2019

GROUNDWATER MONITORING REPORT

FOR
Dowcraft, South Dow Street Site
NYSDEC SITE #907020
FALCONER, CHAUTAUQUA COUNTY, NEW YORK

Prepared by:

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

Prepared for:

JAMESTOWN CONTAINER COMPANIES
14 DEMING DRIVE
FALCONER, NEW YORK 14733

JUNE 2019

TABLE OF CONTENTS

APPENDICES

APPENDIX A – GROUNDWATER ANALYTICAL RESULTS

APPENDIX B – FIELD PARAMETER NOTES

ACRONYM LIST

C&S	C&S ENGINEERS, INC.
JCC	JAMESTOWN CONTAINER COMPANIES
SITE	Dowcraft, South Dow Street Site
TCE	TRICHLOROETHENE
IRM	INTERIM REMEDIAL MEASURES
NYSDEC	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ROD	RECORD OF DECISION
CRA	CONESTOGA-ROVERS & ASSOCIATES
RI	REMEDIAL INVESTIGATION
SCOs	SOIL CLEANUP OBJECTIVES
SVOCs	SEMI-VOLATILE ORGANIC COMPOUNDS
VOCs	VOLATILE ORGANIC COMPOUNDS
NYSDOH	NEW YORK STATE DEPARTMENT OF HEALTH

1 INTRODUCTION

C&S Engineers, Inc. (C&S) has prepared this Groundwater Monitoring Report on behalf of Jamestown Container Companies (JCC) for the former Dowcraft facility (the Site).

1.1 Background and Site Description

The Dowcraft Site is located at 65 South Dow Street in Falconer, New York and occupies approximately 2.2 acres of land situated immediately east of South Dow Street and approximately 100 feet south of the Chadakoin River (Site). The Jamestown Container manufacturing building is situated between the Site and the Chadakoin River.

The property was first developed in 1890 as a woolen mill until 1939 when it was converted into a factory which manufactured steel partitions used for offices. As part of this manufacturing process, a vapor degreaser was used which included the use of chemicals such as trichloroethene (TCE). This work continued until 1999 when the facility was closed, a portion of the Site was demolished, and the property was sold to JCC.

Figure 1 presents present and historic site features.

The Site was the subject of environmental investigations in the early 1990s, at which time contaminated groundwater was discovered on site. An interim remedial measure (IRM) was subsequently put in place in 1994 which consisted of groundwater extraction and treatment. In 2000, the use of additional groundwater remediation technologies was approved by the NYSDEC which involved in-situ chemical oxidation of TCE through the injection of potassium permanganate into the overburden groundwater. In 2003, a Record of Decision (ROD) was approved that selected the following remedy:

- In-situ groundwater treatment through chemical oxidation, by injection of potassium permanganate dissolved in water, through existing well points into the shallow overburden groundwater table;
- Overburden groundwater monitoring to verify the effectiveness of the treatment;
- Institutional controls to prevent the use of groundwater as a source of potable water; and
- Annual certification to NYSDEC to certify that institutional controls remain in place.

Conestoga-Rovers & Associates (CRA) conducted nine injection treatments between May 2000 and July 2006, totaling 21,500 pounds of potassium permanganate.

Previous injection treatments were successful in oxidizing some TCE; however, the concentrations of TCE in the source area remain high.

1.2 Project Objectives

As stated in the 2003 ROD, the remedial goals selected for this Site are:

- Treat the source area of groundwater contamination by oxidative de-chlorination of the contaminants in place;
- Prevent exposure of human receptors to contaminated groundwater in the sand and gravel unit under Site;
- Prevent or mitigate, to the maximum extent practicable, COC migration via groundwater so that releases from the underlying sand and gravel unit to the Chadakoin River do not exceed applicable standards, criteria and guidance.

To help satisfy these project objectives, periodic groundwater sampling is required. Additionally, the New York State Department of Health (NYSDOH) requested the performance of soil vapor sampling to evaluate potential impacts to air quality by the contamination underlying the Site. This report describes the results from the recent groundwater sampling event that occurred on June 25 and 26, 2019.

2 SUBSURFACE CONDITIONS

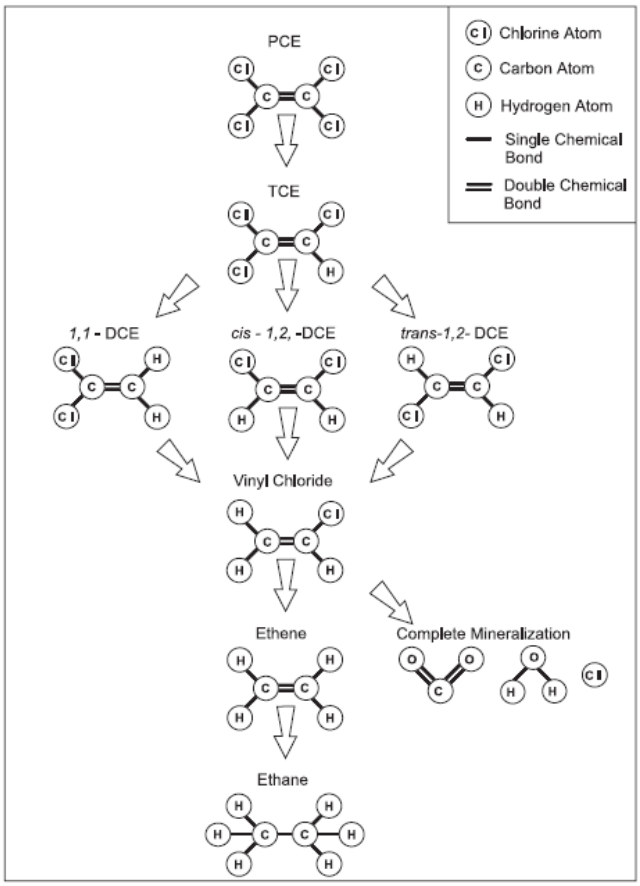
2.1 Contaminants of Concern

Chlorinated solvents, primarily, trichloroethene (TCE) and its daughter compounds, were identified as the contaminants of concern (COC) for this Site. TCE is a man-made volatile organic compound used for degreasing metal and electronic parts. Remedial considerations for TCE include its low solubility value and heavy molecular weight. TCE is in a class of chemicals called dense non-aqueous phase liquids (DNAPL) that sink through the water column until they encounter an impermeable barrier.

Groundwater contaminant plumes with TCE can undergo a process of reductive dechlorination, during which chlorine atoms are stripped from TCE and daughter compounds are produced. The rate of dechlorination can vary based on:

- Amount of TCE in the subsurface;
- Amount of organic material; and
- Type and concentration of electron acceptors available in the system.

The process of TCE reductive dechlorination is shown below:



2.2 Geology and Hydrogeology

Site geology consists of fill material overlying two sand/gravel layers separated by a silt/clay lens. Fill material consists of a mixed matrix of sand, cinders, silt, gravel, brick, concrete, coal, slag and metal. The fill unit ranges in thickness from 2 to over 14 feet with an average thickness of 8 feet.

The upper sand/gravel layer ranges from 10 to 20 feet in thickness. Underlying the upper sand/gravel layer is a silt/clay lens that ranges from 4 to 8 feet in thickness. The lower sand/gravel layer is 10 to 18 feet thick. Underlying the lower sand layer is a second silt/clay layer that starts approximately 43 feet below ground surface (BGS). This unit is estimated to be 60 feet in thickness according to regional geology.

The average depth to groundwater is 10 feet BGS within the upper sand/gravel layer. Groundwater flow within the upper sand/gravel layer is to the north-northeast at approximately 2.7 feet per year. **Figure 2** shows the inferred groundwater flow direction in the upper sand/gravel layer. The silt/clay layer overlying the lower sand/gravel layer is acting as an aquitard for deeper groundwater and is creating a semi-confined aquifer.

2.3 Extent of Contamination

According to previous environmental reports, the area of former degreaser pit (area of groundwater monitoring wells PW-3 and PW-3R) is a likely source area for the COC plume. The plume originates from the degreaser area and has affected groundwater in the upper and lower sand/gravel layers. The plume extends from the degreaser area to the north, under the JCC building and up to the area of the Chadakoin River. This is an area of approximately one acre. The rate of movement is approximately 2 to 3 feet per year to the north.

3 JUNE 2019 GROUNDWATER MONITORING

3.1 Field Sampling Program

3.1.1 Monitoring Well Array

The Site contains a total of 23 monitoring wells installed in November 1990, November 1991, and April 1992. The monitoring wells below have been shown to be directly within the contaminant plume.

ESI - 1	ESI - 11
ESI - 2	ESI - 12
ESI - 3	ESI - 13R
ESI - 6	PW - 1
ESI - 7	PW - 3R
ESI - 10	

It should be noted that PW-2 has been previously sampled by other consultants; however, during groundwater monitoring conducted by C&S on July 2, 2013, PW-2 could not be developed and sampled because piping was located in the well that could not be removed. Monitoring well ESI - 6 is located within six feet of PW-2 and was developed and sampled as a substitute for PW-2.

3.1.2 Groundwater Sampling

The following groundwater sampling events have been conducted by C&S.

July 2, 2013	Baseline Monitoring
October 21, 22 and 29, 2014	Pre-treatment
April 21 and 22, 2015	1st Post-treatment
November 2 and 3, 2015	2nd Post-treatment
April 25 and 26, 2016	3rd Post-treatment
October 20 and 21, 2016	4th Post-treatment
June 7 and 8, 2017	5th Post-treatment

May 7 and 8, 2018	6th Post-treatment (1st Annual Sample Event under OM&M)
June 25 and 26, 2019	7th Post-treatment (2nd Annual Sample Event under OM&M)

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 (USEPA) low flow sample procedure. All equipment used for well purging and sampling was thoroughly washed with tap water and laboratory detergent, Alconox, prior to and after use.

3.1.3 Water Level Monitoring

Prior to purging and sampling each monitoring well was measured with an electronic water level indicator used to measure depth to water and total depth of each well. Measurements were referenced to the top of the well casing. All water levels and total depth measurements were taken to the nearest 0.01 foot.

3.1.4 Well Purging

Water quality parameters were tracked as groundwater was removed from monitoring wells. A Monsoon pump was used to purge monitoring wells until water quality parameters (temperature, specific conductivity, pH, oxygen reduction potential dissolved oxygen and turbidity) were stabilized. Purge water was transferred into five-gallon buckets. Collected purge water was treated through an activated carbon system prior to discharge on the ground surface.

3.1.5 Groundwater Sample Collection and Analysis

Samples were collected from each well immediately after water quality parameters were stabilized. Samples were collected from polyethylene tubing into appropriate sample jars. The sample containers were chemically preserved by the laboratory prior to the field activities. Samples collected for volatile organics analysis were

overfilled to form a convex meniscus and, after collection, the sample container was inverted to check for the presence of air bubbles in the sample. All samples were placed in coolers on ice to maintain samples at 4 degrees Celsius. A chain–of–custody manifest was completed on-site and accompanied the samples to the lab. Samples were analyzed for:

Parameter	*EPA Method*
Volatile Organic Compounds	8260C

3.2 Groundwater Results

3.2.1 Laboratory Analysis

Samples were received by Alpha Analytical Labs on June 27, 2019. The following presents observations associated with the samples:

- The lab confirmed that samples were obtained intact
- On ice and cooler temperature was acceptable
- Chain-of-custody was filled out with all pertinent information
- No discrepancy with sample ID and chain-of-custody
- Samples were received within holding times
- VOA sample vials did not have headspace or bubble is < 6mm in diameter
- Sample bottles were completely filled

3.2.2 Groundwater Elevations

Groundwater elevations are provided in **Table 1** and shown on **Figure 2.** These elevations show that groundwater is generally flowing to the north and east.

3.2.3 Groundwater Analytical Results

Five out of the eleven wells that were sampled contained groundwater that exceeded water quality standard for TCE (5 ug/L). Analytical results for TCE in these wells ranged from 10 ug/L to 690 ug/L. Other chlorinated compounds, including TCE daughter compounds (cis-1,2-dichloroethene, trans-1,2-dichloroethane and vinyl chloride) were detected in three of the eleven wells. Analytical results for daughter compounds in these wells ranged from 61 ug/L to 1200 ug/L. The highest concentration of cis-1,2-Dichloroethene was detected in PW-3R (1200 ug/L). Vinyl chloride was detected in two wells, PW-3R, at 2200 ug/L, and well ESI-2, at 120 ug/L.

Well ESI-7 was not sampled for, the well was paved over. Well ESI-4 for sampled in its place and only sampled for PFOs levels.

The analytical results are summarized in **Table 2**. The June 2019 analytical results are presented on **Figure 3**. The groundwater results were compared to NYSDEC T.O.G.S 1.1. 1 Ambient Water Quality Standards.

4 TREATMENT EFFECTIVENESS

Potassium permanganate was used to treat TCE and other chlorinated volatile organic compounds within a plume that extends adjacent and partially underneath the JCC building. Two methods were implemented in treating the contaminated groundwater. The first method included the injection of a solution of potassium permanganate in ten borings. The second method included the placement of potassium permanganate cylinders as a treatment adjacent to PW-3R and installation of cylinders in monitoring wells inside the main JCC building. Treatment was applied on December 1 through 9, 2014. After sampling was completed on April 2016, potassium permanganate cylinders were placed in ESI-2 and ESI-6. Three cylinders were placed in each monitoring well.

Table 3 presents a comparison of total VOC concentrations from each monitoring well and the percent change from pre-treatment and post-treatment groundwater monitoring.

Out of eleven monitoring wells, seven wells show significant decreases, over 40%, in TCE and other chlorinated compounds from the first initial sampling event in 2014. All 11 wells showed an increase in total VOC concentrations from the previous sampling event in 2018. TCE and other chlorinated compounds were observed to increase, compared to the previous groundwater sampling event in May 32018, in wells on the outside of the contaminant plume (ESI-1, ESI-2 and ESI-13R), Wells inside the JCC building (ESI-10, ESI-11 and ESI-12) showed a continuation of non-detect for TCE, with an exception to ESI-10, which showed an increase in TCE. PW-3R shows an increase in DCE and vinyl chloride from the June 2018 sample event. TCE continued to show non-detect in PW-3R.

ESI-1, ESI-2, ESI-10 and PW-3R showed rebounds of chlorinated compounds from the December 2014 treatment event. ESI-2 still contains elevated levels of TCE and daughter compounds. Elevated concentrations were observed in sampling events conducted from April 2015 through October 2016. The reason for this observation is not clear, although a possible explanation is the injections caused the migration of groundwater with higher concentrations towards certain monitoring wells, or the ISCO materials may have increased the mobilization of contaminants that may have adhered to soil particles. However, these monitoring wells have increased levels of daughter compounds of TCE, indicating that reductive de-chlorination of TCE is taking place as a result of the potassium permanganate treatment overall when compared to previous treatments, compared to the initially sampling event in 2014.

ESI-2 shows a trend in chlorinated contaminants back to pre-treatment levels, indicating that this area is still in the process of reductive de-chlorination.

4.1 Groundwater Monitoring Recommendations

As outlined in the OM&M Work Plan, C&S will continue to annually monitor groundwater for the next four years. The next submittal is the annual Periodic Review Report (PRR) due in November 2019.

In addition to the groundwater monitoring under the OM&M Plan and PRR, C&S will investigate remedial options in order to reduce CVOC concentrations around PW-3R, ESI-2 and ESI-10. Various remedial methods will be evaluated based on their logistic and financial feasibility. Once an appropriate remedial method is identified, C&S will provide a work plan for DEC review. C&S anticipates a work plan will be submitted in two to three months.

F:\Project\N30 - Jamestown Container\N30001002 - JCC 2019 Groundwater Monitoring\Planning-Study\Reports\Annual Monioring Reports\June 2019 Groundwater Monitoring Report .docx

TABLES

TABLE 1: GROUNDWATER MONITORING
FORMER DOWCRAFT FACILITY
FACLONER, NEW YORK

June 2019

Monitoring Well	*Depth to Water*	*Boring Depth*	*Casing Elevation*	*Groundwater Elevation*
ESI-1	6.9	15	1264.17	1257.27
ESI-2	9.1	13.8	1264.6	1255.5
ESI-3	7.3	14.2	1264.89	1257.59
ESI-6	8.2	13.75	1264.66	1256.46
ESI-4	7.8	14	1264.93	1257.13
ESI-10	9.6	14.95	1265.08	1255.48
ESI-11	9.8	15.6	1265.09	1255.29
ESI-12	9.4	15.1	1264.95	1255.55
ESI-13R	6.3	15.2	1263.31	1257.01
PW-1	7.3	19.6	1264.6	1257.3
PW-3R	7.5	36.4	1265.04	1257.54

TABLE 2: GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
FORMER DOWCRAFT FACILITY FALCONER, NEW YORK

Location ID Sample Matrix Date Sampled Units NYSDEC Groundwater Standards & Guidance Values		ESI-1 WG 12/02/2014 ug/l		ESI-1 WG 04/21/2015 ug/l		ESI-1 WG 11/03/2015 ug/l		ESI-1 WG 04/25/2016 ug/l		ESI-1 WG 10/20/2016 ug/l		ESI-1 WG 06/07/2017 ug/l		ESI-1 WG 05/07/2018 ug/l		ESI-1 WG 06/26/2019 ug/l		ESI-2 WG 12/02/2014 ug/l		ESI-2 WG 04/22/2015 ug/l		ESI-2 WG 11/03/2015 ug/l		ESI-2 WG 04/25/2016 ug/l		ESI-2 WG 10/21/2016 ug/l		ESI-2 WG 06/08/2017 ug/l	ESI-2 WG 05/08/2018 ug/l		ESI-2 WG 06/26/2019 ug/l	
1,1,1-Trichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
1,1-Dichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
1,1-Dichloroethene	5.0 ug/l	--	U	--	U,*	--	U	--	U	--	U	--	U	--	U	--	U	**1.1**		--	U,*	**12**		--	U	--	U		--	U	**3.7**	**J**
1,2-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	WELL CAP DAMAGED. SAMPLE NOT COLLCETED.	--	U	--	U
1,2-Dichloroethane	0.6 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
1,3-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
1,4-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
Bromoform	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
Dibromochloromethane	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
Acetone	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**2.2**	**J**	--	U	--	U	--	U	--	U	--	U		--	U	--	U
Benzene	1.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
Carbon Tetrachloride	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U,*	--	U	--	U	--	U	--	U		--	U	--	U
Chlorobenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
Chloroform	7.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
Cis-1,2-Dichloroethylene	5.0 ug/l	--	U	**4.4**		--	U	--	U	--	U	--	U	--	U	**0.73**	**J**	**540**	**E**	**740**		**4400**	**E**	**5290**		**592**			**480**		**1400**	U
Ethylbenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
Methylene Chloride	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**7.9**	**J**	--	U	--	U	--	U		--	U	--	U
Tetrachloroethylene (PCE)	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**0.48**	**J**	--	U	--	U	--	U	--	U		--	U	--	U
Toluene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
Trans-1,2-Dichloroethene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**4.5**		--	U	**19**		--	U	--	U		**27**		**18**	**J**
Trichloroethylene (TCE)	5.0 ug/l	**8.9**		**15**		**12**	U	**4.89**	U	**6.52**		**3.68**		**4.4**		**10**	U	**130**	**E**	**110**		**1100**	**E**	**1260**		**303**			**450**		**690**	U
Vinyl Chloride	2.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**130**	**E**	**130**		**320**		**289**		--	U		--	U	**120**	U
Xylenes	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U		--	U	--	U
TOTAL VOCs		8.9		19.4		12		4.89		6.52		3.68		4.4		12.39		816.08		987.9		6151		6,839		895		--	957		2,228.00	

TABLE 2: GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
FORMER DOWCRAFT FACILITY FALCONER, NEW YORK

Location ID Sample Matrix Date Sampled Units NYSDEC Groundwater Standards & Guidance Values		ESI-3 WG 10/21/2014 ug/l		ESI-3 WG 04/22/2015 ug/l		ESI-3 WG 11/02/2015 ug/l		ESI-3 WG 04/25/2016 ug/l		ESI-3 WG 10/20/2016 ug/l		ESI-3 WG 06/07/2017 ug/l		ESI-3 WG 05/08/2018 ug/l		ESI-3 WG 06/26/2019 ug/l		ESI-6 WG 10/29/2014 ug/l		ESI-6 WG 04/22/2015 ug/l		ESI-6 WG 11/02/2015 ug/l		ESI-6 WG 04/25/2016 ug/l		ESI-6 WG 10/21/2016 ug/l		ESI-6 WG 06/08/2017 ug/l		ESI-6 WG 05/08/2018 ug/l		ESI-6 WG 06/26/2019 ug/l	
1,1,1-Trichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,1-Dichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,1-Dichloroethene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**1.6**	U	--	U	**3.9**		--	U	--	U	--	U	--	U	--	U
1,2-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,2-Dichloroethane	0.6 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,3-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,4-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Bromoform	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**1.2**	**J**	--	U
Dibromochloromethane	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Acetone	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**3.4**	**J**	--	U	--	U	--	U	--	U	--	U	**2.4**	**J**	--	U	--	U
Benzene	1.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Carbon Tetrachloride	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U,*	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Chlorobenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Chloroform	7.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Cis-1,2-Dichloroethylene	5.0 ug/l	--	U	--	U	--	U	--	U	**1.4**	**J**	--	U	--	U	--	U	**210**	**E**	**1100**	U	**1000**	**E**	**322**	U	**626**	U	**181**	U	**5.3**	U	--	U
Ethylbenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Methylene Chloride	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**10**	**J**	--	U	--	U	--	U	--	U	--	U	--	U
Tetrachloroethylene (PCE)	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**1.1**	U	--	U	**5.8**		--	U	--	U	--	U	**1.4**		**1.6**	U
Toluene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Trans-1,2-Dichloroethene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**2.2**	U	--	U	**4**		--	U	**11.1**	**J**	--	U	--	U	**1.2**	**J**
Trichloroethylene (TCE)	5.0 ug/l	**4.8**	U	**2.5**	U	**4.8**	U	**1.06**	**J**	**6.99**	U	--	U	**0.3**	U	**0.8**	U	**200**	**E**	**810**		**1500**	**E**	**924**	U	**1060**	U	**431**	U	**40**	U	**200**	**E**
Vinyl Chloride	2.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**160**	**E**	**100**	***,^**	**68**		**21.7**	U	--	U	--	U	--	U	--	U
Xylenes	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
TOTAL VOCs		4.8		2.5		4.8		1.06		8.39		--		0.3		4.2		575.22		2,020		3,281.70		1,267.70		1,697.10		612		49.1		204	

TABLE 2: GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
FORMER DOWCRAFT FACILITY FALCONER, NEW YORK

Location ID Sample Matrix Date Sampled Units NYSDEC Groundwater Standards & Guidance Values		ESI-7 WG 10/21/2014 ug/l		ESI-7 WG 04/21/2015 ug/l		ESI-7 WG 11/02/2015 ug/l		ESI-7 WG 04/25/2016 ug/l		ESI-7 WG 10/20/2016 ug/l		ESI-7 WG 06/08/2017 ug/l		ESI-7 WG 05/07/2018 ug/l		*ESI-4* WG 06/26/2019 ug/l * Well ESI-7 was paved over, Well ESI-4 was alternitavely sampled for PFOs only*		ESI-10 WG 10/29/2014 ug/l		ESI-10 WG 04/21/2015 ug/l		ESI-10 WG 11/03/2015 ug/l		ESI-10 WG 04/26/2016 ug/l		ESI-10 WG 10/20/2016 ug/l		ESI-10 WG 06/07/2017 ug/l		ESI-10 WG 05/07/2018 ug/l		ESI-10 WG 06/25/2019 ug/l	
1,1,1-Trichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,1-Dichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,1-Dichloroethene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**0.61**	**J**	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,2-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,2-Dichloroethane	0.6 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,3-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,4-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Bromoform	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**3.01**		--	U	--	U
Dibromochloromethane	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Acetone	50.0 ug/l	--	U	--	U	--	U	--	U	**6.89**	**J**	**10.1**	U	--	U	--	U	--	U	**8.5**	**J**	**5.9**	**J**	**7.16**	**J**	**7.11**	**J**	--	U	--	U	**9.6**	U
Benzene	1.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Carbon Tetrachloride	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Chlorobenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Chloroform	7.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Cis-1,2-Dichloroethylene	5.0 ug/l	**78**	U	**25**	U	**12**	U	**8.3**	U	**25**	U	**5.15**	U	**30**	U	--	U	**240**	**E**	--	U	--	U	--	U	--	U	--	U	--	U	**61**	U
Ethylbenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Methylene Chloride	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Tetrachloroethylene (PCE)	5.0 ug/l	**0.39**	**J**	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**0.22**	**J**
Toluene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Trans-1,2-Dichloroethene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**2.5**		--	U	--	U	--	U	--	U	--	U	--	U	**0.8**	**J**
Trichloroethylene (TCE)	5.0 ug/l	**150**	**E**	**78**	U	**57**	U	**43**	U	**106**	U	**21**	U	**52**	U	--	U	**62**		--	U	--	U	--	U	--	U	--	U	**0.94**		**84**	U
Vinyl Chloride	2.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**37**		--		--	U	--	U	--	U	--	U	--	U	--	U
Xylenes	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
TOTAL VOCs		208.39		103		69		51.2		137.36		36.35		82		--		352.11		8.5		5.9		7.16		7.11		3.01		0.94		155.62	

TABLE 2: GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
FORMER DOWCRAFT FACILITY FALCONER, NEW YORK

Location ID Sample Matrix Date Sampled Units	NYSDEC Groundwater Standards & Guidance Values	ESI-11 WG 10/29/2014 ug/l		ESI-11 WG 04/21/2015 ug/l		ESI-11 WG 11/03/2015 ug/l		ESI-11 WG 04/26/2016 ug/l		ESI-11 WG 10/20/2016 ug/l		ESI-11 WG 06/07/2017 ug/l		ESI-11 WG 05/07/2018 ug/l		ESI-11 WG 06/25/2019 ug/l	
1,1,1-Trichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,1-Dichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,1-Dichloroethene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,2-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,2-Dichloroethane	0.6 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,3-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,4-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Bromoform	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	**4.78**	U	--	U	**2.4**	U
Dibromochloromethane	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	**1.09**	U	--	U	--	U
Acetone	50.0 ug/l	--	U	**3.9**	**J**	**7**	**J**	**32.4**		--	U	--	U	**2.6**	**J**	**24**	U
Benzene	1.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Carbon Tetrachloride	5.0 ug/l	--	U,*	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Chlorobenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Chloroform	7.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Cis-1,2-Dichloroethylene	5.0 ug/l	**76**	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Ethylbenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Methylene Chloride	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Tetrachloroethylene (PCE)	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Toluene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Trans-1,2-Dichloroethene	5.0 ug/l	**2**	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Trichloroethylene (TCE)	5.0 ug/l	**55**	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Vinyl Chloride	2.0 ug/l	**24**	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Xylenes	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
TOTAL VOCs		157		3.9		7		32.4		--		5.87		2.6		26.4	

Location ID Sample Matrix Date Sampled Units	NYSDEC Groundwater Standards & Guidance Values	ESI-12 WG 10/22/2014 ug/l		ESI-12 WG 04/21/2015 ug/l		ESI-12 WG 11/03/2015 ug/l		ESI-12 WG 04/26/2016 ug/l		ESI-12 WG 10/21/2016 ug/l		ESI-12 WG 06/07/2017 ug/l		ESI-12 WG 05/08/2018 ug/l		ESI-12 WG 06/25/2019 ug/l	
1,1,1-Trichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,1-Dichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,1-Dichloroethene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,2-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,2-Dichloroethane	0.6 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,3-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,4-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Bromoform	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	**14.5**		--	U	**2.8**	U
Dibromochloromethane	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Acetone	50.0 ug/l	--	U	--	U	**5.6**	**J**	**5.85**	**J**	**6.19**	**J**	--	U	**3**	**J**	**19**	U
Benzene	1.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Carbon Tetrachloride	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Chlorobenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Chloroform	7.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Cis-1,2-Dichloroethylene	5.0 ug/l	**71**		**1.2**		--	U	--	U	--	U	--	U	--	U	--	U
Ethylbenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	UM	--	UM	--	U
Methylene Chloride	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Tetrachloroethylene (PCE)	5.0 ug/l	**0.48**	**J**	**0.54**	**J**	--	U	--	U	--	U	--	U	--	U	--	U
Toluene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	UM	--	UM	--	U
Trans-1,2-Dichloroethene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	UM	--	UM	--	U
Trichloroethylene (TCE)	5.0 ug/l	**140**	**E**	**10**		--	U	--	U	--	U	--	UM	--	UM	--	U
Vinyl Chloride	2.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	UM	--	UM	--	U
Xylenes	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
TOTAL VOCs		221.48		11.74		5.6		5.85		6.19		14.5		3		21.8	

TABLE 2: GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
FORMER DOWCRAFT FACILITY FALCONER, NEW YORK

Location ID Sample Matrix Date Sampled Units NYSDEC Groundwater Standards & Guidance Values		ESI-13R WG 10/21/2014 ug/l		ESI-13R WG 04/21/2015 ug/l		ESI-13R WG 11/02/2015 ug/l		ESI-13R WG 04/25/2016 ug/l		ESI-13R WG 10/20/2016 ug/l		ESI-13R WG 06/07/2017 ug/l		ESI-13R WG 05/08/2018 ug/l		ESI-13R WG 06/26/2019 ug/l		PW-1 WG 10/21/2014 ug/l		PW-1 WG 04/21/2015 ug/l		PW-1 WG 11/02/2015 ug/l		PW-1 WG 04/25/2016 ug/l		PW-1 WG 10/20/2016 ug/l		PW-1 WG 06/08/2017 ug/l		PW-1 WG 05/08/2018 ug/l		PW-1 WG 06/26/2019 ug/l	
1,1,1-Trichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,1-Dichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,1-Dichloroethene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,2-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,2-Dichloroethane	0.6 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,3-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,4-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Bromoform	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Dibromochloromethane	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Acetone	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	**2.4**	U	--	U	--	U	--	U	--	U	--	U	**8.09**	J	--	U	**2.8**	**J**
Benzene	1.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Carbon Tetrachloride	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Chlorobenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Chloroform	7.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	U		--	U	--	U
Cis-1,2-Dichloroethylene	5.0 ug/l	**18**	U	**18**	U	**8.3**	U	**7.51**	U	**9.41**		--	U	**1.3**		**1**		**1.9**	U	**8.8**	U	**2.4**	U	**5.03**	U	**7.14**	U	**3.88**	U	--	U	--	U
Ethylbenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Methylene Chloride	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Tetrachloroethylene (PCE)	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Toluene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Trans-1,2-Dichloroethene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Trichloroethylene (TCE)	5.0 ug/l	**22**	U	**46**	U	**19**	U	**21**	U	**13**	U	**7.4**	U	**7.3**	U	**18**	U	**15**	U	**3.3**	U	**11**	U	**6.96**	U	**22.1**	U	**8.39**	U	**0.84**	U	**1.8**	U
Vinyl Chloride	2.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Xylenes	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
TOTAL VOCs		40		64		27.3		28.51		28.28		7.37		8.6		21.4		16.9		12.1		13.4		11.99		29.24		20.36		0.84		4.6	

TABLE 2: GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS
FORMER DOWCRAFT FACILITY FALCONER, NEW YORK

Location ID Sample Matrix Date Sampled Units NYSDEC Groundwater Standards & Guidance Values		PW-3R WG 10/29/2014 ug/l		PW-3R WG 04/22/2015 ug/l		PW-3R WG 11/03/2015 ug/l		PW-3R WG 04/26/2016 ug/l		PW-3R WG 10/21/2016 ug/l		PW-3R WG 06/08/2017 ug/l		PW-3R WG 05/08/2018 ug/l		PW-3R WG 06/26/2019 ug/l	
1,1,1-Trichloroethane	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,1-Dichloroethane	5.0 ug/l	5.1	U	4.0	U	--	U	--	U	--	U	--	U	--	U	--	U
1,1-Dichloroethene	5.0 ug/l	--	U	--	U,*	--	U	--	U	--	U	--	U	--	U	--	U
1,2-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,2-Dichloroethane	0.6 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,3-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
1,4-Dichlorobenzene	3.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Bromoform	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Dibromochloromethane	50.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Acetone	50.0 ug/l	12		16		--	U	11.3	J	12.3	J	--	U	9		19	J
Benzene	1.0 ug/l	0.61	J	0.53	J	--	U	--	U	--	U	--	U	--	U	--	U
Carbon Tetrachloride	5.0 ug/l	--	U,*	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Chlorobenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Chloroform	7.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Cis-1,2-Dichloroethylene	5.0 ug/l	21	U	1.6	U	140	U	242	U	1450	U	1,990	U	70	U	1200	U
Ethylbenzene	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Methylene Chloride	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Tetrachloroethylene (PCE)	5.0 ug/l	--	U	--	U	--	U	--	U	--	U	--	U	--	U	--	U
Toluene	5.0 ug/l	8.1	U	6.9	U	8.0	J	4.90		--	U	--	U	4.6	U	7.3	J
Trans-1,2-Dichloroethene	5.0 ug/l	39	U	--	U	--	U	--	U	--	U	10.2	U	2.2	U	20	J
Trichloroethylene (TCE)	5.0 ug/l	0.79	J	--	U	--	U	17.2	U	84.4	U	229	U	--	U	--	U
Vinyl Chloride	2.0 ug/l	1800	E	120	E	790	^,F1	134	U	751	U	861	U	110	U	2200	E
Xylenes	5.0 ug/l	2.3	U	1.1	J	--	U	--	U	--	U	--	U	1.1	J	--	U
TOTAL VOCs		2,609.30		147.71		938		409.4		2285.4		3,090.20		199		3,446.30	

TABLE NOTES

WG - Groundwater

ug/l - micrograms per liter

S.U. - Standard Unit

Qualifier Key

J - Result is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

I - The lower value for the two columns has been reported due to obvious interference.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

A - Spectra identified as "Aldol Condensation Product".

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

H- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

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

RE - Analytical results are from sample re-extraction.

R - Analytical results are from sample re-analysis.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

U - Not detected at the reported detection limit for the sample.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

S - Analytical results are from modified screening analysis.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field

* - Indicates any recoveries outside associated acceptance windows. Surrogate ouliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.

< - Analyzed for but not detected at or above the quantitation limit

1 - Indicates data from primary column used for QC calculation.

TABLE 3: CHANGE IN TOTAL VOC CONCENTRATIONS
FORMER DOWCRAFT FACILITY
FALCONER, NEW YORK

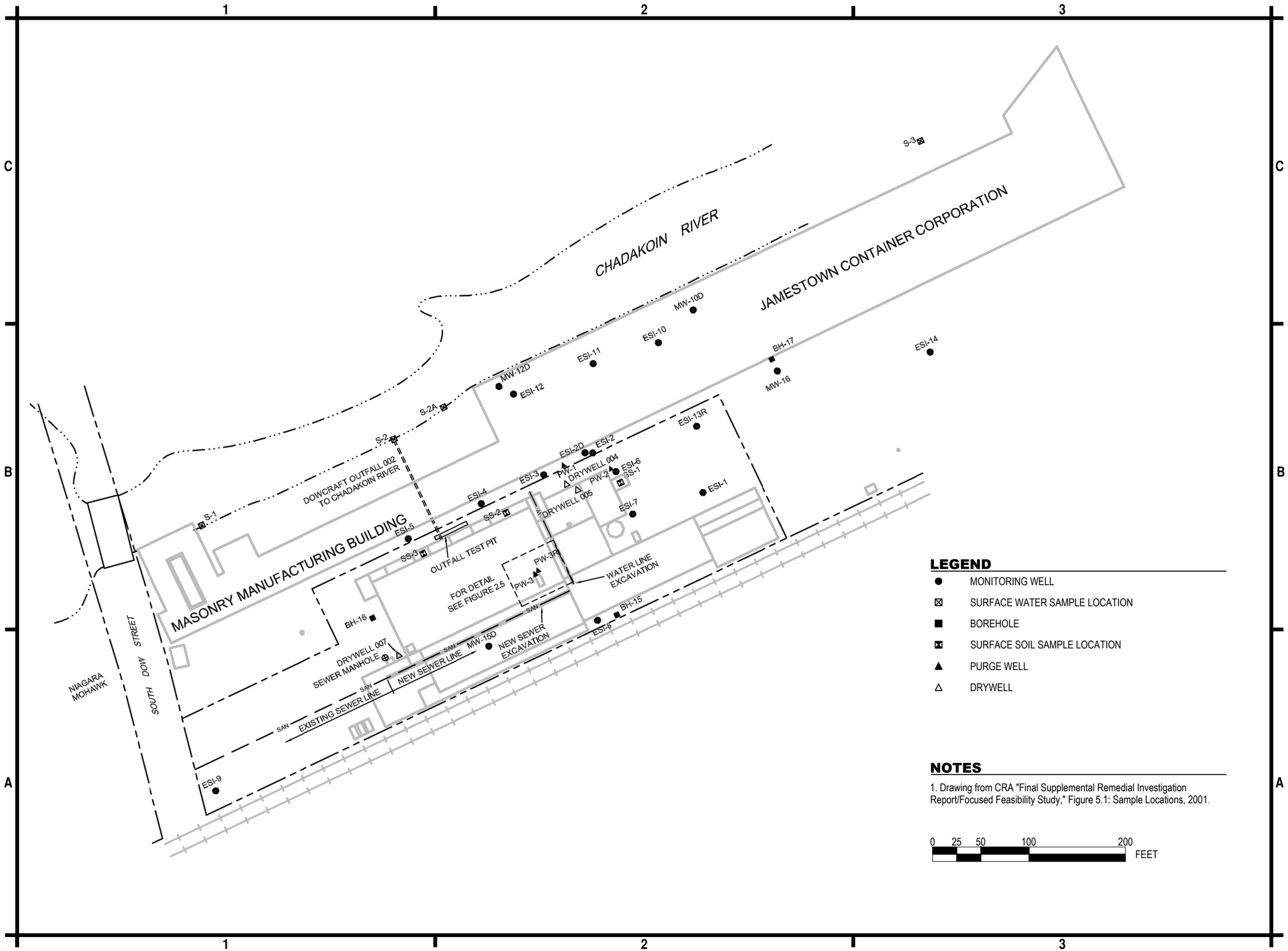
Monitoring Well	*Total VOC Concentration (ug/L)*								*Percent Change Oct. 2014 to June 2018*
	Oct-14	*Apr-15*	*Nov-15*	*Apr-16*	*Oct-16*	*Apr-17*	*May-18*	*Jun-19*	
ESI-1	8.9	19.4	12	4.89	6.52	3.68	4.4	12.39	39.21%
ESI-2	816.08	987.9	6,151	6,839	895	--	957	2,228	173.01%
ESI-3	4.8	2.5	4.8	1.06	8.39	0	0.3	4.2	-13%
ESI-6	575.22	2,020	3,281.70	1,267.70	1,697.10	612	49.1	204	-64.53%
ESI-7	208.39	103	69	51.2	137.36	36.35	82	No sample collected	-60.65%
ESI-10[1]	352.11	8.5	5.9	7.16	7.11	3.01	0.94	155.62	-55.80%
ESI-11[1]	157	3.9	7	32.4	0	5.87	2.6	26.4	-83.18%
ESI-12[1]	221.48	11.74	5.6	5.85	5.85	14.2	3	21.8	-90.15%
ESI-13R	40	64	27.3	28.51	28.28	7.37	8.6	21.4	-46.50%
PW-1	16.9	12.1	13.4	11.99	29.24	20.36	0.84	4.6	-72.8%
PW-3R	2,609.30	147.71	938	409.4	2285.4	3,090.20	199	3,446.30	32.07%

[1] Only bromoform and dibromochloromethane was detected in the sample and results were below NYSDEC standards.

Table 4 : Emerging Contaminants
Former Dowcraft Facility
Falconer, New York

LOCATION	ESI-1		ESI-3		ESI-4	
SAMPLING DATE	6/26/2019		6/26/2019		6/26/2019	
SAMPLE TYPE	WATER		WATER		WATER	
UNITS	ng/l		ng/l		ng/l	
Emerging Contaminants						
1,4-Dioxane	ND	U	ND	U	ND	U
Perfluorobutanoic Acid (PFBA)	1.39	J	3.16	U	3.26	J
Perfluoropentanoic Acid (PFPeA)	1.03	J	0.817	J	1.71	J
Perfluorobutanesulfonic Acid (PFBS)	0.568	J	1.06	J	1.07	J
Perfluorohexanoic Acid (PFHxA)	0.703	J	0.664	J	1.02	J
Perfluoroheptanoic Acid (PFHpA)	0.981	J	0.653	J	1.15	J
Perfluorohexanesulfonic Acid (PFHxS)	0.436	J	1.12	J	1.03	J
Perfluorooctanoic Acid (PFOA)	1.88	J	2.29	U	1.72	J
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	U	ND	U	ND	U
Perfluoroheptanesulfonic Acid (PFHpS)	ND	U	ND	U	ND	U
Perfluorononanoic Acid (PFNA)	0.386	J	ND	U	ND	U
Perfluorooctanesulfonic Acid (PFOS)	4.49	U	1.49	J	1.79	J
Perfluorodecanoic Acid (PFDA)	ND	U	ND	U	ND	U
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	U	ND	U	ND	U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	U	ND	U	ND	U
Perfluoroundecanoic Acid (PFUnA)	ND	U	0.466	J	ND	U
Perfluorodecanesulfonic Acid (PFDS)	ND	U	ND	U	ND	U
Perfluorooctanesulfonamide (FOSA)	ND	U	ND	U	ND	U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	U	ND	U	ND	U
Perfluorododecanoic Acid (PFDoA)	ND	U	0.526	J	ND	U
Perfluorotridecanoic Acid (PFTrDA)	ND	U	0.436	J	ND	U
Perfluorotetradecanoic Acid (PFTA)	ND	U	0.444	J	ND	U
PFOA/PFOS, Total	6.37	J	3.78	J	3.51	J

FIGURES



LEGEND

- ● MONITORING WELL
- ⊠ SURFACE WATER SAMPLE LOCATION
- ■ BOREHOLE
- ⊠ SURFACE SOIL SAMPLE LOCATION
- ▲ PURGE WELL
- △ DRYWELL

NOTES

1. Drawing from CRA "Final Supplemental Remedial Investigation Report/Focused Feasibility Study," Figure 5.1: Sample Locations, 2001.

0 25 50 100 200 FEET

C&S COMPANIES®
C&S Engineers, Inc.
141 Elm Street.
Buffalo, New York 14203
Phone: 716-847-1630
Fax: 716-847-1454
www.cscos.com

N

DOWCRAFT SOTH DOW St.
GROUNDWATER REMEDIATION
FALCONER, NEW YORK

MARK	DATE	DESCRIPTION
REVISIONS		

PROJECT NO:	N30.001.001
DATE:	JUNE 6, 2016
DRAWN BY:	C. MARTIN
DESIGNED BY:	C. MARTIN
CHECKED BY:	D. RIKER

HISTORIC AND EXISTING SITE FEATURES

FIGURE 1

f:\Project\n30 - jamestown container\n30001001 - jamestown container\environmental\CADD-GIS\Sheet Files\FIGURE 1 HISTORIC AND EXISTING SITE FEATURES.dwg

Legend

Legend

- C_WELL

C_INFRASTRUCTURE

- <all other values>

LAYER

- C-RAIL
- C-ROAD
- C-SEWER
- C-SW-PIPE
- C-WATER-PIPE
- C_BUILD
- C_RIVER

Label Legend

ESI-14
1254.66 ft
=Sample ID
=Groundwater Elevation (feet)

Notes

1) Groundwater elevation benchmark.
2) Coordinate System: NAD 1983 StatePlane NY West FIPS 3103
Projection: Transverse Mercator
Datum: North American 1983
Units: Foot US

0 50 100 200
Feet

C&S COMPANIES®
C&S Engineers, Inc.
141 Elm Street
Buffalo, New York 14203
Phone: 716-847-1630
Fax: 716-847-1454
www.cscos.com

N

DOWCRAFT, SOUTH DOW St.
JAMESTOWN CONTAINER
CORP
FALCONER, NEW YORK

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO: N30.001.001
DATE: August 20, 2019
DRAWN BY: R. Backert
DESIGNED BY: C. Martin
CHECKED BY:

GROUNDWATER ELEVATIONS

FIGURE 2

Legend

Legend

- C_WELL

C_INFRASTRUCTURE

- <all other values>

LAYER

- C-RAIL
- C-ROAD
- C-SEWER
- C-SW-PIPE
- C-WATER-PIPE
- C_BUILD

Label Legend

ESI-3
4.2

=Sample ID
=Total VOCs Concentration (ug/l)

Notes

1) Groundwater elevation benchmark.
2) Coordinate System: NAD 1983 StatePlane NY West FIPS 3103
Projection: Transverse Mercator
Datum: North American 1983
Units: Foot US

0 50 100 200 Feet

C&S COMPANIES®
C&S Engineers, Inc.
141 Elm Street
Buffalo, New York 14203
Phone: 716-847-1630
Fax: 716-847-1454
www.cscos.com

N

DOWCRAFT, SOUTH DOW St.
JAMESTOWN CONTAINER CORP
FALCONER, NEW YORK

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO: N30.001.001
DATE: August 20, 2019
DRAWN BY: R. Backert
DESIGNED BY: C. Martin
CHECKED BY:

TOTAL VOCs CONCENTRATIONS

FIGURE 3

APPENDICES

APPENDIX A

GROUNDWATER ANALYTICAL RESULTS

ANALYTICAL REPORT

Lab Number:	L1928183
Client:	C&S Companies 141 Elm Street, Suite 100 Buffalo, NY 14203
ATTN:	Cody Martin
Phone:	(716) 847-1630
Project Name:	JAMESTOWN CONTAINER
Project Number:	N30001001
Report Date:	07/15/19

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001

Lab Number: L1928183
Report Date: 07/15/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1928183-01	ESI-10-062519	WATER	14 DEMING DRIVE	06/25/19 11:55	06/27/19
L1928183-02	ESI-11-062519	WATER	14 DEMING DRIVE	06/25/19 13:45	06/27/19
L1928183-03	ESI-12-062519	WATER	14 DEMING DRIVE	06/25/19 14:30	06/27/19
L1928183-04	ESI-3-062619	WATER	14 DEMING DRIVE	06/26/19 10:00	06/27/19
L1928183-05	PW-1-062619	WATER	14 DEMING DRIVE	06/26/19 10:33	06/27/19
L1928183-06	DUP-ESI-1-062619	WATER	14 DEMING DRIVE	06/26/19 11:10	06/27/19
L1928183-07	ESI-1-062619	WATER	14 DEMING DRIVE	06/26/19 11:10	06/27/19
L1928183-08	ESI-13R-062619	WATER	14 DEMING DRIVE	06/26/19 11:45	06/27/19
L1928183-09	ESI-6-062619	WATER	14 DEMING DRIVE	06/26/19 12:20	06/27/19
L1928183-10	ESI-4-062619	WATER	14 DEMING DRIVE	06/26/19 13:00	06/27/19
L1928183-11	PW-3R-062619	WATER	14 DEMING DRIVE	06/26/19 13:35	06/27/19
L1928183-12	ESI-2-062619	WATER	14 DEMING DRIVE	06/26/19 14:20	06/27/19
L1928183-13	DUP-ESI4-062619	WATER	14 DEMING DRIVE	06/26/19 13:00	06/27/19
L1928183-14	EQUIPMENT BLANK-062619	WATER	14 DEMING DRIVE	06/26/19 16:00	06/27/19
L1928183-15	FIELD BLANK	WATER	14 DEMING DRIVE	06/26/19 15:00	06/27/19
L1928183-16	TRIP BLANK	WATER	14 DEMING DRIVE	06/26/19 15:00	06/27/19

Project Name:	JAMESTOWN CONTAINER	**Lab Number:**	L1928183
Project Number:	N30001001	**Report Date:**	07/15/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183
Project Number: N30001001 **Report Date:** 07/15/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L1928183-11D2: Headspace was noted in the sample container utilized for analysis.

L1928183-11: Differences were noted between the results of the analyses which have been attributed to vial discrepancies. Further re-analysis could not be performed due to the existing vials being compromised.

Perfluorinated Alkyl Acids by Isotope Dilution

WG1258087-7: The continuing calibration standard had the response for Perfluoroctanesulfonic Acid-Branched (br-PFOS) outside of acceptance criteria. The response for Perfluorooctanesulfonic Acid (PFOS) was within acceptance criteria; therefore, no further action was taken.

WG1258709-3: The continuing calibration standard had the response for PFHxA, PFDA, PFUnA, PFDoA, PFTrDA, and PFTA above the acceptance criteria for the method. The associated samples were non-detect to the RL for these target analytes; therefore, no further action was taken.

WG1258709-1: The continuing calibration standard had the response for Perfluoroctanesulfonic Acid-Branched (br-PFOS) outside of acceptance criteria. The response for Perfluorooctanesulfonic Acid (PFOS) was within acceptance criteria; therefore, no further action was taken.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 07/15/19

ORGANICS

VOLATILES

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-01
Client ID: ESI-10-062519
Sample Location: 14 DEMING DRIVE

Date Collected: 06/25/19 11:55
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/05/19 10:27
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.22	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	0.80	J	ug/l	2.5	0.70	1
Trichloroethene	84		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-01 Date Collected: 06/25/19 11:55

Client ID: ESI-10-062519 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	61		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	9.6		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	106		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-02
Client ID: ESI-11-062519
Sample Location: 14 DEMING DRIVE

Date Collected: 06/25/19 13:45
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/05/19 10:55
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	2.4		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-02 Date Collected: 06/25/19 13:45

Client ID: ESI-11-062519 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	24		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	105		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-03
Client ID: ESI-12-062519
Sample Location: 14 DEMING DRIVE

Date Collected: 06/25/19 14:30
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/05/19 11:24
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	2.8		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-03 Date Collected: 06/25/19 14:30

Client ID: ESI-12-062519 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	19		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	107		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-04
Client ID: ESI-3-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 10:00
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/05/19 11:52
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.80		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-04 Date Collected: 06/26/19 10:00

Client ID: ESI-3-062619 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.4	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	105		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-05
Client ID: PW-1-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 10:33
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/09/19 20:11
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	1.8		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-05 Date Collected: 06/26/19 10:33

Client ID: PW-1-062619 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	102		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-06
Client ID: DUP-ESI-1-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 11:10
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/08/19 22:04
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	10		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-06 Date Collected: 06/26/19 11:10

Client ID: DUP-ESI-1-062619 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	0.83	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.2	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	101		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-07
Client ID: ESI-1-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 11:10
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/08/19 22:29
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	10		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-07 Date Collected: 06/26/19 11:10

Client ID: ESI-1-062619 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	0.73	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.2	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	102		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-08
Client ID: ESI-13R-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 11:45
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/08/19 22:54
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	18		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-08 Date Collected: 06/26/19 11:45

Client ID: ESI-13R-062619 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.0	J	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.4	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	101		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-09
Client ID: ESI-6-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 12:20
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/09/19 23:44
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	1.6		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	1.2	J	ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	0.86	J	ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	1.2	J	ug/l	2.5	0.70	1
Trichloroethene	200	E	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-09 Date Collected: 06/26/19 12:20

Client ID: ESI-6-062619 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	80		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	7.7		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	123		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	124		70-130

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-09 D
Client ID: ESI-6-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 12:20
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/08/19 23:20
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	140		ug/l	1.0	0.35	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	104		70-130

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-11 D2
Client ID: PW-3R-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 13:35
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/10/19 00:05
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Vinyl chloride	320		ug/l	40	2.8	40

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	123		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-11 D
Client ID: PW-3R-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 13:35
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/08/19 23:45
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	7.3	J	ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	2200	E	ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	20	J	ug/l	25	7.0	10
Trichloroethene	ND		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-11 D
Client ID: PW-3R-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 13:35
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	1200		ug/l	25	7.0	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	19	J	ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
Methyl Acetate	ND		ug/l	20	2.3	10
Cyclohexane	ND		ug/l	100	2.7	10
Freon-113	ND		ug/l	25	7.0	10
Methyl cyclohexane	ND		ug/l	100	4.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	103		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-12 D
Client ID: ESI-2-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 14:20
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/09/19 00:10
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	120		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	3.7	J	ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	18	J	ug/l	25	7.0	10
Trichloroethene	690		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-12 D
Client ID: ESI-2-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 14:20
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	1400		ug/l	25	7.0	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
Methyl Acetate	ND		ug/l	20	2.3	10
Cyclohexane	ND		ug/l	100	2.7	10
Freon-113	ND		ug/l	25	7.0	10
Methyl cyclohexane	ND		ug/l	100	4.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	105		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-16
Client ID: TRIP BLANK
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 15:00
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 07/10/19 14:46
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-16 Date Collected: 06/26/19 15:00

Client ID: TRIP BLANK Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.5	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	108		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/05/19 09:31
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1257156-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/05/19 09:31
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1257156-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/05/19 09:31
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1257156-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	106		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/08/19 19:58
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-09,11-12 Batch: WG1257506-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/08/19 19:58
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-09,11-12 Batch: WG1257506-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/08/19 19:58
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-09,11-12 Batch: WG1257506-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	99		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/09/19 19:21
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1257954-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/09/19 19:21
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1257954-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/09/19 19:21
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1257954-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	101		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/09/19 20:26
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09,11 Batch: WG1258007-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/09/19 20:26
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09,11 Batch: WG1258007-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/09/19 20:26
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09,11 Batch: WG1258007-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	114		70-130

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/10/19 10:03
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 16 Batch: WG1258342-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/10/19 10:03
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 16 Batch: WG1258342-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
1,2-Dibromoethane	ND		ug/l	2.0	0.65
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/10/19 10:03
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 16 Batch: WG1258342-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1257156-3 WG1257156-4								
Methylene chloride	110		110		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		110		70-130	10		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	100		110		70-130	10		20
Dibromochloromethane	98		100		63-130	2		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	98		94		70-130	4		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	100		98		70-130	2		20
cis-1,3-Dichloropropene	90		100		70-130	11		20
Bromoform	93		93		54-136	0		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	110		110		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	84		81		64-130	4		20
Bromomethane	98		100		39-139	2		20
Vinyl chloride	100		97		55-140	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1257156-3 WG1257156-4								
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	110		110		70-130	0		20
1,2-Dichlorobenzene	95		97		70-130	2		20
1,3-Dichlorobenzene	100		98		70-130	2		20
1,4-Dichlorobenzene	95		98		70-130	3		20
Methyl tert butyl ether	120		110		63-130	9		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	120		110		70-130	9		20
Styrene	100		95		70-130	5		20
Dichlorodifluoromethane	97		97		36-147	0		20
Acetone	110		110		58-148	0		20
Carbon disulfide	120		110		51-130	9		20
2-Butanone	100		100		63-138	0		20
4-Methyl-2-pentanone	95		100		59-130	5		20
2-Hexanone	94		90		57-130	4		20
1,2-Dibromoethane	100		100		70-130	0		20
n-Butylbenzene	98		100		53-136	2		20
sec-Butylbenzene	74		79		70-130	7		20
tert-Butylbenzene	97		100		70-130	3		20
1,2-Dibromo-3-chloropropane	97		96		41-144	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001

Lab Number: L1928183
Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1257156-3 WG1257156-4								
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	92		94		70-130	2		20
n-Propylbenzene	100		100		69-130	0		20
1,2,4-Trichlorobenzene	93		96		70-130	3		20
1,3,5-Trimethylbenzene	99		100		64-130	1		20
1,2,4-Trimethylbenzene	99		100		70-130	1		20
Methyl Acetate	110		110		70-130	0		20
Cyclohexane	110		110		70-130	0		20
Freon-113	120		110		70-130	9		20
Methyl cyclohexane	110		110		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	91		89		70-130
Toluene-d8	99		98		70-130
4-Bromofluorobenzene	100		102		70-130
Dibromofluoromethane	100		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-09,11-12 Batch: WG1257506-3 WG1257506-4								
Methylene chloride	110		100		70-130	10		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	100		98		63-130	2		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	110		100		70-130	10		20
Chlorobenzene	100		98		75-130	2		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	98		97		70-130	1		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	100		99		67-130	1		20
trans-1,3-Dichloropropene	86		84		70-130	2		20
cis-1,3-Dichloropropene	98		97		70-130	1		20
Bromoform	83		83		54-136	0		20
1,1,2,2-Tetrachloroethane	99		98		67-130	1		20
Benzene	110		110		70-130	0		20
Toluene	98		98		70-130	0		20
Ethylbenzene	98		97		70-130	1		20
Chloromethane	97		95		64-130	2		20
Bromomethane	71		75		39-139	5		20
Vinyl chloride	110		100		55-140	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-09,11-12 Batch: WG1257506-3 WG1257506-4								
Chloroethane	98		96		55-138	2		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	98		97		70-130	1		20
1,3-Dichlorobenzene	96		97		70-130	1		20
1,4-Dichlorobenzene	97		96		70-130	1		20
Methyl tert butyl ether	110		110		63-130	0		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	105		100		70-130	5		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	100		100		36-147	0		20
Acetone	97		95		58-148	2		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	92		90		63-138	2		20
4-Methyl-2-pentanone	98		93		59-130	5		20
2-Hexanone	86		85		57-130	1		20
1,2-Dibromoethane	100		100		70-130	0		20
n-Butylbenzene	97		96		53-136	1		20
sec-Butylbenzene	100		98		70-130	2		20
tert-Butylbenzene	99		98		70-130	1		20
1,2-Dibromo-3-chloropropane	85		84		41-144	1		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001

Lab Number: L1928183
Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-09,11-12 Batch: WG1257506-3 WG1257506-4								
Isopropylbenzene	99		99		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	96		92		70-130	4		20
n-Propylbenzene	98		97		69-130	1		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	97		96		64-130	1		20
1,2,4-Trimethylbenzene	98		96		70-130	2		20
Methyl Acetate	100		100		70-130	0		20
Cyclohexane	110		110		70-130	0		20
Freon-113	120		110		70-130	9		20
Methyl cyclohexane	120		120		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	94		92		70-130
Toluene-d8	96		96		70-130
4-Bromofluorobenzene	96		95		70-130
Dibromofluoromethane	101		101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1257954-3 WG1257954-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	96		97		70-130	1		20
Chloroform	98		99		70-130	1		20
Carbon tetrachloride	99		99		63-132	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	92		92		63-130	0		20
1,1,2-Trichloroethane	97		96		70-130	1		20
Tetrachloroethene	96		94		70-130	2		20
Chlorobenzene	94		93		75-130	1		20
Trichlorofluoromethane	95		94		62-150	1		20
1,2-Dichloroethane	96		96		70-130	0		20
1,1,1-Trichloroethane	98		97		67-130	1		20
Bromodichloromethane	94		97		67-130	3		20
trans-1,3-Dichloropropene	78		77		70-130	1		20
cis-1,3-Dichloropropene	92		92		70-130	0		20
Bromoform	76		77		54-136	1		20
1,1,2,2-Tetrachloroethane	90		91		67-130	1		20
Benzene	100		100		70-130	0		20
Toluene	92		90		70-130	2		20
Ethylbenzene	91		90		70-130	1		20
Chloromethane	91		91		64-130	0		20
Bromomethane	52		58		39-139	11		20
Vinyl chloride	100		99		55-140	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1257954-3 WG1257954-4								
Chloroethane	95		92		55-138	3		20
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	95		95		70-130	0		20
1,2-Dichlorobenzene	93		92		70-130	1		20
1,3-Dichlorobenzene	92		89		70-130	3		20
1,4-Dichlorobenzene	91		90		70-130	1		20
Methyl tert butyl ether	110		110		63-130	0		20
p/m-Xylene	95		95		70-130	0		20
o-Xylene	100		95		70-130	5		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	92		92		36-147	0		20
Acetone	99		100		58-148	1		20
Carbon disulfide	98		98		51-130	0		20
2-Butanone	88		90		63-138	2		20
4-Methyl-2-pentanone	89		89		59-130	0		20
2-Hexanone	79		79		57-130	0		20
1,2-Dibromoethane	96		97		70-130	1		20
n-Butylbenzene	88		86		53-136	2		20
sec-Butylbenzene	90		88		70-130	2		20
tert-Butylbenzene	91		88		70-130	3		20
1,2-Dibromo-3-chloropropane	78		83		41-144	6		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001

Lab Number: L1928183
Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1257954-3 WG1257954-4								
Isopropylbenzene	91		90		70-130	1		20
p-Isopropyltoluene	92		90		70-130	2		20
Naphthalene	85		89		70-130	5		20
n-Propylbenzene	90		87		69-130	3		20
1,2,4-Trichlorobenzene	92		94		70-130	2		20
1,3,5-Trimethylbenzene	90		88		64-130	2		20
1,2,4-Trimethylbenzene	92		89		70-130	3		20
Methyl Acetate	95		99		70-130	4		20
Cyclohexane	100		100		70-130	0		20
Freon-113	100		100		70-130	0		20
Methyl cyclohexane	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		96		70-130
Toluene-d8	95		94		70-130
4-Bromofluorobenzene	96		95		70-130
Dibromofluoromethane	102		104		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09,11 Batch: WG1258007-3 WG1258007-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	99		99		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	98		99		70-130	1		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	110		100		70-130	10		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	99		99		75-130	0		20
Trichlorofluoromethane	120		120		62-150	0		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	98		100		67-130	2		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	89		88		70-130	1		20
cis-1,3-Dichloropropene	89		90		70-130	1		20
Bromoform	110		110		54-136	0		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	98		100		70-130	2		20
Toluene	97		98		70-130	1		20
Ethylbenzene	93		96		70-130	3		20
Chloromethane	97		95		64-130	2		20
Bromomethane	120		130		39-139	8		20
Vinyl chloride	100		100		55-140	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09,11 Batch: WG1258007-3 WG1258007-4								
Chloroethane	**160**	Q	**170**	Q	55-138	6		20
1,1-Dichloroethene	93		100		61-145	7		20
trans-1,2-Dichloroethene	88		95		70-130	8		20
Trichloroethene	96		99		70-130	3		20
1,2-Dichlorobenzene	97		93		70-130	4		20
1,3-Dichlorobenzene	97		96		70-130	1		20
1,4-Dichlorobenzene	95		95		70-130	0		20
Methyl tert butyl ether	87		88		63-130	1		20
p/m-Xylene	95		95		70-130	0		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	94		94		70-130	0		20
Styrene	95		100		70-130	5		20
Dichlorodifluoromethane	92		92		36-147	0		20
Acetone	120		120		58-148	0		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	90		93		63-138	3		20
4-Methyl-2-pentanone	86		88		59-130	2		20
2-Hexanone	81		80		57-130	1		20
1,2-Dibromoethane	98		97		70-130	1		20
n-Butylbenzene	98		96		53-136	2		20
sec-Butylbenzene	94		92		70-130	2		20
tert-Butylbenzene	87		86		70-130	1		20
1,2-Dibromo-3-chloropropane	100		94		41-144	6		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001

Lab Number: L1928183
Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09,11 Batch: WG1258007-3 WG1258007-4								
Isopropylbenzene	89		89		70-130	0		20
p-Isopropyltoluene	90		89		70-130	1		20
Naphthalene	78		77		70-130	1		20
n-Propylbenzene	94		95		69-130	1		20
1,2,4-Trichlorobenzene	89		88		70-130	1		20
1,3,5-Trimethylbenzene	92		93		64-130	1		20
1,2,4-Trimethylbenzene	92		90		70-130	2		20
Methyl Acetate	97		100		70-130	3		20
Cyclohexane	84		80		70-130	5		20
Freon-113	100		100		70-130	0		20
Methyl cyclohexane	87		87		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	108		106		70-130
Toluene-d8	102		102		70-130
4-Bromofluorobenzene	92		92		70-130
Dibromofluoromethane	108		107		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 16 Batch: WG1258342-3 WG1258342-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	95		92		70-130	3		20
Chloroform	110		97		70-130	13		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	96		95		70-130	1		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	110		100		70-130	10		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	99		94		62-150	5		20
1,2-Dichloroethane	91		90		70-130	1		20
1,1,1-Trichloroethane	100		98		67-130	2		20
Bromodichloromethane	98		96		67-130	2		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	91		89		70-130	2		20
Bromoform	100		99		54-136	1		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	74		70		64-130	6		20
Bromomethane	93		77		39-139	19		20
Vinyl chloride	87		83		55-140	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 16 Batch: WG1258342-3 WG1258342-4								
Chloroethane	90		88		55-138	2		20
1,1-Dichloroethene	110		100		61-145	10		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	100		98		70-130	2		20
1,3-Dichlorobenzene	110		100		70-130	10		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	100		110		63-130	10		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		100		70-130	5		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	82		77		36-147	6		20
Acetone	100		90		58-148	11		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	92		93		63-138	1		20
4-Methyl-2-pentanone	93		92		59-130	1		20
2-Hexanone	83		88		57-130	6		20
1,2-Dibromoethane	100		110		70-130	10		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	82		82		70-130	0		20
tert-Butylbenzene	110		100		70-130	10		20
1,2-Dibromo-3-chloropropane	110		100		41-144	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001

Lab Number: L1928183
Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 16 Batch: WG1258342-3 WG1258342-4								
Isopropylbenzene	110		100		70-130	10		20
p-Isopropyltoluene	110		100		70-130	10		20
Naphthalene	100		99		70-130	1		20
n-Propylbenzene	100		100		69-130	0		20
1,2,4-Trichlorobenzene	100		97		70-130	3		20
1,3,5-Trimethylbenzene	110		100		64-130	10		20
1,2,4-Trimethylbenzene	110		100		70-130	10		20
Methyl Acetate	89		92		70-130	3		20
Cyclohexane	92		88		70-130	4		20
Freon-113	100		100		70-130	0		20
Methyl cyclohexane	98		92		70-130	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		91		70-130
Toluene-d8	102		104		70-130
4-Bromofluorobenzene	101		98		70-130
Dibromofluoromethane	101		101		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001
Lab Number: L1928183
Report Date: 07/15/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 QC Batch ID: WG1257954-6 WG1257954-7 QC Sample: L1928183-05 Client ID: PW-1-062619												
Methylene chloride	ND	10	11	110		12	120		70-130	9		20
1,1-Dichloroethane	ND	10	12	120		12	120		70-130	0		20
Chloroform	ND	10	12	120		12	120		70-130	0		20
Carbon tetrachloride	ND	10	13	130		14	**140**	Q	63-132	7		20
1,2-Dichloropropane	ND	10	11	110		11	110		70-130	0		20
Dibromochloromethane	ND	10	9.6	96		10	100		63-130	4		20
1,1,2-Trichloroethane	ND	10	9.9	99		10	100		70-130	1		20
Tetrachloroethene	ND	10	11	110		11	110		70-130	0		20
Chlorobenzene	ND	10	9.9	99		10	100		75-130	1		20
Trichlorofluoromethane	ND	10	14	140		14	140		62-150	0		20
1,2-Dichloroethane	ND	10	11	110		12	120		70-130	9		20
1,1,1-Trichloroethane	ND	10	13	130		13	130		67-130	0		20
Bromodichloromethane	ND	10	11	110		12	120		67-130	9		20
trans-1,3-Dichloropropene	ND	10	7.8	78		8.4	84		70-130	7		20
cis-1,3-Dichloropropene	ND	10	9.0	90		9.8	98		70-130	9		20
Bromoform	ND	10	7.7	77		8.2	82		54-136	6		20
1,1,2,2-Tetrachloroethane	ND	10	8.5	85		9.0	90		67-130	6		20
Benzene	ND	10	12	120		12	120		70-130	0		20
Toluene	ND	10	10	100		10	100		70-130	0		20
Ethylbenzene	ND	10	9.9	99		11	110		70-130	11		20
Chloromethane	ND	10	12	120		12	120		64-130	0		20
Bromomethane	ND	10	5.5	55		7.5	75		39-139	**31**	Q	20
Vinyl chloride	ND	10	13	130		13	130		55-140	0		20

Matrix Spike Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001
Lab Number: L1928183
Report Date: 07/15/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 QC Batch ID: WG1257954-6 WG1257954-7 QC Sample: L1928183-05 Client ID: PW-1-062619												
Chloroethane	ND	10	13	130		13	130		55-138	0		20
1,1-Dichloroethene	ND	10	13	130		13	130		61-145	0		20
trans-1,2-Dichloroethene	ND	10	12	120		13	130		70-130	8		20
Trichloroethene	1.8	10	13	112		14	122		70-130	7		20
1,2-Dichlorobenzene	ND	10	9.2	92		10	100		70-130	8		20
1,3-Dichlorobenzene	ND	10	9.2	92		9.9	99		70-130	7		20
1,4-Dichlorobenzene	ND	10	9.1	91		9.8	98		70-130	7		20
Methyl tert butyl ether	ND	10	11	110		11	110		63-130	0		20
p/m-Xylene	ND	20	20	100		22	110		70-130	10		20
o-Xylene	ND	20	20	100		22	110		70-130	10		20
cis-1,2-Dichloroethene	ND	10	12	120		12	120		70-130	0		20
Styrene	ND	20	20	100		22	110		70-130	10		20
Dichlorodifluoromethane	ND	10	12	120		13	130		36-147	8		20
Acetone	2.8J	10	12	120		11	110		58-148	9		20
Carbon disulfide	ND	10	12	120		13	130		51-130	8		20
2-Butanone	ND	10	8.5	85		9.4	94		63-138	10		20
4-Methyl-2-pentanone	ND	10	7.6	76		8.2	82		59-130	8		20
2-Hexanone	ND	10	6.8	68		7.4	74		57-130	8		20
1,2-Dibromoethane	ND	10	9.6	96		10	100		70-130	4		20
n-Butylbenzene	ND	10	8.9	89		9.9	99		53-136	11		20
sec-Butylbenzene	ND	10	9.3	93		10	100		70-130	7		20
tert-Butylbenzene	ND	10	9.5	95		10	100		70-130	5		20
1,2-Dibromo-3-chloropropane	ND	10	7.4	74		8.0	80		41-144	8		20

Matrix Spike Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001
Lab Number: L1928183
Report Date: 07/15/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 QC Batch ID: WG1257954-6 WG1257954-7 QC Sample: L1928183-05 Client ID: PW-1-062619												
Isopropylbenzene	ND	10	9.5	95		10	100		70-130	5		20
p-Isopropyltoluene	ND	10	9.4	94		10	100		70-130	6		20
Naphthalene	ND	10	6.6	**66**	Q	8.1	81		70-130	20		20
n-Propylbenzene	ND	10	9.4	94		10	100		69-130	6		20
1,2,4-Trichlorobenzene	ND	10	8.5	85		9.7	97		70-130	13		20
1,3,5-Trimethylbenzene	ND	10	9.3	93		10	100		64-130	7		20
1,2,4-Trimethylbenzene	ND	10	9.3	93		10	100		70-130	7		20
Methyl Acetate	ND	10	8.8	88		9.4	94		70-130	7		20
Cyclohexane	ND	10	12	120		13	130		70-130	8		20
Freon-113	ND	10	13	130		13	130		70-130	0		20
Methyl cyclohexane	ND	10	12	120		12	120		70-130	0		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		102		70-130
4-Bromofluorobenzene	95		96		70-130
Dibromofluoromethane	107		106		70-130
Toluene-d8	93		92		70-130

SEMIVOLATILES

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-04
Client ID: ESI-3-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 10:00
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 07/02/19 15:10
Analyst: MA

Extraction Method: EPA 3510C
Extraction Date: 07/02/19 08:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	150	33.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	45		15-110

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-04
Client ID: ESI-3-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 10:00
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 07/11/19 21:21
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/10/19 07:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	3.16		ng/l	1.86	0.380	1
Perfluoropentanoic Acid (PFPeA)	0.817	J	ng/l	1.86	0.369	1
Perfluorobutanesulfonic Acid (PFBS)	1.06	J	ng/l	1.86	0.222	1
Perfluorohexanoic Acid (PFHxA)	0.664	J	ng/l	1.86	0.306	1
Perfluoroheptanoic Acid (PFHpA)	0.653	J	ng/l	1.86	0.210	1
Perfluorohexanesulfonic Acid (PFHxS)	1.12	J	ng/l	1.86	0.351	1
Perfluorooctanoic Acid (PFOA)	2.29		ng/l	1.86	0.220	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.86	1.24	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.86	0.642	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.86	0.291	1
Perfluorooctanesulfonic Acid (PFOS)	1.49	J	ng/l	1.86	0.470	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.86	0.284	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.86	1.13	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.86	0.604	1
Perfluoroundecanoic Acid (PFUnA)	0.466	J	ng/l	1.86	0.242	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.86	0.914	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.86	0.541	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.86	0.750	1
Perfluorododecanoic Acid (PFDoA)	0.526	J	ng/l	1.86	0.347	1
Perfluorotridecanoic Acid (PFTrDA)	0.436	J	ng/l	1.86	0.305	1
Perfluorotetradecanoic Acid (PFTA)	0.444	J	ng/l	1.86	0.231	1
PFOA/PFOS, Total	3.78	J	ng/l	1.86	0.220	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-04 Date Collected: 06/26/19 10:00

Client ID: ESI-3-062619 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	66		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	80		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	86		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	62		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	59		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	83		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	70		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	81		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	72		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	77		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	63		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	80		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	48		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	66		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	20		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	43		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	62		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	69		33-143

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-07
Client ID: ESI-1-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 11:10
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 07/02/19 16:45
Analyst: MA

Extraction Method: EPA 3510C
Extraction Date: 07/02/19 08:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	32.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	43		15-110

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-07
Client ID: ESI-1-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 11:10
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 07/12/19 08:39
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/10/19 12:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	1.39	J	ng/l	1.93	0.394	1
Perfluoropentanoic Acid (PFPeA)	1.03	J	ng/l	1.93	0.382	1
Perfluorobutanesulfonic Acid (PFBS)	0.568	J	ng/l	1.93	0.230	1
Perfluorohexanoic Acid (PFHxA)	0.703	J	ng/l	1.93	0.317	1
Perfluoroheptanoic Acid (PFHpA)	0.981	J	ng/l	1.93	0.217	1
Perfluorohexanesulfonic Acid (PFHxS)	0.436	J	ng/l	1.93	0.363	1
Perfluorooctanoic Acid (PFOA)	1.88	J	ng/l	1.93	0.228	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.93	1.28	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.93	0.664	1
Perfluorononanoic Acid (PFNA)	0.386	J	ng/l	1.93	0.301	1
Perfluorooctanesulfonic Acid (PFOS)	4.49		ng/l	1.93	0.486	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.93	0.293	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.93	1.17	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.93	0.625	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.93	0.251	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.93	0.946	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.93	0.560	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.93	0.776	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.93	0.359	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.93	0.316	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.93	0.239	1
PFOA/PFOS, Total	6.37	J	ng/l	1.93	0.228	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-07 Date Collected: 06/26/19 11:10

Client ID: ESI-1-062619 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	82		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	107		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	97		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	72		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	74		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	97		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	82		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	97		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	89		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	93		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	69		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	72		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	42		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	59		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	18		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	31		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	41		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	42		33-143

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-10
Client ID: ESI-4-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 13:00
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 07/02/19 17:15
Analyst: MA

Extraction Method: EPA 3510C
Extraction Date: 07/02/19 08:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	150	33.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	51		15-110

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-10
Client ID: ESI-4-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 13:00
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 07/12/19 08:56
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/10/19 12:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	3.26		ng/l	1.92	0.391	1
Perfluoropentanoic Acid (PFPeA)	1.71	J	ng/l	1.92	0.379	1
Perfluorobutanesulfonic Acid (PFBS)	1.07	J	ng/l	1.92	0.228	1
Perfluorohexanoic Acid (PFHxA)	1.02	J	ng/l	1.92	0.314	1
Perfluoroheptanoic Acid (PFHpA)	1.15	J	ng/l	1.92	0.216	1
Perfluorohexanesulfonic Acid (PFHxS)	1.03	J	ng/l	1.92	0.360	1
Perfluorooctanoic Acid (PFOA)	1.72	J	ng/l	1.92	0.226	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.92	1.28	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.92	0.659	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.92	0.299	1
Perfluorooctanesulfonic Acid (PFOS)	1.79	J	ng/l	1.92	0.483	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.92	0.291	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.92	1.16	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.92	0.621	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.92	0.249	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.92	0.939	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.92	0.556	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.92	0.770	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.92	0.356	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.92	0.313	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.92	0.238	1
PFOA/PFOS, Total	3.51	J	ng/l	1.92	0.226	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-10 Date Collected: 06/26/19 13:00

Client ID: ESI-4-062619 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	63		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	81		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	83		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	56		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	59		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	82		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	67		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	78		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	77		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	80		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	66		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	68		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	51		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	65		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	14		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	39		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	60		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	62		33-143

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-13
Client ID: DUP-ESI4-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 13:00
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 07/02/19 17:44
Analyst: MA

Extraction Method: EPA 3510C
Extraction Date: 07/02/19 08:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	139	31.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	45		15-110

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-13
Client ID: DUP-ESI4-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 13:00
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 07/12/19 09:13
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/10/19 12:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	3.32		ng/l	1.84	0.376	1
Perfluoropentanoic Acid (PFPeA)	1.57	J	ng/l	1.84	0.365	1
Perfluorobutanesulfonic Acid (PFBS)	1.11	J	ng/l	1.84	0.220	1
Perfluorohexanoic Acid (PFHxA)	0.945	J	ng/l	1.84	0.302	1
Perfluoroheptanoic Acid (PFHpA)	1.05	J	ng/l	1.84	0.208	1
Perfluorohexanesulfonic Acid (PFHxS)	0.808	J	ng/l	1.84	0.347	1
Perfluorooctanoic Acid (PFOA)	1.73	J	ng/l	1.84	0.218	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.84	1.23	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.84	0.635	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.84	0.288	1
Perfluorooctanesulfonic Acid (PFOS)	1.79	J	ng/l	1.84	0.465	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.84	0.280	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.84	1.12	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.84	0.598	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.84	0.240	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.84	0.904	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.84	0.535	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.84	0.742	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.84	0.343	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.84	0.302	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.84	0.229	1
PFOA/PFOS, Total	3.52	J	ng/l	1.84	0.218	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-13 Date Collected: 06/26/19 13:00

Client ID: DUP-ESI4-062619 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	68		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	87		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	86		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	60		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	64		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	87		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	72		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	82		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	86		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	72		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	88		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	53		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	74		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	11		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	38		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	66		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	70		33-143

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-14
Client ID: EQUIPMENT BLANK-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 16:00
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 07/02/19 18:14
Analyst: MA

Extraction Method: EPA 3510C
Extraction Date: 07/02/19 08:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	139	31.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	49		15-110

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-14
Client ID: EQUIPMENT BLANK-062619
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 16:00
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 07/12/19 09:29
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/10/19 12:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.99	0.406	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.99	0.394	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.99	0.237	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.99	0.327	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.99	0.224	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.99	0.374	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.99	0.235	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.99	1.33	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.99	0.685	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.99	0.311	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.99	0.502	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.99	0.303	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.99	1.21	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.99	0.645	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.99	0.259	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.99	0.976	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.99	0.578	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.99	0.801	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.99	0.370	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.99	0.326	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.99	0.247	1
PFOA/PFOS, Total	ND		ng/l	1.99	0.235	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-14 Date Collected: 06/26/19 16:00

Client ID: EQUIPMENT BLANK-062619 Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	66		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	86		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	78		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	58		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	62		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	88		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	76		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	84		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	78		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	81		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	71		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	93		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	68		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	72		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	11		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	55		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	68		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	69		33-143

Project Name: JAMESTOWN CONTAINER
Lab Number: L1928183
Project Number: N30001001
Report Date: 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-15
Client ID: FIELD BLANK
Sample Location: 14 DEMING DRIVE

Date Collected: 06/26/19 15:00
Date Received: 06/27/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 07/12/19 09:46
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/10/19 12:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.02	0.411	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.02	0.399	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.02	0.240	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.02	0.331	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.02	0.227	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.02	0.379	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.02	0.238	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.02	1.34	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.02	0.694	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.02	0.314	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.02	0.508	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.02	0.306	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.02	1.22	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.02	0.653	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.02	0.262	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.02	0.988	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.02	0.585	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.02	0.810	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.02	0.375	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.02	0.330	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.02	0.250	1
PFOA/PFOS, Total	ND		ng/l	2.02	0.238	1

Project Name: JAMESTOWN CONTAINER **Lab Number:** L1928183

Project Number: N30001001 **Report Date:** 07/15/19

SAMPLE RESULTS

Lab ID: L1928183-15 Date Collected: 06/26/19 15:00

Client ID: FIELD BLANK Date Received: 06/27/19

Sample Location: 14 DEMING DRIVE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	77		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	102		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	90		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	70		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	78		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	93		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	87		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	102		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	84		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	77		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	91		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	74		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	73		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	11		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	67		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	66		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	73		33-143

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001

Lab Number: L1928183
Report Date: 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 07/02/19 13:40
Analyst: MA

Extraction Method: EPA 3510C
Extraction Date: 07/02/19 08:39

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 04,07,10,13-14 Batch: WG1255608-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	48		15-110

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001
Lab Number: L1928183
Report Date: 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 07/11/19 06:29
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/10/19 07:12

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 04 Batch: WG1257924-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	0.384	J	ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	0.636	J	ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	0.692	J	ng/l	2.00	0.248
PFOA/PFOS, Total	ND		ng/l	2.00	0.236

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001
Lab Number: L1928183
Report Date: 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 07/11/19 06:29
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/10/19 07:12

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 04 Batch: WG1257924-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	81		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	91		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	83		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	73		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	74		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	83		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	78		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	79		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	82		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	72		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	70		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	85		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	63		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	76		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	26		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	58		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	70		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	70		33-143

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001
Lab Number: L1928183
Report Date: 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 07/12/19 02:52
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/10/19 12:00

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 07,10,13-15 Batch: WG1257926-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248
PFOA/PFOS, Total	ND		ng/l	2.00	0.236

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001
Lab Number: L1928183
Report Date: 07/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 07/12/19 02:52
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/10/19 12:00

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 07,10,13-15 Batch: WG1257926-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	96		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	108		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	99		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	83		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	89		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	98		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	91		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	77		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	100		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	96		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	87		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	82		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	71		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	90		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	22		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	59		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	82		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	69		33-143

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001

Lab Number: L1928183
Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 04,07,10,13-14 Batch: WG1255608-2 WG1255608-3								
1,4-Dioxane	101		98		40-140	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	46		49		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 04 Batch: WG1257924-2 WG1257924-3								
Perfluorobutanoic Acid (PFBA)	112		106		67-148	6		30
Perfluoropentanoic Acid (PFPeA)	119		113		63-161	5		30
Perfluorobutanesulfonic Acid (PFBS)	120		109		65-157	10		30
Perfluorohexanoic Acid (PFHxA)	122		118		69-168	3		30
Perfluoroheptanoic Acid (PFHpA)	110		107		58-159	3		30
Perfluorohexanesulfonic Acid (PFHxS)	130		116		69-177	11		30
Perfluorooctanoic Acid (PFOA)	117		112		63-159	4		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	119		116		49-187	3		30
Perfluoroheptanesulfonic Acid (PFHpS)	121		113		61-179	7		30
Perfluorononanoic Acid (PFNA)	122		116		68-171	5		30
Perfluorooctanesulfonic Acid (PFOS)	107		100		52-151	7		30
Perfluorodecanoic Acid (PFDA)	126		120		63-171	5		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	114		113		56-173	1		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	120		114		60-166	5		30
Perfluoroundecanoic Acid (PFUnA)	104		99		60-153	5		30
Perfluorodecanesulfonic Acid (PFDS)	119		112		38-156	6		30
Perfluorooctanesulfonamide (FOSA)	107		106		46-170	1		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	112		118		45-170	5		30
Perfluorododecanoic Acid (PFDoA)	112		110		67-153	2		30
Perfluorotridecanoic Acid (PFTrDA)	114		110		48-158	4		30
Perfluorotetradecanoic Acid (PFTA)	128		123		59-182	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 04 Batch: WG1257924-2 WG1257924-3								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	85		84		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	93		93		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	85		98		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	81		76		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	82		79		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	82		98		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	85		82		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	87		104		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	90		87		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	77		94		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	73		76		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	103		106		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	62		69		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	74		82		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	28		25		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	65		64		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	71		76		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	73		73		33-143

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 07,10,13-15 Batch: WG1257926-2 WG1257926-3								
Perfluorobutanoic Acid (PFBA)	96		96		67-148	0		30
Perfluoropentanoic Acid (PFPeA)	101		100		63-161	1		30
Perfluorobutanesulfonic Acid (PFBS)	97		96		65-157	1		30
Perfluorohexanoic Acid (PFHxA)	108		106		69-168	2		30
Perfluoroheptanoic Acid (PFHpA)	97		96		58-159	1		30
Perfluorohexanesulfonic Acid (PFHxS)	101		107		69-177	6		30
Perfluorooctanoic Acid (PFOA)	103		102		63-159	1		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	115		107		49-187	7		30
Perfluoroheptanesulfonic Acid (PFHpS)	109		107		61-179	2		30
Perfluorononanoic Acid (PFNA)	104		103		68-171	1		30
Perfluorooctanesulfonic Acid (PFOS)	92		84		52-151	9		30
Perfluorodecanoic Acid (PFDA)	107		108		63-171	1		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	108		106		56-173	2		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	98		100		60-166	2		30
Perfluoroundecanoic Acid (PFUnA)	92		93		60-153	1		30
Perfluorodecanesulfonic Acid (PFDS)	106		100		38-156	6		30
Perfluorooctanesulfonamide (FOSA)	93		91		46-170	2		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	88		95		45-170	8		30
Perfluorododecanoic Acid (PFDoA)	97		96		67-153	1		30
Perfluorotridecanoic Acid (PFTrDA)	103		103		48-158	0		30
Perfluorotetradecanoic Acid (PFTA)	110		108		59-182	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 07,10,13-15 Batch: WG1257926-2 WG1257926-3								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	93		95		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	105		105		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	95		95		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	84		86		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	88		91		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99		96		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	91		93		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	72		79		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	97		99		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	86		95		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	83		87		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	80		88		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	69		66		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	85		91		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	28		32		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	67		65		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	80		87		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		88		33-143

Matrix Spike Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001

Lab Number: L1928183
Report Date: 07/15/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 04,07,10,13-14 QC Batch ID: WG1255608-4 WG1255608-5 QC Sample: L1928183-04 Client ID: ESI-3-062619												
1,4-Dioxane	ND	5000	4970	99		5010	100		40-140	1		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,4-Dioxane-d8	50		47		15-110

Matrix Spike Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 04 QC Batch ID: WG1257924-4 WG1257924-5 QC Sample: L1928183-04 Client ID: ESI-3-062619												
Perfluorobutanoic Acid (PFBA)	3.16	37.6	38.8	95		39.6	102		67-148	2		30
Perfluoropentanoic Acid (PFPeA)	0.817J	37.6	37.4	100		38.5	108		63-161	3		30
Perfluorobutanesulfonic Acid (PFBS)	1.06J	37.6	36.2	96		37.2	104		65-157	3		30
Perfluorohexanoic Acid (PFHxA)	0.664J	37.6	40.4	107		41.3	116		69-168	2		30
Perfluoroheptanoic Acid (PFHpA)	0.653J	37.6	37.0	98		37.9	106		58-159	2		30
Perfluorohexanesulfonic Acid (PFHxS)	1.12J	37.6	40.7	108		42.7	120		69-177	5		30
Perfluorooctanoic Acid (PFOA)	2.29	37.6	39.6	100		41.2	110		63-159	4		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	37.6	40.7	108		46.6	130		49-187	14		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	37.6	38.8	103		40.9	115		61-179	5		30
Perfluorononanoic Acid (PFNA)	ND	37.6	38.7	103		38.8	109		68-171	0		30
Perfluorooctanesulfonic Acid (PFOS)	1.49J	37.6	34.5	92		34.7	97		52-151	1		30
Perfluorodecanoic Acid (PFDA)	ND	37.6	40.1	107		38.4	108		63-171	4		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	37.6	39.2	104		38.4	108		56-173	2		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	37.6	34.3	91		36.1	101		60-166	5		30
Perfluoroundecanoic Acid (PFUnA)	0.466J	37.6	36.3	97		33.5	94		60-153	8		30
Perfluorodecanesulfonic Acid (PFDS)	ND	37.6	39.7	106		35.7	100		38-156	11		30
Perfluorooctanesulfonamide (FOSA)	ND	37.6	37.2	99		35.6	100		46-170	4		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	37.6	31.9	85		32.5	91		45-170	2		30
Perfluorododecanoic Acid (PFDoA)	0.526J	37.6	38.3	102		36.2	101		67-153	6		30
Perfluorotridecanoic Acid (PFTrDA)	0.436J	37.6	41.0	109		39.0	109		48-158	5		30
Perfluorotetradecanoic Acid (PFTA)	0.444J	37.6	43.6	116		41.2	115		59-182	6		30

Matrix Spike Analysis

Batch Quality Control

Project Name: JAMESTOWN CONTAINER

Project Number: N30001001

Lab Number: L1928183

Report Date: 07/15/19

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 04 QC Batch ID: WG1257924-4 WG1257924-5 QC Sample: L1928183-04 Client ID: ESI-3-062619

Surrogate (Extracted Internal Standard)	*MS % Recovery*	*MS Qualifier*	*MSD % Recovery*	*MSD Qualifier*	*Acceptance Criteria*
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	84		79		7-170
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	85		78		1-244
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	50		44		23-146
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	50		45		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	67		64		40-144
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	64		62		38-144
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	64		59		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	62		57		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	86		78		47-153
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	63		60		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	70		66		33-143
Perfluoro[13C4]Butanoic Acid (MPFBA)	69		65		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	84		78		16-173
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	16		14		1-87
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	78		75		42-146
Perfluoro[13C8]Octanoic Acid (M8PFOA)	70		65		36-149
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	72		69		34-146
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	89		84		31-159

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001

Lab Number: L1928183
Report Date: 07/15/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1928183-01A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-01B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-01C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-02A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-02B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-02C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-03A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-03B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-03C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-04A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-04B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-04C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-04D	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-04D1	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-04D2	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-04E	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-04E1	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-04E2	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-04F	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-04F1	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-04F2	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-04G	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)

*Values in parentheses indicate holding time in days

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001

Lab Number: L1928183
Report Date: 07/15/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1928183-04G1	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-04G2	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-05A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-05A1	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-05A2	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-05B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-05B1	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-05B2	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-05C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-05C1	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-05C2	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-06A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-06B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-06C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-07A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-07B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-07C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-07D	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-07E	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-07F	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-07G	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-08A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-08B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-08C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-09A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-09B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-09C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-10D	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)

*Values in parentheses indicate holding time in days

Project Name: JAMESTOWN CONTAINER
Project Number: N30001001

Lab Number: L1928183
Report Date: 07/15/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1928183-10E	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-10F	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-10G	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-11A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-11B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-11C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-12A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-12B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-12C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-13D	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-13E	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-13F	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-13G	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-14D	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-14E	Amber 250ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1928183-14F	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-14G	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-15F	Plastic 250ml Trizma preserved	B	NA		2.5	Y	Absent		A2-NY-537-ISOTOPE(14)
L1928183-16A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)
L1928183-16B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	JAMESTOWN CONTAINER	**Lab Number:**	L1928183
Project Number:	N30001001	**Report Date:**	07/15/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers

Project Name:	JAMESTOWN CONTAINER	**Lab Number:**	L1928183
Project Number:	N30001001	**Report Date:**	07/15/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers

Project Name:	JAMESTOWN CONTAINER	**Lab Number:**	L1928183
Project Number:	N30001001	**Report Date:**	07/15/19

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

122 Determination of Selected Perfluorintated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 6/28/19

ALPHA Job #: L1928183

Client Information
Client: C&S ENGINEERS
Address: 141 ELM ST.
Phone: (716)-955-3020
Fax:
Email: ZBackert@CSOS.com

Project Information
Project Name: JAMESTOWN CONTAINER
Project Location: 14 DEMING DRIVE
Project # N30001001
(Use Project name as Project #)
Project Manager: CODY MARTIN
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables
☐ ASP-A ☒ ASP-B
☒ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☒ NY TOGS ☒ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO # N30001001

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8260 VOC	PFAS/PFOS	1-4 Dioxane						Sample Specific Comments	Total Bottle
28183-01	ESI-10-062619	6/25/19	11:55	GW	RB	X									3
02	ESI-11-062519	6/25/19	1:45	GW	RB	X									3
03	ESI-12-062519	6/25/19	2:30	GW	RB	X									3
04	ESI-3-062419	6/24/19	10:00	GW	RB	X	X	X							7
05	MS-PW-1-062419	6/24/19	10:33	GW	RB	X									3
	MSD-PW-1-062419	6/24/19	10:33	GW	RB	X									3
↓	PW-1-062419	6/24/19	10:33	GW	RB	X									3
06	DUP-ESI-1-062619	6/24/19	11:10	GW	RB	X									3
07	ESI-1-062419	6/24/19	11:10	GW	RB	X	X	X							7
08	ESI-13R-062419	6/24/19	11:45	GW	RB	X									3

Container Type	V	P	A					
Preservative	B	O	A					

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	6/27 1026		
D. Adams AAL	6/27/19 1050		6/28/19 0750

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 2 of 2

Date Rec'd in Lab: 6/28/19

ALPHA Job #: L1928183

Client Information
Client: C+S ENGINEERS
Address: 141 ELM ST.
Phone: (716)-955-3020
Fax:
Email: rbeckhart@cscos.com

Project Information
Project Name: JAMESTOWN CONTAINER
Project Location: 14 DEMING DRIVE
Project #: N30001001
(Use Project name as Project #): ☐
Project Manager: CODY MARTIN
ALPHAQuote #:

Turn-Around Time
Standard: ☒ Due Date:
Rush (only if pre approved): ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☒ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☒ Same as Client Info
PO # N30 001 001

Regulatory Requirement
☒ NY TOGS ☒ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☒ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	8260 VOC	PFOS/PFAS	1-4 DIOXANE	Sample Specific Comments	Total Bottle
28183-09	ESE-6-062419	6/24/19	12:20	GW	RB	X				3
10	ESE-4-062419	6/24/19	1:00	GW	RB		X	X		4
11	RW-3R-062419	6/24/19	1:35	GW	RB	X				3
12	ESE-2-062419	6/24/19	2:20	GW	RB	X				3
04	MS-ESE-3-062419	6/24/19	10:00	GW	RB		X	X		4
04	MSD-ESE-3-062419	6/24/19	10:00	GW	RB		X	X		4
13	DUP-ESE4-062419	6/24/19	1:00	GW	RB		X	X		4
14	Equipment BLANK-062419	6/24/19	4:00	GW	RB		X	X		4
15	FIELD BLANK	6/24/19	12:00	GW	RB		X			2
16	TRIP BLANK	6/24/19	3:00	GW	RB	X				2

Container Type: V P A
Preservative: B D A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	6/27 1000		6/27/19 1000
J. Hoover AIAL	6/27/19 1050		6/28/19 09:40

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

APPENDIX B

GROUNDWATER FIELD PARAMETERS

C&S Engineers, Inc.
141 Elm Street Suite 100
Buffalo, New York 14203
Phone: 716-847-1630
www.cscos.com

Well Sampling Field Data Sheet

Well Casing Unit Volume (gal/l.f.)		
1¼" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name:
Site Name: JAMESTOWN CONTAINER
Project No.:
Field Staff: BRIAN BACKUS

WELL DATA

Date		6/25/19	6/25/19	6/25/19	6/24/19	6/24/19	6/24/19	6/24/19	6/24/19
Well Number		ESI-10	ESI-11	ESI-12	ESI-3	PW-1	ESI-1	ESI-13R	ESI-6
Diameter (inches)									
Total Sounded Depth (feet)									
Static Water Level (feet)		9.6	9.8	9.4	7.6	7.3	6.95	6.35	8.25
H_2O Column (feet)									
Pump Intake (feet)									
Well Volume (gallons)									
Amount to Evacuate (gallons)									
Amount Evacuated (gallons)		1.5gal	3gal	2gal.	2gal	2gal.	2gal	4.5gal	

DEPTH TO WATER

FIELD READINGS

Date	Stabilization Criteria	6/25/19	6/25/19	6/25/19	6/24/19	6/24/19	6/24/19	6/24/19	6/24/19
Time		11:55	1:45	2:30	10:00	10:33	11:10	11:45	12:20
pH (Std. Units)	+/-0.1	6.29	6.38	6.93	7.44	7.29	7.07	6.70	7.10
Conductivity (mS/cm)	3%	.6660	.6665	.739	.882	.961	.432	.3600	.878
Turbidity (NTU)	10%	151	3.603	21.1	Frothy.	110	521	354	156
D.O. (mg/L)	10%	2.76	1.83	7.37	10.64	9.67	7.80	8.69	1.80
Temperature (°C) (°F)	3%	14.56°C	13.27°C	14.11°C	14.64°C	11.77°C	14.67°C	12.31°C	13.67°C
ORP[3](mV)	+/-10 mv	605	640	614	370	399	429	439	624
Appearance		CLOUDY	CLOUDY	CLEAR	CLEAR	CLEAR	ST	ST	CLEAR (PINK)
Free Product (Yes/No)		(YES)	YES	YES	YES	YES	YES	YES	YES
Odor		NONE	NONE	NONE	NONE	NONE	NONE.	NONE.	NONE.
Comments		- PINK HUE TO APPEARANCE DUE TO TREATMENT. - PINK COLORATION TO WELLS INSIDE. ESI-1 AND ESI-13R WERE SEMI TURBID.							

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid

C&S Engineers, Inc.
141 Elm Street Suite 100
Buffalo, New York 14203
Phone: 716-847-1630
www.cscos.com

Well Sampling Field Data Sheet

Well Casing Unit Volume (gal/l.f.)		
1¼" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: _____
Site Name: _____
Project No.: _____
Field Staff: _____

WELL DATA

Date		6/24/19	6/24/19	6/24/19					
Well Number		MW-4	MW-3R	FB-2					
Diameter (inches)									
Total Sounded Depth (feet)									
Static Water Level (feet)		7.85 ft.	7.85 ft	9.1 ft.					
H_2O Column (feet)									
Pump Intake (feet)									
Well Volume (gallons)									
Amount to Evacuate (gallons)									
Amount Evacuated (gallons)		3gal.	1gal	4gal					

FIELD READINGS

Date	Stabilization Criteria	6/24/19	6/24/19	6/24/19					
Time		1:00	1:35	2:20					
pH (Std. Units)	+/-0.1	7.28	6.60	7.41					
Conductivity (mS/cm)	3%	.858	2.15	.977					
Turbidity (NTU)	10%	3.23	264	97.3					
D.O. (mg/L)	10%	10.02	0.90	3.40					
Temperature (°C) (°F)	3%	13.22°C	12.12°C	12.57°C					
ORP[3](mV)	+/-10 mv	527	48	279					
Appearance		CLEAR	CLEAR	ST					
Free Product (Yes/No)		YES	YES	SOME					
Odor		NONE	NONE	NONE.					
Comments									

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid