



Prepared for:
Endzone, Inc.
Ozone Park, NY

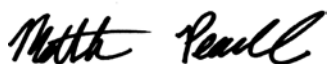
Prepared by:
AECOM
Chelmsford, MA
60270935
May 2019

Former Ozone Industries, Inc. Site, Ozone Park, Queens New York
NYSDEC Site Number: 2-41-033

2nd Semi-Annual Progress Report: **November 2018 through April 2019 (3rd** **year of remedial system operation)**

Former Ozone Industries, Inc. Site, Ozone Park, Queens New York
NYSDEC Site Number: 2-41-033

2nd Semi-Annual Progress Report: November 2018 through April 2019 (3rd year of remedial system operation)



Prepared By Matthew Pearsall



Reviewed By Raimundo Matos



Reviewed By David Austin

Contents

1.0 Introduction.....	1-1
2.0 SVE/SSD Operation and Maintenance.....	2-1
2.1 O&M Events	2-1
2.1.1 SSD	2-1
2.1.2 SVE	2-1
2.1.3 Combined Systems Operation	2-2
2.2 Laboratory Analyses of Air Samples – Quarterly System Samples.....	2-2
3.0 Onsite Soil Gas and Ambient Air VI Sampling.....	3-1
4.0 Summary and Future Actions	4-1

List of Tables

Table 1 – Summary O&M Air Sample Analytical Data

Table 2 – Summary of Mass VOC Removal

List of Figures

Figure 1 – Site Locus Map

Figure 2 - Location of SVE and SSD System

List of Appendices

Appendix A System O&M Field Sheets

Appendix B System Air Sample Lab Results – December 2018 and February 2019

Appendix C Graphs depicting VOCs Screening and Lab Results – SSD and SVE Systems

Appendix D NYSDEC Letter to BBA Aviation

Appendix E NYSDEC approval of AECOM Workplan

Appendix F AECOM March 2019 Interim Site Status Memo

1.0 Introduction

On behalf of Endzone Inc. (Endzone), AECOM has prepared this 2nd Semi-Annual Progress Report for November 2018 through April 2019, which summarizes the results of the Operation and Maintenance (O&M) of the Soil Vapor Extraction (SVE) and Sub-slab Depressurization (SSD) remedial systems at the Former Ozone Industries, Inc. site (New York State Department of Environmental Conservation [NYSDEC] Site Number: 2-41-033). This report covers the second six month period within the third year of system operation between November 12, 2018 and April 30, 2019. Previous reports were submitted roughly on a quarterly basis.

In addition to the O&M results for this period, this Progress Report also provides the following:

1. Results of three system air samples collected on February 21, 2019 from the SVE influent, SSD influent, and total combined effluent; and
2. Results of the groundwater and soil gas samples collected on February 6-8, 2019; which included the collection of samples for volatile organic compounds (VOC), 1-4-dioxane and polyfluoroalkyl substances (PFAS).

The site is located in a mixed commercial/industrial/residential area of the Ozone Park section of Queens County of New York City, New York and is identified as Block 9106 and Lot 70 on the New York City Tax Map. The site is bounded by 101st Avenue to the north, 103rd Avenue to the south, 99th Street to the west, and 100th Street to the east (see **Figure 1**). The site is located across the street from 101-32 101st Street, the location of the former Ozone Industries facility.

2.0 SVE/SSD Operation and Maintenance

This section presents the evaluation of the system influent and effluent analytical air sampling data and the field data collected during each of the O&M site visits during the first six-month period during the third year of operation between November 12, 2018 and April 30, 2019. The O&M events were reduced to a monthly basis as proposed in the last Progress Report (January 2019). **Figure 2** depicts the Bays and systems.

2.1 O&M Events

Monthly O&M events were conducted on November 12, December 17, January 15, in 2018 and February 12, March 13, and April 9, of 2019. The following information was primarily gathered during the O&M events:

- SSD vacuum blower, vacuum, flow, and temperature readings;
- SSD monitoring well head vacuums and photoionization detector (PID) concentrations;
- Effluent concentrations exiting the SSD carbon vessels;
- SVE vacuum blower, vacuum, flow, and temperature readings;
- SVE monitoring well head vacuums and PID concentrations;
- Effluent concentrations exiting the SVE carbon vessels;
- Total effluent concentrations being discharged from the exhaust stack; and
- Air samples collected for laboratory analysis from the influent of the SVE and SSD, and systems and total combined effluent following off gas treatment.

2.1.1 SSD

When the SSD system was in operation, it maintained an average flowrate of 304.78 cubic feet per minute (SCFM) (with a range between 288.83 SCFM and 309.97 SCFM) applied to the 8 SSD legs. The vacuum applied to each leg was individually adjusted to provide a minimum flowrate of at least 30 SCFM to each bay to maintain adequate protection of potential subsurface vapor migration as outlined in the ISMP. During each O&M visit when the system was running, the flowrate at each leg was measured with a hot wire anemometer to confirm that the minimum flowrate was being upheld. Flowrates in each of the individual legs ranged from a minimum of 34.5 SCFM to a maximum of 52.2 SCFM, all above the designed 30 SCFM.

Influent VOCs were measured with a calibrated PID in parts per billion (ppb) from each of the SSD legs during each event. During this period, VOC readings from each individual SSD leg were non-detect (below 0.10 parts per million [ppm]). Total VOC levels prior to carbon treatment were below detection limits during all O&M events, indicating the lack of VOCs present in the shallow soils.

2.1.2 SVE

The SVE system was off for a portion of this period due to the carbon breakthrough and resulting change out at the end of the last reporting period in October 2018. As mentioned in the previous report, carbon in the two containers was replaced on October 30th by Carbon Filtration System (CFS). The system remained off since until February 7, 2019. The restart was after a groundwater and soil vapor sampling event, and discussion with the NYDEC, which noted that even though the VOC

concentrations measured from this system have approached asymptotic levels operation of the system would be continued during this period as a precautionary measure. The SVE system maintained an average total flowrate of 460.00 SCFM during this period. Like the SSD system, the vacuum applied to each of the SVE wells was manually adjusted so that each leg maintained a minimum flowrate of approximately 25 SCFM, as stated in the ISMP. Although the ISMP estimates that a vacuum of 10 inches of water column (IWC) be applied at each leg of the manifold, the actual vacuum measured ranged from 2.7 to 10.9 IWC.

Influent VOCs from each of the SVE legs were measured with a calibrated PID during each event. VOC readings from individual SVE legs during this period ranged from non-detect to a maximum of 25.4 ppm. The highest PID readings recorded during the O&M events continue to be reported from SVE-18, the deep well in the center of Bay 8. VOC concentrations from the site have remained low compared to the initial values measured during start up. Refer to **Appendix A** for monthly O&M summary tables.

2.1.3 Combined Systems Operation

In each of the eight Bays, two shallow monitoring points, each at a depth of 1.5 feet below ground surface (bgs) were monitored to observe SSD system influence. Two deep monitoring points, each at a depth of approximately 15 feet bgs, were monitored in each Bay to observe SVE influence. In addition to these monitoring points, two wells each at a depth of 30 feet bgs were also monitored in Bay 12 because that Bay has bi-level SVE wells which extend to approximately 30 feet bgs. During each O&M event, the vacuum influence and the VOC concentrations were measured at each monitoring point with a manometer and PID, respectively.

Consistent vacuum influence was observed across all shallow points at an average of 0.15 IWC and has remained above 0.10 IWC for the duration of the monitoring period this quarter in all points, indicating that there is a constant negative pressure under the sub slab throughout the area of concern (8 Bays at site). Consistent vacuum influence was observed across all deep points at an average of approximately 0.29 IWC and has remained above 0.11 IWC in subsequent monitoring events in the majority of points indicating the installed SVE system achieves the predicted influence throughout the site or Bays. There is a slight decrease in the average vacuums observed over both the shallow and deep points because a portion of the reporting period had the SVE system off. Because adequate measureable vacuum influence has been defined as 0.05 IWC for this project, it is confirmed that the SSD system is operating as designed and providing appropriate mitigation when operational. Additionally, the measured vacuums in the deeper monitoring points are significantly higher than necessary to facilitate removal of residual VOCs from soils and are also considered to be operating as designed.

2.2 Laboratory Analyses of Air Samples – Quarterly System Samples

To collect the quarterly air samples and to determine how rebound was progressing with the SVE system off, the SVE system was temporarily restarted on December 18, 2018 so that samples could be collected. The SVE system was properly restarted on February 7, 2019 after being shut down since September 5, 2018 due to carbon breakthrough. Quarterly air samples from the system were collected on December 20, 2018 and February 14, 2019 from the SVE influent, SSD influent (both before carbon treatment), and the total combined effluent (following carbon treatment). Per compliance requirements established in a memorandum issued by the NYSDEC on February 28, 2003 (Substantive Compliance with Air Requirements), the emissions from the system is not to exceed 0.5 lbs/hr. The results of the completed air sampling events are shown in **Table 1**.

The laboratory analytical report from the air sampling is provided in **Appendix B**. The system samples were analyzed for the VOCs listed in the TO-15 method.

Following the carbon change out which occurred in October 2018, the concentrations of the total combined effluent reduced to the more typical effluent values of less than 20 ppm during both sampling events. As mentioned previously, the VOC concentrations measured from this system have approached asymptotic levels and the extent of any more treatment by the SVE system is limited. The SVE system will remain in operation until future notice that it is acceptable to turn it off.

The carbon following the SSD system did not exhibit breakthrough and the system has remained in operation since it was restarted following the last rebound test (August 2018). Based on the results from the latest sampling events, it is not likely that the carbon achieved breakthrough. The December 2018 and February 2019 laboratory data for the SVE influent, SSD influent, and total effluent are summarized as follows:

- As noted on **Table 1**, the total VOC concentrations ($5,599 \text{ ug/m}^3$ and $4,125 \text{ ug/m}^3$) for the SVE influent for each sampling event were comparable to the previous total VOC concentrations. Compounds which have been historically detected in the SVE vapor stream (cis-1,2-Dichloroethene, trichloroethene, and tetrachloroethene) were again detected during this event. The similarity in these results suggests that the concentrations are reaching asymptotic levels and that the SVE system is reaching its limits of effectiveness.
- The total VOC concentration (91 ug/m^3 and 32 ug/m^3) for the SSD-influent sample was similar to previous quarterly sampling events. Although several compounds were detected above laboratory reporting limits, the compounds detected had all been detected in previous sampling events and the concentrations continued to proceed in decreasing trend. All detected compounds (cis-1,2-dichloroethane, trichloroethene, and tetrachloroethane) were below the limits measured during the sampling event in August 2018, and were still below the initial concentrations observed during system start up in 2016.
- The Total Effluent VOC concentration collected were the first following the SVE carbon change out and were dramatically reduced to less than 20 ppm (15.0 ug/m^3 and 3.0 ug/m^3), among the lowest concentrations measured results since the system has been running.

Analytically, effluent concentrations have remained below the effluent limit established by the NYSDEC regulations. Mass removal data at the influent of both SVE and SSD system as well as the combined effluent mass discharge rate following carbon treatment is presented in **Table 2**.

Mass removal achieved from the SVE system was approximately 0.00598 lbs/hr in December and 0.00440 lbs/hr in February. The mass removal from the SSD system was approximately 0.00016 lbs/hr and 0.00006 lbs/hr for December and February respectively. When the mass removal rate for the SVE and SSD system are totaled for each sampling event, it is below the aforementioned discharge limit requiring pollution control. The mass of contaminants discharged to the atmosphere following carbon treatment was an average of 0.00002 lbs/hr.

Two graphs are included in **Appendix C** which depict VOC concentrations vs time for the influent (prior to treatment) SSD and SVE systems. In the influent SVE chart, well SVE-18 continues to be the point with the highest VOC concentrations. These levels have remained relatively consistent over the course of the reporting period and significant changes were not observed during post-rebound (April 2018) monitoring. As mentioned earlier, several wells have been closed in order to focus the vacuum

to the areas where the highest VOC concentrations have been observed. These wells continue to show an either decreasing or stagnant level of VOCs detected. The SSD chart continues to show that VOC concentrations are typically non-detect during routine O&M events. Analytical results are still well below the initial concentration observed at the startup of the systems.

3.0 Onsite Soil Gas and Ambient Air VI Sampling

On behalf of Endzone, Inc., and as per phone discussions with AECOM during the month of October 2018 and subsequent NYSDEC letter to BBA Aviation dated November 6, 2018 (included in **Appendix D**), AECOM performed additional groundwater monitoring and soil gas sampling activities at the site vicinity (outside of Bays) as approved by NYSDEC on November 29, 2018 (included in **Appendix E**). The groundwater monitoring activities included sampling for 1,4-dioxane and PFAS per the previously referenced NYSDEC letter whereas the soil gas sampling activities will focus solely on soil gas conditions off-site.

Between February 6th and 8th of 2019, AECOM performed the first round of sampling as outlined in the sampling work plan. Following sampling, an analysis of the results was conducted and a memorandum consisting of the first quarter groundwater monitoring and soil gas assessment was submitted to NYSDEC on March 25, 2019. A copy of this memorandum is included as **Appendix F**. (The second round was conducted in May 2019.)

.

4.0 Summary and Future Actions

The remedial system continues to operate as designed and intended. The SVE and SSD influent levels from this reporting period are similar or “flat” after decreasing from higher levels in 2016.

The O&M events will occur on a monthly basis and system air samples will be collected on a quarterly basis during the next reporting period and to evaluate the SVE and SSD system.

In addition, groundwater and soil gas sampling will be completed per correspondences with NYSDEC in October 2018 and a NYSDEC approved work plan submitted in November 2018. The second round was completed in May 2019.

System operation will be documented in a report covering May – October 2019 (6 months).

Tables

Table 1- Summary O&M Air Sample Analytical Data
Former Ozone Industries, Inc. Site, Ozone Park,
Queens, NY

	LOCATION	SVE Influent															
	SAMPLE NAME	SVE INFLUENT_0 42916	SVE INFLUENT_0 50616	SVE INFLU_ 110216	SVE- EFFLUENT_1 11416 ⁷	SVE-INFLU_ 012417	SVE-INFLU_ 041117	SVE- INFLUENT_0 62217	SVE- INFLUENT_0 62817	SVE- INFLUENT_1 01217	SVE- INFLUENT_0 11218	SVE- INFLUENT_0 11818	SVE INFLUENT_0 42018	SVE INFLUENT_0 42618	SVE INFLUENT_0 82318	SVE INFLUENT_1 22018	SVE INFLUENT_0 21419
	SAMPLING DATE	4/29/2016	5/6/2016	11/2/2016	11/14/2016	1/24/2017	4/15/2017	6/22/2017	6/28/2017	10/12/2017	1/12/2018	1/18/2018	4/20/185	4/26/2018	8/23/2018	12/20/2018	2/14/2019
				After system start-up - same day	After system start-up - 12 days later			After system start-up - same day	After system start-up - 6 days later	After system start-up - same day	After system start up - same day	After system start up - 6 days later	After system start up - 6 days later	After system start up - 6 days later			
	LAB SAMPLE ID	SC20863-01	L1614057-01	SC27978-03	L1637012-03	L1702565-02	L1711688-02	L1721409-03	L1722128-01	L1736952-01	L1802191-01	L1802191-04	L1814277-01	L1815307	L1833818-01	L1852996-02	L1906089-02
ANALYTE	PID READING(ppm)	ND	8.6	3.0	1.4	1.4	0.4	NA	1.1	0.1	1.4	3.1	2.1	2.0	2.0	2.0	2.0
VOCs TO-15	Units																
Acetone*	ug/m ³	3,683.23	<47.3	4,895.13	<23.8	<23.8	<11.9	<23.8	<23.8	<47.3	NS	NS	NS	<23.8	<23.8	49.90	NS
Ethanol	ug/m ³	<65.61	<188	976.68	<94.2	<94.2	<47.1	<94.2	<94.2	<188	NS	NS	NS	<94.2	<94.2	NS	NS
Isopropyl Alcohol	ug/m ³	<85.40	<24.5	<142.33	<12.3	<12.3	<6.15	<12.3	<12.3	<24.5	NS	NS	NS	<12.3	<12.3	<18.3	NS
Tertiary butyl Alcohol	ug/m ³	--	<30.2	--	<15.2	<15.2	<7.58	<15.2	<15.2	<30.2	NS	NS	NS	<15.2	<15.2	<22.6	NS
2-Butanone (MEK)	ug/m ³	<102.62	<29.4	365.66	<14.7	<14.7	<7.37	<14.7	<14.7	<29.9	NS	NS	NS	<14.7	<14.7	<7.46	NS
Methylene Chloride	ug/m ³	<120.84	<34.6	<201.40	<8.69	12.60	<8.69	<17.4	<17.4	<34.6	NS	NS	NS	<17.4	<17.4	<25.9	NS
Carbon Disulfide*	ug/m ³	<108.31	<12.4	<180.52	<6.23	<6.23	<3.11	<6.23	<6.23	<12.4	NS	NS	NS	<6.23	<6.23	<9.28	NS
trans-1,2-Dichlroethene	ug/m ³	<137.9	<15.8	<229.98	<7.93	<3.96	<3.96	<7.93	<7.93	<15.8	<3.96	<3.96	<2.64	<7.93	<7.93	<11.8	<7.93
Dichlorodifluoromethane	ug/m ³	<172.08	<19.7	<286.80	<9.86	<9.86	<4.94	<9.89	<9.89	<19.7	NS	NS	NS	<9.89	<9.89	<14.7	NS
Chloromethane	ug/m ³	<71.88	<8.24	<119.80	<4.13	<4.13	<2.07	<4.13	<4.13	<8.22	NS	NS	NS	<4.13	<4.13	<6.15	NS
Trichlorofluoromethane	ug/m ³	<195.58	<22.4	<325.94	<11.2	<11.2	<5.62	<11.2	<11.2	<22.4	NS	NS	NS	<11.2	<11.2	<16.7	NS
cis-1,2-Dichloroethene	ug/m ³	408.42	630.00	404.45	420.00	190.00	149.00	144.00	209.00	312.00	80.50	124.00	92.00	186.00	223.00	338.00	329.00
n-Hexane	ug/m ³	--	<14.1	--	<7.05	<7.05	<3.52	<7.05	<7.05	<14.0	NS	NS	NS	<7.05	<7.05	<10.5	NS
1,1,1-Trichloroethane	ug/m ³	<189.87	<21.8	1,374.92	<10.9	<10.9	<5.46	<10.9	<10.9	<21.7	NS	NS	NS	<10.9	<10.9	<16.3	NS
Chloroform	ug/m ³	<169.37	<19.5	<282.29	--	16.90	6.06	<9.77	<9.77	<19.4	NS	NS	NS	<9.77	<9.77	20.50	NS
Tetrahydrofuran	ug/m ³	<102.62	<29.4	<171.03	<14.7	<14.7	<7.37	<14.7	<14.7	<29.4	NS	NS	NS	<14.7	<14.7	<22.00	NS
Benzene	ug/m ³	<1,112.02	<12.7	<185.03	<6.39	<6.39	<3.19	<6.39	<6.39	<12.7	NS	NS	NS	<6.39	<6.39	<9.52	NS
Trichloroethene	ug/m ³	21,281.96	10,000.00	9,888.60	4,990.00	1,680.00	1,980.00	2,730.00	2,860.00	6,340.00	1,130.00	1,400.00	1,170.00	2,190.00	3,530.00	4,880.00	3,610.00
2,2,4-Trimethylpentane	ug/m ³	--	<18.6	--	<9.34	<9.34	<4.67	<9.34	<9.34	<18.6	NS	NS	NS	<9.34	<9.34	<13.9	NS
Toluene	ug/m ³	<130.94	<15.0	<218.24	<7.54	<7.54	<3.77	<7.54	<7.54	<15.0	NS	NS	NS	<7.54	<7.54	<11.2	NS
Tetrachloroethene	ug/m ³	874.77	585.00	435.35	268.00	290.00	319.00	280.00	199.00	273.00	121.00	149.00	160.00	204.00	229.00	226.00	211.00
1,4-Dichlorobenzene	ug/m ³	<209.23	<24.0	244.10	<12.0	<12.0	<6.01	<12.0	<12.0	<23.9	NS	NS	NS	<12.0	<12.0	<17.9	NS
Naphthalene	ug/m ³	<182.18	--	<303.64	--	--	--	--	--	--	NS	NS	NS	NS	NS	NS	NS
1,2,4-Trimethylbenzene	ug/m ³	<171.08	<29.6	<285.14	<9.83	<9.83	<4.92	<14.8	<9.83	<19.6	NS	NS	NS	<9.83	<9.83	<14.7	NS
Total VOCs	ug/m ³	27,912	11,524	20,051	5,821	2,326	2,528	3,309	3,420	24,323	2,465	3,574	1,683	3,116	3,860	5,599	4,125

Notes:
1) -- = Non-existent data dependent on laboratory specific analyte list
2) * = As reported by laboratory this analyte is common laboratory background contaminant.
3) ug/m3 = micrograms per cubic meter
4) ppm = parts-per-million
5) ND = Not Detected
6) **Bold** = Analyte detected in sample
7) SVE-Effluent-111416 was mislabeled in the field and was actually taken from the SVE influent port
8) SSD-Effluent-111416 was mislabeled in the field and was actually taken from the SSD influent sample port
9) Effluent samples were taken from the total effluent of both systems

Table 1- Summary O&M Air Sample Analytical Data
Former Ozone Industries, Inc. Site, Ozone Park,
Queens, NY

	LOCATION	SSD Influent															
	SAMPLE NAME	SSD INFLUENT_0 42916	SSD INFLUENT_0 50616	SSDINFLU_1 10216	SSD- EFFLUENT_1 11416 ⁸	SSD-INFLU_ 012417	SSD-INFLU_ 041117	SSD- INFLUENT_0 62217	SSD- INFLUENT_0 62817	SSD INFLUENT_1 01217	SSD INFLUENT_0 11218	SSD INFLUENT_0 11818	SSD INFLUENT_0 42018	SSD INFLUENT_0 42618	SSD INFLUENT_0 82318	SSD INFLUENT_1 22018	SSD INFLUENT_0 21419
	SAMPLING DATE	4/29/2016	5/6/2016	11/2/2016	11/14/2016	1/24/2017	4/11/2017	6/22/2017	6/28/2017	10/12/2017	1/12/2018	1/18/2018	4/20/2018	4/26/2018	8/23/2018	12/20/2018	5/14/2019
				After system start-up - same day	After system start-up - 12 days later			After system start-up - same day	After system start-up - 6 days later	After system start-up - same day	After system start-up - same day	After system start-up - 6 days later	After system start-up - same day	After system start-up - 6 days later			
	LAB SAMPLE ID	SC20863-02	L1614057-02	SC27978-01	L1637012-02	L1702565-01	L1711688-01	L1721409-02	L1722128-01	L1736952-02	L1802191-02	L1802191-05	L1814277-02	L1815307-02	L1833818-02	L1852996-02	L1906089-01
ANALYTE	PID READING(ppm)	ND	ND	0.8	ND	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOCs TO-15	Units																
Acetone*	ug/m ³	8.79	<2.38	13.31	<2.38	<2.38	4.85	18.3	5.2	16.1	NS	NS	NS	10.10	11.20	8.77	NS
Ethanol	ug/m ³	<1.89	<9.42	<3.77	<9.42	<9.42	<9.42	<9.42	<9.42	<9.42	NS	NS	NS	<9.42	<9.42	NS	NS
Isopropyl Alcohol	ug/m ³	<2.45	<1.23	<4.91	1.23	<1.23	<1.23	1.82	1.49	<1.23	NS	NS	NS	1.40	<1.23	<1.23	NS
Tertiary butyl Alcohol	ug/m ³	--	<1.52	--	4.34	<1.52	<1.52	<1.52	<1.52	<1.52	NS	NS	NS	4.27	<1.52	<1.52	NS
2-Butanone (MEK)	ug/m ³	<2.95	<1.47	<5.90	<1.47	<1.47	<1.47	3.33	<1.47	1.48	NS	NS	NS	2.35	<1.47	<1.47	NS
Methylene Chloride	ug/m ³	<3.47	<1.74	<6.94	<1.74	<1.74	<1.74	13.7	<1.74	2.24	NS	NS	NS	1.74	<1.74	<1.74	NS
Carbon Disulfide*	ug/m ³	<3.11	<0.623	<6.22	<0.623	<0.623	<0.623	<0.623	<0.623	0.825	NS	NS	NS	<0.623	<0.623	<0.62	NS
trans-1,2-Dichloroethene	ug/m ³	<3.97	<0.793	<7.93	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.79	<0.793
Dichlorodifluoromethane	ug/m ³	<4.94	2.03	<9.89	2.14	2.05	1.58	2.37	2.32	2.26	NS	NS	NS	2.27	2.13	2.65	NS
Chloromethane	ug/m ³	<2.07	0.81	<4.13	0.69	0.74	0.62	0.85	0.68	0.91	NS	NS	NS	0.748	0.642	0.607	NS
Trichlorofluoromethane	ug/m ³	<5.62	1.14	<11.24	1.31	1.40	1.34	1.58	1.25	<1.12	NS	NS	NS	<1.12	<1.12	1.54	NS
cis-1,2-Dichloroethene	ug/m ³	4.60	5.31	19.75	<0.793	<0.793	1.27	6.38	<0.793	2.27	<0.793	<0.793	<0.793	<0.793	1.30	2.41	1.36
n-Hexane	ug/m ³	--	<0.705	--	1.08	<0.705	<0.705	<0.705	<0.705	0.779	NS	NS	NS	<0.705	0.77	2.77	NS
1,1,1-Trichloroethane	ug/m ³	<5.46	<1.09	<10.91	<1.09	<1.09	<1.09	<1.09	<1.09	<1.09	NS	NS	NS	<1.09	<1.09	<1.09	NS
Chloroform	ug/m ³	<4.87	<9.77	<9.73	<0.977	<0.977	<0.977	<0.977	<0.977	<0.977	NS	NS	NS	<0.977	<0.977	<0.977	NS
Tetrahydrofuran	ug/m ³	5.60	<1.47	<5.90	<1.47	<1.47	<1.47	2.95	<1.47	<1.47	NS	NS	NS	<1.47	<1.47	<1.47	NS
Benzene	ug/m ³	<3.19	1.16	<6.38	1.97	1.16	0.901	<0.639	<0.639	10.9	NS	NS	NS	<0.639	1.00	5.62	NS
Trichloroethene	ug/m ³	325.68	98.30	558.2	6.34	13.2	18.9	97.8	6.99	45.2	4.37	3.18	8.81	3.74	39.80	34.20	27.40
2,2,4-Trimethylpentane	ug/m ³	--	<0.934	--	0.99	<0.934	1.11	<0.934	<0.934	1.34	NS	NS	NS	<0.934	1.05	3.96	NS
Toluene	ug/m ³	<3.76	1.48	<7.53	2.14	6.18	3.24	2.23	1.11	2.03	NS	NS	NS	1.45	4.71	13.00	NS
Tetrachloroethene	ug/m ³	33.36	17.20	42.86	<1.36	7.19	3.98	4.17	2.02	31.3	<1.36	2.42	6.10	1.43	9.49	7.66	2.92
1,4-Dichlorobenzene	ug/m ³	<6.01	<1.20	11.18	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20	NS	NS	NS	<1.20	<1.20	<1.20	NS
Naphthalene	ug/m ³	<5.24	--	15.97	--	--	--	--	--	--	NS	NS	NS	NS	NS	NS	NS
1,2,4-Trimethylbenzene	ug/m ³	<4.92	1.27	<9.83	<0.983	<0.983	<0.983	<1.48	<0.983	<0.983	NS	NS	NS	<0.983	<0.983	1.93	NS
Total VOCs	ug/m ³	442	146	717	34	46	49	165	33	128	6	6	16	40	84	91	32

Notes:

1) -- = Non-existent data dependent on laboratory specific analyte list

2) * = As reported by laboratory this analyte is common laboratory background contaminant.

3) ug/m3 = micrograms per cubic meter

4) ppm = parts-per-million

5) ND = Not Detected

6) **Bold** = Analyte detected in sample

7) SVE-Effluent-111416 was mislabeled in the field and was actually taken from the SVE influent port

8) SSD-Effluent-111416 was mislabeled in the field and was actually taken from the SSD influent sample port

9) Effluent samples were taken from the total effluent of both systems

Table 1- Summary O&M Air Sample Analytical Data
Former Ozone Industries, Inc. Site, Ozone Park,
Queens, NY

	LOCATION	Total Effluent															
	SAMPLE NAME	TOTAL EFFLUENT_0 42916	TOTAL EFFLUENT_0 50616	TOTALEFFLU_1 10216	Effluent- 111416	TOTAL- EFFLU_0124 17	TOTAL_EFFLU_0 41117	EFFLUENT_0 62217	EFFLUENT_0 62817	EFFLUENT_1 01217	EFFLUENT_0 11218	EFFLUENT_0 11818	TOTAL EFFLUENT_0 42018	TOTAL EFFLUENT_0 42618	TOTAL EFFLUENT_0 82318	TOTAL EFFLUENT_1 22018	TOTAL EFFLUENT_0 21419
	SAMPLING DATE	4/29/2016	5/6/2016	11/2/2016	11/14/2016	1/24/2017	4/11/2017	6/22/2017	6/28/2017	10/12/2017	1/12/2018	1/18/2018	4/20/2018	4/26/2018	8/23/2018	12/20/2018	2/14/2019
				After system start-up - same day	After system start-up - 12 days later			After system start-up - same day	After system start-up - 6 days later	After system start-up - same day	After system start-up - Same day	After system start-up - 6 days later	After system start-up - Same day	After system start-up - 6 days later			
	LAB SAMPLE ID	SC20863-03	L1614057-03	SC27978-02	L1637012-01	L1702565-03	L1711688-03	L1721409-01	L1722128-03	L1736952-03	L1802191-03	L1802191-06	L1814277-03	L1815307-03	L1833818-03	L1852996-03	L1906089-03
ANALYTE	PID READING(ppm)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VOCs TO-15	Units																
Acetone*	ug/m ³	38.97	<2.38	11.50	<2.38	<2.38	<4.75	2.40	<4.75	<2.38	NS	NS	NS	2.99	<23.8	2.4	NS
Ethanol	ug/m ³	6.94	<9.42	24.51	<9.42	<9.42	<18.8	<9.42	<18.8	<9.42	NS	NS	NS	<9.42	<94.2	NS	NS
Isopropyl Alcohol	ug/m ³	2.01	<1.23	2.04	<1.23	<1.23	<2.46	1.29	<2.46	<1.23	NS	NS	NS	<1.23	<12.3	<1.23	NS
Tertiary butyl Alcohol	ug/m ³	--	<1.52	--	<1.52	<1.52	<3.03	<1.52	<3.03	<1.52	NS	NS	NS	5.85	<15.2	<1.52	NS
2-Butanone (MEK)	ug/m ³	3.36	<1.47	11.35	<1.47	<1.47	<2.95	<1.47	<2.95	<1.47	NS	NS	NS	<1.47	<14.7	<1.47	NS
Methylene Chloride	ug/m ³	<1.74	<1.74	<1.74	<1.74	1.77	<3.47	3.27	<3.47	<1.74	NS	NS	NS	<1.74	<17.4	<1.74	NS
Carbon Disulfide*	ug/m ³	<1.56	<0.623	<1.56	<0.623	<0.623	<1.25	<0.623	<1.25	<0.623	NS	NS	NS	<0.623	<6.23	<0.623	NS
trans-1,2-Dichlroethene	ug/m ³	<1.98	<0.793	<1.98	<0.793	<0.793	7.89	2.84	4.60	1.55	<0.793	0.829	<0.793	1.59	<7.93	<0.793	<0.793
Dichlorodifluoromethane	ug/m ³	<2.47	1.43	<2.47	1.77	1.55	<1.98	1.69	2.06	1.34	NS	NS	NS	2.09	<9.89	<0.989	NS
Chloromethane	ug/m ³	<1.03	<0.413	<1.03	0.46	<0.413	<0.826	<0.413	<0.826	<0.413	NS	NS	NS	<0.413	<4.13	<0.413	NS
Trichlorofluoromethane	ug/m ³	<2.81	<1.12	<2.81	1.25	<1.12	<2.25	<1.12	<2.25	<1.12	NS	NS	NS	1.37	<11.2	<1.12	NS
cis-1,2-Dichloroethene	ug/m ³	<1.98	0.92	<1.98	<0.793	<0.793	551	268	488	173	66.6	95.9	1.79	231	163	<0.793	<0.793
n-Hexane	ug/m ³	--	<0.705	--	<0.705	<0.705	<1.41	<0.705	<1.41	<0.705	NS	NS	NS	<0.705	<7.05	<0.705	NS
1,1,1-Trichloroethane	ug/m ³	<2.73	<1.09	<2.73	<1.09	<1.09	<2.18	<1.09	<2.18	<1.09	NS	NS	NS	10.6	<10.9	<1.09	NS
Chloroform	ug/m ³	<2.43	<0.977	<2.43	<0.977	1.35	2.33	3.48	7.52	6.20	NS	NS	NS	6.98	<9.77	<0.977	NS
Tetrahydrofuran	ug/m ³	<1.47	<1.47	6.40	<1.47	<1.47	2.98	<1.47	<2.95	<1.47	NS	NS	NS	<1.47	<14.7	<1.47	NS
Benzene	ug/m ³	<1.60	<0.639	<1.60	<0.639	<0.639	<1.28	<0.639	<1.28	<0.639	NS	NS	NS	<0.639	<6.39	<0.639	NS
Trichloroethene	ug/m ³	18.54	25.20	<2.69	<1.07	<1.07	<2.15	<1.07	<2.15	1.97	8.71	12.6	1.96	376	3120	<1.07	1.26
2,2,4-Trimethylpentane	ug/m ³	--	<0.934	--	<0.934	<0.934	<1.87	<0.934	<1.87	<0.934	NS	NS	NS	<0.934	<9.34	<0.934	NS
Toluene	ug/m ³	<1.88	<0.754	<1.88	<0.754	<0.754	<1.51	<0.754	<1.51	<0.754	NS	NS	NS	<0.754	<7.54	1.17	NS
Tetrachloroethene	ug/m ³	<3.39	5.14	<3.39	<1.36	<1.36	<2.71	<1.36	<2.71	<1.36	<1.36	<1.36	1.53	<1.36	<13.6	<1.36	<1.36
1,4-Dichlorobenzene	ug/m ³	<3.01	<1.20	<3.01	<1.20	<1.20	<2.40	<1.20	<2.40	<1.20	NS	NS	NS	<1.20	<12.0	<1.20	NS
Naphthalene	ug/m ³	<2.62	--	5.81	--	--	--	--	--	--	NS	NS	NS	NS	NS	NS	NS
1,2,4-Trimethylbenzene	ug/m ³	<2.46	<0.983	6.88	<0.983	<0.983	<1.97	<1.48	<1.97	<0.983	NS	NS	NS	<0.983	<14.8	1.09	NS
Total VOCs	ug/m ³	87	62	84	19	20	594	296	532	199	76	110	6	650	3,445	15	3

Notes:

1) -- = Non-existent data dependent on laboratory specific analyte list

2) * = As reported by laboratory this analyte is common laboratory background contaminant.

3) ug/m3 = micrograms per cubic meter

4) ppm = parts-per-million

5) ND = Not Detected

6) **Bold** = Analyte detected in sample

7) SVE-Effluent-111416 was mislabeled in the field and was actually taken from the SVE influent port

8) SSD-Effluent-111416 was mislabeled in the field and was actually taken from the SSD influent sample port

9) Effluent samples were taken from the total effluent of both systems

Table 2 - Summary of Mass Removal
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

	LOCATION	SVE Influent															
	SAMPLE NAME	SVE INFLUENT_ 042916	SVE INFLUENT_ 050616	SVEINFLU_ 110216	SVE- EFFLUENT_ 111416 ⁷	SVE-INFLU_ 012417	SVE-INFLU_ 041117	SVE- INFLUENT_ 062217	SVE- INFLUENT_ 062817	SVE- INFLUENT_ 101217	SVE- INFLUENT_ 011218	SVE- INFLUENT_ 011818	SVE INFLUENT_ 042018	SVE INFLUENT_ 042618	SVE INFLUENT_ 082318	SVE INFLUENT_ 122018	SVE INFLUENT_ 021419
	SAMPLING DATE	4/29/2016	5/6/2016	11/2/2016	11/14/2016	1/24/2017	4/11/2017	6/22/2017	6/28/2017	10/12/2017	1/12/2018	1/18/2018	4/20/185	4/26/2018	8/23/2018	12/20/2018	2/14/2019
	LAB SAMPLE ID	SC20863-01	L1614057-01	SC27978-03	L1637012-03	L1702565-02	L1711688-02	L1721409-03	L1722128-01	L1736952-01	L1802191-01	L1802191-04	L1814277-01	L1815307	L1833818-01	L1852996-02	L1906089-02
ANALYTE	Flow Rate (CFM)	664	593	613	589	570	563	535	585	535	549	574	357	357	282	283	283
VOCs TO-15	Units																
Acetone	lbs/hr	0.009161	0.000053	0.011240	0.000026	0.000025	0.000013	0.000024	0.000026	0.000047	0.000000	0.000000	0.000000	0.000016	0.000013	0.000053	0.000000
Ethanol	lbs/hr	0.000082	0.000209	0.002243	0.000104	0.000101	0.000050	0.000094	0.000103	0.000188	0.000000	0.000000	0.000000	0.000063	0.000050	0.000000	0.000000
Isopropyl Alcohol	lbs/hr	0.000106	0.000027	0.000163	0.000014	0.000013	0.000006	0.000012	0.000013	0.000025	0.000000	0.000000	0.000000	0.000008	0.000006	0.000010	0.000000
Tertiary butyl Alcohol	lbs/hr	0.000000	0.000034	0.000000	0.000017	0.000016	0.000008	0.000015	0.000017	0.000030	0.000000	0.000000	0.000000	0.000010	0.000008	0.000012	0.000000
2-Butanone (MEK)	lbs/hr	0.000128	0.000033	0.000840	0.000016	0.000016	0.000008	0.000015	0.000016	0.000030	0.000000	0.000000	0.000000	0.000010	0.000008	0.000004	0.000000
Methylene Chloride	lbs/hr	0.000150	0.000038	0.000231	0.000010	0.000027	0.000009	0.000017	0.000019	0.000035	0.000000	0.000000	0.000000	0.000012	0.000009	0.000014	0.000000
Carbon Disulfide	lbs/hr	0.000135	0.000014	0.000207	0.000007	0.000007	0.000003	0.000006	0.000007	0.000012	0.000000	0.000000	0.000000	0.000004	0.000003	0.000005	0.000000
trans-1,2-Dichlroethene	lbs/hr	0.000171	0.000018	0.000264	0.000009	0.000004	0.000004	0.000008	0.000009	0.000016	0.000004	0.000004	0.000002	0.000005	0.000004	0.000006	0.000004
Dichlorodifluoromethane	lbs/hr	0.000214	0.000022	0.000329	0.000011	0.000011	0.000005	0.000010	0.000011	0.000020	0.000000	0.000000	0.000000	0.000007	0.000005	0.000008	0.000000
Chloromethane	lbs/hr	0.000089	0.000009	0.000138	0.000005	0.000004	0.000002	0.000004	0.000005	0.000008	0.000000	0.000000	0.000000	0.000003	0.000002	0.000003	0.000000
Trichlorofluoromethane	lbs/hr	0.000243	0.000025	0.000374	0.000012	0.000012	0.000006	0.000011	0.000012	0.000022	0.000000	0.000000	0.000000	0.000007	0.000006	0.000009	0.000000
cis-1,2-Dichloroethene	lbs/hr	0.001016	0.001399	0.000929	0.000927	0.000406	0.000314	0.000289	0.000458	0.000625	0.000166	0.000267	0.000123	0.000249	0.000236	0.000358	0.000349
n-Hexane	lbs/hr	0.000000	0.000016	0.000000	0.000008	0.000008	0.000004	0.000007	0.000008	0.000014	0.000000	0.000000	0.000000	0.000005	0.000004	0.000006	0.000000
1,1,1-Trichloroethane	lbs/hr	0.000236	0.000024	0.003157	0.000012	0.000012	0.000006	0.000011	0.000012	0.000022	0.000000	0.000000	0.000000	0.000007	0.000006	0.000009	0.000000
Chloroform	lbs/hr	0.000211	0.000022	0.000324	0.000000	0.000036	0.000013	0.000010	0.000011	0.000019	0.000000	0.000000	0.000000	0.000007	0.000005	0.000022	0.000000
Tetrahydrofuran	lbs/hr	0.000128	0.000033	0.000196	0.000016	0.000016	0.000008	0.000015	0.000016	0.000029	0.000000	0.000000	0.000000	0.000010	0.000008	0.000012	0.000000
Benzene	lbs/hr	0.001383	0.000014	0.000212	0.000007	0.000007	0.000003	0.000006	0.000007	0.000013	0.000000	0.000000	0.000000	0.000004	0.000003	0.000005	0.000000
Trichloroethene	lbs/hr	0.052931	0.022212	0.022705	0.011009	0.003587	0.004175	0.005471	0.006267	0.012705	0.002324	0.003010	0.001565	0.002928	0.003729	0.005173	0.003827
2,2,4-Trimethylpentane	lbs/hr	0.000000	0.000021	0.000000	0.000010	0.000010	0.000005	0.000009	0.000010	0.000019	0.000000	0.000000	0.000000	0.000006	0.000005	0.000007	0.000000
Toluene	lbs/hr	0.000163	0.000017	0.000251	0.000008	0.000008	0.000004	0.000008	0.000008	0.000015	0.000000	0.000000	0.000000	0.000005	0.000004	0.000006	0.000000
Tetrachloroethene	lbs/hr	0.002176	0.001299	0.001000	0.000591	0.000619	0.000673	0.000561	0.000436	0.000547	0.000249	0.000320	0.000214	0.000273	0.000242	0.000240	0.000224
1,4-Dichlorobenzene	lbs/hr	0.000260	0.000027	0.000560	0.000013	0.000013	0.000006	0.000012	0.000013	0.000024	0.000000	0.000000	0.000000	0.000008	0.000006	0.000009	0.000000
Naphthalene	lbs/hr	0.000227	0.000000	0.000349	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1,2,4-Trimethylbenzene	lbs/hr	0.000213	0.000033	0.000327	0.000011	0.000010	0.000005	0.000015	0.000011	0.000020	0.000000	0.000000	0.000000	0.000007	0.000005	0.000008	0.000000
Total Mass Removal Rate	lbs/hr	0.06942	0.02560	0.04604	0.01284	0.00497	0.00533	0.00663	0.00749	0.01449	0.00274	0.00360	0.00190	0.00365	0.00437	0.00598	0.00440

Notes:

1) Compliance with Air Requirements = Per DEC memorandum issued 2/28/2003, remediation systems that have the potential to discharged greater than 0.5 lb/hr shall require pollution controls.

2) Mass Removal = VOC conc. ug/m3*flow rate (CFM)*(60 mins/hr)/(453,590,000 ug/lb)/(35.32 ft3/m3)

3) ug/m3 = micrograms per cubic meter

4) ppm = parts-per-million

5) ND = Not Detected

6) **Bold** = Analyte detected in sample

7) SVE-Effluent-111416 was mislabeled in the field and was actually taken from the SVE influent port

8) SSD-Effluent-111416 was mislabeled in the field and was actually taken from the SSD influent sample port

9) Effluent samples were taken from the total effluent of both systems

Table 2 - Summary of Mass Removal
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

	LOCATION	SSD Influent															
	SAMPLE NAME	SSD INFLUENT_ 042916	SSD INFLUENT_ 050616	SSDINFLU_ 110216	SSD- EFFLUENT_ 111416 ⁸	SSD-INFLU_ 012417	SSD-INFLU_ 041117	SSD- INFLUENT_ 062217	SSD- INFLUENT_ 062817	SSD INFLUENT_ 101217	SSD INFLUENT_ 011218	SSD INFLUENT_ 011818	SSD INFLUENT_ 042018	SSD INFLUENT_ 042618	SSD INFLUENT_ 082318	SSD INFLUENT_ 122018	SSD INFLUENT_ 021419
	SAMPLING DATE	4/29/2016	5/6/2016	11/2/2016	11/14/2016	1/24/2017	4/11/2017	6/22/2017	6/28/2017	10/12/2017	1/12/2018	1/18/2018	4/20/2018	4/26/2018	8/23/2018	12/20/2018	5/14/2019
	LAB SAMPLE ID	SC20863-02	L1614057-02	SC27978-01	L1637012-02	L1702565-01	L1711688-01	L1721409-02	L1722128-01	L1736952-02	L1802191-02	L1802191-05	L1814277-02	L1815307-02	L1833818-02	L1852996-02	L1906089-01
ANALYTE	Flow Rate (CFM)	159	297	269	302	313	302	285	284	282	293	310	305	305	471	472	472
VOCs TO-15	Units																
Acetone	lbs/hr	0.000005	0.000001	0.000013	0.000001	0.000001	0.000005	0.000020	0.000006	0.000017	0.000000	0.000000	0.000000	0.000012	0.000020	0.000016	0.000000
Ethanol	lbs/hr	0.000001	0.000005	0.000002	0.000005	0.000006	0.000005	0.000005	0.000005	0.000005	0.000000	0.000000	0.000000	0.000005	0.000008	0.000000	0.000000
Isopropyl Alcohol	lbs/hr	0.000001	0.000001	0.000002	0.000001	0.000001	0.000001	0.000002	0.000002	0.000001	0.000000	0.000000	0.000000	0.000002	0.000001	0.000001	0.000000
Tertiary butyl Alcohol	lbs/hr	0.000000	0.000001	0.000000	0.000005	0.000001	0.000001	0.000001	0.000001	0.000001	0.000000	0.000000	0.000000	0.000005	0.000001	0.000001	0.000000
2-Butanone (MEK)	lbs/hr	0.000002	0.000001	0.000003	0.000001	0.000001	0.000001	0.000004	0.000001	0.000002	0.000000	0.000000	0.000000	0.000003	0.000001	0.000001	0.000000
Methylene Chloride	lbs/hr	0.000002	0.000001	0.000003	0.000001	0.000001	0.000001	0.000015	0.000001	0.000002	0.000000	0.000000	0.000000	0.000002	0.000002	0.000002	0.000000
Carbon Disulfide	lbs/hr	0.000002	0.000000	0.000003	0.000000	0.000000	0.000000	0.000000	0.000000	0.000001	0.000000	0.000000	0.000000	0.000000	0.000001	0.000001	0.000000
trans-1,2-Dichlroethene	lbs/hr	0.000002	0.000000	0.000004	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000001	0.000001	0.000001
Dichlorodifluoromethane	lbs/hr	0.000003	0.000002	0.000005	0.000002	0.000002	0.000002	0.000003	0.000002	0.000002	0.000000	0.000000	0.000000	0.000003	0.000004	0.000005	0.000000
Chloromethane	lbs/hr	0.000001	0.000001	0.000002	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000000	0.000000	0.000000	0.000001	0.000001	0.000001	0.000000
Trichlorofluoromethane	lbs/hr	0.000003	0.000001	0.000006	0.000001	0.000002	0.000002	0.000002	0.000001	0.000001	0.000000	0.000000	0.000000	0.000001	0.000001	0.000003	0.000000
cis-1,2-Dichloroethene	lbs/hr	0.000003	0.000006	0.000020	0.000000	0.000000	0.000001	0.000007	0.000000	0.000002	0.000000	0.000000	0.000000	0.000000	0.000002	0.000004	0.000002
n-Hexane	lbs/hr	0.000000	0.000000	0.000000	0.000001	0.000000	0.000000	0.000000	0.000000	0.000001	0.000000	0.000000	0.000000	0.000000	0.000001	0.000005	0.000000
1,1,1-Trichloroethane	lbs/hr	0.000003	0.000001	0.000005	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000000	0.000000	0.000000	0.000001	0.000001	0.000001	0.000000
Chloroform	lbs/hr	0.000003	0.000005	0.000005	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000000	0.000000	0.000000	0.000001	0.000001	0.000001	0.000000
Tetrahydrofuran	lbs/hr	0.000003	0.000001	0.000003	0.000001	0.000001	0.000001	0.000003	0.000001	0.000001	0.000000	0.000000	0.000000	0.000001	0.000001	0.000001	0.000000
Benzene	lbs/hr	0.000002	0.000001	0.000003	0.000002	0.000001	0.000001	0.000000	0.000000	0.000012	0.000000	0.000000	0.000000	0.000000	0.000002	0.000010	0.000000
Trichloroethene	lbs/hr	0.000194	0.000109	0.000562	0.000007	0.000015	0.000021	0.000104	0.000007	0.000048	0.000005	0.000004	0.000010	0.000004	0.000070	0.000060	0.000048
2,2,4-Trimethylpentane	lbs/hr	0.000000	0.000001	0.000000	0.000001	0.000001	0.000001	0.000000	0.000000	0.000001	0.000000	0.000000	0.000000	0.000001	0.000002	0.000007	0.000000
Toluene	lbs/hr	0.000002	0.000002	0.000004	0.000002	0.000007	0.000004	0.000002	0.000001	0.000002	0.000000	0.000000	0.000000	0.000002	0.000008	0.000023	0.000000
Tetrachloroethene	lbs/hr	0.000020	0.000019	0.000043	0.000001	0.000008	0.000005	0.000004	0.000002	0.000033	0.000001	0.000003	0.000007	0.000002	0.000017	0.000014	0.000005
1,4-Dichlorobenzene	lbs/hr	0.000004	0.000001	0.000011	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000000	0.000000	0.000000	0.000001	0.000001	0.000001	0.000000
Naphthalene	lbs/hr	0.000003	0.000000	0.000016	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1,2,4-Trimethylbenzene	lbs/hr	0.000003	0.000001	0.000005	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000000	0.000000	0.000000	0.000001	0.000001	0.000003	0.000000
Total Mass Removal Rate	lbs/hr	0.00026	0.00016	0.00072	0.00004	0.00005	0.00006	0.00018	0.00004	0.00013	0.00001	0.00001	0.00002	0.00005	0.00015	0.00016	0.00006

Notes:

- 1) Compliance with Air Requirements = Per DEC memorandum issued 2/28/2003, remediation systems that have the potential to discharged greater than 0.5 lb/hr shall require pollution controls.
- 2) Mass Removal = VOC conc. ug/m3*flow rate (CFM)*(60 mins/hr)/(453,590,000 ug/lb)/(35.32 ft3/m3)
- 3) ug/m3 = micrograms per cubic meter
- 4) ppm = parts-per-million
- 5) ND = Not Detected
- 6) **Bold** = Analyte detected in sample
- 7) SVE-Effluent-111416 was mislabeled in the field and was actually taken from the SVE influent port
- 8) SSD-Effluent-111416 was mislabeled in the field and was actually taken from the SSD influent sample port
- 9) Effluent samples were taken from the total effluent of both systems

Table 2 - Summary of Mass Removal
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

	LOCATION	Total Effluent															
	SAMPLE NAME	TOTAL EFFLUENT_042916	TOTAL EFFLUENT_050616	TOTAL EFFLU_110216	Effluent-111416	TOTAL-EFFLU_012417	TOTAL_EFFLU_041117	TOTAL_EFFLU_062217	TOTAL_EFFLU_062817	EFFLUENT_101217	TOTAL_EFFLU_062818	EFFLUENT_011818	TOTAL EFFLUENT_042018	TOTAL EFFLUENT_042618	TOTAL EFFLUENT_082318	TOTAL EFFLUENT_122018	TOTAL EFFLUENT_021419
	SAMPLING DATE	4/29/2016	5/6/2016	11/2/2016	11/14/2016	1/24/2017	4/11/2017	6/22/2017	6/28/2017	10/12/2017	6/29/2017	1/18/2018	4/20/2018	4/26/2018	8/23/2018	12/20/2018	2/14/2019
	LAB SAMPLE ID	SC20863-03	L1614057-03	SC27978-02	L1637012-01	L1702565-03	L1711688-03	L1721409-01	L1722128-03	L1736952-03	L1722128-04	L1802191-06	L1814277-03	L1815307-03	L1833818-03	L1852996-03	L1906089-03
ANALYTE	Flow Rate (CFM)	914	971	882	891	883	865	820	869	817	842	884	662	662	753	753	753
VOCs TO-15	Units																
Acetone	lbs/hr	0.000133	0.000009	0.000038	0.000004	0.000004	0.000008	0.000007	0.000008	0.000004	0.000000	0.000000	0.000000	0.000007	0.000034	0.000007	0.000000
Ethanol	lbs/hr	0.000024	0.000034	0.000081	0.000016	0.000016	0.000030	0.000014	0.000031	0.000014	0.000000	0.000000	0.000000	0.000012	0.000133	0.000000	0.000000
Isopropyl Alcohol	lbs/hr	0.000007	0.000004	0.000007	0.000002	0.000002	0.000004	0.000004	0.000004	0.000002	0.000000	0.000000	0.000000	0.000002	0.000017	0.000002	0.000000
Tertiary butyl Alcohol	lbs/hr	0.000000	0.000006	0.000000	0.000003	0.000003	0.000005	0.000002	0.000005	0.000002	0.000000	0.000000	0.000000	0.000015	0.000021	0.000002	0.000000
2-Butanone (MEK)	lbs/hr	0.000012	0.000005	0.000037	0.000002	0.000002	0.000005	0.000002	0.000005	0.000002	0.000000	0.000000	0.000000	0.000002	0.000021	0.000002	0.000000
Methylene Chloride	lbs/hr	0.000003	0.000006	0.000003	0.000003	0.000006	0.000006	0.000010	0.000006	0.000003	0.000000	0.000000	0.000000	0.000002	0.000025	0.000002	0.000000
Carbon Disulfide	lbs/hr	0.000003	0.000002	0.000003	0.000001	0.000001	0.000002	0.000001	0.000002	0.000001	0.000000	0.000000	0.000000	0.000001	0.000009	0.000001	0.000000
trans-1,2-Dichlroethene	lbs/hr	0.000003	0.000003	0.000003	0.000001	0.000001	0.000026	0.000009	0.000015	0.000005	0.000001	0.000003	0.000001	0.000004	0.000011	0.000001	0.000001
Dichlorodifluoromethane	lbs/hr	0.000004	0.000005	0.000004	0.000006	0.000005	0.000003	0.000005	0.000007	0.000004	0.000000	0.000000	0.000000	0.000005	0.000014	0.000001	0.000000
Chloromethane	lbs/hr	0.000002	0.000002	0.000002	0.000002	0.000001	0.000001	0.000001	0.000001	0.000001	0.000000	0.000000	0.000000	0.000001	0.000006	0.000001	0.000000
Trichlorofluoromethane	lbs/hr	0.000005	0.000004	0.000005	0.000004	0.000002	0.000004	0.000002	0.000004	0.000002	0.000000	0.000000	0.000000	0.000003	0.000016	0.000002	0.000000
cis-1,2-Dichloroethene	lbs/hr	0.000003	0.000003	0.000003	0.000001	0.000001	0.001785	0.000823	0.001588	0.000529	0.000210	0.000318	0.000004	0.000573	0.000460	0.000001	0.000001
n-Hexane	lbs/hr	0.000000	0.000003	0.000000	0.000001	0.000001	0.000002	0.000001	0.000002	0.000001	0.000000	0.000000	0.000000	0.000001	0.000010	0.000001	0.000000
1,1,1-Trichloroethane	lbs/hr	0.000005	0.000004	0.000005	0.000002	0.000002	0.000004	0.000002	0.000004	0.000002	0.000000	0.000000	0.000000	0.000026	0.000015	0.000002	0.000000
Chloroform	lbs/hr	0.000004	0.000004	0.000004	0.000002	0.000004	0.000008	0.000011	0.000024	0.000019	0.000000	0.000000	0.000000	0.000017	0.000014	0.000001	0.000000
Tetrahydrofuran	lbs/hr	0.000003	0.000005	0.000021	0.000002	0.000002	0.000010	0.000002	0.000005	0.000002	0.000000	0.000000	0.000000	0.000002	0.000021	0.000002	0.000000
Benzene	lbs/hr	0.000003	0.000002	0.000003	0.000001	0.000001	0.000002	0.000001	0.000002	0.000001	0.000000	0.000000	0.000000	0.000001	0.000009	0.000001	0.000000
Trichloroethene	lbs/hr	0.000063	0.000092	0.000004	0.000002	0.000002	0.000003	0.000002	0.000003	0.000006	0.000027	0.000042	0.000005	0.000932	0.008800	0.000002	0.000004
2,2,4-Trimethylpentane	lbs/hr	0.000000	0.000003	0.000000	0.000002	0.000002	0.000003	0.000001	0.000003	0.000001	0.000000	0.000000	0.000000	0.000001	0.000013	0.000001	0.000000
Toluene	lbs/hr	0.000003	0.000003	0.000003	0.000001	0.000001	0.000002	0.000001	0.000002	0.000001	0.000000	0.000000	0.000000	0.000001	0.000011	0.000003	0.000000
Tetrachloroethene	lbs/hr	0.000006	0.000019	0.000006	0.000002	0.000002	0.000004	0.000002	0.000004	0.000002	0.000002	0.000002	0.000004	0.000002	0.000019	0.000002	0.000002
1,4-Dichlorobenzene	lbs/hr	0.000005	0.000004	0.000005	0.000002	0.000002	0.000004	0.000002	0.000004	0.000002	0.000000	0.000000	0.000000	0.000001	0.000017	0.000002	0.000000
Naphthalene	lbs/hr	0.000004	0.000000	0.000019	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1,2,4-Trimethylbenzene	lbs/hr	0.000004	0.000004	0.000023	0.000002	0.000002	0.000003	0.000002	0.000003	0.000002	0.000000	0.000000	0.000000	0.000001	0.000021	0.000003	0.000000
Total Mass Removal Rate	lbs/hr	0.00030	0.00023	0.00028	0.00006	0.00007	0.00192	0.00091	0.00173	0.00061	0.00024	0.00036	0.00001	0.00161	0.00972	0.00004	0.00001

Notes:

1) Compliance with Air Requirements = Per DEC memorandum issued 2/28/2003, remediation systems that have the potential to discharged greater than 0.5 lb/hr shall require pollution controls.

2) Mass Removal = VOC conc. ug/m3*flow rate (CFM)*(60 mins/hr)/(453,590,000 ug/lb)/(35.32 ft3/m3)

3) ug/m3 = micrograms per cubic meter

4) ppm = parts-per-million

5) ND = Not Detected

6) **Bold** = Analyte detected in sample

7) SVE-Effluent-111416 was mislabeled in the field and was actually taken from the SVE influent port

8) SSD-Effluent-111416 was mislabeled in the field and was actually taken from the SSD influent sample port

9) Effluent samples were taken from the total effluent of both systems

Figures



- LEGEND**
- MONITORING WELL LOCATION
 - SITE (12,000 Square Feet)
- UTILITIES REFERENCES:**
- COMMUNICATION LINES FROM VERIZON DRAWINGS.
 - GAS AND ELECTRIC LINES FROM KEYSpan ENERGY DRAWINGS.
 - SANITARY AND STORM SEWER LINES FROM NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION.



Sheet Number: 1	Figure Number: 1	GROUNDWATER MONITORING WELL NETWORK FORMER OZONE INDUSTRIES, INC. OZONE PARK, NEW YORK, NY		AECOM AECOM Environment 250 APOLLO DRIVE CHELMSFORD, MA 01824 (978) 905-2100 www.aecom.com		Designed By:			
						Revisions			
						No.:	Description:	Date:	By:
						Drawn By:			
						J.E.B.			
Checked By:									
R.M.									
Approved By:									
D.A.									

Appendix A

System O&M Field Sheets

SVE System Summary Former Ozone Industries, Inc. Ozone Park, Queens NY								
DATE OF O&M VISIT		10/08/18	11/12/18	12/17/18	01/15/19	02/12/19	03/13/19	04/09/19
SVE System Status (Up / Down / Off)								
	Status On Arrival	OFF	OFF	OFF	OFF	Up	Up	Up
	Overall Up Time Since Start Up	62%	59%	57%	56%	56%	57%	58%
System Status Between O&M Events								
	On Arrival							
	% Up Time	#N/A	#N/A	#N/A	#N/A	100%	100%	100%
	% Down Time	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	% Off Time	100%	100%	100%	100%	#N/A	#N/A	#N/A
Soil Vapor Extraction Blower (B-1)								
	Days Between O&M Events	27	35	35	29	28	29	27
	Days Of Operations	893	928	963	992	1020	1049	1076
SVE Blower Operation								
	Hour Meter (hrs)	13,129.7	13,129.7	13,129.7	13,129.7	13,539.5	14,229.0	14,878.5
	Hours Between Events	0.0	0.0	0.0	0.0	409.8	689.5	649.5
	Time Between Events (hrs)	648.0	840.0	840.0	696.0	671.6	693.4	650.5
	Time Since Start Up (hrs)	21,241.0	22,081.0	22,921.0	23,617.0	24,288.6	24,982.0	25,632.5
	VFD Frequency (Hz)	NA	NA	NA	NA	60.0	60.0	60.0
	VFD Load (Amps)	NA	NA	NA	NA	56.6	57.6	52.4
Vacuum ("H ₂ O)								
	SVE-8	NA	NA	NA	NA	NA	NA	NA
	SVE-7	NA	NA	NA	NA	NA	NA	NA
	SVE-11	NA	NA	NA	NA	NA	NA	NA
	SVE-10	NA	NA	NA	NA	-4.2	NA	-4.5
	SVE-15	NA	NA	NA	NA	-6.8	NA	-6.8
	SVE-13	NA	NA	NA	NA	-5.5	NA	-4.8
	SVE-14	NA	NA	NA	NA	-9.2	NA	-9.9
	SVE-16	NA	NA	NA	NA	-5.0	NA	-9.4
	SVE-18	NA	NA	NA	NA	-8.7	NA	-8.1
	SVE-17	NA	NA	NA	NA	-8.5	NA	-2.7
	SVE-12	NA	NA	NA	NA	-8.6	NA	-10.5
	SVE-9	NA	NA	NA	NA	-6.0	NA	-8.0
	SVE-21	NA	NA	NA	NA	-8.9	NA	-7.5
	SVE-3	NA	NA	NA	NA	-7.1	NA	-3.7
	SVE-1	NA	NA	NA	NA	-8.0	NA	-8.7
	SVE-4	NA	NA	NA	NA	NA	NA	NA
	SVE-2	NA	NA	NA	NA	NA	NA	NA
	SVE-5	NA	NA	NA	NA	NA	NA	NA
	SVE-20	NA	NA	NA	NA	-2.0	NA	-10.9
	SVE-19	NA	NA	NA	NA	-2.5	NA	-2.1
	SVE-23	NA	NA	NA	NA	-2.9	NA	-1.5
	SVE-22	NA	NA	NA	NA	-2.0	NA	-1.0
	SVE-25	NA	NA	NA	NA	NA	NA	NA
	SVE-26	NA	NA	NA	NA	NA	NA	NA
	SVE-27	NA	NA	NA	NA	NA	NA	NA
	SVE-24	NA	NA	NA	NA	NA	NA	NA
	SVE-6	NA	NA	NA	NA	NA	NA	NA
Soil Vapor Velocity (ft/min)								
	SVE-8	NA	NA	NA	NA	NA	NA	NA
	SVE-7	NA	NA	NA	NA	NA	NA	NA
	SVE-11	NA	NA	NA	NA	1833	NA	695
	SVE-10	NA	NA	NA	NA	1805	NA	789
	SVE-15	NA	NA	NA	NA	1901	NA	921
	SVE-13	NA	NA	NA	NA	2238	NA	896
	SVE-14	NA	NA	NA	NA	1200	NA	964
	SVE-16	NA	NA	NA	NA	1310	NA	597
	SVE-18	NA	NA	NA	NA	1750	NA	531
	SVE-17	NA	NA	NA	NA	2180	NA	583
	SVE-12	NA	NA	NA	NA	2257	NA	1271
	SVE-9	NA	NA	NA	NA	1793	NA	1660
	SVE-21	NA	NA	NA	NA	1802	NA	1699
	SVE-3	NA	NA	NA	NA	1910	NA	1845
	SVE-1	NA	NA	NA	NA	NA	NA	NA
	SVE-4	NA	NA	NA	NA	NA	NA	NA
	SVE-2	NA	NA	NA	NA	NA	NA	NA
	SVE-5	NA	NA	NA	NA	NA	NA	NA
	SVE-20	NA	NA	NA	NA	2938	NA	608
	SVE-19	NA	NA	NA	NA	2785	NA	504
	SVE-23	NA	NA	NA	NA	1007	NA	489
	SVE-22	NA	NA	NA	NA	889	NA	531
	SVE-25	NA	NA	NA	NA	NA	NA	NA
	SVE-26	NA	NA	NA	NA	NA	NA	NA
	SVE-27	NA	NA	NA	NA	NA	NA	NA
	SVE-24	NA	NA	NA	NA	NA	NA	NA
	SVE-6	NA	NA	NA	NA	NA	NA	NA

SVE System Summary Former Ozone Industries, Inc. Ozone Park, Queens NY								
DATE OF O&M VISIT		10/08/18	11/12/18	12/17/18	01/15/19	02/12/19	03/13/19	04/09/19
SVE System Status (Up / Down / Off)								
	Status On Arrival	OFF	OFF	OFF	OFF	Up	Up	Up
	Overall Up Time Since Start Up	62%	59%	57%	56%	56%	57%	58%
Soil Vapor Flow Rate (ft ³ /min)								
	SVE-8	NR	NR	NR	NR	NR	NR	NR
	SVE-7	NR	NR	NR	NR	NR	NR	NR
	SVE-11	NR	NR	NR	NR	NR	NR	NR
	SVE-10	NR	NR	NR	NR	NR	NR	NR
	SVE-15	NR	NR	NR	NR	NR	NR	NR
	SVE-13	NR	NR	NR	NR	NR	NR	NR
	SVE-14	NR	NR	NR	NR	NR	NR	NR
	SVE-16	NR	NR	NR	NR	NR	NR	NR
	SVE-18	NR	NR	NR	NR	NR	NR	NR
	SVE-17	NR	NR	NR	NR	NR	NR	NR
	SVE-12	NR	NR	NR	NR	NR	NR	NR
	SVE-9	NR	NR	NR	NR	NR	NR	NR
	SVE-21	NR	NR	NR	NR	NR	NR	NR
	SVE-3	NR	NR	NR	NR	NR	NR	NR
	SVE-1	NR	NR	NR	NR	NR	NR	NR
	SVE-4	NR	NR	NR	NR	NR	NR	NR
	SVE-2	NR	NR	NR	NR	NR	NR	NR
	SVE-5	NR	NR	NR	NR	NR	NR	NR
	SVE-20	NR	NR	NR	NR	NR	NR	NR
	SVE-19	NR	NR	NR	NR	NR	NR	NR
	SVE-23	NR	NR	NR	NR	NR	NR	NR
	SVE-22	NR	NR	NR	NR	NR	NR	NR
	SVE-25	NR	NR	NR	NR	NR	NR	NR
	SVE-26	NR	NR	NR	NR	NR	NR	NR
	SVE-27	NR	NR	NR	NR	NR	NR	NR
	SVE-24	NR	NR	NR	NR	NR	NR	NR
	SVE-6	NR	NR	NR	NR	NR	NR	NR
VOCs (ppm _v)								
	SVE-8	NA	NA	NA	NA	NA	NA	NA
	SVE-7	NA	NA	NA	NA	NA	NA	NA
	SVE-11	NA	NA	NA	NA	0.0	NA	0.0
	SVE-10	NA	NA	NA	NA	0.0	NA	0.0
	SVE-15	NA	NA	NA	NA	0.0	NA	0.0
	SVE-13	NA	NA	NA	NA	0.0	NA	0.0
	SVE-14	NA	NA	NA	NA	0.0	NA	0.0
	SVE-16	NA	NA	NA	NA	0.2	NA	0.0
	SVE-18	NA	NA	NA	NA	0.9	NA	25.4
	SVE-17	NA	NA	NA	NA	0.5	NA	NA
	SVE-12	NA	NA	NA	NA	0.0	NA	2.5
	SVE-9	NA	NA	NA	NA	0.0	NA	NA
	SVE-21	NA	NA	NA	NA	0.0	NA	0.0
	SVE-3	NA	NA	NA	NA	0.0	NA	1.9
	SVE-1	NA	NA	NA	NA	NA	NA	NA
	SVE-4	NA	NA	NA	NA	NA	NA	NA
	SVE-2	NA	NA	NA	NA	NA	NA	NA
	SVE-5	NA	NA	NA	NA	NA	NA	NA
	SVE-20	NA	NA	NA	NA	0.0	NA	0.0
	SVE-19	NA	NA	NA	NA	0.0	NA	0.0
	SVE-23	NA	NA	NA	NA	0.0	NA	0.0
	SVE-22	NA	NA	NA	NA	0.0	NA	0.0
	SVE-25	NA	NA	NA	NA	NA	NA	NA
	SVE-26	NA	NA	NA	NA	NA	NA	NA
	SVE-27	NA	NA	NA	NA	NA	NA	NA
	SVE-24	NA	NA	NA	NA	NA	NA	NA
	SVE-6	NA	NA	NA	NA	NA	NA	NA
SVE Sample Ports								
		0.0	0.0	0.0	0.0	0.5	0.0	2.5
		0.0	0.0	0.0	0.0	0.0	0.0	0.0
VOCs (ppm _v)								
	SVE-SP01	NA	NA	NA	NA	0.8	NA	2.5
	SVE-SP04	NA	NA	NA	NA	2.4	16.0	0.0

- Notes:
- 1) Soil Vapor Velocity taken form individual SVE Wells is from a 2.0-inch diameter pipe.

2) Soil Vapor Velocity taken with pitot tube assuming soil vapor temp of 65 deg F,

3) Soil Vapor Velocity taken form SVE-SP-04 is from a 3.0-inch diameter pipe.

4) Dilution is calculated by subtracting Blower Inlet and Discharge Soil Vapor Flow Rate.

5) Mass removal based following calculation: #/hr = Flow Rate x 111 (MW of Benzene) x VOC x 1.53x10⁻⁷) .

6) NR= Not Recorded, #N/A = Not recorded placeholder for calculation purposes.

SSD System Summary
Former Ozone Industries, Inc.
Ozone Park, Queens NY

DATE OF O&M VISIT		10/08/18	11/12/18	12/17/18	01/15/19	02/12/19	03/13/19	04/09/19
SSD System Status (Up / Down / Off)								
	Status On Arrival	Up	Up	Up	Up	Up	Up	Up
	Overall Up Time Since Start Up	72%	75%	76%	76%	76%	74%	77%
System Operation Status Between O&M Events								
	On Arrival							
	% Up Time	100%	100%	100%	100%	100%	100%	100%
	% Down Time	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	% Off Time	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Sub Slab Depression Blower (B-2)								
	Days Between O&M Events	90	98	116	126	127	121	113
	Days Of Operations	893	928	963	992	1020	1049	1076
SSD Blower Operation								
	Hour Meter (hrs)	15,382.8	16,625.7	17,466.3	18,161.2	18,617.2	18,618.2	19,984.0
	Hours Between Events	1,754.8	2,353.5	2,784.2	3,025.5	3,234.4	1,992.5	2,517.7
	Time Between Events (hrs)	2,159.7	2,354.9	2,783.5	3,025.0	3,051.1	2,906.3	2,711.6
	Time Since Start Up (hrs)	21,430.2	22,272.0	23,113.0	23,808.0	24,481.3	25,178.3	25,824.6
	VFD Frequency (Hz)	59.9	59.9	59.9	59.9	59.9	59.9	59.9
	VFD Load (Amps)	15.7	15.7	15.7	16.2	16.6	16.6	16.2
Pressure ("H ₂ O)								
	SSD-1	-2.1	-1.5	-2.8	-2.0	-2.2	-1.6	-2.2
	SSD-2	-2.8	-2.5	-2.4	-2.2	-2.3	-2.3	-2.9
	SSD-3	-3.4	-3.2	-3.0	-3.2	-2.8	-2.9	-3.4
	SSD-4	-3.8	-3.6	-3.5	-3.2	-2.5	-3.3	-3.7
	SSD-5	-3.8	-3.3	-3.5	-3.2	-2.8	-3.2	-3.7
	SSD-6	-3.8	-3.5	-3.4	-3.2	-2.8	-3.2	-3.7
	SSD-7	-3.8	-3.5	-3.5	-3.3	-2.8	-3.2	-3.7
	SSD-8	-3.6	-3.4	-3.5	-3.4	-2.8	-3.2	-3.7
Soil Vapor Velocity (ft/min)								
	SSD-1	2878	2847	2865	2855	2780	1220	1276
	SSD-2	2855	2841	2455	2560	2899	1215	982
	SSD-3	2773	2787	2744	2790	3099	1180	1385
	SSD-4	2667	2618	2595	2588	3001	1125	1110
	SSD-5	2380	2307	2161	2098	2830	985	972
	SSD-6	2337	2365	2158	2145	2670	970	945
	SSD-7	1997	1928	1762	1801	2610	960	850
	SSD-8	1859	1851	1817	1892	2104	781	758
Soil Vapor Flow Rate (ft³/min)								
	SSD-1	62.79	62.11	62.50	62.29	60.65	26.62	27.84
	SSD-2	62.29	61.98	53.56	55.85	63.25	26.51	21.42
	SSD-3	60.50	60.80	59.86	60.87	67.61	25.74	30.22
	SSD-4	58.18	57.12	56.61	56.46	65.47	24.54	24.22
	SSD-5	51.92	50.33	47.15	45.77	61.74	21.49	21.21
	SSD-6	50.99	51.60	47.08	46.80	58.25	21.16	20.62
	SSD-7	43.57	42.06	38.44	39.29	56.94	20.94	18.54
	SSD-8	40.56	40.38	39.64	41.28	45.90	17.04	16.54
VOCs (ppm _v)								
	SSD-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SSD-2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SSD-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SSD-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SSD-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SSD-6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SSD-7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SSD-8	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

- 1) Soil Vapor Velocity taken from individual SSD Wells is from a 2.0-inch diameter pipe.
- 2) Soil Vapor Velocity taken with pitot tube assuming soil vapor temp of 65 deg F, from SSD SP-03, which is from a 4.0" diameter pipe.
- 3) Soil Vapor Velocity taken from SSD-SP-04 is from a 3.0-inch diameter pipe.
- 4) Dilution is calculated by subtracting Blower Inlet and Discharge Soil Vapor Flow Rate.
- 5) NR= Not Recorded, #N/A = Not recorded placeholder for calculation purposes.

--	--

[illegible]

Appendix B

System Air Sample Lab Results – December 2018 and February 2019



ANALYTICAL REPORT

Lab Number:	L1852996
Client:	AECOM 250 Apollo Dr. Chelmsford, MA 01824
ATTN:	Raimundo Matos
Phone:	(978) 905-2100
Project Name:	OZONE PARK
Project Number:	60527976
Report Date:	01/04/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: OZONE PARK
Project Number: 60527976

Lab Number: L1852996
Report Date: 01/04/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1852996-01	SVE INFLUENT_122018	SOIL_VAPOR	QUEENS, NY	12/20/18 09:05	12/21/18
L1852996-02	SSD INFLUENT_122018	SOIL_VAPOR	QUEENS, NY	12/20/18 09:15	12/21/18
L1852996-03	TOTAL EFFLUENT_122018	SOIL_VAPOR	QUEENS, NY	12/20/18 09:20	12/21/18

Project Name: OZONE PARK
Project Number: 60527976

Lab Number: L1852996
Report Date: 01/04/19

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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.

Project Name: OZONE PARK
Project Number: 60527976

Lab Number: L1852996
Report Date: 01/04/19

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on December 18, 2018. The canister certification results are provided as an addendum.

L1852996-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

The WG1194514-3 LCS recoveries for dichlorofluoromethane (143%), acetone (131%), 3-chloropropene (139%), undecane (132%) and dodecane (c12) (143%) are above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of these analytes.

Volatile Organics in Air by SIM

L1852996-01 through -03 results for Acetone should be considered estimated due to co-elution with a non-target peak.

The WG1194515-3 LCS recovery for 3-chloropropene (132%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

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:



Elizabeth Porta

Title: Technical Director/Representative

Date: 01/04/19

AIR

Project Name: OZONE PARK**Project Number:** 60527976**Lab Number:** L1852996**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852996-01 D
 Client ID: SVE INFLUENT_122018
 Sample Location: QUEENS, NY

Date Collected: 12/20/18 09:05
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 01/04/19 01:07
 Analyst: MB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	2.98	--	ND	14.7	--		14.93
Chloromethane	ND	2.98	--	ND	6.15	--		14.93
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.98	--	ND	20.8	--		14.93
Vinyl chloride	ND	2.98	--	ND	7.62	--		14.93
1,3-Butadiene	ND	2.98	--	ND	6.59	--		14.93
Bromomethane	ND	2.98	--	ND	11.6	--		14.93
Chloroethane	ND	2.98	--	ND	7.86	--		14.93
Ethyl Alcohol	ND	74.6	--	ND	141	--		14.93
Vinyl bromide	ND	2.98	--	ND	13.0	--		14.93
Trichlorofluoromethane	ND	2.98	--	ND	16.7	--		14.93
iso-Propyl Alcohol	ND	7.46	--	ND	18.3	--		14.93
1,1-Dichloroethene	ND	2.98	--	ND	11.8	--		14.93
tert-Butyl Alcohol	ND	7.46	--	ND	22.6	--		14.93
Methylene chloride	ND	7.46	--	ND	25.9	--		14.93
3-Chloropropene	ND	2.98	--	ND	9.33	--		14.93
Carbon disulfide	ND	2.98	--	ND	9.28	--		14.93
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.98	--	ND	22.8	--		14.93
trans-1,2-Dichloroethene	ND	2.98	--	ND	11.8	--		14.93
1,1-Dichloroethane	ND	2.98	--	ND	12.1	--		14.93
Methyl tert butyl ether	ND	2.98	--	ND	10.7	--		14.93
2-Butanone	ND	7.46	--	ND	22.0	--		14.93
cis-1,2-Dichloroethene	85.3	2.98	--	338	11.8	--		14.93
Ethyl Acetate	ND	7.46	--	ND	26.9	--		14.93



Project Name: OZONE PARK**Project Number:** 60527976**Lab Number:** L1852996**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852996-01 D
 Client ID: SVE INFLUENT_122018
 Sample Location: QUEENS, NY

Date Collected: 12/20/18 09:05
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	4.19	2.98	--	20.5	14.6	--		14.93
Tetrahydrofuran	ND	7.46	--	ND	22.0	--		14.93
1,2-Dichloroethane	ND	2.98	--	ND	12.1	--		14.93
n-Hexane	ND	2.98	--	ND	10.5	--		14.93
1,1,1-Trichloroethane	ND	2.98	--	ND	16.3	--		14.93
Benzene	ND	2.98	--	ND	9.52	--		14.93
Carbon tetrachloride	ND	2.98	--	ND	18.7	--		14.93
Cyclohexane	ND	2.98	--	ND	10.3	--		14.93
1,2-Dichloropropane	ND	2.98	--	ND	13.8	--		14.93
Bromodichloromethane	ND	2.98	--	ND	20.0	--		14.93
Xylene (Total)	ND	2.98	--	ND	12.9	--		14.93
1,4-Dioxane	ND	2.98	--	ND	10.7	--		14.93
Trichloroethene	908	2.98	--	4880	16.0	--		14.93
2,2,4-Trimethylpentane	ND	2.98	--	ND	13.9	--		14.93
Heptane	ND	2.98	--	ND	12.2	--		14.93
cis-1,3-Dichloropropene	ND	2.98	--	ND	13.5	--		14.93
4-Methyl-2-pentanone	ND	7.46	--	ND	30.6	--		14.93
trans-1,3-Dichloropropene	ND	2.98	--	ND	13.5	--		14.93
1,1,2-Trichloroethane	ND	2.98	--	ND	16.3	--		14.93
Toluene	ND	2.98	--	ND	11.2	--		14.93
1,2-Dichloroethene (total)	85.3	2.98	--	338	11.8	--		14.93
2-Hexanone	ND	2.98	--	ND	12.2	--		14.93
Dibromochloromethane	ND	2.98	--	ND	25.4	--		14.93
1,3-Dichloropropene, Total	ND	2.98	--	ND	13.5	--		14.93
1,2-Dibromoethane	ND	2.98	--	ND	22.9	--		14.93
Tetrachloroethene	33.3	2.98	--	226	20.2	--		14.93



Project Name: OZONE PARK**Project Number:** 60527976**Lab Number:** L1852996**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852996-01 D
 Client ID: SVE INFLUENT_122018
 Sample Location: QUEENS, NY

Date Collected: 12/20/18 09:05
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorobenzene	ND	2.98	--	ND	13.7	--		14.93
Ethylbenzene	ND	2.98	--	ND	12.9	--		14.93
p/m-Xylene	ND	5.97	--	ND	25.9	--		14.93
Bromoform	ND	2.98	--	ND	30.8	--		14.93
Styrene	ND	2.98	--	ND	12.7	--		14.93
1,1,2,2-Tetrachloroethane	ND	2.98	--	ND	20.5	--		14.93
o-Xylene	ND	2.98	--	ND	12.9	--		14.93
4-Ethyltoluene	ND	2.98	--	ND	14.7	--		14.93
1,3,5-Trimethylbenzene	ND	2.98	--	ND	14.7	--		14.93
1,2,4-Trimethylbenzene	ND	2.98	--	ND	14.7	--		14.93
Benzyl chloride	ND	2.98	--	ND	15.4	--		14.93
1,3-Dichlorobenzene	ND	2.98	--	ND	17.9	--		14.93
1,4-Dichlorobenzene	ND	2.98	--	ND	17.9	--		14.93
1,2-Dichlorobenzene	ND	2.98	--	ND	17.9	--		14.93
1,2,4-Trichlorobenzene	ND	2.98	--	ND	22.1	--		14.93
Hexachlorobutadiene	ND	2.98	--	ND	31.8	--		14.93

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	86		60-140



Project Name: OZONE PARK**Lab Number:** L1852996**Project Number:** 60527976**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852996-01 D
 Client ID: SVE INFLUENT_122018
 Sample Location: QUEENS, NY

Date Collected: 12/20/18 09:05
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 01/04/19 01:07
 Analyst: MB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Acetone	21.0	14.9	--	49.9	35.4	--		14.93

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	81		60-140
chlorobenzene-d5	82		60-140



Project Name: OZONE PARK**Project Number:** 60527976**Lab Number:** L1852996**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852996-02
 Client ID: SSD INFLUENT_122018
 Sample Location: QUEENS, NY

Date Collected: 12/20/18 09:15
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 01/03/19 23:51
 Analyst: MB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.536	0.200	--	2.65	0.989	--		1
Chloromethane	0.294	0.200	--	0.607	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	0.591	0.200	--	1.31	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Trichlorofluoromethane	0.274	0.200	--	1.54	1.12	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	0.609	0.200	--	2.41	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1



Project Name: OZONE PARK**Project Number:** 60527976**Lab Number:** L1852996**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852996-02
 Client ID: SSD INFLUENT_122018
 Sample Location: QUEENS, NY

Date Collected: 12/20/18 09:15
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.787	0.200	--	2.77	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.76	0.200	--	5.62	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.316	0.200	--	1.09	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Xylene (Total)	2.06	0.200	--	8.95	0.869	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	6.36	0.200	--	34.2	1.07	--		1
2,2,4-Trimethylpentane	0.848	0.200	--	3.96	0.934	--		1
Heptane	0.379	0.200	--	1.55	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	3.45	0.200	--	13.0	0.754	--		1
1,2-Dichloroethene (total)	0.609	0.200	--	2.41	0.793	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	1.13	0.200	--	7.66	1.36	--		1



Project Name: OZONE PARK**Lab Number:** L1852996**Project Number:** 60527976**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852996-02
 Client ID: SSD INFLUENT_122018
 Sample Location: QUEENS, NY

Date Collected: 12/20/18 09:15
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.438	0.200	--	1.90	0.869	--		1
p/m-Xylene	1.53	0.400	--	6.65	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.528	0.200	--	2.29	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.393	0.200	--	1.93	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	98		60-140



Project Name: OZONE PARK**Lab Number:** L1852996**Project Number:** 60527976**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852996-02
 Client ID: SSD INFLUENT_122018
 Sample Location: QUEENS, NY

Date Collected: 12/20/18 09:15
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil_Vapor
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 01/03/19 23:51
 Analyst: MB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Acetone	3.69	1.00	--	8.77	2.38	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	93		60-140

Project Name: OZONE PARK**Project Number:** 60527976**Lab Number:** L1852996**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852996-03
 Client ID: TOTAL EFFLUENT_122018
 Sample Location: QUEENS, NY

Date Collected: 12/20/18 09:20
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 01/04/19 00:31
 Analyst: MB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1



Project Name: OZONE PARK**Project Number:** 60527976**Lab Number:** L1852996**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852996-03
 Client ID: TOTAL EFFLUENT_122018
 Sample Location: QUEENS, NY

Date Collected: 12/20/18 09:20
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Xylene (Total)	ND	0.200	--	ND	0.869	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.311	0.200	--	1.17	0.754	--		1
1,2-Dichloroethene (total)	ND	0.200	--	ND	0.793	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1



Project Name: OZONE PARK**Lab Number:** L1852996**Project Number:** 60527976**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852996-03
 Client ID: TOTAL EFFLUENT_122018
 Sample Location: QUEENS, NY

Date Collected: 12/20/18 09:20
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.222	0.200	--	1.09	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	85		60-140



Project Name: OZONE PARK**Lab Number:** L1852996**Project Number:** 60527976**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852996-03
 Client ID: TOTAL EFFLUENT_122018
 Sample Location: QUEENS, NY

Date Collected: 12/20/18 09:20
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 01/04/19 00:31
 Analyst: MB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Acetone	1.01	1.00	--	2.40	2.38	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	81		60-140
chlorobenzene-d5	80		60-140



Project Name: OZONE PARK

Lab Number: L1852996

Project Number: 60527976

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 01/03/19 15:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1194514-4								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1



Project Name: OZONE PARK

Lab Number: L1852996

Project Number: 60527976

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 01/03/19 15:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1194514-4								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylene (Total)	ND	0.200	--	ND	0.869	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Isopropyl Ether	ND	0.200	--	ND	0.836	--		1
Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	0.200	--	ND	0.793	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,3-Dichloropropene, Total	ND	0.200	--	ND	0.908	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1



Project Name: OZONE PARK

Lab Number: L1852996

Project Number: 60527976

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 01/03/19 15:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1194514-4								
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl Acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1



Project Name: OZONE PARK

Lab Number: L1852996

Project Number: 60527976

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 01/03/19 15:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1194514-4								
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane (C9)	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
p-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane (C10)	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1



Project Name: OZONE PARK

Lab Number: L1852996

Project Number: 60527976

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 01/03/19 15:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1194514-4								
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane (C12)	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: OZONE PARK

Lab Number: L1852996

Project Number: 60527976

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 01/03/19 15:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG1194515-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethene (total)	ND	0.020	--	ND	0.079	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
1,3-Dichloropropene, Total	ND	0.020	--	ND	0.091	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1



Project Name: OZONE PARK

Lab Number: L1852996

Project Number: 60527976

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 01/03/19 15:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG1194515-4								
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Xylene (Total)	ND	0.020	--	ND	0.087	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1



Project Name: OZONE PARK

Lab Number: L1852996

Project Number: 60527976

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 01/03/19 15:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG1194515-4								
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
1,2,3-Trichloropropane	ND	0.020	--	ND	0.121	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1



Project Name: OZONE PARK

Lab Number: L1852996

Project Number: 60527976

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 01/03/19 15:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG1194515-4								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: OZONE PARK

Project Number: 60527976

Lab Number: L1852996

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1194514-3								
Chlorodifluoromethane	89		-		70-130	-		
Propylene	116		-		70-130	-		
Propane	89		-		70-130	-		
Dichlorodifluoromethane	107		-		70-130	-		
Chloromethane	93		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	104		-		70-130	-		
Methanol	83		-		70-130	-		
Vinyl chloride	129		-		70-130	-		
1,3-Butadiene	105		-		70-130	-		
Butane	114		-		70-130	-		
Bromomethane	130		-		70-130	-		
Chloroethane	122		-		70-130	-		
Ethyl Alcohol	103		-		70-130	-		
Dichlorofluoromethane	143	Q	-		70-130	-		
Vinyl bromide	106		-		70-130	-		
Acrolein	92		-		70-130	-		
Acetone	131	Q	-		70-130	-		
Acetonitrile	121		-		70-130	-		
Trichlorofluoromethane	128		-		70-130	-		
iso-Propyl Alcohol	116		-		70-130	-		
Acrylonitrile	91		-		70-130	-		
Pentane	97		-		70-130	-		
Ethyl ether	79		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: OZONE PARK

Project Number: 60527976

Lab Number: L1852996

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1194514-3								
1,1-Dichloroethene	129		-		70-130	-		
tert-Butyl Alcohol	117		-		70-130	-		
Methylene chloride	98		-		70-130	-		
3-Chloropropene	139	Q	-		70-130	-		
Carbon disulfide	90		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	121		-		70-130	-		
trans-1,2-Dichloroethene	118		-		70-130	-		
1,1-Dichloroethane	105		-		70-130	-		
Methyl tert butyl ether	90		-		70-130	-		
Vinyl acetate	108		-		70-130	-		
2-Butanone	104		-		70-130	-		
cis-1,2-Dichloroethene	116		-		70-130	-		
Ethyl Acetate	118		-		70-130	-		
Chloroform	111		-		70-130	-		
Tetrahydrofuran	104		-		70-130	-		
2,2-Dichloropropane	90		-		70-130	-		
1,2-Dichloroethane	122		-		70-130	-		
n-Hexane	108		-		70-130	-		
Isopropyl Ether	98		-		70-130	-		
Ethyl-Tert-Butyl-Ether	100		-		70-130	-		
1,2-Dichloroethene (total)	117		-			-		
1,2-Dichloroethene (total)	117		-			-		
1,1,1-Trichloroethane	99		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: OZONE PARK

Project Number: 60527976

Lab Number: L1852996

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1194514-3								
1,1-Dichloropropene	88		-		70-130	-		
Benzene	90		-		70-130	-		
Carbon tetrachloride	100		-		70-130	-		
Cyclohexane	108		-		70-130	-		
Tertiary-Amyl Methyl Ether	83		-		70-130	-		
Dibromomethane	97		-		70-130	-		
1,2-Dichloropropane	104		-		70-130	-		
Bromodichloromethane	107		-		70-130	-		
1,4-Dioxane	110		-		70-130	-		
Trichloroethene	98		-		70-130	-		
2,2,4-Trimethylpentane	112		-		70-130	-		
Methyl Methacrylate	109		-		70-130	-		
Heptane	102		-		70-130	-		
cis-1,3-Dichloropropene	94		-		70-130	-		
4-Methyl-2-pentanone	106		-		70-130	-		
trans-1,3-Dichloropropene	82		-		70-130	-		
1,1,2-Trichloroethane	98		-		70-130	-		
Toluene	103		-		70-130	-		
1,3-Dichloropropane	87		-		70-130	-		
2-Hexanone	107		-		70-130	-		
Dibromochloromethane	112		-		70-130	-		
1,2-Dibromoethane	96		-		70-130	-		
Butyl Acetate	86		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: OZONE PARK

Project Number: 60527976

Lab Number: L1852996

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1194514-3								
Octane	102		-		70-130	-		
Tetrachloroethene	101		-		70-130	-		
1,1,1,2-Tetrachloroethane	97		-		70-130	-		
Chlorobenzene	104		-		70-130	-		
Ethylbenzene	108		-		70-130	-		
p/m-Xylene	112		-		70-130	-		
Bromoform	117		-		70-130	-		
Styrene	100		-		70-130	-		
1,1,2,2-Tetrachloroethane	121		-		70-130	-		
o-Xylene	118		-		70-130	-		
1,2,3-Trichloropropane	98		-		70-130	-		
Nonane (C9)	101		-		70-130	-		
Isopropylbenzene	102		-		70-130	-		
Bromobenzene	101		-		70-130	-		
o-Chlorotoluene	105		-		70-130	-		
n-Propylbenzene	111		-		70-130	-		
p-Chlorotoluene	108		-		70-130	-		
4-Ethyltoluene	107		-		70-130	-		
1,3,5-Trimethylbenzene	110		-		70-130	-		
tert-Butylbenzene	116		-		70-130	-		
1,2,4-Trimethylbenzene	112		-		70-130	-		
Decane (C10)	122		-		70-130	-		
Benzyl chloride	123		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: OZONE PARK

Project Number: 60527976

Lab Number: L1852996

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1194514-3								
1,3-Dichlorobenzene	120		-		70-130	-		
1,4-Dichlorobenzene	116		-		70-130	-		
sec-Butylbenzene	104		-		70-130	-		
p-Isopropyltoluene	110		-		70-130	-		
1,2-Dichlorobenzene	118		-		70-130	-		
n-Butylbenzene	127		-		70-130	-		
1,2-Dibromo-3-chloropropane	105		-		70-130	-		
Undecane	132	Q	-		70-130	-		
Dodecane (C12)	143	Q	-		70-130	-		
1,2,4-Trichlorobenzene	111		-		70-130	-		
Naphthalene	105		-		70-130	-		
1,2,3-Trichlorobenzene	110		-		70-130	-		
Hexachlorobutadiene	125		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: OZONE PARK

Project Number: 60527976

Lab Number: L1852996

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG1194515-3								
Propylene	122		-		70-130	-		25
Dichlorodifluoromethane	108		-		70-130	-		25
Chloromethane	93		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	104		-		70-130	-		25
Vinyl chloride	125		-		70-130	-		25
1,3-Butadiene	106		-		70-130	-		25
Bromomethane	117		-		70-130	-		25
Chloroethane	116		-		70-130	-		25
Ethyl Alcohol	103		-		70-130	-		25
Vinyl bromide	93		-		70-130	-		25
Acetone	124		-		70-130	-		25
Trichlorofluoromethane	116		-		70-130	-		25
iso-Propyl Alcohol	108		-		70-130	-		25
Acrylonitrile	92		-		70-130	-		25
1,1-Dichloroethene	122		-		70-130	-		25
tert-Butyl Alcohol ¹	116		-		70-130	-		25
Methylene chloride	94		-		70-130	-		25
3-Chloropropene	132	Q	-		70-130	-		25
Carbon disulfide	79		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	105		-		70-130	-		25
trans-1,2-Dichloroethene	119		-		70-130	-		25
1,1-Dichloroethane	98		-		70-130	-		25
Methyl tert butyl ether	82		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: OZONE PARK

Project Number: 60527976

Lab Number: L1852996

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG1194515-3								
Vinyl acetate	98		-		70-130	-		25
2-Butanone	98		-		70-130	-		25
cis-1,2-Dichloroethene	106		-		70-130	-		25
Ethyl Acetate	115		-		70-130	-		25
Chloroform	104		-		70-130	-		25
Tetrahydrofuran	99		-		70-130	-		25
1,2-Dichloroethane	107		-		70-130	-		25
n-Hexane	109		-		70-130	-		25
1,1,1-Trichloroethane	104		-		70-130	-		25
Benzene	88		-		70-130	-		25
Carbon tetrachloride	98		-		70-130	-		25
Cyclohexane	109		-		70-130	-		25
Dibromomethane ¹	91		-		70-130	-		25
1,2-Dichloropropane	98		-		70-130	-		25
Bromodichloromethane	106		-		70-130	-		25
1,4-Dioxane	106		-		70-130	-		25
Trichloroethene	91		-		70-130	-		25
2,2,4-Trimethylpentane	111		-		70-130	-		25
cis-1,3-Dichloropropene	82		-		70-130	-		25
4-Methyl-2-pentanone	104		-		70-130	-		25
trans-1,3-Dichloropropene	93		-		70-130	-		25
1,1,2-Trichloroethane	91		-		70-130	-		25
Toluene	95		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: OZONE PARK

Project Number: 60527976

Lab Number: L1852996

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG1194515-3								
2-Hexanone	100		-		70-130	-		25
Dibromochloromethane	103		-		70-130	-		25
1,2-Dibromoethane	92		-		70-130	-		25
Tetrachloroethene	96		-		70-130	-		25
1,1,1,2-Tetrachloroethane	88		-		70-130	-		25
Chlorobenzene	101		-		70-130	-		25
Ethylbenzene	102		-		70-130	-		25
p/m-Xylene	106		-		70-130	-		25
Bromoform	111		-		70-130	-		25
Styrene	98		-		70-130	-		25
1,1,2,2-Tetrachloroethane	120		-		70-130	-		25
o-Xylene	110		-		70-130	-		25
1,2,3-Trichloropropane ¹	99		-		70-130	-		25
Isopropylbenzene	97		-		70-130	-		25
Bromobenzene ¹	102		-		70-130	-		25
4-Ethyltoluene	108		-		70-130	-		25
1,3,5-Trimethylbenzene	106		-		70-130	-		25
1,2,4-Trimethylbenzene	110		-		70-130	-		25
Benzyl chloride	103		-		70-130	-		25
1,3-Dichlorobenzene	119		-		70-130	-		25
1,4-Dichlorobenzene	116		-		70-130	-		25
sec-Butylbenzene	103		-		70-130	-		25
p-Isopropyltoluene	106		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: OZONE PARK

Project Number: 60527976

Lab Number: L1852996

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG1194515-3								
1,2-Dichlorobenzene	119		-		70-130	-		25
n-Butylbenzene	123		-		70-130	-		25
1,2,4-Trichlorobenzene	109		-		70-130	-		25
Naphthalene	97		-		70-130	-		25
1,2,3-Trichlorobenzene	109		-		70-130	-		25
Hexachlorobutadiene	121		-		70-130	-		25

Project Name: OZONE PARK
Project Number: 60527976

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1852996
Report Date: 01/04/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1194514-5 QC Sample: L1853436-01 Client ID: DUP Sample						
Dichlorodifluoromethane	0.500	0.528	ppbV	5		25
Chloromethane	0.418	0.430	ppbV	3		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Trichlorofluoromethane	0.597	0.590	ppbV	1		25
iso-Propyl Alcohol	ND	ND	ppbV	NC		25
tert-Butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25

Project Name: OZONE PARK
Project Number: 60527976

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1852996
Report Date: 01/04/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1194514-5 QC Sample: L1853436-01 Client ID: DUP Sample						
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	ND	ND	ppbV	NC		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
Xylene (Total)	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	5.54	5.48	ppbV	1		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25

Project Name: OZONE PARK
Project Number: 60527976

Lab Duplicate Analysis
Batch Quality Control

Lab Number: L1852996
Report Date: 01/04/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1194514-5 QC Sample: L1853436-01 Client ID: DUP Sample						
p/m-Xylene	ND	ND	ppbV	NC		25
1,2-Dichloroethene (total)	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,3-Dichloropropene, Total	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: OZONE PARK
Project Number: 60527976

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1852996
Report Date: 01/04/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1194515-5 QC Sample: L1853436-01 Client ID: DUP Sample						
Vinyl chloride	ND	ND	ppbV	NC		25
Acetone	1.47	1.55	ppbV	5		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Carbon tetrachloride	0.063	0.070	ppbV	11		25
Trichloroethene	ND	ND	ppbV	NC		25
Tetrachloroethene	0.023	0.024	ppbV	4		25
1,2-Dichloroethene (total)	ND	ND	ppbV	NC		25

Project Name: OZONE PARK

Project Number: 60527976

Serial_No:01041918:57
Lab Number: L1852996

Report Date: 01/04/19

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1852996-01	SVE INFLUENT_122018	1882	6.0L Can	12/18/18	281546	L1851591-01	Pass	-28.7	-2.2	-	-	-	-
L1852996-02	SSD INFLUENT_122018	988	6.0L Can	12/18/18	281546	L1851591-01	Pass	-29.2	-0.80	-	-	-	-
L1852996-03	TOTAL EFFLUENT_122018	1591	6.0L Can	12/18/18	281546	L1851591-01	Pass	-29.2	-9.5	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1851591
Report Date: 01/04/19

Air Canister Certification Results

Lab ID: L1851591-01
Client ID: CAN 2252 SHELF 42
Sample Location:

Date Collected: 12/14/18 09:00
Date Received: 12/14/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 12/14/18 18:30
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1851591
Report Date: 01/04/19

Air Canister Certification Results

Lab ID: L1851591-01
Client ID: CAN 2252 SHELF 42
Sample Location:

Date Collected: 12/14/18 09:00
Date Received: 12/14/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1851591
Report Date: 01/04/19

Air Canister Certification Results

Lab ID: L1851591-01
Client ID: CAN 2252 SHELF 42
Sample Location:

Date Collected: 12/14/18 09:00
Date Received: 12/14/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1851591
Report Date: 01/04/19

Air Canister Certification Results

Lab ID: L1851591-01
Client ID: CAN 2252 SHELF 42
Sample Location:

Date Collected: 12/14/18 09:00
Date Received: 12/14/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1851591**Project Number:** CANISTER QC BAT**Report Date:** 01/04/19**Air Canister Certification Results**

Lab ID: L1851591-01

Date Collected: 12/14/18 09:00

Client ID: CAN 2252 SHELF 42

Date Received: 12/14/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	98		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	99		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1851591
Report Date: 01/04/19

Air Canister Certification Results

Lab ID: L1851591-01
Client ID: CAN 2252 SHELF 42
Sample Location:

Date Collected: 12/14/18 09:00
Date Received: 12/14/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 12/14/18 18:30
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1851591
Report Date: 01/04/19

Air Canister Certification Results

Lab ID: L1851591-01
Client ID: CAN 2252 SHELF 42
Sample Location:

Date Collected: 12/14/18 09:00
Date Received: 12/14/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1851591
Report Date: 01/04/19

Air Canister Certification Results

Lab ID: L1851591-01
Client ID: CAN 2252 SHELF 42
Sample Location:

Date Collected: 12/14/18 09:00
Date Received: 12/14/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	100		60-140



Project Name: OZONE PARK
Project Number: 60527976

Serial_No:01041918:57
Lab Number: L1852996
Report Date: 01/04/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1852996-01A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L1852996-02A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L1852996-03A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)

Project Name: OZONE PARK
Project Number: 60527976

Lab Number: L1852996
Report Date: 01/04/19

GLOSSARY

Acronyms

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.
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.
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

- 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.

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.

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.

Report Format: Data Usability Report



Project Name: OZONE PARK
Project Number: 60527976

Lab Number: L1852996
Report Date: 01/04/19

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.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: OZONE PARK
Project Number: 60527976

Lab Number: L1852996
Report Date: 01/04/19

REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

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.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 12

Department: **Quality Assurance**

Published Date: 10/9/2018 4:58:19 PM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

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, SM4500CI-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.



ANALYTICAL REPORT

Lab Number:	L1906089
Client:	AECOM 250 Apollo Dr. Chelmsford, MA 01824
ATTN:	Raimundo Matos
Phone:	(978) 905-2100
Project Name:	END ZONE INC
Project Number:	60527976.7
Report Date:	02/21/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: END ZONE INC
Project Number: 60527976.7

Lab Number: L1906089
Report Date: 02/21/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1906089-01	SSD INFLUENT_021419	SOIL_VAPOR	OZONE PARK,NY	02/14/19 11:25	02/14/19
L1906089-02	SVE INFLUENT_021419	SOIL_VAPOR	OZONE PARK,NY	02/14/19 11:30	02/14/19
L1906089-03	TOTAL EFFLUENT_021419	SOIL_VAPOR	OZONE PARK,NY	02/14/19 11:35	02/14/19

Project Name: END ZONE INC
Project Number: 60527976.7

Lab Number: L1906089
Report Date: 02/21/19

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: END ZONE INC
Project Number: 60527976.7

Lab Number: L1906089
Report Date: 02/21/19

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on February 4, 2019. The canister certification results are provided as an addendum.

L1906089-02: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 02/21/19

AIR

Project Name: END ZONE INC**Project Number:** 60527976.7**Lab Number:** L1906089**Report Date:** 02/21/19**SAMPLE RESULTS**

Lab ID: L1906089-01
 Client ID: SSD INFLUENT_021419
 Sample Location: OZONE PARK,NY

Date Collected: 02/14/19 11:25
 Date Received: 02/14/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/21/19 04:05
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
cis-1,2-Dichloroethene	0.343	0.200	--	1.36	0.793	--		1
Trichloroethene	5.09	0.200	--	27.4	1.07	--		1
Tetrachloroethene	0.430	0.200	--	2.92	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	107		60-140
Bromochloromethane	104		60-140
chlorobenzene-d5	117		60-140



Project Name: END ZONE INC**Project Number:** 60527976.7**Lab Number:** L1906089**Report Date:** 02/21/19**SAMPLE RESULTS**

Lab ID: L1906089-02 D
 Client ID: SVE INFLUENT_021419
 Sample Location: OZONE PARK,NY

Date Collected: 02/14/19 11:30
 Date Received: 02/14/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/21/19 05:22
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
cis-1,2-Dichloroethene	83.1	2.00	--	329	7.93	--		10
Trichloroethene	671	2.00	--	3610	10.7	--		10
Tetrachloroethene	31.1	2.00	--	211	13.6	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	106		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	116		60-140



Project Name: END ZONE INC**Project Number:** 60527976.7**Lab Number:** L1906089**Report Date:** 02/21/19**SAMPLE RESULTS**

Lab ID: L1906089-03
 Client ID: TOTAL EFFLUENT_021419
 Sample Location: OZONE PARK,NY

Date Collected: 02/14/19 11:35
 Date Received: 02/14/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/21/19 07:22
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Trichloroethene	0.235	0.200	--	1.26	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	110		60-140
Bromochloromethane	106		60-140
chlorobenzene-d5	120		60-140



Project Name: END ZONE INC

Lab Number: L1906089

Project Number: 60527976.7

Report Date: 02/21/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/20/19 16:01

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1208632-4								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: END ZONE INC

Project Number: 60527976.7

Lab Number: L1906089

Report Date: 02/21/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1208632-3								
Vinyl chloride	94		-		70-130	-		
trans-1,2-Dichloroethene	97		-		70-130	-		
cis-1,2-Dichloroethene	100		-		70-130	-		
Trichloroethene	103		-		70-130	-		
Tetrachloroethene	122		-		70-130	-		

Project Name: END ZONE INC
Project Number: 60527976.7

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1906089
Report Date: 02/21/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1208632-5 QC Sample: L1906089-01 Client ID: SSD INFLUENT_021419						
Vinyl chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	0.343	0.364	ppbV	6		25
Trichloroethene	5.09	5.06	ppbV	1		25
Tetrachloroethene	0.430	0.422	ppbV	2		25

Project Name: END ZONE INC

Project Number: 60527976.7

Serial_No:02211916:21
Lab Number: L1906089

Report Date: 02/21/19

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1906089-01	SSD INFLUENT_021419	596	6.0L Can	02/04/19	284211	L1903776-02	Pass	-29.9	2.5	-	-	-	-
L1906089-02	SVE INFLUENT_021419	753	6.0L Can	02/04/19	284211	L1903776-01	Pass	-29.9	2.5	-	-	-	-
L1906089-03	TOTAL EFFLUENT_021419	1562	6.0L Can	02/04/19	284211	L1903776-02	Pass	-29.9	1.5	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 01/30/19 20:36
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1903776**Project Number:** CANISTER QC BAT**Report Date:** 02/21/19**Air Canister Certification Results**

Lab ID: L1903776-01

Date Collected: 01/29/19 16:00

Client ID: CAN 808 SHELF 52

Date Received: 01/30/19

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	96		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/30/19 20:36
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	108		60-140
chlorobenzene-d5	102		60-140



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-02
Client ID: CAN 1612 SHELF 53
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 01/30/19 21:14
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-02
Client ID: CAN 1612 SHELF 53
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-02
Client ID: CAN 1612 SHELF 53
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-02
Client ID: CAN 1612 SHELF 53
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1903776**Project Number:** CANISTER QC BAT**Report Date:** 02/21/19**Air Canister Certification Results**

Lab ID: L1903776-02

Date Collected: 01/29/19 16:00

Client ID: CAN 1612 SHELF 53

Date Received: 01/30/19

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	97		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-02
Client ID: CAN 1612 SHELF 53
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/30/19 21:14
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-02
Client ID: CAN 1612 SHELF 53
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/21/19

Air Canister Certification Results

Lab ID: L1903776-02
Client ID: CAN 1612 SHELF 53
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	109		60-140
chlorobenzene-d5	104		60-140

Project Name: END ZONE INC
Project Number: 60527976.7

Serial_No:02211916:21
Lab Number: L1906089
Report Date: 02/21/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1906089-01A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1906089-02A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1906089-03A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)

Project Name: END ZONE INC
Project Number: 60527976.7

Lab Number: L1906089
Report Date: 02/21/19

GLOSSARY

Acronyms

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.
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.
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

- 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.

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'

Report Format: Data Usability Report



Project Name: END ZONE INC**Lab Number:** L1906089**Project Number:** 60527976.7**Report Date:** 02/21/19

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. 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 reporting limit (RL) for the sample.
- 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.

Project Name: END ZONE INC
Project Number: 60527976.7

Lab Number: L1906089
Report Date: 02/21/19

REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 12

Published Date: 10/9/2018 4:58:19 PM

Page 1 of 1

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

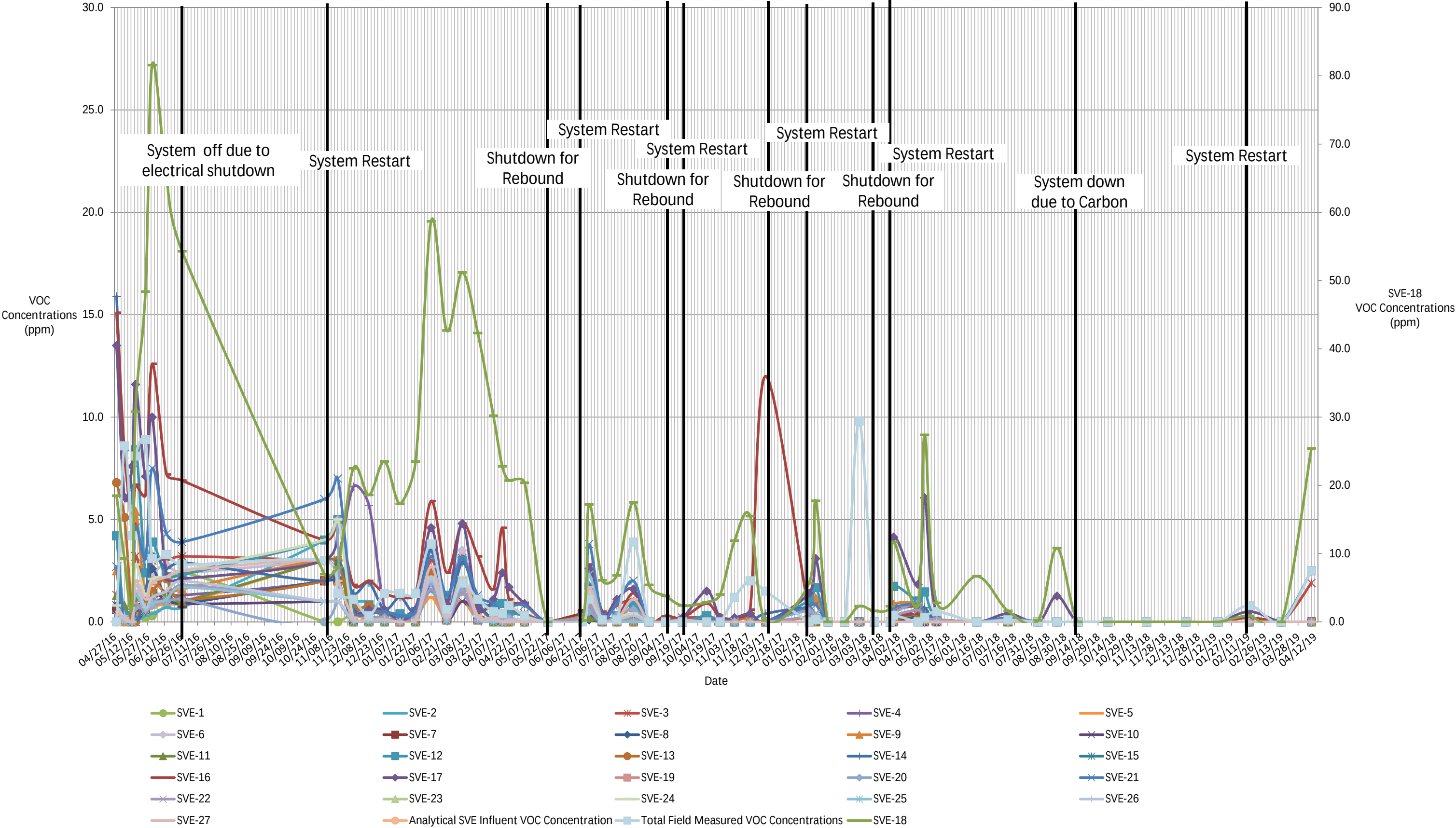
Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** 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.

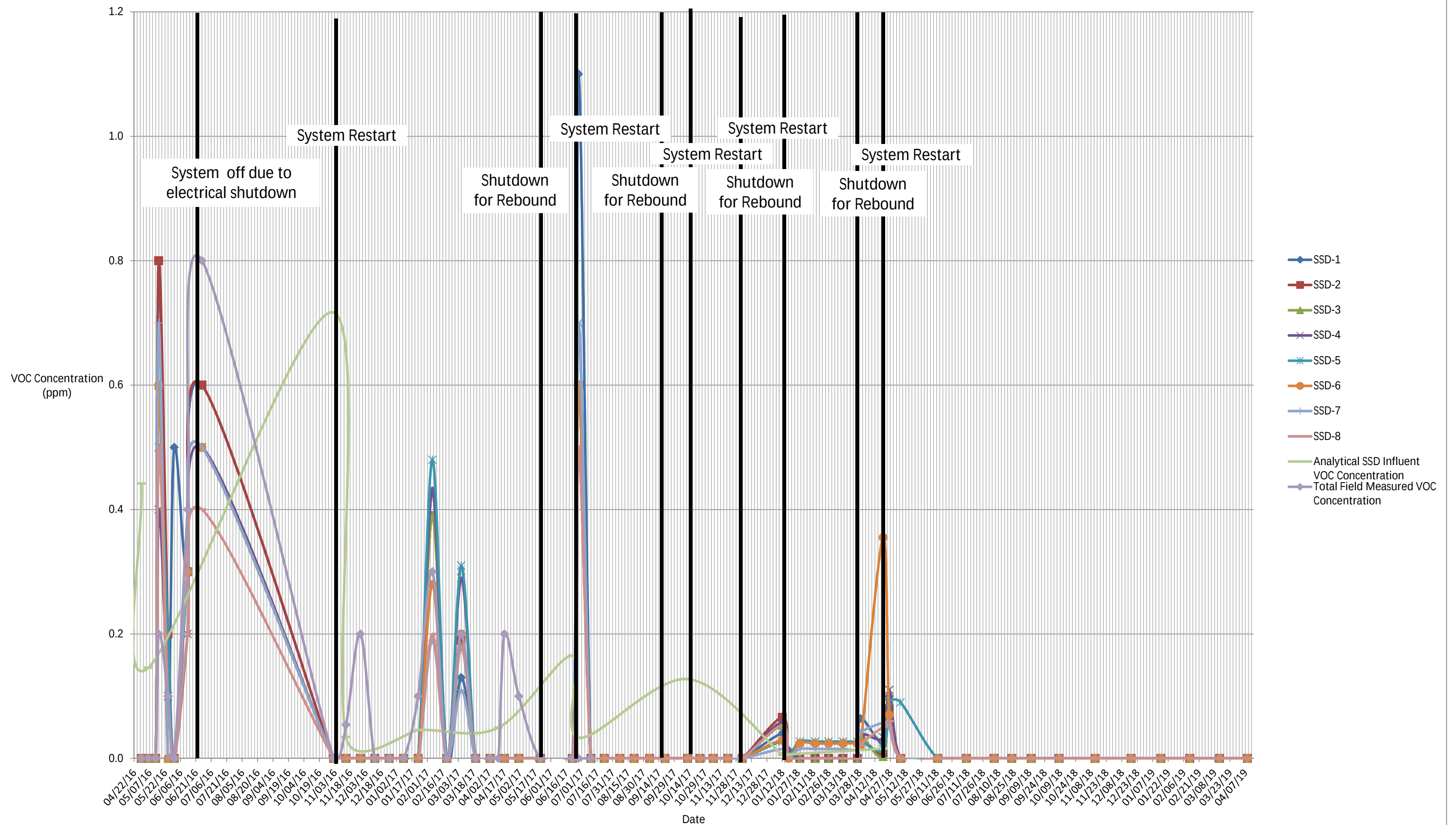
Appendix C

Graphs depicting VOCs Screening and Lab Results – SSD and SVE Systems

Influent SVE VOC Concentrations (ppm) - field screening and laboratory results



Influent SSD VOC Concentrations (ppm) - field screening and laboratory results



Appendix D

NYSDEC Letter to BBA Aviation

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau D

625 Broadway, 12th Floor, Albany, NY 12233-7013

P: (518) 402-9676 | F: (518) 402-9773

www.dec.ny.gov

November 6, 2018

Priscilla O. Kehoe
Group Senior Director for Safety, Insurance & Risk
BBA Aviation
201 S. Orange Avenue
Suite 1400
Orlando, Florida 32801

David G. Austin, LSP, LEL, PG
Technical Leader I, Science, Environment NE
AECOM
250 Apollo Drive
Chelmsford, Massachusetts 01824

RE: Request for sampling of Emerging Contaminants
Ozone Industries Site
Site No. 241033

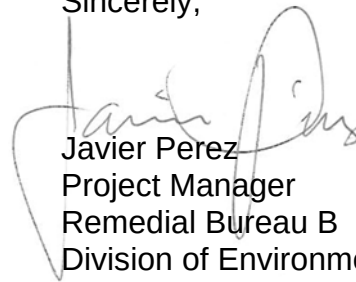
Dear Ms. Kehoe and Mr. Austin:

The New York State Department of Environmental Conservation (DEC) is undertaking a Statewide evaluation of remediation sites to better understand the risk posed to New Yorkers by 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS). PFAS have historically not been evaluated at remediation sites, and 1,4-dioxane has not been evaluated at the levels that are now thought to represent a health concern. This initiative is being undertaken as a result of these “emerging contaminants” having been found in a number of drinking water supplies in New York. Accordingly, the DEC is requiring that you test site groundwater for these chemicals. To accommodate this requirement, a select number of existing monitoring wells, representative of the potential of the above-referenced site to be a source of these emerging contaminants, must be sampled. DEC recommends that at least one of these wells should be upgradient of the site.

The attached guidance provides information on the analytical methods and reporting requirements. A second guidance document describes special precautions that need to be considered when sampling for PFAS.

Please prepare a draft letter work plan that identifies the wells proposed for sampling, brief description of the sampling methods, and anticipated sampling date within the next 30 days. If you wish to discuss the scope of the requested water testing, please contact me at 518-402-8172 or [javier.perez-maldonado @dec.ny.gov](mailto:javier.perez-maldonado@dec.ny.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'Javier Perez', is written over the printed name and title.

Javier Perez
Project Manager
Remedial Bureau B
Division of Environmental Remediation

Ec: J. Brown
M. Morgan
R. Matos

Groundwater Sampling for Emerging Contaminants

July 2018

Issue: NYSDEC has committed to analyzing representative groundwater samples at remediation sites for emerging contaminants (1,4-dioxane and PFAS) as described in the below guidance.

Implementation

NYSDEC project managers will be contacting site owners to schedule sampling for these chemicals. Only groundwater sampling is required. The number of samples required will be similar to the number of samples where “full TAL/TCL sampling” would typically be required in a remedial investigation. If sampling is not feasible (e.g., the site no longer has any monitoring wells in place), sampling may be waived on a site-specific basis after first considering potential sources of these chemicals and whether there are water supplies nearby.

Upon a new site being brought into any program (i.e., SSF, BCP), PFAS and 1,4-dioxane will be incorporated into the investigation of groundwater as part of the standard “full TAL/TCL” sampling. Until an SCO is established for PFAS, soil samples do not need to be analyzed for PFAS unless groundwater contamination is detected. Separate guidance will be developed to address sites where emerging contaminants are found in the groundwater. The analysis currently performed for SVOCs in soil is adequate for evaluation of 1,4-dioxane, which already has an established SCO.

Analysis and Reporting

Labs should provide a full category B deliverable, and a DUSR should be prepared by an independent 3rd party data validator. QA/QC samples should be collected as required in DER-10, Section 2.3(c). The electronic data submission should meet the requirements provided at: <https://www.dec.ny.gov/chemical/62440.html> ,

The work plan should explicitly describe analysis and reporting requirements.

PFAS sample analysis: Currently, ELAP does not offer certification for PFAS compounds in matrices other than finished drinking water. However, laboratories analyzing environmental samples (ex. soil, sediments, and groundwater) are required, by DER, to hold ELAP certification for PFOA and PFOS in drinking water by EPA Method 537 or ISO 25101.

Modified EPA Method 537 is the preferred method to use for groundwater samples due to the ability to achieve 2 ng/L (ppt) reporting limits. If contract labs or work plans submitted by responsible parties indicate that they are not able to achieve similar reporting limits, the project manager should discuss this with a DER chemist. Note: Reporting limits for PFOA and PFOS should not exceed 2 ng/L.

PFAS sample reporting: DER has developed a PFAS target analyte list (below) with the intent of achieving reporting consistency between labs for commonly reportable analytes. It is expected that reported results for PFAS will include, at a minimum, all the compounds listed. This list may be updated in the future as new information is learned and as labs develop new capabilities. If lab and/or matrix specific issues are encountered for any particular compounds, the NYSDEC project manager will make case-by-case decisions as to whether particular analytes may be temporarily or permanently discontinued from analysis for each site. Any technical lab issues should be brought to the attention of a NYSDEC chemist.

Some sampling using this full PFAS target analyte list is needed to understand the nature of contamination. It may also be critical to differentiate PFAS compounds associated with a site from other sources of these chemicals. Like routine refinements to parameter lists based on investigative findings, the full PFAS target analyte list may not be needed for all sampling intended to define the extent of contamination. Project managers may approve a shorter analyte list (e.g., just the UCMR3 list) for some reporting on a case by case basis.

1,4-Dioxane Analysis and Reporting: The method detection limit (MDL) for 1,4-dioxane should be no higher than 0.35 µg/l (ppb). Although ELAP offers certification for both EPA Method 8260 SIM and EPA Method 8270 SIM, DER is advising the use of method 8270 SIM. EPA Method 8270 SIM provides a more robust extraction procedure, uses a larger sample volume, and is less vulnerable to interference from chlorinated solvents.

Full PFAS Target Analyte List

Group	Chemical Name	Abbreviation	CAS Number
Perfluoroalkyl sulfonates	Perfluorobutanesulfonic acid	PFBS	375-73-5
	Perfluorohexanesulfonic acid	PFHxS	355-46-4
	Perfluoroheptanesulfonic acid	PFHpS	375-92-8
	Perfluorooctanessulfonic acid	PFOS	1763-23-1
	Perfluorodecanesulfonic acid	PFDS	335-77-3
Perfluoroalkyl carboxylates	Perfluorobutanoic acid	PFBA	375-22-4
	Perfluoropentanoic acid	PFPeA	2706-90-3
	Perfluorohexanoic acid	PFHxA	307-24-4
	Perfluoroheptanoic acid	PFHpA	375-85-9
	Perfluorooctanoic acid	PFOA	335-67-1
	Perfluorononanoic acid	PFNA	375-95-1
	Perfluorodecanoic acid	PFDA	335-76-2
	Perfluoroundecanoic acid	PFUA/PFUdA	2058-94-8
	Perfluorododecanoic acid	PFDoA	307-55-1
	Perfluorotridecanoic acid	PFTriA/PFTTrDA	72629-94-8
	Perfluorotetradecanoic acid	PFTA/PFTeDA	376-06-7
Fluorinated Telomer Sulfonates	6:2 Fluorotelomer sulfonate	6:2 FTS	27619-97-2
	8:2 Fluorotelomer sulfonate	8:2 FTS	39108-34-4
Perfluorooctane-sulfonamides	Perfluorooctanesulfonamide	FOSA	754-91-6
Perfluorooctane-sulfonamidoacetic acids	N-methyl perfluorooctanesulfonamidoacetic acid	N-MeFOSAA	2355-31-9
	N-ethyl perfluorooctanesulfonamidoacetic acid	N-EtFOSAA	2991-50-6

Bold entries depict the 6 original UCMR3 chemicals

Collection of Groundwater Samples for Per- and Polyfluoroalkyl Substances (PFAS) from Monitoring Wells Sample Protocol

Samples collected using this protocol are intended to be analyzed for perfluorooctanoic acid (PFOA) and other perfluorinated compounds by Modified (Low Level) Test Method 537.

The sampling procedure used must be consistent with the NYSDEC March 1991 Sampling Guidelines and Protocols http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf with the following materials limitations.

At this time acceptable materials for sampling include: stainless steel, high density polyethylene (HDPE) and polypropylene. Additional materials may be acceptable if proven not to contain PFAS. **NOTE: Grunfos pumps and some bladder pumps are known to contain PFAS materials (e.g. Teflon™ washers for Grunfos pumps and LDPE bladders for bladder pumps).** All sampling equipment components and sample containers should not come in contact with aluminum foil, low density polyethylene (LDPE), glass or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer. Standard two step decontamination using detergent and clean water rinse will be performed for equipment that does come in contact with PFAS materials. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials must be avoided. Many food and drink packaging materials and “plumbers thread seal tape” contain PFAS.

All clothing worn by sampling personnel must have been laundered multiple times. The sampler must wear nitrile gloves while filling and sealing the sample bottles.

Pre-cleaned sample bottles with closures, coolers, ice, sample labels and a chain of custody form will be provided by the laboratory.

1. Fill two pre-cleaned 250 mL HDPE or polypropylene bottle with the sample.
2. Cap the bottles with an acceptable cap and liner closure system.
3. Label the sample bottles.
4. Fill out the chain of custody.
5. Place in a cooler maintained at $4 \pm 2^{\circ}$ Celsius.

Collect one equipment blank for every sample batch, not to exceed 20 samples.

Collect one field duplicate for every sample batch, not to exceed 20 samples.

Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, not to exceed 20 samples.

Request appropriate data deliverable (Category A or B) and an electronic data deliverable.

Appendix E

NYSDEC approval of AECOM Workplan

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau D

625 Broadway, 12th Floor, Albany, NY 12233-7013

P: (518) 402-9676 | F: (518) 402-9773

www.dec.ny.gov

November 29, 2018

David G. Austin, LSP, LEL, PG
Technical Leader I, Science, Environment NE
AECOM
250 Apollo Drive
Chelmsford, Massachusetts 01824

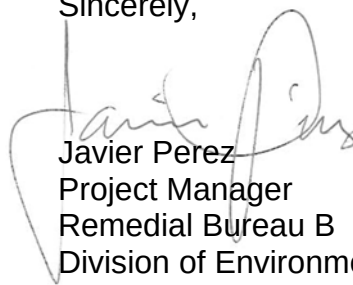
RE: Additional Groundwater and Soil Gas Sampling
Ozone Industries Site
Site No. 241033

Dear Mr. Austin:

The New York State Department of Environmental Conservation (NYSDEC) has reviewed the November 27, 2018 Groundwater and Soil Gas Sampling Work Plan for the Ozone Industries site located in Ozone Park, Queens County, NY. The work plan is hereby accepted as written.

Please notify me at least one week prior to the start of field activities. Should you have any questions regarding this communication, please call me at (518) 402-9768 or at 1-888-212-9586.

Sincerely,



Javier Perez
Project Manager
Remedial Bureau B
Division of Environmental Remediation

Ec: J. Brown
P. Kehoe
M. Morgan
R. Matos



Department of
Environmental
Conservation

Appendix F

AECOM March 2019 Interim Site Status Memo

Memorandum

To:	NYSDEC	Page 1
Subject:	First Quarter - Groundwater Monitoring and Soil Gas Assessment / 2019 Endzone/Ozone Site, Ozone Park, Queens NY	
From	Raimundo Matos LSP, PhD and David Austin LSP, LEP, PG.	
Date	March 25, 2019	
cc	Endone, Inc.	
Attachments	Table 1 - Preliminary Groundwater Analytical Results Table 2 - Preliminary PFAS and 1,4-Dioxane Groundwater Analytical Results Table 3 – Preliminary Soil Vapor Analytical Results Laboratory Groundwater Analytical Results Laboratory Soil Vapor Analytical Results	

INTRODUCTION

AECOM is submitting this Memorandum to the New York State Department of Environmental Conservation (NYSDEC) to provide an update of the February 2019 (First Quarter) groundwater and soil gas sampling conducted at the Former Ozone Industries, Inc. site, Ozone Park, Queens, NY (Site). This memorandum covers the sampling activities conducted on February 6-8, 2019. As per discussions with NYSDEC on October 25, 2018, NYSDEC requested the collection of additional groundwater data to further assess volatile organic compounds (VOC) levels in groundwater, in addition to new NYSDEC requirements to evaluate all site vicinity groundwater conditions for 1-4-dioxane and polyfluoroalkyl substances (PFAS). A work plan (Work Plan) was submitted to NYSDEC on November 27, 2018 for the proposed sampling and approved by NYSDEC on November 29, 2018.

Per NYSDEC requirements, AECOM has conducted the first proposed quarterly groundwater sampling event of 2019 utilizing the current network of monitoring wells installed up-gradient and down-gradient at the site (Bays 8 - 15). These monitoring wells were last sampled in August 2017 as part of the 2016-2017 quarterly groundwater sampling events conducted per the Interim Site Management Plan (ISMP) for this site, which was approved by NYSDEC on September 8, 2016. Please note that this memorandum only provides a summary of the groundwater and soil gas data collected during this first quarter. Additional details (as needed) about the groundwater and soil gas sampling activities, in addition to the Operation and Maintenance (O&M) of the Soil Vapor Extraction (SVE) and Sub-slab Depressurization (SSD) remedial systems at the Site will be

provided to NYSDEC as part of the next Semi-annual Progress Report; scheduled to be submitted in April 2019.

The results provided in this Memorandum are all preliminary and all the data presented herein needs to be validated in accordance with the approved November 27, 2018 work plan.

Groundwater Sampling

On February 5-6, 2019, AECOM conducted the first of up to four possible groundwater sampling events for the calendar year 2019. The following monitoring wells were gauged and sampled - see attached **Figure 1** for monitoring well locations:

- Upgradient wells: existing wells PZ-01 and PZ-01D located on 101st Avenue;
- Along 99th Street (next to the Site Bays): existing well PZ-08; and
- Downgradient of the Site Bays – on 99th Street: existing wells PZ-09 (next to Bay 17) and PZ-10 (next to Bay 21) and MW-203 (across from Bay 25); and existing wells MW-201S and MW-201D located on 100th Street.

All the wells were gauged prior to sampling. The groundwater monitoring wells were purged and sampled via EPA low-flow methodologies using peristaltic pumps. Upon meeting stabilization parameters, groundwater samples were collected from each well for volatile organic compounds (VOCs) via SW-846 Method 8260B. In addition, groundwater samples from four (4) of these existing wells were collected for 1,4-dioxane and the PFAS target analytes list included in the NYSDEC “Groundwater Sampling for Emerging Contaminants” guidance document dated July 2018. The four wells sampled for 1,4-dioxane and PFAS consisted of PZ-01 (north), PZ-10 (south), PZ-08 (east), and MW-201S (west). All field sampling activities and personnel adhered to the August 9, 2018 NYSDEC guidance entitled: “Collection of Groundwater Samples for Per – and Polyfluoroalkyl (PFAS) from Monitoring Wells Sample Protocol” during the sampling of these wells; including the use of peristaltic pumps and dedicated high-density polyethylene (HDPE) tubing during sampling.

The groundwater samples were submitted to Alpha Analytical, Inc. (Alpha, Westboro, MA) under chain-of-custody control for VOCs, PFAS and 1,4-dioxane analyses. A Trip Blank was also submitted for VOC analysis as a Quality Assurance/Quality Control (QA/QC) measure. In addition, a duplicate sample from PZ-10 (PZ-10-GWB7-020719) and an equipment blank was also submitted for VOCs and PFAS, respectively.

Results

The laboratory results of the February 2019 groundwater sampling event (i.e., VOCs, PFAS and 1,4-dioxane) are summarized in the attached **Table 1 and 2**. **Table 1** includes data from 2016 and 2017, and the 2019 samples are highlighted in the header. The Alpha laboratory analytical reports are also attached. The analytical results for the VOC analyses for this sampling event indicate detections of VOC constituents above the *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations provided in the Technical and Operational Guidance Series*

1.1.1 (i.e. TOGS 1.1.1)(June 1998) in four (4) of the monitoring wells sampled. The results are summarized as follow:

- Trichloroethene (TCE) was detected in samples from 4 monitoring wells. The highest TCE concentration was detected in the sample from monitoring well PZ-09 (7.6 ug/L);
- Tetrachloroethene (PCE) was detected in samples from 4 monitoring wells. The highest PCE concentration was detected in the sample from monitoring well PZ-09 (41 ug/L); and
- Three additional VOC were detected in the sample from PZ-09 at concentrations above the above water quality standards: 1,2-Dichloroethene (7.7 ug/L); Chloroform (7.2 ug/L); and cis-1,2-Dichloroethene (7.7 ug/L). These compounds were not detected in any other wells at concentrations above the standard.

For the four wells with TCE detected in groundwater samples, the recent data include the lowest TCE level ever recorded and decreasing trend over the last 5 rounds in MW-201S and MW-203, and continued downward trend levels in wells PZ-09 and PZ-10. The TCE levels attributed to the site appear to be stable or decreasing over time.

In general, the PCE levels detected in 2019 are consistent with previous recent rounds. The 2019 results in samples from two of the four wells with PCE detects are lower than the results from 2016/2017 (MW-201S and PZ-09). As previously reported to NYSDEC, AECOM currently does not believe that the PCE is from the site (Bays).

As previously discussed, four (4) monitoring wells (MW-201S, PZ01, -08, and -10) were sampled for PFAS compounds, as requested by NYSDEC. The results are summarized in **Table 2**. As shown on **Table 2**, the results of the February 2019 groundwater sampling event indicate the presence of PFAS compounds in each of the four (4) monitoring wells sampled. The results can be summarized as follow:

- Total PFAS concentrations detected in monitoring well MW-201S were 44.4 parts per trillion (ppt);
- Total PFAS concentrations detected in monitoring well PZ-01 were 146 ppt (upgradient well);
- Total PFAS concentrations detected in monitoring well PZ-08 were 91.2 ppt; and
- Total PFAS concentrations detected in monitoring well PZ-10 were 60.3 ppt.

As a QA/QC measure, a duplicate sample from PZ-10 (PZ-10-GWB7-020219) was submitted and analyzed, and the results indicated the presence of PFAS at similar concentrations as the parent sample (PZ-10). An equipment blank was also collected as part of the PFAS sampling. The results indicate no PFAS compound detections, with the exception of N-Ethyl Perfluorooctanesulfonamidoacetic Acid which was detected a 0.415 ppt.

Groundwater samples from these four wells (MW-201S, PZ-01, PZ-08 and PZ-10) were also collected and submitted to Alpha to be analyzed for 1,4-Dioxane. The results of these analyses

(see **Table 2**) do not indicate the presence of 1,4-Dioxane in any of these wells at concentrations exceeding the laboratory method detection limits (139-142 nanogram/liter).

Soil Gas Sampling

As part of the February 2019 sampling activities conducted by AECOM at the site, soil gas sampling was also conducted utilizing seven (7) existing soil gas sampling points. The purpose of this sampling was to further assess potential off-site vapor intrusion (VI) conditions under conditions of no remedial system operations. For this sampling event, the SVE and SSD systems were shut-down approximately 10 days prior to the soil gas sampling activities. The following soil gas sampling points were sampled for this event: LOC-22, LOC-24, LOC-25, LOC-26, LOC-27, LOC-27B, and LOC-28. These points are located outside/offsite of the Bays around the perimeter of the site, specifically on 99th and 100th Streets. See attached **Figure 2**.

The soil gas samples were collected using six-liter SUMMA canisters for a two-hour sampling period. Prior to sampling, approximately five liters of air was purged from each sampling point to remove stagnant air and to ensure that only air from the surrounding soil was collected. After purging, the soil gas points were screened for VOC using a calibrated Photoionization Detector (PID) to obtain pre-sampling screening data. SUMMA canisters were then connected to the sampling points with flow regulators which were pre-programmed by Alpha for flow rates consistent for a two-hour sampling period. Following the two-hour sampling at each location, the SUMMA canisters were closed and submitted to Alpha under chain-of-custody control and analyzed for VOC via EPA Method TO-15, with the reporting of five (5) VOC constituents: vinyl chloride, trans-1,2-Dichloroethene, cis-1,2-Dichloroethene, TCE, and PCE).

Results

The results of the soil gas sampling are summarized in **Table 3** (includes 2006 and 2017 data). The analytical results are attached. As shown, the results of the soil gas sampling event indicate the following:

- No-detections above the laboratory reportable limits for vinyl chloride;
- Trans-1,2-dichloroethene was detected only in sample LOC-27 at 2.65 micrograms per cubic meter (ug/m^3); east of Bays 10 and 11.
- Cis-1,2-dichloroethene was detected in four of the seven sample locations. The highest level of Cis-1,2-dichloroethene ($101 \text{ ug}/\text{m}^3$) was detected in LOC-27;
- TCE was detected in all seven sample locations. The highest level of TCE ($564 \text{ ug}/\text{m}^3$) was detected in LOC-27B, south of Bay 15; and
- PCE was also detected in all seven sample locations. The highest level of PCE ($93.6 \text{ ug}/\text{m}^3$) was detected in LOC-26, west of Bay 11.

This was the third round of sampling for these off-site site soil gas sampling locations (pre-remediation in 2006, 2017 and 2019). For the sample points near the Bays, the PCE levels have generally decreased over time, and the TCE levels have dropped drastically since 2006 and the recent data are lower than levels detected in 2017 (results are in ug/m³):

<u>Location</u>	<u>TCE and PCE (2nd row for each location) Results (2006 – 2017 – 2019)</u>
LOC-24:	22,100 – 500 – 45.3 367 – 42 – 64.5
LOC-25:	17,800 – 1,390 – 69.9 214 – 597 – 11.2
LOC-26:	32,200 – 1,500 – 123 761 – 72.6 – 93.6
LOC-27:	49,300 – 13,300 – 464 849 – 257 – 22.7
LOC-27B:	3,380 (2017) – 564 (2019) 27.9 – 8.54
LOC-28:	38,700 – 1,370 – 34.2 1,350 – 73.2 – 4.53

Summary and Future Actions

As per the approved Work Plan dated November 27, 2018, AECOM is scheduled to collect the second round of VOC groundwater data from the site in May 2019. As noted above and consistent with the April 2017 letter to NYSDEC, the TCE levels attributed to the site appear to be stable or decreasing over time and additional remediation is not feasible. Therefore, after the next round, discontinuing the sampling should be considered.

No additional sampling for 1,4-dioxane in groundwater is proposed as part of the above Work Plan due to the non-detectable levels in the February 2019 sampling round. In addition, additional sampling for PFAS in groundwater is not pertinent given that the highest PFAS result was detected in a sample from an upgradient well (PZ-01) indicating an off-site source.

In May 2019, one additional round of soil gas sampling will be conducted, and if the results are similar or lower than the February 2019 results, it will be recommended that additional sampling be discontinued.

The preliminary result provided in this Memorandum will be incorporated in the first 2019 six-month progress report expected to be submitted by late April 2019. As per the NYSDEC requirements, a Data Usability Summary Report (DUSR) will be completed for the 1,4-dioxane and the PFAS sampling event and included in the six-month progress report.



Figure Number:
1

Sheet Number:
1

GROUNDWATER MONITORING WELL NETWORK
FORMER OZONE INDUSTRIES, INC.
OZONE PARK, NEW YORK, NY

Scale:
1" = 60'

Date:
08/08/2016

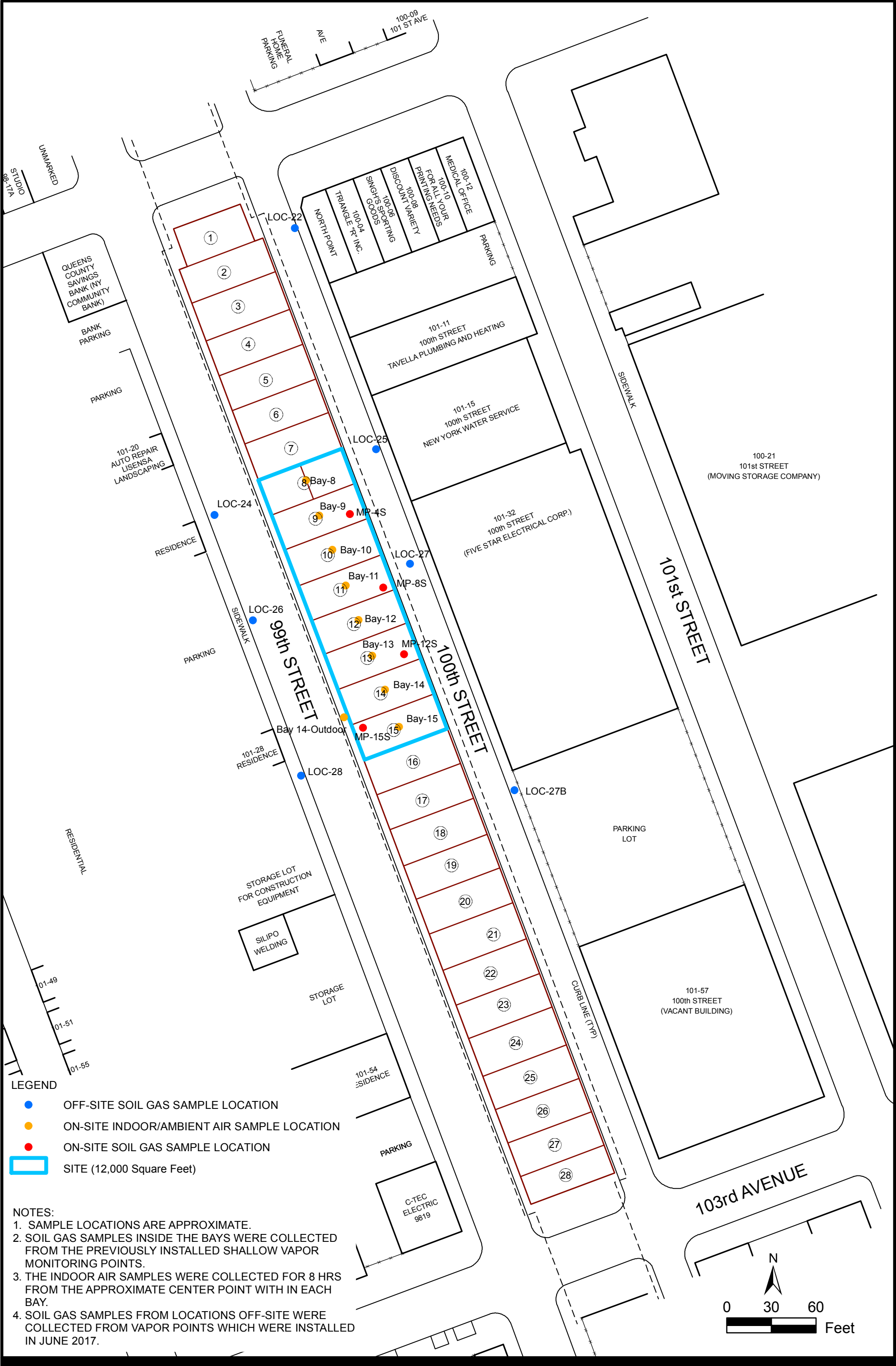
Project Number:
60270935.7

AECOM

AECOM Environment
250 APOLLO DRIVE
CHELMSFORD, MA 01824
(978) 905-2100
www.aecom.com

Designed By:	Revisions			
	No.:	Description:	Date:	By:
Drawn By:				
J.E.B.				
Checked By:				
R.M.				
Approved By:				
D.A.				

Path: \\USCHL1FP001\\Data\\Projects\\Jobs\\Indl_Service\\Project Files\\Endzone, Inc\\Ozone - Queens, NY\\400 Technical\\403 - GIS\\Projects\\SMP\\Fig_1_GW_Monitoring_Well_Network.mxd



**LOCATION OF SAMPLING POINTS
FORMER OZONE INDUSTRIES, INC.
OZONE PARK, NEW YORK, NY**
Project No.: 60527976.1 Date: 2017-09-18

Table 1 - Preliminary Groundwater Analytical Results
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

		Location ID	MW-201D	MW-201S	MW-201S	MW-201S	MW-201S	MW-201S	MW-201S	MW-201S	MW-201S
		Sample Date	2/6/2019	1/18/2005	4/27/2005	8/9/2006	5/11/2016	8/3/2016	11/22/2016	2/15/2017	2/15/2017
		Sample ID	MW-201D-GWA7-020619	MW201SGWA1	MW201SGWA2	MW201SGWA3	MW-201SGWA1 05-16	MW-201S GWA2 08-16	MW-201S GWA3 11-16	MW201S-GWA4-02-17	MW201S-GWB4-02-17
		Lab Sample ID	L1905246-03	789855	810576	929184	L1614244-05	L1624178-04	L1638129-03	L1704822-02	L1704822-03
Analyte	Units	Ambient GW Quality Standard									
VOCS DETECTED											
1,1,1-TRICHLOROETHANE	ug/l	5	2.5 U	1 U	0.51 J	1 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-TRICHLOROETHANE	ug/l	1	1.5 U	1 U	1.0 U	1 U	3.0 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-DICHLOROETHENE	ug/l	5	0.50 U	1 U	1.0 U	1 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4,5-TETRAMETHYLBENZENE	ug/l	5	2.0 U				1.3 J	2.4	3.7	4.9	5.5
1,2-DICHLOROETHENE (TOTAL)	ug/l	5	2.5 U				14	16	13	14	15
2-BUTANONE	ug/l	50	5.0 U	5 U	5.0 U	5 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
ACETONE	ug/l	50	5.0 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROFORM	ug/l	7	1.2 J	1 U	0.64 J	0.43 J	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
CIS-1,2-DICHLOROETHENE	ug/l	5	2.5 U	4.1	5.3	3.1	14	16	13	14	15
DICHLOROMETHANE	ug/l	5	2.5 U	1 U	1.0 U	1 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
METHYL TERT BUTYL ETHER	ug/l	10	2.5 U	1 U	1.0 U	1 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
SEC-BUTYLBENZENE	ug/l	5	2.5 U				5.0 U	0.98 J	1.2 J	1.6 J	1.8 J
TETRACHLOROETHENE	ug/l	5	4.1	1.8	2.3	2.7	39	48	54	71	71
TOLUENE	ug/l	5	2.5 U	1 U	1.0 U	1 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
TRANS-1,2-DICHLOROETHENE	ug/l	5	2.5 U	1 U	1.0 U	1 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U
TRICHLOROETHENE	ug/l	5	4.5	86	110	71	89	82	87	82	84
CARBON TETRACHLORIDE	ug/l	5	0.50 U	1 U	1.0 U	1 U	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U

- Notes:
- 1) Only compounds which were detected in at least one sample are shown.
 - 2) Blank spaces indicate not analyzed.
 - 3) U = Non-detect at laboratory detection limit
 - 4) J = Estimated value
 - 5) B = Found in associated blank
 - 6) D = Concentration recovered from diluted sample.
 - 7) Ambient GW Quality Standard = NY Ambient Water Quality Standards and Guidance Values (i.e. TOGS 1.1.1)(June 1998)
 - 8) **Bold value exceeds Ambient GW Quality Standard**
 - 9) ug/l - micrograms per liter

Table 1 - Preliminary Groundwater Analytical Results
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

Location ID Sample Date Sample ID Lab Sample ID			MW-201S 5/16/2017 MW-201S GWA5 05-17 L1716007-04	MW-201S 8/10/2017 DUPLICATE 08-17 L1727963-02	MW-201S 8/10/2017 MW-201S 08-17 L1727963-03	MW-201S 2/6/2019 MW-201S-GWA7-020619 L1905246-02	MW-203 1/19/2005 MW203GWA1 789860	MW-203 8/14/2006 MW203GWA3 929976	MW-203 5/12/2016 MW-203GWA1 05-16 L1614435-06	MW-203 8/3/2016 MW-203 GWA2 08-16 L1624178-02	MW-203 8/3/2016 MW-203 GWA2 08-16 L1624178-07	MW-203 3/24/2017 MW-203 GWA4 03-17 L1709119-01
Analyte	Units	Ambient GW Quality Standard										
VOCS DETECTED												
1,1,1-TRICHLOROETHANE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	1 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-TRICHLOROETHANE	ug/l	1	1.5 U	1.5 U	1.5 U	1.5 U	1 U	1 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-DICHLOROETHENE	ug/l	5	0.50 U	0.50 U	0.50 U	0.50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4,5-TETRAMETHYLBENZENE	ug/l	5	2.9	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U	2.0 U	2.0 U
1,2-DICHLOROETHENE (TOTAL)	ug/l	5	8.6	9.5	7.9	2.2 J			2.5 U	2.5 U	2.5 U	2.5 U
2-BUTANONE	ug/l	50	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U
ACETONE	ug/l	50	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROFORM	ug/l	7	2.5 U	2.0 J	1.7 J	2.5 U	1.6	1.3	0.98 J	1.2 J	1.1 J	1.4 J
CIS-1,2-DICHLOROETHENE	ug/l	5	8.6	9.5	7.9	2.2 J	1 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U
DICHLOROMETHANE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	1 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U
METHYL TERT BUTYL ETHER	ug/l	10	2.5 U	2.5 U	2.5 U	2.5 U	1 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U
SEC-BUTYLBENZENE	ug/l	5	1.2 J	2.5 U	2.5 U	2.5 U			2.5 U	2.5 U	2.5 U	2.5 U
TETRACHLOROETHENE	ug/l	5	96	99	92	32	1 U	0.43 J	0.83	2.4	2.6	1.7
TOLUENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	1 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U
TRANS-1,2-DICHLOROETHENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	1 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U
TRICHLOROETHENE	ug/l	5	32	14	11	5.3	10	8.3	8.5	12	13	6.2
CARBON TETRACHLORIDE	ug/l	5	0.50 U	0.50 U	0.50 U	0.50 U	1 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U

- Notes:
- 1) Only compounds which were detected in at least one sample are shown.
 - 2) Blank spaces indicate not analyzed.
 - 3) U = Non-detect at laboratory detection limit
 - 4) J = Estimated value
 - 5) B = Found in associated blank
 - 6) D = Concentration recovered from diluted sample.
 - 7) Ambient GW Quality Standard = NY Ambient Water Quality Standards and Guidance Values (i.e. TOGS 1.1.1)(June 1998)
 - 8) **Bold value exceeds Ambient GW Quality Standard**
 - 9) ug/l - micrograms per liter

Table 1 - Preliminary Groundwater Analytical Results
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

		Location ID Sample Date Sample ID Lab Sample ID	MW-203 5/17/2017 MW-203 GWA 05-17 L1716172-04	MW-203 2/7/2019 MW-203-GWA7-020719 L1905246-11	PZ-01 8/27/1999 PZ1 61650001	PZ-01 8/26/2002 BLIND DUP-1W 8/26/2002 0823405A	PZ-01 8/26/2002 PZ-1 8/26/2002 0823402A	PZ-01 4/3/2003 BD-02 4/3/2003 0405910A	PZ-01 4/3/2003 PZ-01 4/3/2003 0405901A	PZ-01 1/19/2005 PZ01GWA1 789858	PZ-01 4/28/2005 PZ01GWA2 810584	PZ-01 8/9/2006 PZ01GWA3 929185	PZ-01 5/11/2016 PZ-01GWA1 05-16 L1614244-01	PZ-01 8/4/2016 PZ-01 GWA2 08-16 L1624290-01
Analyte	Units	Ambient GW Quality Standard												
VOCS DETECTED														
1,1,1-TRICHLOROETHANE	ug/l	5	2.5 U	2.5 U	10 U	5.00 U	5.00 U	5.00 UJ	5.00 U	1 U	1.0 U	1 U	2.5 U	2.5 U
1,1,2-TRICHLOROETHANE	ug/l	1	1.5 U	1.5 U	10 U	5.00 U	5.00 U	5.00 U	5.00 U	1 U	1.0 U	1 U	1.5 U	1.5 U
1,1-DICHLOROETHENE	ug/l	5	0.50 U	0.50 U	10 U	5.00 U	5.00 U	5.00 U	5.00 U	1 U	1.0 U	1 U	0.50 U	0.50 U
1,2,4,5-TETRAMETHYLBENZENE	ug/l	5	2.0 U	2.0 U									2.0 U	2.0 U
1,2-DICHLOROETHENE (TOTAL)	ug/l	5	2.5 U	2.5 U	10 U								2.5 U	2.5 U
2-BUTANONE	ug/l	50	5.0 U	5.0 U	27	10.0 U	10.0 U	10.0 U	10.0 U	5 U	5.0 U	5 U	5.0 U	5.0 U
ACETONE	ug/l	50	5.0 U	5.0 U	2 BJ	10.0 U	10.0 U	10.0 U	10.0 U	10 U	10 U	10 U	5.0 U	5.0 U
CHLOROFORM	ug/l	7	1.4 J	1.3 J	1 J	0.514 J	0.629 J	5.75	5.97	1.1	0.73 J	1	2.5 U	2.4 J
CIS-1,2-DICHLOROETHENE	ug/l	5	2.5 U	2.5 U		5.00 U	5.00 U	5.00 U	5.00 U	1 U	1.0 U	1 U	2.5 U	2.5 U
DICHLOROMETHANE	ug/l	5	2.5 U	2.5 U	1 J	5.00 U	5.00 U	5.00 U	5.00 U	1 U	1.0 U	1 U	2.5 U	2.5 U
METHYL TERT BUTYL ETHER	ug/l	10	2.5 U	2.5 U		5.00 U	5.00 U	5.00 U	5.00 U	1 U	1.0 U	1 U	2.5 U	2.5 U
SEC-BUTYLBENZENE	ug/l	5	2.5 U	2.5 U									2.5 U	2.5 U
TETRACHLOROETHENE	ug/l	5	1.3	6.6	10 U	0.602 J	0.605 J	5.00 U	0.456 J	1 U	1.0 U	1 U	0.50 U	0.50 U
TOLUENE	ug/l	5	2.5 U	2.5 U	10 U	5.00 U	5.00 U	5.00 U	5.00 U	1 U	1.0 U	1 U	2.5 U	2.5 U
TRANS-1,2-DICHLOROETHENE	ug/l	5	2.5 U	2.5 U		5.00 U	5.00 U	5.00 U	5.00 U	1 U	1.0 U	1 U	2.5 U	2.5 U
TRICHLOROETHENE	ug/l	5	5.9	5.1	10 U	5.00 U	5.00 U	5.00 U	0.901 J	1 U	1.0 U	1 U	0.50 U	0.50 U
CARBON TETRACHLORIDE	ug/l	5	0.50 U	0.50 U	10 U	5.00 U	5.00 U	5.00 UJ	5.00 U	1 U	1.0 U	1 U	0.50 U	0.50 U

- Notes:
- 1) Only compounds which were detected in at least one sample are shown.
 - 2) Blank spaces indicate not analyzed.
 - 3) U = Non-detect at laboratory detection limit
 - 4) J = Estimated value
 - 5) B = Found in associated blank
 - 6) D = Concentration recovered from diluted sample.
 - 7) Ambient GW Quality Standard = NY Ambient Water Quality Standards and Guidance Values (i.e. TOGS 1.1.1)(June 1998)
 - 8) **Bold value exceeds Ambient GW Quality Standard**
 - 9) ug/l - micrograms per liter

Table 1 - Preliminary Groundwater Analytical Results
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

Location ID Sample Date Sample ID Lab Sample ID			PZ-01 11/21/2016 PZ-01 GWA3 11-16 L1637979-01	PZ-01 2/16/2017 PZ-01-GWA4-02-17 L1704992-02	PZ-01 5/17/2017 PZ-01 GWA 05-17 L1716172-02	PZ-01 8/9/2017 PZ-01 08-17 L1727753-02	PZ-01 2/6/2019 PZ-01-GWA7-020619 L1905246-04	PZ-01D 4/28/2005 PZ01DGWA2 810602	PZ-01D 8/9/2006 PZ01DGWA3 929188	PZ-01D 5/12/2016 PZ-01DGWA1 05-16 L1614435-07	PZ-01D 8/4/2016 PZ-01D GWA2 08-16 L1624290-03	PZ-01D 11/21/2016 PZ-01D GWA3 11-16 L1637979-02	PZ-01D 2/16/2017 PZ-01D-GWA4-02-17 L1704992-03
Analyte	Units	Ambient GW Quality Standard											
VOCS DETECTED													
1,1,1-TRICHLOROETHANE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-TRICHLOROETHANE	ug/l	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.0 U	1 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-DICHLOROETHENE	ug/l	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4,5-TETRAMETHYLBENZENE	ug/l	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U	2.0 U	2.0 U	2.0 U
1,2-DICHLOROETHENE (TOTAL)	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U			2.5 U	2.5 U	2.5 U	2.5 U
2-BUTANONE	ug/l	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5 U	5.0 U	5.0 U	5.0 U	5.0 U
ACETONE	ug/l	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROFORM	ug/l	7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.53 J	1.3	1.2 J	1.6 J	1.2 J	2.5 U
CIS-1,2-DICHLOROETHENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U
DICHLOROMETHANE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U
METHYL TERT BUTYL ETHER	ug/l	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U
SEC-BUTYLBENZENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U			2.5 U	2.5 U	2.5 U	2.5 U
TETRACHLOROETHENE	ug/l	5	0.50 U	0.37 J	0.50 U	0.50 U	0.50 U	0.62 J	0.75 J	0.56	0.26 J	0.52	0.40 J
TOLUENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U
TRANS-1,2-DICHLOROETHENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.0 U	1 U	2.5 U	2.5 U	2.5 U	2.5 U
TRICHLOROETHENE	ug/l	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	23	8	0.69	0.79	0.73	0.56
CARBON TETRACHLORIDE	ug/l	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	1 U	0.50 U	0.50 U	0.50 U	0.50 U

- Notes:
- 1) Only compounds which were detected in at least one sample are shown.
 - 2) Blank spaces indicate not analyzed.
 - 3) U = Non-detect at laboratory detection limit
 - 4) J = Estimated value
 - 5) B = Found in associated blank
 - 6) D = Concentration recovered from diluted sample.
 - 7) Ambient GW Quality Standard = NY Ambient Water Quality Standards and Guidance Values (i.e. TOGS 1.1.1)(June 1998)
 - 8) **Bold value exceeds Ambient GW Quality Standard**
 - 9) ug/l - micrograms per liter

Table 1 - Preliminary Groundwater Analytical Results
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

		Location ID Sample Date Sample ID Lab Sample ID	PZ-01D 5/17/2017 PZ-01D GWA 05-17 L1716172-03	PZ-01D 8/9/2017 PZ-01D 08-17 L1727753-03	PZ-01D 2/6/2019 PZ-01D-GWA7-020619 L1905246-05	PZ-08 6/20/2001 PZ-8 06177-03A	PZ-08 8/27/2002 PZ-8 8/27/2002 0825701A	PZ-08 4/3/2003 PZ-08 4/3/2003 0405905A	PZ-08 1/18/2005 PZ08GWA1 789857	PZ-08 4/28/2005 PZ08GWA2 810600	PZ-08 8/11/2006 PZ08GWA3 929429	PZ-08 5/11/2016 PZ-08GWA1 05-16 L1614244-02	PZ-08 5/11/2016 PZ-08GWB1 05-16 L1614244-03	PZ-08 8/3/2016 PZ-8 GWA2 08-16 L1624178-01
Analyte	Units	Ambient GW Quality Standard												
VOCS DETECTED														
1,1,1-TRICHLOROETHANE	ug/l	5	2.5 U	2.5 U	2.5 U	6 J	2.03 J	5.00 U	1 U	0.40 J	1 U	2.5 U	2.5 U	2.5 U
1,1,2-TRICHLOROETHANE	ug/l	1	1.5 U	1.5 U	1.5 U	10 U	0.583 J	0.926 J	1 U	1.0 U	1 U	1.5 U	1.5 U	1.5 U
1,1-DICHLOROETHENE	ug/l	5	0.50 U	0.50 U	0.50 U	10 U	5.00 U	5.00 U	1 U	1.0 U	1 U	0.50 U	0.50 U	0.50 U
1,2,4,5-TETRAMETHYLBENZENE	ug/l	5	2.0 U	2.0 U	2.0 U							2.0 U	2.0 U	2.0 U
1,2-DICHLOROETHENE (TOTAL)	ug/l	5	2.5 U	2.5 U	2.5 U							2.5 U	2.5 U	2.5 U
2-BUTANONE	ug/l	50	5.0 U	5.0 U	5.0 U	10 U	10.0 U	10.0 U	5 U	5.0 U	5 U	5.0 U	5.0 U	5.0 U
ACETONE	ug/l	50	5.0 U	5.0 U	5.0 U	10 U	10.0 U	10.0 U	10 U	10 U	10 U	5.0 U	5.0 U	5.0 U
CHLOROFORM	ug/l	7	1.5 J	0.96 J	0.89 J	4 J	0.637 J	1.08 J	1.4	1.9	2.7	1.7 J	1.7 J	1.9 J
CIS-1,2-DICHLOROETHENE	ug/l	5	2.5 U	2.5 U	2.5 U	82	30.3	55.6	3.4	3.9	1 U	2.5 U	2.5 U	2.5 U
DICHLOROMETHANE	ug/l	5	2.5 U	2.5 U	2.5 U	10 U	5.00 U	5.00 U	1 U	1.0 U	1 U	2.5 U	2.5 U	2.5 U
METHYL TERT BUTYL ETHER	ug/l	10	2.5 U	2.5 U	2.5 U	10 U	5.00 U	1.22 J	1 U	1.0 U	1 U	2.5 U	2.5 U	2.5 U
SEC-BUTYLBENZENE	ug/l	5	2.5 U	2.5 U	2.5 U							2.5 U	2.5 U	2.5 U
TETRACHLOROETHENE	ug/l	5	1.4	0.37 J	0.81	7 J	3.33 J	5.59	1 U	0.74 J	0.32 J	0.21 J	0.18 J	0.52
TOLUENE	ug/l	5	2.5 U	2.5 U	2.5 U	10 U	5.00 U	5.00 U	1 U	1.0 U	1 U	2.5 U	2.5 U	2.5 U
TRANS-1,2-DICHLOROETHENE	ug/l	5	2.5 U	2.5 U	2.5 U	10 U	5.00 U	0.349 J	1 U	1.0 U	1 U	2.5 U	2.5 U	2.5 U
TRICHLOROETHENE	ug/l	5	1.5	0.98	0.75	510 D	204 D	395 J	38	40	7	1.5	1.5	3.2
CARBON TETRACHLORIDE	ug/l	5	0.50 U	0.50 U	0.50 U	10 U	5.00 U	5.00 U	1 U	1.0 U	1 U	0.50 U	0.50 U	0.50 U

- Notes:
- 1) Only compounds which were detected in at least one sample are shown.
 - 2) Blank spaces indicate not analyzed.
 - 3) U = Non-detect at laboratory detection limit
 - 4) J = Estimated value
 - 5) B = Found in associated blank
 - 6) D = Concentration recovered from diluted sample.
 - 7) Ambient GW Quality Standard = NY Ambient Water Quality Standards and Guidance Values (i.e. TOGS 1.1.1)(June 1998)
 - 8) **Bold value exceeds Ambient GW Quality Standard**
 - 9) ug/l - micrograms per liter

Table 1 - Preliminary Groundwater Analytical Results
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

		Location ID Sample Date Sample ID Lab Sample ID	PZ-08 11/22/2016 PZ-08 GWA3 11-16 L1638129-04	PZ-08 2/15/2017 PZ08-GWA4-02-17 L1704822-04	PZ-08 5/16/2017 PZ-08 GWA5 05-17 L1716007-01	PZ-08 5/16/2017 PZ-08 GWA5 05-17 L1716007-02	PZ-08 8/10/2017 PZ-08 08-17 L1727963-05	PZ-08 2/6/2019 PZ-08-GWA7-020619 L1905246-07	PZ-09 6/20/2001 PZ-9 06177-04A	PZ-09 8/27/2002 PZ-9 8/27/2002 0825702A	PZ-09 4/3/2003 PZ-09 4/3/2003 0405906A	PZ-09 1/20/2005 PZ09GWA1 789850	PZ-09 4/28/2005 PZ09GWA2 810603	PZ-09 4/28/2005 PZ09GWB1 810604	PZ-09 8/10/2006 PZ09GWA3 929182
Analyte	Units	Ambient GW Quality Standard													
VOCS DETECTED															
1,1,1-TRICHLOROETHANE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	46	26.9 J	5.00 U	3.4	0.57 J	0.51 J	1.7
1,1,2-TRICHLOROETHANE	ug/l	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	5 J	5.18 J	0.952 J	1 U	1.0 U	1.0 U	1 U
1,1-DICHLOROETHENE	ug/l	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	10 U	0.634 J	5.00 U	1 U	1.0 U	1.0 U	1 U
1,2,4,5-TETRAMETHYLBENZENE	ug/l	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U							
1,2-DICHLOROETHENE (TOTAL)	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U							
2-BUTANONE	ug/l	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10.0 UJ	10.0 U	5 U	5.0 U	5.0 U	5 U
ACETONE	ug/l	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10.0 UJ	10.0 UJ	5.2 J	10 U	10 U	10 U
CHLOROFORM	ug/l	7	1.8 J	0.99 J	1.1 J	1.1 J	1.2 J	2.5 U	3 J	13.0 J	0.930 J	1.2	0.72 J	0.71 J	2.1
CIS-1,2-DICHLOROETHENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	460 D	283 D	107	25	4.8	5.0	14
DICHLOROMETHANE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	0.324 J	5.00 U	1 U	1.0 U	1.0 U	1 U
METHYL TERT BUTYL ETHER	ug/l	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	0.638 J	0.375 J	1 U	1.0 U	1.0 U	1 U
SEC-BUTYLBENZENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U							
TETRACHLOROETHENE	ug/l	5	0.52	1.8	0.42 J	0.47 J	0.59	1.4	18	23.6 J	6.63	1.5	1.5	1.2	1.2
TOLUENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	10 U	5.00 UJ	5.00 U	1 U	1.0 U	1.0 U	0.36 J
TRANS-1,2-DICHLOROETHENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2 J	2.69 J	0.509 J	1 U	1.0 U	1.0 U	1 U
TRICHLOROETHENE	ug/l	5	2.2	4.4	1.6	1.7	2.0	2.4	2100 D	1180 D	578 J	180	99	98	110
CARBON TETRACHLORIDE	ug/l	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	10 U	5.00 UJ	5.00 U	1 U	1.0 U	1.0 U	1 U

- Notes:
- 1) Only compounds which were detected in at least one sample are shown.
 - 2) Blank spaces indicate not analyzed.
 - 3) U = Non-detect at laboratory detection limit
 - 4) J = Estimated value
 - 5) B = Found in associated blank
 - 6) D = Concentration recovered from diluted sample.
 - 7) Ambient GW Quality Standard = NY Ambient Water Quality Standards and Guidance Values (i.e. TOGS 1.1.1)(June 1998)
 - 8) **Bold value exceeds Ambient GW Quality Standard**
 - 9) ug/l - micrograms per liter

Table 1 - Preliminary Groundwater Analytical Results
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

		Location ID Sample Date Sample ID Lab Sample ID	PZ-09 5/12/2016 PZ-09GWA1 05-16 L1614435-02	PZ-09 8/3/2016 PZ-9 GWA2 08-16 L1624178-03	PZ-09 11/22/2016 PZ-09 GWA3 11-16 L1638129-05	PZ-09 2/15/2017 PZ09-GWA4-02-17 L1704822-05	PZ-09 5/16/2017 PZ-09 GWA5 05-17 L1716007-03	PZ-09 8/10/2017 PZ-09 08-17 L1727963-06	PZ-09 2/6/2019 PZ-09-GWA7-020619 L1905246-06	PZ-10 6/20/2001 PZ-10 06177-05A	PZ-10 8/27/2002 PZ-10 8/27/2002 0825705A	PZ-10 4/3/2003 PZ-10 4/3/2003 0405907A	PZ-10 1/20/2005 PZ10GWA1 789851	PZ-10 8/10/2006 PZ10GWA3 929180
Analyte	Units	Ambient GW Quality Standard												
VOCS DETECTED														
1,1,1-TRICHLOROETHANE	ug/l	5	6.2 U	12 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	4 J	2.19 J	5.00 U	1 U	2
1,1,2-TRICHLOROETHANE	ug/l	1	3.8 U	7.5 U	1.5 U	1.5 U	3.0 U	1.5 U	1.5 U	10 U	5.00 U	5.00 U	1 U	1 U
1,1-DICHLOROETHENE	ug/l	5	1.2 U	2.5 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	10 U	5.00 U	5.00 U	1 U	1 U
1,2,4,5-TETRAMETHYLBENZENE	ug/l	5	5.0 U	10 U	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U					
1,2-DICHLOROETHENE (TOTAL)	ug/l	5	14	25	8.6	27	14	4.1	7.7					
2-BUTANONE	ug/l	50	12 U	25 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	10 U	10.0 U	10.0 U	5 U	5 U
ACETONE	ug/l	50	12 U	25 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	10 U	10.0 U	10.0 U	10 U	10 U
CHLOROFORM	ug/l	7	6.2 U	12 U	1.7 J	1.6 J	1.4 J	1.5 J	7.2	10 U	0.550 J	0.977 J	0.75 J	0.81 J
CIS-1,2-DICHLOROETHENE	ug/l	5	14	25	8.6	27	14	4.1	7.7	13	38.8	60.4	3.6	7.5
DICHLOROMETHANE	ug/l	5	6.2 U	12 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	10 U	5.00 U	5.00 U	1 U	1 U
METHYL TERT BUTYL ETHER	ug/l	10	6.2 U	12 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	3 J	0.521 J	0.462 J	1 U	1 U
SEC-BUTYLBENZENE	ug/l	5	6.2 U	12 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U					
TETRACHLOROETHENE	ug/l	5	190	270	100	280	180	64	41	10 U	1.35 J	4.68 J	0.95 J	1.6
TOLUENE	ug/l	5	6.2 U	12 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	10 U	5.00 U	5.00 U	1 U	1 U
TRANS-1,2-DICHLOROETHENE	ug/l	5	6.2 U	12 U	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	10 U	5.00 U	5.00 U	1 U	1 U
TRICHLOROETHENE	ug/l	5	25	54	14	64	48	6.6	7.6	120	253 D	388 J	78	260
CARBON TETRACHLORIDE	ug/l	5	1.2 U	2.5 U	0.50 U	0.19 J	1.0 U	0.16 J	0.50 U	10 U	5.00 U	5.00 U	1 U	1 U

- Notes:
- Only compounds which were detected in at least one sample are shown.
 - Blank spaces indicate not analyzed.
 - U = Non-detect at laboratory detection limit
 - J = Estimated value
 - B = Found in associated blank
 - D = Concentration recovered from diluted sample.
 - Ambient GW Quality Standard = NY Ambient Water Quality Standards and Guidance Values (i.e. TOGS 1.1.1)(June 1998)
 - Bold value exceeds Ambient GW Quality Standard**
 - ug/l - micrograms per liter

Table 1 - Preliminary Groundwater Analytical Results
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

Location ID Sample Date Sample ID Lab Sample ID			PZ-10 5/12/2016 PZ-10GWA1 05-16 L1614435-01	PZ-10 8/4/2016 PZ-10 GWA2 08-16 L1624290-04	PZ-10 11/22/2016 PZ-10 GWA3 11-16 L1638129-06	PZ-10 11/22/2016 PZ-10 GWB3 11-16 L1638129-07	PZ-10 2/15/2017 PZ-10-GWA4-02-17 L1704992-01	PZ-10 5/17/2017 PZ-10 GWA5 05-17 L1716172-01	PZ-10 8/10/2017 PZ-10 08-17 L1727963-07	PZ-10 2/7/2019 PZ-10-GWA7-020719 L1905246-09	PZ-10 (Duplicate) 2/7/2019 PZ-10-GWB7-020719 L1905246-10
Analyte	Units	Ambient GW Quality Standard									
VOCS DETECTED											
1,1,1-TRICHLOROETHANE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2-TRICHLOROETHANE	ug/l	1	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-DICHLOROETHENE	ug/l	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2,4,5-TETRAMETHYLBENZENE	ug/l	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-DICHLOROETHENE (TOTAL)	ug/l	5	2.1 J	6.1	1.5 J	1.5 J	2.2 J	2.5 U	3.5	0.94 J	0.81 J
2-BUTANONE	ug/l	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
ACETONE	ug/l	50	5.0 U	5.0 U	5.0 U	5.0 U	1.6 J	5.0 U	5.0 U	5.0 U	5.0 U
CHLOROFORM	ug/l	7	0.83 J	1.1 J	0.89 J	0.88 J	2.5 U	0.75 J	2.5 U	2.5 U	2.5 U
CIS-1,2-DICHLOROETHENE	ug/l	5	2.1 J	6.1	1.5 J	1.5 J	2.2 J	2.5 U	3.5	0.94 J	0.81 J
DICHLOROMETHANE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
METHYL TERT BUTYL ETHER	ug/l	10	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
SEC-BUTYLBENZENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
TETRACHLOROETHENE	ug/l	5	24	68	24	24	40	8.3	34	24	25
TOLUENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
TRANS-1,2-DICHLOROETHENE	ug/l	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
TRICHLOROETHENE	ug/l	5	6.8	12	8.9	8.8	12	5.2	15	6.4	6.1
CARBON TETRACHLORIDE	ug/l	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U

- Notes:
- 1) Only compounds which were detected in at least one sample are shown.
 - 2) Blank spaces indicate not analyzed.
 - 3) U = Non-detect at laboratory detection limit
 - 4) J = Estimated value
 - 5) B = Found in associated blank
 - 6) D = Concentration recovered from diluted sample.
 - 7) Ambient GW Quality Standard = NY Ambient Water Quality Standards and Guidance Values (i.e. TOGS 1.1.1)(June 1998)
 - 8) **Bold value exceeds Ambient GW Quality Standard**
 - 9) ug/l - micrograms per liter

Table 2 - Preliminary PFAS and 1,4-Dioxane Groundwater Analytical Results
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

	Location ID Sample Date Sample ID Lab Sample ID	MW-201S 2/6/2019 MW-201S-GWA7-020619 L1905246-02	PZ-01 2/6/2019 PZ-01-GWA7-020619 L1905246-04	PZ-08 2/6/2019 PZ-08-GWA7-020619 L1905246-07	PZ-10 2/7/2019 PZ-10-GWA7-020719 L1905246-09	PZ-10 (Duplicate) 2/7/2019 PZ-10-GWB7-020719 L1905246-10
Analyte	Units					
537(M)						
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ng/l	1.78 U	1.77 U	1.75 U	1.79 U	1.78 U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ng/l	0.872 J	1.77 U	1.75 U	1.29 J	0.914 J
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ng/l	0.665 J	0.759 J	1.75 U	0.81 J	1.49 J
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSA)	ng/l	0.466 J	1.77 U	1.75 U	0.487 J	0.569 J
Perfluorobutanesulfonic Acid (PFBS)	ng/l	9.38	9.67	8.64	6.8	7.55
Perfluorobutanoic Acid (PFBA)	ng/l	5.53	16.3	16	7.76	8.68
Perfluorodecanesulfonic Acid (PFDS)	ng/l	1.78 U	1.77 U	1.75 U	1.79 U	1.78 U
Perfluorodecanoic Acid (PFDA)	ng/l	1.78 U	1.77 U	1.75 U	1.79 U	1.78 U
Perfluorododecanoic Acid (PFDoA)	ng/l	1.78 U	1.77 U	1.75 U	1.79 U	1.78 U
Perfluoroheptanesulfonic Acid (PFHpS)	ng/l	1.78 U	3.13	1.75 U	1.79 U	1.78 U
Perfluoroheptanoic Acid (PFHpA)	ng/l	4.55	15.6	12.3	6.89	7.44
Perfluorohexanesulfonic Acid (PFHxS)	ng/l	2.36	6.2	7.4	3.35	3.11
Perfluorohexanoic Acid (PFHxA)	ng/l	4.26	29	21	8.76	9.2
Perfluorononanoic Acid (PFNA)	ng/l	1.72 J	3.33	1.53 J	1.65 J	1.96
Perfluorooctanesulfonamide (FOSA)	ng/l	1.78 U	1.77 U	1.75 U	1.79 U	1.78 U
Perfluorooctanesulfonic Acid (PFOS)	ng/l	16.9	56.7	18.4	21.4	20.1
Perfluorooctanoic Acid (PFOA)	ng/l	18.9	64.3	51.6	27	30
Perfluoropentanoic Acid (PFPeA)	ng/l	5.05	44.2	28.4	10.7	10.9
Perfluorotetradecanoic Acid (PFTA)	ng/l	1.78 U	1.77 U	1.75 U	1.79 U	1.78 U
Perfluorotridecanoic Acid (PFTrDA)	ng/l	1.78 U	1.77 U	1.75 U	1.79 U	1.78 U
Perfluoroundecanoic Acid (PFUnA)	ng/l	1.78 U	1.77 U	1.75 U	1.79 U	1.78 U
PFAS, Total (5)	ng/l	44.4 J	146	91.2 J	60.3 J	62.6
PFOA/PFOS, Total	ng/l	35.8	121	70	48.4	50.1
SW8270D-SIM						
1,4-DIOXANE	ng/l	139 U	142 U	142 U	142 U	144 U

ng/l - Nanogram/liter

Table 3
Soil Gas Sample Results - 2006, 2017 and 2019
Former Ozone Industries
Queens, NY

	Location ID Sample ID Sample Date Depth (ft) matrix_code	LOC-22 SG-22 07/17/2006 4.5 GS	LOC-22 LOC-22-062217 06/22/2017 8 GS	LOC-22 LOC-22-020719 02/07/2019 8 GS	LOC-24 SG-24 07/13/2006 5 GS	LOC-24 LOC-24-062217 06/22/2017 8 GS	LOC-24 LOC-24-020819 02/08/2019 8 GS	LOC-25 SG-25 07/17/2006 4 GS	LOC-25 LOC-25-062217 06/22/2017 8 GS	LOC-25 LOC-25-020719 02/07/2019 8 GS	LOC-26 SG-26 07/13/2006 4 GS	LOC-26 LOC-26-062217 06/22/2017 8 GS	LOC-26 LOC-26-020819 02/08/2019 8 GS	LOC-27 SG-27 07/17/2006 4 GS	LOC-27 LOC-27-062217 06/22/2017 8 GS	LOC-27 LOC-27-020719 02/07/2019 8 GS	LOC-27B LOC-27B-062217 06/22/2017 8 GS	LOC-27B LOC-27B-020719 02/07/2019 8 GS	LOC-28 SG-28 07/13/2006 4 GS	LOC-28 LOC-28-062217 06/22/2017 8 GS	LOC-28 LOC-28-020819 02/08/2019 8 GS
Chemical Name	Units																				
VINYL CHLORIDE	ug/m3	< 2.55 U	< 0.511 U	< 0.511 U	< 31.9 U	< 0.511 U	< 0.511 U	< 31.9 U	< 2.56 U	< 0.511 U	< 31.9 U	< 2.56 U	< 0.511 U	< 31.9 U	< 24.8 U	< 0.511 U	< 5.11 U	< 0.511 U	< 31.9 U	< 1.71 U	< 0.511 U
TRANS-1,2-DICHLOROETHENE	ug/m3	< 3.96 U	< 0.793 U	< 0.793 U	< 49.5 U	< 0.793 U	< 49.5 U	< 3.96 U	< 0.793 U	< 49.5 U	< 3.96 U	< 0.793 U	< 49.5 U	< 3.96 U	< 38.5 U	2.65	< 7.93 U	< 0.793 U	< 49.5 U	< 2.64 U	< 0.793 U
CIS-1,2-DICHLOROETHENE	ug/m3	< 3.96 U	< 0.793 U	< 0.793 U	< 49.5 U	1.11	< 0.793 U	< 49.5 U	35.5	1.36	226	5.87	1.73	5990	1750	101	55.5	13.2	822	< 2.64 U	< 0.793 U
TRICHLOROETHENE	ug/m3	252	76.3	17.8	22100	500	45.3	17800	1390	69.9	32200	1500	123	49300	13300	464	3830	564	38700	1370	34.2
TETRACHLOROETHENE	ug/m3	10.3	7.05	26.3	367	42.0	64.5	214	597	11.2	761	72.6	93.6	849	257	22.7	27.9	8.54	1350	73.2	4.53

ugm3 - micrograms per cubic meter



ANALYTICAL REPORT

Lab Number:	L1905246
Client:	AECOM 250 Apollo Dr. Chelmsford, MA 01824
ATTN:	Raimundo Matos
Phone:	(978) 905-2100
Project Name:	ENDZONE, INC.
Project Number:	60527976.7
Report Date:	02/19/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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: ENDZONE, INC.

Project Number: 60527976.7

Lab Number: L1905246

Report Date: 02/19/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1905246-01	TB-GWC7-020619	WATER	OZONE PARK, NY	02/06/19 09:00	02/08/19
L1905246-02	MW-201S-GWA7-020619	WATER	OZONE PARK, NY	02/06/19 10:35	02/08/19
L1905246-03	MW-201D-GWA7-020619	WATER	OZONE PARK, NY	02/06/19 12:30	02/08/19
L1905246-04	PZ-01-GWA7-020619	WATER	OZONE PARK, NY	02/06/19 10:45	02/08/19
L1905246-05	PZ-01D-GWA7-020619	WATER	OZONE PARK, NY	02/06/19 12:30	02/08/19
L1905246-06	PZ-09-GWA7-020619	WATER	OZONE PARK, NY	02/06/19 14:20	02/08/19
L1905246-07	PZ-08-GWA7-020619	WATER	OZONE PARK, NY	02/06/19 15:05	02/08/19
L1905246-08	EB-GWC7-020719	WATER	OZONE PARK, NY	02/07/19 09:25	02/08/19
L1905246-09	PZ-10-GWA7-020719	WATER	OZONE PARK, NY	02/07/19 12:00	02/08/19
L1905246-10	PZ-10-GWB7-020719	WATER	OZONE PARK, NY	02/07/19 12:05	02/08/19
L1905246-11	MW-203-GWA7-020719	WATER	OZONE PARK, NY	02/07/19 12:28	02/08/19

Project Name: ENDZONE, INC.
Project Number: 60527976.7

Lab Number: L1905246
Report Date: 02/19/19

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: ENDZONE, INC.
Project Number: 60527976.7

Lab Number: L1905246
Report Date: 02/19/19

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

L1905246-01: The Trip Blank has a result for acetone present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

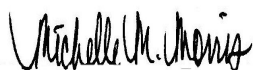
The WG1207181-3/-4 LCS/LCSD RPD, associated with L1905246-02, -10 and -11, is above the acceptance criteria for 1,4-dioxane (37%).

The WG1207181-6/-7 MS/MSD recoveries, performed on L1905246-02, are below the acceptance criteria for tetrachloroethene (MSD at 50%), bromomethane (MS at 38%) and 1,4-dioxane (MS at 36%); however, the associated LCS/LCSD recoveries are within overall method allowances.

The WG1207181-6/-7 MS/MSD RPDs, performed on L1905246-02, are outside the acceptance criteria for bromomethane (27%) and 1,4-dioxane (71%).

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: 02/19/19

ORGANICS

VOLATILES

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-01
 Client ID: TB-GWC7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 09:00
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/14/19 12:21
 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
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-01
Client ID: TB-GWC7-020619
Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 09:00
Date Received: 02/08/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	23		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
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	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
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-01
 Client ID: TB-GWC7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 09:00
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	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
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	96		70-130

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS****Lab ID:** L1905246-02**Date Collected:** 02/06/19 10:35**Client ID:** MW-201S-GWA7-020619**Date Received:** 02/08/19**Sample Location:** OZONE PARK, NY**Field Prep:** Not Specified**Sample Depth:****Matrix:** Water**Analytical Method:** 1,8260C**Analytical Date:** 02/14/19 17:54**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	32		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
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS****Lab ID:** L1905246-02**Date Collected:** 02/06/19 10:35**Client ID:** MW-201S-GWA7-020619**Date Received:** 02/08/19**Sample Location:** OZONE PARK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	5.3		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	2.2	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	2.2	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		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
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	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
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS****Lab ID:** L1905246-02**Date Collected:** 02/06/19 10:35**Client ID:** MW-201S-GWA7-020619**Date Received:** 02/08/19**Sample Location:** OZONE PARK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	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
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	99		70-130

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-03
 Client ID: MW-201D-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 12:30
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/14/19 12:49
 Analyst: PD

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	1.2	J	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	4.1		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
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS****Lab ID:** L1905246-03**Date Collected:** 02/06/19 12:30**Client ID:** MW-201D-GWA7-020619**Date Received:** 02/08/19**Sample Location:** OZONE PARK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	4.5		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		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
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	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
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS****Lab ID:** L1905246-03**Date Collected:** 02/06/19 12:30**Client ID:** MW-201D-GWA7-020619**Date Received:** 02/08/19**Sample Location:** OZONE PARK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	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
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	96		70-130

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-04
 Client ID: PZ-01-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 10:45
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 02/14/19 13:16

Analyst: PD

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
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-04
 Client ID: PZ-01-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 10:45
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		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
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	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
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-04
 Client ID: PZ-01-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 10:45
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	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
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	98		70-130

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-05
 Client ID: PZ-01D-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 12:30
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/14/19 13:44
 Analyst: PD

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	0.89	J	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	0.81		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
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-05
 Client ID: PZ-01D-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 12:30
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.75		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		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
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	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
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-05
 Client ID: PZ-01D-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 12:30
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	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
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	98		70-130

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-06
 Client ID: PZ-09-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 14:20
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 02/14/19 14:12

Analyst: PD

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	7.2		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	41		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
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-06
 Client ID: PZ-09-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 14:20
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	7.6		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	7.7		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	7.7		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		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
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	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
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-06
 Client ID: PZ-09-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 14:20
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	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
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	97		70-130

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-07
 Client ID: PZ-08-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 15:05
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/14/19 14:39
 Analyst: PD

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	1.4		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
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-07
 Client ID: PZ-08-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 15:05
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	2.4		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		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
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	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
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-07
 Client ID: PZ-08-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 15:05
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	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
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	99		70-130

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-09
 Client ID: PZ-10-GWA7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:00
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 02/14/19 15:07
 Analyst: PD

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	24		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
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	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

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

SAMPLE RESULTS

Lab ID: L1905246-09
 Client ID: PZ-10-GWA7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:00
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	6.4		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	0.94	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	0.94	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		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
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	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
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-09
 Client ID: PZ-10-GWA7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:00
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	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
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-10
 Client ID: PZ-10-GWB7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:05
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 02/14/19 18:19

Analyst: MKS

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	25		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
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-10
 Client ID: PZ-10-GWB7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:05
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	6.1		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	0.81	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	0.81	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		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
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	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
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-10
 Client ID: PZ-10-GWB7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:05
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	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
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	101		70-130

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-11
 Client ID: MW-203-GWA7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:28
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 02/14/19 18:45

Analyst: MKS

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	1.3	J	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	6.6		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
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-11
 Client ID: MW-203-GWA7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:28
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	5.1		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
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
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		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
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	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
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	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

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS****Lab ID:** L1905246-11**Date Collected:** 02/07/19 12:28**Client ID:** MW-203-GWA7-020719**Date Received:** 02/08/19**Sample Location:** OZONE PARK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	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
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	102		70-130

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/14/19 08:40
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-07,09 Batch: WG1206750-5					
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
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
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

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/14/19 08:40
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-07,09 Batch: WG1206750-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
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
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
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
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
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

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/14/19 08:40
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-07,09 Batch: WG1206750-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	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
1,2,3-Trichlorobenzene	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
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	96		70-130

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/14/19 10:19
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,10-11 Batch: WG1207181-5					
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
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
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

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/14/19 10:19
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,10-11 Batch: WG1207181-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
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
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
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
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
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

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 02/14/19 10:19
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,10-11 Batch: WG1207181-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	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
1,2,3-Trichlorobenzene	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
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ENDZONE, INC.

Project Number: 60527976.7

Lab Number: L1905246

Report Date: 02/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-07,09 Batch: WG1206750-3 WG1206750-4								
Methylene chloride	110		110		70-130	0		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	110		100		70-130	10		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	99		98		63-130	1		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	100		98		70-130	2		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	110		100		67-130	10		20
Bromodichloromethane	100		98		67-130	2		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	110		100		70-130	10		20
Bromoform	97		97		54-136	0		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	110		100		70-130	10		20
Toluene	110		110		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	94		90		64-130	4		20
Bromomethane	44		43		39-139	2		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-07,09 Batch: WG1206750-3 WG1206750-4								
Vinyl chloride	130		120		55-140	8		20
Chloroethane	130		120		55-138	8		20
1,1-Dichloroethene	110		100		61-145	10		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	99		98		70-130	1		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	110		100		70-130	10		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	100		110		64-130	10		20
Acrylonitrile	110		100		70-130	10		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	98		93		36-147	5		20
Acetone	71		72		58-148	1		20
Carbon disulfide	120		120		51-130	0		20
2-Butanone	89		94		63-138	5		20
Vinyl acetate	120		120		70-130	0		20
4-Methyl-2-pentanone	88		93		59-130	6		20
2-Hexanone	82		86		57-130	5		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ENDZONE, INC.

Project Number: 60527976.7

Lab Number: L1905246

Report Date: 02/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-07,09 Batch: WG1206750-3 WG1206750-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	120		110		63-133	9		20
1,2-Dibromoethane	96		97		70-130	1		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	98		100		70-130	2		20
n-Butylbenzene	98		98		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	98		97		70-130	1		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	84		91		41-144	8		20
Hexachlorobutadiene	70		69		63-130	1		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	98		95		70-130	3		20
Naphthalene	86		88		70-130	2		20
n-Propylbenzene	110		100		69-130	10		20
1,2,3-Trichlorobenzene	82		86		70-130	5		20
1,2,4-Trichlorobenzene	86		86		70-130	0		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	64		64		56-162	0		20
p-Diethylbenzene	95		94		70-130	1		20

Lab Control Sample Analysis Batch Quality Control

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-07,09 Batch: WG1206750-3 WG1206750-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	90		88		70-130	2		20
Ethyl ether	100		100		59-134	0		20
trans-1,4-Dichloro-2-butene	88		92		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		95		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	96		96		70-130
Dibromofluoromethane	96		96		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ENDZONE, INC.

Project Number: 60527976.7

Lab Number: L1905246

Report Date: 02/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,10-11 Batch: WG1207181-3 WG1207181-4								
Methylene chloride	91		91		70-130	0		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	94		93		70-130	1		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	93		92		70-130	1		20
Tetrachloroethene	96		94		70-130	2		20
Chlorobenzene	96		93		75-130	3		20
Trichlorofluoromethane	98		92		62-150	6		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	98		100		67-130	2		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	93		93		70-130	0		20
1,1-Dichloropropene	98		96		70-130	2		20
Bromoform	98		96		54-136	2		20
1,1,2,2-Tetrachloroethane	92		91		67-130	1		20
Benzene	92		92		70-130	0		20
Toluene	95		93		70-130	2		20
Ethylbenzene	96		93		70-130	3		20
Chloromethane	100		96		64-130	4		20
Bromomethane	41		41		39-139	0		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ENDZONE, INC.

Project Number: 60527976.7

Lab Number: L1905246

Report Date: 02/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,10-11 Batch: WG1207181-3 WG1207181-4								
Vinyl chloride	66		65		55-140	2		20
Chloroethane	73		71		55-138	3		20
1,1-Dichloroethene	92		90		61-145	2		20
trans-1,2-Dichloroethene	92		89		70-130	3		20
Trichloroethene	92		89		70-130	3		20
1,2-Dichlorobenzene	95		93		70-130	2		20
1,3-Dichlorobenzene	96		93		70-130	3		20
1,4-Dichlorobenzene	96		93		70-130	3		20
Methyl tert butyl ether	93		94		63-130	1		20
p/m-Xylene	95		90		70-130	5		20
o-Xylene	95		90		70-130	5		20
cis-1,2-Dichloroethene	92		92		70-130	0		20
Dibromomethane	90		91		70-130	1		20
1,2,3-Trichloropropane	100		98		64-130	2		20
Acrylonitrile	96		100		70-130	4		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	87		82		36-147	6		20
Acetone	93		94		58-148	1		20
Carbon disulfide	100		98		51-130	2		20
2-Butanone	86		100		63-138	15		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	91		92		59-130	1		20
2-Hexanone	86		89		57-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ENDZONE, INC.

Project Number: 60527976.7

Lab Number: L1905246

Report Date: 02/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,10-11 Batch: WG1207181-3 WG1207181-4								
Bromochloromethane	93		89		70-130	4		20
2,2-Dichloropropane	110		100		63-133	10		20
1,2-Dibromoethane	94		93		70-130	1		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	100		98		64-130	2		20
Bromobenzene	96		93		70-130	3		20
n-Butylbenzene	95		91		53-136	4		20
sec-Butylbenzene	98		95		70-130	3		20
tert-Butylbenzene	100		96		70-130	4		20
o-Chlorotoluene	90		89		70-130	1		20
p-Chlorotoluene	100		98		70-130	2		20
1,2-Dibromo-3-chloropropane	82		87		41-144	6		20
Hexachlorobutadiene	92		88		63-130	4		20
Isopropylbenzene	100		98		70-130	2		20
p-Isopropyltoluene	100		97		70-130	3		20
Naphthalene	89		90		70-130	1		20
n-Propylbenzene	98		95		69-130	3		20
1,2,3-Trichlorobenzene	93		92		70-130	1		20
1,2,4-Trichlorobenzene	96		93		70-130	3		20
1,3,5-Trimethylbenzene	100		97		64-130	3		20
1,2,4-Trimethylbenzene	99		96		70-130	3		20
1,4-Dioxane	76		110		56-162	37	Q	20
p-Diethylbenzene	97		94		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: ENDZONE, INC.

Project Number: 60527976.7

Lab Number: L1905246

Report Date: 02/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,10-11 Batch: WG1207181-3 WG1207181-4								
p-Ethyltoluene	100		98		70-130	2		20
1,2,4,5-Tetramethylbenzene	98		94		70-130	4		20
Ethyl ether	90		90		59-134	0		20
trans-1,4-Dichloro-2-butene	120		120		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	109		111		70-130
Toluene-d8	108		107		70-130
4-Bromofluorobenzene	109		108		70-130
Dibromofluoromethane	99		99		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: ENDZONE, INC.

Project Number: 60527976.7

Lab Number: L1905246

Report Date: 02/19/19

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): 02,10-11 QC Batch ID: WG1207181-6 WG1207181-7 QC Sample: L1905246-02 Client ID: MW-201S-GWA7-020619												
Methylene chloride	ND	10	9.6	96		9.4	94		70-130	2		20
1,1-Dichloroethane	ND	10	11	110		11	110		70-130	0		20
Chloroform	ND	10	11	110		11	110		70-130	0		20
Carbon tetrachloride	ND	10	12	120		12	120		63-132	0		20
1,2-Dichloropropane	ND	10	9.5	95		9.5	95		70-130	0		20
Dibromochloromethane	ND	10	11	110		10	100		63-130	10		20
1,1,2-Trichloroethane	ND	10	9.6	96		9.1	91		70-130	5		20
Tetrachloroethene	32	10	39	70		37	50	Q	70-130	5		20
Chlorobenzene	ND	10	9.7	97		9.3	93		75-130	4		20
Trichlorofluoromethane	ND	10	11	110		11	110		62-150	0		20
1,2-Dichloroethane	ND	10	12	120		11	110		70-130	9		20
1,1,1-Trichloroethane	ND	10	12	120		11	110		67-130	9		20
Bromodichloromethane	ND	10	10	100		10	100		67-130	0		20
trans-1,3-Dichloropropene	ND	10	10	100		10	100		70-130	0		20
cis-1,3-Dichloropropene	ND	10	9.0	90		8.7	87		70-130	3		20
1,1-Dichloropropene	ND	10	10	100		9.8	98		70-130	2		20
Bromoform	ND	10	9.8	98		9.5	95		54-136	3		20
1,1,2,2-Tetrachloroethane	ND	10	9.4	94		9.1	91		67-130	3		20
Benzene	ND	10	9.7	97		9.4	94		70-130	3		20
Toluene	ND	10	9.9	99		9.5	95		70-130	4		20
Ethylbenzene	ND	10	9.6	96		9.2	92		70-130	4		20
Chloromethane	ND	10	11	110		11	110		64-130	0		20
Bromomethane	ND	10	3.8	38	Q	5.0	50		39-139	27	Q	20

Matrix Spike Analysis

Batch Quality Control

Project Name: ENDZONE, INC.
Project Number: 60527976.7

Lab Number: L1905246
Report Date: 02/19/19

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): 02,10-11 QC Batch ID: WG1207181-6 WG1207181-7 QC Sample: L1905246-02 Client ID: MW-201S-GWA7-020619												
Vinyl chloride	ND	10	7.4	74		7.3	73		55-140	1		20
Chloroethane	ND	10	7.9	79		8.0	80		55-138	1		20
1,1-Dichloroethene	ND	10	10	100		9.6	96		61-145	4		20
trans-1,2-Dichloroethene	ND	10	9.5	95		9.4	94		70-130	1		20
Trichloroethene	5.3	10	15	97		14	87		70-130	7		20
1,2-Dichlorobenzene	ND	10	9.4	94		9.2	92		70-130	2		20
1,3-Dichlorobenzene	ND	10	9.4	94		9.2	92		70-130	2		20
1,4-Dichlorobenzene	ND	10	9.5	95		9.3	93		70-130	2		20
Methyl tert butyl ether	ND	10	9.7	97		9.3	93		63-130	4		20
p/m-Xylene	ND	20	19	95		18	90		70-130	5		20
o-Xylene	ND	20	19	95		18	90		70-130	5		20
cis-1,2-Dichloroethene	2.2J	10	12	120		12	120		70-130	0		20
Dibromomethane	ND	10	9.4	94		9.3	93		70-130	1		20
1,2,3-Trichloropropane	ND	10	9.8	98		9.8	98		64-130	0		20
Acrylonitrile	ND	10	11	110		9.9	99		70-130	11		20
Styrene	ND	20	18	90		17	85		70-130	6		20
Dichlorodifluoromethane	ND	10	9.1	91		9.2	92		36-147	1		20
Acetone	ND	10	12	120		10	100		58-148	18		20
Carbon disulfide	ND	10	10	100		10	100		51-130	0		20
2-Butanone	ND	10	9.4	94		9.6	96		63-138	2		20
Vinyl acetate	ND	10	11	110		10	100		70-130	10		20
4-Methyl-2-pentanone	ND	10	10	100		8.9	89		59-130	12		20
2-Hexanone	ND	10	8.6	86		8.4	84		57-130	2		20

Matrix Spike Analysis

Batch Quality Control

Project Name: ENDZONE, INC.

Project Number: 60527976.7

Lab Number: L1905246

Report Date: 02/19/19

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): 02,10-11 QC Batch ID: WG1207181-6 WG1207181-7 QC Sample: L1905246-02 Client ID: MW-201S-GWA7-020619												
Bromochloromethane	ND	10	9.2	92		9.1	91		70-130	1		20
2,2-Dichloropropane	ND	10	9.7	97		9.3	93		63-133	4		20
1,2-Dibromoethane	ND	10	9.9	99		9.3	93		70-130	6		20
1,3-Dichloropropane	ND	10	10	100		10	100		70-130	0		20
1,1,1,2-Tetrachloroethane	ND	10	11	110		10	100		64-130	10		20
Bromobenzene	ND	10	9.6	96		9.4	94		70-130	2		20
n-Butylbenzene	ND	10	9.1	91		8.9	89		53-136	2		20
sec-Butylbenzene	ND	10	9.5	95		9.3	93		70-130	2		20
tert-Butylbenzene	ND	10	9.7	97		9.6	96		70-130	1		20
o-Chlorotoluene	ND	10	9.1	91		8.7	87		70-130	4		20
p-Chlorotoluene	ND	10	9.9	99		9.7	97		70-130	2		20
1,2-Dibromo-3-chloropropane	ND	10	8.7	87		8.4	84		41-144	4		20
Hexachlorobutadiene	ND	10	8.7	87		8.6	86		63-130	1		20
Isopropylbenzene	ND	10	10	100		9.7	97		70-130	3		20
p-Isopropyltoluene	ND	10	9.6	96		9.4	94		70-130	2		20
Naphthalene	ND	10	9.1	91		9.0	90		70-130	1		20
n-Propylbenzene	ND	10	9.5	95		9.3	93		69-130	2		20
1,2,3-Trichlorobenzene	ND	10	9.5	95		9.5	95		70-130	0		20
1,2,4-Trichlorobenzene	ND	10	9.3	93		9.3	93		70-130	0		20
1,3,5-Trimethylbenzene	ND	10	9.8	98		9.6	96		64-130	2		20
1,2,4-Trimethylbenzene	ND	10	9.8	98		9.5	95		70-130	3		20
1,4-Dioxane	ND	500	180J	36	Q	380	76		56-162	71	Q	20
p-Diethylbenzene	ND	10	9.2	92		9.0	90		70-130	2		20

Matrix Spike Analysis

Batch Quality Control

Project Name: ENDZONE, INC.
Project Number: 60527976.7

Lab Number: L1905246
Report Date: 02/19/19

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): 02,10-11 QC Batch ID: WG1207181-6 WG1207181-7 QC Sample: L1905246-02 Client ID: MW-201S-GWA7-020619												
p-Ethyltoluene	ND	10	9.8	98		9.5	95		70-130	3		20
1,2,4,5-Tetramethylbenzene	ND	10	9.4	94		9.4	94		70-130	0		20
Ethyl ether	ND	10	9.4	94		8.9	89		59-134	5		20
trans-1,4-Dichloro-2-butene	ND	10	13	130		12	120		70-130	8		20

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		113		70-130
4-Bromofluorobenzene	108		110		70-130
Dibromofluoromethane	103		101		70-130
Toluene-d8	108		106		70-130

SEMIVOLATILES

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-02

Date Collected: 02/06/19 10:35

Client ID: MW-201S-GWA7-020619

Date Received: 02/08/19

Sample Location: OZONE PARK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Extraction Method: EPA 3510C

Analytical Method: 1,8270D-SIM

Extraction Date: 02/12/19 09:15

Analytical Date: 02/15/19 15:51

Analyst: MA

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	23			15-110		

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS****Lab ID:** L1905246-02**Date Collected:** 02/06/19 10:35**Client ID:** MW-201S-GWA7-020619**Date Received:** 02/08/19**Sample Location:** OZONE PARK, NY**Field Prep:** Not Specified**Sample Depth:****Matrix:** Water**Extraction Method:** EPA 537**Analytical Method:** 122,537(M)**Extraction Date:** 02/15/19 08:07**Analytical Date:** 02/18/19 11:46**Analyst:** PB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	5.53		ng/l	1.78	0.332	1
Perfluoropentanoic Acid (PFPeA)	5.05		ng/l	1.78	0.413	1
Perfluorobutanesulfonic Acid (PFBS)	9.38		ng/l	1.78	0.338	1
Perfluorohexanoic Acid (PFHxA)	4.26		ng/l	1.78	0.438	1
Perfluoroheptanoic Acid (PFHpA)	4.55		ng/l	1.78	0.331	1
Perfluorohexanesulfonic Acid (PFHxS)	2.36		ng/l	1.78	0.388	1
Perfluorooctanoic Acid (PFOA)	18.9		ng/l	1.78	0.409	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	0.872	J	ng/l	1.78	0.172	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.78	0.463	1
Perfluorononanoic Acid (PFNA)	1.72	J	ng/l	1.78	0.388	1
Perfluorooctanesulfonic Acid (PFOS)	16.9		ng/l	1.78	0.498	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.78	0.552	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.78	0.259	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	0.466	J	ng/l	1.78	0.223	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.78	0.377	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.78	0.343	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.78	0.495	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.665	J	ng/l	1.78	0.332	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.78	0.527	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.78	0.279	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.78	0.879	1
PFOA/PFOS, Total	35.8		ng/l	1.78	0.409	1
PFAS, Total (5)	44.4	J	ng/l	1.78	0.331	1

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS****Lab ID:** L1905246-02**Date Collected:** 02/06/19 10:35**Client ID:** MW-201S-GWA7-020619**Date Received:** 02/08/19**Sample Location:** OZONE PARK, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Surrogate	% Recovery			Qualifier	Acceptance Criteria	
Perfluoro[13C4]Butanoic Acid (MPFBA)	79				2-156	
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	86				16-173	
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	107				31-159	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	75				21-145	
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	81				30-139	
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	106				47-153	
Perfluoro[13C8]Octanoic Acid (M8PFOA)	83				36-149	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	132				1-244	
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	80				34-146	
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	98				42-146	
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	76				38-144	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	92				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)	76				40-144	
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	4				1-87	
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	58				23-146	
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	68				24-161	
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	80				33-143	

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-04
 Client ID: PZ-01-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 10:45
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 02/15/19 17:34
 Analyst: MA

Extraction Method: EPA 3510C
 Extraction Date: 02/12/19 09:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	142	32.0	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	26			15-110		

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-04
 Client ID: PZ-01-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 10:45
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 122,537(M)
 Analytical Date: 02/18/19 12:03
 Analyst: PB

Extraction Method: EPA 537
 Extraction Date: 02/15/19 08:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	16.3		ng/l	1.77	0.331	1
Perfluoropentanoic Acid (PFPeA)	44.2		ng/l	1.77	0.411	1
Perfluorobutanesulfonic Acid (PFBS)	9.67		ng/l	1.77	0.337	1
Perfluorohexanoic Acid (PFHxA)	29.0		ng/l	1.77	0.436	1
Perfluoroheptanoic Acid (PFHpA)	15.6		ng/l	1.77	0.330	1
Perfluorohexanesulfonic Acid (PFHxS)	6.20		ng/l	1.77	0.386	1
Perfluorooctanoic Acid (PFOA)	64.3		ng/l	1.77	0.408	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.77	0.172	1
Perfluoroheptanesulfonic Acid (PFHpS)	3.13		ng/l	1.77	0.461	1
Perfluorononanoic Acid (PFNA)	3.33		ng/l	1.77	0.386	1
Perfluorooctanesulfonic Acid (PFOS)	56.7		ng/l	1.77	0.496	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.77	0.550	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.77	0.258	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.77	0.222	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.77	0.376	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.77	0.342	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.77	0.493	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.759	J	ng/l	1.77	0.330	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.77	0.525	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.77	0.278	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.77	0.876	1
PFOA/PFOS, Total	121		ng/l	1.77	0.408	1
PFAS, Total (5)	146		ng/l	1.77	0.330	1

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-04
 Client ID: PZ-01-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 10:45
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	62		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	69		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	58		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	59		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	59		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	58		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	92		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	53		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	66		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	40		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	54		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	8		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	41		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	50		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	58		33-143

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-07
 Client ID: PZ-08-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 15:05
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 02/15/19 18:07
 Analyst: MA

Extraction Method: EPA 3510C
 Extraction Date: 02/12/19 09:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	142	32.0	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	32			15-110		

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-07
 Client ID: PZ-08-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 15:05
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 122,537(M)
 Analytical Date: 02/18/19 12:20
 Analyst: PB

Extraction Method: EPA 537
 Extraction Date: 02/15/19 08:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	16.0		ng/l	1.75	0.327	1
Perfluoropentanoic Acid (PFPeA)	28.4		ng/l	1.75	0.407	1
Perfluorobutanesulfonic Acid (PFBS)	8.64		ng/l	1.75	0.333	1
Perfluorohexanoic Acid (PFHxA)	21.0		ng/l	1.75	0.432	1
Perfluoroheptanoic Acid (PFHpA)	12.3		ng/l	1.75	0.326	1
Perfluorohexanesulfonic Acid (PFHxS)	7.40		ng/l	1.75	0.382	1
Perfluorooctanoic Acid (PFOA)	51.6		ng/l	1.75	0.404	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.75	0.170	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.75	0.456	1
Perfluorononanoic Acid (PFNA)	1.53	J	ng/l	1.75	0.382	1
Perfluorooctanesulfonic Acid (PFOS)	18.4		ng/l	1.75	0.491	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.75	0.544	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.75	0.255	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.75	0.220	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.75	0.372	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.75	0.338	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.75	0.488	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.75	0.327	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.75	0.519	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.75	0.275	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.75	0.867	1
PFOA/PFOS, Total	70.0		ng/l	1.75	0.404	1
PFAS, Total (5)	91.2	J	ng/l	1.75	0.326	1

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-07
 Client ID: PZ-08-GWA7-020619
 Sample Location: OZONE PARK, NY

Date Collected: 02/06/19 15:05
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	61		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	69		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	57		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	60		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	59		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	61		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	99		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	55		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)	39		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	58		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	7		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	42		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	56		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	65		33-143

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-08
 Client ID: EB-GWC7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 09:25
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 122,537(M)
 Analytical Date: 02/18/19 12:36
 Analyst: PB

Extraction Method: EPA 537
 Extraction Date: 02/15/19 08:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.80	0.337	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.80	0.419	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.80	0.343	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.80	0.444	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.80	0.336	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.80	0.394	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.80	0.415	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.80	0.175	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.80	0.469	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.80	0.394	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.80	0.505	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.80	0.560	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.80	0.262	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.80	0.226	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.80	0.383	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.80	0.348	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.80	0.502	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.415	J	ng/l	1.80	0.336	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.80	0.534	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.80	0.283	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.80	0.892	1
PFOA/PFOS, Total	ND		ng/l	1.80	0.415	1
PFAS, Total (5)	ND		ng/l	1.80	0.336	1

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-08
 Client ID: EB-GWC7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 09:25
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	102		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	97		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	95		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	94		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	95		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	91		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	65		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	90		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	85		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	82		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	71		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	69		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	85		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	33		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	73		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	77		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		33-143

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-09
 Client ID: PZ-10-GWA7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:00
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 02/15/19 18:38
 Analyst: MA

Extraction Method: EPA 3510C
 Extraction Date: 02/12/19 09:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	142	32.0	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	27			15-110		

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-09
 Client ID: PZ-10-GWA7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:00
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 122,537(M)
 Analytical Date: 02/18/19 12:53
 Analyst: PB

Extraction Method: EPA 537
 Extraction Date: 02/15/19 08:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	7.76		ng/l	1.79	0.334	1
Perfluoropentanoic Acid (PFPeA)	10.7		ng/l	1.79	0.416	1
Perfluorobutanesulfonic Acid (PFBS)	6.80		ng/l	1.79	0.340	1
Perfluorohexanoic Acid (PFHxA)	8.76		ng/l	1.79	0.441	1
Perfluoroheptanoic Acid (PFHpA)	6.89		ng/l	1.79	0.333	1
Perfluorohexanesulfonic Acid (PFHxS)	3.35		ng/l	1.79	0.391	1
Perfluorooctanoic Acid (PFOA)	27.0		ng/l	1.79	0.412	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.29	J	ng/l	1.79	0.174	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.79	0.466	1
Perfluorononanoic Acid (PFNA)	1.65	J	ng/l	1.79	0.391	1
Perfluorooctanesulfonic Acid (PFOS)	21.4		ng/l	1.79	0.502	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.79	0.556	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.79	0.260	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	0.487	J	ng/l	1.79	0.224	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.79	0.380	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.79	0.346	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.79	0.498	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.810	J	ng/l	1.79	0.334	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.79	0.530	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.79	0.281	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.79	0.885	1
PFOA/PFOS, Total	48.4		ng/l	1.79	0.412	1
PFAS, Total (5)	60.3	J	ng/l	1.79	0.333	1

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-09
 Client ID: PZ-10-GWA7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:00
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	69		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	80		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	107		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	66		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	68		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	103		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	68		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	95		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	66		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	100		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	60		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	84		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)	61		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	12		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	46		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	56		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	65		33-143

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-10
 Client ID: PZ-10-GWB7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:05
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

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

Extraction Method: EPA 3510C
 Extraction Date: 02/12/19 09:15

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	28			15-110		

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-10
 Client ID: PZ-10-GWB7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:05
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 122,537(M)
 Analytical Date: 02/18/19 13:16
 Analyst: PB

Extraction Method: EPA 537
 Extraction Date: 02/15/19 08:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	8.68		ng/l	1.78	0.332	1
Perfluoropentanoic Acid (PFPeA)	10.9		ng/l	1.78	0.413	1
Perfluorobutanesulfonic Acid (PFBS)	7.55		ng/l	1.78	0.338	1
Perfluorohexanoic Acid (PFHxA)	9.20		ng/l	1.78	0.438	1
Perfluoroheptanoic Acid (PFHpA)	7.44		ng/l	1.78	0.331	1
Perfluorohexanesulfonic Acid (PFHxS)	3.11		ng/l	1.78	0.388	1
Perfluorooctanoic Acid (PFOA)	30.0		ng/l	1.78	0.409	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	0.914	J	ng/l	1.78	0.172	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.78	0.463	1
Perfluorononanoic Acid (PFNA)	1.96		ng/l	1.78	0.388	1
Perfluorooctanesulfonic Acid (PFOS)	20.1		ng/l	1.78	0.498	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.78	0.552	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.78	0.259	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	0.569	J	ng/l	1.78	0.223	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.78	0.377	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.78	0.343	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.78	0.495	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	1.49	J	ng/l	1.78	0.332	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.78	0.527	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.78	0.279	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.78	0.879	1
PFOA/PFOS, Total	50.1		ng/l	1.78	0.409	1
PFAS, Total (5)	62.6		ng/l	1.78	0.331	1

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**SAMPLE RESULTS**

Lab ID: L1905246-10
 Client ID: PZ-10-GWB7-020719
 Sample Location: OZONE PARK, NY

Date Collected: 02/07/19 12:05
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	60		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	70		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	94		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	59		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	60		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	91		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	59		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	89		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	60		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	92		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	55		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	77		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	38		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	60		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	3		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	40		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	55		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	66		33-143

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM

Extraction Method: EPA 3510C

Analytical Date: 02/15/19 13:55

Extraction Date: 02/12/19 09:15

Analyst: MA

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 02,04,07,09-10 Batch: WG1205853-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Method Blank Analysis Batch Quality Control

Analytical Method: 122,537(M)
 Analytical Date: 02/18/19 13:32
 Analyst: PB

Extraction Method: EPA 537
 Extraction Date: 02/15/19 08:07

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 02,04,07-10 Batch: WG1207023-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.373
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.464
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.380
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.492
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.372
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.436
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.460
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	0.194
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.520
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.436
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.560
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.620
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	0.291
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.250
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.424
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.386
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.556
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.373
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.592
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.314
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.988
PFOA/PFOS, Total	ND		ng/l	2.00	0.460
PFAS, Total (5)	ND		ng/l	2.00	0.372

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Method Blank Analysis Batch Quality Control

Analytical Method: 122,537(M)
 Analytical Date: 02/18/19 13:32
 Analyst: PB

Extraction Method: EPA 537
 Extraction Date: 02/15/19 08:07

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 02,04,07-10 Batch: WG1207023-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	103		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	106		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	101		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	100		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	101		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	101		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	100		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	77		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	101		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	92		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	93		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	81		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	80		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	97		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	40		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	81		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	92		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	89		33-143

Lab Control Sample Analysis

Batch Quality Control

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 02,04,07,09-10 Batch: WG1205853-2 WG1205853-3								
1,4-Dioxane	113		111		40-140	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	29		27		15-110

Lab Control Sample Analysis **Batch Quality Control**

Project Name: ENDZONE, INC.

Project Number: 60527976.7

Lab Number: L1905246

Report Date: 02/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 02,04,07-10 Batch: WG1207023-2 WG1207023-3								
Perfluorobutanoic Acid (PFBA)	117		116		67-148	1		30
Perfluoropentanoic Acid (PFPeA)	109		111		63-161	2		30
Perfluorobutanesulfonic Acid (PFBS)	108		112		65-157	4		30
Perfluorohexanoic Acid (PFHxA)	114		114		69-168	0		30
Perfluoroheptanoic Acid (PFHpA)	101		103		58-159	2		30
Perfluorohexanesulfonic Acid (PFHxS)	110		110		69-177	0		30
Perfluorooctanoic Acid (PFOA)	103		103		63-159	0		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	110		113		49-187	3		30
Perfluoroheptanesulfonic Acid (PFHpS)	106		109		61-179	3		30
Perfluorononanoic Acid (PFNA)	109		112		68-171	3		30
Perfluorooctanesulfonic Acid (PFOS)	93		94		52-151	1		30
Perfluorodecanoic Acid (PFDA)	110		111		63-171	1		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	136		131		56-173	4		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	110		113		60-166	3		30
Perfluoroundecanoic Acid (PFUnA)	105		105		60-153	0		30
Perfluorodecanesulfonic Acid (PFDS)	107		107		38-156	0		30
Perfluorooctanesulfonamide (FOSA)	94		101		46-170	7		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	108		102		45-170	6		30
Perfluorododecanoic Acid (PFDoA)	108		106		67-153	2		30
Perfluorotridecanoic Acid (PFTrDA)	102		100		48-158	2		30
Perfluorotetradecanoic Acid (PFTA)	118		115		59-182	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: ENDZONE, INC.

Lab Number: L1905246

Project Number: 60527976.7

Report Date: 02/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 02,04,07-10 Batch: WG1207023-2 WG1207023-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	102		104		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	105		107		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	102		105		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	98		100		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	98		101		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	97		101		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95		99		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80		87		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		96		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	94		96		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	90		89		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	78		91		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	82		83		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	93		95		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	43		44		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	82		87		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	86		88		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	91		89		33-143

Matrix Spike Analysis

Batch Quality Control

Project Name: ENDZONE, INC.

Project Number: 60527976.7

Lab Number: L1905246

Report Date: 02/19/19

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 ID: MW-201S-GWA7-020619 Associated sample(s): 02,04,07,09-10 QC Batch ID: WG1205853-4 WG1205853-5 QC Sample: L1905246-02 Client												
1,4-Dioxane	ND	4810	5220	109		5400	114		40-140	3		30

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	29		25		15-110

Matrix Spike Analysis

Batch Quality Control

Project Name: ENDZONE, INC.
Project Number: 60527976.7

Lab Number: L1905246
Report Date: 02/19/19

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): 02,04,07-10 QC Batch ID: WG1207023-4 WG1207023-5 QC Sample: L1905246-02 Client ID: MW-201S-GWA7-020619												
Perfluorobutanoic Acid (PFBA)	5.53	34.8	44.2	111		50.4	127		67-148	13		30
Perfluoropentanoic Acid (PFPeA)	5.05	34.8	42.4	107		47.7	120		63-161	12		30
Perfluorobutanesulfonic Acid (PFBS)	9.38	34.8	46.8	107		52.1	120		65-157	11		30
Perfluorohexanoic Acid (PFHxA)	4.26	34.8	42.1	109		48.0	123		69-168	13		30
Perfluoroheptanoic Acid (PFHpA)	4.55	34.8	39.8	101		44.3	112		58-159	11		30
Perfluorohexanesulfonic Acid (PFHxS)	2.36	34.8	40.2	109		45.1	121		69-177	11		30
Perfluorooctanoic Acid (PFOA)	18.9	34.8	55.3	104		61.2	119		63-159	10		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	0.872J	34.8	39.3	113		47.6	134		49-187	19		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	34.8	36.5	105		42.2	119		61-179	14		30
Perfluorononanoic Acid (PFNA)	1.72J	34.8	38.1	109		44.6	126		68-171	16		30
Perfluorooctanesulfonic Acid (PFOS)	16.9	34.8	46.8	86		54.1	105		52-151	14		30
Perfluorodecanoic Acid (PFDA)	ND	34.8	38.1	109		41.6	117		63-171	9		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	34.8	45.2	130		49.6	140		56-173	9		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	0.466J	34.8	35.9	103		43.2	122		60-166	18		30
Perfluoroundecanoic Acid (PFUnA)	ND	34.8	31.6	91		38.1	107		60-153	19		30
Perfluorodecanesulfonic Acid (PFDS)	ND	34.8	31.4	90		40.0	113		38-156	24		30
Perfluorooctanesulfonamide (FOSA)	ND	34.8	27.5	79		37.3	105		46-170	30		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.665J	34.8	33.3	96		40.1	113		45-170	19		30
Perfluorododecanoic Acid (PFDoA)	ND	34.8	32.8	94		40.6	114		67-153	21		30
Perfluorotridecanoic Acid (PFTrDA)	ND	34.8	32.6	94		39.1	110		48-158	18		30
Perfluorotetradecanoic Acid (PFTA)	ND	34.8	37.4	107		46.7	132		59-182	22		30

Matrix Spike Analysis

Batch Quality Control

Project Name: ENDZONE, INC.
Project Number: 60527976.7

Lab Number: L1905246
Report Date: 02/19/19

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): 02,04,07-10 QC Batch ID: WG1207023-4 WG1207023-5 QC Sample: L1905246-02 Client ID: MW-201S-GWA7-020619												

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	113		100		7-170
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	164		135		1-244
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	55		41		23-146
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	55		39		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	72		57		40-144
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	68		57		38-144
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	66		55		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	71		60		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	106		99		47-153
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	66		52		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	74		58		33-143
Perfluoro[13C4]Butanoic Acid (MPFBA)	70		60		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	77		67		16-173
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	3		2		1-87
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105		96		42-146
Perfluoro[13C8]Octanoic Acid (M8PFOA)	73		61		36-149
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	74		59		34-146
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	105		96		31-159

Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19**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(*)
L1905246-01A	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-01B	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-01C	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-02A	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-02A1	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-02A2	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-02B	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-02B1	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-02B2	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-02C	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-02C1	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-02C2	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-02D	Plastic 250ml unpreserved	B	NA		5.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-02D1	Plastic 250ml unpreserved	B	NA		5.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-02D2	Plastic 250ml unpreserved	B	NA		5.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-02E	Plastic 250ml unpreserved	B	NA		5.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-02E1	Plastic 250ml unpreserved	B	NA		5.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-02E2	Plastic 250ml unpreserved	B	NA		5.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-02F	Amber 500ml unpreserved	B	7	7	5.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-02F1	Amber 500ml unpreserved	B	7	7	5.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-02F2	Amber 500ml unpreserved	B	7	7	5.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-02G	Amber 500ml unpreserved	B	7	7	5.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)

Project Name: ENDZONE, INC.
Project Number: 60527976.7

Serial_No:02191918:27
Lab Number: L1905246
Report Date: 02/19/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1905246-02G1	Amber 500ml unpreserved	B	7	7	5.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-02G2	Amber 500ml unpreserved	B	7	7	5.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-03A	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-03B	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-03C	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-04A	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-04B	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-04C	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-04D	Plastic 250ml unpreserved	B	NA		5.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-04E	Plastic 250ml unpreserved	B	NA		5.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-04F	Amber 500ml unpreserved	B	7	7	5.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-04G	Amber 500ml unpreserved	B	7	7	5.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-05A	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-05B	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-05C	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-06A	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-06B	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-06C	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-07A	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-07B	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-07C	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-07D	Plastic 250ml unpreserved	B	NA		5.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-07E	Plastic 250ml unpreserved	B	NA		5.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-07F	Amber 500ml unpreserved	B	7	7	5.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-07G	Amber 500ml unpreserved	B	7	7	5.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-08D	Plastic 250ml unpreserved	B	NA		5.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-08E	Plastic 250ml unpreserved	B	NA		5.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-09A	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)

Project Name: ENDZONE, INC.
Project Number: 60527976.7

Serial_No:02191918:27
Lab Number: L1905246
Report Date: 02/19/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1905246-09B	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-09C	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-09D	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-09E	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-09F	Amber 500ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-09G	Amber 500ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-10A	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-10B	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-10C	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-10D	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-10E	Plastic 250ml unpreserved	A	NA		3.3	Y	Absent		A2-NY-537-ISOTOPE(14)
L1905246-10F	Amber 500ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-10G	Amber 500ml unpreserved	A	7	7	3.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1905246-11A	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-11B	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)
L1905246-11C	Vial HCl preserved	B	NA		5.9	Y	Absent		NYTCL-8260(14)

Project Name: ENDZONE, INC.
Project Number: 60527976.7

Lab Number: L1905246
Report Date: 02/19/19

GLOSSARY

Acronyms

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.
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.
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

- 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.

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'

Report Format: DU Report with 'J' Qualifiers



Project Name: ENDZONE, INC.**Lab Number:** L1905246**Project Number:** 60527976.7**Report Date:** 02/19/19

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.

Project Name: ENDZONE, INC.
Project Number: 60527976.7

Lab Number: L1905246
Report Date: 02/19/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 122 Determination of Selected Perfluorinated 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 its 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, SM4500CI-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.

CHAIN OF CUSTODY					PAGE 1 OF 2		Date Rec'd in Lab: 2/8/19		ALPHA Job #: L1905246									
Project Information					Report Information - Data Deliverables				Billing Information									
Client Information Client: AECOM Address: 250 Apollo Dr. Chelmsford, MA Phone: 978-905-2100 Email: raimundo.maps@aecom.com Additional Project Information: Please ensure 1,4-Dioxane and PFAS are GC method with NY standards per AECOM request					Project Information Project Name: End Zone, Inc Project Location: Ozone park, NY Project #: 00527476.7 Project Manager: Raimundo Maps ALPHA Quote #: Turn-Around Time ☒ Standard ☐ RUSH (only confirmed if pre-approved) Date Due:					Regulatory Requirements & Project Information Requirements ☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods ☒ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics) ☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets) ☐ Yes ☒ No NPDES RGP NY Groundw. NY GW Quality ☐ Other State /Fed Program Criteria standards								
ANALYSIS VOC: ☒ 8260 ☐ 824 ☐ 524.2 SVOC: ☐ ABN ☐ PAH METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15 METALS: ☐ RCRA5 ☐ RCRA8 ☐ PPT3 EPH: ☐ Ranges & Targets ☐ Ranges Only VPH: ☐ Ranges & Targets ☐ Ranges Only ☐ PCB ☐ PEST TPH: ☐ Quant Only ☐ Fingerprint 1,4 Dioxane via 8270 sim PFAS					SAMPLE INFO Filtration ☐ Field ☐ Lab to do Preservation ☐ Lab to do							TOTAL # BOTTLES						
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date Time		Sample Matrix		Sampler Initials		Sample Comments		TOTAL # BOTTLES						
05246-01		TB-GW (7020619)		2/6/19 900								3						
-02		MW-2015-GWA7-020619		1035						MS/MSD		21						
-03		MW-2010-GWA7-020619		1230								3						
-04		PZ-01-GWA7-020619		1045								7						
-05		PZ-01D-GWA7-020619		1230								3						
-06		PZ-04-GWA7-020619		1420								3						
-07		PZ-08-GWA7-020619		1305								7						
-08		EB-GW (7-020719)		2/7/19 925								2						
-09		PZ-10-GWA7-020719		2.7.19 1200								7						
-10		PZ-10-GWB7-020719		2.7.19 1205								7						
Container Type P= Plastic A= Amber glass V= Vial G= Glass B= Bacteria cup C= Cube O= Other E= Encore D= BOD Bottle					Preservative A= None B= HCl C= HNO ₃ D= H ₂ SO ₄ E= NaOH F= MeOH G= NaHSO ₄ H= Na ₂ S ₂ O ₃ I= Ascorbic Acid J= NH ₄ Cl K= Zn Acetate O= Other					Container Type Preservative			Relinquished By: Date/Time		Received By: Date/Time		All samples submitted are subject to Alpha's Terms and Conditions. See reverse side. FORM NO: 01-01 (rev. 12-Mar-2012)	

PAGE 2 OF 2

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Email: raimundo.matos@ac.com.com

Additional Project Information:

See page 1 of 2

Project Information

Project Name: Endzone, Inc.

Project Location: Ozone Park, NY

Project #: 60527976.7

Project Manager: Rai Matos

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due:

Date Rec'd in Lab: 2/8/19

Report Information - Data Deliverables

☒ ADEX ☒ EMAIL

Regulatory Requirements & Project Information Requirements

☒ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☒ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☒ No NPDES RGP
☒ Other State /Fed Program *NY GW Quality Standards*

ALPHA Job #: 61905246

Billing Information

☐ Same as Client Info PO #:

0 #:

ANALYSIS		SAMPLE INFO	
VOC: ☒ 8260 ☐ 624 ☐ 524.2		Filtration	
SVOC: ☐ ABN ☐ PAH		☐ Field	
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15		☐ Lab to do	
EPH: ☐ RCRA5 ☐ RCRA8 ☐ PP13		Preservation	
VPH: ☐ Ranges & Targets ☐ Ranges Only		☐ Lab to do	
☐ PCB ☐ PEST			
TPH: ☐ Quant Only ☐ Fingerprint			
		Sample Comments	

TOTAL # BOTTLES

Sample Comments

[illegible]

Container Type

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

Preservative

A= None
B= HCl
C= HNO₃
D= H₂SO₄
E= NaOH
F= MeOH
G= NaHSO₄
H= Na₂S₂O₃
I= Ascorbic Acid
J= NH₄Cl
K= Zn Acetate
O= Other

Container Type

Preservative

Relinquished By:

/ Date/Time

Received By:

Date/Time

All samples submitted are subject to Alpha's Terms and Conditions.
See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)



ANALYTICAL REPORT

Lab Number:	L1905286
Client:	AECOM 250 Apollo Dr. Chelmsford, MA 01824
ATTN:	Raimundo Matos
Phone:	(978) 905-2100
Project Name:	END ZONE INC
Project Number:	60527976.7
Report Date:	02/15/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: END ZONE INC
Project Number: 60527976.7

Lab Number: L1905286
Report Date: 02/15/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1905286-01	LOC-22-020719	SOIL_VAPOR	OZONE PARK,NY	02/07/19 16:16	02/08/19
L1905286-02	LOC-24-020819	SOIL_VAPOR	OZONE PARK,NY	02/08/19 09:57	02/08/19
L1905286-03	LOC-25-020719	SOIL_VAPOR	OZONE PARK,NY	02/07/19 16:13	02/08/19
L1905286-04	LOC-26-020819	SOIL_VAPOR	OZONE PARK,NY	02/08/19 10:09	02/08/19
L1905286-05	LOC-27-020719	SOIL_VAPOR	OZONE PARK,NY	02/07/19 16:22	02/08/19
L1905286-06	LOC-27B-020719	SOIL_VAPOR	OZONE PARK,NY	02/07/19 16:39	02/08/19
L1905286-07	LOC-28-020819	SOIL_VAPOR	OZONE PARK,NY	02/08/19 10:26	02/08/19

Project Name: END ZONE INC
Project Number: 60527976.7

Lab Number: L1905286
Report Date: 02/15/19

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: END ZONE INC
Project Number: 60527976.7

Lab Number: L1905286
Report Date: 02/15/19

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on February 4, 2019. The canister certification results are provided as an addendum.

Sample Receipt

The flow controllers listed on the COC for the samples designated LOC-22-020719 (L1905286-01) and LOC-24-020819 (L1905286-02) were not returned with the samples so the return flow rates are not available to include in the report.

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:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 02/15/19

AIR

Project Name: END ZONE INC**Project Number:** 60527976.7**Lab Number:** L1905286**Report Date:** 02/15/19**SAMPLE RESULTS**

Lab ID: L1905286-01
 Client ID: LOC-22-020719
 Sample Location: OZONE PARK,NY

Date Collected: 02/07/19 16:16
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/13/19 22:28
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Trichloroethene	3.31	0.200	--	17.8	1.07	--		1
Tetrachloroethene	3.88	0.200	--	26.3	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	103		60-140



Project Name: END ZONE INC**Project Number:** 60527976.7**Lab Number:** L1905286**Report Date:** 02/15/19**SAMPLE RESULTS**

Lab ID: L1905286-02
 Client ID: LOC-24-020819
 Sample Location: OZONE PARK,NY

Date Collected: 02/08/19 09:57
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/13/19 23:08
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Trichloroethene	8.43	0.200	--	45.3	1.07	--		1
Tetrachloroethene	9.51	0.200	--	64.5	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	102		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	102		60-140



Project Name: END ZONE INC**Project Number:** 60527976.7**Lab Number:** L1905286**Report Date:** 02/15/19**SAMPLE RESULTS**

Lab ID: L1905286-03
 Client ID: LOC-25-020719
 Sample Location: OZONE PARK,NY

Date Collected: 02/07/19 16:13
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/14/19 00:28
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
cis-1,2-Dichloroethene	0.342	0.200	--	1.36	0.793	--		1
Trichloroethene	13.0	0.200	--	69.9	1.07	--		1
Tetrachloroethene	1.65	0.200	--	11.2	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	104		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	106		60-140



Project Name: END ZONE INC**Project Number:** 60527976.7**Lab Number:** L1905286**Report Date:** 02/15/19**SAMPLE RESULTS**

Lab ID: L1905286-04
 Client ID: LOC-26-020819
 Sample Location: OZONE PARK,NY

Date Collected: 02/08/19 10:09
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/14/19 01:09
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
cis-1,2-Dichloroethene	0.437	0.200	--	1.73	0.793	--		1
Trichloroethene	22.9	0.200	--	123	1.07	--		1
Tetrachloroethene	13.8	0.200	--	93.6	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	100		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	102		60-140



Project Name: END ZONE INC**Project Number:** 60527976.7**Lab Number:** L1905286**Report Date:** 02/15/19**SAMPLE RESULTS**

Lab ID: L1905286-05
 Client ID: LOC-27-020719
 Sample Location: OZONE PARK,NY

Date Collected: 02/07/19 16:22
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/14/19 01:49
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
trans-1,2-Dichloroethene	0.669	0.200	--	2.65	0.793	--		1
cis-1,2-Dichloroethene	25.6	0.200	--	101	0.793	--		1
Trichloroethene	86.4	0.200	--	464	1.07	--		1
Tetrachloroethene	3.35	0.200	--	22.7	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	103		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	105		60-140



Project Name: END ZONE INC**Project Number:** 60527976.7**Lab Number:** L1905286**Report Date:** 02/15/19**SAMPLE RESULTS**

Lab ID: L1905286-06
 Client ID: LOC-27B-020719
 Sample Location: OZONE PARK,NY

Date Collected: 02/07/19 16:39
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/14/19 02:28
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
cis-1,2-Dichloroethene	3.33	0.200	--	13.2	0.793	--		1
Trichloroethene	112	0.200	--	602	1.07	--	E	1
Tetrachloroethene	1.26	0.200	--	8.54	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	103		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	107		60-140



Project Name: END ZONE INC**Project Number:** 60527976.7**Lab Number:** L1905286**Report Date:** 02/15/19**SAMPLE RESULTS**

Lab ID: L1905286-06 D

Client ID: LOC-27B-020719

Sample Location: OZONE PARK,NY

Date Collected: 02/07/19 16:39

Date Received: 02/08/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil_Vapor

Analytical Method: 48,TO-15

Analytical Date: 02/14/19 09:31

Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	105	0.333	--	564	1.79	--		1.667

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	100		60-140



Project Name: END ZONE INC**Project Number:** 60527976.7**Lab Number:** L1905286**Report Date:** 02/15/19**SAMPLE RESULTS**

Lab ID: L1905286-07
 Client ID: LOC-28-020819
 Sample Location: OZONE PARK,NY

Date Collected: 02/08/19 10:26
 Date Received: 02/08/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 02/14/19 03:08
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Trichloroethene	6.36	0.200	--	34.2	1.07	--		1
Tetrachloroethene	0.668	0.200	--	4.53	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	104		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	107		60-140



Project Name: END ZONE INC

Lab Number: L1905286

Project Number: 60527976.7

Report Date: 02/15/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/13/19 17:54

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG1206436-4								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: END ZONE INC

Project Number: 60527976.7

Lab Number: L1905286

Report Date: 02/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1206436-3								
Vinyl chloride	94		-		70-130	-		
trans-1,2-Dichloroethene	93		-		70-130	-		
cis-1,2-Dichloroethene	96		-		70-130	-		
Trichloroethene	100		-		70-130	-		
Tetrachloroethene	107		-		70-130	-		

Project Name: END ZONE INC

Project Number: 60527976.7

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1905286

Report Date: 02/15/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1206436-5 QC Sample: L1905286-02 Client ID: LOC-24-020819						
Vinyl chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Trichloroethene	8.43	8.59	ppbV	2		25
Tetrachloroethene	9.51	9.39	ppbV	1		25

Project Name: END ZONE INC

Project Number: 60527976.7

Serial_No:02151915:00
Lab Number: L1905286

Report Date: 02/15/19

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1905286-01	LOC-22-020719	760	6.0L Can	02/04/19	284211	L1903776-01	Pass	-30.0	-1.4	-	-	-	-
L1905286-02	LOC-24-020819	1037	6.0L Can	02/04/19	284211	L1903776-02	Pass	-29.9	-0.72	-	-	-	-
L1905286-03	LOC-25-020719	01080	Flow 2	02/04/19	284211		-	-	-	Pass	40.0	41.5	4
L1905286-03	LOC-25-020719	1544	6.0L Can	02/04/19	284211	L1903776-01	Pass	-30.0	-4.4	-	-	-	-
L1905286-04	LOC-26-020819	0806	Flow 2	02/04/19	284211		-	-	-	Pass	40.0	34.3	15
L1905286-04	LOC-26-020819	927	6.0L Can	02/04/19	284211	L1903776-02	Pass	-29.9	-10.9	-	-	-	-
L1905286-05	LOC-27-020719	0289	Flow 2	02/04/19	284211		-	-	-	Pass	40.0	45.6	13
L1905286-05	LOC-27-020719	2112	6.0L Can	02/04/19	284211	L1903776-02	Pass	-30.0	-1.7	-	-	-	-
L1905286-06	LOC-27B-020719	0768	Flow 2	02/04/19	284211		-	-	-	Pass	40.0	44.5	11
L1905286-06	LOC-27B-020719	1692	6.0L Can	02/04/19	284211	L1903776-01	Pass	-29.7	-1.8	-	-	-	-
L1905286-07	LOC-28-020819	0714	Flow 3	02/04/19	284211		-	-	-	Pass	40.0	40.4	1
L1905286-07	LOC-28-020819	629	6.0L Can	02/04/19	284211	L1903776-02	Pass	-29.5	-4.7	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/15/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 01/30/19 20:36
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/15/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/15/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/15/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1903776**Project Number:** CANISTER QC BAT**Report Date:** 02/15/19**Air Canister Certification Results**

Lab ID: L1903776-01

Date Collected: 01/29/19 16:00

Client ID: CAN 808 SHELF 52

Date Received: 01/30/19

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	96		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/15/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/30/19 20:36
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/15/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/15/19

Air Canister Certification Results

Lab ID: L1903776-01
Client ID: CAN 808 SHELF 52
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	108		60-140
chlorobenzene-d5	102		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/15/19

Air Canister Certification Results

Lab ID: L1903776-02
Client ID: CAN 1612 SHELF 53
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 01/30/19 21:14
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/15/19

Air Canister Certification Results

Lab ID: L1903776-02
Client ID: CAN 1612 SHELF 53
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1903776**Project Number:** CANISTER QC BAT**Report Date:** 02/15/19**Air Canister Certification Results**

Lab ID: L1903776-02

Date Collected: 01/29/19 16:00

Client ID: CAN 1612 SHELF 53

Date Received: 01/30/19

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1903776**Project Number:** CANISTER QC BAT**Report Date:** 02/15/19**Air Canister Certification Results**

Lab ID: L1903776-02

Date Collected: 01/29/19 16:00

Client ID: CAN 1612 SHELF 53

Date Received: 01/30/19

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1903776**Project Number:** CANISTER QC BAT**Report Date:** 02/15/19**Air Canister Certification Results**

Lab ID: L1903776-02

Date Collected: 01/29/19 16:00

Client ID: CAN 1612 SHELF 53

Date Received: 01/30/19

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	97		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/15/19

Air Canister Certification Results

Lab ID: L1903776-02
Client ID: CAN 1612 SHELF 53
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/30/19 21:14
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1903776
Report Date: 02/15/19

Air Canister Certification Results

Lab ID: L1903776-02
Client ID: CAN 1612 SHELF 53
Sample Location:

Date Collected: 01/29/19 16:00
Date Received: 01/30/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1903776**Project Number:** CANISTER QC BAT**Report Date:** 02/15/19**Air Canister Certification Results**

Lab ID: L1903776-02

Date Collected: 01/29/19 16:00

Client ID: CAN 1612 SHELF 53

Date Received: 01/30/19

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	109		60-140
chlorobenzene-d5	104		60-140



Project Name: END ZONE INC
Project Number: 60527976.7

Serial_No:02151915:00
Lab Number: L1905286
Report Date: 02/15/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1905286-01A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1905286-02A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1905286-03A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1905286-04A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1905286-05A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1905286-06A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1905286-07A	Canister - 6 Liter	N/A	NA			Y	Absent		TO15-LL(30)

Project Name: END ZONE INC
Project Number: 60527976.7

Lab Number: L1905286
Report Date: 02/15/19

GLOSSARY

Acronyms

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.
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.
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

- 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.

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'

Report Format: Data Usability Report



Project Name: END ZONE INC**Lab Number:** L1905286**Project Number:** 60527976.7**Report Date:** 02/15/19

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. 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 reporting limit (RL) for the sample.
- 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.

Project Name: END ZONE INC
Project Number: 60527976.7

Lab Number: L1905286
Report Date: 02/15/19

REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

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.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 12

Department: **Quality Assurance**

Published Date: 10/9/2018 4:58:19 PM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

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, SM4500CI-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.



CHAIN OF CUSTODY

AIR ANALYSIS

PAGE 1 OF 1

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

Client Information

Client: **AECOM**
Address: **250 Apollo Dr.
Culmston, MA**
Phone: **478-905-2100**
Fax: **478-905-2101**
Email: **rhimundo.mab3@aecom.com**

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☒

**PCE, TCE, cis-1,2-dichloroethene,
trans-1,2-dichloroethene, Vinyl Chloride**

Project Information

Project Name: **End Zone, Inc**
Project Location: **0200 Park, NY**
Project #: **60527476.7**
Project Manager: **Rhimundo mab3**
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due:

Time:

Date Rec'd in Lab: **2/8/19**

Report Information - Data Deliverables

☐ FAX
☒ ADEX

Criteria Checker:

(Default based on Regulatory Criteria Indicated)

Other Formats:

☒ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

ALPHA Job #: **L1905286**

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed: **NY** Program: **State Standards** Res / Comm:

ANALYSIS

☐ TO-15
☐ TO-15 SIM
☐ APH
☐ Substituted Non-halogenated HCs
☐ Fixed Gases
☐ Sulfides & Mercaptans by TO-15

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION						Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH	Fixed Gas	Sulfides & Mercaptans	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum												
05286.01	L0C-22-020719	2/7/19	1454	1616	-30.18	-2.72	SV	AG/AT	6L	760	01091	✓						
.02	L0C-24-020819	2/8/19	816	957	-30.18	-1.9					1037	0784	✓					
.03	L0C-25-020719	2/7/19	1411	1613	-30.30	-5.60					1544	01080	✓					
.04	L0C-26-020819	2/8/19	806	1009	-30.50	-12.18					427	0806	✓					
.05	L0C-27-020719	2/7/19	1425	1622	-30.41	-2.99					2112	0284	✓					
.06	L0C-27B-020719	2/7/19	1440	1634	-30.00	-2.98	↓	↓			1642	0768	✓					
.07	L0C-28-020819	2/8/19	826	1026	-29.86	-5.86	SV	AG/JH	↓		619	0714	✓					

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)

SV = Soil Vapor/Landfill Gas/SVE

Other = Please Specify

Container Type

CS

Relinquished By:

Date/Time

Received By:

Date/Time:

[Signature]
2/8/19 1450

Chen C. Jean
2/8/19 2:31

2/8/19 1450
2/8/19 2:31

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.