January 22, 2019

Ms. Alicia A Barraza
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 2
Division of Spill Prevention and Response Programs
47-40 21st Street, Long Island City, New York 11101

Re: Quarterly Groundwater Sampling Report
34-11 Beach Channel Drive Site
34-11 Beach Channel Drive, Queens, New York
NYSDEC BCP Number: C241141

Dear Ms. Barraza:

Please find the enclosed Quarterly Groundwater Sampling Report for the above referenced project for the fourth quarter of 2018. In accordance with the Site Management Plan (SMP), a round of groundwater sampling was performed on December 10, 2018 for 15MW1, 15MW2 and 15MW3.

If you have any questions or comments regarding the attached report, please do not hesitate to contact me.

Very truly yours,

Thomas Gallo
Environmental Geologist

Kevin Waters
Project Manager

Cc: J. O'Connell, NYSDEC
A. Arker, Bedford Park Associates LLC
S. Arker, Bedford Park Associates LLC
C. Sosik, EBC
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34-11 BEACH CHANNEL DRIVE SITE
NYSDEC BCP Number C241141
Project Status Report
4th Quarter 2018

Reporting Summary

Report Date: December 28, 2018

Reporting Period: 4th Quarter of 2018

Site Status: Building is under construction, currently working on interior

Work Performed this Quarter: December 10, 2018 – Groundwater sampling events performed on the three on-site monitoring wells.

Remediation Status: No chemical oxidant events were performed during this period. A chemical oxidant injection was last performed on December 18, 2015, January 2, 2016 and July 5,2016.

Monitoring Program Summary

No. of Wells: 3 on-site monitoring wells (15MW1, 15MW2, 15MW3).

Gauging Frequency: Quarterly for the three monitoring wells.

Sampling Frequency: Quarterly, 3 on-site monitoring wells (15MW1, 15MW2, 15MW3).

Reporting Frequency: Groundwater Sampling Report (Quarterly).

Groundwater Depth: 5.5 ft (sidewalk grade)

GW Flow Direction: Historically groundwater flow direction was to the west, but during the second quarter groundwater sampling event the groundwater flow direction was inconclusive.

Monitoring Results: No product was detected within any of the monitoring wells.

Sampling Results: VOCs were detected above NYSDEC GQS in all of the monitoring wells sampled during this event.

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OXIDANT INJECTIONS:

No chemical oxidant injections were performed during this period. Chemical Oxidant Injections were last performed on July 5, 2016.

LIQUID LEVEL MONITORING:

Depths to water readings were taken from the 3 monitoring wells with an electronic interface meter prior to purging the wells for sampling. As previously noted, no Liquid Phase Hydrocarbons (LPH) was detected in any of the monitoring wells or injections points during this quarter.

Groundwater elevation, as determined from the depth to water readings and casing elevation, was used to approximate groundwater contours and the groundwater flow direction for the site (**Figure 2)**. Groundwater elevation details are provided in **Table 1.** Historically groundwater flow direction was to the west, but during the fourth quarter groundwater sampling event the groundwater flow direction was inconclusive (**Figure 3**).

GROUNDWATER SAMPLING:

The 4Q18 groundwater sampling event was performed on December 10, 2018. The groundwater samples were collected from 15MW1, 15MW2 and I5MW3 in accordance with the low-flow groundwater sampling procedures outlined within the SMP. See (**Figure 1)** for the location of all site monitoring wells and chemical oxidant injection wells. A copy of each of the Well Purging-Field Water Quality Measurements Form is attached as (**Appendix A)**. The groundwater samples were picked up by laboratory dispatched courier and delivered to Phoenix Environmental Laboratories (Phoenix) of 587 East Middle Turnpike, Manchester, CT 06040, a New York State ELAP certified environmental laboratory (ELAP Certification No. 11301). The groundwater samples were submitted for laboratory analysis of volatile organic compounds (VOCs) via EPA Method 8260.

Copies of the laboratory reports are attached as (**Appendix B)**. The laboratory results are summarized and compared to their appropriate standards/criteria in (**Table 2)** and to previous sampling events in **(Table 3A-3C)**.

GROUNDWATER SAMPLING RESULTS:

15MW1 – The VOC benzene (1.4 µg/L) was reported above NYSDEC Groundwater Quality Standards. Total VOC concentrations within 15MW1 decreased from 22.58 µg/L to 9.13 µg/L and CVOC concentrations have decreased from 21.74 µg/L to 2.70 µg/L when compared to the 3Q18 sampling event.

15MW2 – The VOC vinyl chloride (6 µg/L) was reported above NYSDEC Groundwater Quality Standards. Total VOC concentrations within 15MW2 have increased from 8.74 µg/L to 22.66 µg/L and CVOC concentrations have increased from 2.47 µg/L to 8.81 µg/L when compared to the 3Q18 sampling event.

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15MW3 - The VOC vinyl chloride (2 µg/L) was reported above NYSDEC Groundwater Quality Standards. Total VOC concentrations within 15MW3 increased from 6.77 µg/L to 9.88 µg/L and CVOC concentrations have increased from 3.84 µg/L to 5.90 µg/L when compared to the 3Q18 sampling event.

GROUNDWATER VOC CONCENTRATION TRENDS:

As depicted in the concentration graphs **(Graphs 1-3)**, remedial efforts from 2015 through 2016 resulted in a significant reduction in CVOC concentrations in the current focus area as defined by wells 15MW1, 15MW2 and 15MW3. The total VOC and CVOC concentration within 15MW1 decreased during this sampling event, with only benzene reported above NYSDEC GQS. The total VOC and CVOC concentrations within 15MW2 and 15MW3 increased during this sampling event. Although the CVOC and total VOC concentrations increased when compared to the 3Q18 sampling event the overall VOC concentrations are significantly lower than the pre-treatment concentrations.

FUTURE PLANS / RECOMMENDATIONS:

Remedial efforts at the Site have been successful in significantly reducing the overall chlorinated VOCs in groundwater. Water quality is expected to continue to improve over time. The rebound of chlorinated VOCs that had been observed in 15MW3 during the 4Q16 and 1Q17 sampling has continued on a downward trend since the 1Q17 sampling event with vinyl chloride being reported at or above the NYSDEC GQS during the 4Q18 sampling event.

Vinyl chloride was the only CVOC reported at or above NYSDEC GQS in 15MW2 and 15MW3. Benzene was reported just above the NYSDEC GQS in 15MW1. Although VOCs were detected above NYSDEC GQS in all of the wells during this sampling event, the levels reported were either detected slightly above or at their respective GQS. EBC therefore requests the termination of groundwater monitoring based on the low levels of VOC concentrations observed during the 3Q18 and the 4Q18 sampling events.

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TABLES

34-11 Beach Channel Drive Site
34-11 Beach Chanel Drive, Far Rockaway, NY

Table 1
Well Survey Data

Well No.	Well Diameter (in)	Total Well Depth (ft)	Screened Interval (ft)	Survey Reading	Casing Elevation	DTW 12/10/2018	DTP	PT	GW ELV 12/10/2018
15MW1	1	30	15 to 30	**6.26**	**93.74**	**5.82**	**-**	**-**	**87.92**
15MW2	1	30	15 to 30	**5.40**	**94.6**	**4.75**	**-**	**-**	**89.85**
15MW3	1	30	15 to 30	**5.90**	**94.10**	**6.70**	**-**	**-**	**87.40**

TABLE 3A
34-11 Beach Channel Drive Site
34-11 Beach Channel Drive, Far Rockaway, New York
Groundwater Analytical Results
Volatile Organic Compounds
15MW1

COMPOUND	NYSDEC Ambient Water Quality Standards	15MW1		15MW2		15MW3	
		12/10/2018		12/10/2018		12/10/2018	
	µg/L	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachloroethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,1-Trichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,1,2,2-Tetrachloroethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,2-Trichloroethane	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
1,1-Dichloroethene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloropropene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichloropropane	0.04	< 0.25	0.25	< 0.25	0.25	< 0.25	0.25
1,2,4-Trichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,4-Trimethylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dibromo-3-Chloropropane	0.04	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
1,2-Dibromoethane		< 0.25	0.25	< 0.25	0.25	< 0.25	0.25
1,2-Dichlorobenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2-Dichloroethane	0.6	< 0.60	0.60	< 0.60	0.60	< 0.60	0.60
1,2-Dichloropropane	1	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3,5-Trimethylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichlorobenzene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichloropropane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-Dichlorobenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-dioxane		< 100	100	< 100	100	< 100	100
2-Chlorotoluene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Hexanone		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Isopropyltoluene	5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
2,2-Dichloropropane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Chlorotoluene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Methyl-2-Pentanone		< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Acetone		**4.6**	5.0	**8.9**	5.0	**3.4**	5.0
Acrolein	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Acrylonitrile	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Benzene	1	**1.4**	0.70	**0.35**	0.70	**0.58**	0.70
Bromobenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromochloromethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromodichloromethane		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromoform		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Bromomethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbon Disulfide	60	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Carbon Tetrachloride	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chlorobenzene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroform	7	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloromethane	60	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
cis-1,2-Dichloroethene	5	**1.1**	1.0	**2.5**	1.0	**3.3**	1.0
cis-1,3-Dichloropropene		< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Dibromochloromethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dibromomethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dichlorodifluoromethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Ethyl Benzene	5	< 1.0	1.0	**0.36**	1.0	< 1.0	1.0
Hexachlorobutadiene	0.5	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Isopropylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
m/p-Xylenes	5	< 1.0	1.0	**1.4**	1.0	< 1.0	1.0
Methyl ethyl ketone		< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Methyl tert-butyl Ether	10	**0.43**	1.0	< 1.0	1.0	< 1.0	1.0
Methylene Chloride	5	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0
Naphthalene	10	< 1.0	1.0	**1.9**	1.0	< 1.0	1.0
n-Butylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
n-Propylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
o-Xylene	5	< 1.0	1.0	**0.94**	1.0	< 1.0	1.0
p-Isopropyltoluene		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
sec-Butylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Styrene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tert-butyl alcohol		< 50	50	< 50	50	< 50	50
tert-Butylbenzene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrachloroethene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrahydrofuran (THF)		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Toluene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
trans-1,2-Dichloroethene	5	**1.6**	5.0	**0.31**	5.0	**0.6**	5.0
trans-1,3-Dichloropropene	0.4	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
trans-1,4-dichloro-2-butene	5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Trichloroethene	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorofluoromethane	5	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorotrifluoroethane		< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Vinyl Chloride	2	< 1.0	1.0	**6**	1.0	**2**	1.0
Total Chlorinated VOC		**2.70**		**8.81**		**5.90**	
Total Petroleum VOC		**6.43**		**13.85**		**3.98**	
Total VOCs		**9.13**		**22.66**		**9.88**	

Notes:
RL- Reporting Limit
Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

TABLE 3A
34-11 Beach Channel Drive Site
34-11 Beach Channel Drive, Far Rockaway, New York
Groundwater Analytical Results
Volatile Organic Compounds
15MW1

Compound	NYSDEC Groundwater Quality Standards µg/L	15MW1																							
		12/18/2015 µg/L		8/5/2016 µg/L		9/20/2016 µg/L		12/20/2016 µg/L		3/27/2017 µg/L		6/8/2017 µg/L		9/18/2017 µg/L		12/13/2017 µg/L		3/23/2018 µg/L		6/15/2018 µg/L		9/19/2018 µg/L		12/10/2018 µg/L	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachlorothane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,1-Trichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0
1,1,2,2-Tetrachloroethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,2-Trichloroethane	1	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.3	1.3	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0
1,1-Dichloroethene	5	**8.2**	5.0	**1.1**	1.0	**0.78**	1.0	< 1.0	1.0	**1.4**	5.0	**0.58**	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloropropene		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichlorobenzene		< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichloropropane	0.04	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 1.3	1.3	< 0.25	0.25	< 0.25	0.25	< 0.25	0.25	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25
1,2,4-Trichlorobenzene		< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	0.29	1.0	0.29	1.0	< 1.0	1.0	< 1.0	1.0
1,2,4-Trimethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 0.50	0.50	< 0.50	0.50	< 1.0	1.0	< 1.0	1.0
1,2-Dibromo-3-chloropropane	0.04	< 10	10	< 1.0	1.0	< 1.0	1.0	< 0.50	0.50	< 2.5	2.5	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.25	0.25	< 0.25	0.25	< 0.50	0.50	< 0.50	0.50
1,2-Dibromoethane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 1.3	1.3	< 0.25	0.25	< 0.25	0.25	< 0.25	0.25	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25
1,2-Dichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 4.7	4.7	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 0.60	0.60	< 0.60	0.60	< 1.0	1.0	< 1.0	1.0
1,2-Dichloroethane	0.6	< 5.0	5.0	< 0.60	0.60	< 0.60	0.60	< 0.60	0.60	< 2.5	2.5	< 0.60	0.60	< 0.60	0.60	< 0.60	0.60	< 1.0	1.0	< 1.0	1.0	< 0.60	0.60	< 0.60	0.60
1,2-Dichloropropane	0.94	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.3	1.3	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3,5-Trimethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	**4**	1.0	< 3.0	3.0	< 1.0	1.0	< 1.0	1.0	**0.35**	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichloropropane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-Dichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-dioxane		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 100	100	< 100	100	< 100	100
2,2-Dichloropropane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Chlorotoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 1.0	1.0
2-Hexanone (Methyl Butyl Ketone)		< 50	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 13	13	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 2.5	2.5
2-Isopropyltoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Chlorotoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Methyl-2-Pentanone		< 50	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 13	13	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Acetone		< 50	50	**3.5**	5.0	**4.3**	5.0	< 5.0	5.0	< 25	25	**5.7**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	**3.2**	5.0	< 10	10	**4.6**	5.0
Acrolein		< 50	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 13	13	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Acrylonitrile	5	< 50	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 13	13	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Benzene	1	< 5.0	5.0	1.1	0.70	**0.84**	0.70	**0.25**	0.70	< 1.3	1.3	**0.56**	0.70	**1.1**	0.70	**1.8**	0.70	**1.70**	0.70	**1.5**	0.70	**0.84**	0.70	**1.4**	0.70
Bromobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromochloromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromodichloromethane		< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromoform		< 50	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 25	25	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Bromomethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbon Disulfide	60	< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Carbon tetrachloride	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chlorobenzene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	**0.29**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroform	7	< 7.0	7.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 7.0	7.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloromethane	60	< 5.0	5.0	< 5.0	5.0	**0.74**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
cis-1,2-Dichloroethene	5	**6,000**	400	**300**	20	**230**	10	**51**	5.0	**690**	13	**300**	20	**76**	10	**17**	1.0	**5.40**	1.0	**1.8**	1.0	**13**	1.0	**1.1**	1.0
cis-1,3-Dichloropropene		< 5.0	5.0	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 1.3	1.3	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Dibromochloromethane		< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dibromomethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dichlorodifluoromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Ethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Hexachlorobutadiene	0.5	< 5.0	5.0	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 1.0	1.0	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Isopropylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
m&p-Xylenes	5	< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Methyl Ethyl Ketone (2-Butanone)		< 50	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 13	13	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Methyl t-butyl ether (MTBE)	10	< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	**0.38**	1.0	**0.5**	1.0	**0.38**	1.0	**0.4**	1.0	< 1.0	1.0	**0.43**	1.0
Methylene chloride	5	< 20	20	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 5.0	5.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0
Naphthalene	10	< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tert-butyl alcohol		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 50	50	< 50	50	< 50	50	< 1.0	1.0
n-Butylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
n-Propylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
o-Xylene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	**0.32**	1.0	**0.43**	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
p-Isopropyltoluene		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
sec-Butylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Styrene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 50	50	< 50	50
tert-Butylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrachloroethene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrahydrofuran (THF)		< 50	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 25	25	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Toluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
trans-1,2-Dichloroethene	5	**220**	100	**22**	5.0	**9.7**	5.0	**4.7**	5.0	**11**	5.0	**6.7**	5.0	**3.3**	5.0	**4.3**	5.0	**2.10**	5.0	**2.4**	5.0	**0.84**	5.0	**1.6**	5.0
trans-1,3-Dichloropropene	0.4	< 5.0	5.0	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 1.3	1.3	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
trans-1,4-dichloro-2-butene	5	< 50	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 13	13	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Trichloroethene	5	**11**	5.0	< 1.0	1.0	**0.3**	1.0	**0.37**	1.0	< 5.0	5.0	**0.26**	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorofluoromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorotrifluoroethane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Vinyl Chloride	2	**4,900**	400	**420**	20	**130**	10	**80**	2.5	**320**	13	**160**	20	**100**	10	**27**	1.0	**17**	1.0	**0.66**	1.0	**7.9**	1.0	< 1.0	1.0
CVOCs		**11,139.20**		**743.10**		**371.52**		**140.07**		**1,022.40**		**467.83**		**179.30**		**48.65**		**24.79**		**5.15**		**21.74**		**2.70**	
PVOCs		**0.0**		**4.6**		**5.1**		**0.3**		**0.0**		**6.3**		**1.8**		**1.8**		**2.1**		**5.1**		**0.84**		**6.43**	
Total VOCs		**11,139.20**		**747.70**		**376.66**		**140.32**		**1,022.40**		**474.09**		**181.10**		**50.45**		**26.87**		**10.25**		**22.58**		**9.13**	

Notes:
RL - Reporting Limit
Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

TABLE 3B
34-11 Beach Channel Drive Site
34-11 Beach Channel Drive, Far Rockaway, New York
Groundwater Analytical Results
Volatile Organic Compounds
15MW2

Compound	NYSDEC Groundwater Quality Standards µg/L	15MW2																							
		12/18/2015 µg/L		8/5/2016 µg/L		9/20/2016 µg/L		12/20/2016 µg/L		3/27/2017 µg/L		6/8/2017 µg/L		9/18/2017 µg/L		12/13/2017 µg/L		3/23/2018 µg/L		6/15/2018 µg/L		9/19/2018 µg/L		12/10/2018 µg/L	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachlorothane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,1-Trichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0
1,1,2,2-Tetrachloroethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,2-Trichloroethane	1	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.3	1.3	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0
1,1-Dichloroethene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloropropene		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichlorobenzene		< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 5.0	5.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichloropropane	0.04	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25	< 5.0	5.0	< 1.3	1.3	< 0.25	0.25	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25
1,2,4-Trichlorobenzene		< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,4-Trimethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 0.50	0.50	< 0.50	0.50	< 1.0	1.0	< 1.0	1.0
1,2-Dibromo-3-chloropropane	0.04	< 10	10	< 1.0	1.0	< 1.0	1.0	< 0.50	0.50	< 0.50	0.50	< 10	10	< 2.5	2.5	< 0.50	0.50	< 0.25	0.25	< 0.25	0.25	< 0.50	0.50	< 0.50	0.50
1,2-Dibromoethane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25	< 5.0	5.0	< 1.3	1.3	< 0.25	0.25	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25
1,2-Dichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 4.7	4.7	< 1.0	1.0	< 0.60	0.60	< 0.60	0.60	< 1.0	1.0	< 1.0	1.0
1,2-Dichloroethane	0.6	< 5.0	5.0	< 0.60	0.60	< 0.60	0.60	< 0.60	0.60	< 0.60	0.60	< 10	10	< 2.5	2.5	< 0.60	0.60	< 1.0	1.0	< 1.0	1.0	< 0.60	0.60	< 0.60	0.60
1,2-Dichloropropane	0.94	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 1.3	1.3	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3,5-Trimethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	**4.40**	1.0	< 1.0	1.0	< 5.0	5.0	< 3.0	3.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichloropropane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-Dichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0
1,4-dioxane		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 100	100	< 100	100	< 100	100
2,2-Dichloropropane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Chlorotoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 1.0	1.0
2-Hexanone (Methyl Butyl Ketone)		< 50	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 50	50	< 13	13	< 2.5	2.5	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 2.5	2.5
2-Isopropyltoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Chlorotoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Methyl-2-Pentanone		< 50	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 50	50	< 13	13	< 2.5	2.5	< 13	13	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Acetone		< 50	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 50	50	**17.00**	25	**16**	5.0	< 5.0	5.0	**15**	5.0	< 10	10	**8.9**	5.0
Acrolein		< 50	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 50	50	< 13	13	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Acrylonitrile	5	< 50	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 50	50	< 13	13	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Benzene	1	< 5.0	5.0	1.10	0.70	**0.80**	0.70	**0.77**	7.0	**0.74**	0.70	< 5.1	5.0	< 1.3	1.3	**0.38**	0.70	< 0.70	0.70	< 0.70	0.70	< 0.70	0.70	**0.35**	0.70
Bromobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromochloromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromodichloromethane		< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromoform		< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 50	50	< 25	25	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Bromomethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbon Disulfide	60	< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Carbon tetrachloride	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chlorobenzene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroform	7	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 7.0	7.0	< 7.0	7.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloromethane	60	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
cis-1,2-Dichloroethene	5	**1400**	5.0	**25**	1.0	**18**	1.0	**10**	5.0	**5.50**	1.0	**12**	20	**440**	20	**25**	1.0	**5.9**	1.0	**3.7**	1.0	**0.87**	1.0	**2.5**	1.0
cis-1,3-Dichloropropene		< 5.0	5.0	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 5.0	5.0	< 1.3	1.3	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Dibromochloromethane		< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dibromomethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dichlorodifluoromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Ethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	**4600**	400	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	**0.35**	1.0	**0.67**	1.0	**0.36**	1.0
Hexachlorobutadiene	0.5	< 5.0	5.0	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 4.0	4.0	< 1.0	1.0	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Isopropylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	**28**	20	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
m&p-Xylenes	5	< 20	20	< 1.0	1.0	< 1.0	1.0	0.26	1.0	< 1.0	1.0	**28,000**	######	< 5.0	5.0	**0.39**	1.0	**0.54**	1.0	**1.1**	1.0	**2.7**	1.0	**1.4**	1.0
Methyl Ethyl Ketone (2-Butanone)		< 50	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 50	50	< 13	13	**3**	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Methyl t-butyl ether (MTBE)	10	< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Methylene chloride	5	< 20	20	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 20	20	< 5.0	5.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0
Naphthalene	10	< 20	20	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 5.0	5.0	< 1.0	1.0	**1.5**	1.0	**1.7**	1.0	**1.2**	1.0	**1.9**	1.0
Tert-butyl alcohol		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 50	50	< 50	50	< 50	50	< 1.0	1.0
n-Butylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
n-Propylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	**1.7**	1.0	**0.94**	1.0
o-Xylene	5	< 5.0	5.0	**0.86**	1.0	**0.71**	1.0	**0.95**	1.0	< 1.0	1.0	**10,000**	400	< 5.0	5.0	**0.34**	1.0	**0.36**	1.0	**0.79**	1.0	< 1.0	1.0	< 1.0	1.0
p-Isopropyltoluene		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
sec-Butylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Styrene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 50	50	< 50	50
tert-Butylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrachloroethene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrahydrofuran (THF)		< 50	50	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 50	50	< 25	25	< 5.0	5.0	**7**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Toluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	**32**	20	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
trans-1,2-Dichloroethene	5	**14**	5.0	**5.50**	5.0	**4.60**	5.0	**5.10**	5.0	**5.10**	5.0	< 5.0	5.0	**6.40**	25	**1.9**	5.0	**0.37**	5.0	**0.26**	5.0	< 5.0	5.0	**0.31**	5.0
trans-1,3-Dichloropropene	0.4	< 5.0	5.0	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 5.0	5.0	< 1.3	1.3	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
trans-1,4-dichloro-2-butene	5	< 50	50	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 50	50	< 13	13	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Trichloroethene	5	**14**	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorofluoromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorotrifluoroethane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Vinyl Chloride	2	**570**	5.0	**240**	20	**160**	10	**43**	2.0	**1.10**	1.0	< 5.0	5.0	**480**	20	**39**	20	**27**	1.0	**14**	1.0	**1.6**	1.0	**6**	1.0
CVOCs		1,998.00		270.50		182.60		62.50		11.70		12.00		926.40		65.90		33.27		17.96		2.47		8.81	
PVOCs		0.0		2.0		1.5		2.0		0.7		42,660.0		17.0		0.7		9.4		18.9		6.3		13.9	
Total VOCs		1,998.00		272.46		184.11		64.48		12.44		42,672.00		943.40		66.63		42.67		36.90		8.74		22.66	

Notes:
RL - Reporting Limit
Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

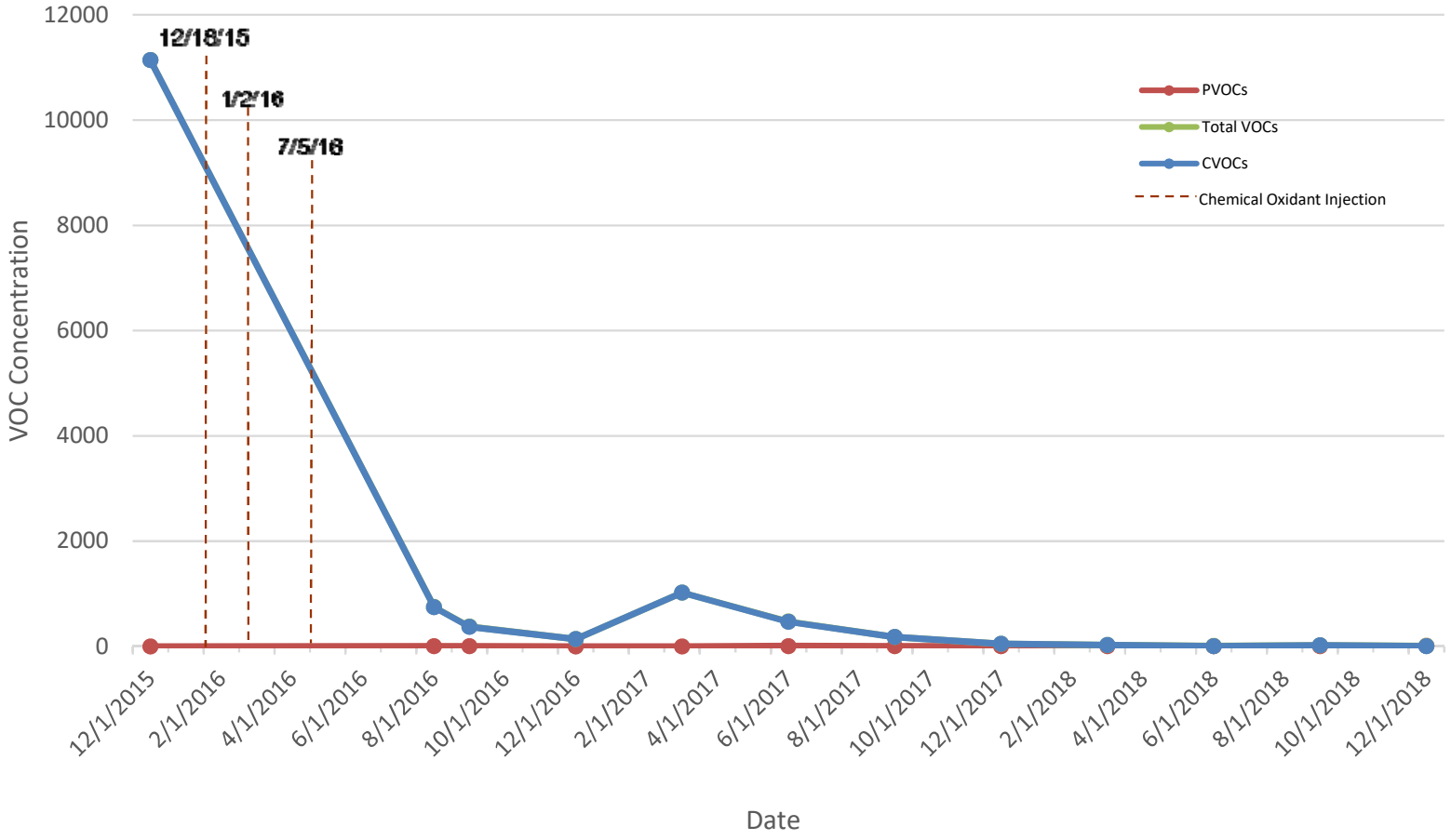
TABLE 3C
34-11 Beach Channel Drive Site
34-11 Beach Channel Drive, Far Rockaway, New York
Groundwater Analytical Results
Volatile Organic Compounds
15MW3

Compound	NYSDEC Groundwater Quality Standards µg/L	15MW3																							
		12/18/2015 µg/L		8/5/2016 µg/L		9/20/2016 µg/L		12/20/2016 µg/L		3/27/2017 µg/L		6/8/2017 µg/L		9/18/2017 µg/L		12/13/2017 µg/L		3/23/2018 µg/L		6/15/2018 µg/L		9/19/2018 µg/L		12/10/2018 µg/L	
		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL
1,1,1,2-Tetrachlorothane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,1-Trichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0
1,1,2,2-Tetrachloroethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1,2-Trichloroethane	1	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloroethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0
1,1-Dichloroethene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	**51**	5.0	**110**	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,1-Dichloropropene		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichlorobenzene		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25	< 1.0	1.0	< 1.0	1.0
1,2,3-Trichloropropane	0.04	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 0.25	0.25	< 0.25	0.25	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25
1,2,4-Trichlorobenzene		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,2,4-Trimethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	**0.32**	1.0	< 1.0	1.0	<0.5	0.50	<0.5	0.50	< 1.0	1.0	< 1.0	1.0
1,2-Dibromo-3-chloropropane	0.04	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 10	10	< 10	10	-	-	< 0.50	0.50	< 0.50	0.50	< 0.25	0.25	< 0.25	0.25	< 0.50	0.50	< 0.50	0.50
1,2-Dibromoethane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 0.25	0.25	< 0.25	0.25	< 1.0	1.0	< 1.0	1.0	< 0.25	0.25	< 0.25	0.25
1,2-Dichlorobenzene	5	< 4.0	4.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 0.60	0.60	< 0.60	0.60	< 1.0	1.0	< 1.0	1.0
1,2-Dichloroethane	0.6	< 3.0	3.0	< 0.60	0.60	< 0.60	0.60	< 10	10	< 10	10	-	-	< 0.60	0.60	< 0.60	0.60	< 1.0	1.0	< 1.0	1.0	< 0.60	0.60	< 0.60	0.60
1,2-Dichloropropane	0.94	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3,5-Trimethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichlorobenzene	5	< 3.0	3.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,3-Dichloropropane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-Dichlorobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
1,4-dioxane		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 100	100	< 100	100	< 100	100
2,2-Dichloropropane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
2-Chlorotoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 1.0	1.0
2-Hexanone (Methyl Butyl Ketone)		< 13	13	< 2.5	2.5	< 2.5	2.5	< 50	50	< 50	50	-	-	< 2.5	2.5	< 2.5	2.5	< 5.0	5.0	< 5.0	5.0	< 1.0	1.0	< 2.5	2.5
2-Isopropyltoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Chlorotoluene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
4-Methyl-2-Pentanone		< 13	13	< 2.5	2.5	< 2.5	2.5	< 50	50	< 50	50	-	-	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Acetone		**15**	25	< 5.0	5.0	**2.7**	5.0	< 50	50	< 50	50	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	**2.8**	5.0	< 10	10	**3.4**	5.0
Acrolein		< 13	13	< 5.0	5.0	< 5.0	5.0	< 50	50	< 50	50	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Acrylonitrile	5	< 13	13	< 5.0	5.0	< 5.0	5.0	< 50	50	< 50	50	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Benzene	1	**7.5**	3.5	0.49	0.70	**0.75**	0.70	< 5.0	5.0	< 5.0	5.0	-	-	**2.2**	0.70	**1.1**	0.70	**0.6**	0.70	**0.73**	0.70	**1.4**	0.70	**0.58**	0.70
Bromobenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromochloromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromodichloromethane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Bromoform		< 25	25	< 5.0	5.0	< 5.0	5.0	< 50	50	< 50	50	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Bromomethane	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 50	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Carbon Disulfide	60	**2.3**	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	**0.29**	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Carbon tetrachloride	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Chlorobenzene	5	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroethane	5	**20**	25	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloroform	7	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 7.0	7.0	< 7.0	7.0	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Chloromethane	60	< 5.0	5.0	0.3	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	-	-	**0.41**	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
cis-1,2-Dichloroethene	5	**430**	20	**72**	10	**24**	1.0	**11,000**	100	**21,000**	250	-	-	**29**	20	**26**	1.0	**9**	1.0	**6**	1.0	**1.4**	1.0	**3.3**	1.0
cis-1,3-Dichloropropene		< 2.0	2.0	< 0.40	0.40	< 0.40	0.40	< 5.0	5.0	< 5.0	5.0	-	-	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
Dibromochloromethane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dibromomethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Dichlorodifluoromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Ethylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	**0.3**	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Hexachlorobutadiene	0.5	< 2.5	2.5	< 0.50	0.50	< 0.50	0.50	< 4.0	4.0	< 4.0	4.0	-	-	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50	< 0.50	0.50
Isopropylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	**0.27**	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
m&p-Xylenes	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	**0.33**	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Methyl Ethyl Ketone (2-Butanone)		< 13	13	< 2.5	2.5	< 2.5	2.5	< 50	50	< 50	50	-	-	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Methyl t-butyl ether (MTBE)	10	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	**0.43**	1.0	< 1.0	1.0
Methylene chloride	5	< 5.0	5.0	< 3.0	3.0	< 3.0	3.0	< 20	20	< 20	20	-	-	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0	< 3.0	3.0
Naphthalene	10	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 20	20	< 20	20	-	-	**1.7**	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	**1.1**	1.0	< 1.0	1.0
n-Butylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
n-Propylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
o-Xylene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	**0.34**	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
p-Isopropyltoluene		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
sec-Butylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Styrene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tert-butyl alcohol		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 50	50	< 50	50	< 50	50	< 50	50
tert-Butylbenzene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrachloroethene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Tetrahydrofuran (THF)		< 25	25	< 5.0	5.0	< 5.0	5.0	< 50	50	< 50	50	-	-	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0	< 5.0	5.0
Toluene	5	**2.5**	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
trans-1,2-Dichloroethene	5	**11**	25	**1**	5.0	**0.96**	5.0	**26**	5.0	**65**	5.0	-	-	**0.89**	5.0	**1**	5.0	**0.64**	5.0	**0.54**	5.0	**2.1**	5.0	**0.6**	5.0
trans-1,3-Dichloropropene	0.4	< 2.0	2.0	< 0.40	0.40	< 0.40	0.40	< 5.0	5.0	< 5.0	5.0	-	-	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40	< 0.40	0.40
trans-1,4-dichloro-2-butene	5	< 13	13	< 2.5	2.5	< 2.5	2.5	< 50	50	< 50	50	-	-	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5	< 2.5	2.5
Trichloroethene	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	**1,200**	100	**2,300**	50	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorofluoromethane	5	< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Trichlorotrifluoroethane		< 5.0	5.0	< 1.0	1.0	< 1.0	1.0	< 5.0	5.0	< 5.0	5.0	-	-	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	1.0
Vinyl Chloride	2	**150**	20	**49**	10	**18**	1.0	**3,900**	100	**5,600**	50	-	-	**24**	20	**43**	1.0	**18**	1.0	**5**	1.0	**0.34**	1.0	**2**	1.0
CVOCs		**611.0**		**122.3**		**43.0**		**16,177.0**		**29,075.0**		**-**		**54.30**		**70.0**		**28.04**		**11.24**		**3.84**		**5.90**	
PVOCs		**27.3**		**0.5**		**3.5**		**0.0**		**0.0**		**-**		**5.75**		**0.0**		**0.60**		**3.53**		**2.93**		**3.98**	
Total VOCs		**638.3**		**122.8**		**46.4**		**16,177.0**		**29,075.0**		**-**		**60.05**		**70.0**		**28.64**		**14.77**		**6.77**		**9.88**	

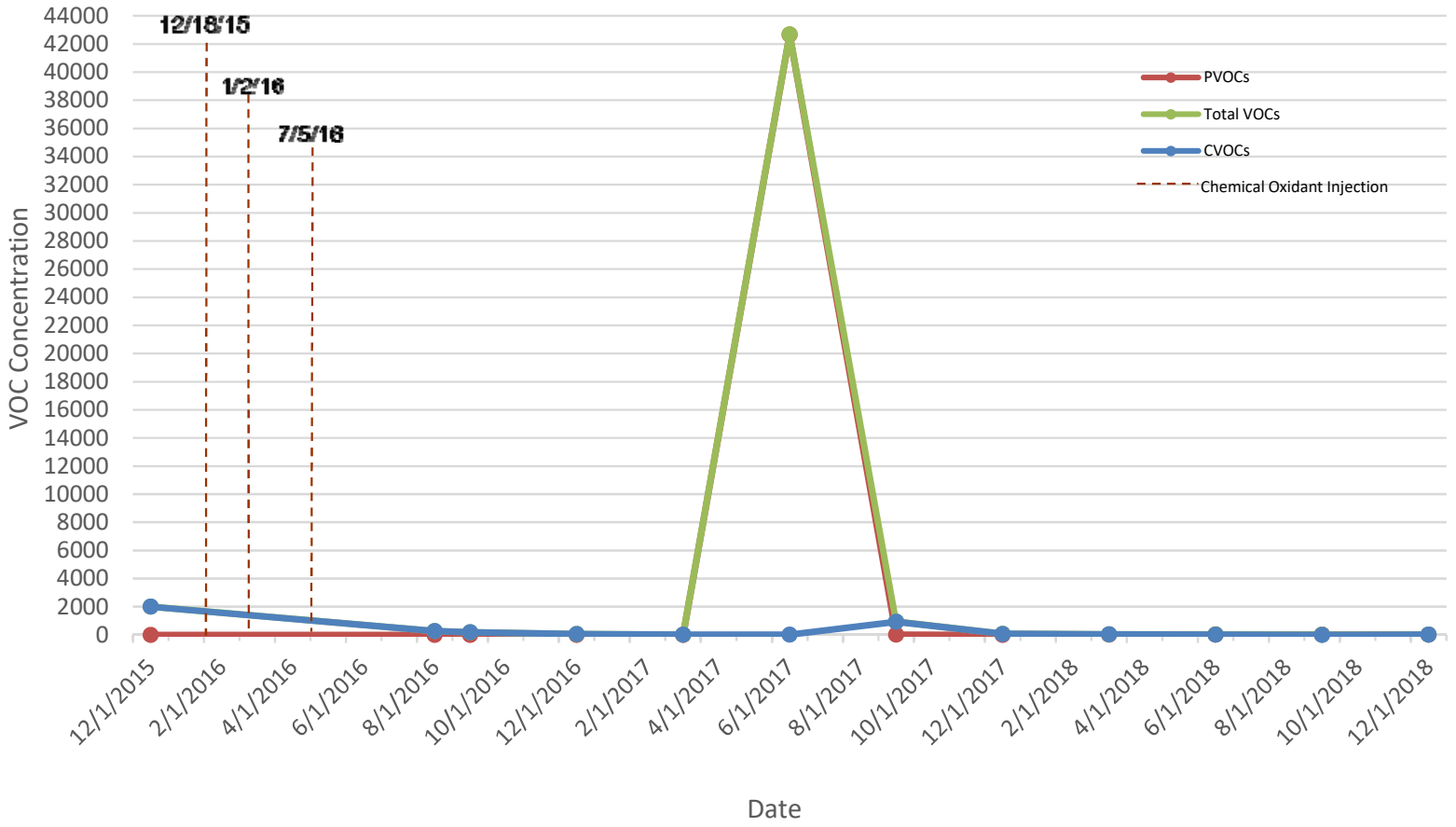
Notes:
RL - Reporting Limit
Bold/highlighted- Indicated exceedance of the NYSDEC Groundwater Standard

GRAPHS

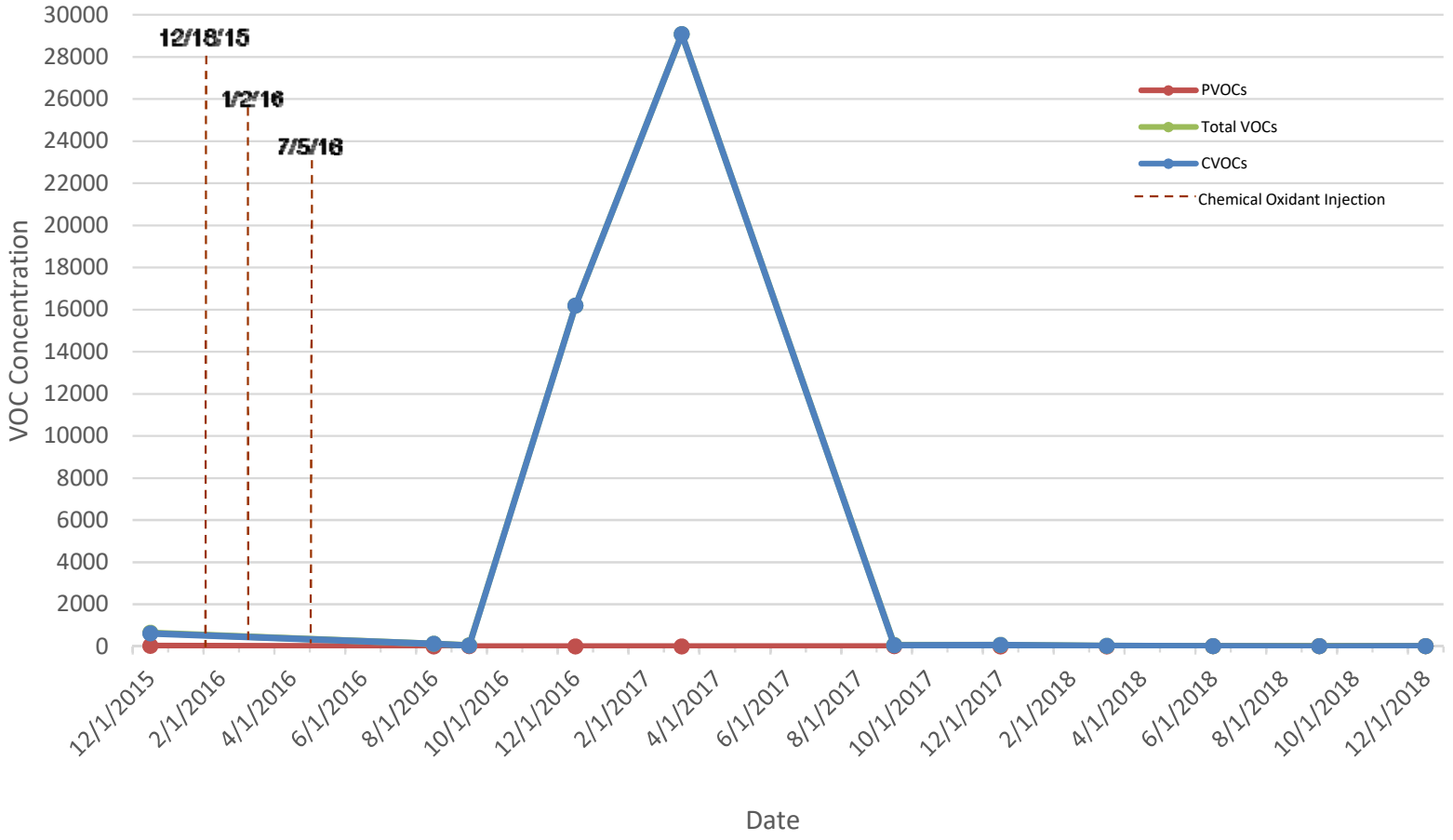
Graph 1
15MW1 VOCs
34-11 Beach Channel Drive, Queens, NY
December 2015 - December 2018



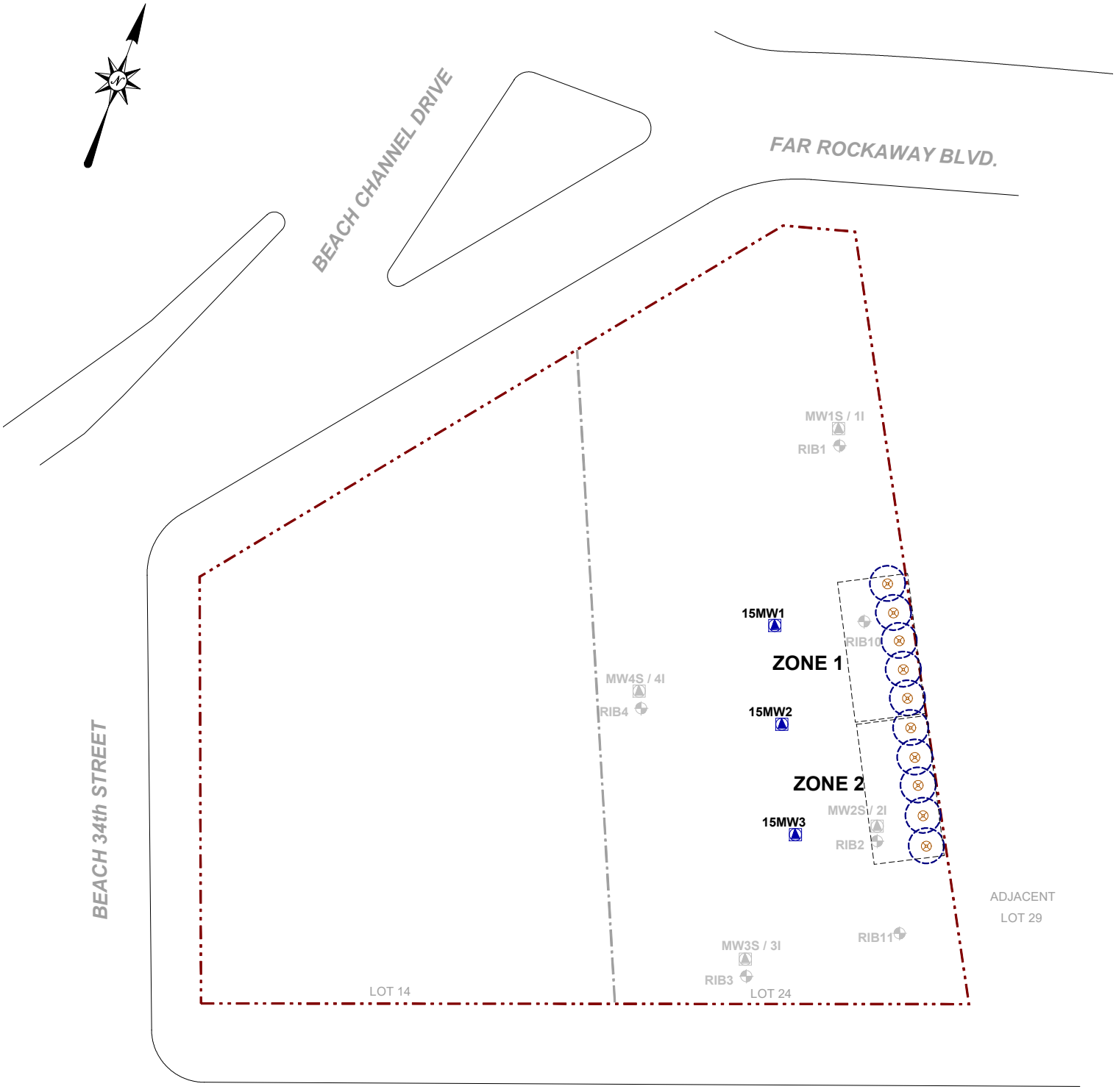
Graph 2
15MW2 VOCs
34-11 Beach Channel Drive, Queens, NY
December 2015 - December 2018



Graph 3
15MW3 VOCs
34-11 Beach Channel Drive, Queens, NY
December 2015 - December 2018



FIGURES



SCALE

0 20 40

1 inch = 40 feet

KEY

- Site Boundary
- MWx — RI Monitoring Well
- RIBx — RI Soil Boring
- 15MWx — ISCO Performance Monitoring Well
- ROI (5 ft) — Oxidant Injection Location

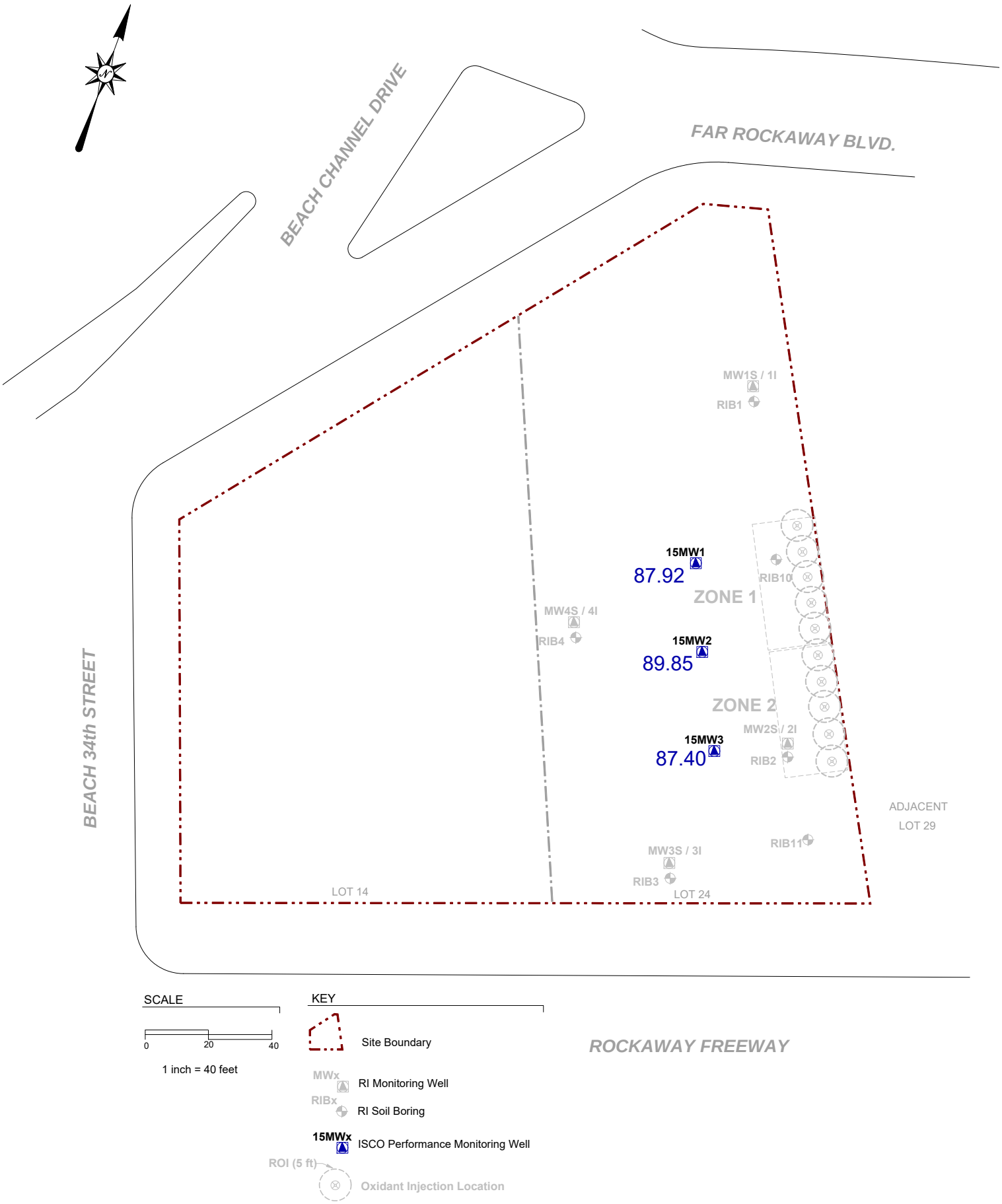
EBC
Environmental Business Consultants
Phone 631.504.6000
Fax 631. 924 .2870

Figure No. 1

Site Name: 34-11 Beach Channel Drive Site

Site Address: 34-11 Beach Channel Drive, Far Rockaway, NY

Drawing Title: Injection and Monitoring Well Locations



EBC
Environmental Business Consultants
Phone 631.504.6000
Fax 631. 924 .2870

Figure No. 2

Site Name: 34-11 Beach Channel Drive Site

Site Address: 34-11 Beach Channel Drive, Far Rockaway, NY

Drawing Title: Groundwater Elevation Map

LEGEND:

- SHALLOW WELLS WITH GROUNDWATER RELATIVE ELEVATION (FEET) — MW-1S (15.86)
- GROUNDWATER FLOW DIRECTION
- 16.0 — WATER TABLE CONTOURS (WESTERN WELLS)
- 16.1 — WATER TABLE CONTOURS (EASTERN WELLS)

FPM GROUP

FIGURE 3
JANUARY 2015
SHALLOW GROUNDWATER
RELATIVE ELEVATION CONTOURS

34-11 BEACH CHANNEL DRIVE SITE
FAR ROCKAWAY, QUEENS, NEW YORK

Drawn By: H.C.	Checked By: S.D.	Date 2/9/2015

H:\ALPROF\RI FIGURES\JANUARY 2015 SHALLOW GW ELEV.dwg, 2/9/2015 2:36:37 PM, Letter

APPENDIX A

WELL PURGING-FIELD WATER QUALITY MEASUREMENTS FORMS

GROUNDWATER PURGE / SAMPLE LOGS

EBC

ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: 15MW1

Date: 12-10-18

Well Depth (from TOC): 29.5 ft

Equipment:

Static Water Level (from TOC): 5.82 ft

Geo Pump, Horiba

Height of Water in Well: 23.68 ft

Gallons of Water per Well Volume: 0

Flow Rate: 400ml/min.

Time	Pump Rate	Gal. Removed	pH	Cond. (mS/cm)	Temp. (deg. C)	DO (mg/L)	Turbidity (NTU)	Comments
12.30pm		0.0	6.96	6.57	13.57	3.24	326	Turbid, light brown.
12.33pm		0.4	6.84	7.17	14.37	2.07	153	Turbid, light brown.
12.38pm		1.1	6.82	7.23	14.58	1.21	136	Turbid, light brown.
12.43pm		2.0	6.51	7.06	14.53	0.80	38.9	Clear
12.48pm		3.0	6.31	6.94	14.58	0.55	67.1	Clear
12.53pm		3.8	6.80	6.85	14.55	0.66	49.3	Clear
12.58pm		4.5	6.80	6.87	14.53	0.67	42.3	Clear / Sample d

GROUNDWATER PURGE / SAMPLE LOGS

EBC

ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: 15MW2

Date: 12-10-18

Well Depth (from TOC): 28.6ft

Equipment:

Static Water Level (from TOC): 4.75 ft

GeoPump, Horiba

Height of Water in Well: 23.85 ~~ft~~ 0

Gallons of Water per Well Volume: 0

Flow Rate: 400ml/min.

Time	Pump Rate	Gal. Removed	pH	Cond. (mS/cm)	Temp. (deg. C)	DO (mg/L)	Turbidity NTU	Comments
01.18pm		0.0	7.39	1.81	14.19	1.37	43.3	Turbid, light brown
01.21pm		0.5	7.45	1.59	15.03	0.17	33.7	Turbid, light brown
01.26pm		1.1	7.51	1.69	14.99	0.33	32.1	Clear
01.31pm		2.4	7.49	1.62	14.98	0.30	17.7	Clear
01.36pm		3.8	7.50	1.65	14.96	0.27	6.0	Clear
01.41pm		4.5	7.50	1.62	14.97	0.28	5.9	Clear
01.46pm		5.6	7.51	1.62	14.95	0.25	6.1	Clear/Sampled

GROUNDWATER PURGE / SAMPLE LOGS

34-11 Beach Channel Drive

EBC

ENVIRONMENTAL BUSINESS CONSULTANTS

Well I.D.: 15MW3

Date: 12-10-18

Well Depth (from TOC): 28.4 ft

Equipment:

Static Water Level (from TOC): 6.7 ft

GeoPump, Horiba

Height of Water in Well: 21.7 ft 0

Gallons of Water per Well Volume: 0

Flow Rate: 400ml/min.

Time	Pump Rate	Gal. Removed	pH	Cond. (mS/cm)	Temp. (deg. C)	DO (mg/L)	Turbidity NTU	Comments
02.10 pm		0.0	6.90	5.98	13.08	1.50	191	Turbid, Brown
02.13 pm		0.5	6.84	5.77	14.09	0.0	172	Turbid, light brown
02.18 pm		1.1	6.83	5.41	14.42	0.0	163	Turbid, light brown
02.23 pm		2.0	6.84	5.21	14.40	0.0	155	Clear
02.28 pm		3.1	6.84	5.23	14.39	0.0	88.1	clear
02.33 pm		3.9	6.84	5.21	14.27	0.0	65.5	clear
02.38 pm		4.8	6.85	5.10	14.26	0.0	42.0	Clear
02.43 pm		5.6	6.84	5.12	14.27	0.0	45.2	Clear / sampled

APPENDIX B

Laboratory Reports

PHOENIX
Environmental Laboratories, Inc.

Monday, December 17, 2018

Attn: Mr. Charles B. Sosik, P.G.
Environmental Business Consultants
1808 Middle Country Rd
Ridge NY 11961-2406

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Sample ID#s: CC12366 - CC12369

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

SDG Comments

December 17, 2018

SDG I.D.: GCC12366

8260 Volatile Organics:
1,2-Dibromoethane, 1,2,3 Trichloropropane, and 1,2-Dibromo-3-chloropropane do not meet NY TOGS GA criteria, these compounds are analyzed by GC/FID method 504 or 8011 to achieve this criteria.

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.

Version 1: Analysis results minus raw data.

Version 2: Complete report with raw data.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 17, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.
Environmental Business Consultants
1808 Middle Country Rd
Ridge NY 11961-2406

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	TC	12/10/18	
Location Code:	EBC	Received by:	CP	12/11/18	16:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC12366
Phoenix ID: CC12366

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Client ID: 15MW1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Volatiles									
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
2-Hexanone	ND	2.5	2.5	ug/L	1	12/13/18	MH	SW8260C	
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	1
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	12/13/18	MH	SW8260C	

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Client ID: 15MW1

Phoenix I.D.: CC12366

Parameter	Result		RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	4.6	JS	5.0	2.5	ug/L	1	12/13/18	MH	SW8260C	
Acrolein	ND		5.0	2.5	ug/L	1	12/13/18	MH	SW8260C	
Acrylonitrile	ND		5.0	2.5	ug/L	1	12/13/18	MH	SW8260C	
Benzene	1.4		0.70	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromobenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromochloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromodichloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromoform	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromomethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Carbon Disulfide	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Carbon tetrachloride	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Chlorobenzene	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Chloroethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Chloroform	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Chloromethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
cis-1,2-Dichloroethene	1.1		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
cis-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	12/13/18	MH	SW8260C	
Dibromochloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Dibromomethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Dichlorodifluoromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Ethylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Hexachlorobutadiene	ND		0.50	0.20	ug/L	1	12/13/18	MH	SW8260C	
Isopropylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
m&p-Xylene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Methyl ethyl ketone	ND		2.5	2.5	ug/L	1	12/13/18	MH	SW8260C	
Methyl t-butyl ether (MTBE)	0.43	J	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Methylene chloride	ND		3.0	1.0	ug/L	1	12/13/18	MH	SW8260C	
Naphthalene	ND		1.0	1.0	ug/L	1	12/13/18	MH	SW8260C	
n-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
n-Propylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
o-Xylene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
p-Isopropyltoluene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
sec-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Styrene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
tert-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Tetrachloroethene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Tetrahydrofuran (THF)	ND		5.0	2.5	ug/L	1	12/13/18	MH	SW8260C	1
Toluene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
trans-1,2-Dichloroethene	1.6	J	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
trans-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	12/13/18	MH	SW8260C	
trans-1,4-dichloro-2-butene	ND		2.5	2.5	ug/L	1	12/13/18	MH	SW8260C	
Trichloroethene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Trichlorofluoromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Trichlorotrifluoroethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Vinyl chloride	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
QA/QC Surrogates										
% 1,2-dichlorobenzene-d4	100				%	1	12/13/18	MH	70 - 130 %	
% Bromofluorobenzene	97				%	1	12/13/18	MH	70 - 130 %	
% Dibromofluoromethane	99				%	1	12/13/18	MH	70 - 130 %	

Ver 1

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Client ID: 15MW1

Phoenix I.D.: CC12366

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	99			%	1	12/13/18	MH	70 - 130 %
1,4-dioxane								
1,4-dioxane	ND	100	50	ug/l	1	12/13/18	MH	SW8260C
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	12/13/18	MH	SW8260C
Acrylonitrile	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	12/13/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

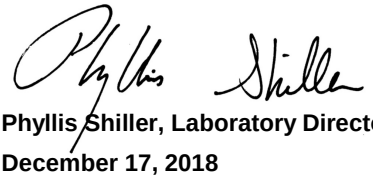
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.



Phyllis Shiller, Laboratory Director
December 17, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 17, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.
Environmental Business Consultants
1808 Middle Country Rd
Ridge NY 11961-2406

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	TC	12/10/18	
Location Code:	EBC	Received by:	CP	12/11/18	16:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC12366
Phoenix ID: CC12367

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Client ID: 15MW2

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Volatiles									
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
2-Hexanone	ND	2.5	2.5	ug/L	1	12/13/18	MH	SW8260C	
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	1
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	12/13/18	MH	SW8260C	

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Client ID: 15MW2

Phoenix I.D.: CC12367

Parameter	Result		RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	8.9	S	5.0	2.5	ug/L	1	12/13/18	MH	SW8260C	
Acrolein	ND		5.0	2.5	ug/L	1	12/13/18	MH	SW8260C	
Acrylonitrile	ND		5.0	2.5	ug/L	1	12/13/18	MH	SW8260C	
Benzene	0.35	J	0.70	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromobenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromochloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromodichloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromoform	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromomethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Carbon Disulfide	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Carbon tetrachloride	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Chlorobenzene	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Chloroethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Chloroform	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Chloromethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
cis-1,2-Dichloroethene	2.5		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
cis-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	12/13/18	MH	SW8260C	
Dibromochloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Dibromomethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Dichlorodifluoromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Ethylbenzene	0.36	J	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Hexachlorobutadiene	ND		0.50	0.20	ug/L	1	12/13/18	MH	SW8260C	
Isopropylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
m&p-Xylene	1.4		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Methyl ethyl ketone	ND		2.5	2.5	ug/L	1	12/13/18	MH	SW8260C	
Methyl t-butyl ether (MTBE)	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Methylene chloride	ND		3.0	1.0	ug/L	1	12/13/18	MH	SW8260C	
Naphthalene	1.9		1.0	1.0	ug/L	1	12/13/18	MH	SW8260C	
n-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
n-Propylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
o-Xylene	0.94	J	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
p-Isopropyltoluene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
sec-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Styrene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
tert-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Tetrachloroethene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Tetrahydrofuran (THF)	ND		5.0	2.5	ug/L	1	12/13/18	MH	SW8260C	1
Toluene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
trans-1,2-Dichloroethene	0.31	J	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
trans-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	12/13/18	MH	SW8260C	
trans-1,4-dichloro-2-butene	ND		2.5	2.5	ug/L	1	12/13/18	MH	SW8260C	
Trichloroethene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Trichlorofluoromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Trichlorotrifluoroethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Vinyl chloride	6.0		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
QA/QC Surrogates										
% 1,2-dichlorobenzene-d4	99				%	1	12/13/18	MH	70 - 130 %	
% Bromofluorobenzene	97				%	1	12/13/18	MH	70 - 130 %	
% Dibromofluoromethane	99				%	1	12/13/18	MH	70 - 130 %	

Ver 1

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Client ID: 15MW2

Phoenix I.D.: CC12367

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	98			%	1	12/13/18	MH	70 - 130 %
1,4-dioxane								
1,4-dioxane	ND	100	50	ug/l	1	12/13/18	MH	SW8260C
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	12/13/18	MH	SW8260C
Acrylonitrile	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	12/13/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

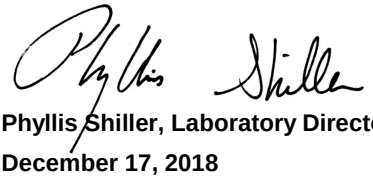
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.



Phyllis Shiller, Laboratory Director
December 17, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 17, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.
Environmental Business Consultants
1808 Middle Country Rd
Ridge NY 11961-2406

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	TC	12/10/18	
Location Code:	EBC	Received by:	CP	12/11/18	16:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC12366
Phoenix ID: CC12368

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Client ID: 15MW3

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Volatiles									
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	12/13/18	MH	SW8260C	
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
2-Hexanone	ND	2.5	2.5	ug/L	1	12/13/18	MH	SW8260C	
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	1
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	12/13/18	MH	SW8260C	

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Client ID: 15MW3

Phoenix I.D.: CC12368

Parameter	Result		RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	3.4	JS	5.0	2.5	ug/L	1	12/13/18	MH	SW8260C	
Acrolein	ND		5.0	2.5	ug/L	1	12/13/18	MH	SW8260C	
Acrylonitrile	ND		5.0	2.5	ug/L	1	12/13/18	MH	SW8260C	
Benzene	0.58	J	0.70	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromobenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromochloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromodichloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromoform	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Bromomethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Carbon Disulfide	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Carbon tetrachloride	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Chlorobenzene	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Chloroethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Chloroform	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Chloromethane	ND		5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
cis-1,2-Dichloroethene	3.3		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
cis-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	12/13/18	MH	SW8260C	
Dibromochloromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Dibromomethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Dichlorodifluoromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Ethylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Hexachlorobutadiene	ND		0.50	0.20	ug/L	1	12/13/18	MH	SW8260C	
Isopropylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
m&p-Xylene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Methyl ethyl ketone	ND		2.5	2.5	ug/L	1	12/13/18	MH	SW8260C	
Methyl t-butyl ether (MTBE)	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Methylene chloride	ND		3.0	1.0	ug/L	1	12/13/18	MH	SW8260C	
Naphthalene	ND		1.0	1.0	ug/L	1	12/13/18	MH	SW8260C	
n-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
n-Propylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
o-Xylene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
p-Isopropyltoluene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
sec-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Styrene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
tert-Butylbenzene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Tetrachloroethene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Tetrahydrofuran (THF)	ND		5.0	2.5	ug/L	1	12/13/18	MH	SW8260C	1
Toluene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
trans-1,2-Dichloroethene	0.60	J	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
trans-1,3-Dichloropropene	ND		0.40	0.25	ug/L	1	12/13/18	MH	SW8260C	
trans-1,4-dichloro-2-butene	ND		2.5	2.5	ug/L	1	12/13/18	MH	SW8260C	
Trichloroethene	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Trichlorofluoromethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Trichlorotrifluoroethane	ND		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
Vinyl chloride	2.0		1.0	0.25	ug/L	1	12/13/18	MH	SW8260C	
QA/QC Surrogates										
% 1,2-dichlorobenzene-d4	99				%	1	12/13/18	MH	70 - 130 %	
% Bromofluorobenzene	95				%	1	12/13/18	MH	70 - 130 %	
% Dibromofluoromethane	97				%	1	12/13/18	MH	70 - 130 %	

Ver 1

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Client ID: 15MW3

Phoenix I.D.: CC12368

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	99			%	1	12/13/18	MH	70 - 130 %
1,4-dioxane								
1,4-dioxane	ND	100	50	ug/l	1	12/13/18	MH	SW8260C
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	12/13/18	MH	SW8260C
Acrylonitrile	ND	5.0	0.25	ug/L	1	12/13/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	12/13/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

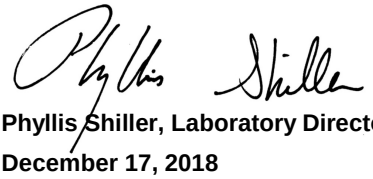
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services.



Phyllis Shiller, Laboratory Director
December 17, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

December 17, 2018

FOR: Attn: Mr. Charles B. Sosik, P.G.
Environmental Business Consultants
1808 Middle Country Rd
Ridge NY 11961-2406

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	TC	12/10/18	
Location Code:	EBC	Received by:	CP	12/11/18	16:40
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCC12366
Phoenix ID: CC12369

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Client ID: TRIP BLANKS

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Volatiles									
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,1,1-Trichloroethane	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,1,2,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,1-Dichloroethane	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,2,3-Trichloropropane	ND	0.25	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,2-Dibromo-3-chloropropane	ND	0.50	0.50	ug/L	1	12/11/18	MH	SW8260C	
1,2-Dibromoethane	ND	0.25	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,2-Dichloroethane	ND	0.60	0.50	ug/L	1	12/11/18	MH	SW8260C	
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
2-Hexanone	ND	2.5	2.5	ug/L	1	12/11/18	MH	SW8260C	
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	1
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
4-Methyl-2-pentanone	ND	2.5	2.5	ug/L	1	12/11/18	MH	SW8260C	

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Client ID: TRIP BLANKS

Phoenix I.D.: CC12369

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference	
Acetone	ND	5.0	2.5	ug/L	1	12/11/18	MH	SW8260C	
Acrolein	ND	5.0	2.5	ug/L	1	12/11/18	MH	SW8260C	
Acrylonitrile	ND	5.0	2.5	ug/L	1	12/11/18	MH	SW8260C	
Benzene	ND	0.70	0.25	ug/L	1	12/11/18	MH	SW8260C	
Bromobenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Bromochloromethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Bromodichloromethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Bromoform	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Bromomethane	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Carbon Disulfide	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Chlorobenzene	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Chloroethane	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Chloroform	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Chloromethane	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
cis-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/11/18	MH	SW8260C	
Dibromochloromethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Dibromomethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Ethylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Hexachlorobutadiene	ND	0.50	0.20	ug/L	1	12/11/18	MH	SW8260C	
Isopropylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
m&p-Xylene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Methyl ethyl ketone	ND	2.5	2.5	ug/L	1	12/11/18	MH	SW8260C	
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Methylene chloride	ND	3.0	1.0	ug/L	1	12/11/18	MH	SW8260C	
Naphthalene	ND	1.0	1.0	ug/L	1	12/11/18	MH	SW8260C	
n-Butylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
n-Propylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
o-Xylene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Styrene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Tetrachloroethene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Tetrahydrofuran (THF)	ND	5.0	2.5	ug/L	1	12/11/18	MH	SW8260C	1
Toluene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
trans-1,2-Dichloroethene	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/11/18	MH	SW8260C	
trans-1,4-dichloro-2-butene	ND	2.5	2.5	ug/L	1	12/11/18	MH	SW8260C	
Trichloroethene	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
Vinyl chloride	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C	
QA/QC Surrogates									
% 1,2-dichlorobenzene-d4	100			%	1	12/11/18	MH	70 - 130 %	
% Bromofluorobenzene	93			%	1	12/11/18	MH	70 - 130 %	
% Dibromofluoromethane	102			%	1	12/11/18	MH	70 - 130 %	

Ver 1

Project ID: 34-11 BEACH CHANNEL DRIVE, QUEENS
Client ID: TRIP BLANKS

Phoenix I.D.: CC12369

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	102			%	1	12/11/18	MH	70 - 130 %
1,4-dioxane								
1,4-dioxane	ND	100	50	ug/l	1	12/11/18	MH	SW8260C
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Acrolein	ND	5.0	2.5	ug/L	1	12/11/18	MH	SW8260C
Acrylonitrile	ND	5.0	0.25	ug/L	1	12/11/18	MH	SW8260C
Tert-butyl alcohol	ND	50	10	ug/L	1	12/11/18	MH	SW8260C

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

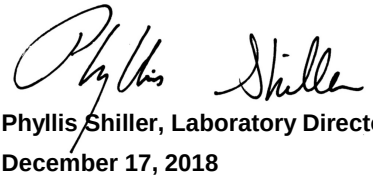
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

Volatile Comment:
Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

If there are any questions regarding this data, please call Phoenix Client Services.



Phyllis Shiller, Laboratory Director
December 17, 2018
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Monday, December 17, 2018

Criteria: NY: 375GWP, GW

State: NY

Sample Criteria Exceedances Report

GCC12366 - EBC

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CC12366	$8260DP25R	Benzene	NY / TAGM - Volatile Organics / Groundwater Standards	1.4	0.70	0.7	0.7	ug/L
CC12366	$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CC12366	$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CC12366	$8260DP25R	Benzene	NY / TOGS - Water Quality / GA Criteria	1.4	0.70	1	1	ug/L
CC12366	$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CC12367	$8260DP25R	Vinyl chloride	NY / TAGM - Volatile Organics / Groundwater Standards	6.0	1.0	2	2	ug/L
CC12367	$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CC12367	$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CC12367	$8260DP25R	Vinyl chloride	NY / TOGS - Water Quality / GA Criteria	6.0	1.0	2	2	ug/L
CC12367	$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CC12368	$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CC12368	$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L
CC12368	$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CC12369	$8260DP25R	1,2-Dibromoethane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.0006	0.0006	ug/L
CC12369	$8260DP25R	1,2,3-Trichloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.25	0.04	0.04	ug/L
CC12369	$8260DP25R	1,2-Dibromo-3-chloropropane	NY / TOGS - Water Quality / GA Criteria	ND	0.50	0.04	0.04	ug/L

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Temperature Narration

December 17, 2018

SDG I.D.: GCC12366

The samples in this delivery group were received at 3.8°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [X] No [ ]
Temp 3.1 °C Pg of

NY/NJ CHAIN OF CUSTODY RECORD

PHOENIX Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Contact Options:
[ ] Fax:
[✓] Phone: 631-504-6000
[✓] Email: File

Customer: Environmental Business Consultants
Address: 1808 Middle Country Road
Ridge, NY 11961

Project: 34-11 Beach Channel Drive, Queens
Report to: Environmental Business Consultants
Invoice to: Environmental Business Consultants

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: Lenzen Chwejing Date: 12-10-18

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs 8260	Soil VOA Vials [ ]	GL Soil container [ ] methanol [ ] H2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
123160	15 MW1	GW	12-10-18		X					3						
123167	15 MW2	↓	↓		X					3						
123168	15 MW3				X					3						
123169	Trip blanks				X					2						

Relinquished by:	Accepted by:	Date:	Time:
		12-11-18	12:30
		12-11-18	16:40

Comments, Special Requirements or Regulations:

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[✓] 5 Days
[ ] 10 Days
[ ] Other
* SURCHARGE APPLIES

NJ
[ ] Res. Criteria
[ ] Non-Res. Criteria
[ ] Impact to GW Soil Cleanup Criteria
[ ] GW Criteria

NY
[✓] NY 375 GWP
[ ] NY375 Unrestricted Use Soil
[ ] NY375 Residential Soil
[ ] Restricted/Residential
[ ] Commercial
[ ] Industrial

Data Format
[ ] Phoenix Std Report
[X] Excel
[X] PDF
[ ] GIS/Key
[X] EQuIS
[ ] NJ Hazsite EDD
[X] NY EZ EDD (ASP)
[ ] Other

Data Package
[ ] NJ Reduced Deliv. *
[X] NY Enhanced (ASP B) *
[ ] Other

State where samples were collected: NY