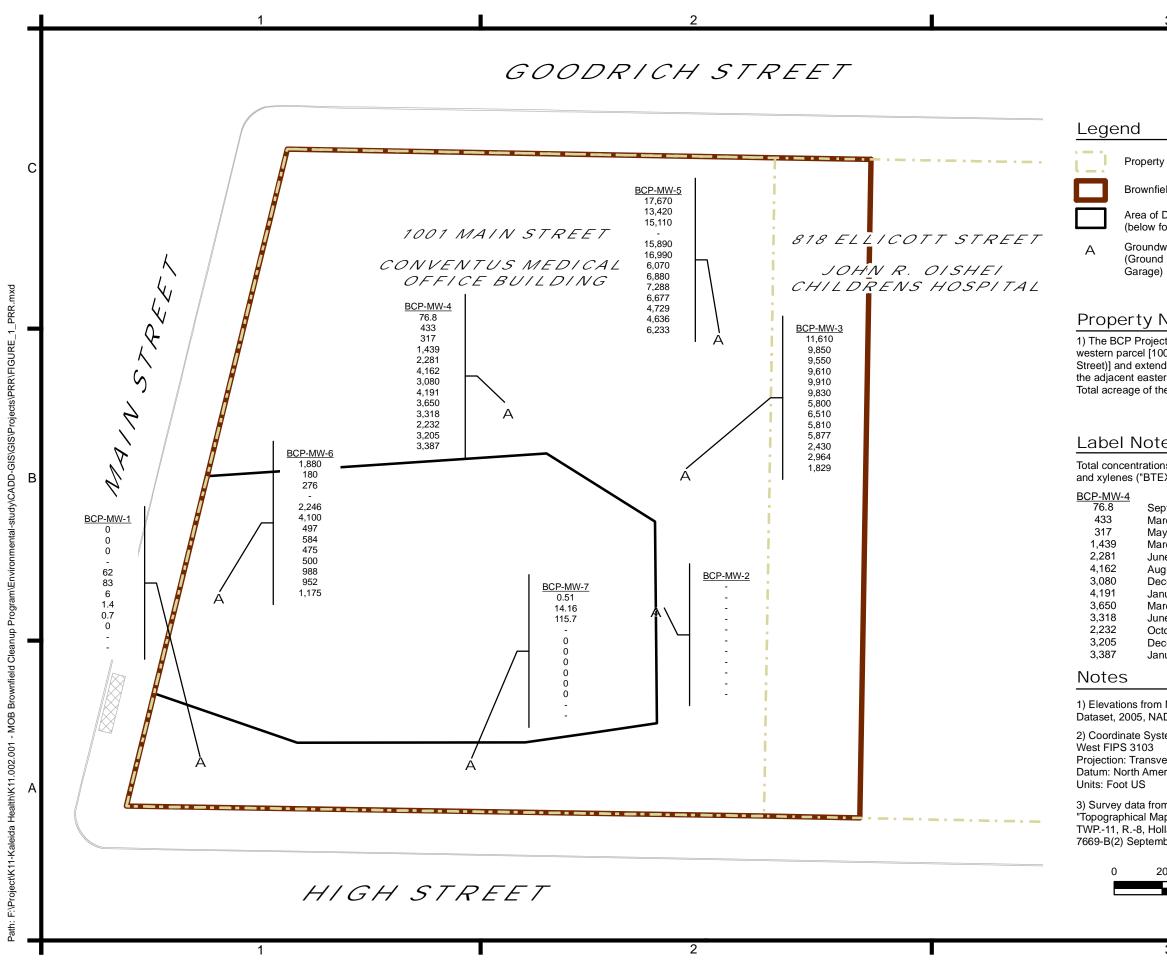
2

2

1

Lake Fri





ഫ് - MOB

- 002.001 -

<del>К</del>1

ťK11.

F:\Pr

3						
/ Lines	С		ks e	Engin Buffalo, N Phone Fax	eers, 141 Elm 141 Elm 146 847 : 716-847 : 716-847	Inc. Street 14203 -1630 -1454
eld Cleanup Program Boundary Deep Excavation to -40 ft ormer ground surface) water Monitoring Well Location I Floor of Underground Parking					8	
Note transformer of the entire 101 Main Street (formerly 979 Main ds approximately 40 feet east onto Imparcel (818 Ellicott Street). the BCP Project Site is 1.72 acres. e ms (ug/L) of benzene, toluene, ethlybenzene EX") for each groundwater monitoring event. ptember 2013 rch 2014 y 2014 rch 2015 gust 2015 cember 2015 gust 2015 cember 2016 rch 2016 rch 2016 rch 2016 rch 2016 tober 2016 cember 2016 tober 2016 tober 2016 tober 2016 many 2017 New York State Erie County LiDAR D 88. tem: NAD 1983 StatePlane NY erse Mercator erican 1983 m McIntosh & McIntosh P.C. ap of Part of Lot-29, lland Purchase" Job No. ther 24, 2008. 0 40 80	в	LORMER MOBILE MARK DATE: DRAWN DESIGN CHECKER NO ALTER EDUCATION	DATE DATE ED BY: ED BY: ED BY: SPROV DIVISION DI	DERIODIC REVISIC REVISIC REVISIC APRIL 2 C. MAR C. MAR D. RIKE ERMITTED DED UNDE ISTO BTE ENTF	NS 2:001 017 TIN TIN R HEREON R SECTION RESECTION REC	G BUFFALO, NEW YORK
Feet			F	IGUF	RE 3	
3						

# TABLES

# Table 1 - Groundwater Analytical Results Summary of Detected Compounds Former Mobil Station 99-MST 979 Main Street (1001 Main Street) Brownfield Cleanup

		Sample Name	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
		Date Collected	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2014	12/15/2015	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	12/15/2015	1/27/2015	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017
		Matrix	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG
		Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NYSDEC Ambient Water Qua Value	•	ds & Guidance							. 6				. 6			. 6		. 6		. 6	. 6	. 6		. 6	. 6		
Volatile Organic Compound	Surface Water	Groundwater																									
2-HEXANONE	50	50	ND	ND	ND		ND	ND	3.5	ND	ND	ND			ND	ND	ND	3	ND	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	50	50	ND	ND	ND		ND	ND	ND	ND	ND	ND			ND	98	ND	17	ND	ND	ND	ND	ND	ND	ND	ND	ND
BENZENE	1	1	ND	ND	ND		35	39	5.7	1.4	0.72	ND			6,600	4,500	4,700	3,700	4,300	4,100	<b>2,100</b>	2,200	1,900	3,100	1,390	635	363
ETHYLBENZENE	5	5	ND	ND	ND		2	1.5	ND	ND	ND	ND			1,200	1,600	1,500	1,600	1,500	1,700	1,400	1,600	1,600	610	194	899	517
ISOPROPYLBENZENE (CUMENE)	5	5	ND	ND	ND		1.3	ND	ND	ND	ND	ND			ND	37	ND	32	ND	ND	ND	ND	ND	ND	ND	ND	ND
METHYL ETHYL KETONE (2- BUTANONE)	50	50	ND	ND	ND		ND	45	ND	ND	ND	ND				71	ND	6.7	ND	ND	ND	ND	ND	ND	ND	ND	ND
METHYLENE CHLORIDE	5	5	ND	ND	ND		ND	ND	ND	ND	ND	ND			ND	ND	ND	ND	ND	ND	ND	ND	ND	35	ND	ND	ND
TOLUENE	5	5	ND	ND	ND		19	38	0.55	ND	ND	ND			110	150	150	110	110	130	100	110	110	67	39.4	74.5	38.4
1,1,2-TRICHLOROETHANE			ND	ND	ND		ND	ND	ND	0.33 J	ND	ND			ND	ND	ND	ND	ND	ND	ND	ND	ND				
XYLENES, TOTAL	5	5	ND	ND	ND		6.4	4.2	ND	ND	ND	ND			3,700	3,600	3,200	4200	4000	3900	2200	2600	2200	2100	806.3	1430	949
No Standard																											
CARBON DISULFIDE			ND	ND	0.94		ND	ND	ND	ND	ND	ND			ND	ND	ND	0.31	ND	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOHEXANE			ND	ND	ND		35	59	61	51	72	ND			120	320	270	390	330	210	100	93	110	170	ND	ND	ND
METHYL ISOBUTYL KETONE			ND	ND	ND		ND	13	ND	ND	ND	ND			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE			ND	ND	0.47		3.2	17	15	11	ND	ND			ND	130	150	120	160	96	34	33	36 J	170	47.7	ND	ND
Total VC	DCs		0	0	1.41	-	101.90	216.70	85.75	63.40	72.72	0			11,730	10,506	9,970	10,179	10,400	10,136	5,934	6,636	5,920	6,252	2,477	3,038	1,867
Total BT	ΈX		0	0	0	-	62	83	6	1.4	0.7	0			11,610	9,850	9,550	9,610	9,910	9,830	5,800	6,510	5,810	5,877	2,430	2,964	1,829

Notes:

Not Sampled

1) BCP MW-2 was dry and not sampled

2) For the March 11, 2015 monitoring event well MW-1, MW-5, MW-6 and MW-7

were dry or not enough water was inside the well for a representative sample.

3) WG = groundwater

	5	Sample Name	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
	I	Date Collected	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	12/15/2015	1/27/2016	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	12/15/2015	1/27/2016	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017
	1	Matrix	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG
	τ	Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NYSDEC Ambient Water Qua	•	ls & Guidance																										
Value																												
Volatile Organic Compound	Surface Water	Groundwater																										
2-HEXANONE	50	50	ND	ND	ND	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	11	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
ACETONE	50	50	10	250	170	67	ND	210.00	ND	ND	ND	ND	ND	ND	ND	ND	520	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
BENZENE	1	1	42	29	15	26	24	242	ND	21	ND	21	9.57	12.8	10.2	5,600	4,800	4,900		3,700	4,100	1,800	1,800	1,700	1,600	899	949	682
ETHYLBENZENE	5	5	4.7	34	32	560	1,000	680	1,100	1300	1,400	1400	1,000	1170	1,300	1,900	1,600	1,600		2,800	2,600	1,600	1,900	2,200	2,200	1,490	1,450	2,070
ISOPROPYLBENZENE (CUMENE)	5	5	ND	ND	ND	<mark>9.8</mark>	15.0	26	ND	ND	ND	ND	19	30.3	28.7	28	29	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
METHYL ETHYL KETONE (2- BUTANONE)	50	50	ND	ND	ND	ND	8.50	ND	ND	ND	ND	ND	ND	ND	ND	10	350	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
METHYLENE CHLORIDE	5	5	ND	ND	1 J	ND	ND	ND	ND	52	ND	42	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	77	96	ND	ND	ND
TOLUENE	5	5	1.1	190	110	53	57	140	180	270	150	97	62.4	130	133	170	220	310		290	290	70	80	88	77	68.5	84.9	86.6
1,1,2-TRICHLOROETHANE			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
XYLENES, TOTAL	5	5	29	180	160	800	1,200	3100	1,800	2600	2,100	1800	1,160	1892	1,944	10,000	6,800	8,300		9,100	10,000	2,600	3,100	3,300	2,800	2,271.3	2,152.2	3,394.7
No Standard																												
CARBON DISULFIDE			ND	ND	1.9 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
CYCLOHEXANE			8.2	11	7	170	170	110	160	220	250	340	189	259	276	230	340	240		430	260	230	250	280	430	198	148	257
METHYL ISOBUTYL KETONE			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE			7.5	3.7	3.1	87	92	69	86	100	110	140	85.1	110	123	100	170	150		190	130	92	100	100	140	67.5	58.4	92.8
Total VC	DCs		102.5	697.7	497.1	1,774.5	2,566.5	4,577.0	3,326.0	4,563.0	4,010.0	3,840.0	2,525.5	3,604.1	3,814.9	18,072	14,829	15,500	-	16,510	17,380	6,392	7,230	7,745	7,343	4,994	4,843	6,583
Total BT	EX		76.8	433	317	1,439	2,281	4,162	3,080	4,191	3,650	3,318	2,232	3,205	3,387	17,670	13,420	15,110	-	15,890	16,990	6,070	6,880	7,288	6,677	4,729	4,636	6,233

Notes:

Not Sampled

1) BCP MW-2 was dry and not sampled

2) For the March 11, 2015 monitoring event well MW-1, MW-5, MW-6 and MW-

were dry or not enough water was inside the well for a representative sample.

3) WG = groundwater

	:	Sample Name	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7
	1	Date Collected	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	12/14/2015	1/27/2016	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	12/15/2015	3/22/2016	6/3/2016	10/25/2016	12/8/2016	1/20/2017
	1	Matrix	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG
	1	Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
NYSDEC Ambient Water Qua	•	ls & Guidance																									
Value																											
Volatile Organic Compound	Surface Water	Groundwater																									
2-HEXANONE	50	50	ND	ND	ND		190	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.8		ND	ND	ND	ND	ND	ND		
ACETONE	50	50	ND	ND	ND		480	340	ND	ND	ND	ND	ND	ND	ND	ND	3	ND		ND	ND	ND	ND	ND	ND		
BENZENE	1	1	190	33	16		470	890	250	230	200	120	302	168	200	0.51	8.8	14		ND	ND	ND	ND	ND	ND		
ETHYLBENZENE	5	5	130	20	31		36	210	22	44	67	50	163	169	173	ND	ND	3		ND	ND	ND	ND	ND	ND		
ISOPROPYLBENZENE (CUMENE)	5	5	4.4	ND	1.9 J			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND		
METHYL ETHYL KETONE (2- BUTANONE)	50	50	ND	ND	ND		110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND		
METHYLENE CHLORIDE	5	5	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND		
TOLUENE	5	5	810	42	79		1,000	1,900	85	120	78	120	130	255	351	ND	0.56	4.7		ND	ND	ND	ND	ND	ND		
1,1,2-TRICHLOROETHANE			ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND												
XYLENES, TOTAL	5	5	750	85	150		740	1,100	140	190	130	210	393	360	451	0.96	4.8	94		ND	ND	ND	0.99 J	ND	ND		
No Standard																											
CARBON DISULFIDE			ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.97		ND	ND	ND	ND	ND	ND		
CYCLOHEXANE			68	ND	130		270	41	62	110	110	91	81.5	ND	ND	ND	4.3	9.6		ND	ND	0.71	ND	ND	ND		
METHYL ISOBUTYL KETONE			ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND	ND	ND	ND	ND		
METHYLCYCLOHEXANE			46	16	18		170	27	24	21	10	24	32.2	30.2	36.9	ND	1.7	5.1		0.18	ND	ND	ND	ND	ND		
Total VC	OCs		1,998.4	196	424	-	3,466	4,508	583	715	595	615	1,101	983	1,212	1.47	23.16	136.17	-	0.18	-	0.71	-	-	-	-	-
Total BT	EX		1,880	180	276	-	2,246	4,100	497	584	475	500	988	952	1,175	0.51	14.16	115.7	-	-	-	-	-	-	-	-	-

Notes:

Not Sampled

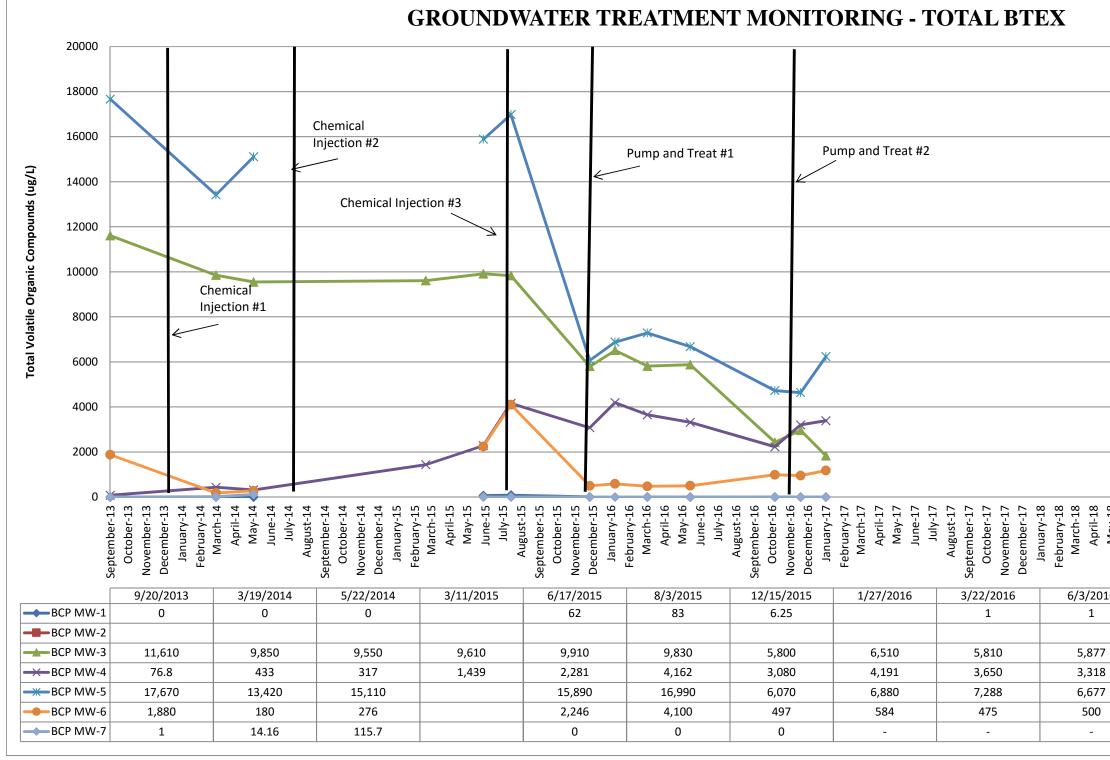
1) BCP MW-2 was dry and not sampled

2) For the March 11, 2015 monitoring event well MW-1, MW-5, MW-6 and MW-

were dry or not enough water was inside the well for a representative sample.

3) WG = groundwater

## GRAPHS



End of 5 year compliance period - 12/23/19

May-18 June-18	July-18 August-18 September-18 October-18 November-18 December-18	January-19 February-19 March-19 April-19 May-19 June-19	July-19 August-19 September-19 October-19 November-19 December-19
16	10/25/2016	12/8/2016	1/20/2017
	-	-	-
,	2,430	2,964	1,829
	2,232	3,205	3,387
,	4,729	4,636	6,233
	988	952	1,175
	-	-	-
		1	

# APPENDICES

## APPENDIX A LABORATORY ANALYTICAL RESULTS



THE LEADER IN ENVIRONMENTAL TESTING

## **ANALYTICAL REPORT**

### TestAmerica Laboratories, Inc.

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

## TestAmerica Job ID: 480-101101-1

Client Project/Site: Well Sampling - MOB

### For:

C&S Engineers, Inc. 141 Elm Street Suite 100 Buffalo, New York 14203

Attn: Cody Martin

Joeph V. Giscomayer

Authorized for release by: 6/10/2016 10:03:26 AM Joe Giacomazza, Project Management Assistant II joe.giacomazza@testamericainc.com

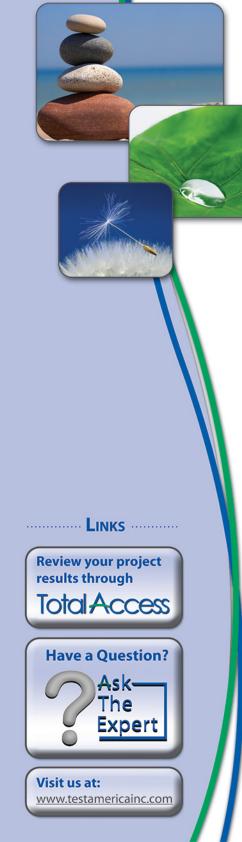
Designee for

Judy Stone, Senior Project Manager (484)685-0868 judy.stone@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



## **Table of Contents**

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
Surrogate Summary	14
QC Sample Results	15
QC Association Summary	23
Lab Chronicle	24
Certification Summary	25
Method Summary	26
Sample Summary	27
Chain of Custody	28
Receipt Checklists	29

3

### Qualifiers

#### **GC/MS VOA**

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

### Glossary

Quanner		
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	5
Glossary		6
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	8
CNF	Contains no Free Liquid	
DER	Duplicate error ratio (normalized absolute difference)	9
Dil Fac	Dilution Factor	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision level concentration	
MDA	Minimum detectable activity	
EDL	Estimated Detection Limit	
MDC	Minimum detectable concentration	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	13
NC	Not Calculated	
ND	Not detected at the reporting limit (or MDL or EDL if shown)	
PQL	Practical Quantitation Limit	
QC	Quality Control	
RER	Relative error ratio	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	

Toxicity Equivalent Quotient (Dioxin) TEQ

### Job ID: 480-101101-1

### Laboratory: TestAmerica Buffalo

#### Narrative

Job Narrative 480-101101-1

### Receipt

The samples were received on 6/3/2016 3:08 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

### GC/MS VOA

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: BCP-MW-4-060316 (480-101101-4), BCP-MW-3-060316 (480-101101-5), BCP-MW-5-060316 (480-101101-6), (480-101101-A-6 MS) and (480-101101-A-6 MSD). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-305188 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: BCP-MW-1-060316 (480-101101-1), BCP-MW-7-060316 (480-101101-2), BCP-MW-4-060316 (480-101101-4), BCP-MW-3-060316 (480-101101-5) and BCP-MW-5-060316 (480-101101-6).

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: BCP-MW-6-060316 (480-101101-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TestAmerica Job ID: 480-101101-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	Method	Prep Type
Benzene	0.72	J	1.0	0.41	ug/L	1	8260C	Total/NA
Cyclohexane	72		1.0	0.18	ug/L	1	8260C	Total/NA

### Client Sample ID: BCP-MW-7-060316

No Detections.

### Client Sample ID: BCP-MW-6-060316

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Meth	od	Prep Type
Benzene	120		4.0	1.6	ug/L	4	8260	С	Total/NA
Cyclohexane	91		4.0	0.72	ug/L	4	8260	С	Total/NA
Ethylbenzene	50		4.0	3.0	ug/L	4	8260	С	Total/NA
Methylcyclohexane	24		4.0	0.64	ug/L	4	8260	C	Total/NA
Toluene	110		4.0	2.0	ug/L	4	8260	С	Total/NA
Xylenes, Total	210		8.0	2.6	ug/L	4	8260	С	Total/NA

### Client Sample ID: BCP-MW-4-060316

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
Cyclohexane	340		50	9.0	ug/L	50	8260C	Total/NA
Ethylbenzene	1400		50	37	ug/L	50	8260C	Total/NA
Methylcyclohexane	140		50	8.0	ug/L	50	8260C	Total/NA
Methylene Chloride	42	J	50	22	ug/L	50	8260C	Total/NA
Toluene	97		50	26	ug/L	50	8260C	Total/NA
Xylenes, Total	1800		100	33	ug/L	50	8260C	Total/NA

### Client Sample ID: BCP-MW-3-060316

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
Benzene	3100		50	21	ug/L	50	8260C	Total/NA
Cyclohexane	170		50	9.0	ug/L	50	8260C	Total/NA
Ethylbenzene	610		50	37	ug/L	50	8260C	Total/NA
Methylcyclohexane	170		50	8.0	ug/L	50	8260C	Total/NA
Methylene Chloride	35	J	50	22	ug/L	50	8260C	Total/NA
Toluene	67		50	26	ug/L	50	8260C	Total/NA
Xylenes, Total	2100		100	33	ug/L	50	8260C	Total/NA

### Client Sample ID: BCP-MW-5-060316

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Metho	d Prep Type
Benzene	1600		100	41	ug/L	100	8260C	Total/NA
Cyclohexane	430		100	18	ug/L	100	8260C	Total/NA
Ethylbenzene	2200		100	74	ug/L	100	8260C	Total/NA
Methylcyclohexane	140		100	16	ug/L	100	8260C	Total/NA
Methylene Chloride	96	J	100	44	ug/L	100	8260C	Total/NA
Toluene	77	J	100	51	ug/L	100	8260C	Total/NA
Xylenes, Total	2800		200	66	ug/L	100	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Lab Sample ID: 480-101101-1

Lab Sample ID: 480-101101-2

Lab Sample ID: 480-101101-3

### Lab Sample ID: 480-101101-4

Lab Sample ID: 480-101101-5

Lab Sample ID: 480-101101-6

### Client Sample ID: BCP-MW-1-060316

Date Collected: 06/03/16 08:00 Date Received: 06/03/16 15:08

Method: 8260C - Volatile Organic Analyte	Result Qualifier	RL	MDL	Unit	D Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	1.0	0.82	ug/L		06/06/16 16:30	1
1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/L		06/06/16 16:30	1
1,1,2-Trichloroethane	ND	1.0	0.23	ug/L		06/06/16 16:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0	0.31	ug/L		06/06/16 16:30	1
1,1-Dichloroethane	ND	1.0	0.38	ug/L		06/06/16 16:30	1
1,1-Dichloroethene	ND	1.0	0.29	ug/L		06/06/16 16:30	1
1,2,4-Trichlorobenzene	ND	1.0		ug/L		06/06/16 16:30	1
1,2-Dibromo-3-Chloropropane	ND	1.0	0.39	ug/L		06/06/16 16:30	1
1,2-Dibromoethane	ND	1.0	0.73	ug/L		06/06/16 16:30	1
1,2-Dichlorobenzene	ND	1.0	0.79	ug/L		06/06/16 16:30	1
1,2-Dichloroethane	ND	1.0	0.21	ug/L		06/06/16 16:30	1
1,2-Dichloropropane	ND	1.0	0.72	ug/L		06/06/16 16:30	1
1,3-Dichlorobenzene	ND	1.0	0.78	ug/L		06/06/16 16:30	1
1,4-Dichlorobenzene	ND	1.0	0.84	ug/L		06/06/16 16:30	1
2-Hexanone	ND	5.0	1.2	ug/L		06/06/16 16:30	1
2-Butanone (MEK)	ND	10	1.3	ug/L		06/06/16 16:30	1
4-Methyl-2-pentanone (MIBK)	ND	5.0	2.1	ug/L		06/06/16 16:30	1
Acetone	ND	10	3.0	ug/L		06/06/16 16:30	1
Benzene	0.72 J	1.0	0.41	ug/L		06/06/16 16:30	1
Bromodichloromethane	ND	1.0	0.39	ug/L		06/06/16 16:30	1
Bromoform	ND	1.0	0.26	ug/L		06/06/16 16:30	1
Bromomethane	ND	1.0	0.69	ug/L		06/06/16 16:30	1
Carbon disulfide	ND	1.0	0.19	ug/L		06/06/16 16:30	1
Carbon tetrachloride	ND	1.0	0.27	ug/L		06/06/16 16:30	1
Chlorobenzene	ND	1.0	0.75	ug/L		06/06/16 16:30	1
Dibromochloromethane	ND	1.0	0.32	ug/L		06/06/16 16:30	1
Chloroethane	ND	1.0	0.32	ug/L		06/06/16 16:30	1
Chloroform	ND	1.0	0.34	ug/L		06/06/16 16:30	1
Chloromethane	ND	1.0	0.35	ug/L		06/06/16 16:30	1
cis-1,2-Dichloroethene	ND	1.0	0.81	ug/L		06/06/16 16:30	1
cis-1,3-Dichloropropene	ND	1.0	0.36	ug/L		06/06/16 16:30	1
Cyclohexane	72	1.0	0.18	ug/L		06/06/16 16:30	1
Dichlorodifluoromethane	ND	1.0	0.68	ug/L		06/06/16 16:30	1
Ethylbenzene	ND	1.0	0.74	ug/L		06/06/16 16:30	1
Isopropylbenzene	ND	1.0	0.79	ug/L		06/06/16 16:30	1
Methyl acetate	ND	2.5	1.3	ug/L		06/06/16 16:30	1
Methyl tert-butyl ether	ND	1.0	0.16	ug/L		06/06/16 16:30	1
Methylcyclohexane	ND	1.0	0.16	ug/L		06/06/16 16:30	1
Methylene Chloride	ND	1.0	0.44	ug/L		06/06/16 16:30	1
Styrene	ND	1.0	0.73	ug/L		06/06/16 16:30	1
Tetrachloroethene	ND	1.0	0.36	ug/L		06/06/16 16:30	1
Toluene	ND	1.0	0.51	ug/L		06/06/16 16:30	1
trans-1,2-Dichloroethene	ND	1.0	0.90	ug/L		06/06/16 16:30	1
trans-1,3-Dichloropropene	ND	1.0		ug/L		06/06/16 16:30	1
Trichloroethene	ND	1.0	0.46	ug/L		06/06/16 16:30	1
Trichlorofluoromethane	ND	1.0	0.88	ug/L		06/06/16 16:30	1
Vinyl chloride	ND	1.0		ug/L		06/06/16 16:30	1
Xylenes, Total	ND	2.0	0.66	ua/L		06/06/16 16:30	1

### Lab Sample ID: 480-101101-1 Matrix: Water

5

6

### Client Sample ID: BCP-MW-1-060316 Date Collected: 06/03/16 08:00 Date Received: 06/03/16 15:08

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99	66 - 137		06/06/16 16:30	1
Toluene-d8 (Surr)	98	71 - 126		06/06/16 16:30	1
4-Bromofluorobenzene (Surr)	110	73 - 120		06/06/16 16:30	1
Dibromofluoromethane (Surr)	97	60 - 140		06/06/16 16:30	1

### Client Sample ID: BCP-MW-7-060316

Date Collected: 06/03/16 09:00 Date Received: 06/03/16 15:08

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	1.0	0.82			Ticparca	06/06/16 16:57	1
1,1,2,2-Tetrachloroethane	ND	1.0		ug/L			06/06/16 16:57	1
1,1,2-Trichloroethane	ND	1.0		ug/L			06/06/16 16:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0		ug/L			06/06/16 16:57	
1,1-Dichloroethane	ND	1.0		ug/L			06/06/16 16:57	1
1.1-Dichloroethene	ND	1.0		ug/L			06/06/16 16:57	1
1,2,4-Trichlorobenzene	ND	1.0		ug/L			06/06/16 16:57	
1,2-Dibromo-3-Chloropropane	ND	1.0		ug/L			06/06/16 16:57	1
1,2-Dibromoethane	ND	1.0		ug/L			06/06/16 16:57	1
1,2-Dichlorobenzene	ND	1.0		ug/L			06/06/16 16:57	
1,2-Dichloroethane	ND	1.0		ug/L			06/06/16 16:57	1
1,2-Dichloropropane	ND	1.0		ug/L			06/06/16 16:57	1
1,3-Dichlorobenzene	ND	1.0		ug/L			06/06/16 16:57	1
1,4-Dichlorobenzene	ND	1.0		ug/L			06/06/16 16:57	1
2-Hexanone	ND	5.0		ug/L			06/06/16 16:57	1
2-Butanone (MEK)	ND	10		ug/L			06/06/16 16:57	
4-Methyl-2-pentanone (MIBK)	ND	5.0	2.1	-			06/06/16 16:57	1
Acetone	ND	10		ug/L			06/06/16 16:57	1
Benzene	ND	1.0		ug/L			06/06/16 16:57	
Bromodichloromethane	ND	1.0		ug/L			06/06/16 16:57	1
Bromoform	ND	1.0		ug/L			06/06/16 16:57	1
Bromomethane	ND	1.0		ug/L			06/06/16 16:57	
Carbon disulfide	ND	1.0		ug/L			06/06/16 16:57	1
Carbon tetrachloride	ND	1.0		ug/L			06/06/16 16:57	1
Chlorobenzene	ND	1.0		ug/L			06/06/16 16:57	
Dibromochloromethane	ND	1.0		ug/L			06/06/16 16:57	1
Chloroethane	ND	1.0		ug/L			06/06/16 16:57	1
Chloroform	ND	1.0		ug/L			06/06/16 16:57	1
Chloromethane	ND	1.0		ug/L			06/06/16 16:57	1
cis-1,2-Dichloroethene	ND	1.0		ug/L			06/06/16 16:57	1
cis-1,3-Dichloropropene	ND	1.0		ug/L			06/06/16 16:57	1
Cyclohexane	ND	1.0		ug/L			06/06/16 16:57	1
Dichlorodifluoromethane	ND	1.0		ug/L			06/06/16 16:57	1
Ethylbenzene	ND	1.0		ug/L			06/06/16 16:57	
Isopropylbenzene	ND	1.0		-			06/06/16 16:57	1
Methyl acetate	ND	2.5		ug/L			06/06/16 16:57	1
Methyl tert-butyl ether	ND	1.0		ug/L			06/06/16 16:57	
Methylcyclohexane	ND	1.0		ug/L			06/06/16 16:57	1
Methylene Chloride	ND	1.0		ug/L			06/06/16 16:57	1

TestAmerica Job ID: 480-101101-1

Lab Sample ID: 480-101101-1

Lab Sample ID: 480-101101-2

Matrix: Water

Matrix: Water

## 2 3 4 5 6 7 8 9 10 11

RL

1.0

1.0

1.0

1.0

1.0

1.0

1.0

1.0

2.0

Limits

66 - 137

71 - 126

73 - 120

60 - 140

MDL Unit

0.73 ug/L

0.36 ug/L

0.51 ug/L

0.90 ug/L

0.37 ug/L

0.46 ug/L

0.88 ug/L

0.90 ug/L

0.66 ug/L

Analyte

Styrene

Toluene

Tetrachloroethene

Trichloroethene

Vinyl chloride

Xylenes, Total

Toluene-d8 (Surr)

Surrogate

trans-1,2-Dichloroethene

trans-1,3-Dichloropropene

1,2-Dichloroethane-d4 (Surr)

Trichlorofluoromethane

### Client Sample ID: BCP-MW-7-060316 Date Collected: 06/03/16 09:00 Date Received: 06/03/16 15:08

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Result Qualifier

ND

ND

ND

ND

ND

ND

ND

ND

ND

98

97

110

102

Qualifier

%Recovery

Test/	Amer	ica .	Job	ID:

Prepared

Prepared

D

480-101101-1

Matrix: Water

Dil Fac

1

1

1

1

1

1

1

1

1

1

1

1

Dil Fac

Lab Sample ID: 480-101101-2

Analyzed

06/06/16 16:57

06/06/16 16:57

06/06/16 16:57

06/06/16 16:57

06/06/16 16:57

06/06/16 16:57

06/06/16 16:57

06/06/16 16:57

06/06/16 16:57

Analyzed

06/06/16 16:57

06/06/16 16:57

06/06/16 16:57

06/06/16 16:57

## 7 8 9 10 11 12

### Lab Sample ID: 480-101101-3

Matrix: Water

Date Collected: 06/03/16 09:30 Date Received: 06/03/16 15:08

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	4.0	3.3	ug/L			06/09/16 01:21	4
1,1,2,2-Tetrachloroethane	ND	4.0	0.84	ug/L			06/09/16 01:21	4
1,1,2-Trichloroethane	ND	4.0	0.92	ug/L			06/09/16 01:21	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	4.0	1.2	ug/L			06/09/16 01:21	4
1,1-Dichloroethane	ND	4.0	1.5	ug/L			06/09/16 01:21	4
1,1-Dichloroethene	ND	4.0	1.2	ug/L			06/09/16 01:21	4
1,2,4-Trichlorobenzene	ND	4.0	1.6	ug/L			06/09/16 01:21	4
1,2-Dibromo-3-Chloropropane	ND	4.0	1.6	ug/L			06/09/16 01:21	4
1,2-Dibromoethane	ND	4.0	2.9	ug/L			06/09/16 01:21	4
1,2-Dichlorobenzene	ND	4.0	3.2	ug/L			06/09/16 01:21	4
1,2-Dichloroethane	ND	4.0	0.84	ug/L			06/09/16 01:21	4
1,2-Dichloropropane	ND	4.0	2.9	ug/L			06/09/16 01:21	4
1,3-Dichlorobenzene	ND	4.0	3.1	ug/L			06/09/16 01:21	4
1,4-Dichlorobenzene	ND	4.0	3.4	ug/L			06/09/16 01:21	4
2-Hexanone	ND	20	5.0	ug/L			06/09/16 01:21	4
2-Butanone (MEK)	ND	40	5.3	ug/L			06/09/16 01:21	4
4-Methyl-2-pentanone (MIBK)	ND	20	8.4	ug/L			06/09/16 01:21	4
Acetone	ND	40	12	ug/L			06/09/16 01:21	4
Benzene	120	4.0	1.6	ug/L			06/09/16 01:21	4
Bromodichloromethane	ND	4.0	1.6	ug/L			06/09/16 01:21	4
Bromoform	ND	4.0	1.0	ug/L			06/09/16 01:21	4
Bromomethane	ND	4.0	2.8	ug/L			06/09/16 01:21	4
Carbon disulfide	ND	4.0	0.76	ug/L			06/09/16 01:21	4
Carbon tetrachloride	ND	4.0	1.1	ug/L			06/09/16 01:21	4
Chlorobenzene	ND	4.0	3.0	ug/L			06/09/16 01:21	4
Dibromochloromethane	ND	4.0	1.3	ug/L			06/09/16 01:21	4
Chloroethane	ND	4.0	1.3	ug/L			06/09/16 01:21	4
Chloroform	ND	4.0	1.4	ug/L			06/09/16 01:21	4

### Client Sample ID: BCP-MW-6-060316 Date Collected: 06/03/16 09:30 Date Received: 06/03/16 15:08

### Lab Sample ID: 480-101101-3 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		4.0	1.4	ug/L			06/09/16 01:21	4
cis-1,2-Dichloroethene	ND		4.0	3.2	ug/L			06/09/16 01:21	4
cis-1,3-Dichloropropene	ND		4.0	1.4	ug/L			06/09/16 01:21	4
Cyclohexane	91		4.0	0.72	ug/L			06/09/16 01:21	4
Dichlorodifluoromethane	ND		4.0	2.7	ug/L			06/09/16 01:21	4
Ethylbenzene	50		4.0	3.0	ug/L			06/09/16 01:21	4
Isopropylbenzene	ND		4.0	3.2	ug/L			06/09/16 01:21	4
Methyl acetate	ND		10	5.2	ug/L			06/09/16 01:21	4
Methyl tert-butyl ether	ND		4.0	0.64	ug/L			06/09/16 01:21	4
Methylcyclohexane	24		4.0	0.64	ug/L			06/09/16 01:21	4
Methylene Chloride	ND		4.0	1.8	ug/L			06/09/16 01:21	4
Styrene	ND		4.0	2.9	ug/L			06/09/16 01:21	4
Tetrachloroethene	ND		4.0	1.4	ug/L			06/09/16 01:21	4
Toluene	110		4.0	2.0	ug/L			06/09/16 01:21	4
trans-1,2-Dichloroethene	ND		4.0	3.6	ug/L			06/09/16 01:21	4
trans-1,3-Dichloropropene	ND		4.0	1.5	ug/L			06/09/16 01:21	4
Trichloroethene	ND		4.0	1.8	ug/L			06/09/16 01:21	4
Trichlorofluoromethane	ND		4.0	3.5	ug/L			06/09/16 01:21	4
Vinyl chloride	ND		4.0	3.6	ug/L			06/09/16 01:21	4
Xylenes, Total	210		8.0	2.6	ug/L			06/09/16 01:21	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		66 - 137			-		06/09/16 01:21	4
Toluene-d8 (Surr)	99		71 - 126					06/09/16 01:21	4

Client Sample ID: BCP-MW-4	-060316		Lab Sample ID: 480-10110	)1-4
Dibromofluoromethane (Surr)	102	60 - 140	06/09/16 01:21	4
4-Bromofluorobenzene (Surr)	108	73 - 120	06/09/16 01:21	4
Toluene-d8 (Surr)	99	71 - 126	06/09/16 01:21	4

### Client Sample ID: BCP-MW-4-060316 Date Collected: 06/03/16 10:00 Date Received: 06/03/16 15:08

#### Method: 8260C - Volatile Organic Compounds by GC/MS RL MDL Unit Dil Fac Analyte **Result Qualifier** D Prepared Analyzed 1,1,1-Trichloroethane ND 50 41 ug/L 06/06/16 17:51 50 ND 50 06/06/16 17:51 50 1.1.2.2-Tetrachloroethane 11 ug/L 1,1,2-Trichloroethane ND 50 12 ug/L 06/06/16 17:51 50 1,1,2-Trichloro-1,2,2-trifluoroethane ND 50 16 ug/L 06/06/16 17:51 50 1,1-Dichloroethane ND 50 19 ug/L 06/06/16 17:51 50 1,1-Dichloroethene ND 50 15 ug/L 06/06/16 17:51 50 50 1,2,4-Trichlorobenzene ND 21 ug/L 06/06/16 17:51 50 50 1.2-Dibromo-3-Chloropropane ND 20 ug/L 06/06/16 17:51 50 1,2-Dibromoethane ND 50 37 ug/L 06/06/16 17:51 50 1,2-Dichlorobenzene ND 50 40 ug/L 06/06/16 17:51 50 1,2-Dichloroethane ND 50 11 ug/L 06/06/16 17:51 50 1,2-Dichloropropane ND 50 36 ug/L 06/06/16 17:51 50 50 ND ug/L 50 1.3-Dichlorobenzene 39 06/06/16 17:51 1,4-Dichlorobenzene ND 50 42 ug/L 06/06/16 17:51 50 2-Hexanone ND 250 ug/L 06/06/16 17:51 50 62 2-Butanone (MEK) ND 500 66 ug/L 06/06/16 17:51 50 4-Methyl-2-pentanone (MIBK) ND 250 110 ug/L 06/06/16 17:51 50

TestAmerica Buffalo

Matrix: Water

### Client Sample ID: BCP-MW-4-060316 Date Collected: 06/03/16 10:00 Date Received: 06/03/16 15:08

Method: 8260C - Volatile Orga	nic Compounds I	by GC/MS (	Continued)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		500	150	ug/L			06/06/16 17:51	50
Benzene	ND		50	21	ug/L			06/06/16 17:51	50
Bromodichloromethane	ND		50	20	ug/L			06/06/16 17:51	50
Bromoform	ND		50	13	ug/L			06/06/16 17:51	50
Bromomethane	ND		50	35	ug/L			06/06/16 17:51	50
Carbon disulfide	ND		50	9.5	ug/L			06/06/16 17:51	50
Carbon tetrachloride	ND		50	14	ug/L			06/06/16 17:51	50
Chlorobenzene	ND		50	38	ug/L			06/06/16 17:51	50
Dibromochloromethane	ND		50	16	ug/L			06/06/16 17:51	50
Chloroethane	ND		50	16	ug/L			06/06/16 17:51	50
Chloroform	ND		50	17	ug/L			06/06/16 17:51	50
Chloromethane	ND		50	18	ug/L			06/06/16 17:51	50
cis-1,2-Dichloroethene	ND		50	41	ug/L			06/06/16 17:51	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			06/06/16 17:51	50
Cyclohexane	340		50	9.0	ug/L			06/06/16 17:51	50
Dichlorodifluoromethane	ND		50	34	ug/L			06/06/16 17:51	50
Ethylbenzene	1400		50	37	ug/L			06/06/16 17:51	50
Isopropylbenzene	ND		50	40	ug/L			06/06/16 17:51	50
Methyl acetate	ND		130	65	ug/L			06/06/16 17:51	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			06/06/16 17:51	50
Methylcyclohexane	140		50	8.0	ug/L			06/06/16 17:51	50
Methylene Chloride	42	J	50	22	ug/L			06/06/16 17:51	50
Styrene	ND		50	37	ug/L			06/06/16 17:51	50
Tetrachloroethene	ND		50	18	ug/L			06/06/16 17:51	50
Toluene	97		50	26	ug/L			06/06/16 17:51	50
trans-1,2-Dichloroethene	ND		50	45	ug/L			06/06/16 17:51	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			06/06/16 17:51	50
Trichloroethene	ND		50	23	ug/L			06/06/16 17:51	50
Trichlorofluoromethane	ND		50	44	ug/L			06/06/16 17:51	50
Vinyl chloride	ND		50	45	ug/L			06/06/16 17:51	50
Xylenes, Total	1800		100	33	ug/L			06/06/16 17:51	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		66 - 137			-		06/06/16 17:51	50
Toluene-d8 (Surr)	99		71 - 126					06/06/16 17:51	50
4-Bromofluorobenzene (Surr)	114		73 - 120					06/06/16 17:51	50

### Client Sample ID: BCP-MW-3-060316

96

Date Collected: 06/03/16 11:00 Date Received: 06/03/16 15:08

Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	1,1,1-Trichloroethane	ND		50	41	ug/L			06/06/16 18:18	50
	1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			06/06/16 18:18	50
	1,1,2-Trichloroethane	ND		50	12	ug/L			06/06/16 18:18	50
	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			06/06/16 18:18	50
	1,1-Dichloroethane	ND		50	19	ug/L			06/06/16 18:18	50
	1,1-Dichloroethene	ND		50	15	ug/L			06/06/16 18:18	50

60 - 140

TestAmerica Buffalo

06/06/16 17:51

Lab Sample ID: 480-101101-5

50

Matrix: Water

### Lab Sample ID: 480-101101-4 Matrix: Water

mater

5

6

## Client Sample ID: BCP-MW-3-060316 Date Collected: 06/03/16 11:00 Date Received: 06/03/16 15:08

TootAmoriaa		100 101	101 1
TestAmerica .	JOD ID:	480-101	101-1

## Lab Sample ID: 480-101101-5 Matrix: Water

Method: 8260C - Volatile Orga Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
1,2,4-Trichlorobenzene	ND	50	21	ug/L			06/06/16 18:18	5
1,2-Dibromo-3-Chloropropane	ND	50	20	ug/L			06/06/16 18:18	5
1,2-Dibromoethane	ND	50	37	ug/L			06/06/16 18:18	5
1,2-Dichlorobenzene	ND	50	40	ug/L			06/06/16 18:18	50
1,2-Dichloroethane	ND	50	11	ug/L			06/06/16 18:18	50
1,2-Dichloropropane	ND	50	36	ug/L			06/06/16 18:18	5
1,3-Dichlorobenzene	ND	50	39	ug/L			06/06/16 18:18	50
1,4-Dichlorobenzene	ND	50	42	ug/L			06/06/16 18:18	50
2-Hexanone	ND	250	62	ug/L			06/06/16 18:18	50
2-Butanone (MEK)	ND	500	66	ug/L			06/06/16 18:18	50
4-Methyl-2-pentanone (MIBK)	ND	250	110	ug/L			06/06/16 18:18	50
Acetone	ND	500	150	ug/L			06/06/16 18:18	50
Benzene	3100	50	21	ug/L			06/06/16 18:18	50
Bromodichloromethane	ND	50	20	ug/L			06/06/16 18:18	50
Bromoform	ND	50	13	ug/L			06/06/16 18:18	50
Bromomethane	ND	50	35	ug/L			06/06/16 18:18	50
Carbon disulfide	ND	50	9.5	ug/L			06/06/16 18:18	50
Carbon tetrachloride	ND	50		ug/L			06/06/16 18:18	50
Chlorobenzene	ND	50		ug/L			06/06/16 18:18	50
Dibromochloromethane	ND	50		ug/L			06/06/16 18:18	50
Chloroethane	ND	50		ug/L			06/06/16 18:18	50
Chloroform	ND	50		ug/L			06/06/16 18:18	50
Chloromethane	ND	50		ug/L			06/06/16 18:18	50
cis-1,2-Dichloroethene	ND	50		ug/L			06/06/16 18:18	5
cis-1,3-Dichloropropene	ND	50		ug/L			06/06/16 18:18	50
Cyclohexane	170	50		ug/L			06/06/16 18:18	50
Dichlorodifluoromethane	ND	50		ug/L			06/06/16 18:18	50
Ethylbenzene	610	50		ug/L			06/06/16 18:18	50
Isopropylbenzene	ND	50		ug/L			06/06/16 18:18	50
Methyl acetate	ND	130		ug/L			06/06/16 18:18	50
Methyl tert-butyl ether	ND	50	8.0	ug/L			06/06/16 18:18	50
Methylcyclohexane	170	50		ug/L			06/06/16 18:18	50
Methylene Chloride	35 J	50		ug/L			06/06/16 18:18	50
Styrene	ND	50		ug/L			06/06/16 18:18	50
Tetrachloroethene	ND	50		ug/L			06/06/16 18:18	5
Toluene	67	50		ug/L			06/06/16 18:18	50
trans-1,2-Dichloroethene	ND	50		ug/L			06/06/16 18:18	50
trans-1,3-Dichloropropene	ND	50		ug/L			06/06/16 18:18	50
Trichloroethene	ND	50		ug/L			06/06/16 18:18	50
Trichlorofluoromethane	ND	50		ug/L			06/06/16 18:18	5
Vinyl chloride	ND	50		ug/L			06/06/16 18:18	50
Xylenes, Total	2100	100		ug/L			06/06/16 18:18	5
Surrogate	%Recovery Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	100	66 - 137			-		06/06/16 18:18	5
Toluene-d8 (Surr)	96	71 - 126					06/06/16 18:18	5
4-Bromofluorobenzene (Surr)	107	73 - 120					06/06/16 18:18	5
Dibromofluoromethane (Surr)	102	60 - 140					06/06/16 18:18	5

## Client Sample ID: BCP-MW-5-060316 Date Collected: 06/03/16 12:00 Date Received: 06/03/16 15:08

## Lab Sample ID: 480-101101-6 Matrix: Water

Analyte	Result Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	100	82	ug/L			06/06/16 18:45	100
1,1,2,2-Tetrachloroethane	ND	100	21	ug/L			06/06/16 18:45	100
1,1,2-Trichloroethane	ND	100	23	ug/L			06/06/16 18:45	100
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	100	31	ug/L			06/06/16 18:45	100
1,1-Dichloroethane	ND	100	38	ug/L			06/06/16 18:45	100
1,1-Dichloroethene	ND	100	29	ug/L			06/06/16 18:45	100
1,2,4-Trichlorobenzene	ND	100	41	ug/L			06/06/16 18:45	100
1,2-Dibromo-3-Chloropropane	ND	100	39	ug/L			06/06/16 18:45	100
1,2-Dibromoethane	ND	100	73	ug/L			06/06/16 18:45	100
1,2-Dichlorobenzene	ND	100	79	ug/L			06/06/16 18:45	100
1,2-Dichloroethane	ND	100	21	ug/L			06/06/16 18:45	100
1,2-Dichloropropane	ND	100	72	ug/L			06/06/16 18:45	100
1,3-Dichlorobenzene	ND	100	78	ug/L			06/06/16 18:45	100
,4-Dichlorobenzene	ND	100	84	ug/L			06/06/16 18:45	100
2-Hexanone	ND	500	120	ug/L			06/06/16 18:45	100
2-Butanone (MEK)	ND	1000	130	ug/L			06/06/16 18:45	100
1-Methyl-2-pentanone (MIBK)	ND	500	210	ug/L			06/06/16 18:45	100
Acetone	ND	1000	300	ug/L			06/06/16 18:45	100
Senzene	1600	100		ug/L			06/06/16 18:45	100
Bromodichloromethane	ND	100		ug/L			06/06/16 18:45	100
Bromoform	ND	100		ug/L			06/06/16 18:45	100
Bromomethane	ND	100		ug/L			06/06/16 18:45	100
Carbon disulfide	ND	100		ug/L			06/06/16 18:45	100
Carbon tetrachloride	ND	100		ug/L			06/06/16 18:45	100
Chlorobenzene	ND	100		ug/L			06/06/16 18:45	100
Dibromochloromethane	ND	100		ug/L			06/06/16 18:45	100
Chloroethane	ND	100		ug/L			06/06/16 18:45	100
Chloroform	ND	100		ug/L			06/06/16 18:45	100
Chloromethane	ND	100		ug/L			06/06/16 18:45	100
sis-1,2-Dichloroethene	ND	100		-			06/06/16 18:45	100
				ug/L				
sis-1,3-Dichloropropene	ND	100		ug/L			06/06/16 18:45	100
Cyclohexane	430	100		ug/L			06/06/16 18:45	100
Dichlorodifluoromethane	ND	100		ug/L			06/06/16 18:45	100
Ethylbenzene	2200	100		ug/L			06/06/16 18:45	100
sopropylbenzene	ND	100		ug/L			06/06/16 18:45	100
Aethyl acetate	ND	250		ug/L			06/06/16 18:45	100
Aethyl tert-butyl ether	ND	100		ug/L			06/06/16 18:45	100
<b>lethylcyclohexane</b>	140	100		ug/L			06/06/16 18:45	100
Methylene Chloride	96 J	100	44	ug/L			06/06/16 18:45	100
Styrene	ND	100	73	ug/L			06/06/16 18:45	100
etrachloroethene	ND	100	36	ug/L			06/06/16 18:45	100
oluene	77 J	100	51	ug/L			06/06/16 18:45	100
rans-1,2-Dichloroethene	ND	100	90	ug/L			06/06/16 18:45	100
rans-1,3-Dichloropropene	ND	100	37	ug/L			06/06/16 18:45	100
richloroethene	ND	100	46	ug/L			06/06/16 18:45	100
richlorofluoromethane	ND	100	88	ug/L			06/06/16 18:45	100
/inyl chloride	ND	100	90	ug/L			06/06/16 18:45	100
Xylenes, Total	2800	200	66	ug/L			06/06/16 18:45	100

Limits

66 - 137

71 - 126

73 - 120

60 - 140

%Recovery Qualifier

96

98

109

99

Surrogate

Toluene-d8 (Surr)

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

## Client Sample ID: BCP-MW-5-060316 Date Collected: 06/03/16 12:00 Date Received: 06/03/16 15:08

Prepared

## Lab Sample ID: 480-101101-6 Matrix: Water

Analyzed

06/06/16 18:45

06/06/16 18:45

06/06/16 18:45

06/06/16 18:45

Dil Fac

100

100

100

100

Prep Type: Total/NA

## Method: 8260C - Volatile Organic Compounds by GC/MS

## Matrix: Water

				Percent Su	rrogate Reco
		12DCE	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(66-137)	(71-126)	(73-120)	(60-140)
480-101101-1	BCP-MW-1-060316	99	98	110	97
480-101101-2	BCP-MW-7-060316	98	97	110	102
480-101101-3	BCP-MW-6-060316	100	99	108	102
480-101101-4	BCP-MW-4-060316	97	99	114	96
480-101101-5	BCP-MW-3-060316	100	96	107	102
480-101101-6	BCP-MW-5-060316	96	98	109	99
480-101101-6 MS	BCP-MW-5-060316	95	96	110	99
480-101101-6 MSD	BCP-MW-5-060316	98	98	110	100
LCS 480-305188/5	Lab Control Sample	98	97	109	98
LCS 480-305753/5	Lab Control Sample	95	98	111	93
MB 480-305188/7	Method Blank	99	97	113	100
MB 480-305753/7	Method Blank	97	99	106	96

Surrogate Legend

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

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

# 2 3 4 5

Method: 8260C - Volatile Organic Compounds by GC/MS

## Lab Sample ID: MB 480-305188/7

Matrix: Water

Analysis Batch: 305188	МВ	МВ							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L		•	06/06/16 11:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/06/16 11:46	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/06/16 11:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/06/16 11:46	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/06/16 11:46	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/06/16 11:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/06/16 11:46	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/06/16 11:46	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/06/16 11:46	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/06/16 11:46	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/06/16 11:46	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/06/16 11:46	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/06/16 11:46	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/06/16 11:46	1
2-Hexanone	ND		5.0	1.2	ug/L			06/06/16 11:46	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/06/16 11:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			06/06/16 11:46	1
Acetone	ND		10	3.0	ug/L			06/06/16 11:46	1
Benzene	ND		1.0		ug/L			06/06/16 11:46	
Bromodichloromethane	ND		1.0	0.39	ug/L			06/06/16 11:46	1
Bromoform	ND		1.0		ug/L			06/06/16 11:46	1
Bromomethane	ND		1.0		ug/L			06/06/16 11:46	1
Carbon disulfide	ND		1.0	0.19	-			06/06/16 11:46	1
Carbon tetrachloride	ND		1.0		ug/L			06/06/16 11:46	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/06/16 11:46	
Dibromochloromethane	ND		1.0	0.32	-			06/06/16 11:46	1
Chloroethane	ND		1.0	0.32	ug/L			06/06/16 11:46	1
Chloroform	ND		1.0	0.34	ug/L			06/06/16 11:46	
Chloromethane	ND		1.0	0.35	ug/L			06/06/16 11:46	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/06/16 11:46	1
cis-1,3-Dichloropropene	ND		1.0	0.36				06/06/16 11:46	1
Cyclohexane	ND		1.0	0.18				06/06/16 11:46	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/06/16 11:46	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/06/16 11:46	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/06/16 11:46	1
Methyl acetate	ND		2.5	1.3	ug/L			06/06/16 11:46	1
Methyl tert-butyl ether	ND		1.0	0.16				06/06/16 11:46	1
Methylcyclohexane	ND		1.0	0.16				06/06/16 11:46	1
Methylene Chloride	ND		1.0		ug/L			06/06/16 11:46	1
Styrene	ND		1.0	0.73	ug/L			06/06/16 11:46	
Tetrachloroethene	ND		1.0	0.36	ug/L			06/06/16 11:46	1
Toluene	ND		1.0		ug/L			06/06/16 11:46	1
trans-1,2-Dichloroethene	ND		1.0	0.90				06/06/16 11:46	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/16 11:46	1
Trichloroethene	ND		1.0		ug/L			06/06/16 11:46	1
Trichlorofluoromethane	ND		1.0		ug/L			06/06/16 11:46	1
Vinyl chloride	ND		1.0		ug/L			06/06/16 11:46	1
Xylenes, Total	ND		2.0	0.66	-			06/06/16 11:46	1

## **QC Sample Results**

## Client: C&S Engineers, Inc.

Surrogate

Toluene-d8 (Surr)

Project/Site: Well Sampling - MOB

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

8

MB	МВ					
%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	5
 99		66 - 137		06/06/16 11:46	1	
97		71 - 126		06/06/16 11:46	1	4
113		73 - 120		06/06/16 11:46	1	
100		60 - 140		06/06/16 11:46	1	5

## Lab Sample ID: LCS 480-305188/5 Matrix: Water

## Analysis Batch: 305188

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr)

Analysis Batch: 305188	Spike	LCS	LCS				%Rec.	
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	
1,1,1-Trichloroethane	25.0	27.4		ug/L		110	73 - 126	
1,1,2,2-Tetrachloroethane	25.0	22.0		ug/L		88	70 - 126	
1,1,2-Trichloroethane	25.0	23.9		ug/L		96	76 - 122	
1,1,2-Trichloro-1,2,2-trifluoroetha	25.0	28.0		ug/L		112	52 - 148	
ne 1,1-Dichloroethane	25.0	24.9		ug/L		99	71 - 129	
1,1-Dichloroethene	25.0	25.8		ug/L		103	58 - 121	
1,2,4-Trichlorobenzene	25.0	21.4		ug/L		86	70 <sub>-</sub> 122	
1,2-Dibromo-3-Chloropropane	25.0	20.3		ug/L		81	56 - 134	
1,2-Dibromoethane	25.0	24.4		ug/L		97	77 - 120	
1,2-Dichlorobenzene	25.0	21.5		ug/L		86	80 - 124	
1,2-Dichloroethane	25.0	23.2		ug/L		93	75 - 127	
1,2-Dichloropropane	25.0	26.2		ug/L		105	76 _ 120	
1,3-Dichlorobenzene	25.0	21.2		ug/L		85	77 _ 120	
1,4-Dichlorobenzene	25.0	21.6		ug/L		86	75 - 120	
2-Hexanone	125	124		ug/L		99	65 - 127	
2-Butanone (MEK)	125	118		ug/L		94	57 - 140	
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		96	71 - 125	
Acetone	125	101		ug/L		81	56 - 142	
Benzene	25.0	25.0		ug/L		100	71 - 124	
Bromodichloromethane	25.0	24.9		ug/L		100	80 - 122	
Bromoform	25.0	27.2		ug/L		109	52 - 132	
Bromomethane	25.0	23.7		ug/L		95	55 _ 144	
Carbon disulfide	25.0	24.9		ug/L		100	59 <sub>-</sub> 134	
Carbon tetrachloride	25.0	27.9		ug/L		111	72 - 134	
Chlorobenzene	25.0	24.0		ug/L		96	72 _ 120	
Dibromochloromethane	25.0	24.6		ug/L		98	75 - 125	
Chloroethane	25.0	25.7		ug/L		103	69 - 136	
Chloroform	25.0	23.2		ug/L		93	73 _ 127	
Chloromethane	25.0	21.1		ug/L		84	68 - 124	
cis-1,2-Dichloroethene	25.0	22.8		ug/L		91	74 <sub>-</sub> 124	
cis-1,3-Dichloropropene	25.0	24.5		ug/L		98	74 - 124	
Cyclohexane	25.0	28.4		ug/L		113	59 _ 135	
Dichlorodifluoromethane	25.0	21.2		ug/L		85	59 - 135	
Ethylbenzene	25.0	22.7		ug/L		91	77 _ 123	
lsopropylbenzene	25.0	22.4		ug/L		90	77 _ 122	
Methyl acetate	125	128		ug/L		103	74 - 133	
Methyl tert-butyl ether	25.0	24.7		ug/L		99	64 - 127	
Methylcyclohexane	25.0	27.2		ug/L		109	61 - 138	
Methylene Chloride	25.0	25.4		ug/L		102	57 - 132	
Styrene	25.0	23.8		ug/L		95	70 - 130	
Tetrachloroethene	25.0	25.0		ug/L		100	74 - 122	
Toluene	25.0	23.4		ug/L		94	80 - 122	
trans-1,2-Dichloroethene	25.0	25.6		ug/L		103	73 - 127	

**Client Sample ID: Lab Control Sample** 

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

## Lab Sample ID: LCS 480-305188/5

Matrix: Water								Prep Typ	e: Total/NA
Analysis Batch: 305188									
		Spike	LCS	LCS				%Rec.	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
trans-1,3-Dichloropropene		25.0	23.6		ug/L		94	72 - 123	
Trichloroethene		25.0	25.7		ug/L		103	74 <sub>-</sub> 123	
Trichlorofluoromethane		25.0	28.7		ug/L		115	62 <sub>-</sub> 152	
Vinyl chloride		25.0	24.8		ug/L		99	65 - 133	
	LCS LCS								

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		66 - 137
Toluene-d8 (Surr)	97		71 - 126
4-Bromofluorobenzene (Surr)	109		73 - 120
Dibromofluoromethane (Surr)	98		60 - 140

## Lab Sample ID: 480-101101-6 MS Matrix: Water

### Analysis Batch: 305188

Analysis Datch. 303100	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	ND		2500	2940		ug/L		118	73 - 126
1,1,2,2-Tetrachloroethane	ND		2500	2230		ug/L		89	70 - 126
1,1,2-Trichloroethane	ND		2500	2580		ug/L		103	76 <sub>-</sub> 122
1,1,2-Trichloro-1,2,2-trifluoroetha	ND		2500	3080		ug/L		123	52 _ 148
ne									
1,1-Dichloroethane	ND		2500	2560		ug/L		102	71 - 129
1,1-Dichloroethene	ND		2500	2670		ug/L		107	58 - 121
1,2,4-Trichlorobenzene	ND		2500	2230		ug/L		89	70 - 122
1,2-Dibromo-3-Chloropropane	ND		2500	2040		ug/L		82	56 - 134
1,2-Dibromoethane	ND		2500	2410		ug/L		96	77 _ 120
1,2-Dichlorobenzene	ND		2500	2220		ug/L		89	80 - 124
1,2-Dichloroethane	ND		2500	2400		ug/L		96	75 - 127
1,2-Dichloropropane	ND		2500	2740		ug/L		109	76 - 120
1,3-Dichlorobenzene	ND		2500	2240		ug/L		90	77 - 120
1,4-Dichlorobenzene	ND		2500	2230		ug/L		89	75 - 120
2-Hexanone	ND		12500	12600		ug/L		101	65 _ 127
2-Butanone (MEK)	ND		12500	12700		ug/L		102	57 _ 140
4-Methyl-2-pentanone (MIBK)	ND		12500	12200		ug/L		98	71 - 125
Acetone	ND		12500	11400		ug/L		91	56 - 142
Benzene	1600		2500	4370		ug/L		112	71 <sub>-</sub> 124
Bromodichloromethane	ND		2500	2630		ug/L		105	80 - 122
Bromoform	ND		2500	2600		ug/L		104	52 - 132
Bromomethane	ND		2500	2530		ug/L		101	55 <sub>-</sub> 144
Carbon disulfide	ND		2500	2660		ug/L		106	59 - 134
Carbon tetrachloride	ND		2500	3050		ug/L		122	72 - 134
Chlorobenzene	ND		2500	2450		ug/L		98	72 - 120
Dibromochloromethane	ND		2500	2500		ug/L		100	75 - 125
Chloroethane	ND		2500	2770		ug/L		111	69 - 136
Chloroform	ND		2500	2490		ug/L		100	73 - 127
Chloromethane	ND		2500	2320		ug/L		93	68 - 124
cis-1,2-Dichloroethene	ND		2500	2510		ug/L		100	74 <sub>-</sub> 124
cis-1,3-Dichloropropene	ND		2500	2510		ug/L		100	74 <sub>-</sub> 124

## Client Sample ID: BCP-MW-5-060316

Prep Type: Total/NA

Client Sample ID: BCP-MW-5-060316

Prep Type: Total/NA

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

99

## Lab Sample ID: 480-101101-6 MS

## Matrix: Water

Analysis Batch: 305188										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Cyclohexane	430		2500	3520		ug/L		123	59 - 135	
Dichlorodifluoromethane	ND		2500	2220		ug/L		89	59 - 135	
Ethylbenzene	2200		2500	4700		ug/L		100	77 _ 123	
Isopropylbenzene	ND		2500	2410		ug/L		96	77 - 122	
Methyl acetate	ND		12500	13200		ug/L		105	74 - 133	
Methyl tert-butyl ether	ND		2500	2480		ug/L		99	64 - 127	
Methylcyclohexane	140		2500	2950		ug/L		112	61 - 138	
Methylene Chloride	96	J	2500	2700		ug/L		104	57 - 132	
Styrene	ND		2500	2440		ug/L		98	70 - 130	
Tetrachloroethene	ND		2500	2620		ug/L		105	74 - 122	
Toluene	77	J	2500	2560		ug/L		99	80 - 122	
trans-1,2-Dichloroethene	ND		2500	2740		ug/L		110	73 - 127	
trans-1,3-Dichloropropene	ND		2500	2350		ug/L		94	72 - 123	
Trichloroethene	ND		2500	2740		ug/L		110	74 - 123	
Trichlorofluoromethane	ND		2500	2910		ug/L		116	62 - 152	
Vinyl chloride	ND		2500	2610		ug/L		105	65 - 133	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
1,2-Dichloroethane-d4 (Surr)	95		66 - 137							
Toluene-d8 (Surr)	96		71 - 126							
4-Bromofluorobenzene (Surr)	110		73 - 120							

60 - 140

# Lab Sample ID: 480-101101-6 MSD Matrix: Water

## Analysis Batch: 305188

Dibromofluoromethane (Surr)

## Client Sample ID: BCP-MW-5-060316 Prep Type: Total/NA

·	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1-Trichloroethane	ND		2500	2800		ug/L		112	73 - 126	5	15
1,1,2,2-Tetrachloroethane	ND		2500	2230		ug/L		89	70 - 126	0	15
1,1,2-Trichloroethane	ND		2500	2540		ug/L		102	76 - 122	1	15
1,1,2-Trichloro-1,2,2-trifluoroetha	ND		2500	2710		ug/L		109	52 _ 148	13	20
ne											
1,1-Dichloroethane	ND		2500	2550		ug/L		102	71 <sub>-</sub> 129	1	20
1,1-Dichloroethene	ND		2500	2560		ug/L		102	58 - 121	4	16
1,2,4-Trichlorobenzene	ND		2500	2340		ug/L		94	70 - 122	5	20
1,2-Dibromo-3-Chloropropane	ND		2500	2150		ug/L		86	56 _ 134	5	15
1,2-Dibromoethane	ND		2500	2500		ug/L		100	77 - 120	3	15
1,2-Dichlorobenzene	ND		2500	2260		ug/L		90	80 - 124	2	20
1,2-Dichloroethane	ND		2500	2390		ug/L		96	75 - 127	1	20
1,2-Dichloropropane	ND		2500	2620		ug/L		105	76 - 120	5	20
1,3-Dichlorobenzene	ND		2500	2190		ug/L		88	77 _ 120	2	20
1,4-Dichlorobenzene	ND		2500	2260		ug/L		90	75 _ 120	1	20
2-Hexanone	ND		12500	13000		ug/L		104	65 _ 127	3	15
2-Butanone (MEK)	ND		12500	12800		ug/L		102	57 - 140	1	20
4-Methyl-2-pentanone (MIBK)	ND		12500	12400		ug/L		99	71 _ 125	1	35
Acetone	ND		12500	11900		ug/L		95	56 - 142	4	15
Benzene	1600		2500	4320		ug/L		110	71 <sub>-</sub> 124	1	13

TestAmerica Buffalo

Client Sample ID: BCP-MW-5-060316

Prep Type: Total/NA

# 5

8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

## Lab Sample ID: 480-101101-6 MSD

### Matrix: Water Analysis Batch: 305188

Analysis Batch. 505100												
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Bromodichloromethane	ND		2500	2540		ug/L		102	80 - 122	3	15	
Bromoform	ND		2500	2640		ug/L		106	52 - 132	1	15	
Bromomethane	ND		2500	2440		ug/L		97	55 _ 144	4	15	
Carbon disulfide	ND		2500	2520		ug/L		101	59 - 134	5	15	Ē
Carbon tetrachloride	ND		2500	2860		ug/L		114	72 - 134	7	15	
Chlorobenzene	ND		2500	2440		ug/L		98	72 - 120	1	25	
Dibromochloromethane	ND		2500	2580		ug/L		103	75 <sub>-</sub> 125	3	15	
Chloroethane	ND		2500	2700		ug/L		108	69 - 136	2	15	
Chloroform	ND		2500	2480		ug/L		99	73 - 127	0	20	
Chloromethane	ND		2500	2200		ug/L		88	68 - 124	5	15	
cis-1,2-Dichloroethene	ND		2500	2400		ug/L		96	74 _ 124	4	15	
cis-1,3-Dichloropropene	ND		2500	2550		ug/L		102	74 <sub>-</sub> 124	2	15	
Cyclohexane	430		2500	3270		ug/L		114	59 _ 135	7	20	
Dichlorodifluoromethane	ND		2500	2260		ug/L		90	59 - 135	2	20	
Ethylbenzene	2200		2500	4670		ug/L		99	77 _ 123	1	15	
Isopropylbenzene	ND		2500	2420		ug/L		97	77 - 122	1	20	
Methyl acetate	ND		12500	13500		ug/L		108	74 - 133	2	20	
Methyl tert-butyl ether	ND		2500	2480		ug/L		99	64 _ 127	0	37	
Methylcyclohexane	140		2500	2830		ug/L		107	61 - 138	4	20	
Methylene Chloride	96	J	2500	2600		ug/L		100	57 _ 132	4	15	
Styrene	ND		2500	2510		ug/L		100	70 - 130	3	20	
Tetrachloroethene	ND		2500	2500		ug/L		100	74 _ 122	4	20	
Toluene	77	J	2500	2540		ug/L		98	80 - 122	1	15	
trans-1,2-Dichloroethene	ND		2500	2630		ug/L		105	73 - 127	4	20	
trans-1,3-Dichloropropene	ND		2500	2370		ug/L		95	72 - 123	1	15	
Trichloroethene	ND		2500	2660		ug/L		106	74 - 123	3	16	
Trichlorofluoromethane	ND		2500	2810		ug/L		112	62 _ 152	4	20	
Vinyl chloride	ND		2500	2570		ug/L		103	65 _ 133	2	15	

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		66 - 137
Toluene-d8 (Surr)	98		71 - 126
4-Bromofluorobenzene (Surr)	110		73 - 120
Dibromofluoromethane (Surr)	100		60 - 140

## Lab Sample ID: MB 480-305753/7 Matrix: Water Analysis Batch: 305753

### MB MB Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 1,1,1-Trichloroethane ND 1.0 0.82 ug/L 06/08/16 21:19 ND 06/08/16 21:19 1,1,2,2-Tetrachloroethane 1.0 0.21 ug/L ND 0.23 ug/L 06/08/16 21:19 1,1,2-Trichloroethane 1.0 1,1,2-Trichloro-1,2,2-trifluoroethane ND 1.0 0.31 ug/L 06/08/16 21:19 1,1-Dichloroethane ND 1.0 0.38 ug/L 06/08/16 21:19 ND 0.29 ug/L 06/08/16 21:19 1,1-Dichloroethene 1.0 1,2,4-Trichlorobenzene ND 1.0 0.41 ug/L 06/08/16 21:19 1,2-Dibromo-3-Chloropropane ND 1.0 0.39 ug/L 06/08/16 21:19

TestAmerica Buffalo

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

1

1

1

1

1

1

1

Lab Sample ID: MB 480-305753/7

Matrix: Water

Analysis Batch: 305753

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

MB MB

**Client Sample ID: Method Blank** 

Prep Type: Total/NA

# 2 3 4 5

12 13 14

Result Qualifier RL MDL Unit Prepared Dil Fac Analyte D Analyzed 1,2-Dibromoethane ND 1.0 0.73 ug/L 06/08/16 21:19 1 1,2-Dichlorobenzene ND 1.0 0.79 ug/L 06/08/16 21:19 1 ND 1,2-Dichloroethane 1.0 0.21 ug/L 06/08/16 21:19 1 1,2-Dichloropropane ND 1.0 0.72 ug/L 06/08/16 21:19 1 ND 0.78 06/08/16 21:19 1.3-Dichlorobenzene 1.0 ug/L 1 1.4-Dichlorobenzene ND 1.0 0.84 ug/L 06/08/16 21:19 ND 2-Hexanone 5.0 1.2 ug/L 06/08/16 21:19 1 2-Butanone (MEK) ND 10 1.3 ug/L 06/08/16 21:19 1 4-Methyl-2-pentanone (MIBK) ND 50 2.1 ug/L 06/08/16 21:19 1 Acetone ND 10 3.0 ug/L 06/08/16 21:19 1 Benzene ND 1.0 ug/L 06/08/16 21:19 0.41 1 Bromodichloromethane ND 1.0 0.39 ug/L 06/08/16 21:19 1 Bromoform ND 1.0 0.26 ug/L 06/08/16 21:19 1 Bromomethane ND 1.0 0.69 ug/L 06/08/16 21:19 1 Carbon disulfide ND 1.0 0.19 ug/L 06/08/16 21:19 Carbon tetrachloride ND 1.0 0.27 ug/L 06/08/16 21:19 1 Chlorobenzene ND 1.0 0.75 ug/L 06/08/16 21:19 Dibromochloromethane ND 10 0.32 ug/L 06/08/16 21:19 1 Chloroethane ND 0.32 1.0 ug/L 06/08/16 21:19 1 Chloroform ND 1.0 0.34 ug/L 06/08/16 21:19 1 0.35 Chloromethane ND 1.0 ug/L 06/08/16 21:19 cis-1.2-Dichloroethene ND 1.0 0.81 ug/L 06/08/16 21:19 1 cis-1,3-Dichloropropene ND 1.0 0.36 ug/L 06/08/16 21:19 ND Cyclohexane 1.0 0.18 ug/L 06/08/16 21:19 1 Dichlorodifluoromethane ND 1.0 0.68 ug/L 06/08/16 21:19 Ethylbenzene ND 1.0 0.74 ug/L 06/08/16 21:19 1 Isopropylbenzene ND 1.0 0.79 ug/L 06/08/16 21:19 1 Methyl acetate ND 2.5 1.3 ug/L 06/08/16 21:19 Methyl tert-butyl ether ND 1.0 0.16 ug/L 06/08/16 21:19 1 Methylcyclohexane ND 1.0 0.16 ug/L 06/08/16 21:19 Methylene Chloride ND 1.0 0.44 ug/L 06/08/16 21:19 1 Styrene ND 1.0 0.73 ug/L 06/08/16 21:19 Tetrachloroethene ND 1.0 0.36 06/08/16 21:19 ug/L 1 ND 1.0 0.51 ug/L 06/08/16 21:19 Toluene trans-1,2-Dichloroethene ND 1.0 0.90 06/08/16 21:19 ug/L 1 trans-1,3-Dichloropropene ND 1.0 0.37 ug/L 06/08/16 21:19 1 Trichloroethene ND 1.0 0.46 ug/L 06/08/16 21:19 1 ND Trichlorofluoromethane 1.0 0.88 ug/L 06/08/16 21:19 1 Vinyl chloride ND 1.0 0.90 ug/L 06/08/16 21:19 1 ND Xylenes, Total 2.0 0.66 ug/L 06/08/16 21:19 1 MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 97 66 - 137 06/08/16 21:19 1 Toluene-d8 (Surr) 99 06/08/16 21.19 71 - 126 1

TestAmerica Buffalo

1

1

06/08/16 21:19

06/08/16 21:19

73 - 120

60 - 140

106

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

5

8

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

## Lab Sample ID: LCS 480-305753/5 Matrix: Water

Analysis Batch: 305753							
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	25.0	25.4		ug/L		102	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.8		ug/L		91	70 - 126
1,1,2-Trichloroethane	25.0	26.0		ug/L		104	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroetha	25.0	24.3		ug/L		97	52 <sub>-</sub> 148
ne							
1,1-Dichloroethane	25.0	23.3		ug/L		93	71 - 129
1,1-Dichloroethene	25.0	22.2		ug/L		89	58 - 121
1,2,4-Trichlorobenzene	25.0	24.9		ug/L		100	70 - 122
1,2-Dibromo-3-Chloropropane	25.0	20.7		ug/L		83	56 - 134
1,2-Dibromoethane	25.0	24.7		ug/L		99	77 - 120
1,2-Dichlorobenzene	25.0	23.1		ug/L		92	80 - 124
1,2-Dichloroethane	25.0	23.0		ug/L		92	75 - 127
1,2-Dichloropropane	25.0	24.5		ug/L		98	76 - 120
1,3-Dichlorobenzene	25.0	22.7		ug/L		91	77 _ 120
1,4-Dichlorobenzene	25.0	22.5		ug/L		90	75 - 120
2-Hexanone	125	141		ug/L		113	65 - 127
2-Butanone (MEK)	125	132		ug/L		106	57 - 140
4-Methyl-2-pentanone (MIBK)	125	126		ug/L		101	71 - 125
Acetone	125	142		ug/L		114	56 - 142
Benzene	25.0	23.6		ug/L		94	71 - 124
Bromodichloromethane	25.0	22.9		ug/L		92	80 - 122
Bromoform	25.0	27.0		ug/L		108	52 - 132
Bromomethane	25.0	22.2		ug/L		89	55 - 144
Carbon disulfide	25.0	21.7		ug/L		87	59 - 134
Carbon tetrachloride	25.0	24.9		ug/L		100	72 - 134
Chlorobenzene	25.0	24.6		ug/L		98	72 - 120
Dibromochloromethane	25.0	25.7		ug/L		103	75 - 125
Chloroethane	25.0	26.8		ug/L		107	69 - 136
Chloroform	25.0	23.0		ug/L		92	73 - 127
Chloromethane	25.0	23.8		ug/L		95	68 - 124
cis-1,2-Dichloroethene	25.0	22.0		ug/L		88	74 - 124
cis-1,3-Dichloropropene	25.0	23.3		ug/L		93	74 - 124
Cyclohexane	25.0	25.6		ug/L		102	59 - 135
Dichlorodifluoromethane	25.0	23.5		ug/L		94	59 - 135
Ethylbenzene	25.0	23.2		ug/L		93	77 - 123
Isopropylbenzene	25.0	23.4		ug/L		94	77 _ 122
Methyl acetate	125	127		ug/L		101	74 - 133
Methyl tert-butyl ether	25.0	23.1		ug/L		93	64 <sub>-</sub> 127
Methylcyclohexane	25.0	22.8		ug/L		91	61 - 138
Methylene Chloride	25.0	23.6		ug/L		94	57 - 132
Styrene	25.0	20.0		ug/L		100	70 - 130
Tetrachloroethene	25.0	24.8		ug/L		99	74 - 122
Toluene	25.0	24.0		ug/L		96	80 - 122
trans-1,2-Dichloroethene	25.0	24.8		ug/L		99	73 - 127
trans-1,3-Dichloropropene	25.0	24.0		ug/L		99 96	72 - 123
Trichloroethene	25.0	23.9		ug/L ug/L		90 96	72 - 123 74 - 123
Trichlorofluoromethane	25.0	24.0				105	62 - 152
	25.0 25.0	20.2		ug/L		105	65 <sub>-</sub> 133
Vinyl chloride	20.0	25.1		ug/L		100	00 - 100

Dibromofluoromethane (Surr)

5

**8** 9

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

93

### Lab Sample ID: LCS 480-305753/5 **Client Sample ID: Lab Control Sample** Matrix: Water Prep Type: Total/NA Analysis Batch: 305753 LCS LCS Limits Surrogate %Recovery Qualifier 1,2-Dichloroethane-d4 (Surr) 66 - 137 95 Toluene-d8 (Surr) 98 71 - 126 4-Bromofluorobenzene (Surr) 111 73 - 120

60 - 140

## GC/MS VOA

## Analysis Batch: 305188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-101101-1	BCP-MW-1-060316	Total/NA	Water	8260C	
480-101101-2	BCP-MW-7-060316	Total/NA	Water	8260C	
480-101101-4	BCP-MW-4-060316	Total/NA	Water	8260C	
480-101101-5	BCP-MW-3-060316	Total/NA	Water	8260C	
480-101101-6	BCP-MW-5-060316	Total/NA	Water	8260C	
480-101101-6 MS	BCP-MW-5-060316	Total/NA	Water	8260C	
480-101101-6 MSD	BCP-MW-5-060316	Total/NA	Water	8260C	
LCS 480-305188/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-305188/7	Method Blank	Total/NA	Water	8260C	
nalysis Batch: 3057	53				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
480-101101-3	BCP-MW-6-060316	Total/NA	Water	8260C	
LCS 480-305753/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-305753/7	Method Blank	Total/NA	Water	8260C	

lient Sampl	e ID: BCP-I	MW-1-060316					La	ah Sample	ID: 480-101101-1
Date Collected:									Matrix: Water
Date Received:									
_	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260C		1	305188	06/06/16 16:30	GVF	TAL BUF	
Client Sampl	e ID: BCP-I	MW-7-060316	j				Lá	ab Sample	ID: 480-101101-2
Date Collected: Date Received:									Matrix: Water
_	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260C		1	305188	06/06/16 16:57	GVF	TAL BUF	
Client Sampl	e ID: BCP-I	MW-6-060316					La	ab Sample	ID: 480-101101-3
Date Collected: Date Received:	: 06/03/16 09:3	30						-	Matrix: Water
_	Batch	Batch		Dilution	Batch	Prepared			
		2000				•			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Prep Type Total/NA	Type Analysis	8260C	Run	4	305753	or Analyzed	Analyst SWO	TAL BUF	
Total/NA	Analysis	8260C WW-4-060316					SWO	TAL BUF	ID: 480-101101-4 Matrix: Water
Total/NA Client Sampl Date Collected:	Analysis	8260C WW-4-060316					SWO	TAL BUF	
Total/NA Client Sampl Date Collected:	Analysis le ID: BCP-I : 06/03/16 10:0 06/03/16 15:0	8260C WW-4-060316 00 08		4	305753	06/09/16 01:21	SWO	TAL BUF	
Total/NA Client Sampl Date Collected: Date Received:	Analysis le ID: BCP-I : 06/03/16 10:0 06/03/16 15:0 Batch	8260C MW-4-060316 00 08 Batch	 	4	305753 Batch	06/09/16 01:21	swo La	TAL BUF	
Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl	Analysis le ID: BCP-I : 06/03/16 10:0 06/03/16 15:0 Batch Type Analysis le ID: BCP-I	8260C         WW-4-060316         00         08         Batch         Method         8260C	Run	4	305753 Batch Number	06/09/16 01:21 Prepared or Analyzed	SWO La Analyst GVF	TAL BUF ab Sample Lab TAL BUF	Matrix: Water
Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA	Analysis le ID: BCP-N : 06/03/16 10:0 06/03/16 15:0 Batch Type Analysis le ID: BCP-N : 06/03/16 11:0	Batch MW-3-060316 00 08 Batch 8260C MW-3-060316 00	Run	4	305753 Batch Number	06/09/16 01:21 Prepared or Analyzed	SWO La Analyst GVF	TAL BUF ab Sample Lab TAL BUF	Matrix: Water
Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl Date Collected:	Analysis le ID: BCP-N : 06/03/16 10:0 06/03/16 15:0 Batch Type Analysis le ID: BCP-N : 06/03/16 11:0	Batch MW-3-060316 00 08 Batch 8260C MW-3-060316 00	Run	4	305753 Batch Number	06/09/16 01:21 Prepared or Analyzed	SWO La Analyst GVF	TAL BUF ab Sample Lab TAL BUF	Matrix: Water
Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl Date Collected:	Analysis le ID: BCP-I : 06/03/16 10:0 06/03/16 15:0 Batch Type Analysis le ID: BCP-I : 06/03/16 11:0 06/03/16 15:0	8260C WW-4-060316 00 08 Batch Method 8260C WW-3-060316 00 08	Run	Dilution Factor 50	305753 Batch Number 305188	06/09/16 01:21 Prepared or Analyzed 06/06/16 17:51	SWO La Analyst GVF	TAL BUF ab Sample Lab TAL BUF	Matrix: Water
Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl Date Collected: Date Received:	Analysis le ID: BCP-N : 06/03/16 10:0 06/03/16 15:0 Batch Type Analysis le ID: BCP-N : 06/03/16 11:0 06/03/16 15:0 Batch	8260C WW-4-060316 00 08 Batch 8260C WW-3-060316 00 08 Batch	Run	Dilution Factor 50 Dilution	305753 Batch Number 305188 Batch	06/09/16 01:21 Prepared or Analyzed 06/06/16 17:51 Prepared	SWO La GVF	TAL BUF	Matrix: Water
Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA Total/NA	Analysis Analysis Analysis Ie ID: BCP-I : 06/03/16 10:0 06/03/16 15:0 Batch Type Analysis Ie ID: BCP-I : 06/03/16 11:0 06/03/16 15:0 Batch Type Analysis	8260C WW-4-060316 00 08 Batch Method 8260C WW-3-060316 00 08 Batch Method	Run	Dilution Factor 50 Dilution Factor	305753 Batch Number 305188 Batch Number	Prepared 06/09/16 01:21 Prepared 06/06/16 17:51 Prepared or Analyzed	SWO La Analyst GVF La GVF	TAL BUF  ab Sample  Lab TAL BUF  b Lab TAL BUF	Matrix: Water
Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA Total/NA	Analysis Analysis Ie ID: BCP-N : 06/03/16 10:0 06/03/16 15:0 Batch Type Analysis Ie ID: BCP-N : 06/03/16 12:0 Batch Type Analysis	8260C         WW-4-060316         00         08         Batch         Method         8260C         WW-3-060316         00         08         Batch         Method         8260C         WW-3-060316         00         8         Batch         Method         8260C         WW-5-060316         00	Run	Dilution Factor 50 Dilution Factor	305753 Batch Number 305188 Batch Number	Prepared 06/09/16 01:21 Prepared 06/06/16 17:51 Prepared or Analyzed	SWO La Analyst GVF La GVF	TAL BUF  ab Sample  Lab TAL BUF  b Lab TAL BUF	Matrix: Water
Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl Client Sampl Date Collected:	Analysis Analysis Analysis Analysis Analysis Batch Type Analysis Analysis Ie ID: BCP-N 06/03/16 11:0 06/03/16 15:0 Batch Type Analysis Ie ID: BCP-N Analysis Ie ID: BCP-N Analysis	8260C         WW-4-060316         00         08         Batch         Method         8260C         WW-3-060316         00         08         Batch         Method         8260C         WW-3-060316         00         8         Batch         Method         8260C         WW-5-060316         00	Run	Dilution Factor 50 Dilution Factor	305753 Batch Number 305188 Batch Number	06/09/16 01:21 Prepared or Analyzed 06/06/16 17:51 Prepared or Analyzed 06/06/16 18:18	SWO La Analyst GVF La GVF	TAL BUF  ab Sample  Lab TAL BUF  b Lab TAL BUF	Matrix: Water
Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl Date Collected: Date Received: Prep Type Total/NA Client Sampl Client Sampl Date Collected:	Analysis Analysis Ie ID: BCP-N : 06/03/16 10:0 06/03/16 15:0 Batch Type Analysis Ie ID: BCP-N : 06/03/16 12:0 Batch Type Analysis	8260C         WW-4-060316         00         08         Batch         Method         8260C         WW-3-060316         00         08         Batch         Method         8260C         WW-3-060316         00         8         Method         8260C         WW-5-060316         00         08	Run	4       Dilution       Factor       50       Dilution       Factor       50	305753 Batch Number 305188 Batch Number 305188	Prepared 06/09/16 01:21 Prepared 06/06/16 17:51 Prepared or Analyzed	SWO La Analyst GVF La GVF	TAL BUF  ab Sample  Lab TAL BUF  b Lab TAL BUF	Matrix: Water

### Laboratory References:

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

## Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-17

## Client: C&S Engineers, Inc. Project/Site: Well Sampling - MOB

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

### Protocol References:

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

### Laboratory References:

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

## Sample Summary

Client: C&S Engineers, Inc. Project/Site: Well Sampling - MOB

00-101101-4         BCP-MW-4-060316         Water         06/03/16 10:00         06/03/16 15:08           00-101101-5         BCP-MW-3-060316         Water         06/03/16 11:00         06/03/16 15:08           00-101101-6         BCP-MW-5-060316         Water         06/03/16 12:00         06/03/16 15:08	Client: C&S Engine Project/Site: Well S			TestAmerica Job ID:	480-101101-1
00-101101-1         BCP-MW-1-060316         Water         06/03/16 08:00         06/03/16 15:08           00-101101-2         BCP-MW-7-060316         Water         06/03/16 09:00         06/03/16 15:08           00-101101-3         BCP-MW-6-060316         Water         06/03/16 09:00         06/03/16 15:08           00-101101-4         BCP-MW-4-060316         Water         06/03/16 10:00         06/03/16 15:08           00-101101-5         BCP-MW-3-060316         Water         06/03/16 11:00         06/03/16 15:08           00-101101-5         BCP-MW-3-060316         Water         06/03/16 11:00         06/03/16 15:08           00-101101-6         BCP-MW-5-060316         Water         06/03/16 11:00         06/03/16 15:08           00-101101-6         BCP-MW-5-060316         Water         06/03/16 12:00         06/03/16 15:08		Oliant Damala ID	•••••••	Quilla stad	
0.101101-2         BCP-MW-7-060316         Water         06/03/16 09:00         06/03/16 15:08           00-101101-3         BCP-MW-6-060316         Water         06/03/16 10:00         06/03/16 15:08           00-101101-4         BCP-MW-4-060316         Water         06/03/16 11:00         06/03/16 15:08           00-101101-5         BCP-MW-3-060316         Water         06/03/16 11:00         06/03/16 15:08           00-101101-6         BCP-MW-5-060316         Water         06/03/16 12:00         06/03/16 15:08	-				
00-101101-3         BCP-MW-6-060316         Water         06/03/16 09:30         06/03/16 15:08           00-101101-4         BCP-MW-4-060316         Water         06/03/16 10:00         06/03/16 15:08           00-101101-5         BCP-MW-3-060316         Water         06/03/16 11:00         06/03/16 15:08           00-101101-6         BCP-MW-5-060316         Water         06/03/16 12:00         06/03/16 15:08					
00-101101-4         BCP-MW-4-060316         Water         06/03/16 10:00         06/03/16 15:08           00-101101-5         BCP-MW-3-060316         Water         06/03/16 11:00         06/03/16 15:08           00-101101-6         BCP-MW-5-060316         Water         06/03/16 12:00         06/03/16 15:08	480-101101-3				_
00-101101-5         BCP-MW-3-060316         Water         06/03/16 15:08           00-101101-6         BCP-MW-5-060316         Water         06/03/16 12:00         06/03/16 15:08	480-101101-4				
	480-101101-5				
	480-101101-6	BCP-MW-5-060316	Water	06/03/16 12:00	06/03/16 15:08
					•

480-101 101 Chain of Custody		$\left( \frac{c}{c} \right) \frac{3}{b} \left( \frac{c}{c} \right) \frac{1}{b} $	Lab Number Page of C	Analysis (Attach list if more space is needed)	Snarial Instructions/	Conditions of Receipt											(A fee may be assessed if samples are retained — Months longer than 1 month)		1 bar 1/16 Trime of	Date	Date Time		4.9°
TestAr	Dinking Water / PSL WOR THE LEADER IN ENV.	river manage and Martin	e Wumber (Arefa Code) Faix Number 16 - 955-302/	act Lab Contact	Carrier/Waybill Number	Matrix Containers & Containers &	HOBN POYUZ HOEN IDH, EONH FOSZH SoldUN IIOS Snoenby IIV		9:00 1	9:30		Qo : J)	12:00			Samuel Discoveal	ient 🚽	□ Other	6/3/16 15:39 1. Received B)	Date Time 2. Received By	Date Time 3. Received By		h the Sample; PINK - Field Copy
Chain of Custody Record	TAL-4124 (1007)	CSS ENTRES, Inc.	Address / E/M Street	Chr. And State Zp Code		ContractPurphase Order/Quote No.	Sample I.D. No. and Description- (Containers for each sample may be combined on one line) Date	BCP-MW-1-060316 6/3/16		BCP-MW-10-060316	BCP MW- 4-010216	-3-060316		-		Precipto Harard Montification	mable 🗌 Skin Irritant 🔲 Poison B	Tum Around Time Required	1. Formavished By Au APPT	2. Relinquished By	3. Relinquished By	Comments	DISTRIBUTION: WHITE - Returned to Client with Report, CANARY - Stays with the Sample; PINK - Field Copy

Page 28 of 29

6/10/2016

J

5

## Client: C&S Engineers, Inc.

## Login Number: 101101 List Number: 1

Creator: Conway, Curtis R

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

Job Number: 480-101101-1

List Source: TestAmerica Buffalo



Project Reference:         Coventus           Sample Identifier:         BCP-MW-7-102516 Lab Sample ID:         164747-01 Date Sampled:         10/25/2016 Date Received:         10/28/2016           Matrix:         Groundwater         Date Received:         10/28/2016           Valuifier:         Groundwater         Date Received:         10/28/2016           Valuifier:         Date Analyze         11/1/2016         21:59           1,1,2:Trichloroethane         <2.00         ug/L         11/1/2016         21:59           1,1-Dichloroethane         <2.00         ug/L         11/1/2016         21:59           1,1-Dichloroethane         <2.00         ug/L         11/1/2016         21:59           1,2-Trichloroethane         <2.00         ug/L         11/1/2016         21:59           1,2-Trichloroethane         <2.00         ug/L         11/1/2016         21:59           1,2-Dichloroethane         <2.00         ug/L         11/1/2016         21:59 <th>Client:</th> <th><u>C&amp;S Companie</u></th> <th><u>es</u></th> <th></th> <th></th> <th></th>	Client:	<u>C&amp;S Companie</u>	<u>es</u>			
Lab Sample ID:         164747-01         Date Sample:         10/25/2016           Matrix:         Groundwater         Date Received:         10/28/2016           Valuatile Organics         Qualifier         Date Analyze           Analyte         Result         Units         Qualifier         Date Analyze           1,1,1-Trichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,1-Dichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,1-Dichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,1-Dichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,2-Trichlorophane         < 2.00         ug/L         11/1/2016         21:59           1,2-Trichlorophane         < 2.00         ug/L         11/1/2016         21:59           1,2-Dibromo-3-Chloropropane         < 10.0         ug/L         11/1/2016         21:59           1,2-Dichloropenzene         < 2.00         ug/L         11/1/2016         21:59           1,2-Dichloropenzene         < 2.00         ug/L         11/1/2016         21:59           1,2-Dichloropenzene         < 2.00         ug/L         11/1/2016         21:59	Project Reference:	Coventus				
Matrix:         Groundwater         Date Received:         10/28/2016           Volatile Organics           Analyte         Result         Units         Qualifier         Date Analyzed           1,1,1-Trichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,1,2-Trichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,1-Dichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,1-Dichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,2-Trichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,2-Jirchlorobenzene         < 5.00         ug/L         11/1/2016         21:59           1,2-Dibromo-3-Chloropropane         < 1.00         ug/L         11/1/2016         21:59           1,2-Dibromoethane         < 2.00         ug/L         11/1/2016         21:59           1,2-Dibromoethane         < 2.00         ug/L         11/1/2016         21:59           1,2-Dichloropropane         < 2.00         ug/L         11/1/2016         21:59           1,2-Dichloropropane         < 2.00         ug/L         11/1/2016         21:59           1,4-Dich	Sample Identifier:	BCP-MW-7-10	)2516			
Volatile Organics           Analyte         Result         Units         Qualifier         Date Analyzed           1,1,1-Trichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,1,2,2-Tetrachloroethane         < 2.00         ug/L         11/1/2016         21:59           1,1-Dichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,1-Dichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,2-Trichloroethane         < 2.00         ug/L         11/1/2016         21:59           1,2-Trichlorobenzene         < 5.00         ug/L         11/1/2016         21:59           1,2-Dibromo-3-Chloropropane         < 10.0         ug/L         11/1/2016         21:59           1,2-Dibromoethane         < 2.00         ug/L         11/1/2016         21:59           1,2-Dibromoethane         < 2.00         ug/L         11/1/2016         21:59           1,2-Dichlorobenzene         < 2.00         ug/L         11/1/2016         21:59           1,2-Dichlorobenzene         < 2.00         ug/L         11/1/2016         21:59           1,2-Dichlorobenzene         < 2.00         ug/L         11/1/2016         21:59 <t< th=""><th>Lab Sample ID:</th><th>164747-01</th><th></th><th></th><th>Date Sampled:</th><th>10/25/2016</th></t<>	Lab Sample ID:	164747-01			Date Sampled:	10/25/2016
Analyc         Result         Units         Qualifier         Date Analyzet           1,1,1-Trichloroethane         < 2.00         ug/L         11/1/2016         21.59           1,1,2-Trichloroethane         < 2.00         ug/L         11/1/2016         21.59           1,1-Dichloroethane         < 2.00         ug/L         11/1/2016         21.59           1,1-Dichloroethane         < 2.00         ug/L         11/1/2016         21.59           1,2-Trichlorobenzene         < 5.00         ug/L         11/1/2016         21.59           1,2,3-Trichlorobenzene         < 5.00         ug/L         11/1/2016         21.59           1,2-Dibromo-3-Chloropropane         < 10.0         ug/L         11/1/2016         21.59           1,2-Dichlorobenzene         < 2.00         ug/L         11/1/2016         21.59           1,2-Dichlorobenzene         < 2.00         ug/L         11/1/2016         21.59           1,2-Dichlorobenzene         < 2.00         ug/L         11/1/2016         21.59           1,3-Dichlorobenzene         < 2.00         ug/L         11/1/2016         21.59           1,4-Dichlorobenzene         < 2.00         ug/L         11/1/2016         21.59           1,4-dioxane         < 2.00 </th <th>Matrix:</th> <th>Groundwater</th> <th></th> <th></th> <th>Date Received:</th> <th>10/28/2016</th>	Matrix:	Groundwater			Date Received:	10/28/2016
1,1.1-Trichloroethane       < 2.00	Volatile Organics					
1,1,2,2-Tetrachloroethane       < 2.00	<u>Analyte</u>		<u>Result</u>	<u>Units</u>	Qualifier	Date Analyzed
1,1,2-Trichloroethane       < 2.00	1,1,1-Trichloroethane		< 2.00	ug/L		11/1/2016 21:59
1.1-Dichloroethane       < 2.00	1,1,2,2-Tetrachloroeth	nane	< 2.00	ug/L		11/1/2016 21:59
1,1-Dichloroethene       < 2.00	1,1,2-Trichloroethane		< 2.00	ug/L		11/1/2016 21:59
1,2,3-Trichlorobenzene       < 5.00	1,1-Dichloroethane		< 2.00	ug/L		11/1/2016 21:59
1,2,4-Trichlorobenzene       < 5.00	1,1-Dichloroethene		< 2.00	ug/L		11/1/2016 21:59
1.2-Dibromo-3-Chloropropane       < 10.0	1,2,3-Trichlorobenzen	ie	< 5.00	ug/L		11/1/2016 21:59
1.2-Dibromoethane< 2.00ug/L11/1/201621:591.2-Dichlorobenzene< 2.00	1,2,4-Trichlorobenzen	ie	< 5.00	ug/L		11/1/2016 21:59
1,2-Dichlorobenzene       < 2.00	1,2-Dibromo-3-Chloro	propane	< 10.0	ug/L		11/1/2016 21:59
1,2-Dichloroethane       < 2.00	1,2-Dibromoethane		< 2.00	ug/L		11/1/2016 21:59
1,2-Dichloropropane< 2.00ug/L11/1/201621:591,3-Dichlorobenzene< 2.00	1,2-Dichlorobenzene		< 2.00	ug/L		11/1/2016 21:59
1,3-Dichlorobenzene< 2.00ug/L11/1/201621:591,4-Dichlorobenzene< 2.00	1,2-Dichloroethane		< 2.00	ug/L		11/1/2016 21:59
1,4-Dichlorobenzene< 2.00ug/L11/1/201621:591,4-dioxane< 20.0	1,2-Dichloropropane		< 2.00	ug/L		11/1/2016 21:59
1,4-dioxane< 20.0ug/L11/1/201621:592-Butanone< 10.0	1,3-Dichlorobenzene		< 2.00	ug/L		11/1/2016 21:59
2-Butanone       <10.0	1,4-Dichlorobenzene		< 2.00	ug/L		11/1/2016 21:59
2-Hexanone< 5.00	1,4-dioxane		< 20.0	ug/L		11/1/2016 21:59
4-Methyl-2-pentanone< 5.00	2-Butanone		< 10.0	ug/L		11/1/2016 21:59
Acetone< 10.0ug/L11/1/201621:59Benzene< 1.00	2-Hexanone		< 5.00	ug/L		11/1/2016 21:59
Benzene       < 1.00	4-Methyl-2-pentanone	5	< 5.00	ug/L		11/1/2016 21:59
Bromochloromethane       < 5.00	Acetone		< 10.0	ug/L		11/1/2016 21:59
Bromodichloromethane       < 2.00	Benzene		< 1.00	ug/L		11/1/2016 21:59
Bromoform       < 5.00	Bromochloromethane		< 5.00	ug/L		11/1/2016 21:59
Bromomethane       < 2.00	Bromodichloromethar	ne	< 2.00	ug/L		11/1/2016 21:59
Carbon disulfide       < 2.00	Bromoform		< 5.00	ug/L		11/1/2016 21:59
Carbon Tetrachloride < 2.00 ug/L 11/1/2016 21:59	Bromomethane		< 2.00	ug/L		11/1/2016 21:59
	Carbon disulfide		< 2.00	ug/L		11/1/2016 21:59
Chlorobenzene < 2.00 ug/L 11/1/2016 21:59	Carbon Tetrachloride		< 2.00	ug/L		11/1/2016 21:59
	Chlorobenzene		< 2.00	ug/L		11/1/2016 21:59



Client:	<u>C&amp;S Companies</u>				
Project Reference:	Coventus				
Sample Identifier:	BCP-MW-7-1025	16			
Lab Sample ID:	164747-01			Date Sampled:	10/25/2016
Matrix:	Groundwater			Date Received:	10/28/2016
Chloroethane	<	: 2.00	ug/L		11/1/2016 21:59
Chloroform	<	2.00	ug/L		11/1/2016 21:59
Chloromethane	<	2.00	ug/L		11/1/2016 21:59
cis-1,2-Dichloroethene		2.00	ug/L		11/1/2016 21:59
cis-1,3-Dichloroproper	ne <	2.00	ug/L		11/1/2016 21:59
Cyclohexane	<	: 10.0	ug/L		11/1/2016 21:59
Dibromochloromethar	ie <	2.00	ug/L		11/1/2016 21:59
Dichlorodifluorometha	ane <	2.00	ug/L		11/1/2016 21:59
Ethylbenzene	<	2.00	ug/L		11/1/2016 21:59
Freon 113	<	2.00	ug/L		11/1/2016 21:59
Isopropylbenzene	<	: 2.00	ug/L		11/1/2016 21:59
m,p-Xylene	<	: 2.00	ug/L		11/1/2016 21:59
Methyl acetate	<	: 2.00	ug/L		11/1/2016 21:59
Methyl tert-butyl Ethe	r <	: 2.00	ug/L		11/1/2016 21:59
Methylcyclohexane	<	: 2.00	ug/L		11/1/2016 21:59
Methylene chloride	<	: 5.00	ug/L		11/1/2016 21:59
o-Xylene	<	: 2.00	ug/L		11/1/2016 21:59
Styrene	<	\$5.00	ug/L		11/1/2016 21:59
Tetrachloroethene	<	: 2.00	ug/L		11/1/2016 21:59
Toluene	<	\$ 2.00	ug/L		11/1/2016 21:59
trans-1,2-Dichloroethe	ene <	: 2.00	ug/L		11/1/2016 21:59
trans-1,3-Dichloroprop	pene <	\$ 2.00	ug/L		11/1/2016 21:59
Trichloroethene	<	\$ 2.00	ug/L		11/1/2016 21:59
Trichlorofluoromethar	ne <	\$ 2.00	ug/L		11/1/2016 21:59
Vinyl chloride	<	: 2.00	ug/L		11/1/2016 21:59



Client:	<u>C&amp;S Companies</u>					
Project Reference:	Coventus					
Sample Identifier:	BCP-MW-7-1025	16				
Lab Sample ID:	164747-01		Date	e Sampled:	10/25/201	6
Matrix:	Groundwater		Date	e Received:	10/28/201	6
<u>Surrogate</u>		Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	zed
1,2-Dichloroethane-d4		95.7	85.8 - 116		11/1/2016	21:59
4-Bromofluorobenzene	e	93.7	80.6 - 114		11/1/2016	21:59
Pentafluorobenzene		98.5	89.6 - 112		11/1/2016	21:59
Toluene-D8		94.9	89.6 - 109		11/1/2016	21:59
Method Reference	ce(s): EPA 8260C					
Data File:	EPA 5030C x36587.D					



Client:	<u>C&amp;S Compani</u>	es			
Project Reference:	Coventus				
Sample Identifier:	BCP-MW-1-1	02516			
Lab Sample ID:	164747-02			Date Sampled:	10/25/2016
Matrix:	Groundwater	•		Date Received:	10/28/2016
Volatile Organics					
<u>Analyte</u>		<u>Result</u>	<u>Units</u>	Qualifier	Date Analyzed
1,1,1-Trichloroethan	e	< 2.00	ug/L		11/1/2016 22:23
1,1,2,2-Tetrachloroe	thane	< 2.00	ug/L		11/1/2016 22:23
1,1,2-Trichloroethan	e	< 2.00	ug/L		11/1/2016 22:23
1,1-Dichloroethane		< 2.00	ug/L		11/1/2016 22:23
1,1-Dichloroethene		< 2.00	ug/L		11/1/2016 22:23
1,2,3-Trichlorobenze	ene	< 5.00	ug/L		11/1/2016 22:23
1,2,4-Trichlorobenze	ene	< 5.00	ug/L		11/1/2016 22:23
1,2-Dibromo-3-Chlor	ropropane	< 10.0	ug/L		11/1/2016 22:23
1,2-Dibromoethane		< 2.00	ug/L		11/1/2016 22:23
1,2-Dichlorobenzene	2	< 2.00	ug/L		11/1/2016 22:23
1,2-Dichloroethane		< 2.00	ug/L		11/1/2016 22:23
1,2-Dichloropropane	2	< 2.00	ug/L		11/1/2016 22:23
1,3-Dichlorobenzene		< 2.00	ug/L		11/1/2016 22:23
1,4-Dichlorobenzene		< 2.00	ug/L		11/1/2016 22:23
1,4-dioxane		< 20.0	ug/L		11/1/2016 22:23
2-Butanone		< 10.0	ug/L		11/1/2016 22:23
2-Hexanone		< 5.00	ug/L		11/1/2016 22:23
4-Methyl-2-pentanor	ne	< 5.00	ug/L		11/1/2016 22:23
Acetone		< 10.0	ug/L		11/1/2016 22:23
Benzene		< 1.00	ug/L		11/1/2016 22:23
Bromochloromethan	e	< 5.00	ug/L		11/1/2016 22:23
Bromodichlorometha	ane	< 2.00	ug/L		11/1/2016 22:23
Bromoform		< 5.00	ug/L		11/1/2016 22:23
Bromomethane		< 2.00	ug/L		11/1/2016 22:23
Carbon disulfide		< 2.00	ug/L		11/1/2016 22:23
Carbon Tetrachloride	e	< 2.00	ug/L		11/1/2016 22:23
Chlorobenzene		< 2.00	ug/L		11/1/2016 22:23



Client:	<u>C&amp;S Companies</u>				
Project Reference:	Coventus				
Sample Identifier:	BCP-MW-1-102	516			
Lab Sample ID:	164747-02			Date Sampled:	10/25/2016
Matrix:	Groundwater			Date Received:	10/28/2016
Chloroethane		< 2.00	ug/L		11/1/2016 22:23
Chloroform		< 2.00	ug/L		11/1/2016 22:23
Chloromethane		< 2.00	ug/L		11/1/2016 22:23
cis-1,2-Dichloroethene	9	< 2.00	ug/L		11/1/2016 22:23
cis-1,3-Dichloroprope	ne	< 2.00	ug/L		11/1/2016 22:23
Cyclohexane		< 10.0	ug/L		11/1/2016 22:23
Dibromochlorometha	ne	< 2.00	ug/L		11/1/2016 22:23
Dichlorodifluorometh	ane	< 2.00	ug/L		11/1/2016 22:23
Ethylbenzene		< 2.00	ug/L		11/1/2016 22:23
Freon 113		< 2.00	ug/L		11/1/2016 22:23
Isopropylbenzene		< 2.00	ug/L		11/1/2016 22:23
m,p-Xylene		< 2.00	ug/L		11/1/2016 22:23
Methyl acetate		< 2.00	ug/L		11/1/2016 22:23
Methyl tert-butyl Ethe	r	< 2.00	ug/L		11/1/2016 22:23
Methylcyclohexane		< 2.00	ug/L		11/1/2016 22:23
Methylene chloride		< 5.00	ug/L		11/1/2016 22:23
o-Xylene		< 2.00	ug/L		11/1/2016 22:23
Styrene		< 5.00	ug/L		11/1/2016 22:23
Tetrachloroethene		< 2.00	ug/L		11/1/2016 22:23
Toluene		< 2.00	ug/L		11/1/2016 22:23
trans-1,2-Dichloroeth	ene	< 2.00	ug/L		11/1/2016 22:23
trans-1,3-Dichloropro	pene	< 2.00	ug/L		11/1/2016 22:23
Trichloroethene		< 2.00	ug/L		11/1/2016 22:23
Trichlorofluorometha	ne	< 2.00	ug/L		11/1/2016 22:23
Vinyl chloride		< 2.00	ug/L		11/1/2016 22:23



Client:	<u>C&amp;S Companies</u>					
Project Reference:	Coventus					
Sample Identifier:	BCP-MW-1-1025	16				
Lab Sample ID:	164747-02		Date	e Sampled:	10/25/201	6
Matrix:	Groundwater		Date	e Received:	10/28/201	6
<u>Surrogate</u>		Percent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4		95.1	85.8 - 116		11/1/2016	22:23
4-Bromofluorobenzene	e	95.6	80.6 - 114		11/1/2016	22:23
Pentafluorobenzene		101	89.6 - 112		11/1/2016	22:23
Toluene-D8		102	89.6 - 109		11/1/2016	22:23
Method Reference	ce(s): EPA 8260C					
Data File:	EPA 5030C x36588.D					



Client:	<u>C&amp;S Companie</u>	<u>S</u>			
Project Reference:	Coventus				
Sample Identifier:	BCP-MW-6-10	2516			
Lab Sample ID:	164747-03			Date Sampled:	10/25/2016
Matrix:	Groundwater			Date Received:	10/28/2016
Volatile Organics					
<u>Analyte</u>		<u>Result</u>	<u>Units</u>	Qualifier	<b>Date Analyzed</b>
1,1,1-Trichloroethane	e	< 20.0	ug/L		11/1/2016 22:46
1,1,2,2-Tetrachloroet	hane	< 20.0	ug/L		11/1/2016 22:46
1,1,2-Trichloroethane	e	< 20.0	ug/L		11/1/2016 22:46
1,1-Dichloroethane		< 20.0	ug/L		11/1/2016 22:46
1,1-Dichloroethene		< 20.0	ug/L		11/1/2016 22:46
1,2,3-Trichlorobenze	ne	< 50.0	ug/L		11/1/2016 22:46
1,2,4-Trichlorobenze	ne	< 50.0	ug/L		11/1/2016 22:46
1,2-Dibromo-3-Chlor	opropane	< 100	ug/L		11/1/2016 22:46
1,2-Dibromoethane		< 20.0	ug/L		11/1/2016 22:46
1,2-Dichlorobenzene		< 20.0	ug/L		11/1/2016 22:46
1,2-Dichloroethane		< 20.0	ug/L		11/1/2016 22:46
1,2-Dichloropropane		< 20.0	ug/L		11/1/2016 22:46
1,3-Dichlorobenzene		< 20.0	ug/L		11/1/2016 22:46
1,4-Dichlorobenzene		< 20.0	ug/L		11/1/2016 22:46
1,4-dioxane		< 200	ug/L		11/1/2016 22:46
2-Butanone		< 100	ug/L		11/1/2016 22:46
2-Hexanone		< 50.0	ug/L		11/1/2016 22:46
4-Methyl-2-pentanon	ie	< 50.0	ug/L		11/1/2016 22:46
Acetone		< 100	ug/L		11/1/2016 22:46
Benzene		302	ug/L		11/1/2016 22:46
Bromochloromethan	e	< 50.0	ug/L		11/1/2016 22:46
Bromodichlorometha	ine	< 20.0	ug/L		11/1/2016 22:46
Bromoform		< 50.0	ug/L		11/1/2016 22:46
Bromomethane		< 20.0	ug/L		11/1/2016 22:46
Carbon disulfide		< 20.0	ug/L		11/1/2016 22:46
Carbon Tetrachloride	2	< 20.0	ug/L		11/1/2016 22:46
Chlorobenzene		< 20.0	ug/L		11/1/2016 22:46



Client:	<u>C&amp;S Companie</u>	<u>s</u>			
Project Reference:	Coventus				
Sample Identifier:	BCP-MW-6-10	2516			
Lab Sample ID:	164747-03			Date Sampled:	10/25/2016
Matrix:	Groundwater			Date Received:	10/28/2016
Chloroethane		< 20.0	ug/L		11/1/2016 22:46
Chloroform		< 20.0	ug/L		11/1/2016 22:46
Chloromethane		< 20.0	ug/L		11/1/2016 22:46
cis-1,2-Dichloroethene	9	< 20.0	ug/L		11/1/2016 22:46
cis-1,3-Dichloroprope	ne	< 20.0	ug/L		11/1/2016 22:46
Cyclohexane		81.5	ug/L	J	11/1/2016 22:46
Dibromochlorometha	ne	< 20.0	ug/L		11/1/2016 22:46
Dichlorodifluorometha	ane	< 20.0	ug/L		11/1/2016 22:46
Ethylbenzene		163	ug/L		11/1/2016 22:46
Freon 113		< 20.0	ug/L		11/1/2016 22:46
Isopropylbenzene		< 20.0	ug/L		11/1/2016 22:46
m,p-Xylene		294	ug/L		11/1/2016 22:46
Methyl acetate		< 20.0	ug/L		11/1/2016 22:46
Methyl tert-butyl Ethe	r	< 20.0	ug/L		11/1/2016 22:46
Methylcyclohexane		32.2	ug/L		11/1/2016 22:46
Methylene chloride		< 50.0	ug/L		11/1/2016 22:46
o-Xylene		98.6	ug/L		11/1/2016 22:46
Styrene		< 50.0	ug/L		11/1/2016 22:46
Tetrachloroethene		< 20.0	ug/L		11/1/2016 22:46
Toluene		130	ug/L		11/1/2016 22:46
trans-1,2-Dichloroethe	ene	< 20.0	ug/L		11/1/2016 22:46
trans-1,3-Dichloropro	pene	< 20.0	ug/L		11/1/2016 22:46
Trichloroethene		< 20.0	ug/L		11/1/2016 22:46
Trichlorofluorometha	ne	< 20.0	ug/L		11/1/2016 22:46
Vinyl chloride		< 20.0	ug/L		11/1/2016 22:46



Client:	<u>C&amp;S Companies</u>					
Project Reference:	Coventus					
Sample Identifier:	BCP-MW-6-1025	16				
Lab Sample ID:	164747-03		Dat	e Sampled:	10/25/201	6
Matrix:	Groundwater		Dat	e Received:	10/28/201	6
<u>Surrogate</u>		Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	zed
1,2-Dichloroethane-d4		94.1	85.8 - 116		11/1/2016	22:46
4-Bromofluorobenzene	e	95.1	80.6 - 114		11/1/2016	22:46
Pentafluorobenzene		100	89.6 - 112		11/1/2016	22:46
Toluene-D8		98.8	89.6 - 109		11/1/2016	22:46
Method Reference	ce(s): EPA 8260C EPA 5030C					
Data File:	x36589.D					



1.1.1-Trichloroethane       < 20.0       ug/L       11/2/2016         1.1,2,2-Tetrachloroethane       < 20.0       ug/L       11/2/2016         1.1,2-Trichloroethane       < 20.0       ug/L       11/2/2016         1.1-Dichloroethane       < 20.0       ug/L       11/2/2016         1.1-Dichloroethane       < 20.0       ug/L       11/2/2016         1.1-Dichloroethane       < 20.0       ug/L       11/2/2016         1.2,3-Trichlorobenzene       < 50.0       ug/L       11/2/2016         1.2,4-Trichlorobenzene       < 50.0       ug/L       11/2/2016         1.2-Dibromo-3-Chloropropane       < 100       ug/L       11/2/2016         1.2-Dibromethane       < 20.0       ug/L       11/2/2016         1.2-Dibromoethane       < 20.0       ug/L       11/2/2016         1.2-Dichlorobenzene       < 20.0       ug/L       11/2/2016         1.2-Dichloropropane       < 20.0       ug/L       11/2/2016         1.3-Dichlorobenzene       < 20.0       ug/L       11/2/2016         1.4-dioxane       < 20.0       ug/L       11/2/2016         1.4-dioxane       < 20.0       ug/L       11/2/2016         2-Butanone       < 10.0       ug/L       11/2/2016 <th><u>mpa</u></th> <th>Client:</th> <th><u>panies</u></th> <th></th> <th></th> <th></th>	<u>mpa</u>	Client:	<u>panies</u>			
Lab Sample ID:         164747-04         Date Sampled:         10/25/2016           Matrix:         Groundwater         Date Received:         10/28/2016           Volatile Organics         State Received:         10/28/2016           Malyre         Result         Units         Qualifier         Date Analyze           1,1,1-Trichloroethane         < 20.0         ug/L         11/2/2016           1,1,2-Trichloroethane         < 20.0         ug/L         11/2/2016           1,1-Dichloroethane         < 20.0         ug/L         11/2/2016           1,1-Dichloroethane         < 20.0         ug/L         11/2/2016           1,2-Trichloroethane         < 20.0         ug/L         11/2/2016           1,2-Jichloroethane         < 20.0         ug/L         11/2/2016           1,2,3-Trichlorobenzene         < 50.0         ug/L         11/2/2016           1,2-Dibromo-3-Chloropropane         < 20.0         ug/L         11/2/2016           1,2-Dichloroethane         < 20.0         ug/L         11/2/2016           1,2-Dichloroethane         < 20.0         ug/L         11/2/2016           1,2-Dichloropropane         < 20.0         ug/L         11/2/2016           1,4-Dichorobenzene         < 20.0         ug	JS	Project Reference:				
Matrix:         Groundwater         Date Received:         10/28/2016           Volatile Organics         Volatile Organics         Value         Result         Units         Qualifier         Date Analyze           1,1,1-Trichloroethane         < 20.0         ug/L         11/2/2016         11/2/2016           1,1,2-Trichloroethane         < 20.0         ug/L         11/2/2016         11/2/2016           1,1,2-Trichloroethane         < 20.0         ug/L         11/2/2016         11/2/2016           1,1-Dichloroethane         < 20.0         ug/L         11/2/2016         11/2/2016           1,2,3-Trichlorobenzene         < 50.0         ug/L         11/2/2016         11/2/2016           1,2,4-Trichlorobenzene         < 50.0         ug/L         11/2/2016         11/2/2016           1,2-Dibromo-3-Chloropropane         < 100         ug/L         11/2/2016         11/2/2016           1,2-Dichlorobenzene         < 20.0         ug/L         11/2/2016         11/2/2016           1,2-Dichloropengane         < 20.0         ug/L         11/2/2016         11/2/2016           1,2-Dichloropenzene         < 20.0         ug/L         11/2/2016         11/2/2016         11/2/2016         11/2/2016         11/2/2016         11/2/2016         11/2/20	[W-4	Sample Identifier:	-4-102516			
Volatile Organics           Analyte         Result         Units         Qualifier         Date Analyze           1,1,1-Trichloroethane         < 20.0         ug/L         11/2/2016           1,1,2,2-Tetrachloroethane         < 20.0         ug/L         11/2/2016           1,1,2-Trichloroethane         < 20.0         ug/L         11/2/2016           1,1,2-Trichloroethane         < 20.0         ug/L         11/2/2016           1,1-Dichloroethane         < 20.0         ug/L         11/2/2016           1,2,3-Trichlorobenzene         < 50.0         ug/L         11/2/2016           1,2,4-Trichlorobenzene         < 50.0         ug/L         11/2/2016           1,2-Dibromo-3-Chloropropane         < 100         ug/L         11/2/2016           1,2-Dichlorobenzene         < 20.0         ug/L         11/2/2016           1,2-Dichlorobenzene         < 20.0         ug/L         11/2/2016           1,2-Dichlorobenzene         < 20.0         ug/L         11/2/2016           1,2-Dichloropenpane         < 20.0         ug/L         11/2/2016           1,2-Dichloropenzene         < 20.0         ug/L         11/2/2016           1,4-dioxane         < 20.0         ug/L         11/2/2016 <td< th=""><th>7-04</th><th>Lab Sample ID:</th><th>04</th><th></th><th>Date Sampled:</th><th>10/25/2016</th></td<>	7-04	Lab Sample ID:	04		Date Sampled:	10/25/2016
Analyte         Result         Units         Qualifier         Date Analyze           1,1,1-Trichloroethane         < 20.0         ug/L         11/2/2016           1,1,2.2-Tetrachloroethane         < 20.0         ug/L         11/2/2016           1,1,2.2-Trichloroethane         < 20.0         ug/L         11/2/2016           1,1,2-Trichloroethane         < 20.0         ug/L         11/2/2016           1,1-Dichloroethane         < 20.0         ug/L         11/2/2016           1,2,3-Trichlorobenzene         < 50.0         ug/L         11/2/2016           1,2,3-Trichlorobenzene         < 50.0         ug/L         11/2/2016           1,2,4-Trichlorobenzene         < 50.0         ug/L         11/2/2016           1,2-Dibromo-3-Chloropropane         < 100         ug/L         11/2/2016           1,2-Dibromo-sthane         < 20.0         ug/L         11/2/2016           1,2-Dichloroethane         < 20.0         ug/L         11/2/2016           1,2-Dichloropropane         < 20.0         ug/L         11/2/2016           1,2-Dichloropenzene         < 20.0         ug/L         11/2/2016           1,3-Dichlorobenzene         < 20.0         ug/L         11/2/2016           1,4-dioxane         < 20.0	dwat	Matrix:	vater		Date Received:	10/28/2016
1.1.1-Trichloroethane       < 20.0		Volatile Organics				
1,1,2,2-Tetrachloroethane       < 20.0		<u>Analyte</u>	Result	<u>Units</u>	Qualifier	<b>Date Analyzed</b>
1,1,2-Trichloroethane       < 20.0		1,1,1-Trichloroethane	< 20.0	ug/L		11/2/2016 09:16
1,1-Dichloroethane       < 20.0		1,1,2,2-Tetrachloroetha	< 20.0	ug/L		11/2/2016 09:16
1,1-Dichloroethene       < 20.0		1,1,2-Trichloroethane	< 20.0	ug/L		11/2/2016 09:16
1,2,3-Trichlorobenzene       < 50.0		1,1-Dichloroethane	< 20.0	ug/L		11/2/2016 09:16
1,2,4-Trichlorobenzene       < 50.0		1,1-Dichloroethene	< 20.0	ug/L		11/2/2016 09:16
1,2-Dibromo-3-Chloropropane       < 100		1,2,3-Trichlorobenzene	< 50.0	ug/L		11/2/2016 09:16
1,2-Dibromoethane       < 20.0		1,2,4-Trichlorobenzene	< 50.0	ug/L		11/2/2016 09:16
1,2-Dichlorobenzene< 20.0ug/L11/2/20161,2-Dichloropethane< 20.0		1,2-Dibromo-3-Chlorop	< 100	ug/L		11/2/2016 09:16
1,2-Dichloroethane       < 20.0		1,2-Dibromoethane	< 20.0	ug/L		11/2/2016 09:16
1,2-Dichloropropane       < 20.0		1,2-Dichlorobenzene	< 20.0	ug/L		11/2/2016 09:16
1,3-Dichlorobenzene< 20.0ug/L11/2/20161,4-Dichlorobenzene< 20.0		1,2-Dichloroethane	< 20.0	ug/L		11/2/2016 09:16
1,4-Dichlorobenzene< 20.0ug/L11/2/20161,4-dioxane< 200		1,2-Dichloropropane	< 20.0	ug/L		11/2/2016 09:16
1,4-dioxane< 200ug/L11/2/20162-Butanone< 100		1,3-Dichlorobenzene	< 20.0	ug/L		11/2/2016 09:16
2-Butanone       < 100		1,4-Dichlorobenzene	< 20.0	ug/L		11/2/2016 09:16
2-Hexanone       < 50.0		1,4-dioxane	< 200	ug/L		11/2/2016 09:16
4-Methyl-2-pentanone       < 50.0		2-Butanone	< 100	ug/L		11/2/2016 09:16
Acetone       < 100		2-Hexanone	< 50.0	ug/L		11/2/2016 09:16
Benzene         9.57         ug/L         J         11/2/2016           Bromochloromethane         < 50.0		4-Methyl-2-pentanone	< 50.0	ug/L		11/2/2016 09:16
Bromochloromethane < 50.0 ug/L 11/2/2016		Acetone	< 100	ug/L		11/2/2016 09:16
		Benzene	9.57	ug/L	J	11/2/2016 09:16
Bromodichloromethane < 20.0 ug/L 11/2/2016		Bromochloromethane	< 50.0	ug/L		11/2/2016 09:16
		Bromodichloromethane	< 20.0	ug/L		11/2/2016 09:16
Bromoform < 50.0 ug/L 11/2/2016		Bromoform	< 50.0	ug/L		11/2/2016 09:16
Bromomethane < 20.0 ug/L 11/2/2016		Bromomethane	< 20.0	ug/L		11/2/2016 09:16
Carbon disulfide < 20.0 ug/L 11/2/2016		Carbon disulfide	< 20.0	ug/L		11/2/2016 09:16
Carbon Tetrachloride < 20.0 ug/L 11/2/2016		Carbon Tetrachloride	< 20.0	ug/L		11/2/2016 09:16
Chlorobenzene         < 20.0         ug/L         11/2/2016		Chlorobenzene	< 20.0	ug/L		11/2/2016 09:16



Client:	<u>C&amp;S Companie</u>	<u>S</u>			
Project Reference:	Coventus				
Sample Identifier:	BCP-MW-4-10	2516			
Lab Sample ID:	164747-04			Date Sampled:	10/25/2016
Matrix:	Groundwater			Date Received:	10/28/2016
Chloroethane		< 20.0	ug/L		11/2/2016 09:16
Chloroform		< 20.0	ug/L		11/2/2016 09:16
Chloromethane		< 20.0	ug/L		11/2/2016 09:16
cis-1,2-Dichloroethene		< 20.0	ug/L		11/2/2016 09:16
cis-1,3-Dichloroprope	ne	< 20.0	ug/L		11/2/2016 09:16
Cyclohexane		189	ug/L		11/2/2016 09:16
Dibromochloromethar	ie	< 20.0	ug/L		11/2/2016 09:16
Dichlorodifluorometha	ane	< 20.0	ug/L		11/2/2016 09:16
Ethylbenzene		1000	ug/L		11/2/2016 09:16
Freon 113		< 20.0	ug/L		11/2/2016 09:16
Isopropylbenzene		19.0	ug/L	J	11/2/2016 09:16
m,p-Xylene		1150	ug/L		11/2/2016 09:16
Methyl acetate		< 20.0	ug/L		11/2/2016 09:16
Methyl tert-butyl Ethe	r	< 20.0	ug/L		11/2/2016 09:16
Methylcyclohexane		85.1	ug/L		11/2/2016 09:16
Methylene chloride		< 50.0	ug/L		11/2/2016 09:16
o-Xylene		10.4	ug/L	J	11/2/2016 09:16
Styrene		< 50.0	ug/L		11/2/2016 09:16
Tetrachloroethene		< 20.0	ug/L		11/2/2016 09:16
Toluene		62.4	ug/L		11/2/2016 09:16
trans-1,2-Dichloroethe	ene	< 20.0	ug/L		11/2/2016 09:16
trans-1,3-Dichloroprop	pene	< 20.0	ug/L		11/2/2016 09:16
Trichloroethene		< 20.0	ug/L		11/2/2016 09:16
Trichlorofluorometha	ne	< 20.0	ug/L		11/2/2016 09:16
Vinyl chloride		< 20.0	ug/L		11/2/2016 09:16



Client:	<u>C&amp;S Companies</u>					
Project Reference:	Coventus					
Sample Identifier:	BCP-MW-4-1025	16				
Lab Sample ID:	164747-04		Dat	e Sampled:	10/25/201	6
Matrix:	Groundwater		Dat	e Received:	10/28/201	6
<u>Surrogate</u>		Percent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	/zed
1,2-Dichloroethane-d4		101	85.8 - 116		11/2/2016	09:16
4-Bromofluorobenzene	e	94.7	80.6 - 114		11/2/2016	09:16
Pentafluorobenzene		100	89.6 - 112		11/2/2016	09:16
Toluene-D8		99.2	89.6 - 109		11/2/2016	09:16
Method Reference						
Data File:	EPA 5030C x36616.D					



Client:	<u>C&amp;S Companie</u>	<u>S</u>			
Project Reference:	Coventus				
Sample Identifier:	BCP-MW-3-10	2516			
Lab Sample ID:	164747-05			Date Sampled:	10/25/2016
Matrix:	Groundwater			Date Received:	10/28/2016
Volatile Organics					
<u>Analyte</u>		<u>Result</u>	<u>Units</u>	Qualifier	<b>Date Analyzed</b>
1,1,1-Trichloroethane		< 20.0	ug/L		11/2/2016 09:40
1,1,2,2-Tetrachloroeth	ane	< 20.0	ug/L		11/2/2016 09:40
1,1,2-Trichloroethane		< 20.0	ug/L		11/2/2016 09:40
1,1-Dichloroethane		< 20.0	ug/L		11/2/2016 09:40
1,1-Dichloroethene		< 20.0	ug/L		11/2/2016 09:40
1,2,3-Trichlorobenzen	е	< 50.0	ug/L		11/2/2016 09:40
1,2,4-Trichlorobenzen	е	< 50.0	ug/L		11/2/2016 09:40
1,2-Dibromo-3-Chloro	propane	< 100	ug/L		11/2/2016 09:40
1,2-Dibromoethane		< 20.0	ug/L		11/2/2016 09:40
1,2-Dichlorobenzene		< 20.0	ug/L		11/2/2016 09:40
1,2-Dichloroethane		< 20.0	ug/L		11/2/2016 09:40
1,2-Dichloropropane		< 20.0	ug/L		11/2/2016 09:40
1,3-Dichlorobenzene		< 20.0	ug/L		11/2/2016 09:40
1,4-Dichlorobenzene		< 20.0	ug/L		11/2/2016 09:40
1,4-dioxane		< 200	ug/L		11/2/2016 09:40
2-Butanone		< 100	ug/L		11/2/2016 09:40
2-Hexanone		< 50.0	ug/L		11/2/2016 09:40
4-Methyl-2-pentanone		< 50.0	ug/L		11/2/2016 09:40
Acetone		< 100	ug/L		11/2/2016 09:40
Benzene		1390	ug/L		11/2/2016 09:40
Bromochloromethane		< 50.0	ug/L		11/2/2016 09:40
Bromodichloromethan	e	< 20.0	ug/L		11/2/2016 09:40
Bromoform		< 50.0	ug/L		11/2/2016 09:40
Bromomethane		< 20.0	ug/L		11/2/2016 09:40
Carbon disulfide		< 20.0	ug/L		11/2/2016 09:40
Carbon Tetrachloride		< 20.0	ug/L		11/2/2016 09:40
Chlorobenzene		< 20.0	ug/L		11/2/2016 09:40



Client:	<u>C&amp;S Companie</u>	<u>S</u>			
Project Reference:	Coventus				
Sample Identifier:	BCP-MW-3-10	2516			
Lab Sample ID:	164747-05			Date Sampled:	10/25/2016
Matrix:	Groundwater			Date Received:	10/28/2016
Chloroethane		< 20.0	ug/L		11/2/2016 09:40
Chloroform		< 20.0	ug/L		11/2/2016 09:40
Chloromethane		< 20.0	ug/L		11/2/2016 09:40
cis-1,2-Dichloroethene	9	< 20.0	ug/L		11/2/2016 09:40
cis-1,3-Dichloroprope	ne	< 20.0	ug/L		11/2/2016 09:40
Cyclohexane		< 100	ug/L		11/2/2016 09:40
Dibromochloromethar	ne	< 20.0	ug/L		11/2/2016 09:40
Dichlorodifluorometha	ane	< 20.0	ug/L		11/2/2016 09:40
Ethylbenzene		194	ug/L		11/2/2016 09:40
Freon 113		< 20.0	ug/L		11/2/2016 09:40
Isopropylbenzene		< 20.0	ug/L		11/2/2016 09:40
m,p-Xylene		784	ug/L		11/2/2016 09:40
Methyl acetate		< 20.0	ug/L		11/2/2016 09:40
Methyl tert-butyl Ethe	r	< 20.0	ug/L		11/2/2016 09:40
Methylcyclohexane		47.7	ug/L		11/2/2016 09:40
Methylene chloride		< 50.0	ug/L		11/2/2016 09:40
o-Xylene		22.3	ug/L		11/2/2016 09:40
Styrene		< 50.0	ug/L		11/2/2016 09:40
Tetrachloroethene		< 20.0	ug/L		11/2/2016 09:40
Toluene		39.4	ug/L		11/2/2016 09:40
trans-1,2-Dichloroethe	ene	< 20.0	ug/L		11/2/2016 09:40
trans-1,3-Dichloroprop	pene	< 20.0	ug/L		11/2/2016 09:40
Trichloroethene		< 20.0	ug/L		11/2/2016 09:40
Trichlorofluorometha	ne	< 20.0	ug/L		11/2/2016 09:40
Vinyl chloride		< 20.0	ug/L		11/2/2016 09:40



Client:	<u>C&amp;S Companies</u>					
Project Reference:	Coventus					
Sample Identifier:	BCP-MW-3-1025	16				
Lab Sample ID:	164747-05		Dat	e Sampled:	10/25/201	6
Matrix:	Groundwater		Dat	e Received:	10/28/201	6
<u>Surrogate</u>		Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	zed
1,2-Dichloroethane-d4		96.4	85.8 - 116		11/2/2016	09:40
4-Bromofluorobenzene	<u>e</u>	95.1	80.6 - 114		11/2/2016	09:40
Pentafluorobenzene		100	89.6 - 112		11/2/2016	09:40
Toluene-D8		96.8	89.6 - 109		11/2/2016	09:40
Method Reference						
Data File:	EPA 5030C x36617.D					



Project Reference:         Coventus           Sample Identifier:         BCP-MW-5-102516 Lab Sample ID:         164747-06 Date Sampled:         10/25/2016 Date Sampled:         10/28/2016           Matrix:         Groundwater         Date Received:         10/28/2016           Volatile Organics         Inits         Qualifier         Date Analyzed           Analyze         Result         Units         Qualifier         Date Analyzed           1,1,1-Trichloroethane         <20.0         ug/L         11/2/2016         11:13           1,1,2-Tetrachloroethane         <20.0         ug/L         11/2/2016         11:13           1,1-Dichloroethane         <20.0         ug/L         11/2/2016         11:13           1,1-Dichloroethane         <20.0         ug/L         11/2/2016         11:13           1,2-Dichloroethane         <20.0         ug/L         11/2/2016         11:13           1,2-Dichlorobenzene         <50.0         ug/L         11/2/2016         11:13           1,2-Dichlorobenzene         <20.0         ug/L         11/2/2016         11:13           1,2-Dichlorobenzene         <20.0         ug/L         11/2/2016         11:13           1,2-Dichlorobenzene         <20.0         ug/L         11/2/2016	Client:	<u>C&amp;S Companies</u>						
Lab         Sample ID:         164747-06         Date Sample:         10/25/2016           Matrix:         Groundwater         Date Sample:         10/28/2016           Volatile Organics         Value         Qualifier         Bate Analyzer           Analyze         Result         Units         Qualifier         Bate Analyzer           1.1,1-Trichloroethane         < 20.0         ug/L         11/2/2016         11:13           1,1,2-Trichloroethane         < 20.0         ug/L         11/2/2016         11:13           1,1-Dichloroethane         < 20.0         ug/L         11/2/2016         11:13           1,1-Dichloroethane         < 20.0         ug/L         11/2/2016         11:13           1,2-Strichlorobenzene         < 50.0         ug/L         11/2/2016         11:13           1,2-Dibromo-3-Chloropropane         < 100         ug/L         11/2/2016         11:13           1,2-Dichlorobenzene         < 20.0         ug/L	Project Reference:	Coventus						
Matrix:         Groundwater         Date Received:         10/28/2016           Volatile Organics           Analyte         Result         Units         Qualifier         Date Analyzed           1,1,1-Trichloroethane         <20.0         ug/L         11/2/2016         11:13           1,1,2-Zrterachloroethane         <20.0         ug/L         11/2/2016         11:13           1,1,2-Trichloroethane         <20.0         ug/L         11/2/2016         11:13           1,1-Dichloroethane         <20.0         ug/L         11/2/2016         11:13           1,2-Trichloroethane         <20.0         ug/L         11/2/2016         11:13           1,2-Dichloroethane         <20.0         ug/L         11/2/2016         11:13           1,2-Dichloroethane         <20.0         ug/L         11/2/2016         11:13           1,2-Dichloroethane         <20.0         ug/L         11/2/2016         11:13           1,2-Dichloropenpane         <20.0         ug/L         11/2/2016         11:13           1,2-Dichloropenpane         <20.0         ug/L         11/2/2016         11:13           1,2-Dichloropenpane         <20.0         ug/L         11/2/2016         11:13           1,4-Dichloropenzene </th <th>Sample Identifier:</th> <th>BCP-MW-5-10</th> <th>2516</th> <th></th> <th></th> <th></th>	Sample Identifier:	BCP-MW-5-10	2516					
Volatile Organics           Analyte         Result         Units         Qualifier         Date Analyzed           1.1,1-Trichloroethane         < 20.0         ug/L         11/2/2016         11:13           1.1,2,2-Tertachloroethane         < 20.0         ug/L         11/2/2016         11:13           1.1,2,2-Trichloroethane         < 20.0         ug/L         11/2/2016         11:13           1.1,2-Trichloroethane         < 20.0         ug/L         11/2/2016         11:13           1.1,2-Trichloroethane         < 20.0         ug/L         11/2/2016         11:13           1.2,3-Trichlorobenzene         < 50.0         ug/L         11/2/2016         11:13           1.2,4-Trichlorobenzene         < 50.0         ug/L         11/2/2016         11:13           1.2,-Dibromo-3-Chloropropane         < 10.0         ug/L         11/2/2016         11:13           1.2-Dibromoethane         < 20.0         ug/L         11/2/2016         11:13           1.2-Dichloropenzene         < 20.0         ug/L         11/2/2016         11:13           1.2-Dichloropenzene         < 20.0         ug/L         11/2/2016         11:13           1.4-Dichlorobenzene         < 20.0         ug/L         11/2/2016         11:13 <th>Lab Sample ID:</th> <th>164747-06</th> <th></th> <th></th> <th>Date Sampled:</th> <th>10/25/2016</th>	Lab Sample ID:	164747-06			Date Sampled:	10/25/2016		
Analyc         Result         Units         Qualifier         Date Analyzet           1,1,1-Trichloroethane         < 20.0         ug/L         11/2/2016         11:13           1,1,2-Trichloroethane         < 20.0         ug/L         11/2/2016         11:13           1,1,2-Trichloroethane         < 20.0         ug/L         11/2/2016         11:13           1,1-Dichloroethane         < 20.0         ug/L         11/2/2016         11:13           1,1-Dichloroethane         < 20.0         ug/L         11/2/2016         11:13           1,2,3-Trichlorobenzene         < 50.0         ug/L         11/2/2016         11:13           1,2-Dibromo-3-Chloropropane         < 50.0         ug/L         11/2/2016         11:13           1,2-Dichlorobenzene         < 20.0         ug/L         11/2/2016         11:13           1,4-Dichlorobenzene         < 20.0         ug/L         11/2/2016         11:13           1,4-dioxane         < 20.0<	Matrix:	Groundwater			Date Received:	10/28/2016		
1,1.1-Trichloroethane       < 20.0	Volatile Organics							
1,1,2,2-Tetrachloroethane       < 20.0	<u>Analyte</u>		<u>Result</u>	<u>Units</u>	Qualifier	Date Analyzed		
1,1,2-Trichloroethane       < 20.0	1,1,1-Trichloroethane		< 20.0	ug/L		11/2/2016 11:13		
1.1-Dichloroethane< 20.0ug/L11/2/201611:131,1-Dichloroethene< 20.0	1,1,2,2-Tetrachloroeth	ane	< 20.0	ug/L		11/2/2016 11:13		
1,1-Dichloroethene       < 20.0	1,1,2-Trichloroethane		< 20.0	ug/L		11/2/2016 11:13		
1,2,3-Trichlorobenzene< 50.0ug/L11/2/201611:131,2,4-Trichlorobenzene< 50.0	1,1-Dichloroethane		< 20.0	ug/L		11/2/2016 11:13		
1.2.4-Trichlorobenzene       < 50.0	1,1-Dichloroethene		< 20.0	ug/L		11/2/2016 11:13		
1.2-Dibromo-3-Chloropropane       < 100	1,2,3-Trichlorobenzen	e	< 50.0	ug/L		11/2/2016 11:13		
1,2-Dibromoethane< 20.0ug/L11/2/201611:131,2-Dichlorobenzene< 20.0	1,2,4-Trichlorobenzen	e	< 50.0	ug/L		11/2/2016 11:13		
1,2-Dichlorobenzene       < 20.0	1,2-Dibromo-3-Chloro	propane	< 100	ug/L		11/2/2016 11:13		
1,2-Dichloroethane       < 20.0	1,2-Dibromoethane		< 20.0	ug/L		11/2/2016 11:13		
1,2-Dichloropropane< 20.0ug/L11/2/201611:131,3-Dichlorobenzene< 20.0	1,2-Dichlorobenzene		< 20.0	ug/L		11/2/2016 11:13		
1,3-Dichlorobenzene< 20.0ug/L11/2/201611:131,4-Dichlorobenzene< 20.0	1,2-Dichloroethane		< 20.0	ug/L		11/2/2016 11:13		
1,4-Dichlorobenzene< 20.0ug/L11/2/201611:131,4-dioxane< 200	1,2-Dichloropropane		< 20.0	ug/L		11/2/2016 11:13		
1,4-dioxane< 200ug/L11/2/201611:132-Butanone< 100	1,3-Dichlorobenzene		< 20.0	ug/L		11/2/2016 11:13		
2-Butanone<100	1,4-Dichlorobenzene		< 20.0	ug/L		11/2/2016 11:13		
2-Hexanone< 50.0	1,4-dioxane		< 200	ug/L		11/2/2016 11:13		
4-Methyl-2-pentanone< 50.0ug/L11/2/201611:13Acetone< 100	2-Butanone		< 100	ug/L		11/2/2016 11:13		
Acetone< 100ug/L11/2/201611:13Benzene899ug/L11/2/201611:13Bromochloromethane< 50.0	2-Hexanone		< 50.0	ug/L		11/2/2016 11:13		
Benzene       899       ug/L       11/2/2016       11:13         Bromochloromethane       < 50.0	4-Methyl-2-pentanone	2	< 50.0	ug/L		11/2/2016 11:13		
Bromochloromethane       < 50.0	Acetone		< 100	ug/L		11/2/2016 11:13		
Bromodichloromethane       < 20.0	Benzene		899	ug/L		11/2/2016 11:13		
Bromoform       < 50.0	Bromochloromethane		< 50.0	ug/L		11/2/2016 11:13		
Bromomethane         < 20.0         ug/L         11/2/2016         11:13           Carbon disulfide         < 20.0	Bromodichloromethar	ie	< 20.0	ug/L		11/2/2016 11:13		
Carbon disulfide       < 20.0	Bromoform		< 50.0	ug/L		11/2/2016 11:13		
Carbon Tetrachloride < 20.0 ug/L 11/2/2016 11:13	Bromomethane		< 20.0	ug/L		11/2/2016 11:13		
	Carbon disulfide		< 20.0	ug/L		11/2/2016 11:13		
Chlorobenzene < 20.0 ug/L 11/2/2016 11:13	Carbon Tetrachloride		< 20.0	ug/L		11/2/2016 11:13		
	Chlorobenzene		< 20.0	ug/L		11/2/2016 11:13		



Client:	<u>C&amp;S Companie</u>	<u>s</u>			
Project Reference:	Coventus				
Sample Identifier:	BCP-MW-5-10	2516			
Lab Sample ID:	164747-06			Date Sampled:	10/25/2016
Matrix:	Groundwater			Date Received:	10/28/2016
Chloroethane		< 20.0	ug/L		11/2/2016 11:13
Chloroform		< 20.0	ug/L		11/2/2016 11:13
Chloromethane		< 20.0	ug/L		11/2/2016 11:13
cis-1,2-Dichloroethene		< 20.0	ug/L		11/2/2016 11:13
cis-1,3-Dichloroprope	ne	< 20.0	ug/L		11/2/2016 11:13
Cyclohexane		198	ug/L		11/2/2016 11:13
Dibromochloromethar	ie	< 20.0	ug/L		11/2/2016 11:13
Dichlorodifluorometha	ane	< 20.0	ug/L		11/2/2016 11:13
Ethylbenzene		1490	ug/L		11/2/2016 11:13
Freon 113		< 20.0	ug/L		11/2/2016 11:13
Isopropylbenzene		17.4	ug/L	J	11/2/2016 11:13
m,p-Xylene		2230	ug/L		11/2/2016 11:13
Methyl acetate		< 20.0	ug/L		11/2/2016 11:13
Methyl tert-butyl Ethe	r	< 20.0	ug/L		11/2/2016 11:13
Methylcyclohexane		67.5	ug/L		11/2/2016 11:13
Methylene chloride		< 50.0	ug/L		11/2/2016 11:13
o-Xylene		41.3	ug/L		11/2/2016 11:13
Styrene		< 50.0	ug/L		11/2/2016 11:13
Tetrachloroethene		< 20.0	ug/L		11/2/2016 11:13
Toluene		68.5	ug/L		11/2/2016 11:13
trans-1,2-Dichloroethe	ene	< 20.0	ug/L		11/2/2016 11:13
trans-1,3-Dichloroprop	pene	< 20.0	ug/L		11/2/2016 11:13
Trichloroethene		< 20.0	ug/L		11/2/2016 11:13
Trichlorofluorometha	ne	< 20.0	ug/L		11/2/2016 11:13
Vinyl chloride		< 20.0	ug/L		11/2/2016 11:13



Client:	<u>C&amp;S Companies</u>					
Project Reference:	Coventus					
Sample Identifier:	BCP-MW-5-1025	16				
Lab Sample ID:	164747-06		Date	e Sampled:	10/25/201	6
Matrix:	Groundwater		Date	e Received:	10/28/201	6
Surrogate		Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	zed
1,2-Dichloroethane-d4		96.3	85.8 - 116		11/2/2016	11:13
4-Bromofluorobenzene	e	96.6	80.6 - 114		11/2/2016	11:13
Pentafluorobenzene		104	89.6 - 112		11/2/2016	11:13
Toluene-D8		99.4	89.6 - 109		11/2/2016	11:13
Method Reference	c <b>e(s):</b> EPA 8260C EPA 5030C					
Data File:	x36621.D					



# **Analytical Report Appendix**

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.* 

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.* 

*"J" = Result estimated between the quantitation limit and half the quantitation limit.* 

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns. "NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted. "(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

# GENERAL TERMS AND CONDITIONS LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term, or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

and interpreted under	the laws of the state which services are procured.
Warranty.	Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.
Scope and Compensation.	LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order. Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.
Prices.	Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.
Limitations of Liability.	In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re- perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services. LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results. All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB. Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.
Hazard Disclosure.	Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.
Sample Handling.	Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises. Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report. Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples. LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample to an other or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample of analysis.
Legal Responsibility.	LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.
Assignment.	LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.
Force Majeure.	LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.
Law.	This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

Turnaround Time         Availability contingent upon lab app         Standard 5 day       None Required         10 day       Image: Category A         Rush 3 day       Image: Category A         Rush 2 day       Image: Category B         Rush 1 day       Image: Category B         Other       Other         please indicate date needed:       Please indicate pack	DATE COLLECTED COLLECTED COLLECTED COLLECTED COLLECTED COLLECTED 9 M	PARADIGM PROJECT REFERENCE Covertus per sample takels St 10/28/16
Paround Time     Report Supplements       Availability contingent upon lab approval; additional fees may apply.       S day     None Required       Batch QC     Basic EDD       Category A     NYSDEC EDD       Category B     A       Category B     A       D Other     Other EDD       please indicate package needed:     Other EDD	MPLE IDENTIFIER MM - 7-102516 H BCP-MW-1-102516 H BCP-MW-4-102516 H BCP-MW-3-10251 BCP-MW-3-10251 BCP-MW-5-10251	179 Lake Aven
Sampled By Beinquished By Received By P °C 10/28/16 11:30 By signing this form, client agrees to		NY 14608     Office (585) 647-2530       INV     INV       CLIENT:     Same       ADDRESS:     ADDRESS:       PHONE:     PHONE:       ATTN:     DW - Drinking W       Water     WW - Wastewate       Nu 0     REQUESTED
$\frac{1}{2} \frac{10}{25} \frac{10}{25} \frac{3.52}{101} \frac{10}{101} \frac$		< (585) 647-3311 E TO: TE: ZIP: SL - Soli SL - Sludge P SL - Sludge P
Total Cost: Total Cost: P.I.F. P.I.F. P.I.F.	(S PARADIGM LAB SAMPLE SAMPLE U U U U U U U U U U U U U U U U U U U	LAB PROJECT ID / 64747 luotation #: D-Solid WP-Wipe OL-OI T-Paint CK-Caulk AR-Air





# Chain of Custody Supplement

Client:	(+S Engineers	Completed by:	Glenn Pezzulo
Lab Project ID:	164747	Date:	10/28/16
	Sample Condition Per NELAC/ELAP 21	on Requirements 0/241/242/243/244	
Condition	NELAC compliance with the sample o Yes	condition requirements up No	on receipt N/A
Container Type	$\square$		
Comments			
Transferred to method- compliant container			
Headspace (<1 mL) Comments			
<b>Preservation</b> Comments			
Chlorine Absent (<0.10 ppm per test strip) Comments			
Holding Time Comments			
Temperature Comments	9°C 10/28/16	//!'30	
Sufficient Sample Quantity Comments			
N 8			v 



# Analytical Report For

# **C&S** Companies

For Lab Project ID

# 165361

Referencing

Conventus

Prepared

Friday, December 16, 2016

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958 • PADEP ID# 68-02351



Client:	<u>C&amp;S Companies</u>		
Project Reference:	Conventus		
Sample Identifier:	BCP-MW-4-120816		
Lab Sample ID:	165361-01	Date Sampled:	12/8/2016
Matrix:	Groundwater	Date Received:	12/9/2016

# **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Qualifier Date	Analyzed
1,1,1-Trichloroethane	< 20.0	ug/L	12/14/	2016 15:38
1,1,2,2-Tetrachloroethane	< 20.0	ug/L	12/14/	2016 15:38
1,1,2-Trichloroethane	< 20.0	ug/L	12/14/	2016 15:38
1,1-Dichloroethane	< 20.0	ug/L	12/14/	2016 15:38
1,1-Dichloroethene	< 20.0	ug/L	12/14/	2016 15:38
1,2,3-Trichlorobenzene	< 50.0	ug/L	12/14/	2016 15:38
1,2,4-Trichlorobenzene	< 50.0	ug/L	12/14/	2016 15:38
1,2-Dibromo-3-Chloropropane	< 100	ug/L	12/14/	2016 15:38
1,2-Dibromoethane	< 20.0	ug/L	12/14/	2016 15:38
1,2-Dichlorobenzene	< 20.0	ug/L	12/14/	2016 15:38
1,2-Dichloroethane	< 20.0	ug/L	12/14/	2016 15:38
1,2-Dichloropropane	< 20.0	ug/L	12/14/	2016 15:38
1,3-Dichlorobenzene	< 20.0	ug/L	12/14/	2016 15:38
1,4-Dichlorobenzene	< 20.0	ug/L	12/14/	2016 15:38
1,4-dioxane	< 200	ug/L	12/14/	2016 15:38
2-Butanone	< 100	ug/L	12/14/	2016 15:38
2-Hexanone	< 50.0	ug/L	12/14/	2016 15:38
4-Methyl-2-pentanone	< 50.0	ug/L	12/14/	2016 15:38
Acetone	< 100	ug/L	12/14/	2016 15:38
Benzene	12.8	ug/L	12/14/	2016 15:38
Bromochloromethane	< 50.0	ug/L	12/14/	2016 15:38
Bromodichloromethane	< 20.0	ug/L	12/14/	2016 15:38
Bromoform	< 50.0	ug/L	12/14/	2016 15:38
Bromomethane	< 20.0	ug/L	12/14/	2016 15:38
Carbon disulfide	< 20.0	ug/L	12/14/	2016 15:38
Carbon Tetrachloride	< 20.0	ug/L	12/14/	2016 15:38
Chlorobenzene	< 20.0	ug/L	12/14/	2016 15:38
Chloroethane	< 20.0	ug/L	12/14/	2016 15:38
Chloroform	< 20.0	ug/L	12/14/	2016 15:38



Client:	<u>C&amp;S Compan</u>	ies					
Project Reference:	Conventus						
Sample Identifier:	BCP-MW-4-1	20816					
Lab Sample ID:	165361-01			Dat	e Sampled:	12/8/2016	
Matrix:	Groundwate	r		Dat	e Received:	12/9/2016	
Chloromethane		< 20.0	ug/L			12/14/2016	15:38
cis-1,2-Dichloroethene	2	< 20.0	ug/L			12/14/2016	15:38
cis-1,3-Dichloroproper	ne	< 20.0	ug/L			12/14/2016	15:38
Cyclohexane		259	ug/L			12/14/2016	15:38
Dibromochloromethan	ie	< 20.0	ug/L			12/14/2016	15:38
Dichlorodifluorometha	ane	< 20.0	ug/L			12/14/2016	15:38
Ethylbenzene		1170	ug/L			12/14/2016	15:38
Freon 113		< 20.0	ug/L			12/14/2016	15:38
Isopropylbenzene		30.3	ug/L			12/14/2016	15:38
m,p-Xylene		1750	ug/L			12/14/2016	15:38
Methyl acetate		< 20.0	ug/L			12/14/2016	15:38
Methyl tert-butyl Ether	r	< 20.0	ug/L			12/14/2016	15:38
Methylcyclohexane		110	ug/L			12/14/2016	15:38
Methylene chloride		< 50.0	ug/L			12/14/2016	15:38
o-Xylene		142	ug/L			12/14/2016	15:38
Styrene		< 50.0	ug/L			12/14/2016	15:38
Tetrachloroethene		< 20.0	ug/L			12/14/2016	15:38
Toluene		130	ug/L			12/14/2016	15:38
trans-1,2-Dichloroethe	ene	< 20.0	ug/L			12/14/2016	15:38
trans-1,3-Dichloroprop	pene	< 20.0	ug/L			12/14/2016	15:38
Trichloroethene		< 20.0	ug/L			12/14/2016	15:38
Trichlorofluoromethar	ie	< 20.0	ug/L			12/14/2016	15:38
Vinyl chloride		< 20.0	ug/L			12/14/2016	15:38
<b>Surrogate</b>		Pe	rcent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4			106	85.8 - 116		12/14/2016	15:38
4-Bromofluorobenzene	e		102	80.6 - 114		12/14/2016	15:38
Pentafluorobenzene			103	89.6 - 112		12/14/2016	15:38
Toluene-D8			100	89.6 - 109		12/14/2016	15:38
Method Reference	ce(s): EPA 826 EPA 503						
Data File:	x37777.						



Client:	<u>C&amp;S Companies</u>			
Project Reference:	Conventus			
Sample Identifier:	BCP-MW-6-120816			
Lab Sample ID:	165361-02	Date Sampled:	12/8/2016	
Matrix:	Groundwater	Date Received:	12/9/2016	

## **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Qualifier	Date Analy	zed
1,1,1-Trichloroethane	< 20.0	ug/L		12/14/2016	16:46
1,1,2,2-Tetrachloroethane	< 20.0	ug/L		12/14/2016	16:46
1,1,2-Trichloroethane	< 20.0	ug/L		12/14/2016	16:46
1,1-Dichloroethane	< 20.0	ug/L		12/14/2016	16:46
1,1-Dichloroethene	< 20.0	ug/L		12/14/2016	16:46
1,2,3-Trichlorobenzene	< 50.0	ug/L		12/14/2016	16:46
1,2,4-Trichlorobenzene	< 50.0	ug/L		12/14/2016	16:46
1,2-Dibromo-3-Chloropropane	< 100	ug/L		12/14/2016	16:46
1,2-Dibromoethane	< 20.0	ug/L		12/14/2016	16:46
1,2-Dichlorobenzene	< 20.0	ug/L		12/14/2016	16:46
1,2-Dichloroethane	< 20.0	ug/L		12/14/2016	16:46
1,2-Dichloropropane	< 20.0	ug/L		12/14/2016	16:46
1,3-Dichlorobenzene	< 20.0	ug/L		12/14/2016	16:46
1,4-Dichlorobenzene	< 20.0	ug/L		12/14/2016	16:46
1,4-dioxane	< 200	ug/L		12/14/2016	16:46
2-Butanone	< 100	ug/L		12/14/2016	16:46
2-Hexanone	< 50.0	ug/L		12/14/2016	16:46
4-Methyl-2-pentanone	< 50.0	ug/L		12/14/2016	16:46
Acetone	< 100	ug/L		12/14/2016	16:46
Benzene	168	ug/L		12/14/2016	16:46
Bromochloromethane	< 50.0	ug/L		12/14/2016	16:46
Bromodichloromethane	< 20.0	ug/L		12/14/2016	16:46
Bromoform	< 50.0	ug/L		12/14/2016	16:46
Bromomethane	< 20.0	ug/L		12/14/2016	16:46
Carbon disulfide	< 20.0	ug/L		12/14/2016	16:46
Carbon Tetrachloride	< 20.0	ug/L		12/14/2016	16:46
Chlorobenzene	< 20.0	ug/L		12/14/2016	16:46
Chloroethane	< 20.0	ug/L		12/14/2016	16:46
Chloroform	< 20.0	ug/L		12/14/2016	16:46



Client:	C&S Companies	i					
Project Reference:	Conventus						
Sample Identifier:	BCP-MW-6-120	)816					
Lab Sample ID:	165361-02			Da	te Sampled:	12/8/2016	
Matrix:	Groundwater			Da	te Received:	12/9/2016	
Chloromethane	<	20.0	ug/L			12/14/2016	16:46
cis-1,2-Dichloroethene	<	20.0	ug/L			12/14/2016	16:46
cis-1,3-Dichloroproper	ie <	20.0	ug/L			12/14/2016	16:46
Cyclohexane	<	100	ug/L			12/14/2016	16:46
Dibromochloromethan	e <	20.0	ug/L			12/14/2016	16:46
Dichlorodifluorometha	ne <	20.0	ug/L			12/14/2016	16:46
Ethylbenzene	1	69	ug/L			12/14/2016	16:46
Freon 113	<	20.0	ug/L			12/14/2016	16:46
Isopropylbenzene	<	20.0	ug/L			12/14/2016	16:46
m,p-Xylene	2	62	ug/L			12/14/2016	16:46
Methyl acetate	<	20.0	ug/L			12/14/2016	16:46
Methyl tert-butyl Ether	<	20.0	ug/L			12/14/2016	16:46
Methylcyclohexane	3	0.2	ug/L			12/14/2016	16:46
Methylene chloride	<	50.0	ug/L			12/14/2016	16:46
o-Xylene	9	8.3	ug/L			12/14/2016	16:46
Styrene	<	50.0	ug/L			12/14/2016	16:46
Tetrachloroethene	<	20.0	ug/L			12/14/2016	16:46
Toluene	2	55	ug/L			12/14/2016	16:46
trans-1,2-Dichloroethe	ne <	20.0	ug/L			12/14/2016	16:46
trans-1,3-Dichloroprop	ene <	20.0	ug/L			12/14/2016	16:46
Trichloroethene	<	20.0	ug/L			12/14/2016	16:46
Trichlorofluoromethan	ie <	20.0	ug/L			12/14/2016	16:46
Vinyl chloride	<	20.0	ug/L			12/14/2016	16:46
<u>Surrogate</u>		Per	rcent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4			105	85.8 - 116		12/14/2016	16:46
4-Bromofluorobenzene	2		99.1	80.6 - 114		12/14/2016	16:46
Pentafluorobenzene			103	89.6 - 112		12/14/2016	16:46
Toluene-D8			99.9	89.6 - 109		12/14/2016	16:46
Method Reference	ce(s): EPA 8260C EPA 5030C						
Data File:	x37780.D						



Client:	<u>C&amp;S Companies</u>		
Project Reference:	Conventus		
Sample Identifier:	BCP-MW-5-120816		
Lab Sample ID:	165361-03	Date Sampled:	12/8/2016
Matrix:	Groundwater	Date Received:	12/9/2016

# **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Qualifier	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 20.0	ug/L		12/14/2016 17:09
1,1,2,2-Tetrachloroethane	< 20.0	ug/L		12/14/2016 17:09
1,1,2-Trichloroethane	< 20.0	ug/L		12/14/2016 17:09
1,1-Dichloroethane	< 20.0	ug/L		12/14/2016 17:09
1,1-Dichloroethene	< 20.0	ug/L		12/14/2016 17:09
1,2,3-Trichlorobenzene	< 50.0	ug/L		12/14/2016 17:09
1,2,4-Trichlorobenzene	< 50.0	ug/L		12/14/2016 17:09
1,2-Dibromo-3-Chloropropane	< 100	ug/L		12/14/2016 17:09
1,2-Dibromoethane	< 20.0	ug/L		12/14/2016 17:09
1,2-Dichlorobenzene	< 20.0	ug/L		12/14/2016 17:09
1,2-Dichloroethane	< 20.0	ug/L		12/14/2016 17:09
1,2-Dichloropropane	< 20.0	ug/L		12/14/2016 17:09
1,3-Dichlorobenzene	< 20.0	ug/L		12/14/2016 17:09
1,4-Dichlorobenzene	< 20.0	ug/L		12/14/2016 17:09
1,4-dioxane	< 200	ug/L		12/14/2016 17:09
2-Butanone	< 100	ug/L		12/14/2016 17:09
2-Hexanone	< 50.0	ug/L		12/14/2016 17:09
4-Methyl-2-pentanone	< 50.0	ug/L		12/14/2016 17:09
Acetone	< 100	ug/L		12/14/2016 17:09
Benzene	949	ug/L		12/14/2016 17:09
Bromochloromethane	< 50.0	ug/L		12/14/2016 17:09
Bromodichloromethane	< 20.0	ug/L		12/14/2016 17:09
Bromoform	< 50.0	ug/L		12/14/2016 17:09
Bromomethane	< 20.0	ug/L		12/14/2016 17:09
Carbon disulfide	< 20.0	ug/L		12/14/2016 17:09
Carbon Tetrachloride	< 20.0	ug/L		12/14/2016 17:09
Chlorobenzene	< 20.0	ug/L		12/14/2016 17:09
Chloroethane	< 20.0	ug/L		12/14/2016 17:09
Chloroform	< 20.0	ug/L		12/14/2016 17:09



Client:	<u>C&amp;S Compani</u>	<u>es</u>					
Project Reference:	Conventus						
Sample Identifier:	BCP-MW-5-1	20816					
Lab Sample ID:	165361-03			Dat	te Sampled:	12/8/2016	
Matrix:	Groundwater			Dat	te Received:	12/9/2016	
Chloromethane		< 20.0	ug/L			12/14/2016	17:09
cis-1,2-Dichloroethene		< 20.0	ug/L			12/14/2016	17:09
cis-1,3-Dichloroproper	ne	< 20.0	ug/L			12/14/2016	17:09
Cyclohexane		148	ug/L			12/14/2016	17:09
Dibromochloromethan	ie	< 20.0	ug/L			12/14/2016	17:09
Dichlorodifluorometha	ane	< 20.0	ug/L			12/14/2016	17:09
Ethylbenzene		1450	ug/L			12/14/2016	17:09
Freon 113		< 20.0	ug/L			12/14/2016	17:09
Isopropylbenzene		20.5	ug/L			12/14/2016	17:09
m,p-Xylene		2090	ug/L			12/14/2016	17:09
Methyl acetate		< 20.0	ug/L			12/14/2016	17:09
Methyl tert-butyl Ether	r	< 20.0	ug/L			12/14/2016	17:09
Methylcyclohexane		58.4	ug/L			12/14/2016	17:09
Methylene chloride		< 50.0	ug/L			12/14/2016	17:09
o-Xylene		62.2	ug/L			12/14/2016	17:09
Styrene		< 50.0	ug/L			12/14/2016	17:09
Tetrachloroethene		< 20.0	ug/L			12/14/2016	17:09
Toluene		84.9	ug/L			12/14/2016	17:09
trans-1,2-Dichloroethe	ene	< 20.0	ug/L			12/14/2016	17:09
trans-1,3-Dichloroprop	pene	< 20.0	ug/L			12/14/2016	17:09
Trichloroethene		< 20.0	ug/L			12/14/2016	17:09
Trichlorofluoromethar	ne	< 20.0	ug/L			12/14/2016	17:09
Vinyl chloride		< 20.0	ug/L			12/14/2016	17:09
<u>Surrogate</u>		Pe	ercent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4			105	85.8 - 116		12/14/2016	17:09
4-Bromofluorobenzen	e		103	80.6 - 114		12/14/2016	17:09
Pentafluorobenzene			105	89.6 - 112		12/14/2016	17:09
Toluene-D8			98.8	89.6 - 109		12/14/2016	17:09
Method Reference	<b>ce(s):</b> EPA 8260 EPA 5030						
Data File:	x37781.E						



Client:	<u>C&amp;S Companies</u>		
Project Reference:	Conventus		
Sample Identifier:	BCP-MW-3-120816		
Lab Sample ID:	165361-04	Date Sampled:	12/8/2016
Matrix:	Groundwater	Date Received:	12/9/2016

# **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Qualifier Date Analyzed	l
1,1,1-Trichloroethane	< 20.0	ug/L	12/14/2016 17::	32
1,1,2,2-Tetrachloroethane	< 20.0	ug/L	12/14/2016 17::	32
1,1,2-Trichloroethane	< 20.0	ug/L	12/14/2016 17:	32
1,1-Dichloroethane	< 20.0	ug/L	12/14/2016 17:	32
1,1-Dichloroethene	< 20.0	ug/L	12/14/2016 17:	32
1,2,3-Trichlorobenzene	< 50.0	ug/L	12/14/2016 17:	32
1,2,4-Trichlorobenzene	< 50.0	ug/L	12/14/2016 17:	32
1,2-Dibromo-3-Chloropropane	< 100	ug/L	12/14/2016 17:	32
1,2-Dibromoethane	< 20.0	ug/L	12/14/2016 17:	32
1,2-Dichlorobenzene	< 20.0	ug/L	12/14/2016 17:	32
1,2-Dichloroethane	< 20.0	ug/L	12/14/2016 17:	32
1,2-Dichloropropane	< 20.0	ug/L	12/14/2016 17:	32
1,3-Dichlorobenzene	< 20.0	ug/L	12/14/2016 17:	32
1,4-Dichlorobenzene	< 20.0	ug/L	12/14/2016 17:	32
1,4-dioxane	< 200	ug/L	12/14/2016 17:	32
2-Butanone	< 100	ug/L	12/14/2016 17:	32
2-Hexanone	< 50.0	ug/L	12/14/2016 17:	32
4-Methyl-2-pentanone	< 50.0	ug/L	12/14/2016 17::	32
Acetone	< 100	ug/L	12/14/2016 17::	32
Benzene	635	ug/L	12/14/2016 17::	32
Bromochloromethane	< 50.0	ug/L	12/14/2016 17::	32
Bromodichloromethane	< 20.0	ug/L	12/14/2016 17::	32
Bromoform	< 50.0	ug/L	12/14/2016 17::	32
Bromomethane	< 20.0	ug/L	12/14/2016 17::	32
Carbon disulfide	< 20.0	ug/L	12/14/2016 17::	32
Carbon Tetrachloride	< 20.0	ug/L	12/14/2016 17::	32
Chlorobenzene	< 20.0	ug/L	12/14/2016 17::	32
Chloroethane	< 20.0	ug/L	12/14/2016 17::	32
Chloroform	< 20.0	ug/L	12/14/2016 17::	32



Client:	<u>C&amp;S Companie</u>	<u>s</u>					
Project Reference:	Conventus						
Sample Identifier:	BCP-MW-3-12	0816					
Lab Sample ID:	165361-04			Dat	te Sampled:	12/8/2016	
Matrix:	Groundwater			Dat	e Received:	12/9/2016	
Chloromethane		< 20.0	ug/L			12/14/2016	17:32
cis-1,2-Dichloroethene		< 20.0	ug/L			12/14/2016	17:32
cis-1,3-Dichloroproper	ie -	< 20.0	ug/L			12/14/2016	17:32
Cyclohexane	~	< 100	ug/L			12/14/2016	17:32
Dibromochloromethan	e	< 20.0	ug/L			12/14/2016	17:32
Dichlorodifluorometha	ine	< 20.0	ug/L			12/14/2016	17:32
Ethylbenzene	8	899	ug/L			12/14/2016	17:32
Freon 113	•	< 20.0	ug/L			12/14/2016	17:32
Isopropylbenzene	•	< 20.0	ug/L			12/14/2016	17:32
m,p-Xylene	-	1380	ug/L			12/14/2016	17:32
Methyl acetate	•	< 20.0	ug/L			12/14/2016	17:32
Methyl tert-butyl Ether	ſ •	< 20.0	ug/L			12/14/2016	17:32
Methylcyclohexane	•	< 20.0	ug/L			12/14/2016	17:32
Methylene chloride	•	< 50.0	ug/L			12/14/2016	17:32
o-Xylene	2	49.6	ug/L			12/14/2016	17:32
Styrene	•	< 50.0	ug/L			12/14/2016	17:32
Tetrachloroethene	•	< 20.0	ug/L			12/14/2016	17:32
Toluene	-	74.5	ug/L			12/14/2016	17:32
trans-1,2-Dichloroethe	ene -	< 20.0	ug/L			12/14/2016	17:32
trans-1,3-Dichloroprop	oene -	< 20.0	ug/L			12/14/2016	17:32
Trichloroethene	•	< 20.0	ug/L			12/14/2016	17:32
Trichlorofluoromethan	ie -	< 20.0	ug/L			12/14/2016	17:32
Vinyl chloride	~	< 20.0	ug/L			12/14/2016	17:32
<b>Surrogate</b>		Pe	rcent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4			104	85.8 - 116		12/14/2016	17:32
4-Bromofluorobenzene	e		99.4	80.6 - 114		12/14/2016	17:32
Pentafluorobenzene			102	89.6 - 112		12/14/2016	17:32
Toluene-D8			101	89.6 - 109		12/14/2016	17:32
Method Reference							
Data File:	EPA 5030C x37782.D						



Client:	<u>C&amp;S Companies</u>		
Project Reference:	Conventus		
Sample Identifier:	DS-120816		
Lab Sample ID:	165361-05	Date Sampled:	12/8/2016
Matrix:	Groundwater	Date Received:	12/9/2016

# **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	Qualifier	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		12/14/2016 16:24
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		12/14/2016 16:24
1,1,2-Trichloroethane	< 2.00	ug/L		12/14/2016 16:24
1,1-Dichloroethane	< 2.00	ug/L		12/14/2016 16:24
1,1-Dichloroethene	< 2.00	ug/L		12/14/2016 16:24
1,2,3-Trichlorobenzene	< 5.00	ug/L		12/14/2016 16:24
1,2,4-Trichlorobenzene	< 5.00	ug/L		12/14/2016 16:24
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		12/14/2016 16:24
1,2-Dibromoethane	< 2.00	ug/L		12/14/2016 16:24
1,2-Dichlorobenzene	< 2.00	ug/L		12/14/2016 16:24
1,2-Dichloroethane	< 2.00	ug/L		12/14/2016 16:24
1,2-Dichloropropane	< 2.00	ug/L		12/14/2016 16:24
1,3-Dichlorobenzene	< 2.00	ug/L		12/14/2016 16:24
1,4-Dichlorobenzene	< 2.00	ug/L		12/14/2016 16:24
1,4-dioxane	< 20.0	ug/L		12/14/2016 16:24
2-Butanone	< 10.0	ug/L		12/14/2016 16:24
2-Hexanone	< 5.00	ug/L		12/14/2016 16:24
4-Methyl-2-pentanone	< 5.00	ug/L		12/14/2016 16:24
Acetone	< 10.0	ug/L		12/14/2016 16:24
Benzene	< 1.00	ug/L		12/14/2016 16:24
Bromochloromethane	< 5.00	ug/L		12/14/2016 16:24
Bromodichloromethane	< 2.00	ug/L		12/14/2016 16:24
Bromoform	< 5.00	ug/L		12/14/2016 16:24
Bromomethane	< 2.00	ug/L		12/14/2016 16:24
Carbon disulfide	< 2.00	ug/L		12/14/2016 16:24
Carbon Tetrachloride	< 2.00	ug/L		12/14/2016 16:24
Chlorobenzene	< 2.00	ug/L		12/14/2016 16:24
Chloroethane	< 2.00	ug/L		12/14/2016 16:24
Chloroform	< 2.00	ug/L		12/14/2016 16:24



Client:	<u>C&amp;S Compani</u>	ies					
Project Reference:	Conventus						
Sample Identifier:	DS-120816						
Lab Sample ID:	165361-05			Dat	te Sampled:	12/8/2016	
Matrix:	Groundwate	r		Dat	te Received:	12/9/2016	
Chloromethane		< 2.00	ug/L			12/14/2016	16:24
cis-1,2-Dichloroethene	2	< 2.00	ug/L			12/14/2016	16:24
cis-1,3-Dichloroproper	ne	< 2.00	ug/L			12/14/2016	16:24
Cyclohexane		< 10.0	ug/L			12/14/2016	16:24
Dibromochloromethar	ne	< 2.00	ug/L			12/14/2016	16:24
Dichlorodifluorometha	ane	< 2.00	ug/L			12/14/2016	16:24
Ethylbenzene		< 2.00	ug/L			12/14/2016	16:24
Freon 113		< 2.00	ug/L			12/14/2016	16:24
Isopropylbenzene		< 2.00	ug/L			12/14/2016	16:24
m,p-Xylene		< 2.00	ug/L			12/14/2016	16:24
Methyl acetate		< 2.00	ug/L			12/14/2016	16:24
Methyl tert-butyl Ethe	r	< 2.00	ug/L			12/14/2016	16:24
Methylcyclohexane		< 2.00	ug/L			12/14/2016	16:24
Methylene chloride		< 5.00	ug/L			12/14/2016	16:24
o-Xylene		< 2.00	ug/L			12/14/2016	16:24
Styrene		< 5.00	ug/L			12/14/2016	16:24
Tetrachloroethene		< 2.00	ug/L			12/14/2016	16:24
Toluene		< 2.00	ug/L			12/14/2016	16:24
trans-1,2-Dichloroethe	ene	< 2.00	ug/L			12/14/2016	16:24
trans-1,3-Dichloropro	pene	< 2.00	ug/L			12/14/2016	16:24
Trichloroethene		< 2.00	ug/L			12/14/2016	16:24
Trichlorofluorometha	ne	< 2.00	ug/L			12/14/2016	16:24
Vinyl chloride		< 2.00	ug/L			12/14/2016	16:24
<u>Surrogate</u>		Pe	ercent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	ŀ		103	85.8 - 116		12/14/2016	16:24
4-Bromofluorobenzen	e		97.1	80.6 - 114		12/14/2016	16:24
Pentafluorobenzene			101	89.6 - 112		12/14/2016	16:24
Toluene-D8			96.1	89.6 - 109		12/14/2016	16:24
Method Referen							
Data File:	EPA 503 x37779.1						



# **Analytical Report Appendix**

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.* 

*"J"* = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns. "NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted. "(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

# GENERAL TERMS AND CONDITIONS LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.	Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.
Scope and Compensation.	LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order. Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.
Prices.	Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.
Limitations of Liability.	In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re- perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services. LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results. All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB. Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.
Hazard Disclosure.	Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.
Sample Handling.	Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises. Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report. Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples. LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.
Legal Responsibility.	LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.
Assignment.	LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.
Force Majeure.	LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.
Law.	This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

ditions.	See additional page for sample conditions.	See additi				
	ditions (reverse).	By signing this form, client agrees to Paradigm Terms and Conditions (reverse).	By signing this form,	please indicate EDD ne	please indicate package needed:	please indicate date needed:
		12/9/16 13:37	HJC CCert I	Other EDD	Other	Kusn I day Other
	.17	- 12/9/16 17	U D D D		Category B	Rush 2 day
	PIF.	Jewin 1219/10 1	Received By		Category A	Rush 3 day
		Date/Time	Rettinquished By	Basic EDD	Batch QC	10 day
	Total Cost	A her 15 12 19/110	Sampled By	none Required	None Required	Standard 5 day
	5.0	5	( on A	Availability contingent upon lab approval; additional fees may apply.	ontingent upon lab ap	Availability c
		What what		Report Supplements	me	Turnaround Time
					- 1	
5 Q			w62	DS-120816	x DE:	2
04			08/6 W6 2	BCF-MW-3-12	1 05	
202			0816 W6 21	BCP-MW-5-120	X 00:	11
0 a			W6	TRCP-MW-6-1208	8:40 2	
01			0816 W621	BCP-MW-4-126	4 08:30	12/8/11/8
PARADIGM.LAB SAMPLE NUMBER	REMARKS		נ ו- ג – × ס ס ס א ס ח ג ס ת - < – צ ח ג ט	SAMPLE IDENTIFIER	COLLECTED R T - S S P R S	DATE COLLECTED CO
OL - Oil AR - Air	SD - Solid WP - Wipe PT - Paint CK - Caulk	/ - Drinking W V - Wastewate	WA - Water WG - Groundwater		0	Conventus
	Coller the Colle		Alla	Matrix Codes: Wardin	PROJECT REFERENCE	PROJECT F
( not	$\sum$		PHONE:	PHONE 76-92-902		
	ion #:	STATE: ZIP:	ZIP 14202 CITY:	CITY: Rud STATE: N		/
V	165361	Same	eet the Address:	ADDRESS: 14 FAN ANY	INVICES, INC.	ENVIRONMENTAL
		INVOICE TO:		REPORT TO:	DIGM	PARADIGM
Y	1 of 2	CUSTODY	CHAIN OF C			
	- 7	ice (585) 647-2530 Fax (585) 647-3311	179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530	179 Lake Av		١

Page 14 of 15





# Chain of Custody Supplement

Client:	C& 5 Engineers	Completed by:	6 km Pezzulo 12/9/16
Lab Project ID:	165361	Date:	12/9/16
		on Requirements 10/241/242/243/244	
Condition	NELAC compliance with the sample Yes	condition requirements up No	
Container Type			
Comment	S		
Transferred to method- compliant container			
Headspace (<1 mL) Comments	5		
Preservation Comments			
Chlorine Absent (<0.10 ppm per test strip) Comments			
Holding Time Comments			
Temperature Comments	4°C iced		
Sufficient Sample Quantity Comments			



# Analytical Report For

# **C&S** Companies

For Lab Project ID

# 170250

Referencing

Conventus

Prepared

Thursday, January 26, 2017

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Reliecca Roser

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, January 26, 2017



Client:	<u>C&amp;S Companies</u>		
Project Reference:	Conventus		
Sample Identifier:	BCP-MW-6-012017		
Lab Sample ID:	170250-01	Date Sampled:	1/20/2017
Matrix:	Groundwater	Date Received:	1/23/2017

# **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 20.0	ug/L		1/25/2017 14:53
1,1,2,2-Tetrachloroethane	< 20.0	ug/L		1/25/2017 14:53
1,1,2-Trichloroethane	< 20.0	ug/L		1/25/2017 14:53
1,1-Dichloroethane	< 20.0	ug/L		1/25/2017 14:53
1,1-Dichloroethene	< 20.0	ug/L		1/25/2017 14:53
1,2,3-Trichlorobenzene	< 50.0	ug/L		1/25/2017 14:53
1,2,4-Trichlorobenzene	< 50.0	ug/L		1/25/2017 14:53
1,2-Dibromo-3-Chloropropane	< 100	ug/L		1/25/2017 14:53
1,2-Dibromoethane	< 20.0	ug/L		1/25/2017 14:53
1,2-Dichlorobenzene	< 20.0	ug/L		1/25/2017 14:53
1,2-Dichloroethane	< 20.0	ug/L		1/25/2017 14:53
1,2-Dichloropropane	< 20.0	ug/L		1/25/2017 14:53
1,3-Dichlorobenzene	< 20.0	ug/L		1/25/2017 14:53
1,4-Dichlorobenzene	< 20.0	ug/L		1/25/2017 14:53
1,4-dioxane	< 200	ug/L		1/25/2017 14:53
2-Butanone	< 100	ug/L		1/25/2017 14:53
2-Hexanone	< 50.0	ug/L		1/25/2017 14:53
4-Methyl-2-pentanone	< 50.0	ug/L		1/25/2017 14:53
Acetone	< 100	ug/L		1/25/2017 14:53
Benzene	200	ug/L		1/25/2017 14:53
Bromochloromethane	< 50.0	ug/L		1/25/2017 14:53
Bromodichloromethane	< 20.0	ug/L		1/25/2017 14:53
Bromoform	< 50.0	ug/L		1/25/2017 14:53
Bromomethane	< 20.0	ug/L		1/25/2017 14:53
Carbon disulfide	< 20.0	ug/L		1/25/2017 14:53
Carbon Tetrachloride	< 20.0	ug/L		1/25/2017 14:53
Chlorobenzene	< 20.0	ug/L		1/25/2017 14:53
Chloroethane	< 20.0	ug/L		1/25/2017 14:53
Chloroform	< 20.0	ug/L		1/25/2017 14:53



Client:	<u>C&amp;S Companie</u>	es					
Project Reference:	Conventus						
Sample Identifier:	BCP-MW-6-01	12017					
Lab Sample ID:	170250-01			Da	te Sampled:	1/20/2017	
Matrix:	Groundwater			Da	te Received:	1/23/2017	
Chloromethane		< 20.0	ug/L			1/25/2017	14:53
cis-1,2-Dichloroethene		< 20.0	ug/L			1/25/2017	14:53
cis-1,3-Dichloropropen	e	< 20.0	ug/L			1/25/2017	14:53
Cyclohexane		< 100	ug/L			1/25/2017	14:53
Dibromochloromethane	е	< 20.0	ug/L			1/25/2017	14:53
Dichlorodifluorometha	ne	< 20.0	ug/L			1/25/2017	14:53
Ethylbenzene		173	ug/L			1/25/2017	14:53
Freon 113		< 20.0	ug/L			1/25/2017	14:53
Isopropylbenzene		< 20.0	ug/L			1/25/2017	14:53
m,p-Xylene		328	ug/L			1/25/2017	14:53
Methyl acetate		< 20.0	ug/L			1/25/2017	14:53
Methyl tert-butyl Ether		< 20.0	ug/L			1/25/2017	14:53
Methylcyclohexane		36.9	ug/L			1/25/2017	14:53
Methylene chloride		< 50.0	ug/L			1/25/2017	14:53
o-Xylene		123	ug/L			1/25/2017	14:53
Styrene		< 50.0	ug/L			1/25/2017	14:53
Tetrachloroethene		< 20.0	ug/L			1/25/2017	14:53
Toluene		351	ug/L			1/25/2017	14:53
trans-1,2-Dichloroether	ne	< 20.0	ug/L			1/25/2017	14:53
trans-1,3-Dichloroprop	ene	< 20.0	ug/L			1/25/2017	14:53
Trichloroethene		< 20.0	ug/L			1/25/2017	14:53
Trichlorofluoromethan	e	< 20.0	ug/L			1/25/2017	14:53
Vinyl chloride		< 20.0	ug/L			1/25/2017	14:53
<u>Surrogate</u>		Pe	ercent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4			104	81.2 - 120		1/25/2017	14:53
4-Bromofluorobenzene			94.9	82.4 - 112		1/25/2017	14:53
Pentafluorobenzene			95.7	90.2 - 112		1/25/2017	14:53
Toluene-D8			99.2	89.9 - 109		1/25/2017	14:53
Method Reference							
Data File:	EPA 5030 x38695.D						

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, January 26, 2017



Client:	<u>C&amp;S Companies</u>	
Project Reference:	Conventus	
Sample Identifier:	BCP-MW-4-012017	
Lab Sample ID:	170250-02	<b>Date Sampled:</b> 1/20/2017
Matrix:	Groundwater	<b>Date Received:</b> 1/23/2017

# **Volatile Organics**

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Qualifier Dat	te Analyzed
1,1,1-Trichloroethane	< 20.0	ug/L	1/25	5/2017 15:17
1,1,2,2-Tetrachloroethane	< 20.0	ug/L	1/25	5/2017 15:17
1,1,2-Trichloroethane	< 20.0	ug/L	1/25	5/2017 15:17
1,1-Dichloroethane	< 20.0	ug/L	1/25	6/2017 15:17
1,1-Dichloroethene	< 20.0	ug/L	1/25	6/2017 15:17
1,2,3-Trichlorobenzene	< 50.0	ug/L	1/25	6/2017 15:17
1,2,4-Trichlorobenzene	< 50.0	ug/L	1/25	5/2017 15:17
1,2-Dibromo-3-Chloropropane	< 100	ug/L	1/25	5/2017 15:17
1,2-Dibromoethane	< 20.0	ug/L	1/25	5/2017 15:17
1,2-Dichlorobenzene	< 20.0	ug/L	1/25	5/2017 15:17
1,2-Dichloroethane	< 20.0	ug/L	1/25	5/2017 15:17
1,2-Dichloropropane	< 20.0	ug/L	1/25	5/2017 15:17
1,3-Dichlorobenzene	< 20.0	ug/L	1/25	5/2017 15:17
1,4-Dichlorobenzene	< 20.0	ug/L	1/25	5/2017 15:17
1,4-dioxane	< 200	ug/L	1/25	5/2017 15:17
2-Butanone	< 100	ug/L	1/25	5/2017 15:17
2-Hexanone	< 50.0	ug/L	1/25	5/2017 15:17
4-Methyl-2-pentanone	< 50.0	ug/L	1/25	5/2017 15:17
Acetone	< 100	ug/L	1/25	5/2017 15:17
Benzene	10.2	ug/L	1/25	5/2017 15:17
Bromochloromethane	< 50.0	ug/L	1/25	5/2017 15:17
Bromodichloromethane	< 20.0	ug/L	1/25	5/2017 15:17
Bromoform	< 50.0	ug/L	1/25	5/2017 15:17
Bromomethane	< 20.0	ug/L	1/25	6/2017 15:17
Carbon disulfide	< 20.0	ug/L	1/25	6/2017 15:17
Carbon Tetrachloride	< 20.0	ug/L	1/25	6/2017 15:17
Chlorobenzene	< 20.0	ug/L	1/25	5/2017 15:17
Chloroethane	< 20.0	ug/L	1/25	5/2017 15:17
Chloroform	< 20.0	ug/L	1/25	5/2017 15:17



Client:	<u>C&amp;S Compani</u>	es					
Project Reference:	Conventus						
Sample Identifier:	BCP-MW-4-0	12017					
Lab Sample ID:	170250-02			Dat	te Sampled:	1/20/2017	
Matrix:	Groundwater			Dat	te Received:	1/23/2017	
Chloromethane		< 20.0	ug/L			1/25/2017	15:17
cis-1,2-Dichloroethene		< 20.0	ug/L			1/25/2017	15:17
cis-1,3-Dichloroproper	ne	< 20.0	ug/L			1/25/2017	15:17
Cyclohexane		276	ug/L			1/25/2017	15:17
Dibromochloromethan	ie	< 20.0	ug/L			1/25/2017	15:17
Dichlorodifluorometha	ane	< 20.0	ug/L			1/25/2017	15:17
Ethylbenzene		1300	ug/L			1/25/2017	15:17
Freon 113		< 20.0	ug/L			1/25/2017	15:17
Isopropylbenzene		28.7	ug/L			1/25/2017	15:17
m,p-Xylene		1840	ug/L			1/25/2017	15:17
Methyl acetate		< 20.0	ug/L			1/25/2017	15:17
Methyl tert-butyl Ether	r	< 20.0	ug/L			1/25/2017	15:17
Methylcyclohexane		123	ug/L			1/25/2017	15:17
Methylene chloride		< 50.0	ug/L			1/25/2017	15:17
o-Xylene		104	ug/L			1/25/2017	15:17
Styrene		< 50.0	ug/L			1/25/2017	15:17
Tetrachloroethene		< 20.0	ug/L			1/25/2017	15:17
Toluene		133	ug/L			1/25/2017	15:17
trans-1,2-Dichloroethe	ene	< 20.0	ug/L			1/25/2017	15:17
trans-1,3-Dichloroprop	pene	< 20.0	ug/L			1/25/2017	15:17
Trichloroethene		< 20.0	ug/L			1/25/2017	15:17
Trichlorofluoromethar	ne	< 20.0	ug/L			1/25/2017	15:17
Vinyl chloride		< 20.0	ug/L			1/25/2017	15:17
<u>Surrogate</u>		Pe	rcent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4			106	81.2 - 120		1/25/2017	15:17
4-Bromofluorobenzen	e		97.8	82.4 - 112		1/25/2017	15:17
Pentafluorobenzene			97.8	90.2 - 112		1/25/2017	15:17
Toluene-D8			101	89.9 - 109		1/25/2017	15:17
Method Reference	ce(s): EPA 826 EPA 503						
Data File:	x38696.I						

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, January 26, 2017



Client:	<u>C&amp;S Companies</u>	
Project Reference:	Conventus	
Sample Identifier:	BCP-MW-5-012017	
Lab Sample ID:	170250-03	<b>Date Sampled:</b> 1/20/2017
Matrix:	Groundwater	<b>Date Received:</b> 1/23/2017

# **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 40.0	ug/L		1/25/2017 21:05
1,1,2,2-Tetrachloroethane	< 40.0	ug/L		1/25/2017 21:05
1,1,2-Trichloroethane	< 40.0	ug/L		1/25/2017 21:05
1,1-Dichloroethane	< 40.0	ug/L		1/25/2017 21:05
1,1-Dichloroethene	< 40.0	ug/L		1/25/2017 21:05
1,2,3-Trichlorobenzene	< 100	ug/L		1/25/2017 21:05
1,2,4-Trichlorobenzene	< 100	ug/L		1/25/2017 21:05
1,2-Dibromo-3-Chloropropane	< 200	ug/L		1/25/2017 21:05
1,2-Dibromoethane	< 40.0	ug/L		1/25/2017 21:05
1,2-Dichlorobenzene	< 40.0	ug/L		1/25/2017 21:05
1,2-Dichloroethane	< 40.0	ug/L		1/25/2017 21:05
1,2-Dichloropropane	< 40.0	ug/L		1/25/2017 21:05
1,3-Dichlorobenzene	< 40.0	ug/L		1/25/2017 21:05
1,4-Dichlorobenzene	< 40.0	ug/L		1/25/2017 21:05
1,4-dioxane	< 400	ug/L		1/25/2017 21:05
2-Butanone	< 200	ug/L		1/25/2017 21:05
2-Hexanone	< 100	ug/L		1/25/2017 21:05
4-Methyl-2-pentanone	< 100	ug/L		1/25/2017 21:05
Acetone	< 200	ug/L		1/25/2017 21:05
Benzene	682	ug/L		1/25/2017 21:05
Bromochloromethane	< 100	ug/L		1/25/2017 21:05
Bromodichloromethane	< 40.0	ug/L		1/25/2017 21:05
Bromoform	< 100	ug/L		1/25/2017 21:05
Bromomethane	< 40.0	ug/L		1/25/2017 21:05
Carbon disulfide	< 40.0	ug/L		1/25/2017 21:05
Carbon Tetrachloride	< 40.0	ug/L		1/25/2017 21:05
Chlorobenzene	< 40.0	ug/L		1/25/2017 21:05
Chloroethane	< 40.0	ug/L		1/25/2017 21:05
Chloroform	< 40.0	ug/L		1/25/2017 21:05



Client:	<u>C&amp;S Compa</u>	nies					
Project Reference:	Conventus						
Sample Identifier:	BCP-MW-5	-012017					
Lab Sample ID:	170250-03	}		Dat	e Sampled:	1/20/2017	
Matrix:	Groundwa	ter		Dat	e Received:	1/23/2017	
Chloromethane		< 40.0	ug/L			1/25/2017	21:05
cis-1,2-Dichloroethen	e	< 40.0	ug/L			1/25/2017	21:05
cis-1,3-Dichloroprope	ene	< 40.0	ug/L			1/25/2017	21:05
Cyclohexane		257	ug/L			1/25/2017	21:05
Dibromochlorometha	ne	< 40.0	ug/L			1/25/2017	21:05
Dichlorodifluorometh	ane	< 40.0	ug/L			1/25/2017	21:05
Ethylbenzene		2070	ug/L			1/25/2017	21:05
Freon 113		< 40.0	ug/L			1/25/2017	21:05
Isopropylbenzene		< 40.0	ug/L			1/25/2017	21:05
m,p-Xylene		3310	ug/L			1/25/2017	21:05
Methyl acetate		< 40.0	ug/L			1/25/2017	21:05
Methyl tert-butyl Ethe	er	< 40.0	ug/L			1/25/2017	21:05
Methylcyclohexane		92.8	ug/L			1/25/2017	21:05
Methylene chloride		< 100	ug/L			1/25/2017	21:05
o-Xylene		84.7	ug/L			1/25/2017	21:05
Styrene		< 100	ug/L			1/25/2017	21:05
Tetrachloroethene		< 40.0	ug/L			1/25/2017	21:05
Toluene		86.6	ug/L			1/25/2017	21:05
trans-1,2-Dichloroeth	ene	< 40.0	ug/L			1/25/2017	21:05
trans-1,3-Dichloropro	pene	< 40.0	ug/L			1/25/2017	21:05
Trichloroethene		< 40.0	ug/L			1/25/2017	21:05
Trichlorofluorometha	ne	< 40.0	ug/L			1/25/2017	21:05
Vinyl chloride		< 40.0	ug/L			1/25/2017	21:05
<u>Surrogate</u>		Per	rcent Recovery	<b>Limits</b>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4	4		94.4	81.2 - 120		1/25/2017	21:05
4-Bromofluorobenzen	ie		94.8	82.4 - 112		1/25/2017	21:05
Pentafluorobenzene			102	90.2 - 112		1/25/2017	21:05
Toluene-D8			102	89.9 - 109		1/25/2017	21:05
Method Referen	•••	3260C 5030C					
Data File:	x3871						



Client:	<u>C&amp;S Companies</u>		
Project Reference:	Conventus		
Sample Identifier:	BCP-MW-3-012017		
Lab Sample ID:	170250-04	Date Sampled:	1/20/2017
Matrix:	Groundwater	Date Received:	1/23/2017

# **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	Qualifier	Date Anal	yzed
1,1,1-Trichloroethane	< 20.0	ug/L		1/25/2017	16:04
1,1,2,2-Tetrachloroethane	< 20.0	ug/L		1/25/2017	16:04
1,1,2-Trichloroethane	< 20.0	ug/L		1/25/2017	16:04
1,1-Dichloroethane	< 20.0	ug/L		1/25/2017	16:04
1,1-Dichloroethene	< 20.0	ug/L		1/25/2017	16:04
1,2,3-Trichlorobenzene	< 50.0	ug/L		1/25/2017	16:04
1,2,4-Trichlorobenzene	< 50.0	ug/L		1/25/2017	16:04
1,2-Dibromo-3-Chloropropane	< 100	ug/L		1/25/2017	16:04
1,2-Dibromoethane	< 20.0	ug/L		1/25/2017	16:04
1,2-Dichlorobenzene	< 20.0	ug/L		1/25/2017	16:04
1,2-Dichloroethane	< 20.0	ug/L		1/25/2017	16:04
1,2-Dichloropropane	< 20.0	ug/L		1/25/2017	16:04
1,3-Dichlorobenzene	< 20.0	ug/L		1/25/2017	16:04
1,4-Dichlorobenzene	< 20.0	ug/L		1/25/2017	16:04
1,4-dioxane	< 200	ug/L		1/25/2017	16:04
2-Butanone	< 100	ug/L		1/25/2017	16:04
2-Hexanone	< 50.0	ug/L		1/25/2017	16:04
4-Methyl-2-pentanone	< 50.0	ug/L		1/25/2017	16:04
Acetone	< 100	ug/L		1/25/2017	16:04
Benzene	363	ug/L		1/25/2017	16:04
Bromochloromethane	< 50.0	ug/L		1/25/2017	16:04
Bromodichloromethane	< 20.0	ug/L		1/25/2017	16:04
Bromoform	< 50.0	ug/L		1/25/2017	16:04
Bromomethane	< 20.0	ug/L		1/25/2017	16:04
Carbon disulfide	< 20.0	ug/L		1/25/2017	16:04
Carbon Tetrachloride	< 20.0	ug/L		1/25/2017	16:04
Chlorobenzene	< 20.0	ug/L		1/25/2017	16:04
Chloroethane	< 20.0	ug/L		1/25/2017	16:04
Chloroform	< 20.0	ug/L		1/25/2017	16:04



Client:	<u>C&amp;S Compan</u>	ies					
Project Reference:	Conventus						
Sample Identifier:	BCP-MW-3-0	12017					
Lab Sample ID:	170250-04			Dat	te Sampled:	1/20/2017	
Matrix:	Groundwate	r		Dat	te Received:	1/23/2017	
Chloromethane		26.6	ug/L			1/25/2017	16:04
cis-1,2-Dichloroethene	2	< 20.0	ug/L			1/25/2017	16:04
cis-1,3-Dichloroproper	ne	< 20.0	ug/L			1/25/2017	16:04
Cyclohexane		< 100	ug/L			1/25/2017	16:04
Dibromochloromethan	ie	< 20.0	ug/L			1/25/2017	16:04
Dichlorodifluorometha	ine	< 20.0	ug/L			1/25/2017	16:04
Ethylbenzene		517	ug/L			1/25/2017	16:04
Freon 113		< 20.0	ug/L			1/25/2017	16:04
Isopropylbenzene		< 20.0	ug/L			1/25/2017	16:04
m,p-Xylene		924	ug/L			1/25/2017	16:04
Methyl acetate		< 20.0	ug/L			1/25/2017	16:04
Methyl tert-butyl Ether	r	< 20.0	ug/L			1/25/2017	16:04
Methylcyclohexane		< 20.0	ug/L			1/25/2017	16:04
Methylene chloride		< 50.0	ug/L			1/25/2017	16:04
o-Xylene		25.0	ug/L			1/25/2017	16:04
Styrene		< 50.0	ug/L			1/25/2017	16:04
Tetrachloroethene		< 20.0	ug/L			1/25/2017	16:04
Toluene		38.4	ug/L			1/25/2017	16:04
trans-1,2-Dichloroethe	ene	< 20.0	ug/L			1/25/2017	16:04
trans-1,3-Dichloroprop	pene	< 20.0	ug/L			1/25/2017	16:04
Trichloroethene		< 20.0	ug/L			1/25/2017	16:04
Trichlorofluoromethar	ie	< 20.0	ug/L			1/25/2017	16:04
Vinyl chloride		< 20.0	ug/L			1/25/2017	16:04
<u>Surrogate</u>		Pe	rcent Recovery	<u>Limits</u>	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4			91.0	81.2 - 120		1/25/2017	16:04
4-Bromofluorobenzene	e		97.2	82.4 - 112		1/25/2017	16:04
Pentafluorobenzene			97.8	90.2 - 112		1/25/2017	16:04
Toluene-D8			95.3	89.9 <b>-</b> 109		1/25/2017	16:04
Method Reference	ce(s): EPA 826 EPA 503						
Data File:	x38698.						

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Thursday, January 26, 2017



Client:	<u>C&amp;S Companies</u>		
Project Reference:	Conventus		
Sample Identifier:	DS-012017		
Lab Sample ID:	170250-05	Date Sampled:	1/20/2017
Matrix:	Groundwater	Date Received:	1/23/2017

# **Volatile Organics**

Analyte	<u>Result</u>	<u>Units</u>	Qualifier	<b>Date Analyzed</b>
1,1,1-Trichloroethane	< 2.00	ug/L		1/25/2017 16:28
1,1,2,2-Tetrachloroethane	< 2.00	ug/L		1/25/2017 16:28
1,1,2-Trichloroethane	< 2.00	ug/L		1/25/2017 16:28
1,1-Dichloroethane	< 2.00	ug/L		1/25/2017 16:28
1,1-Dichloroethene	< 2.00	ug/L		1/25/2017 16:28
1,2,3-Trichlorobenzene	< 5.00	ug/L		1/25/2017 16:28
1,2,4-Trichlorobenzene	< 5.00	ug/L		1/25/2017 16:28
1,2-Dibromo-3-Chloropropane	< 10.0	ug/L		1/25/2017 16:28
1,2-Dibromoethane	< 2.00	ug/L		1/25/2017 16:28
1,2-Dichlorobenzene	< 2.00	ug/L		1/25/2017 16:28
1,2-Dichloroethane	< 2.00	ug/L		1/25/2017 16:28
1,2-Dichloropropane	< 2.00	ug/L		1/25/2017 16:28
1,3-Dichlorobenzene	< 2.00	ug/L		1/25/2017 16:28
1,4-Dichlorobenzene	< 2.00	ug/L		1/25/2017 16:28
1,4-dioxane	< 20.0	ug/L		1/25/2017 16:28
2-Butanone	< 10.0	ug/L		1/25/2017 16:28
2-Hexanone	< 5.00	ug/L		1/25/2017 16:28
4-Methyl-2-pentanone	< 5.00	ug/L		1/25/2017 16:28
Acetone	< 10.0	ug/L		1/25/2017 16:28
Benzene	< 1.00	ug/L		1/25/2017 16:28
Bromochloromethane	< 5.00	ug/L		1/25/2017 16:28
Bromodichloromethane	< 2.00	ug/L		1/25/2017 16:28
Bromoform	< 5.00	ug/L		1/25/2017 16:28
Bromomethane	< 2.00	ug/L		1/25/2017 16:28
Carbon disulfide	< 2.00	ug/L		1/25/2017 16:28
Carbon Tetrachloride	< 2.00	ug/L		1/25/2017 16:28
Chlorobenzene	< 2.00	ug/L		1/25/2017 16:28
Chloroethane	< 2.00	ug/L		1/25/2017 16:28
Chloroform	< 2.00	ug/L		1/25/2017 16:28



Client:	<u>C&amp;S Companie</u>	<u>es</u>					
Project Reference:	Conventus						
Sample Identifier:	DS-012017						
Lab Sample ID:	170250-05			Dat	e Sampled:	1/20/2017	
Matrix:	Groundwater			Dat	e Received:	1/23/2017	
Chloromethane		52.5	ug/L			1/25/2017	16:28
cis-1,2-Dichloroethene	!	< 2.00	ug/L			1/25/2017	16:28
cis-1,3-Dichloroproper	ie	< 2.00	ug/L			1/25/2017	16:28
Cyclohexane		< 10.0	ug/L			1/25/2017	16:28
Dibromochloromethan	e	< 2.00	ug/L			1/25/2017	16:28
Dichlorodifluorometha	ine	< 2.00	ug/L			1/25/2017	16:28
Ethylbenzene		< 2.00	ug/L			1/25/2017	16:28
Freon 113		< 2.00	ug/L			1/25/2017	16:28
Isopropylbenzene		< 2.00	ug/L			1/25/2017	16:28
m,p-Xylene		< 2.00	ug/L			1/25/2017	16:28
Methyl acetate		2.63	ug/L			1/25/2017	16:28
Methyl tert-butyl Ether	r	< 2.00	ug/L			1/25/2017	16:28
Methylcyclohexane		< 2.00	ug/L			1/25/2017	16:28
Methylene chloride		< 5.00	ug/L			1/25/2017	16:28
o-Xylene		< 2.00	ug/L			1/25/2017	16:28
Styrene		< 5.00	ug/L			1/25/2017	16:28
Tetrachloroethene		< 2.00	ug/L			1/25/2017	16:28
Toluene		< 2.00	ug/L			1/25/2017	16:28
trans-1,2-Dichloroethe	ene	< 2.00	ug/L			1/25/2017	16:28
trans-1,3-Dichloroprop	bene	< 2.00	ug/L			1/25/2017	16:28
Trichloroethene		< 2.00	ug/L			1/25/2017	16:28
Trichlorofluoromethar	ie	< 2.00	ug/L			1/25/2017	16:28
Vinyl chloride		< 2.00	ug/L			1/25/2017	16:28
<u>Surrogate</u>		P	ercent Recovery	Limits	<u>Outliers</u>	<b>Date Analy</b>	zed
1,2-Dichloroethane-d4			106	81.2 - 120		1/25/2017	16:28
4-Bromofluorobenzene	9		94.8	82.4 - 112		1/25/2017	16:28
Pentafluorobenzene			97.3	90.2 - 112		1/25/2017	16:28
Toluene-D8			97.6	89.9 - 109		1/25/2017	16:28
Method Reference	ce(s): EPA 8260 EPA 5030						
Data File:	x38699.D						



# **Analytical Report Appendix**

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.

"E" = Result has been estimated, calibration limit exceeded.

"Z" = See case narrative.

"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.

"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.* 

*"J"* = Result estimated between the quantitation limit and half the quantitation limit.

"L" = Laboratory Control Sample recovery outside accepted QC limits.

"P" = Concentration differs by more than 40% between the primary and secondary analytical columns. "NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.

"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted. "(1)" = Indicates data from primary column used for QC calculation.

"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.

"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

# GENERAL TERMS AND CONDITIONS LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.	Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.
Scope and Compensation.	LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order. Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.
Prices.	Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.
Limitations of Liability.	In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re- perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services. LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results. All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB. Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.
Hazard Disclosure.	Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.
Sample Handling.	Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises. Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report. Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples. LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.
Legal Responsibility.	LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.
Assignment.	LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.
Force Majeure.	LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.
Law.	This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

	Standard 5 day     None Required       10 day     Image: Constraint of the standard standard     Batch QC       Rush 3 day     Image: Constraint of the standard     Category A       Rush 2 day     Image: Constraint of the standard     Category B       Rush 1 day     Image: Constraint of the standard     Other       Difference     Image: Constraint of the standard     Other	Turnaround Time Availability contingent upon lab	2:30	2:00	100/17 7:45	DATE COLLECTED TIME P P COLLECTED COLLECTED S S	PROJECT REFERENCE	PARADIGM
	None Required     None Required       Batch QC     Basic EDD       Category A     NYSDEC EDD       Category B     Other       Other     Other EDD       please indicate package needed:     please indicate EDD needed :	Availability contingent upon lab approval; additional fees may apply.	× 75-017	Y BCP-MW-3-01201	+ BCP MW-6-01201 + BCP-MW-B-01201	B > 7 G SAMPLE IDENTIFIER	Matrix Codes: AQ - Aqueous Liquid NQ - Non-Aqueous Liquid	REPORT TO:
	ef By By By Cab By Cab Cab By Cab Cab Cab Cab Cab Cab Cab Cab Cab Cab	ampled By II I I I I I I I I I I I I I I I I I		1 WG 2 X	7 W6 2 K		WA - Water DW - Drinking Water SO - Soil WG - Groundwater WW - Wastewater SL - Sludge	CHAIN OF CUSTODY         INVOICE TO:         TAC       CLIENT:       Same         ADDRESS:       ADDRESS:       STATE:       ZIP         ZIP       PHONE:       STATE:       ZIP
See additional page for sample conditions.	7 3:48 pm 3:48 pm P.I.F. 7 1416 ns and Conditions (reverse).	1 K/00 Total Cost:	05	04 04	02	REMARKS NUMBER	oil SD - Solid WP - Wipe OL - Oil udge PT - Paint CK - Caulk AR - Air	LAB PROJECT ID 170250 Quotation #: Email:

Page 14 of 15

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

-HE

PARADIO	<b>PM</b>	<u>Ch</u>	<u>ain of Custody Supple</u>	2 of 2 e <u>ment</u>
Client:		C&S Companies	Completed by: Molly	y Vail
Lab Project ID	):	170250	Date: 1	/23/2017
			<b>dition Requirements</b> AP 210/241/242/243/244	
Condition		NELAC compliance with the san Yes	nple condition requirements upon No	receipt N/A
Container Type		x		
s d	Comments			
Transferred to me compliant contain				x
Headspace (<1 mL)	Comments	x		
Preservation	Comments	x		
Chlorine Absent (<0.10 ppm per t				x
Holding Time	Comments	x		
Temperature	Comments	x4C iced 1/23/17 13:40		x
Sufficient Sample	e Quantity Comments	x		

# APPENDIX B

# INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORM



### Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



Sit	e No. C915260 Site Details	Box 1					
Sit	e Name Former Mobil Service Station 99-MST						
Cit Co	(100) e Address: 979 Main Street Zip Code: 14203 y/Town: Buffalo unty: Erie e Acreage: 1.7						
Re	porting Period: December 23, 2014 to March 24, 2016						
		YES	NO				
1.	Is the information above correct?		X				
	If NO, include handwritten above or on a separate sheet.						
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		A				
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		À				
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	X					
	If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.						
5.	Is the site currently undergoing development?		X				
		Box 2					
-		YES	NO				
6.	Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	X					
7.	Are all ICs/ECs in place and functioning as designed?	×					
	IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.						
AC	Corrective Measures Work Plan must be submitted along with this form to address thes	e issues.					
Sig	nature of Owner, Remedial Party or Designated Representative Date						

	, , , , , , , , , , , , , , , , , , ,		Box 2	2A
			YES	NO
	formation revealed that assumptions mad garding offsite contamination are no longe			X
If you answere that document	ed YES to question 8, include documen ation has been previously submitted w	tation or evidence ith this certification form.		
	otions in the Qualitative Exposure Assessr Exposure Assessment must be certified		×	
	ed NO to question 9, the Periodic Review tative Exposure Assessment based on			
SITE NO. C915260			Box	3
Description	of Institutional Controls			
<u><sup>D</sup>arcel</u> 100.79-1-1.1	<u>Owner</u> Kaleida Properties, Inc.	Institutional Control Ground Water Use Rest Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan	triction	
3. Soil Management of	n for Restricted Residential, Commercial o or Excavation Work Plan for any future intr	or Industrial use.		
<ol> <li>Landuse Restrictio</li> <li>Soil Management of</li> <li>Groundwater Monit</li> </ol>	n for Restricted Residential, Commercial o or Excavation Work Plan for any future intr	or Industrial use.	triction	·
<ol> <li>Landuse Restrictio</li> <li>Soil Management of</li> <li>Groundwater Monit</li> </ol> 100.79-1-2.11 <ol> <li>Prohibition of use of</li> <li>Landuse Restrictio</li> </ol>	n for Restricted Residential, Commercial of or Excavation Work Plan for any future intr toring Plan. Kaleida Health of groundwater. n for Restricted Residential, Commercial of or Excavation Work Plan for any future intr	or Industrial use. rusive work. Ground Water Use Rest Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan	triction	
<ol> <li>Landuse Restrictio</li> <li>Soil Management of</li> <li>Groundwater Monit</li> </ol> 100.79-1-2.11 <ol> <li>Prohibition of use of</li> <li>Landuse Restrictio</li> <li>Soil Management of</li> <li>Groundwater Monit</li> </ol>	n for Restricted Residential, Commercial of or Excavation Work Plan for any future intr toring Plan. Kaleida Health of groundwater. n for Restricted Residential, Commercial of or Excavation Work Plan for any future intr	or Industrial use. rusive work. Ground Water Use Rest Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan	triction	4
<ol> <li>Landuse Restrictio</li> <li>Soil Management of</li> <li>Groundwater Monit</li> <li>100.79-1-2.11</li> <li>Prohibition of use of</li> <li>Landuse Restrictio</li> <li>Soil Management of</li> <li>Groundwater Monit</li> </ol> Description	n for Restricted Residential, Commercial of or Excavation Work Plan for any future intr toring Plan. Kaleida Health of groundwater. n for Restricted Residential, Commercial of or Excavation Work Plan for any future intr toring Plan.	or Industrial use. rusive work. Ground Water Use Rest Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan or Industrial use. rusive work.		
<ol> <li>Landuse Restrictio</li> <li>Soil Management of</li> <li>Groundwater Monit</li> <li>100.79-1-2.11</li> <li>Prohibition of use of</li> <li>Landuse Restrictio</li> <li>Soil Management of</li> <li>Groundwater Moni</li> <li>Description</li> </ol>	n for Restricted Residential, Commercial of or Excavation Work Plan for any future intr toring Plan. Kaleida Health of groundwater. n for Restricted Residential, Commercial of or Excavation Work Plan for any future intr toring Plan. of Engineering Controls <u>Engineering Control</u>	or Industrial use. rusive work. Ground Water Use Rest Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan or Industrial use. rusive work.		4
<ol> <li>Landuse Restrictio</li> <li>Soil Management of</li> <li>Groundwater Monit</li> <li>100.79-1-2.11</li> <li>100.79-1-2.11</li> <li>100.79-1-2.11</li> <li>Landuse Restrictio</li> <li>Soil Management of</li> <li>Groundwater Monit</li> <li>Description</li> <li>Parcel</li> <li>100.79-1-1.1</li> <li>Groundwater will be transported by the second second</li></ol>	n for Restricted Residential, Commercial of or Excavation Work Plan for any future intr toring Plan. Kaleida Health of groundwater. n for Restricted Residential, Commercial of or Excavation Work Plan for any future intr toring Plan. of Engineering Controls Engineering Controls Groundwater Treatm eated in-situ by injections of oxygen relea	or Industrial use. rusive work. Ground Water Use Rest Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan or Industrial use. rusive work.	Box	
<ol> <li>Landuse Restrictio</li> <li>Soil Management of</li> <li>Groundwater Monif</li> <li>100.79-1-2.11</li> <li>100.79-1-2.11</li> <li>100.79-1-2.11</li> <li>Landuse Restriction</li> <li>Soil Management of</li> <li>Groundwater Monif</li> <li>Description</li> <li>Parcel</li> <li>100.79-1-1.1</li> <li>Groundwater will be triphydrocarbons to harm</li> <li>100.79-1-2.11</li> </ol>	n for Restricted Residential, Commercial of or Excavation Work Plan for any future intr toring Plan. Kaleida Health of groundwater. n for Restricted Residential, Commercial of or Excavation Work Plan for any future intr toring Plan. of Engineering Controls Engineering Controls Groundwater Treatm eated in-situ by injections of oxygen relea	or Industrial use. rusive work. Ground Water Use Rest Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan or Industrial use. rusive work. nent System se compounds (ORC) to degrade	Box	

	Box 5
	Periodic Review Report (PRR) Certification Statements
1.	I certify by checking "YES" below that:
	a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;
	b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted
	engineering practices; and the information presented is accurate and compete. YES NO
2.	If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institution or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:
	(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged sir the date that the Control was put in-place, or was last approved by the Department;
	(b) nothing has occurred that would impair the ability of such Control, to protect public health an the environment;
	(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;
	(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
	(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.
	YES NO
	$\lambda$
	IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.
1	A Corrective Measures Work Plan must be submitted along with this form to address these issues.
	Signature of Owner, Remedial Party or Designated Representative Date

### **IC CERTIFICATIONS** SITE NO. C915260

Box 6

### SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

	CES Engineers, Inc.
DANIEL E RIKER	at 141 Elm Street Buffalo, NY 14203
print name	print business address
am certifying as Kaleida Proper	ties, Inc., Kaleida Health (Owner or Remedial Party)
for the Site named in the Site Details	Section of this form. $4/25/17$
Signature of Owner, Remedial Party, Rendering Certification	or Designated Representative Date

### **IC/EC CERTIFICATIONS**

#### **Professional Engineer Signature**

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

falo, NY 14203. 1 Tim Hughes at / , Kaleida Health am certifying as a Professional Engineer for the Kaleida Property Dwner or Remedial Party and onven tartners. Signature of Professional Engineer, for the Owner or Date Remedial Party, Rendering Certification (Required for

Box 7

APPENDIX C Waste Water Discharge Permit

Permit No.: 16-11-TP235

EPA CATEGORY 40 CFR 403 Expiration Date: November 2, 2017 Date Paid: November 3, 2016

### **BUFFALO SEWER AUTHORITY**

## **TEMPORARY DISCHARGE PERMIT**

#### Permittee: Ciminelli Real Estate Corporation

#### Location Address: 350 Essjay Road, Williamsville, New York 14221

The above named Permittee is hereby approved to discharge **treated groundwater** to the BSA Wastewater Treatment Plant only, from:

### Conventus 1001 Main Street, Buffalo, New York 14203

to the Buffalo Sewer Authority facilities in accordance with the Buffalo Sewer Authority Regulations, Article VI, Section 14, and subject to the following conditions:

## ARTICLE 1 CONDITIONS OF ACCEPTANCE

The discharge of the approved waste by the Permittee shall be subject to the following conditions:

a. <u>Times, Location & Rate</u>

The following location is designated for discharge during the hours listed and subject to the limit for rate of discharge specified:

## Location: Conventus 1001 Main Street, Buffalo, New York 14203

Time Discharge is Permitted: 8:00 am to 5:00 pm

Limit on Rate of Discharge: **60 gallons per minute**, Buffalo Sewer Authority Wastewater Treatment Plant only, **dry weather only** 

b. Operations

The Permittee shall maintain cleanliness, minimize odors, ensure necessary sediment control measures are in place and maintained and protect the Buffalo Sewer Authority facilities during the permittee's operations. The Permittee shall not permit any condition to arise which may pose a threat to public health or safety.

### c. <u>Samples and Analyses</u>

The Buffalo Sewer Authority may from time to time, require the Permittee to sample and analyze its waste discharges. Such sampling and analyses shall be performed and results submitted by a New York State Dept. of Health certified laboratory. The analyses required shall be as specified by the Buffalo Sewer Authority, which also reserves the right, at its convenience, to sample wastes discharged by the Permittee.

### d. <u>Refusal to Discharge</u>

The Buffalo Sewer Authority may refuse the Permittee permission to discharge wastes at any time and for any reason whatsoever, for the protection of sewer facilities against damage or flooding; to assure the proper operation and maintenance of said facilities; or to protect public health, safety or welfare.

### e. <u>Local Limits</u>

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

### ARTICLE 2 REGULATIONS

The Permittee must conform to all Buffalo Sewer Authority regulations and appropriate Federal, State and County Statutes, rules, mandates, directives, and orders concerning the collection, transportation, treatment and disposal of wastewaters.

### **ARTICLE 3 INSURANCE AND INDEMNIFICATION**

The Permittee, agrees to indemnify and hold harmless the Buffalo Sewer Authority and its agents and employees against any and all claims resulting from work performed under this permit. The permittee shall be solely responsible for any and all injury or damage to its employees or property arising from use of Buffalo Sewer Authority facilities under this permit.

In the event of any alteration, non-renewal or cancellation of these policies, at least (45) forty-five days advance notice shall be given to the Industrial Waste Section, Bird Island Treatment Plant, 90 West Ferry Street, Buffalo, New York 14213 - before such change shall be effective.

## ARTICLE 4 TERMINATION FOR VIOLATION OF AGREEMENT

In the event of a violation of any of the terms and conditions of this permit by the Permittee or upon the failure to pay the charges herein specified, the Buffalo Sewer Authority shall terminate the permit by service of notice of termination by registered mail at the Permittee's office address as set forth above.

### **ARTICLE 5 PERMITTEE APPROVAL**

Denise M. Juron-Borgese Official: Print Name	Title:
Signature: Denie M. Juson Boregon	Date:
ARTICLE 6 BUFFALO SEWER AUTHORITY APP	ROVAL
Approved as to Content:	
Signature:	Date: 11 09 201 6
Effective this day of	JEMBER, 2016
General Manager Buffalo Sewer Autho	

