1888 BATHGATE AVENUE REDEVELOPMENT SITE BRONX, NEW YORK REMEDIAL SYSTEM OPTIMIZATION REPORT

NYSDEC Site Number: C203088

Prepared for:

NYSDEC Region 2 1 Hunter's Point Plaza 47-40 21st Street Long Island City, New York 11101

On Behalf Of:

Wilfrid East Properties LLC, Wilfrid Realty Corp., Wilfrid East LIHTC LLC, Wilfrid Properties LLC, Wilfrid West Properties LLC, Wilfrid LIHTC LLC, and ACMH Wilfrid Housing Development Fund Corporation 48-02 25th Avenue, Suite 400 Astoria, New York 11103

Prepared By:

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and

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April 20, 2023

TABLE OF CONTENTS

1.0	Introduction and Background	1
2.0	Groundwater Sampling	3
3.0	Groundwater Chemistry	4
3.1	Background	4
3.2	Biological Testing and Analytical Results	6
4.0	Bioremediation Plan	8
5.0	Conclusions and Recommendations	9

FIGURES

Figure 1	Topographic Map
Figure 2	Site Location Map
Figure 3	Location of Groundwater Monitoring Wells
Figure 4	Groundwater Elevations and Projected Groundwater Flow Direction on
	September 28, 2022

TABLES

Table 1	Analytical Result of DHC Bacteria in the Groundwater
Table 2	Summary of Historical Groundwater Data

APPENDIX - A

Groundwater Monitoring Well Sampling Logs

APPENDIX - B

Laboratory Analytical Reports

APPENDIX - C

Edible Oil Substrate – EOS Pro Product Information

CERTIFICATION

The Remediation Groundwater Sampling was performed in general conformance with the New York State Department of Environmental Conservation (NYSDEC) Technical Guidance for Site Investigation and Remediation DER-10. This Quarterly Groundwater Monitoring was performed by:

Colin Eckhardt

March 1, 2023

Date

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Environmental Scientist ALC Environmental

I, Jeffrey Diamond, am a Qualified Environmental Professional, as defined in RCNY § 43-1402(ar). I have primary direct responsibility for implementation and preparation of this Remediation Groundwater Sampling Report for the Site located at 1888 Bathgate Avenue, Bronx, NY 10457. I am responsible for the content of this Quarterly Groundwater Monitoring Report, having reviewed its contents and certify that this Quarterly Groundwater Monitoring Report is accurate to the best of my knowledge and contains all available environmental information and data regarding the property.

Jeffrey DiamondMarch 16, 2023Jeff DiamondQualified Environmental ProfessionalDateSignatureALC Environmental

I, Hazem Hijazi, P.E, certify that I am currently a New State registered professional engineer as defined in 6NYCRR Part 375 and that this report was prepared in accordance with applicable statues and regulations and is in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Hazem Hijazi

April 20, 2023

Signature

+ log thijags

Professional Engineer NYPE#082819 Date RESNY Engineering- 1218 Central Ave, Suite 100, Albany, NY 12205



Signature

1.0 Introduction and Background

In September 2022, RESNY Engineering (RESNY) and ALC Environmental (ALC) prepared a Remedial System Optimization (RSO) Workplan to address residual contamination in groundwater at 4181 Third Avenue in the Bronx, New York (the "Site"). The RSO Workplan proposed certain activities required to optimize the NYSDEC-approved remedy. This RSO Report summarizes these activities and provides the results of recent groundwater sampling and targeted analysis to evaluate the viability of bioremediation as a treatment alternative to address residual contamination in groundwater at the Site. For reference, a Topographic Map and Site Location Map are presented in **Figures 1** and **2**.

Previous remediation activities at the Site have proven effective and are summarized in the Site Management Plan, dated December 2018 (SMP). The remedial implementation of soil excavation effectively removed all on-site soils that exceeded the restricted residential soil cleanup objectives (RRSCOs) to a maximum depth of 15 feet below grade. Post-excavation soil endpoint samples were collected, except at locations excavated down to bedrock. Additional information regarding the soil excavation and cleanup activities is summarized in the SMP.

In addition, previous remediation of groundwater utilizing in-situ chemical oxidation (ISCO) effectively addressed impacted groundwater at the Site. However, some exceedances of certain chlorinated volatile organic compounds (CVOCs) remain. The purpose of the remedial groundwater sampling summarized herein is to confirm the presence and concentration (in number of colonies per milliliter) of the *Dehalococcoides* (DHC) bacteria in the groundwater at the Site. The DHC bacteria - through anaerobic biodegradation - is an effective reductive dechlorination agent in reducing CVOCs ultimately to ethene.

This natural or enhanced bioremediation utilizing DHC bacteria enhancement is being considered as a remedial option for the Site as natural microorganisms have been proven effective at reducing the concentrations of CVOCs in the groundwater. In fact, the presence of DHC has been associated with complete dechlorination to ethene at sites across North America. While a number of bacterial cultures capable of utilizing PCE and TCE as growth supporting electron acceptors have been isolated, *DHC* may be the most important because they are the only bacterial group that has been isolated to date which is capable of complete reductive dechlorination of PCE to ethene.

Here, the application process utilizing DHC bacteria enhancement can be conducted through the existing monitoring well network. This is especially useful since the existing building on the Site is protected from vapor intrusion by a vapor barrier. DHC bacteria application in areas of the Site other than the existing monitoring well network would jeopardize the integrity of the vapor barrier that envelops the building foundation by drilling and piercing through the vapor barrier to deliver the required chemicals.

The groundwater sampling performed on March 1, 2023, is the assessment phase of the bioremediation process. The objective is to identify potential biodegradation or biotransformation processes by performing targeted sampling for the presence of the DHC bacteria in the

groundwater at locations across the area of interest. Samples collected from the groundwater monitoring wells MW-11 and MW-13 were selected for this purpose.

The second step in the bioremediation process is the design phase. To support a Site -specific bioremediation strategy, the DHC bacteria must be present in the groundwater at concentrations to support the dechlorination of the groundwater contaminants. The presence of the DHC bacteria at low concentrations that will not support dechlorination, can be enhanced to support growth of the DHC bacteria in the groundwater by the addition of nutrients such as emulsified vegetable oil and / or additional microbial cultures. Once the design is completed in terms of the amount of nutrients/microbial cultures and application process, the actual injection will be implemented.

The last step in the bioremediation process is performance monitoring.

Quarterly groundwater sampling will continue along with the collection of geochemical indicator parameters to assess the remedy process and a decline in the concentrations of tetrachloroethylene (PCE), trichloroethylene (TCE), cis-1,2-dichloroethylene (C12-DCE), trans-1,2-dichloroethylene (T12-DCE), and vinyl chloride will be a guide for the remedy performance determination.

This report summarizes the results and findings of groundwater sampling performed at the Site on March 1, 2023 and a plan to institute bioremediation as a method to decrease the concentrations of CVOCs in the groundwater at the Site. The Site activities were performed in general conformance with the NYSDEC approved RSO Workplan.

2.0 Groundwater Sampling

On March 1, 2023, ALC conducted a special groundwater sampling event from two of the four existing post-remedial groundwater monitoring wells installed at the Site. A representative groundwater sample was collected from groundwater monitoring wells MW-11 and MW-13. The locations of these two groundwater monitoring wells are shown in **Figure 3**. The groundwater sampling was conducted by determining the volume of standing groundwater in each monitoring wells and then purging three volumes of standing groundwater from each groundwater monitoring well. The groundwater from each of the two groundwater monitoring wells sampled, was purged and sampled with a peristaltic pump with new tubing for each collected groundwater sample. The general biochemical indicators, including pH, specific conductivity, temperature, dissolved oxygen, oxidation–reduction potential (ORP), have been measured during previous sampling events. The purged groundwater was containerized in properly labeled DOT-approved 55-gallon drums for future off-site disposal at a permitted facility. The groundwater monitoring well sampling logs are presented in **Appendix A**.

The groundwater samples from monitoring wells MW-11 and MW-13 were placed in laboratorysupplied containers with a chain-of-custody protocol, and cooled to a temperature of four degrees Centigrade (4°C) between their acquisition and delivery to Microbial Insights laboratory in Knoxville, Tennessee for analysis.

3.0 Groundwater Chemistry

3.1 Background

Previous groundwater sampling events were conducted at the Site on: May 14, 2018; September 6, 2018; January 31 and February 1, 2019; June 13, 2019; August 20, 2019; October 15, 2019; January 14 and 15, 2020; June 25, 2020; September 23, 2020; December 18, 2020; March 17, 2021; June 2, 2021; August 12 and 13, 2021; October 28, 2021, March 23, 2022, June 23, 2022 and September 28, 2022. A summary of all of the historical analytical data is provided in **Table 2.** Compounds that exceed the NYSDEC Division of Water Technical Operational Guidance Series (1.1.1) (TOGS 1.1.1) are highlighted in yellow.

Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, October 22, 1993 and reissued June 1998 for the groundwater samples collected in 2021 and 2022 are presented below:

March 17, 2021

- C12-DCE exceedances were present in the groundwater samples collected from monitoring wells MW-11, MW-13, and in the blind duplicate sample.
- PCE exceedances were present in the groundwater samples collected from monitoring wells MW-10, MW-11, MW-13, and in the blind duplicate sample.
- TCE exceedances were present in the groundwater sample collected from monitoring well MW-13, and the blind duplicate sample.
- Vinyl chloride exceedance was present in the groundwater sample collected from monitoring well MW-11 only.

<u>June 2, 2021</u>

- C12-DCE exceedances were present in the groundwater samples collected from monitoring wells MW-11 and MW-13.
- PCE exceedances were present in the groundwater samples collected from monitoring wells MW-10 and MW-13.
- TCE exceedance was present in the groundwater sample collected from monitoring well MW-13, only.
- Vinyl chloride exceedance was present in the groundwater sample collected from monitoring well MW-11 only.

August 12-13, 2021

- C12-DCE exceedances were present in the groundwater samples collected from monitoring wells MW-11 and MW-13.
- PCE exceedances were present in the groundwater samples collected from monitoring wells MW-10 and MW-13.
- TCE exceedance was present in the groundwater sample collected from monitoring well MW-13, only.
- Vinyl chloride exceedance was present in the groundwater sample collected from monitoring well MW-11 only.

October 28, 2021

- C12-DCE exceedances were present in the groundwater samples collected from monitoring wells MW-11 and MW-13.
- PCE exceedances were present in the groundwater samples collected from monitoring wells MW-10 and MW-13.
- TCE exceedance was present in the groundwater sample collected from monitoring well MW-13, only.
- Vinyl chloride exceedance was present in the groundwater sample collected from monitoring well MW-11 only.
- T12-DCE exceedance was present in the groundwater sample collected from monitoring well MW-11 only.
- Methylene chloride exceedance was present in the field blank sample.

March 22-23, 2022

- C12-DCE exceedance was present in the groundwater sample collected from groundwater monitoring well MW-13 only.
- PCE exceedances were present in the groundwater samples collected from groundwater monitoring wells MW-10 and MW-13.
- TCE exceedance was present in the groundwater sample collected from groundwater monitoring well MW-13 only.
- Vinyl chloride exceedance was present in the groundwater sample collected from groundwater monitoring well MW-11 only.

June 23, 2022

- C12-DCE: Exceedances were present in the groundwater samples collected from groundwater monitoring wells MW-11 and MW-12.
- PCE: Exceedances were present in the groundwater samples collected from groundwater monitoring wells MW-10 and MW-12
- TCE: Exceedances was present in the groundwater sample collected from groundwater monitoring well MW-12 only.
- T12-DCE: Exceedance was present in the groundwater sample collected groundwater monitoring well MW-11 only.
- Vinyl Chloride: Exceedance was present in the groundwater sample collected from groundwater monitoring well MW-11 only.

September 28, 2022

- C12-DCE: Exceedances were present in the groundwater sample collected from groundwater monitoring well MW-11 and MW-13
- PCE: Exceedances were present in the groundwater samples collected from groundwater monitoring wells MW-10, MW-12 and MW-13
- T12-DCE: Exceedances were present in the groundwater sample collected from groundwater monitoring wells MW-11.
- TCE: Exceedances were present in groundwater sample collected from groundwater monitoring well MW-13.
- Vinyl Chloride: Exceedances were present in the groundwater sample collected from groundwater monitoring well MW-11.
- Generally, the concentrations of all of the detected compounds have increased in the groundwater samples collected from the groundwater monitoring wells MW-10, MW-11, and MW-13, from the previous groundwater sampling on June 23. 2022.
- The concentrations of all detected compounds had decreased from the previous groundwater sampling conducted on June 23, 2022 for the groundwater samples collected from MW-12.

3.2 Biological Sampling and Analytical Results

After the initial ISCO treatment that was instituted in 2018 and four years of quarterly groundwater monitoring, there still remains concentrations of c12-DEC, PCE, TCE, t12-DCE and vinyl chloride that exceed the NYSDEC Title 6 New York Codes, Rules, and Regulations (6NYCRR) Part 703.5 Class GA groundwater standards. These compounds are bound up in the groundwater bearing formation beneath the site and the concentrations of the CVOCs tend to vary with each quarterly groundwater sampling event.

The DHC bacteria along with other halorespiring bacteria are capable of complete dechlorination of PCE and TCE, along with the other COVCs to ethene.

The analytical results of the groundwater samples collected on March 1, 2023 from groundwater monitoring wells MW-11 and MW-13 indicate that the DHC bacteria was present in the subsurface. The concentration of the DHC bacteria detected in the groundwater samples collected from the two groundwater monitoring wells are as shown in **Table 1**.

TABLE 1

CONCENTRATION OF DEHALOCCOIDES BACTERIA IN GROUNDWATER

GROUNDWATER SAMPLING LOCATION	SAMPLE DATE	CONCENTRATION (cells/mL)
MW-11	3/1/2023	179
MW-13	3/1/2023	16.5

NOTE: concentrations are in cells per milliliter

Groundwater samples collected confirmed that DHC bacteria is present in the groundwater at the Site at concentration of 10^1 to 10^2 cells per milliliter (cells/mL), with detection limits that range from 1.00 x 10^{-1} (for MW-13) to 9.70 x 10^{-2} (for MW-11). An effective rate of reductive dechlorination by DHC bacteria occurs when its presence is measured in 10^4 cells/mL (100,000 cells per milliliter) or above. While the requisite dechlorinating bacteria were present demonstrating that a bioremediation approach was feasible, the data indicated that biostimulation could be a useful strategy to increase the availability of fermentable substrates and promote geochemical conditions favorable for sustained in situ bioremediation through reductive dechlorination.

4.0 Bioremediation Plan

Bioremediation is the use of organisms, particularly microorganisms, to convert contaminants to less harmful compounds in order to clean up contaminated sites. The remediation process may involve monitoring intrinsic biodegradation, or deliberately altering the subsurface environment to enhance the desired biological processes. Such enhancement generally involves adding nutrients or energy sources to increase the activity of the organisms already present in the subsurface, in some cases it may also involve adding selected organisms to improve the biodegradation capacity or its rate. Bioremediation is possible because organisms have developed an ability to survive under a wide variety of conditions. Even through scientists have assumed that the subsurface and groundwaters below the soil profile were near sterile, in fact, the genetic diversity, physiological versatility and sheer numbers of microorganisms naturally present in the environment are overwhelming. Groundwater may have 1 million (10^6) total recoverable cells in each milliliter (mL), though numbers in the range of $10^4/mL$ are more common.

There are several competing in situ technologies for containing and treating contaminated groundwater, including chemical oxidation and reduction, air sparging, etc. Each technology is well suited for use in specific instances.

The success of bioremediation is largely based on the fact that bacteria will literally work for food, such as vegetable oil. Energetically, these materials serve as electron donor (and carbon) sources. Fermentation ultimately produces hydrogen, which the microbes responsible for reductive dechlorination of chlorinated compounds use as the source for electrons for the reduction of chlorinated compounds.

In order to promote favorable conditions for the biostimulation of the DHC bacteria and to promote dechlorination of the chlorinated solvents present in the groundwater, a solution of potable water and EOS Pro, an emulsified vegetable oil, enriched to optimize anaerobic bioremediation of chlorinated solvents in groundwater is proposed for use at the Site. A product brochure is provided in **Appendix C.** A 10% solution of EOS pro and potable water will be mixed together in the following ratio: 52 gallons of EOS Pro to 517 gallons of potable water. This solution will be injected into each groundwater monitoring well. To flush the EOS Pro solution into the groundwater bearing subsurface beneath the site, 900 gallons of potable water will be pumped into each of monitoring wells MW-10 and MW-13. Only 165 gallons of potable water will be pumped into monitoring wells MW-11 and MW-12 due to the shallow depth of these two wells.

To determine the effectiveness of the bioremediation, performance monitoring will continue on a quarterly basis. The concentrations of chlorinated Volatile Organic Compounds along with the following geochemical indicator parameters, nitrite, manganese, dissolved manganese, total iron, dissolved ferrous iron, sodium, sulfate, alkalinity and methane.

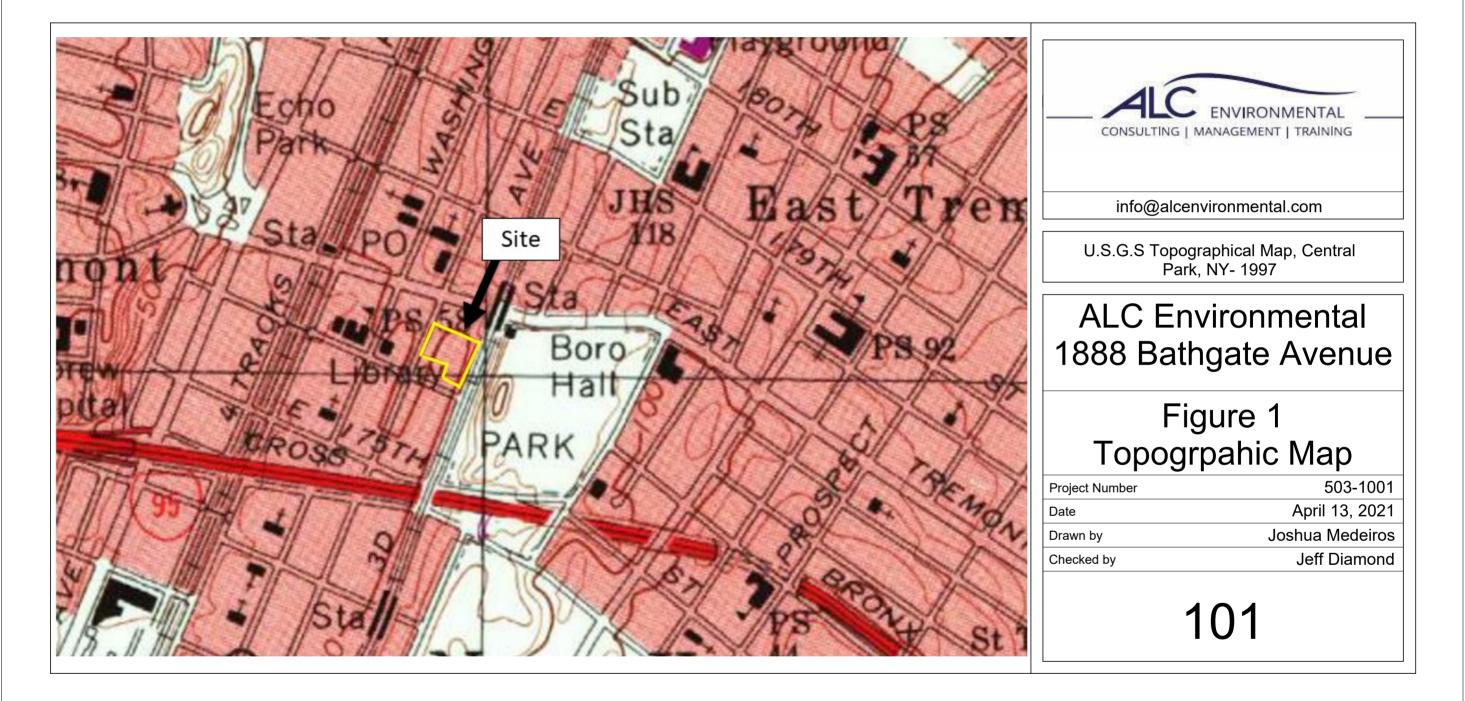
5.0 Conclusions and Recommendations

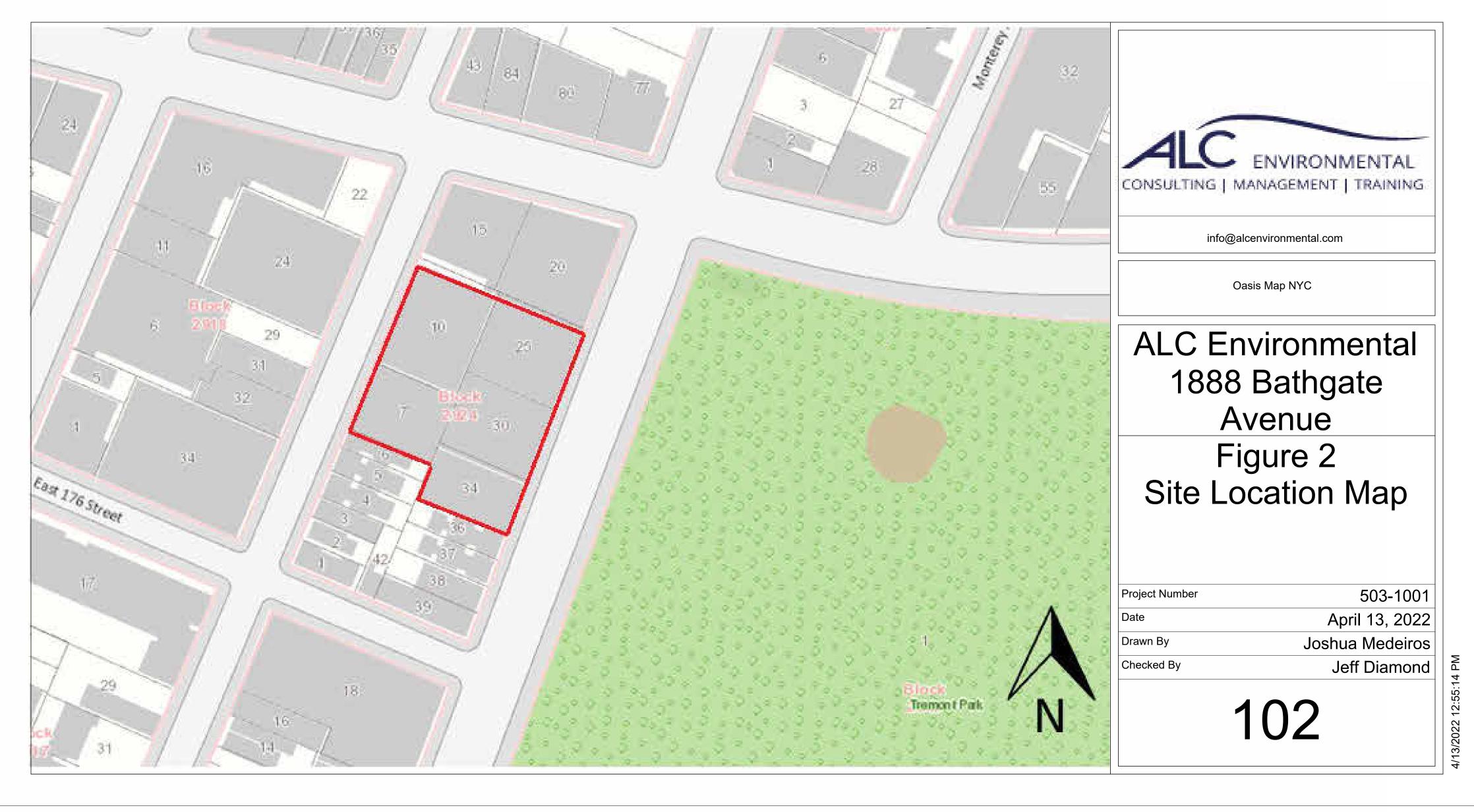
While the bulk of the CVOC contamination has been demonstrated to have been remediated by the prior ISCO injections and the overall concentrations of CVOCs in groundwater have been asymptotically approaching the remedial standards, residual concentrations remain at or slightly above the standards.

Bioremediation is a proven technology that allows the natural bacteria found in the groundwater reduce the concentrations of chlorinated solvents to ethene. Accordingly, we are proposing enhanced bioremediation at the Site, utilizing and enhancing the existing bacteria in the groundwater. This will allow for the timely treatment and application of the necessary nutrients without compromising the integrity of the existing vapor barrier that has been placed under and around the building foundation.

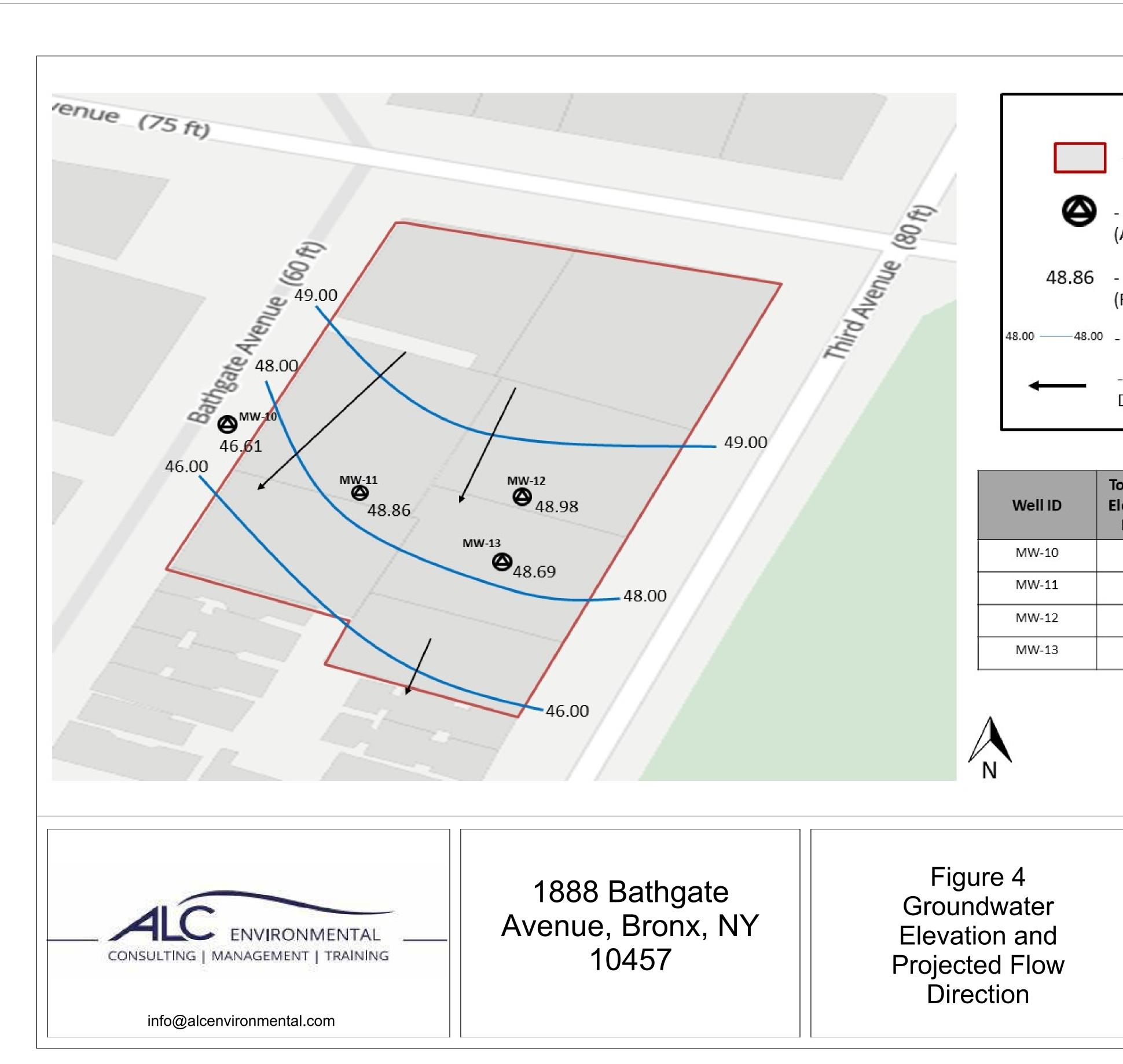
Upon approval of this groundwater bioremediation plan by the NYSDEC, we will secure four drums of EOS Pro from the supplier, EOS Remediation. One drum of EOS Pro per each onsite groundwater monitoring well. The drums of product will be staged at a secure location at the Site prior to the injection of the EOS Pro into each monitoring well. After a period of approximately four months, quarterly groundwater sampling will resume to determine the concentration of the chlorinated solvents in the groundwater and gauge the effectiveness of this bioremediation program.

FIGURES









LEGE	ND									
- Project Site	- Project Site Location									
(Approximate	er Monitoring W ELocations) ater Elevation	ells								
) (VAVD 1988 Da	nta)								
- Groundwate	er Contour Line									
- Projected G Direction	roundwater Flo	w								
op of Casing levation (FT. REL. MSL)	Depth to Groundwater (FT)	Groundwat Elevation (REL. MSL	FT.							
58.64	19.38	46.61								
49.75	0.89	48.86								
53.70	4.79	48.91								
53.95	4.66	48.69								

Project Number	503-1001
Date	October 31, 2022
Drawn by	Joshua Medeiros
Checked by	Jeff Diamond
1	04

Table 2 Summary of Historical Groundwater Data 1888 Bathgate Avenue Bronx, NY 10457

COMPOUND	1.1.1-Trichloroethane	1.1-Dichloroethane	1.1-Dichloroethylene	1.2-Dichlorobenzene	1.2-Dichloroethane	M Carbon tetrachloride	N-10 Chloroform	cis-1.2-Dichloroethylene	Methylene chloride	Tetrachloroethylene	trans-1.2-Dichloroethylene	Trichloroethylene	Vinvi Chloride
NYSDEC Class GA TOGS	1,1,1-Trichloroethane			1,2-Dichlorobenzene	0.6	Carbon tetrachioride	Chioroionm					,	
(µg/L)	5	5	5			5		5	5	5	5	5	2
Sampling Date 5/14/2018	Result (ug/L) 0.25 U	Result (ug/L) 0.21 UJ	Result (ug/L) 0.47 U	Result (ug/L) 0.5 U	Result (ug/L) 0.2 U	Result (ug/L) 0.34 U	Result (ug/L) 0.39 U	Result (ug/L) 0.5 U	Result (ug/L) 1 U	Result (ug/L) 3.70	Result (ug/L) 0.4 U	Result (ug/L) 0.27 U	Result (ug/L) 0.62 U
9/6/2018	0.54 U	0.57 U	0.59 U	0.53 U	0.6 U	0.55 U	1.4 U	0.51 U	10	12.5	0.54 U	0.66 U	0.79 U
1/31/2019 & 2/1/2019	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
6/13/2019	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.52	0.43	10	22.10 31.00	0.2 U	2.140	0.2 U
8/20/2019	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.63 0.43 J	0.57 0.45 J	2 U 1 U	27.20	0.2 U 0.2 U	2.320	0.2 U 0.2 U
1/14/2020	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.76	1.00	10	30.10	0.2 U	2.390	0.2 U
6/25/2020	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	4.07	0.62	1 U	33.60	0.2 U	1.880	0.2 U
9/23/2020	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.51	0.59	10	12.60	0.2 U	1.340	0.2 U
12/18/2020	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U	0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.89	0.54	1 U 1 U	32.30	0.200	0.200	0.200
3/17/2021 6/2/2021	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.32	0.86	10	36.00	0.200	2.380	0.200
8/12/2021	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	2.06	0.51	10	23.80	0.200	1.600	0.200
10/28/2021	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.00	1.10	1 U	44.00	0.200	3.000	0.200
03/22/2022	0.2 U 0.2U	0.2U 0.2U	0.2 U 0.2U	0.2 U 0.2U	0.2 U 0.2U	0.2 U 0.2U	1.05	1.48 0.84	0.2 U 0.2U	62.20 39.40	0.2 U 0.2U	3.880	0.2U 0.2U
06/23/2022 9/28/2022	0.20 0.7 U	0.20 0.7 U	0.20 0.17 U	0.20 0.7 U	0.13 U	0.20 0.7 U	1.08 1.2 J	2.20	0.20 0.7 U	77.00	0.20 0.7 U	3.500	0.20 0.7 U
STECTEDEL													
COMPOUND 1,1,1-Trichloroethane 1,1-Dichloroethylene 1,1-Dichloroethylene 1,2-Dichloroethylene Carbon tetrachloride Choroform Cis-1,2-Dichloroethylene Tetrachloroethylene Trichloroethylene Trichloroethylene Vinyl Chloride NYSDEC Class GA TOGS 5 5 3 0.6 5 7 5 5 5 5 2													
μg/L)	5	-		-		5	7	-	-				-
Sampling Date 5/14/2018	Result (ug/L) 0.25 U	Result (ug/L)	Result (ug/L) 0.47 U	Result (ug/L) 0.5 U	Result (ug/L)	Result (ug/L) 0.34 U	Result (ug/L)	Result (ug/L)	Result (ug/L)	Result (ug/L) 102	Result (ug/L) 0.4 U	Result (ug/L)	Result (ug/L) 0.62 U
5/14/2018 9/6/2018	0.25 U 0.54 U	0.21 U 0.57 U	0.47 U 0.59 U	0.5 U 0.53 U	0.2 U 0.6 U	0.34 U 0.55 U	0.29 U 0.5 U	5	1 U 1 U	0.9 U	0.4 U 0.54 U	3 0.53 U	0.62 U 0.79 U
2/1/2019	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.38 J	7.50	10	100	0.37 J	16	0.2 U
6/13/2019	0.2 U	0.2 U	0.64	0.2 U	0.2 U	0.2 U	0.38 J	68.20	10	37 3	1.42	11.10	2.96
8/20/2019	0.2 U 0.2 U	0.2 U 0.2 U	0.27 J 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	28.20	1 U 1 U	3 2.75	1.57 2.09	1.42	50.20 80.40
10/15/2019 1/15/2020	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	9.88	10	4.17	2.09	2.06	60.90
6/25/2020	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.42 J	10	0.2 U	3.38	0.2 U	115
9/23/2020	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.62	10	0.26	3.70	0.31	62
12/18/2020	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	11.50	10	11.60	3.86	0.2 U	55.50
3/17/2021 6/2/2021	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	9.25 10.50	1 U 1 U	7.81 3.13	3.57 3.960	3.05 2.05	49.70 43.70
8/13/2021	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10.40	10	3.82	5.385	1.99	74.30
10/28/2021	0.2U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	7.90	1 U	0.75	6.80	1.10	59.00
03/22/2022	0.2 U	1.21	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.74	10	1.50	4.64	0.29	30.70
06/23/2022	0.2U 0.7 U	0.2U 0.7 U	0.2U 0.17 U	0.2U 0.7 U	0.2U 0.13 U	0.2U 0.7 U	0.2U	5.44 15.00	1U 0.7 U	1.90 3.30	6.21 7.90	1.02	44.20 68.00
9/28/2022	0.7 0	0.7 0	0.17 0	0.7 0	0.15 0	0.70	0.7 0	13.00	0.7 0	3.50	1.50	1.40	00.00
							N-12						
COMPOUND	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethylene	1,2-Dichlorobenzene	1,2-Dichloroethane	Carbon tetrachloride	Chloroform	cis-1,2-Dichloroethylene	Methylene chloride	Tetrachloroethylene	trans-1,2-Dichloroethylene	Trichloroethylene	Vinyl Chloride
NYSDEC Class GA TOGS (µg/L)	5	5	5	3	0.6	5	7	5	5	5	5	5	2
Sampling Date	Result (ug/L)			D ((())		Result (ug/L)			Result (ug/L)	Result (ug/L)	Result (ug/L)	D (())	Result (ug/L)
5/14/2018 9/6/2018		Result (ug/L)	Result (ug/L)	Result (ug/L)	Result (ug/L)		Result (ug/L)	Result (ug/L)				Result (ug/L)	
	0.25 U	0.21 U	0.47 U	0.5 U	0.2 U	0.34 U	0.29 U	3.6	10	10.7	0.4 U	3.5	0.62 U
1/31/2019	0.25 U 0.54 U	0.21 U 0.57 U	0.47 U 0.59 U	0.5 U 0.53 U	0.2 U 0.6 U	0.34 U 0.55 U	0.29 U 0.5 U		1 U 1 U 1 U		0.4 U 0.54 U		0.62 U 0.62 U
1/31/2019 6/13/2019	0.25 U 0.54 U 0.2 U 0.2 U	0.21 U 0.57 U 0.2 U 0.2 U	0.47 U 0.59 U 0.2 U 0.2 U	0.5 U 0.53 U 0.2 U 0.2 U	0.2 U 0.6 U 0.2 U 0.2 U	0.34 U 0.55 U 0.2 U 0.2 U	0.29 U 0.5 U 0.2 U 0.2 U	3.6 4.5 1.40 0.89	1 U 1 U 1 U	10.7 19.5 5.10 3.20	0.4 U 0.54 U 0.2 U 0.2 U	3.5 4.4 1.30 1.19	0.62 U 0.62 U 0.2 U 0.2 U
1/31/2019 6/13/2019 8/20/2019	0.25 U 0.54 U 0.2 U 0.2 U 0.2 U 0.2 U	0.21 U 0.57 U 0.2 U 0.2 U	0.47 U 0.59 U 0.2 U 0.2 U 0.2 U	0.5 U 0.53 U 0.2 U 0.2 U	0.2 U 0.6 U 0.2 U 0.2 U	0.34 U 0.55 U 0.2 U 0.2 U 0.2 U	0.29 U 0.5 U 0.2 U 0.2 U	3.6 4.5 1.40 0.89 1.37	1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.86	0.4 U 0.54 U 0.2 U 0.2 U	3.5 4.4 1.30 1.19 1.79	0.62 U 0.62 U 0.2 U 0.2 U 0.2 U 0.2 U
1/31/2019 6/13/2019	0.25 U 0.54 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.21 U 0.57 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.47 U 0.59 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.5 U 0.53 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.2 U 0.6 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.34 U 0.55 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.29 U 0.5 U 0.2 U 0.2 U 0.2 I 0.2 I 0.52 0.64	3.6 4.5 1.40 0.89 1.37 1.83 1.32	1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.86 7.18 6.23	0.4 U 0.54 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	3.5 4.4 1.30 1.19 1.79 2.69 2.41	0.62 U 0.62 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U
1/3//2019 6/13/2019 8/20/2019 10/15/2019 1/15/2020 6/25/2020	0.25 U 0.54 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.21 U 0.57 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.47 U 0.59 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.5 U 0.53 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.2 U 0.6 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.34 U 0.55 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0 29 U 0.5 U 0.2 U 0.2 U 0.21 J 0.52 0.64 0.79	3.6 4.5 1.40 0.89 1.37 1.83 1.32 1.62	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.86 7.18 6.23 7.52	0.4 U 0.54 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	3.5 4.4 1.30 1.19 1.79 2.69 2.41 2.59	0.62 U 0.62 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U
1/31/2019 6/13/2019 8/20/2019 10/15/2019 1/15/2019 6/25/2020 9/23/2020	0.25 U 0.54 U 0.2 U	0.21 U 0.57 U 0.2 U	0.47 U 0.59 U 0.2 U	0.5 U 0.53 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.2 U 0.6 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.34 U 0.55 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U	0.29 U 0.5 U 0.2 U 0.2 I 0.2 I 0.2 J 0.52 0.64 0.79 1.01	3.6 4.5 1.40 0.89 1.37 1.83 1.32 1.62 1.62	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.86 7.18 6.23 7.52 10.70	0.4 U 0.54 U 0.2 U	3.5 4.4 1.30 1.19 2.69 2.41 2.59 3.65	0.62 U 0.62 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U
1/3//2019 6/13/2019 8/20/2019 10/15/2019 1/15/2020 6/25/2020	0.25 U 0.54 U 0.2 U	0.21 U 0.57 U 0.2 U	0.47 U 0.59 U 0.2 U	0.5 U 0.53 U 0.2 U	0.2 U 0.6 U 0.2 U	0.34 U 0.55 U 0.2 U	0.29 U 0.5 U 0.2 U 0.2 I 0.2 J 0.52 0.64 0.79 1.01 1.09 0.54	3.6 4.5 1.40 0.89 1.37 1.83 1.32 1.62 1.62 1.47 1.09	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.86 7.18 6.23 7.52 10.70 9.73 3.68	0.4 U 0.54 U 0.2 U	3.5 4.4 1.30 1.19 2.69 2.41 2.59 3.65 0.20 2.05	0.62 U 0.62 U 0.2 U
1/31/2019 6/13/2019 8/20/2019 10/15/2019 6/25/2020 9/23/2020 12/18/2020 3/17/2021 6/2/2021	0.25 U 0.54 U 0.2 U	0.21 U 0.57 U 0.2 U	0.47 U 0.59 U 0.2 U	0.5 U 0.5 U 0.2 U	0.2 U 0.6 U 0.2 U	0.34 U 0.55 U 0.2 U	0.29 U 0.5 U 0.2 U 0.2 I 0.52 0.64 0.79 1.01 1.09 0.54 0.54	3.6 4.5 1.40 0.89 1.37 1.83 1.32 1.62 1.62 1.47 1.47 1.09 1.39	1U 1U 1U 1U 1U 1U 1U 1U 1U 1U 1U 0.2U	10.7 19.5 5.10 3.20 4.86 6.23 7.52 10.70 9.73 3.68 3.53	04U 054U 02U 02U 02U 02U 02U 02U 02U 02U 02U 02	3.5 4.4 1.30 1.19 2.69 2.41 2.59 3.65 0.20 2.05 2.12	0.62 U 0.62 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.20 0.20 0.20 0.2 U
1/31/2019 6/13/2019 8/20/2019 10/15/2019 11/15/2020 6/25/2020 9/23/2020 12/18/2020 3/17/2021	0.25 U 0.54 U 0.2 U	0.21 U 0.57 U 0.2 U	0.47 U 0.59 U 0.2 U	0.5 U 0.53 U 0.2 U	0.2 U 0.6 U 0.2 U	0.34 U 0.55 U 0.2 U	0.29 U 0.5 U 0.2 U 0.2 I 0.2 J 0.52 0.64 0.79 1.01 1.09 0.54	3.6 4.5 1.40 0.89 1.37 1.83 1.32 1.62 1.62 1.47 1.09	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.86 7.18 6.23 7.52 10.70 9.73 3.68	0.4 U 0.54 U 0.2 U	3.5 4.4 1.30 1.19 2.69 2.41 2.59 3.65 0.20 2.05	0.62 U 0.62 U 0.2 U
1/31/2019 6/13/2019 8/20/2019 10/15/2019 6/25/2020 9/23/2020 12/15/2020 3/17/2021 6/2/2021 8/13/2021 0/28/2021 0/28/2021	0.25 U 0.54 U 0.2 U	021U 057U 02U 02U 02U 02U 02U 02U 02U 02U 02U 02	0.47 U 0.59 U 0.2 U	0.5 U 0.5 U 0.2 U	0.2U 0.6U 0.2U	0.34 U 0.55 U 0.2 U	0 29 U 0.5 U 0.2 U 0.2 U 0.2 U 0.2 J 0.52 0.64 0.79 1.01 1.09 0.54 0.46 0.39 1.20 1.05	3.6 4.5 1.40 0.89 1.37 1.83 1.32 1.62 1.62 1.47 1.09 1.39 1.31 1.31 1.31	1U 1U 1U 1U 1U 1U 1U 1U 1U 1U 0.2U 0.2U 0.2U 1U	10.7 19.5 510 4.85 7.18 6.23 7.52 10.70 9.73 3.68 3.53 4.39 3.90 4.23	0 A U 0.5 A U 0.2 U	3.5 4.4 1.30 1.10 1.70 2.69 2.41 2.59 3.65 0.20 2.05 2.12 2.53 2.30 2.12	0.62 U 0.62 U 0.2 U
1/31/2019 6/1/32019 8/20/2019 10/15/2019 10/15/2019 1/15/2020 9/23/2020 12/18/2020 3/17/2021 8/13/2021 10/28/2021 03/22/2022 08/23/2022	0.25 U 0.54 U 0.2 U	0.21 U 0.57 U 0.2 U 0.4 O 0.4 O	0.47 U 0.59 U 0.21 U 0.22 U	0.5 U 0.5 U 0.2 U	0.2 U 0.6 U 0.2 U	0.34 U 0.55 U 0.2 U	0 229 U 0.5 U 0.2 U 0.2 U 0.2 U 0.52 0.64 0.79 1.01 1.09 0.54 0.46 0.38 1.20 1.20 1.20 0.2U	3.6 4.5 1.40 0.89 1.37 1.83 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1.62	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.86 7.18 6.23 7.52 10.70 9.73 3.68 3.53 4.39 3.90 4.23 18.60	0.4 U 0.54 U 0.2 U 0	3.5 4.4 1.20 1.19 2.69 2.41 2.59 3.65 0.20 2.05 2.12 2.53 2.30 2.12 2.42 2.53 2.30 2.12 2.460	0.62 U 0.62 U 0.2 U
1/31/2019 6/13/2019 8/20/2019 10/15/2019 6/25/2020 9/23/2020 12/15/2020 3/17/2021 6/2/2021 8/13/2021 0/28/2021 0/28/2021	0.25 U 0.54 U 0.2 U	021U 057U 02U 02U 02U 02U 02U 02U 02U 02U 02U 02	0.47 U 0.59 U 0.2 U	0.5 U 0.5 U 0.2 U	0.2U 0.6U 0.2U	0.34 U 0.55 U 0.2 U	0 29 U 0.5 U 0.2 U 0.2 U 0.2 U 0.2 J 0.52 0.64 0.79 1.01 1.09 0.54 0.46 0.39 1.20 1.05	3.6 4.5 1.40 0.89 1.37 1.83 1.32 1.62 1.62 1.47 1.09 1.39 1.31 1.31 1.31	1U 1U 1U 1U 1U 1U 1U 1U 1U 1U 0.2U 0.2U 0.2U 1U	10.7 19.5 510 4.85 7.18 6.23 7.52 10.70 9.73 3.68 3.53 4.39 3.90 4.23	0 A U 0.5 A U 0.2 U	3.5 4.4 1.30 1.10 1.70 2.69 2.41 2.59 3.65 0.20 2.05 2.12 2.53 2.30 2.12	0.62 U 0.62 U 0.2 U
1312219 6132019 8202019 10155019 0226020 0222020 0222020 0222020 0222020 0222021 0222021 0222022 0222022 0222022 0222022 0222022	0 25 U 0 54 U 0 2 U	0 21 U 0.57 U 0.2 U 0.4 U	0.47 U 0.59 U 0.2 U	0.5 U 0.5 U 0.2 U	0.2 U 0.6 U 0.2 U 0.3 U	0.34 U 0.55 U 0.2 U	0 29 U 0.5 U 0.2 U 0.2 U 0.2 U 0.52 0.64 0.64 0.54 0.54 0.54 0.54 0.54 0.54 0.59 1.20 0.54 0.39 1.05 0.21U 0.7 U 0.7 U	$\begin{array}{c} 3.6\\ 4.5\\ 1.40\\ 0.89\\ 1.37\\ 1.83\\ 1.2\\ 1.2\\ 1.2\\ 1.2\\ 1.2\\ 1.2\\ 1.31\\ 1.47\\ 1.31\\ 1.31\\ 1.48\\ 1.30\\ 1.50\\ 1.50\\ \end{array}$	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.66 7.18 6.23 7.8 9.73 8.73 3.68 3.53 4.39 3.90 4.23 18.60 6.20	0 A U 0.54 U 0.2 U 0.3 B 0.7 O U 0.7 O U	3.5 4.4 1.30 1.19 2.69 2.241 2.241 2.25 2.05 2.05 2.12 2.30 2.12 2.33 2.12 2.30 2.12 2.30	0.62 U 0.62 U 0.2
1312219 6132019 8/202019 10/152019 0/252020 9/252020 9/252020 12/182020 12/182020 8/15/2021 0/252021 0/252021 0/252022 9/252022 0/252022 0/252022	0.25 U 0.54 U 0.2 U 0.7 U	0.21 U 0.57 U 0.2 U 0.4 0 0.7 U 0.7 U 0.7 U 1.1-Dichorethane 1.1-Dichorethane 1.1-Dichorethane	0.47 U 0.59 U 0.2 U 0.17 U 1.1-Dichtoroethylene 1.1-Dichtoroethylene	0.5 U 0.5 U 0.2 U 0.	0.2 U 0.6 U 0.2 U 0.3 U 1.2 Octoretante 1.2 Octore	0.34 U 0.55 U 0.2 U	0.29 U 0.5 U 0.2 U 0.2 U 0.2 U 0.52 0.64 0.79 1.01 1.09 0.54 0.64 0.64 0.64 0.64 0.64 0.64 0.69 0.20 0.20 0.20 0.70 0.20 0.70 0.52 0.70 0.52 0.70 0.52 0.70 0.52 0.70 0.52 0.54 0.70 0.54 0.70 0.54 0.55 0.54 0.55 0.54 0.55 0.54 0.55 0.54 0.55 0.54 0.55 0.54 0.55 0.56 0.57	3.6 4.5 1.40 0.89 1.37 1.83 1.62 1.62 1.62 1.62 1.62 1.62 1.63 1.63 1.33 1.33 1.31 1.44 1.33 1.50 1.50	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.86 7.18 6.23 7.52 10.70 9.73 3.69 3.30 4.23 15.80 6.20 7.22 15.80 6.20 7.22 15.90 15.9	0.4 U 0.54 U 0.2 U 0.38 0.70 U 0.70 U	3.5 4.4 1.30 1.19 1.79 2.69 2.41 2.59 3.65 0.20 2.10 2.12 2.12 2.30 2.12 2.30 2.12 2.30 2.30 2.30 2.12 2.30 2.30 2.30 2.30 2.30 2.30 2.30 2.3	0.62 U 0.62 U 0.2
1312219 6132019 8202019 10155019 11156209 9232020 9232020 9232020 12185020 31176221 8572021 8572021 03727022 9232022 9232022 9232022 9232022 9232022 9232022 9232022 9232022 9232022	0.25 U 0.54 U 0.2 U	0.21 U 0.57 U 0.2 U 0.7 U 1.1-Dichloroethane 6	0.47 U 0.59 U 0.2 U 0.3 U	0.5 U 0.53 U 0.2 U 0	0.2 U 0.6 U 0.2 U 0.3 U 0.3 U 0.3 U 0.3 U	0.34 U 0.55 U 0.2 U	0 29 U 0 5 U 0 2 U 0 2 U 0 2 U 0 2 U 0 6 2 0 6 4 0 79 1 01 1.09 0.54 0 .49 0 .54 0 .39 0 20 0 .54 0 .39 0 20 0 .54 0 .39 0 .20 0 .54 0 .39 0 .20 0 .54 0 .54 0 .39 0 .20 0 .54 0 .54 0 .54 0 .20 0 .54 0 .54 0 .54 0 .20 0 .54 0 .54 0 .20 0 .54 0 .54 0 .20 0 .54 0 .54 0 .20 0 .20 0 .20 0 .54 0 .20 0 .20 0 .54 0 .20 0 .20 0 .20 0 .54 0 .20 0 .20	3.6 4.5 1.40 0.89 1.37 1.62 1.62 1.62 1.47 1.09 1.31 1.31 1.31 1.30 1.33 1.50 cis-1.2.0ichloroethylene 5	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 4.66 7.52 7.52 10.70 9.73 3.66 4.33 4.33 4.33 4.33 4.33 6.20 Tetrachloroethylene 6	0.4 U 0.54 U 0.2 U 0.3 B 0.70 U 0.3 B 0.70 U 0.3 B 0.70 U 0.3 B 0.70 U 0.5 B 0.5 C 0.5	3.5 4.4 1.30 1.19 2.69 2.69 3.66 0.20 0.20 2.05 2.12 2.43 2.45 2.30 2.12 2.43 2.45 2.30 2.30 2.30 2.30 2.30 2.30 2.30 2.30	0.82 U 0.82 U 0.2
1312219 6132019 8202019 101/52019 101/52019 11452020 9223020 9223020 9223020 12182020 10182021 04722021 04723021 04723022 04723022 04723022 04723022 04723022 04723022 04723022 04723022 04723022 04723022 04723022 04723022 04723022 04723022 04723022 04723022 04723022 04723022 047230 047230 0472000 047200 047200 047200 04	0.25 U 0.54 U 0.2 U	0.21 U 0.57 U 0.2 U 0.4 0 0.7 U 0.7 U	0.47 U 0.59 U 0.2 U	0.5 U 0.5 U 0.2 U 0.	0.2 U 0.6 U 0.2 U 0.3 U 0.3 U 0.4 C 0.4 C 0.	0.34 U 0.55 U 0.2 U	0 29 U 0.5 U 0.2 U 0.2 U 0.2 U 0.52 0.52 0.54 0.79 1.05 0.54 0.39 1.20 0.7 U 0.7 U 0.7 U 0.7 U 0.7 U 0.7 U 0.7 U 0.7 U 0.54 0.39 1.05 0.22 0.7 U 0.54 0.39 1.05 0.21 0.7 U 0.54 0.7 U 0.55 0.7 U 0.54 0.7 U 0.55 0.7 U 0.7 U 0.55 0.7 U 0.7 U	3.6 4.5 1.40 0.89 1.37 1.83 1.62 1.62 1.62 1.62 1.62 1.62 1.63 1.63 1.33 1.33 1.31 1.44 1.33 1.50 1.50	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.86 7.18 6.23 7.52 10.70 9.73 3.69 3.30 4.23 15.80 6.20 7.22 15.80 6.20 7.22 15.90 15.9	0.4 U 0.54 U 0.2 U 0.3 8 0.70 U 0.3 8 0.70 U 0.3 8 0.70 U 0.3 8 0.70 U 0.5 8 0.70 U 0.70 U	3.5 4.4 1.30 1.19 2.69 2.41 2.59 0.20 0.20 2.05 2.12 2.53 2.30 2.12 2.30 2.12 2.30 7richloroethylane 5 Result (ug/L)	0.62 U 0.62 U 0.2 U
1312219 6132019 8202019 8202019 101/52019 11452020 9/232020 9/232020 9/232020 12182020 34172021 0/222021 9/232022 9/232022 9/232022 9/232022 0/232022 0/232022 0/232022 9/232022 0/23202 0/23202 0/23202 0/23202 0/23202 0/23202 0/23202 0/23202 0/23202 0/23202 0/23202 0/23202 0/23202 0/23202 0/23202 0/23202 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/23200 0/2320	0.25 U 0.54 U 0.2 U 0.7 U 1,1,1-Trichloroethane 5 Result (sgt) 0.25 U 0.25 U	0.21 U 0.57 U 0.2 U	0.47 U 0.59 U 0.2 U 0.3 C 0.4 T U 0.4 T U 0.5 S U	0.5 U 0.5 U 0.2 U 0.5 U	0.2 U 0.6 U 0.2 U 0.3 U 0.3 U 0.2 U 0.2 U 0.3 U 0.5 O (0.2 U 0.5 O (0.5 O (0.34 U 0.55 U 0.2 U 0.5 S U 0.5 S U 0.5 S U 0.5 S U 0.5 S U	0 29 U 0 5 U 0 2 U 0 2 U 0 2 U 0 52 0 52 0 54 0 79 1 00 54 0 79 1 05 0 48 0 39 1 20 0 7 U 0 7 U N-13 Chloroform 7 Result (tight) 0 29 U 0 5 U	3.6 4.5 1.40 0.89 1.37 1.83 1.62 1.62 1.62 1.62 1.62 1.62 1.63 1.31 1.31 1.31 1.31 1.31 1.31 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.5	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.86 7.18 6.23 7.52 10.70 9.23 4.39 4.39 4.23 4.39 4.23 15.60 6.20 7 Etrachloroethylene 5 Result (tight) 29.1 6.7 61.7	0.4 U 0.54 U 0.2 U 0.3 8 0.70 U 0.55 4 0.55 4	3.5 4.4 1.30 1.19 1.79 2.69 2.41 2.59 3.65 0.0 0 2.65 2.65 2.65 2.12 2.30 2.12 2.30 2.12 2.30 Trichloroethylene 5 8 Result (ug/t) 2.4 3.4	0.62 U 0.62 U 0.2 U 0.5 Z
1312219 61/32019 8/202019 10/152019 11/152029 0/22020 0/22020 0/22020 0/220202 0/200000000	0.25 U 0.54 U 0.2 U	0.21 U 0.57 U 0.2 U 0.4 U 0.7 U	0.47 U 0.59 U 0.2 U 0.5 U 0.5 U 0.2 U	0.5 U 0.53 U 0.2 U	0.2 U 0.6 U 0.2 U	0.34 U 0.55 U 0.2 U 0.5 U	0 29 U 0 5 U 0 2 U 0 2 U 0 2 U 0 2 U 0 5 C 0 70 0 70	3.6 4.5 1.40 0.89 1.37 1.62 1.62 1.62 1.47 1.09 1.31 1.45 1.30 1.31 1.31 1.31 1.31 1.30 1.50 5 Result (rgt.) 28.60 5 Result (rgt.) 28.60 15.00	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.56 7.13 0.7 9.73 3.68 3.53 4.39 4.20 4.20 4.20 4.20 5.20 Tetrachorecthylens 5 Result (tipl.) 29.1 6.17 14	0.4 U 0.54 U 0.2 U 0.4 U 0.5 U	3.5 4.4 1.30 1.79 2.69 3.65 0.20 2.05 2.12 2.53 2.12 2.33 2.12 2.40 2.30 7richloroethylene 5 Result (ug1,) 34 34 11	0.62 U 0.62 U 0.2 U
1312219 6132019 8/202019 8/202019 10/152019 11/152020 9/232020 9/232020 9/232020 12/182020 3/172021 0/222021 9/232022 9/23202 9/23202 9/23202 9/23202 9/23202 9/23202 9/23202 9/23202 9/23202 9/23202 9/23202 9/23202 9/23202 9/23202 9/23202 9/23202 9/2020 9/200	0.25 U 0.54 U 0.2 U	0.21 U 0.57 U 0.2 U 0.4 O 0.7 U 0.7 U 0.5 Morethane 5 Resett (top) 1 0.3 J 0.57 0.57	0.47 U 0.59 U 0.2 U 0.47 U 0.47 U 0.47 U 0.47 U 0.47 U 0.59 U 0.2 U 0.47 U 0.47 U 0.47 U 0.2 U 0.47 U 0.47 U 0.2 U 0.47 U 0.47 U 0.2 U 0.47 U 0.2 U 0.47 U 0.2 U 0.47 U 0.2 U 0.47 U 0.2 U 0.2 U 0.47 U 0.2 U 0.2 U 0.2 U 0.47 U 0.2 U	0.5 U 0.5 U 0.2 U 0.5 U	0.2 U 0.6 U 0.2 U	0.34 U 0.55 U 0.2 U 0.3 U 0.3 S U 0.3 S U 0.3 S U 0.3 S U 0.3 S U 0.2 U 0.2 U 0.3 S U 0.3 S U 0.2 U 0.2 U 0.3 S U 0.3 S U 0.2 U 0.2 U 0.3 U 0.3 S U 0.2 U	0 29 U 0.5 U 0.2 U 0.2 U 0.2 U 0.52 0.64 0.79 1.00 0.64 0.46 0.46 0.46 0.48 0.48 0.49 0.49 0.50 0.20 0.7 U X-13 Result (top!) 0.29 U 0.5 U 0.29 U 0.5 U 0.5 U 0.35	3.6 4.5 1.40 0.89 1.37 1.83 1.62 1.62 1.62 1.62 1.62 1.62 1.63 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.86 7.18 6.23 7.52 10.70 9.73 4.39 4.23 4.39 4.23 4.39 4.23 18.60 6.20 7etrachloroethylene 5 Result (topl.) 29.1 14. 5.99	0.4 U 0.54 U 0.2 U 0.38 0.70 U trans-1.2-Dichiorcettylene 5 S Result (tgt) 0.2 U 0.2 U 0.3 U 0.4 U 0.3 U 0.4 U 0.3 U 0.4 U 0.2 U 0.3 U 0.4 U 0.3 U 0.4 U 0.2 U	3.5 4.4 1.30 1.19 1.79 2.69 2.41 2.59 3.65 0.00 2.41 2.45 2.45 2.45 2.45 2.45 2.45 2.45 2.45	0.62 U 0.62 U 0.2 U
1312219 61/32019 8/202019 8/202019 10/152019 0/222020 0/222020 0/222020 0/222020 0/222021 8/132021 0/223021 0/223022 0/22302 0/2230 0/2230 0/2230 0/2230 0/2230 0/2230 0/2230 0/2230 0/2230 0/2230 0/2230 0/2230 0/2230 0/2230 0/2230 0/2300 0/2300 0/2300 0/2300 0/2300 0/2300 0/2300 0/2300 0/2300 0/2300 0/2300 0/200000000	0.25 U 0.54 U 0.2 U	0.21 U 0.57 U 0.2 U 0.4 U 0.7 U	0.47 U 0.59 U 0.2 U 0.47 U 0.47 U 0.47 U 0.47 U 0.59 U 0.59 U 0.59 U 0.50 U 0.2 U 0.50 U 0.50 U 0.50 U 0.2 U 0.2 U 0.50 U 0.2 U	0.5 U 0.53 U 0.2 U	0.2 U 0.6 U 0.2 U	0.34 U 0.55 U 0.2 U 0.5 U 0.5 U 0.5 U 0.2 U 0.5 U 0.5 U 0.2 U 0.5 U 0.2 U 0.5 U 0.2 U 0.5 U 0.2 U 0.5 U 0.2 U	0 29 U 0 5 U 0 2 U 0 2 U 0 2 U 0 2 I 0 54 0 46 0 39 0 46 0 39 0 20 0 70 0 20 0 70 0 70	3.6 4.5 1.40 0.89 1.37 1.62 1.62 1.62 1.47 1.09 1.31 1.45 1.30 1.31 1.31 1.31 1.31 1.30 1.50 5 Result (rgt.) 28.60 5 Result (rgt.) 28.60 15.00	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.66 7.82 10.70 9.73 3.68 3.53 4.30 3.68 3.53 4.30 5.20 Tetrachloroethylone 5 Result (ugl.) 28.1 4.90 4.90 4.90	0.4 U 0.54 U 0.2 U	3.5 4.4 1.30 2.00 2.00 2.00 2.00 2.05 2.12 2.05 2.12 2.05 2.12 2.05 2.12 2.05 2.12 2.05 2.12 2.13 2.05 2.12 2.13 2.05 2.13 2.05 2.13 2.05 2.13 2.05 2.13 2.05 2.13 2.05 2.13 2.15 5 7 7 8 9 7 9 7 9 7 7 9 7 9 7 7 9 7 7 9 7 7 9 7	0.62 U 0.62 U 0.2 U
1312219 61732019 82202019 82202019 101752019 11752020 0222020 0222020 0222020 0222020 0222020 0222020 0222022 022022 022022 022022 022022 022022 022022 022022 022022 022022 022022 022022 022022 022022 022022 022022 020202 020202 020202 020202 020202 020202 020202 020202 020202 020202 020202 020202 020202 02020 020202 02020 0200 0000 0000 0000 0000 0000 0000 0000 0000 00000 0000 0000 0000 0000 000000	0.25 U 0.54 U 0.2 U	0.21 U 0.57 U 0.2 U 0.5 U 0.5 C 0.7 U 0.5 C 0.5 C	0.47 U 0.59 U 0.2 U	0.5 U 0.53 U 0.2 U	0.2 U 0.6 U 0.2 U	0.34 U 0.55 U 0.2 U	0 29 U 0 5 U 0 2 U 0 2 U 0 2 U 0 2 I 0 54 0 46 0 39 0 46 0 39 0 20 0 70 0 20 0 70 0 70	3.6 4.5 1.40 0.89 1.37 1.83 1.62 1.42 1.42 1.42 1.42 1.42 1.43 1.31 1.31 1.31 1.31 1.31 1.31 1.31	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.66 7.18 6.23 7.62 10.7 3.60 4.39 4.39 4.23 4.39 4.23 18.60 6.20 Tetrachlorcethylene 5 Result (ugl.) 29.1 4.39 4.39 4.23 18.60 6.20 19.7 10.7 1	0.4 U 0.54 U 0.2 U 0	3.5 4.4 1.30 1.19 2.60 2.241 2.265 2.05 2.12 2.53 2.12 2.30 2.12 2.30 Trichlorcethylene 5 Result (ug/t) 2.4 3.4 1.12 2.30 Trichlorcethylene 5 Result (ug/t) 2.4 3.4 1.12 2.20 2.20 2.20 2.20 2.20 2.20 2.20	0.62 U 0.62 U 0.2 U
1312219 1312219 1312219 1322019 1322019 1322019 1322020 13152020 132152020 132152020 132152020 132152020 132152020 132152020 132222 132222 132222 132222 132222 132222 132222 132222 132222 132222 132222 13222 13222 13222 13222 13222 13222 13222 1322 1322 1322 1322 1322 1322 1322 132 13	0 25 U 0 25 U 0 2 U	0 21 U 0 57 U 0 2 U 0 3 Z 0 7 U 0 7 Z 0 7 7 U 0 5 7 0 5 5 0 5 7 0 5	0.47 U 0.59 U 0.2 U 0.17 U 0.2 U 0.2 U 0.2 U 0.2 U 0.47 U 0.2 U 0.2 U 0.2 U 0.2 U 0.47 U 0.2 U	0.5 U 0.53 U 0.2 U	0.2 U 0.6 U 0.2 U	0.34 U 0.55 U 0.2 U	0 29 U 0 5 U 0 2 U	3.6 4.5 1.40 0.89 1.37 1.62 1.62 1.62 1.47 1.09 1.31 1.31 1.47 1.30 1.33 1.31 1.50 1.50 5 Result (ugl.) 22.40 22.80 1.60 1.60 1.60 1.60 1.60 1.60 1.60 1.6	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.66 7.13 9.73 10.70 9.73 3.68 3.53 4.30 3.53 4.30 3.53 4.30 5.10 6.20 7 7 7 7 7 7 8 7 7 7 8 7 8 7 7 7 8 7 7 7 8 7 7 8 7 8 7 7 7 7 7 7 7 7 7 7 7 7 7	0.4 U 0.54 U 0.2 U 0	3.5 4.4 1.30 1.19 1.79 2.69 2.69 2.65 2.65 2.05 2.12 2.53 2.30 2.30 2.46 2.30 2.30 2.46 2.30 2.46 2.30 2.30 2.30 2.30 2.30 2.30 2.30 2.30	0.62 U 0.62 U 0.2 U
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1312219 6132019 8202019 8202019 10155019 11452020 9223020 9223020 9223020 9223020 112182021 10282021 10282021 08232022 08233022 08233022 08233022 08233022 08233022 08233022 08233022 08232021 1312019 1312019 1312019 1312019 1312019 1312019 1312020 1312020 13120	0.25 U 0.25 U 0.2 U	0 21 U 0 57 U 0 2 U 0 3 J 0 57 0 57 0 57 0 57 0 59 0 49 J 0 50 U 0 5	0.47 U 0.59 U 0.2 U	0.5 U 0.5 U 0.2 U	0.2 U 0.6 U 0.2 U	0.34 U 0.55 U 0.2 U	0 29 U 0 5 U 0 2 U 0 2 U 0 2 U 0 2 U 0 2 U 0 2 U 0 52 0 54 0 54 0 54 0 39 1 20 0 7 U 0 7 Result (top!) 0 5 U 0 2 U	3.6 4.5 1.40 0.89 1.37 1.32 1.32 1.42 1.42 1.42 1.42 1.42 1.43 1.31 1.31 1.31 1.31 1.31 1.31 1.31	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.56 7.13 5.23 7.0 9.73 3.08 3.53 4.39 4.23 4.23 4.23 4.23 4.23 4.23 4.23 5 7 6.20 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8	0.4 U 0.54 U 0.2 U	3.5 4.4 1.30 1.19 2.60 2.60 2.65 0.20 2.12 2.35 2.12 2.30 2.12 2.460 2.30 2.12 2.30 2.12 2.460 2.30 7rich/creethylene 5 Result (ingl.) 34 34 34 11 27.90 23.20 21.50 15.70 21.50 5	0.62 U 0.62 U 0.2 U
1312219 1312219 1312219 13122019 1322019 1322019 132202019 13232020 132132020 132132020 132132020 132132020 132132020 132132020 132132020 132220 03232022 0323202 0 0323202 0 032320 0 0 0	0 25 U 0 25 U 0 2 U	0 21 U 0 57 U 0 2 U 0 3 J 0 57 0 55 0 55 0 55 0 59 0 2 U 0 2 U 0 2 U 0 40 J 0 55 0 55 0 55 0 55 0 59 0 2 U 0	0.47 U 0.59 U 0.2 U	0.5 U 0.5 U 0.2 U	0.2 U 0.6 U 0.2 U 0.	0.34 U 0.55 U 0.2 U	0 29 U 0 5 U 0 2 U	3.6 4.5 1.40 0.89 1.37 1.62 1.62 1.62 1.47 1.09 1.31 1.41 1.30 1.31 1.31 1.41 1.30 1.50 5 Result (ugl.) 2240 6 Result (ugl.) 2240 1.60 1.50 1.60 1.60 1.60 1.60 1.60 1.60 1.60 1.6	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.66 7 9.73 3.68 3.53 4.39 3.68 3.53 4.39 3.68 4.39 5.10 7.82 16.20 Tetrachloroethylone 5 Result (ugL) 23.1 61.7 23.1 44.90 45.90 5.80	0.4 U 0.54 U 0.52 U 0.2 U 0.5 U 0.2 U 0.2 U 0.5 U 0.2 U 0.5 U 0.2 U 0.2 U 0.5 U 0.2 U	3.5 4.4 1.30 1.19 1.70 2.69 2.69 2.65 2.12 2.65 2.12 2.45 2.23 2.12 2.45 2.23 2.23 2.23 2.23 2.23 2.23 2.23 2.2	0.62 U 0.62 U 0.2 U
13122019 01312019 8/20/2019 8/20/2019 10/15/2019 10/15/2019 10/25/2019 0/22/2020 0/22/2020 0/22/2020 0/22/2020 0/22/2021 0/22/2022 0/22/2022 0/22/2022 0/22/2022 0/22/2022 0/22/2022 0/22/2022 0/22/2022 0/22/2022 0/22/2021	0.25 U 0.25 U 0.2 U	0 21 U 0 57 U 0 2 U 0 3 J 0 57 0 57 0 57 0 57 0 59 0 49 J 0 50 U 0 5	0.47 U 0.59 U 0.2 U	0.5 U 0.5 U 0.2 U	0.2 U 0.6 U 0.2 U	0.34 U 0.55 U 0.2 U	0 29 U 0 5 U 0 2 U 0 2 U 0 2 U 0 2 U 0 2 U 0 2 U 0 52 0 54 0 54 0 54 0 39 1 20 0 7 U 0 7 Result (top!) 0 5 U 0 2 U	3.6 4.5 1.40 0.89 1.37 1.32 1.32 1.42 1.42 1.42 1.42 1.42 1.43 1.31 1.31 1.31 1.31 1.31 1.31 1.31	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.66 7.18 6.23 7.28 7.18 5.70 9.73 3.68 3.53 4.39 4.23 4.23 4.23 4.23 4.23 4.23 4.23 4.23 5.76 7.76	0.4 U 0.54 U 0.2 U	3.5 4.4 1.30 1.19 2.60 2.60 2.65 0.20 2.12 2.35 2.12 2.30 2.12 2.460 2.30 2.12 2.30 2.12 2.30 2.12 2.460 2.30 5 Result (ingl.) 34 34 34 11 27.90 23.20 21.50 5 Result (ingl.) 15.70 21.50 5 15.70 21.50 5 15.70 21.50 5 15.70 21.50 5 15.70 21.50 5 15.70 21.50 5 15.70 21.50 5 15.70 21.50 5 15.70 21.50 5 15.70 21.50 21	0.62 U 0.62 U 0.2 U
1312219 1312219 1312219 13122019 1322019 1322019 132202019 13232020 132132020 132132020 132132020 132132020 132132020 132132020 132132020 132220 03232022 032320 032320 032320 032320 032320 032320 032320 03232 0 032320 0 0 0	0.25 U 0.54 U 0.2 U	0 21 U 0 57 U 0 2 U 0 3 J 0 57 0 57 0 57 0 57 0 59 J 0 2 U 0 2 U 0 2 U 0 59 J 0 59 J 0 2 U 0 2 U 0 59 J 0 59 J 0 2 U 0 2 U 0 2 U 0 59 J 0 59 J 0 2 U 0 2 U 0 2 U 0 59 J 0 52 U 0 2 U 0 2 U 0 52 U 0 55 C 0 5	0.47 U 0.59 U 0.2 U	0.5 U 0.5 U 0.2 U 0.	0.2 U 0.6 U 0.2 U 0.	0.34 U 0.55 U 0.2 U	0.29 U 0.5 U 0.2 U 0.2 U 0.2 U 0.52 0.64 0.64 0.64 0.64 0.39 1.20 0.7 U X-13 Choroform 7 Result (ugL) 0.22 U 0.22 U	3.6 4.5 1.40 0.89 1.37 1.33 1.32 1.22 1.62 1.47 1.47 1.31 1.31 1.31 1.31 1.31 1.31 1.31 1.3	1 U 1 U 1 U 1 U 1 U 1 U 1 U 1 U	10.7 19.5 5.10 3.20 4.66 7 9.73 3.68 3.53 4.39 3.68 3.53 4.39 3.68 4.39 5.10 7.82 16.20 Tetrachloroethylone 5 Result (ugL) 23.1 61.7 23.1 44.90 45.90 5.80	0.4 U 0.54 U 0.2 U	3.5 4.4 1.30 1.19 2.60 2.65 2.65 2.05 2.12 2.30 2.12 2.30 2.12 2.30 7tichforethylene 5 8 Result (upL) 24 30 31 11 27.90 2320 24.60 5 8 8 8 8 8 11 11 27.90 23.20 24.60 2.30 7 11 24 3 3 2.12 2.30 7 11 24 3 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	0.62 U 0.62 U 0.2 U

NOTES: NYDBCC - New York State Department of Environmenial Conservation TOGS - Technical Operational Guidance Series 1.1.1-Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998) µgU - micrograms per lifer (parts per billion ppb) NS - Sample was not cellcaded for analysis U - this analyte was not cellcaded for analysis J - this analyte was detacted back the reporting limit (LoD/RL) or Limit of Detection/ Method Detection Limit (LoD/MDL) J - this analyte was detacted back the reporting limit durater than or equal to the Method Detection Limit (LoD/MDL) Highlighted denotes concentration above NYSDEC TOGS

APPENDIX – A

Groundwater Monitoring well Sampling Logs

LOW FLOW FIELD SAMPLING LOG

GROUNDWATER QUALITY PARAMETERS

QUARTERLY GROUNDWATER MONITORING - 1st Quarter 2023- March, 2023

New York, NY	10001									
		D	1000 D (1)	D 1 1				TT 7 (1		emp: 37°F, Wind S-SSE @
		Project:	1888 Bathgate Ave		ient Site			Weather:	8-12 mph, pressure 30	.30 in. Hg.
		Project Location:	4181 Third Avenue Bronx, NY 10457	3				Personnel:	C. Eckhardt	
		Duele of New						Deter	Manal 1 2022	
		Project No.:	503-1001					Date:	March 1, 2023	
		NYSDEC Site No.	.: C203088							
					WELL DATA					
Well Number:			MW-11		Well Diameter	2.0 in.			ater Elevation (rel. msl)	48.65
	Depth ofWell (ft.		6.50		Point Elevation (rel. msl.)	49.75	-		Average Pumping Rate:	0.19 gpm
	Depth of well (f	t. below TOC):	5.51	Pump 1	Intake Depth (below TOC):	4.50		Final Depth to G	froundwater (below TOC)	
Screened Interv			1.50-6.50		Purge Start Time:		_		Total Volume Purged:	2.31 gallons
	evel (ft.below TO	C):	1.10		Purge End Time		_		Purge Method:	
Product Thickne			0.00	S	Sample Collection Time:	12:58 PM			-	Solnist Peristaltic Pump
Standing water		、 、	4.41		Sample Analysis:	dehalococc	oides bacteria	<u> </u>	Sample Method:	Same.
PID Reading at	the well head (pp	pm)	1.90							
					PURGE DATA					
		Specific					Volume			
Time of	рН	Conductivity	Disolved Oxygen	Turbidity	Temperature	ORP	Purged	Flow Rate	Groundwater Level	COMMENTS
Measurement	(SU)	(mS/cm)	(ppm)	(NTU)	(°C)	(mv)	(Liters)	(gpm) or (L/m)	(ft. below TOC)	COMMENTS
	(20)	,	(PP)	(110)	()	((111113)	(gpm) or (2, m)	,	
							1			
Stability:	± 0.10 units	± 3%	± 10%	±10%	± 3%			0.1-0.5 L/m or 0.026-0.13 gpm	drawdown = ≤ 0.3 ft.	
Well Diameter		1"	1¼"	1½"	2"	3"		4"	6"	
Volume (gal/ft)		0.04	0.075	0.103	0.171	0.378		0.652	1.48	
		0.07	0.075	0.103	0.1/1	0.370		0.032	1.70	l

011205/P/2522/021/N/094/MGP/RemedialInvestigation/Reports/2005GWReport/April2005lowflowlogs.xls

ALC

ENVIRONMENTAL

CONSULTING | MANAGEMENT | TRAINING

39 West 29th Street, 8th floor,

	ENVIRONMENTAL ANAGEMENT TRAINING reet , 8 th floor, ' 10001	ALC ENVIRON	MENTAL	GROUNDW	LOW FIELD SAMPLIN VATER QUALITY PAR LY GROUNDWATER	RAMETERS	NG -1 st Quarte	er 2023 - March,		emp: 37°F, Wind S-SSE @
		Project:	1888 Bathgate Ave	enue Redevelopm	ent Site			Weather:	8-12 mph, pressure 30	
		Project Location:	4181 Third Avenue Bronx, NY 10457	e				Personnel:	C. Eckhardt	
		Project No.:	503-1001					Date:	March 1, 2023	
		NYSDEC Site No	.: C203088							
					WELL DATA	L				
Well Number:			MW-13		Well Diameter	2.0 in.	_		ater Elevation (rel. msl)	
	Depth of Well (ft. Depth of Well (f		<u>34.00</u> 33.64		Point Elevation (rel. msl.) Intake Depth (below TOC):	53.35 20.00	-		Average Pumping Rate: Broundwater (below TOC)	0.69 gpm
Screened Interva		t. below 100).	24.00-34.00	i unp i	Purge Start Time:	1:51 PM	-	i mai Depin to C	Total Volume Purged:	13.9 gallons
	evel (ft.below TOC	C):	5.63		Purge End Time		-		Purge Method:	
Product Thickne Standing water			0.00 28.01	S	Sample Collection Time: Sample Analysis:	2:24 PM	oides bacteria		-	Solnist peristaltic pump Same.
	the well head (ppi	m)	0.2		Sample Analysis:	uenalococco	oldes bacteria	<u> </u>	Sample Method:	Same.
		,			PURGE DATA					
	1	Specific					Volume	1		
Time of Measurement	рН	Conductivity	Disolved Oxygen	Turbidity	Temperature	ORP	Purged	Flow Rate	Groundwater Level	COMMENTS
Measurement	(SU)	(mS/cm)	(mg/l)	(NTU)	(°C)	(mv)	(gallons)	(gpm) or (L/m)	(ft. below TOC)	
	L	l			11		I	0.1-0.5 L/m or	1	l
Stability:	± 0.10 units	± 3%	$\pm 10\%$	$\pm 10\%$	± 3%			0.026-0.13 gpm	drawdown = ≤ 0.3 ft.	
Well Diameter		1"	1¼"	1½"	2"	3"		4"	6"	
Volume (gal/ft)		0.04	0.075	0.103	0.171	0.378		0.652	1.48	

011205/P/2522/021/N/094/MGP/RemedialInvestigation/Reports/2005GWReport/April2005lowflowlogs.xls

Laboratory Analytical REPORT



10515 Research Drive Knoxville, TN 37932 Phone: (865) 573-8188 Fax: (865) 573-8133



Client:		vironmental 29th Street		F	Phone:	516-521-5627
	New Yor	rk, NY 10001		F	Fax:	
Identifier:	013UC		Date Rec:	03/02/2023	F	Report Date: 03/06/2023
Client Proj	ect #:	503-1001		Client Project N	Name:	1888 Bathgate Avenue
Purchase (Order #:	503-1001				
Test result	s provide	ed for:	CENSUS			

Reviewed By:

Charles Slater

NOTICE: This report is intended only for the addressee shown above and may contain confidential or privileged information. If the recipient of this material is not the intended recipient or if you have received this in error, please notify Microbial Insights, Inc. immediately. The data and other information in this report represent only the sample(s) analyzed and are rendered upon condition that it is not to be reproduced without approval from Microbial Insights, Inc. Thank you for your cooperation.

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

10515 Research Dr., Knoxville, TN 37932 Tel. (865) 573-8188 Fax. (865) 573-8133

Client: ALC Environmental

Client: Project:	ALC Environmer 1888 Bathgate A				MI Project Number: Date Received:	013UC 03/02/2023
Sample Infor	mation					
Client Sa	imple ID:		MW-11	MW-13		
Sample [Date:		03/01/2023	03/01/2023		
Units:			cells/mL	cells/mL		
Analyst/F	Reviewer:		AR/CS	AR/CS		
Dechlorinati	ng Bacteria					
Dehalococ	coides	DHC	1.79E+02	1.65E+01		

Legend:

NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited < = Result not detected

Quality Assurance/Quality Control Data

Samples Received	3/2/2023			Arrival	Positive	Extraction	Negative	
Component		Date Prepared	Date Analyzed	Temperature	Control	Blank	Control	
DHC		03/02/2023	03/06/2023	0°C	105%	non-detect	non-detect	

EOS Pro-Product Information



Emulsified vegetable oil (EVO) enriched to optimize anaerobic bioremediation of chlorinated solvents and other recalcitrant chemicals in contaminated groundwater.



Product Advantages

- New and improved nutrient package for optimal *Dehalococcoides (Dhc) mccartyi* growth
- Slow and fast release substrates
- Engineered for effective transport
- Third party validated
- Food-grade and USDA certified
- 74% fermentable carbon
- Regulatory acceptance





Experience you can rely on, Products you can trust[™]

NEW & IMPROVED PRO

Description

USDA CERTIFIED BIOBASED PRODUCT

)	Technical Information Emulsified Oils Family
	EOSPRO is a nutrient-enriched, DoD-validated, emulsified vegetable oil (EVO). EOSPRO is engineered to quickly stimulate microbial activity while providing long-term nourishment to enhance anaerobic bioremediation of chlorinated solvents, nitrates, perchlorate, energetics,

THE REPORT OF A REPORT OF A REPORT OF

acid mine drainage, and other recalcitrant chemicals in contaminated groundwater. EOSpro can also be used to reduce redox sensitive metals and radionuclides. The negative surface charges on the droplets combined with small droplet size promote effective transport in the subsurface.

EOSPRO benefits include:

• New and improved nutrient package for optimal *Dehalococcoides (Dhc) mccartyi* growth

- Rapidly-biodegradable substrates to "jump start" bacterial growth •
- Slow release biodegradable substrates to promote long-term biological activity
- Engineered for effective transport in the subsurface
 - Small oil droplet size
 - Negative surface charge
- Extensive third-party validation

EOSPRO incorporates the patented EOS® technologies that clients have trusted for more than a decade. Domestic supply made in the USA with US farmed soybeans.

Chemical & Physical Properties	Oil Emulsion Concentrate:EOSPRORefined and Bleached US Soybean Oil (% by wt.)Rapidly Biodegradable Soluble Substrate (% by wt.)Other Organics (emulsifiers, nutrients, etc.) (% by wt.)Specific GravitypH (Standard Units)Median Oil Droplet Size (microns)Organic Carbon (% by wt.)Mass of Hydrogen Produced (lbs. H2 per lbs. EOSPRO)	<u>Typical</u> 59.8 4 10 0.96 - 0.98 6 - 7 1.0 74 0.25
--------------------------------------	---	--

Packaging

Handling &

Storage

Shipped in 55-gallon drums, 275-gallon IBC totes or bulk tankers (40,000 lbs.)

EOSPRO is shipped as a ready-to-use concentrated emulsion that can be diluted with water in the field to prepare a high quality suspension for easy injection. EOSPRO has a low viscosity and can be distributed with commonly available pumps or by continuous metering with a diluter (e.g., Dosatron[™]). Dilution ratios for EOSPRO typically range from 4:1 to 20:1 (water: EOSPRO) depending on site conditions. EOSPRO injections should be followed with additional chase water to maximize distribution of EOSPRO into the formation.

EOSPRO can be injected with EOSQR, CoBupHMg or BAC-9. Call us for more details.

For best performance, use EOSPRO as shipped, within 60 days of delivery and store at a temperature between 40°F (4°C) to 100°F (38°C).