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Periodic Review Report

(January 2019 - April 2020)

11-28 31st Drive, Queens, NY

NYSDEC Site # C241159

Prepared For:

GBT Real Estate, LLC

1083 Maple Lane

New Hyde Park, NY 11040

Prepared By:

HydroTech Environmental Engineering and Geology, DPC

15 Ocean Avenue, 2nd Floor, Suite 2B

Brooklyn, NY 11225

May 30, 2020

CERTIFICATIONS

I, Tarek Z Khouri, certify that I am currently a NYS registered Professional Engineer and that this Periodic Review Report for the 11-28 31st Drive Site (Site Number: C241159) was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Tarek Z. Khouri, P.E.

Name

Signature

May 30, 2020

Date

TABLE OF CONTENTS

Page Number

Figures

Tables

Appendices

1.0 EXECUTIVE SUMMARY

1.1. Summary of Site Condition and Remedial History

The project site is located at 11-28 31st Drive, in the Long Island City section of Queens County, New York and is identified as Block 502 and Lot 22 on the Queens Tax Map. The site is an approximately 0.055-acre area (2,400 square feet). The site is zoned R7A (residential) and is currently developed with a 6-story condominium building with slab on grade of approximately 1,550 square feet. An 850 square foot open rear yard exists in the southwestern portion of the site. The building is currently vacant and a total of 9 condominium units have been listed in the real estate market for sale.

The Site is enrolled in the New York State (NYS) Brownfield Cleanup Program (BCP) and referred as site No. C241159, which is administered by New York State Department of Environmental Conservation (NYSDEC). GBT Real Estate LLC entered into a Brownfield Cleanup Agreement (BCA) in June 2014 (amended March 2017) with the NYSDEC to remediate the site.

Based upon the results of remedial investigation completed by HydroTech during 2013 and 2015, the types of contamination at the site that were identified to require remediation included:

- Volatile organic compounds (VOCs) particularly trichloroethylene, or TCE, and tetrachloroethylene, or PCE in soil, groundwater and soil vapors
- Heavy metals in soil including copper, lead, zinc, mercury, chromium trivalent, and chromium hexavalent; and,

Remedial actions performed at the site in accordance with the Decision Document dated September 2016 include:

- Removal of a 550-gallon underground gasoline storage tank (UST) (completed);
- Excavation and off-site disposal of contaminated soils/fill exceeding Track 2 restricted residential SCOs (completed);
- Treatment of groundwater contamination via in-situ chemical oxidant (ISCO) injections (completed);
- Installation of an active sub-slab depressurization (SSD) system as an engineering control to mitigate the migration of vapors into the building from groundwater (completed);
- Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the Site (completed);
- Implementation of a long-term groundwater monitoring plan (on-going).
- Implementation of Operation and Maintenance plan for the inspection and monitoring of SSD system (on-going).
- Periodic certification of the institutional and engineering controls (on-going).

In accordance with the Certificate of Completion (COC) is issued for this Site on December 20, 2018, a NYSDEC-approved SMP dated November 2018 was implemented in order manage and monitor the remaining contamination at the Site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. Consistent with this SMP and subsequent requirements by

the NYSDEC and the New York State Department of Health (NYSDOH) pertaining to the SSD system installation and operation, quarterly vacuum monitoring and inspections of active SSD system were conducted and quarterly monitoring and sampling of the five groundwater monitoring wells were performed. Due to interior finishing activities of new building at the Site, the first quarterly groundwater monitoring event was delayed 5 months and performed during August 2019 and the SSD system installation and start-up were completed in conjunction with the finishing of building construction during September 2019.

1.2 Effectiveness of the Remedial Program

Progress made during the reporting period toward meeting the remedial objectives for the Site include continued monitoring of groundwater quality post-ISCO treatment and the implementation and management of the institutional and engineering controls in accordance with the SMP. Monitoring data from the work completed to date shows that the remedial program is currently meeting the remedial objectives for the Site.

1.3 Compliance

No areas were identified as being currently out of compliance with the SMP requirements. As such, no steps are currently deemed necessary to correct areas of non-compliance.

2.0 Site Overview

The PRR is prepared for 11-28 31st Drive site located in the Long Island City section of Queens County, New York. This site is approximately 0.055-acre area or 2,400 square feet and is bounded by 31st Drive to the north- northeast, vacant land and a 1-story manufacturing building to the south-southwest, a 1-story cabinet manufacturing facility to the east-southeast and a vacant 1-story warehouse to the west- northwest. It is zoned R7A (residential) and is currently developed with a 6-story building with a total of 9 condominiums with a slab on-grade. The footprint of this building is approximately 1,550 square feet. An 850 square foot landscaped rear yard exists in the southwestern portion of the site. The building is currently vacant and the condominiums have been listed in the real estate market for sale.

The site was historically developed with a 1-story building and was used as an auto repair shop between 1934 and 1936, a machine shop between 1945 and 1970, a commercial facility between 1977 and 2006 and a manufacturing facility of wood cabinets until it became vacant in the last quarter of 2012.

The site environmental history was previously characterized by HydroTech in a Remedial Investigation Report" (RIR) dated January 2014 and "Supplemental RIR" dated March 2015. During these investigations, a total of five (5) soil borings (SP1-SP5), six (6) groundwater wells including four located on-site (MW-1 to MW-4) and two located off-site (MW-5 to MW-6, with MW-5 presumed destroyed), three (3) sub-slab vapor probes around the site perimeter (SV1 to SV3), and one (1) off-site soil vapor probe (SV4) were installed and sampled. Furthermore, a Ground Penetrating Radar (GPR) was also performed and detected the presence of an anomaly, which was then explored by a test pit and

determined to be an empty 550-gallon gasoline UST. The tank was buried in dirt and showed no evidence of a concrete encasement and no evidence of a petroleum release in soil or groundwater samples collected in its immediate vicinity.

Based on the findings of these investigations, the types of contamination at the site that required remediation included:

- Volatile organic compounds (VOCs) particularly trichloroethylene, or TCE, and tetrachloroethylene, or PCE in soil, groundwater and soil vapors
- Heavy metals in soil including copper, lead, zinc, mercury, chromium trivalent, and chromium hexavalent; and,

During site remedial construction, a number of remedial actions were undertaken in compliance with the Decision Document dated September 2016 and were completed prior to the issuance of the Certificate of Completion (COC) with the exception of SSD system, which was started-up post-COC:

- Demolished and excavated the existing building slab and disposed 145 tons of clean C&D waste;
- Removed the 550-gallon gasoline UST and performed a post-excavation tank assessment;
- Excavated all soil/fill exceeding Track 2 SCOs to a depth of 3 feet below grade throughout the property and a depth of 6.6 feet below grade for the elevator pit and disposed 323.5 tons of nonhazardous contaminated historic fill/native soil;

- Imported of ¾-inch stone for establishing a 6-inch layer of porous layer for the SSD system under slab and a cover in open rear yard;
- Performed SCO injections in the vicinity of the removed UST by introducing a total of 1,900 lbs of persulfate and a total 120 lbs of FeEDTA activator via three injections points.
- Installed an active SSD system, which was completed and started-up along with the completion of building construction;
- Implemented a SMP to ensure proper operation and maintenance of the Engineering Controls; and
- Recording of an Environmental Easement against the site to ensure implementation of the SMP.

3.0 Evaluation of Remedy Performances, Effectiveness, and Protectiveness

The monitoring and sampling plan contemplated in the November 2018 site Management Plan (SMP) and subsequent SSD system-related correspondences with NYSDEC outlines the following activities:

Monitoring Program	Frequency	Monitored	Analytical Parameter	Analytical Method
Groundwater	Two months after ISCO injections, and every quarter thereafter	Monitoring wells MW-1, MW-2, MW-3, MW-4 and MW-6	PCE and TCE	EPA Method 8260
SSD system	At start-up and quarterly thereafter	Vacuum Monitoring points VMP-1, VMP-2, VMP-3, VMP-4 and VMP-5	Not Applicable	Not Applicable

A copy of the monitoring well locations included in **Figure 1**. A copy of SSD vacuum monitoring point locations is provided in **Figure 2**. **Appendix 1** provides NYSDEC correspondences.

3.1 Groundwater Monitoring Data

The post-ISCO treatment groundwater monitoring program was due to commence on a quarterly based during February 2019 in accordance to the SMP.

This quarterly monitoring program was delayed until August 2019 due to limited access to on-site monitoring wells, which were covered by construction supplies for the new building. This deficiency to the groundwater monitoring plan was verbally communicated to NYSDEC.

A total of three rounds of groundwater sampling events are documented in this PRR. Groundwater samples were obtained on a quarterly basis from the monitoring wells MW-1 to MW-4 and MW-6 via Passive Diffusion Bag (PDB) samplers. Quarterly groundwater sampling events covered in this PRR were performed on August 30, 2019, December 10, 2019 and March 17, 2020. The last sampling event was due during February 2020 and had to be delayed to March 2020 due a back order of PDBs.

During the last two quarterly events, no groundwater sample could not be collected from MW-6, which is located behind a locked construction fence erected around a vacant property located to the north of the site. A visual inspection of the remaining monitoring wells indicated they were all sound during this reporting period.

Groundwater monitoring data from the site has been submitted to NYSDEC as part of quarterly status reports. **Appendix 2** provides a copy of these quarterly status reports. The results of groundwater monitoring data collected prior and post-ISCO injection are summarized in **Table 1**.

In addition, the groundwater level measurements from the monitoring wells during this reporting period indicated the groundwater flow direction is toward

the southwest, which is generally consistent with the historic site-specific groundwater flow direction. A groundwater flow diagram from the last groundwater monitoring event is provided in **Figure 3**.

Overall findings of the three quarterly groundwater monitoring events indicate a general reduction in PCE and TCE concentrations in on-site monitoring wells since the completion of the remedial injection program. PCE has been detected at concentrations marginally exceeding its GQS of 5 µg/L in MW-2 and MW-4. Most recently, PCE was detected at 6.77 µg/L in MW-2 and at 6.7 µg/L in MW-4. PCE has been undetected in MW-1 and its concentrations in MW-3 has been below its GQS. PCE reported in upgradient monitoring well MW-6 exceeded its GQS with a concentration of 49.6 µg/L, which represented a decrease from the baseline concentration detected prior to ISCO injections.

TCE was only detected in MW-2 and MW-6 at a concentration less than GQS of 5 µg/L. TCE has not been detected in MW-1, MW-3 or MW-4.

Data Usability Summary Reports (DUSRs) were prepared for all groundwater data by Alpha GeoScience. These DUSRs indicated all laboratory data for the three sampling events are deemed acceptable. These DUSR were submitted as part of the QSRs included in **Appendix 2**. The groundwater data was also submitted electronically to NYSDEC EQuIS™ database through the Environmental Information Management System, using the standardized electronic data deliverable (EDD) format.

3.2 Active Sub-Slab Depressurization System Monitoring Data

The installation of the above ground portion of the SSD system was completed during September 2019 in conjunction with the finishing of the new building construction at the site. The effectiveness of the SSD system vacuum communication was verified through five (5) sub-slab vacuum monitoring points that were installed through the building mat slab in accordance with NYSDEC requirements. Three (3) of these vacuum monitoring points are designated as VMP-1, VMP-2 and VMP-3 and were installed as permanent points in common areas of the building. The remaining two points were designated as VMP-4 and VMP-5 and were installed as temporary points in a rear ground-level residential unit.

Each vacuum monitoring point consisted of a 3-inch stainless-steel screen installed to a depth of approximately 4-inches below the bottom of the concrete building slab and within the 6-inch thick layer of ¾-inch bluestone. The stainless-steel screen is fitted with inert tubing (e.g., polyethylene) of ¼-inch diameter terminating with a gas tight fitting and is properly sealed to the installed vapor barrier beneath the slab. The permanent vacuum monitoring points are finished at grade with a limited access 5-inch manhole cover. The two temporary vacuum monitoring points were abandoned following the measurements of satisfactory pressure field extension in consultation with NYSDEC. **Figure 2** provides the location of the vacuum monitoring points.

SSD system monitoring was performed at start-up on September 9, 2019. At the request of NYSDEC, a second post-start-up monitoring was conducted on October 10, 2019 to verify the presence of adequate vacuum communication beneath the ground floor residential unit before decommissioning the temporary

vacuum monitoring points VMP-4 and VMP-5. The SSD system monitoring was then performed quarterly on December 10, 2020 and March 2, 2020.

During each monitoring event, the vacuum at the sub-slab monitoring points was measured utilizing an Extech HD755 Differential Pressure manometer. The SSD system components were also visually inspected for proper functioning in accordance with the SSD system Operation and Maintenance Plan in the SMP by recording the SSD system vacuum at the inline Dwyer Magnehelic dial type vacuum gauge, checking the audio/visual system alarm and observing the functioning of the fan. In addition, organic vapors were measured at the effluent of the SSD system utilizing a Photoionization detector (PID).

The SSD system monitoring data from all these events are summarized in **Table 2**. This data was also reported to NYSDEC along the quarterly groundwater monitoring data in the QSRs provided in **Appendix 2**.

The results of the SSD system monitoring for this reporting period indicate the vacuum readings measured across the building slab at VMP-1 trough VMP-5 recorded a minimum of -0.023 inches H_2O and a maximum of -0.042 inches H_2O. Overall assessment of this data indicates an adequate radius of influence of the SSD system, which is sufficient for mitigating potential soil vapor intrusion beneath the building. In addition, no organic vapors were detected with the PID at the SSD system effluent.

4.0 Institutional Control/Engineering Control Compliance

4.1 Institutional Controls

The following Institutional Controls are included in the SMP for the site:

- The property may be used for: Restricted Residential, Commercial, and Industrial use;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in this SMP;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health and Mental Hygiene to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP; and

- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.

The site-wide inspection determined that Institutional Controls have been complied with including compliance with the Environmental Easement and the SMP. There are no new conclusions or recommendations for change of Institutional Controls at this time.

4.2 Engineering Controls

The Engineering Control (EC) listed at the site includes the following:

- Active SSD system

The EC present at the site appears to be operating satisfactorily as designed to render the site protective to human health and environment. The SSD system operation is in compliance with the SMP. There are no new conclusions that would trigger any necessary changes or modifications to improve the operation of the EC present at the site.

Based upon the information evaluated in this report, the Institutional and Engineering Controls Certification and Form was filled and certified by Paul I. Matli, a New York State Licensed Professional Geologist (PG). A copy of the EC/IC Certification statement and form is included in **Appendix 3**.

4.0 Operation & Maintenance Compliance Report

The active SSD system is operating and maintained as required and in compliance with the Operation and Maintenance Plan in the SMP. No evidence or current of former deficiencies undermining the operation or functions of the EC were identified during this reporting period.

5.0 Conclusions and Recommendations

5.1 Compliance

The site construction was finished with a 6-strory condominium building that has been vacant. A total of 9 condominiums have been is listed on the real estate market for sale during this reporting period. The installation and start-up of an active SSD system was completed at the end of building construction.

The requirements stipulated in the November 2018 SMP regarding IC/EC's and the monitoring and O&M Plan and subsequent NYSDEC requirements in relation to the SSD system monitoring were met during the reporting period. No disturbance was observed in the land use and all the monitoring wells and the SSD system were maintained in good condition without the need for any repairs or maintenance as confirmed during each quarterly monitoring event.

Minor deficiencies in the ISCO treatment sampling requirements consisting of delayed start of quarterly groundwater monitoring and the lack of access to off-site monitoring well MW-6 were justified and deemed insignificant to impact the evaluation of groundwater quality and conclusions made in this PRR.

5.2 Performance and Effectiveness of Remedy

An evaluation of the components of the SMP during this reporting period indicates that the IC/EC controls were protective of human health and the environment. Quarterly groundwater data indicates PCE has marginally exceeded its GQS in one monitoring well present on-site (MW-3). PCE also exceeded its GQS in upgradient monitoring well located off-site (MW-6).

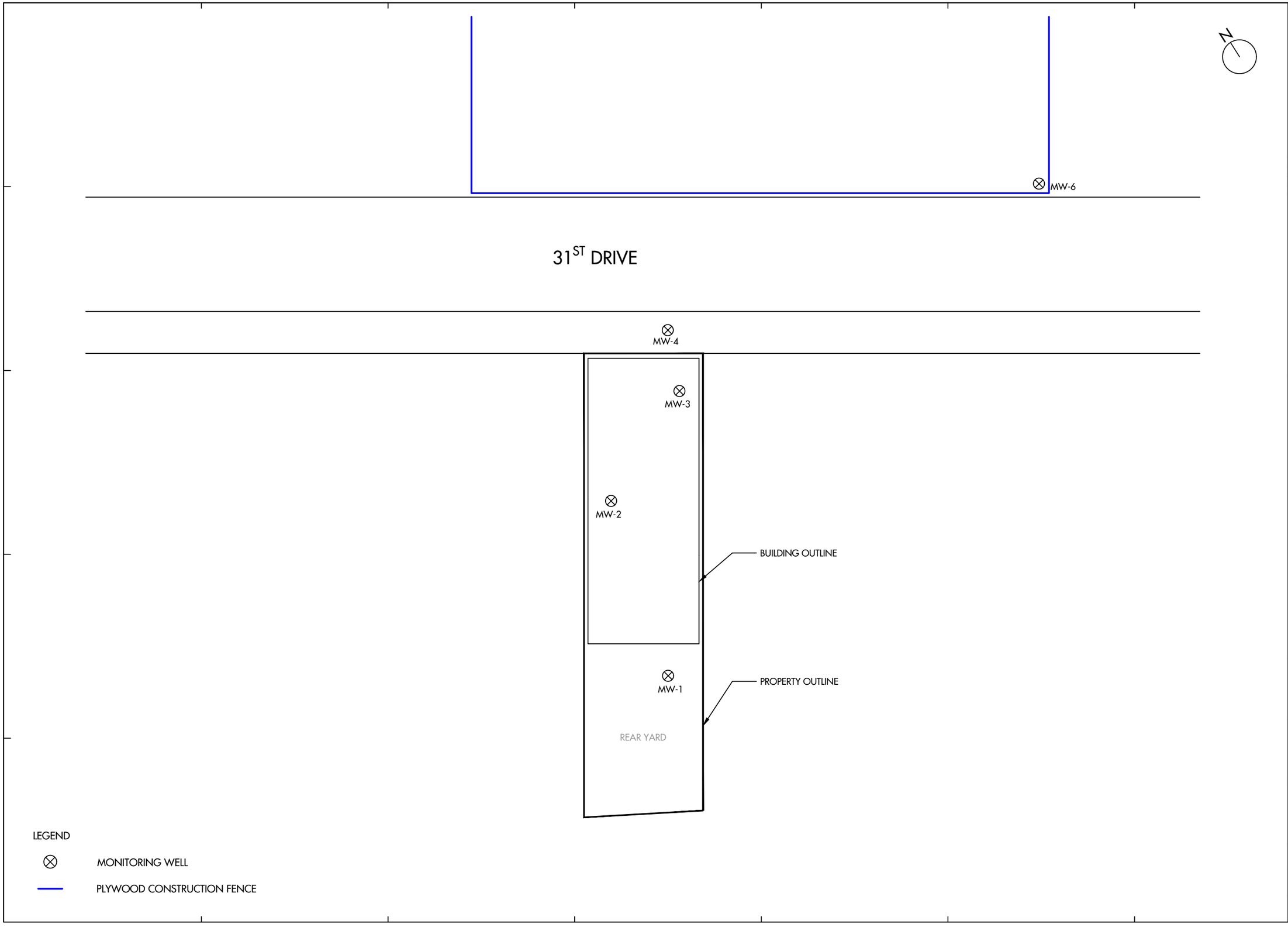
SSD monitoring data indicates the system is operating as designed by mitigating potential soil vapor intrusion beneath the building and rendering the site protective to human health and environment.

5.2 Recommendation

A summary of the recommended ICs/EC inspection, monitoring and sampling activities is provided below:

- The groundwater monitoring and reporting shall continue with the same frequency as defined in the November 2018 SMP in order to further evaluate the natural attenuation of residual PCE concentrations in groundwater.
- Since the SSD system has proven to produce the required sub-slab vacuum communication for the mitigation of potential soil vapor intrusion beneath the building, it is recommended that SSD system monitoring and inspection activities be changed from quarterly basis to semi-annually with the proper implementation of O&M plan as documented in the November 2018 SMP.
- Due to the continued presence of residual contamination in groundwater beneath the site and the operation of an active SSD system, the requirements for discontinuing the SMP have not been met. As such, the implementation of SMP should be continued at this site.
- No change shall be made to the frequency for submittal of this PRR at this time. In accordance with the November 2018 SMP, the next PRR in due after 5 years or at another frequency as may be required by the NYSDEC.

Figures



DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

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BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

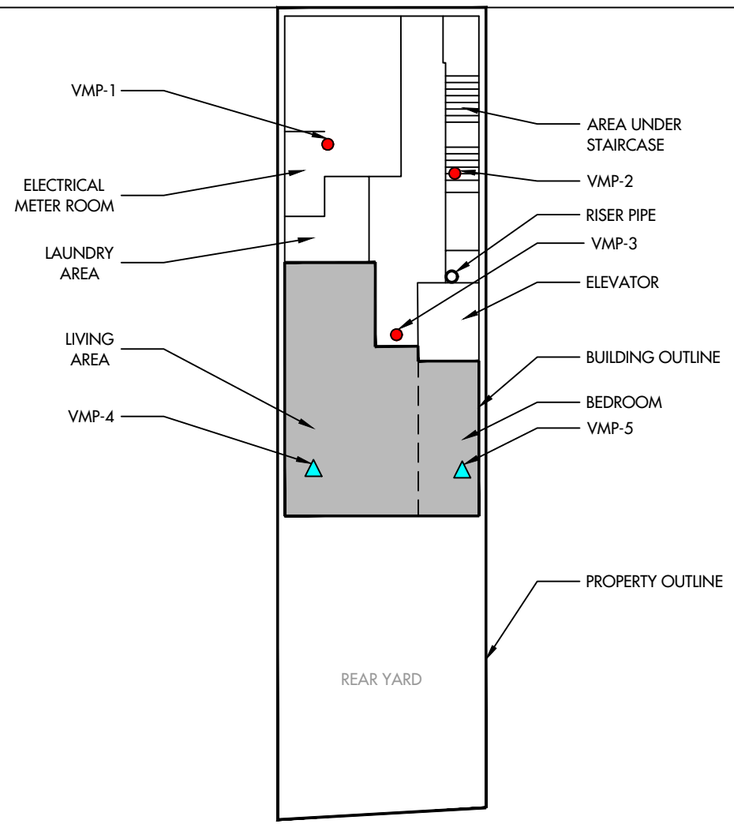
FIGURE 1: MONITORING WELL LOCATIONS

PROJECT NO.	DATE
190055	11/14/19
DRAWN BY A.R.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.

DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

31ST DRIVE



LEGEND

- PERMANENT VACUUM MONITORING POINTS
- TEMPORARY VACUUM MONITORING POINTS (DECOMMISSIONED AFTER SSDS STARTUP)
- RESIDENTIAL UNIT

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

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HAUPPAUGE, NY 11788

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FAX: (631) 462-5877

BASE DRAWING PREPARED BY

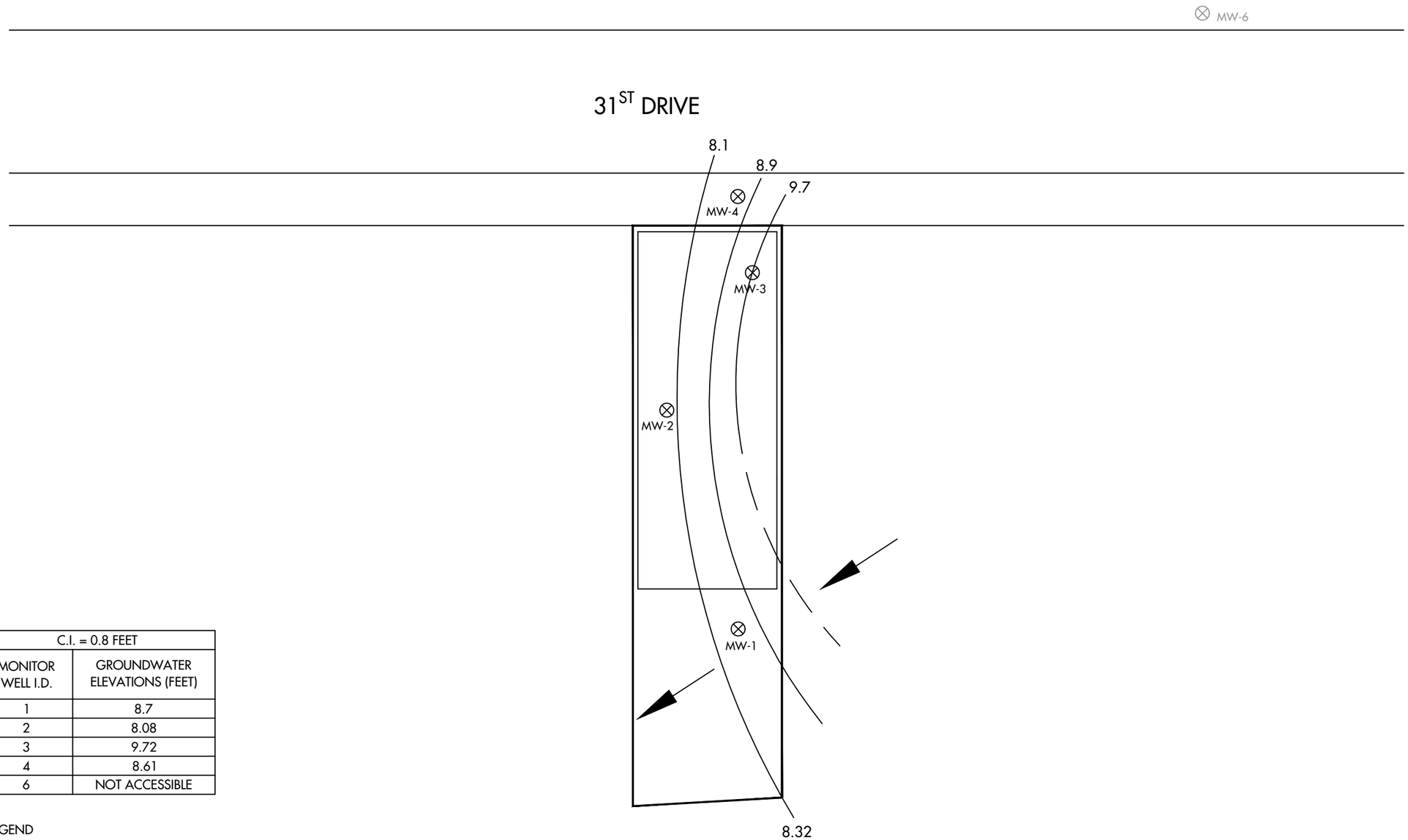
PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 2: VACUUM MONITORING POINTS LOCATIONS

PROJECT NO.	DATE
190055	11/14/19
DRAWN BY A.R.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.



C.I. = 0.8 FEET	
MONITOR WELL I.D.	GROUNDWATER ELEVATIONS (FEET)
1	8.7
2	8.08
3	9.72
4	8.61
6	NOT ACCESSIBLE

LEGEND

⊗ MONITORING WELL

NOTE:
DASHED LINE WHERE CONTOUR IS INFERRED

DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

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BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 3: GROUNDWATER FLOW DIAGRAM - MARCH 2020

PROJECT NO.	DATE
190055	3/24/20
DRAWN BY A.R.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.

Tables

Tabel 1
Groundwater Samples Analytical Results for PCE and TCE _ Over Time
11-28 31st Drive, Queens, NY

Sample ID	MW-1													
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		########		3/17/2020	
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q
Tetrachloroethylene	0.2	U	**0.28**	J	0.22	U	0.22	U	0.22	U	0.20	U	0.20	U
Trichloroethylene	0.2	U	0.2	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U

Sample ID	MW-2													
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		#######		########		3/17/2020	
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q
Tetrachloroethylene	**3.03**		**25**		**20**		**11.60**		**20.1**		**21.90**		**6.77**	
Trichloroethylene	0.2	U	**0.40**	J	**0.63**		**0.68**		**1.21**		**1.35**		**0.52**	

Sample ID	MW-3													
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		12/10/2019		3/17/2020	
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q
Tetrachloroethylene	**20.83**		**4.10**		**1.20**		0.22	U	**0.92**		**1.27**		**1.50**	
Trichloroethylene	**0.52**		0.2	U	0.20	U	0.20	U	0.20	u	0.20	U	0.20	U

Sample ID	MW-4													
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		#######		12/10/2019		3/17/2020	
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q
Tetrachloroethylene	**3,799.8**		**70**		**13**		**2.28**		**2.87**		**1.75**		**6.70**	
Trichloroethylene	**17**		**0.66**		**0.43**	J	0.20	U	0.20		0.20	U	0.20	U

Sample ID	MW-6												Trip Blank		QGS
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		#######	3/17/2020	3/17/2020		
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	µg/L	µg/L	Q	
Tetrachloroethylene	**85.83**	D	**75**		**43**		**28.4**		**49.6**	D	**NA**	**NA**	0.20	U	5
Trichloroethylene	**8.90**		**15**		**0.46**	J	**0.48**	J	**0.42**	DJ			0.20	U	5

NOTES:

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
NS=this indicates that no regulatory limit has been established for this analyte
GWS=NYSDEC TOGS Standards and Guidance Values - GA
▨ Shaded concentration exceeds GQS

1/13/2015=Sampling performed during the Remedial Investigation
2/19/2018=Baseline sampling performed prior to ISCO Injection Program
7/24/2018= Sampling performed 2 months post-ISCO injections
11/20/2018=Quaretrly sampling performed 5 months post-ISCO injections
8/30/2019=Quartely samplig performed 15 months post-ISCO Injections
NA= Not sampled due to limited access

Table 2

SSD System Monitoring Results

11-28 31 Drive ,Queens, New York,
NYSDEC Site Number: C241159

Date/Time	SSD System Vacuum	SSD System Effluent			Vaccum Monitoring Points				
					VMP-1	VMP-2	VMP-3	VMP-4	VMP-5
		PID	Flow	Temp	Vacuum				
9/9/2019	-0.74	0.2	518	76.46	-0.031	-0.040	-0.041	-0.036	-0.039
10/15/2019	-0.74	NA	NA	NA	-0.030	-0.036	-0.042	-0.036	-0.038
12/10/2019	-0.74	0.1	470.8	62.2	-0.024	-0.032	-0.034	D	D
3/2/2020	-0.74	0.1	440.1	65.5	-0.023	-0.035	-0.033	D	D

Vacuum --- Inch Water Flow

PID --- ppm

Flow --- CFM

Temperature --- ◦F

NA---Not measured

D---Decommissioned

Appendix 1: NYSDEC Correspondences

Paul Matli

From: Paul Matli
Sent: Tuesday, October 22, 2019 2:44 PM
To: Martinkat, Sondra (DEC)
Cc: ariel@amc-engineering.com; Timothy Li (tli.architect@gmail.com); 'George Man'; Kuehner, Wendy S (HEALTH); O'Connell, Jane H (DEC)
Subject: RE: 11-28 31st Dr - C241159 -Post-SSDS Start-up vacuum monitoring results

Sondra - Thank you for your prompt reply !

Regards,

Paul I. Matli, Ph.D., P.G.
Vice President
HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC
15 Ocean Avenue, Suite 2B, Brooklyn, NY 11225
Cell: 631-241-7165 | Tel: 718-622-2835 Ext 110 | Fax: 718-636-0900
Email: pmatli@hydrotechenvironmental.com
Website: www.hydrotechenvironmental.com
Please consider the environment before printing this email

From: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>
Sent: Tuesday, October 22, 2019 3:43 PM
To: Paul Matli <pmatli@hydrotechenvironmental.com>
Cc: ariel@amc-engineering.com; Timothy Li (tli.architect@gmail.com) <tli.architect@gmail.com>; 'George Man' <genmail@mcnyinc.com>; Kuehner, Wendy S (HEALTH) <wendy.kuehner@health.ny.gov>; O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Subject: RE: 11-28 31st Dr - C241159 -Post-SSDS Start-up vacuum monitoring results

Paul, You may decommission VMP-4 and 5.

Sondra Martinkat
Environmental Engineer 2, Environmental Remediation

New York State Department of Environmental Conservation
47-40 21st St, Long Island City, NY 11101
P: 718-482-4891 | F: 718-482-6358 | sondra.martinkat@dec.ny.gov
www.dec.ny.gov | |

From: Paul Matli <pmatli@hydrotechenvironmental.com>
Sent: Friday, October 18, 2019 9:41 AM
To: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>

Cc: ariel@amc-engineering.com; Timothy Li (tli.architect@gmail.com) <tli.architect@gmail.com>; 'George Man' <genmail@mcnyinc.com>; Kuehner, Wendy S (HEALTH) <wendy.kuehner@health.ny.gov>; O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Subject: 11-28 31st Dr - C241159 -Post-SSDS Start-up vacuum monitoring results

Sondra –

I am sharing with you the post-SSDS startup vacuum results for above referenced Site. These vacuum was measured at the five sub-slab vacuum monitoring ports installed as per your requirement in attached plan. These vacuum readings were collected over two periods as requested; at start-up and a couple of weeks later.

According to this data, the SSDS is operating efficiently with acceptable radius of influence across the building slab.

Please advise if you have any comments and I appreciate if you can confirm that the two temporary vacuum ports VMP-4 and VMP-5 located inside the bedrooms of the first floor condo unit can be decommissioned.

Regards,

Paul I. Matli, Ph.D., P.G.
Vice President
HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC
15 Ocean Avenue, Suite 2B, Brooklyn, NY 11225
Cell: 631-241-7165 | Tel: 718-622-2835 Ext 110 | Fax: 718-636-0900
Email: pmatli@hydrotechenvironmental.com
Website: www.hydrotechenvironmental.com
Please consider the environment before printing this email

Paul Matli

From: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>
Sent: Monday, August 26, 2019 11:30 AM
To: Paul Matli
Cc: ariel@amc-engineering.com; Timothy Li (tli.architect@gmail.com); 'George Man'; Nicholas Randazzo; Kuehner, Wendy S (HEALTH); O'Connell, Jane H (DEC); Deming, Justin H (HEALTH)
Subject: RE: 11-28 31st Dr - C241159 -Floor plan showing vacuum monitoring points
Attachments: SSDS Vacuum Pressure Points.pdf

Paul,

I have added 2 additional monitoring locations in the attached plan. You may test these two locations during and shortly after the startup only. The other three proposed locations are approved for startup and annual testing.

Sondra Martinkat
Environmental Engineer 2, Environmental Remediation

New York State Department of Environmental Conservation
47-40 21st St, Long Island City, NY 11101
P: 718-482-4891 | F: 718-482-6358 | sondra.martinkat@dec.ny.gov
www.dec.ny.gov | | |

From: Paul Matli <pmatli@hydrotechenvironmental.com>
Sent: Wednesday, August 14, 2019 5:24 PM
To: Martinkat, Sondra (DEC) <sondra.martinkat@dec.ny.gov>
Cc: ariel@amc-engineering.com; Timothy Li (tli.architect@gmail.com) <tli.architect@gmail.com>; 'George Man' <genmail@mcnyinc.com>; Nicholas Randazzo <nrandazzo@amc-engineering.com>; Kuehner, Wendy S (HEALTH) <wendy.kuehner@health.ny.gov>; O'Connell, Jane H (DEC) <jane.oconnell@dec.ny.gov>
Subject: 11-28 31st Dr - C241159 -Floor plan showing vacuum monitoring points

Sondra – This is to inform you that the building construction at above site is almost complete and we should be ready to start the SSD system.

Per your request, I am sharing with you for NYSDOH approval the proposed location of 3 vacuum monitoring points that will be installed permanently beneath the 18-inh thick first floor slab. These vacuum monitoring ports will allow to monitor the SSDS radius of influence after start-up and annually per the SMP. Please note that the rear portion of the first floor will be a private condominium and monitoring points cannot be installed in that space.

I appreciate your expedited response on this matter.

Regards,

Paul I. Matli, Ph.D., P.G.
Vice President

HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC

15 Ocean Avenue, Suite 2B, Brooklyn, NY 11225
Cell: 631-241-7165 | Tel: 718-622-2835 Ext 110 | Fax: 718-636-0900
Email: pmatli@hydrotechenvironmental.com
Website: www.hydrotechenvironmental.com
Please consider the environment before printing this email

Appendix 2: Historic Quarterly Status Report

HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC

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Brooklyn, New York 11225
T (718) 636-0800 ; F (718) 636-0900

Long Island Office
77 Arkay Drive, Suite K
Hauppauge, New York 11788
T (631) 462-5866 ; F (631) 462-5877

WWW.HYDROTECHENVIRONMENTAL.COM

December 4, 2019

Ms. Sondra Matinkat
New York State Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101-5407

Re: Quarterly Status Report # 1 – June 2019 to August 2019
11-28 31st Drive, Queens, NY
NYSBCP Site #C241159

Dear Ms. Martinkat:

This report is intended to serve as a Quarterly Status Report (QSR), covering the period from June 2019 through August 2019, for the above-referenced New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site **#C241159** (the Site). The scope of work presented is based on the NYSDEC-approved Site Management Plan (SMP) dated November 2018 and was performed on behalf of the property owner, GBT Real Estate, LLC. The scope of work involved the monitoring and sampling of five existing monitoring wells and the documentation of the start-up activities of the active Sub-Slab Depressurization System (SSDS).

Groundwater Monitoring and Sampling

In accordance with the NYSDEC-approved SMP, groundwater sampling was due to continue quarterly since the last sampling event during November 2019 following the *in-situ* chemical oxidation (ISCO) injection program that was completed in May 2018. Groundwater sampling activities were pending until most recently due to limited access to the monitoring wells, which were continuously covered by construction supplies for the new building.

Groundwater samples were obtained from five existing monitoring wells MW-1 to MW-4 and MW-6 on August 30, 2019. These samples were collected via Passive Diffusion Bag (PDB) samplers. The PDBs were placed inside the wells for the duration of 17 days following the gauging of the monitoring wells on August 13, 2019.

The wells monitoring consisted of gauging each well for the presence of LNAPL and also determine the depth to groundwater utilizing a Solinst 122 Oil/Water Interface Probe. None of the monitoring points were found to contain free product. The depth to water during this monitoring event ranged from 9.44 feet in MW-4 to 11.08 feet in MW-1. The location of monitoring wells is shown in **Figure 1**. **Table 1** provides the groundwater monitoring and elevation data for the period covered by this report. **Attachment A** provides the wells monitoring sheet.

Utilizing the casing elevations of monitoring wells as determined from a site cover survey by Boro Land Surveying, P.C. survey dated June 2019 and the depth to water, the groundwater elevations in the wells were then determined. The gradient of groundwater elevations in monitoring wells indicates the groundwater flow direction beneath the Site is toward the southwest, which is consisted with the flow directions previously mapped for this Site. **Figure 2** provides a contour map of groundwater flow direction during August 2019.

The groundwater samples were placed in a cooler filled with ice and maintained at a maximum 4 degrees Celsius. The samples were transmitted under proper chain of custody procedures to a State-certified (ELAP) laboratory and analyzed for tetrachloroethylene (PCE) and trichloroethylene (TCE) in accordance with EPA Method 8260.

Investigatory-derived waste (IDW) consisting of excess liquid generated during the sampling from of PDBs were placed into a 55-gallon drum. The drum was disposed of in accordance to DER-10 Technical Guidance for Site Investigation and Remediation (May 2010). **Attachment B** provides drum disposal manifest.

Laboratory analytical results for PCE and TCE in groundwater samples are provided in **Table 2**. **Table 2** also provides the PCE and TCE concentrations over time and a comparison to NYSDEC 6NYCRR Part 703.5 Class groundwater Quality Standards (GQS).

As **Table 2** indicates, PCE concentrations exceeding GQS were only detected in MW-2 at 20.8 µg/L and in MW-6 at 49.6 µg/L. PCE was also detected in MW-3 at a concentration below GQS. TCE is present in MW-2 and MW-6 at concentrations less than GQS. These findings are consistent with the previous sampling performed during November 2018 and continue to reflect a general reduction in PCE and TCE concentrations following the completion of the injection program.

The groundwater data was submitted electronically to NYSDEC through the Environmental Information Management System using the NYSDEC standardized Electronic Data Deliverable (EDD) format. A Data Usability Summary Report (DUSR) was also prepared for the analytical results by an independent data reviewer, Mr. Donald Anne of Alpha Geoscience in Clifton Park, NY. The DUSR indicates the data is acceptable considered usable. A copy of the DUSR is provided in **Attachment C**.

Active Sub-Slab Depressurization System

The active SSDS was started-up on September 9, 2019. Prior to SSDS start-up, five (5) sub-slab vacuum monitoring points were installed through the building mat slab in accordance with NYSDEC requirements. The purpose of these vacuum monitoring points is to determine the presence of an adequate SSDS vacuum communication beneath the building slab. Three (3) permanent vacuum monitoring points designated as VMP-1, VMP-2 and VMP-3 were installed in common areas of the building and two temporary points designated as VMP-4 and VMP-5

were installed inside living spaces in the ground level residential unit. At each vacuum monitoring point, a 3-inch stainless-steel screen was installed to a depth of approximately 4-inches below the bottom of the concrete building slab and within the 6-inch thick layer of ¾-inch bluestone. The stainless-steel screen is fitted with inert tubing (e.g., polyethylene) of ¼-inch diameter terminating with a gas tight fitting and is properly sealed to the installed vapor barrier beneath the slab. The permanent vacuum monitoring points are finished at grade with a limited access 5-inch manhole cover. The two temporary vacuum monitoring points were abandoned following the measurements of satisfactory pressure field extension in consultation with NYSDEC. **Figure 3** provides the location of the vacuum monitoring points. **Attachment D** provides NYSDEC SSDS installation questionnaire.

System monitoring was initially performed during system start-up on September 9, 2019. A second SSDS monitoring was performed post start-up on October 10, 2019. The second monitoring event was requested by your office to verify the presence of adequate vacuum communication beneath the ground floor residential unit before decommissioning temporary vacuum monitoring points VMP-4 and VMP-5. During both monitoring events, a Qualified Environmental Professional from HydroTech inspected the system for proper functioning in accordance with the SSDS Operation and Maintenance Plan in the SMP.

Table 3 provides the SSDS Monitoring Data collected during September and October 2019. The SSDS vacuum measured at the inline Dwyer Magnehelic dial type vacuum gauge was measured at -0.74 inches H2O. No organic vapors were detected at the effluent of the SSDS utilizing a Photoionization detector (PID). The vacuum was measured at the five sub-slab vacuum monitoring points with an Extech HD755 Differential Pressure manometer, which measures differential pressure in inches H2O. Differential pressure readings obtained at the five vacuum monitoring points indicated a vacuum of a minimum of -0.03 inches H2O across the building slab. This level of negative pressure under slab is an evidence of a satisfactory sub-slab vacuum communication by the SSDS that should mitigate any soil vapor intrusion beneath the building.

The groundwater sampling and SSDS monitoring will continue on a quarterly basis in accordance with the NYSDEC-approved SMP. The next quarterly groundwater sampling and SSDS monitoring event is scheduled for November 2019.

Should you have any questions, please feel free to contact our office at your convenience.

Very Truly Yours,
HydroTech Environmental Engineering and Geology, DPC

Paul I. Matli, PhD, PG
Senior Project Manager

PIM/as
Enc.

cc: George Man – GBT Real Estate LLC (by email) w/ Enc.
HydroTech file 190005 w/ Enc.

EXCLUSIONS & DISCLAIMERS

The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client. No warranty, expressed or implied, is made whatsoever in connection with this report.

In preparing this report, HydroTech Environmental Engineering and Geology, DPC. may have relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to HydroTech Environmental Engineering and Geology, DPC. at the time of the subject property assessment. Although there may have been some degree of overlap in the information provided by these various sources, HydroTech Environmental Engineering and Geology, DPC. did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this subject property assessment.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for RECs in connection with a Subject Property (ASTM E 1527-13 Section 4.5.1). The intent of an environmental site assessment is to reduce but not eliminate uncertainty regarding the presence of potential RECs within reasonable limits of both time and cost.

Observations were made of the subject property and of structures on the subject property as indicated within the report. Where access to portions of the subject property or to structures on the subject property was unavailable or limited, HydroTech Environmental Engineering and Geology, DPC. renders no opinion as to the presence of non-hazardous or hazardous materials, or to the presence of indirect evidence relating to non-hazardous or hazardous materials, in that portion of the subject property or structure. In addition, HydroTech Environmental Engineering and Geology, DPC. renders no opinion as to the presence of hazardous materials, or the presence of indirect evidence relating to hazardous materials, where direct observation of the interior walls, floors, or ceiling of a structure on a subject property was obstructed by objects or coverings on or over these surfaces.

HydroTech Environmental Engineering and Geology, DPC. did not perform testing or analyses to determine the presence or concentration of asbestos or lead-based paint at the Subject Property or in the environment of the subject property under the scope of the services performed.

Any water level reading made in test pits, borings, and/or observation wells were made at the times and under the conditions stated in the report. However, it must be noted that

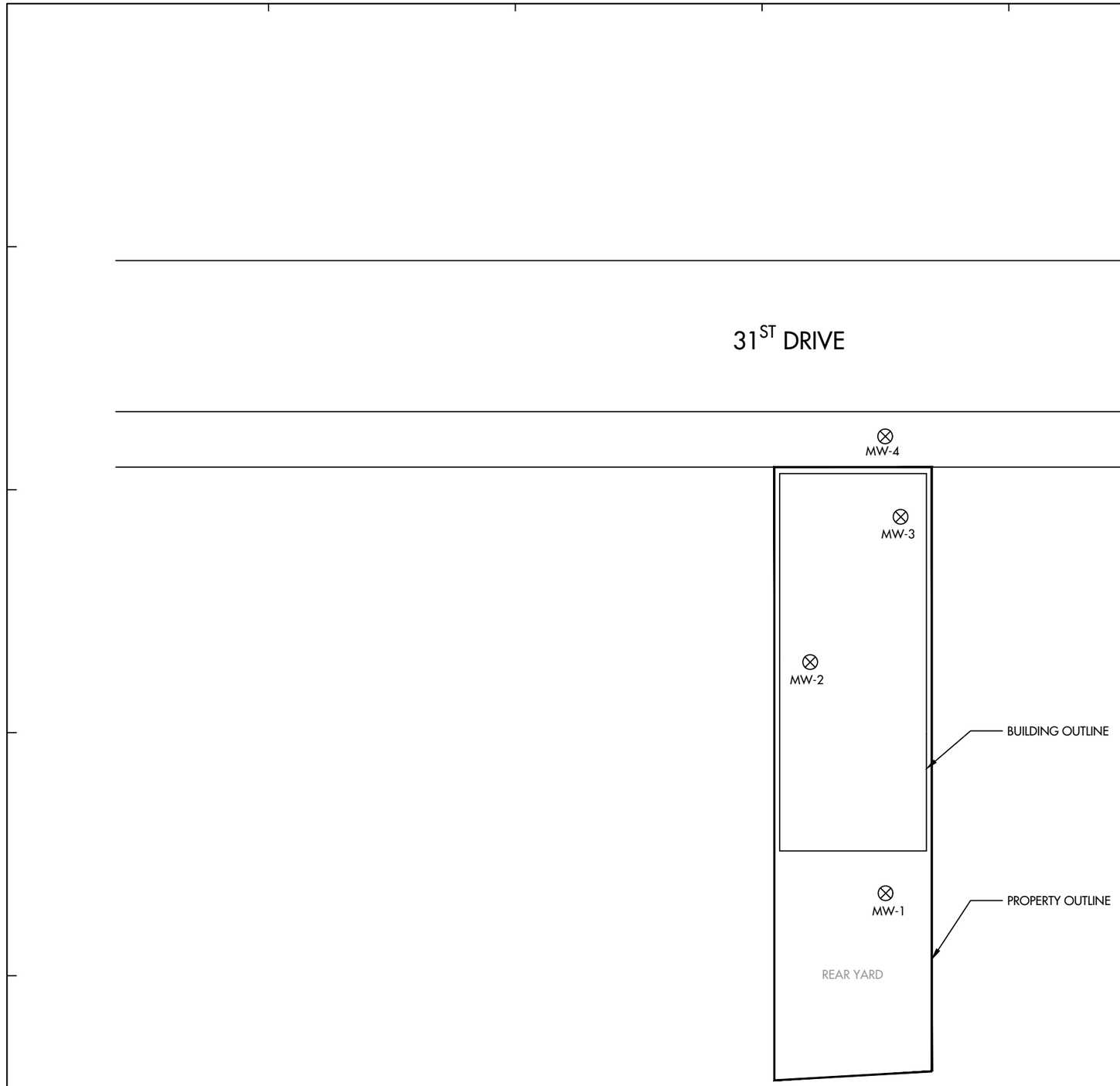
fluctuations in the level of groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

Except as noted within the text of the report, no qualitative laboratory testing was performed as part of the subject property assessment. Where an outside laboratory conducted such analyses, HydroTech has relied upon the data provided, and has not conducted an independent evaluation of the reliability of the data.

The conclusions contained in this report are based in part, where noted, upon various types of chemical data and are contingent upon their validity. The data have been reviewed and interpretations were made in the report. As indicated within the report, some of the data may be preliminary "screening" level data and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, the data should be reviewed, and the conclusions and recommendations presented herein modified accordingly. If in the opinion of the Client/User or any third party claiming reliance on this report, that HydroTech was negligent or in breach of contract, such aforementioned parties shall have 6 months from the date of HydroTech's visit to make a claim.

This report was prepared solely for the use of the Client/User and is not intended for use by third parties. Unauthorized third parties shall indemnify and hold HydroTech harmless against any liability for any loss arising out of, or related to, reliance by any third party on any work performed hereunder, or the contents of this report.

Figures



DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

77 ARKAY DRIVE, SUITE K
HAUPPAUGE, NY 11788

15 OCEAN AVENUE, SUITE 2B BROOKLYN, NY 11225

TEL: (631) 462-5866

FAX: (631) 462-5877

BASE DRAWING PREPARED BY

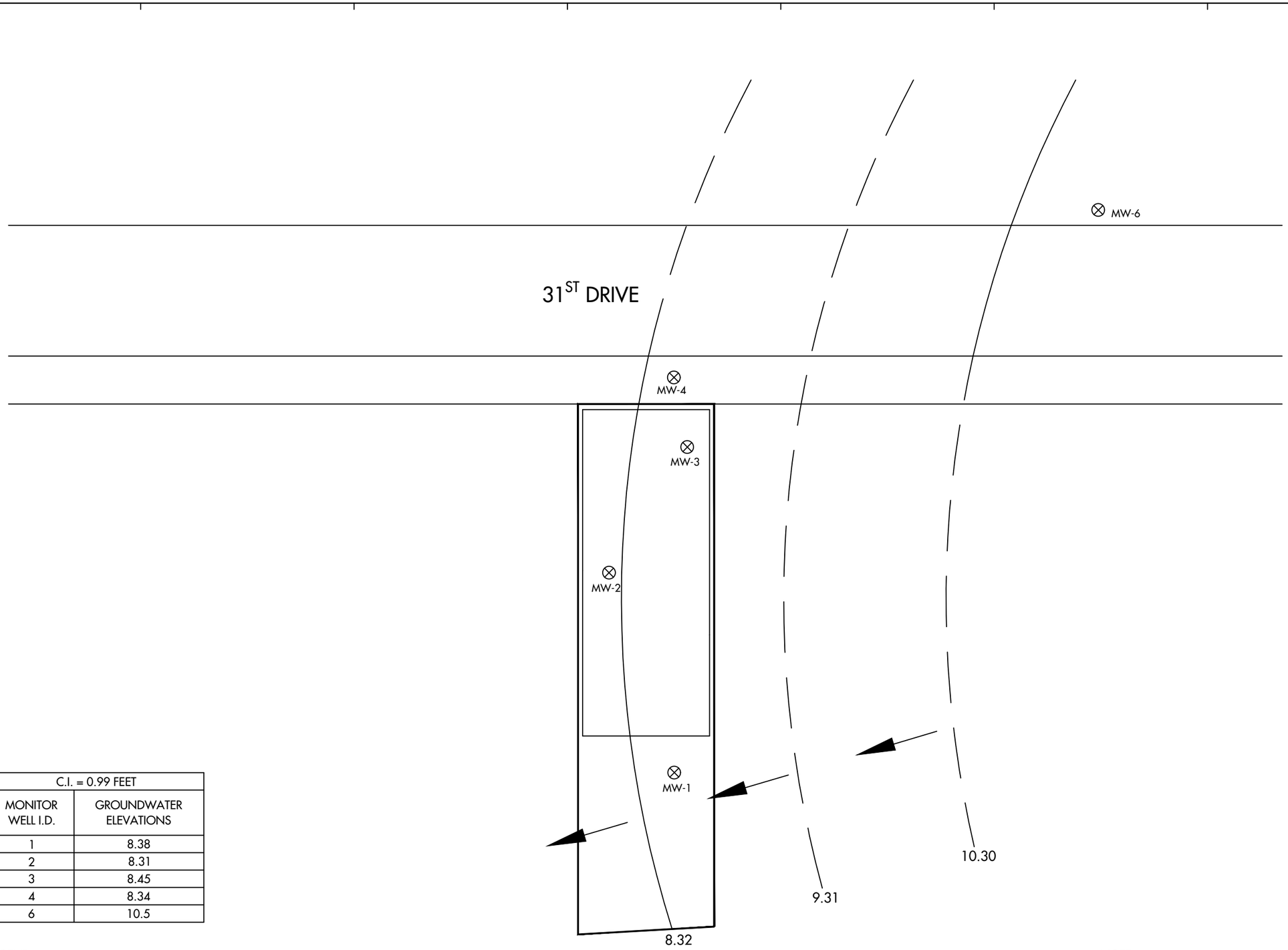
PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 1: SITE MAP

PROJECT NO.	DATE
190055	11/14/19
DRAWN BY: A.R.	REVIEWED BY: P.M.
SCALE (11X17): NOT TO SCALE	APPROVED BY: T.K.



C.I. = 0.99 FEET	
MONITOR WELL I.D.	GROUNDWATER ELEVATIONS
1	8.38
2	8.31
3	8.45
4	8.34
6	10.5

LEGEND

⊗ MONITORING WELL

NOTE:
DASHED LINE WHERE CONTOUR IS INFERRED

DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

77 ARKAY DRIVE, SUITE K
HAUPPAUGE, NY 11788

15 OCEAN AVENUE, SUITE 2B BROOKLYN, NY 11225

TEL: (631) 462-5866

FAX: (631) 462-5877

BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

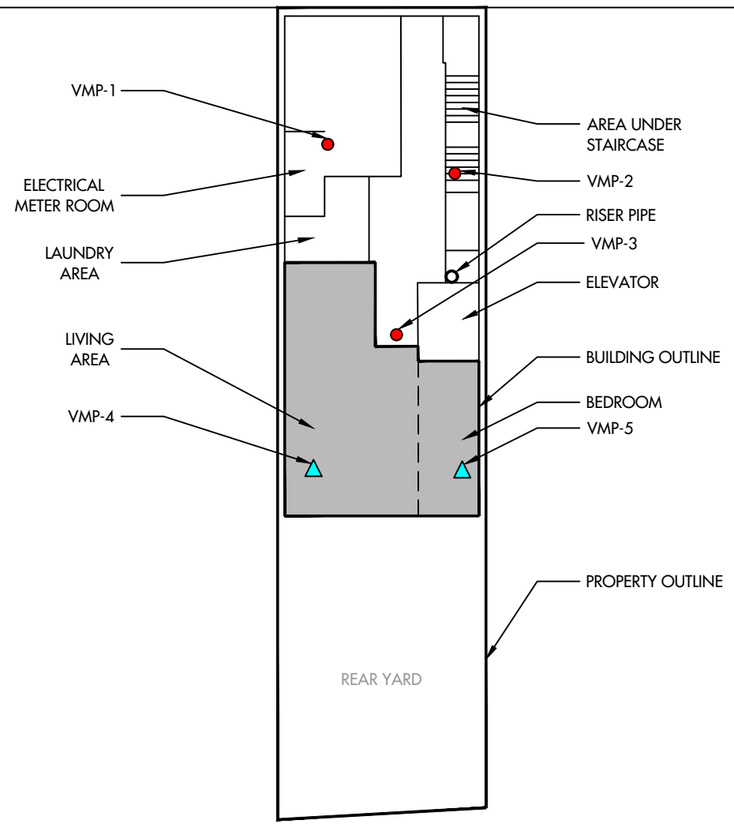
FIGURE 2: GROUNDWATER FLOW CONTOUR MAP

PROJECT NO.	DATE
190055	11/14/19
DRAWN BY A.R.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.

DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

31ST DRIVE



LEGEND

- PERMANENT VACUUM MONITORING POINTS
- TEMPORARY VACUUM MONITORING POINTS (DECOMMISSIONED AFTER SSDS STARTUP)
- RESIDENTIAL UNIT

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

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HAUPPAUGE, NY 11788

15 OCEAN AVENUE, SUITE 2B BROOKLYN, NY 11225

TEL: (631) 462-5866

FAX: (631) 462-5877

BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 3: VACUUM MONITORING POINTS MAP

PROJECT NO.	DATE
190055	11/14/19
DRAWN BY A.R.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.

Tables

Table 1

Groundwater Monitoring Results

11-28 31st Drive, Queens, NY

Well ID	Casing Elevation	DTP	DTW	Water Table Elevation
MW-1	12.7	ND	11.08	8.38
MW-2	12.7	ND	11.01	8.31
MW-3	11.51	ND	9.96	8.45
MW-4	11.1	ND	9.44	8.34
MW-6	9.47	ND	9.97	10.5

All values reported in feet.

DTW…Depth to Water from top of casing

DTP…Depth to Product from top of casing

ND…None Detected

Water Table elevations normalized by a benchmarck of 10

Tabel 2
Groundwater Samples Analytical Results for PCE and TCE _ Over Time
11-28 31st Drive, Queens, NY

Sample ID	MW-1										MW-2										MW-3										MW-4										MW-6										QGS
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	
Tetrachloroethylene	0.2	U	**0.3**	J	0.22	U	0.22	U	0.22	U	**3.03**		**25**		**20**		**11.6**		**20.1**		**20.8**		**4.1**		**1.2**		0.22	U	**0.92**		**3,799.8**		**70**		**13**		**2.3**		**2.87**		**85.83**	D	**75**		**43**		**28.4**		**49.6**	D	5
Trichloroethylene	0.2	U	0.2	U	0.20	U	0.20	U	0.20	U	0.2	U	**0.4**	J	**0.63**		**0.68**		**1.21**		0.52		0.2	U	0.20	U	0.20	U	0.20	u	**17.0**		**0.7**		**0.43**	**J**	0.20	U	0.20		**8.90**		**15**		**0.46**	J	**0.48**	J	**0.42**	DJ	5

NOTES:

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
NS=this indicates that no regulatory limit has been established for this analyte
GWS=NYSDEC TOGS Standards and Guidance Values - GA
Shaded concentration exceeds GQS

1/13/2015=Sampling performed during the Remedial Investigation
2/19/2018=Baseline sampling performed prior to ISCO Injection Program
7/24/2018= Sampling performed 2 months post-ISCO injections
11/20/2018=Quaretrly sampling performed 5 months post-ISCO injections
8/30/2019=Quartely samplig performed 15 months post-ISCO Injections

Table 3

SSDS Monitoring Data Log Sheet

11-28 31st Drive ,Queens, New York,
NYSDEC Site Number: C241159

Date/Time	SSDS Vacuum	SSDS Effluent			Vaccum Monitoring Points				
					VMP-1	VMP-2	VMP-3	VMP-4	VMP-5
		PID	Flow	Temp	Vacuum				
9/9/2019	-0.74	0.1	518	76.46	-0.031	-0.040	-0.041	-0.036	-0.039
10/15/2019	-0.74	NA	NA	NA	-0.030	-0.036	-0.042	-0.036	-0.038

Vacuum --- Inch Water Flow

PID --- ppm

Flow --- CFM

Temperature --- ◦F

NA---Not measured

Attachments

Attachment A
Well Monitoring Sheet

WELL MONITORING LOG SHEET

Project Name: 11-28 31 Drive Date: 8-13-2019

Client: Mr. George Man Instrument:

Site Location: 11-28 31 Drive Spill No.:

Monitoring Schedule: Monthly : _____ Quartely : _____ Bi-Annually :_____

Legend

S = Snow D = Dry G = Gone C = Can't Locate

DTW = Depth to Water DTP = Depth to Product PT = Product Thickness ND = None Detected

Monitoring Well	D.T.P.	D.T.W.	Riser abovegrund
MW-1	ND	11.08	
MW-2	ND	11.01	
MW-3	ND	9.96	
MW-4	ND	9.44	
MW-6	ND	9.97	

Notes: All measurements in feet, below the nortnern top of well casing

Notes:

All measurements are reported in feet

ND=none detected

D=destroyed

Reported By:

Paul I. Matli

Attachment B
Drum Disposal Manifest

3713608 9/17

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N / A	1	(267) 406-0063	42021

GENERATOR

5. Generator's Name and Mailing Address
GBT Real Estate LLC
11-28 31st Drive
Long Island City NY 11106
Generator's Phone: 371 416-2002

Attn: George Man

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
Innovative Recycling Technologies, Inc.
U.S. EPA ID Number: NYR000134940

7. Transporter 2 Company Name
Republic Environmental Systems (Trans Group)LLC
U.S. EPA ID Number: PAD982661381

8. Designated Facility Name and Site Address
Republic Environmental Systems (PA), LLC
2869 Sandstone Drive
Hatfield PA 19440
Facility's Phone: 215 822-8995
U.S. EPA ID Number: PAD085690592

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non Hazardous Purge Water Non-DOT Regulated Material	01	DM	50	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
9.1) 996775
Doc# 480823-19

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: GEORGE MAN
Signature: George Man
Month 9 Day 9 Year 19

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: James Uhl
Signature:
Month 9 Day 9 Year 19

Transporter 2 Printed/Typed Name: Michael Boal
Signature:
Month 9 Day 12 Year 19

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: MALVEO AMM
Signature:
Month 09 Day 17 Year 19

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

Stericycle

CERTIFICATE OF TREATMENT, RECYCLING, AND/OR DISPOSAL

Generator: 615070 - GBT REAL ESTATE, LLC
11-28 31ST DRIVE
LONG ISLAND CITY NY, 11106
EPA ID: CESQG

Facility: REPUBLIC ENV SYS (PA) LLC
2869 SANDSTONE DRIVE
HATFIELD PA, 19440
EPA ID: PAD085690592

Manifest #: 42021
Waste Receipt #: HAT-5295R
Date Received: 09/17/2019

Line	Profile	Material Description	Treatment/ Disposal Description
1	996775-00	NON-REGULATED MATERIAL (PURGE WATER)	H141 STORAGE, BULKING, AND/OR TRANSFER OFF-SITE - NO TREATMENT/RECOVERY/BLENDING

Name: MARCIA THOMAS

Signature : Marcia Thomas

Title : Logistic Coordinator

Attachment C

Copy of DUSR

ALPHA
GEOSCIENCE
Geology
Hydrology
Remediation
Water Supply

October 3, 2019

Mr. Paul I. Matli, Ph.D.
Hydro Tech Environmental
15 Ocean Ave., Suite 2B
Brooklyn, NY 11225

Re: Data Validation Report
August 2019 Ground Water Sampling Event
11-28 31st Drive, LIC, NY

Dear Dr. Matli:

The data usability summary report and data validation summary are attached to this letter for the above referenced project. The data for York Analytical Laboratories, Inc. SDG 19I0014 were acceptable with some minor issues that are identified in the validation summary. There were no data that were qualified as rejected, unusable (R) in the data pack.

We have attached lists of data validation acronyms and data qualifiers to assist you in the interpretation of the reviews. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Hydro Tech Environmental, Corp.

Sincerely,
Alpha Geoscience
Donald Anné
Donald Anné
Senior Chemist

DCA:dca
attachments

Z:\PROJECTS\2015\15600 - 15620\15604-11-28 31 DRIVE\2019\11-28 31 DRIVE-191.LTR.DOCX

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U	=	Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
R	=	Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
N	=	Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
J	=	Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
J-	=	Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.
J+	=	Analyte is present. Reported value may be biased high andassociated with a higher level of uncertainty than is normally expected with the analytical method.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

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Data Usability Summary Report for
York Analytical Laboratories, Inc., SDG: 19I0014

5 Ground Water Samples and 1 Trip Blank
Collected August 30, 2019

Prepared by: Donald Anné
October 3, 2019

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contains the results of 5 ground water samples and 1 trip blank analyzed for volatiles only.

The overall performances of the analyses are acceptable. York Analytical Laboratories, Inc. did fulfill the requirements of the analytical methods.

The data are mostly acceptable with some issues that are identified in the accompanying data validation reviews. The following data were qualified:

- The positive volatile result for tetrachloroethylene was qualified as "estimated" (J) in sample MW-6-20190830 because the relative percent difference for tetrachloroethylene was above the allowable maximum in the aqueous MS/MSD sample.

All data are considered usable, with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

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ALPHA GEOSCIENCE

Geology
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Remediation
Water Supply

QA/QC Review of Method 8260C Volatiles Data for
York Analytical Laboratories, Inc., SDG: 19I0014

5 Ground Water Samples and 1 Trip Blank
Collected August 30, 2019

Prepared by: Donald Anné
October 3, 2019

Holding Times: Samples were analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRFs for applicable compounds were above the method minimums, as required.

The average RRF for trichloroethylene and tetrachloroethylene were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for applicable compounds were above the method minimums and the %Ds were below the method maximum, as required.

The RRF for trichloroethylene and tetrachloroethylene were above the allowable minimum (0.010 and the %Ds were below the allowable maximum (25%), as required.

Blanks: The analyses of method and trip blanks reported trichloroethylene and tetrachloroethylene as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples and trip blank.

Matrix Spike/Matrix Spike Duplicate: The percent recoveries for trichloroethylene were within QC limits, but relative percent difference for tetrachloroethylene was above the allowable maximums for aqueous MS/MSD sample MW-6-20190830. The positive result for tetrachloroethylene should be considered estimated (J) in sample MW-6-20190830.

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Laboratory Control Sample: The relative percent differences for trichloroethylene and tetrachloroethylene were below the allowable maximum and the percent recoveries were within QC limits for aqueous samples BI90118-BS1, BI90118-BSD1, BI90308-BS1, and BI90308-BSD1.

Compound ID: Checked compounds and surrogates were within GC quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8260C

MW-6-20190830

Laboratory:	York Analytical Laboratories, Inc.	SDG:	19I0014
Client:	Hydro Tech Environmental (Brooklyn)	Project:	190055 11-28 31st Drive Queens NY
Matrix:	Water		
Batch:	BI90308	Laboratory ID:	BI90308-MS1
Preparation:	EPA 5030B	Initial/Final:	25 mL / 25 mL

Source Sample Name: MW-6-20190830

COMPOUND	SPIKE ADDED ppb	SAMPLE CONCENTRATION ppb	MS CONCENTRATION ppb	MS % REC. #	QC LIMITS REC.
Tetrachloroethylene	10.0	49.6	30.4	-192 NA*	64 - 139
Trichloroethylene	10.0	0.420	8.73	83.1	53 - 145

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NA - Not applicable, the sample concentration was greater than 4 times the spiking level; therefore, valid percent recoveries could not be calculated.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA 8260C

MW-6-20190830

Laboratory: York Analytical Laboratories, Inc.

Client: Hydro Tech Environmental (Brooklyn)

Matrix: Water

Batch: BI90308

Preparation: EPA 5030B

SDG: 19I0014

Project: 190055 11-28 31st Drive Queens NY

Laboratory ID: BI90308-MSD1

Initial/Final: 25 mL / 25 mL

Source Sample Name: MW-6-20190830

COMPOUND	SPIKE ADDED ppb	MSD CONCENTRATION ppb	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Tetrachloroethylene	10.0	47.7	-19.3 NA *	44.3 *	30	64 - 139
Trichloroethylene	10.0	9.25	88.3	5.78	30	53 - 145

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

NA - Not applicable, the sample concentration was greater than 4 times the spiking level; therefore, valid percent recoveries could not be calculated.

Attachment D

NYSDEC SSDS Installation Questionnaire

Mitigation System Installation Record

☐ Structure was sampled previously

System Information

Site No: C241159

System ID:

Site Name: 11-28 31 Drive

Owner Name: GBT Real Estate LLC ☐ Owner Occupied

System Address: 11-28 31st Drive Telephone: 917-416-2002

City: Long Island City - Queens Zip: 11106 Alt. Telephone: 646-248-1688

Contractor Information

Installer Name: George Man Company: Morgan Construction N.Y. Inc.

Telephone: 917-416-2002

Building Conditions

Building Type: Apartment/Townhome

Slab Integrity: ○ Poor ○ Average ○ Good ◉ Excellent

Slab Penetrations: ☐ Sump ☒ Floor drain ☐ Perimeter drain ☒ Other

Describe:

Residential Plumbing

Observed Water: ◉ Dry ○ Damp ○ Sump only ○ Standing

Describe:

System Installation

Installation Type: Sub-Slab Depressurization (Active) Date Installed: May 30, 2019

Slab Thickess (inches): >5 in.

Subslab Material: Gravel Subslab Moisture: Dry

Number of Suction Points: 1 Number of Fans Installed: 1

	☒ Fan #1 Operating	☐ Fan #2 Operating	☐ Fan #3 Operating
Fan Model No(s):	RadonAway RP265		
Fan Serial No(s):	204048		
Final U-Tube Levels:	-0.75		

Additional Mitigation Elements (check all that apply):

☐ Drainjer ☒ Membrane ☐ Sealed cracks ☐ New floor ☐ Rain cap ☐ Other

Comments:

Communication Testing

Test Method: Micromanometer Meter Type/Manufacturer: Extech HD755

Location	Reading/Result	Dist. From Suction Point (ft)	Passed?
VMP-1	-0.030	24	☒
VMP-2	-0.036	10	☒
VMP-3	-0.042	10	☒
VMP-4	-0.036	18	☒
VMP-5	-0.038	14	☒

System Sketch
(indicate notable features, location of extraction points, and communication test holes)

NORTH

Refer to Figure 3 in this report

HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC

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Brooklyn, New York 11225
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Long Island Office
77 Arkay Drive, Suite K
Hauppauge, New York 11788
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WWW.HYDROTECHENVIRONMENTAL.COM

January 20, 2020

Ms. Sondra Martinkat
New York State Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101-5407

Re: Quarterly Status Report # 2 – September 2019 to November 2019
11-28 31st Drive, Queens, NY
NYSBCP Site #C241159

Dear Ms. Martinkat:

This report is intended to serve as a Quarterly Status Report (QSR), covering the period from September 2019 through November 2019, for the above-referenced Site. The Site is enrolled in the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) and is assigned number **C241159**. The scope of work presented is based upon the NYSDEC-approved Site Management Plan (SMP) dated November 2018 and was performed on behalf of the property owner, GBT Real Estate, LLC. The scope of work involved the quarterly monitoring and sampling of five existing monitoring wells and the quarterly monitoring of the active Sub-Slab Depressurization System (SSDS).

Groundwater Monitoring and Sampling

In accordance with the NYSDEC-approved SMP, the five monitoring wells MW-1 to MW-4 and MW-6 were gauged on a quarterly basis for the presence of free product and also determine the depth to groundwater. The location of monitoring wells is shown in **Figure 1**. This gauging was performed on November 25, 2019 utilizing a Solinst 122 Oil/Water Interface Probe. None of the monitoring points were found to contain free product. The depth to water during this monitoring event ranged from 9.60 feet in MW-4 to 11.23 feet in MW-1. This depth to water represents an increase by an average 0.15 feet since the last event in August 2019.

Table 1 provides the groundwater monitoring and elevation data for the period covered by this report and historical monitoring data. **Attachment A** provides the well monitoring sheet.

Utilizing historical monitoring well casing elevations and the depth to water, the groundwater elevation in the wells were then determined. The groundwater elevations indicate the groundwater flow direction beneath the Site continues to be toward the southwest, consistent with the historic flow directions mapped for this Site. **Figure 2** provides a contour map of groundwater flow direction during November 2019.

Passive Diffusion Bag (PDB) samplers for the groundwater sampling were then placed inside each of the five the monitoring wells following well gauging. The PDBs were left inside the wells

for the duration of 15 days and were recovered from MW-1 to MW-4 on December 9, 2019. The PDB in MW-6 could not be recovered as this well became obstructed by a locked construction fence erected around a vacant property located to the north of the Site.

The groundwater samples collected from the PDBs were placed in laboratory-supplied containers and secured in a cooler filled with ice and maintained at a maximum 4 degrees Celsius. The samples were transmitted under proper chain of custody procedures to a State-certified (ELAP) laboratory and analyzed for tetrachloroethylene (PCE) and trichloroethylene (TCE) in accordance with EPA Method 8260.

Investigatory-derived waste (IDW) consisting of excess liquid generated during the sampling from of PDBs were placed into a 55-gallon drum. The drum was disposed of in accordance with DER-10 Technical Guidance for Site Investigation and Remediation (May 2010). **Attachment B** provides a copy of the final disposal manifest.

Laboratory analytical results for PCE and TCE in groundwater samples are provided in **Table 2**. Table 2 also provides the PCE and TCE concentrations over time and a comparison to NYSDEC 6NYCRR Part 703.5 Class groundwater Quality Standards (GQS). **Attachment C** provides a copy of the Laboratory analytical report.

As **Table 2** indicates, PCE was detected in MW-2 at a concentration of 21.9 µg/L, which exceeds its GQS of 5 µg/L. PCE was detected in MW-3 and MW-4 at concentration less than its GQS. PCE was not detected in MW-1. TCE was detected in MW-2 at a concentration less than GQS of 5 µg/L. TCE was not detected in MW-1, MW-3 or MW-4. These findings are consistent with the historic sampling performed since November 2018, which reflects a general reduction in PCE and TCE concentrations since the completion of the injection program.

The groundwater data was submitted electronically to the NYSDEC through the Environmental Information Management System using the NYSDEC standardized Electronic Data Deliverable (EDD) format. A Data Usability Summary Report (DUSR) was also prepared for the analytical results by an independent data reviewer, Mr. Donald Anne of Alpha Geoscience in Clifton Park, NY. The DUSR indicates the data is acceptable considered usable. A copy of the DUSR is provided in **Attachment D**.

Active Sub-Slab Depressurization System

The active SSDS is being monitored on a quarterly basis; this monitoring was performed on November 25, 2019. During this monitoring event, a Qualified Environmental Professional inspected the system for proper functioning in accordance with the SSDS Operation and Maintenance Plan in the SMP. **Figure 3** provides the location of the vacuum monitoring points associated with the SSDS.

Table 3 provides the SSDS Monitoring Data collected during November 2019. The SSDS vacuum observed at the inline Dwyer Magnehelic dial type vacuum gauge was recorded at -

0.74 inches H_2O. The effluent of the SSDS was monitored with a Photoionization Detector (PID); no organic vapors were detected. The radius of influence of the SSDS was monitored by measuring the vacuum at the three permanent sub-slab vacuum monitoring points VMP-1 to VMP-3 and excluded the temporary monitoring points SMP-4 and VMP-5, which were decommissioned in consultation with NYSDEC after satisfactory vacuum communication measured at these two points during the previous monitoring event.

The vacuum at the vacuum monitoring points VMP-1 to VMP-3 was measured using an Extech HD755 Differential Pressure manometer, which measures differential pressure in inches H_2O. Differential pressure readings obtained at the three vacuum monitoring points indicate a vacuum ranging between -0.024 and -0.034 inches H_2O across the building slab. Although this level of negative pressure represents a slight decrease from previous monitoring performed previously during October 2019, it continues to reflect a satisfactory sub-slab vacuum communication by the SSDS that should mitigate any soil vapor intrusion beneath the building.

The groundwater sampling and SSDS monitoring will continue on a quarterly basis in accordance with the NYSDEC-approved SMP. The next quarterly groundwater sampling and SSDS monitoring event is scheduled for February 2020.

Should you have any questions, please feel free to contact our office at your convenience.

Very Truly Yours,
HydroTech Environmental Engineering and Geology, DPC

Paul I. Matli, PhD, PG
Senior Project Manager

PIM/as
Enc.

cc: Mr. George Man – GBT Real Estate LLC (by email) w/ Enc.
HydroTech file 190055 w/ Enc.

EXCLUSIONS & DISCLAIMERS

The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by the Client. No warranty, expressed or implied, is made whatsoever in connection with this report.

In preparing this report, HydroTech Environmental Engineering and Geology, DPC. may have relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to HydroTech Environmental Engineering and Geology, DPC. at the time of the subject property assessment. Although there may have been some degree of overlap in the information provided by these various sources, HydroTech Environmental Engineering and Geology, DPC. did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this subject property assessment.

No environmental site assessment can wholly eliminate uncertainty regarding the potential for RECs in connection with a Subject Property (ASTM E 1527-13 Section 4.5.1). The intent of an environmental site assessment is to reduce but not eliminate uncertainty regarding the presence of potential RECs within reasonable limits of both time and cost.

Observations were made of the subject property and of structures on the subject property as indicated within the report. Where access to portions of the subject property or to structures on the subject property was unavailable or limited, HydroTech Environmental Engineering and Geology, DPC. renders no opinion as to the presence of non-hazardous or hazardous materials, or to the presence of indirect evidence relating to non-hazardous or hazardous materials, in that portion of the subject property or structure. In addition, HydroTech Environmental Engineering and Geology, DPC. renders no opinion as to the presence of hazardous materials, or the presence of indirect evidence relating to hazardous materials, where direct observation of the interior walls, floors, or ceiling of a structure on a subject property was obstructed by objects or coverings on or over these surfaces.

HydroTech Environmental Engineering and Geology, DPC. did not perform testing or analyses to determine the presence or concentration of asbestos or lead-based paint at the Subject Property or in the environment of the subject property under the scope of the services performed.

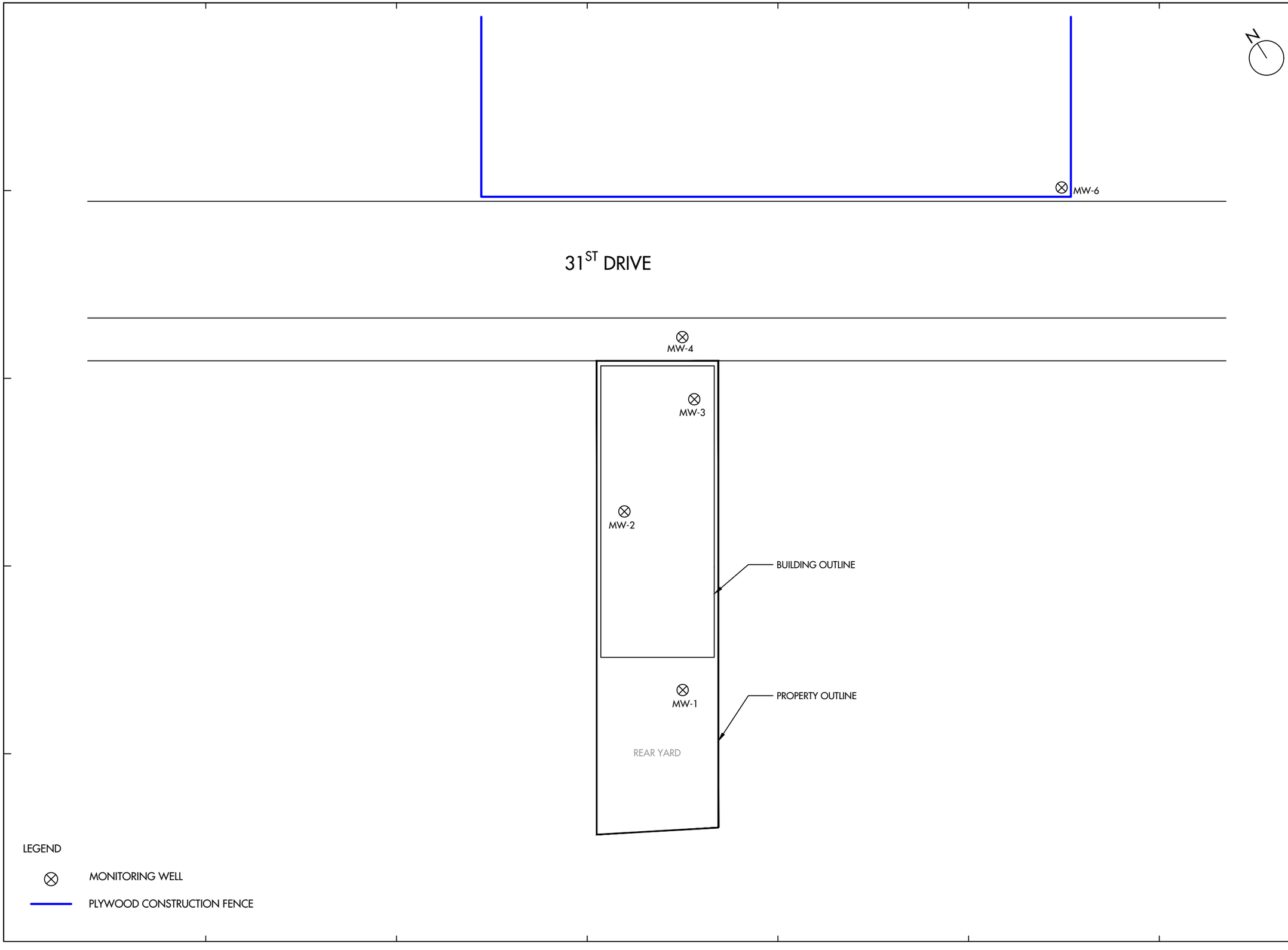
Any water level reading made in test pits, borings, and/or observation wells were made at the times and under the conditions stated in the report. However, it must be noted that fluctuations in the level of groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

Except as noted within the text of the report, no qualitative laboratory testing was performed as part of the subject property assessment. Where an outside laboratory conducted such analyses, HydroTech has relied upon the data provided, and has not conducted an independent evaluation of the reliability of the data.

The conclusions contained in this report are based in part, where noted, upon various types of chemical data and are contingent upon their validity. The data have been reviewed and interpretations were made in the report. As indicated within the report, some of the data may be preliminary "screening" level data and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, the data should be reviewed, and the conclusions and recommendations presented herein modified accordingly. If in the opinion of the Client/User or any third-party claiming reliance on this report, that HydroTech was negligent or in breach of contract, such aforementioned parties shall have 6 months from the date of HydroTech's visit to make a claim.

This report was prepared solely for the use of the Client/User and is not intended for use by third parties. Unauthorized third parties shall indemnify and hold HydroTech harmless against any liability for any loss arising out of, or related to, reliance by any third party on any work performed hereunder, or the contents of this report.

Figures



LEGEND

⊗ MONITORING WELL

PLYWOOD CONSTRUCTION FENCE

DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

77 ARKAY DRIVE, SUITE K
HAUPPAUGE, NY 11788

15 OCEAN AVENUE, SUITE 2B BROOKLYN, NY 11225

TEL: (631) 462-5866

FAX: (631) 462-5877

BASE DRAWING PREPARED BY

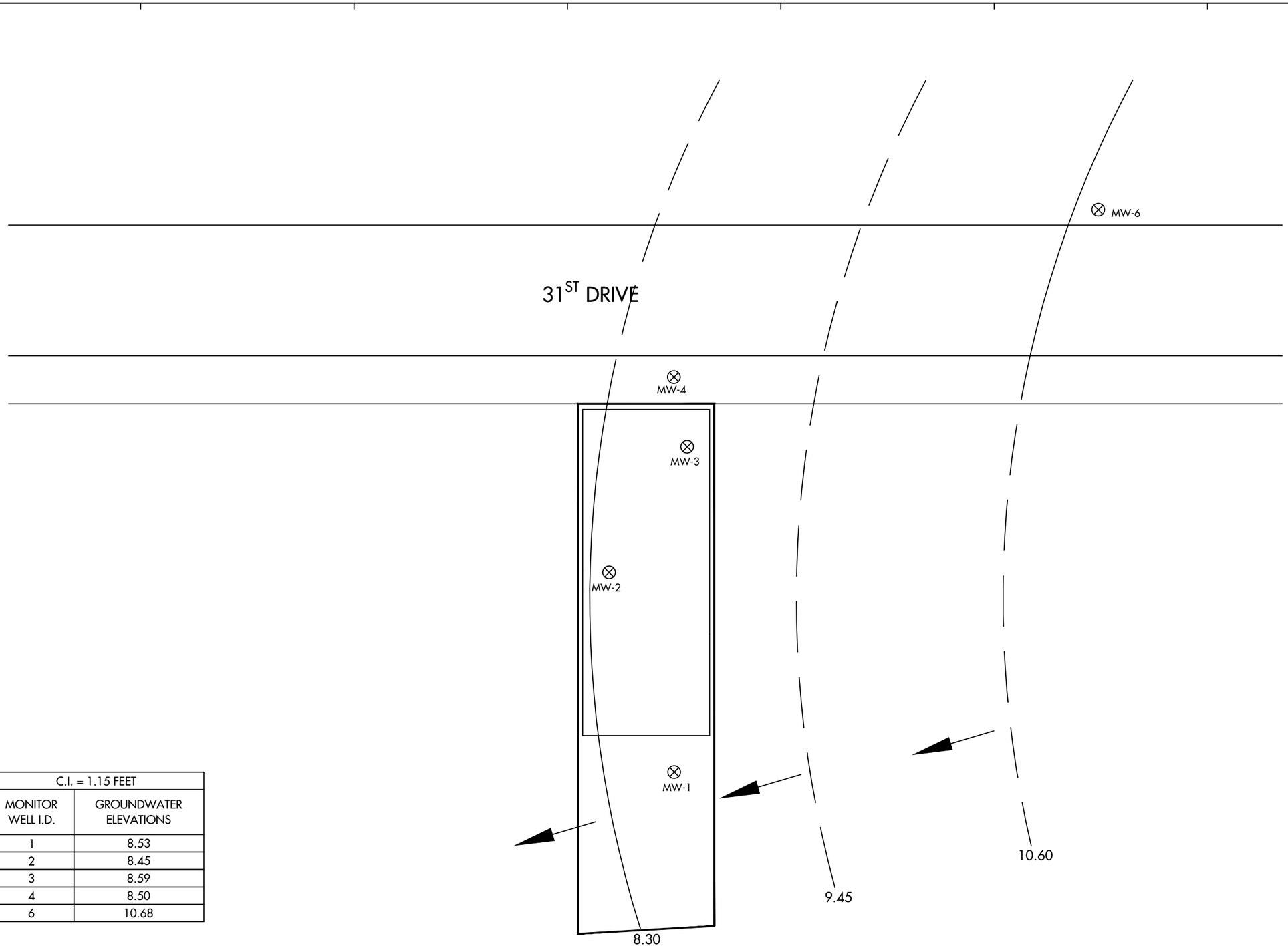
PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 1: SITE MAP

PROJECT NO.	DATE
190055	11/14/19
DRAWN BY: A.R.	REVIEWED BY: P.M.
SCALE (11X17): NOT TO SCALE	APPROVED BY: T.K.



C.I. = 1.15 FEET	
MONITOR WELL I.D.	GROUNDWATER ELEVATIONS
1	8.53
2	8.45
3	8.59
4	8.50
6	10.68

LEGEND

⊗ MONITORING WELL

NOTE:
DASHED LINE WHERE CONTOUR IS INFERRED

DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

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FAX: (631) 462-5877

BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

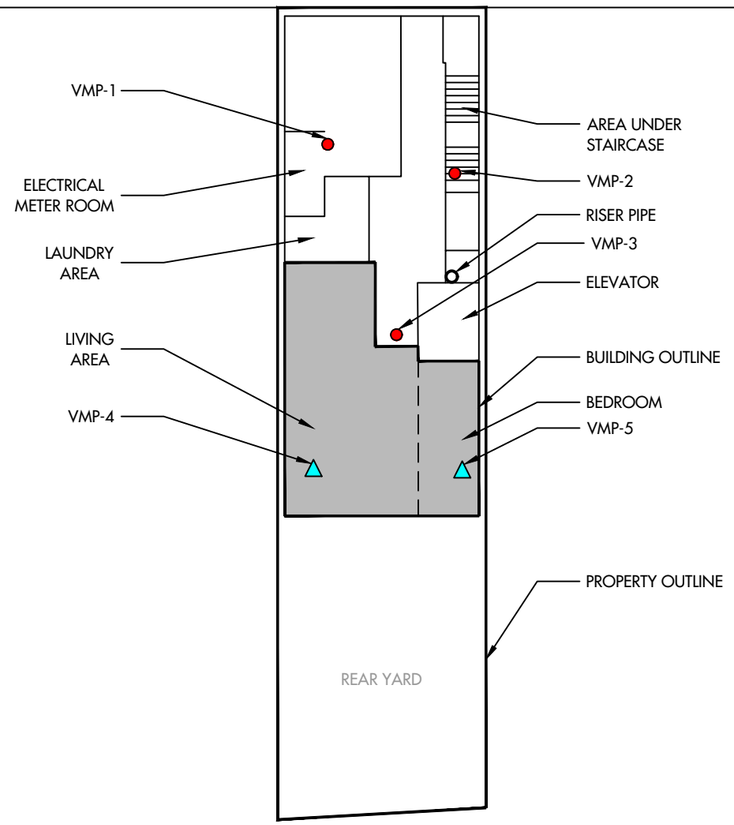
FIGURE 2: GROUNDWATER FLOW CONTOUR MAP - NOVEMBER 2019

PROJECT NO.	DATE
190055	11/14/19
DRAWN BY A.R.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.

DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

31ST DRIVE



LEGEND

- PERMANENT VACUUM MONITORING POINTS
- DECOMMISSIONED AFTER SSDS STARTUP
- RESIDENTIAL UNIT

HYDROTECH ENVIRONMENTAL
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FAX: (631) 462-5877

BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 3: VACUUM MONITORING POINTS MAP

PROJECT NO.	DATE
190055	11/14/19
DRAWN BY A.R.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.

Tables

Table 1

Groundwater Monitoring Results Over Time

11-28 31st Drive, Queens, NY

Well ID	Casing Elevation	August 2019			November 2019		
		DTP	DTW	Water Table Elevation	DTP	DTW	Water Table Elevation
MW-1	12.7	ND	11.08	8.38	ND	11.23	8.53
MW-2	12.7	ND	11.01	8.31	ND	11.15	8.45
MW-3	11.51	ND	9.96	8.45	ND	10.1	8.59
MW-4	11.10	ND	9.44	8.34	ND	9.60	8.50
MW-6	9.47	ND	9.97	10.5	ND	10.15	10.68

All values reported in feet.

DTW…Depth to Water from top of casing

DTP…Depth to Product from top of casing

ND…None Detected

Water Table elevations adjusted by a benchmarck of 10

Tabel 2
Groundwater Samples Analytical Results for PCE and TCE _ Over Time
11-28 31st Drive, Queens, NY

Sample ID	MW-1												MW-2												MW-3											
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		12/10/2019		1/13/2015		2/19/2018		7/24/2018		11/20/2018		#######		12/10/2019		1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		12/10/2019	
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q
Tetrachloroethylene	0.2	U	**0.3**	J	0.22	U	0.22	U	0.22	U	0.200	U	**3.03**		**25**		**20**		**11.6**		**20.1**		**21.9**		**20.8**		**4.1**		**1.2**		0.22	U	**0.92**		**1.270**	
Trichloroethylene	0.2	U	0.2	U	0.20	U	0.20	U	0.20	U	0.200	U	0.2	U	**0.4**	J	**0.63**		**0.68**		**1.21**		**1.4**		**0.52**		0.2	U	0.20	U	0.20	U	0.20	u	0.200	U

Sample ID	MW-4												MW-6												Trip Blank		QGS
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		#######		12/10/2019		1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		12/10/2019		1/13/2015		
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	
Tetrachloroethylene	**3,799.8**		**70**		**13**		**2.3**		**2.87**		**1.8**		**85.83**	D	**75**		**43**		**28.4**		**49.6**	D	**NA**		0.200	U	5
Trichloroethylene	**17.0**		**0.7**		**0.43**	**J**	0.20	U	0.20		0.200	U	**8.90**		**15**		**0.46**	J	**0.48**	J	**0.42**	DJ			0.200	U	5

NOTES:

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
NS=this indicates that no regulatory limit has been established for this analyte
GWS=NYSDEC TOGS Standards and Guidance Values - GA
Shaded concentration exceeds GQS

1/13/2015=Sampling performed during the Remedial Investigation
2/19/2018=Baseline sampling performed prior to ISCO Injection Program
7/24/2018= Sampling performed 2 months post-ISCO injections
11/20/2018=Quaretrly sampling performed 5 months post-ISCO injections
8/30/2019=Quartely samplig performed 15 months post-ISCO Injections
NA= Not sampled due to limited access

Table 3

SSDS Monitoring Data Log Sheet Over Time

11-28 31 Drive ,Queens, New York,
NYSDEC Site Number: C241159

Date/Time	SSDS Vacuum	SSDS Effluent			Vaccum Monitoring Points				
					VMP-1	VMP-2	VMP-3	VMP-4	VMP-5
		PID	Flow	Temp	Vacuum				
9/9/2019	-0.74	0.2	518	76.46	-0.031	-0.040	-0.041	-0.036	-0.039
10/15/2019	-0.74	NA	NA	NA	-0.030	-0.036	-0.042	-0.036	-0.038
12/10/2019	-0.74	0.1	470.8	62.2	-0.024	-0.032	-0.034	D	D

Vacuum --- Inch Water Flow

PID --- ppm

Flow --- CFM

Temperature --- ◦F

NA---Not measured

D---Decommissioned

Attachments

Attachment A
Well Monitoring Sheet

WELL MONITORING LOG SHEET

Project Name: 11-28 3 Drive Date: 11-25-2019

Client: Mr. George Man Instrument: _____

Site Location: 11-28 31 Drive Spill No.: _____

Monitoring Schedule: Monthly : _____ Quartely : _____ Bi-Annually :_____

Legend

S = Snow D = Dry G = Gone C = Can't Locate

DTW = Depth to Water DTP = Depth to Product PT = Product Thickness ND = None Detected

Monitoring Well	D.T.P.	D.T.W.	Riser abovegrund
MW-1	ND	11.23	
MW-2	ND	11.15	
MW-3	ND	9.10	
MW-4	ND	9.60	
MW-6	ND	9.15	

Notes: All measurements in feet, below the nortnern top of well casing

Notes:

All measurements are reported in feet

ND=none detected

D=destroyed

Reported By:

Paul I. Matli

Attachment B
Drum Disposal Manifest

3837234 1/7

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N / A	1	(267) 406-0083	42232

5. Generator's Name and Mailing Address
Att: George Man
GBT Real Estate LLC
11-28 31st Drive
Long Island City NY 11106
Generator's Phone: 371 416-2002

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Innovative Recycling Technologies, Inc. — U.S. EPA ID Number: NYR000134940

7. Transporter 2 Company Name: Republic Environmental Systems (Trans Group)LLC — U.S. EPA ID Number: PAD982661381

8. Designated Facility Name and Site Address
Republic Environmental Systems (PA), LLC
2869 Sandstone Drive
Hatfield PA 19440
Facility's Phone: 215 822-8995
U.S. EPA ID Number: PAD085690592

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	Non Hazardous Purge Water Non-DOT Regulated Material	01	DM	50	P
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information
9.1)996775
Doc# 002196-20

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: GEORGE MAN — Signature: George Man — Month 12 Day 30 Year 19

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: James Ward — Signature: — Month 12 Day 30 Year 19

Transporter 2 Printed/Typed Name: [illegible] — Signature: — Month 1 Day 3 Year 20

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: MALVERN — Signature: — Month 01 Day 07 Year 20

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

Attachment C

Laboratory Analytical Report

Technical Report

prepared for:

Hydro Tech Environmental (Brooklyn)
15 Ocean Avenue, Suite 2B
Brooklyn NY, 11225
Attention: Paul Matli

Report Date: 12/20/2019
Client Project ID: 190055 11-28 31st Drive Queens NY
York Project (SDG) No.: 19L0443

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

120 RESEARCH DRIVE STRATFORD, CT 06615 ■ 132-02 89th AVENUE RICHMOND HILL, NY 11418
www.YORKLAB.com (203) 325-1371 FAX (203) 357-0166 ClientServices@yorklab.com

Report Date: 12/20/2019
Client Project ID: 190055 11-28 31st Drive Queens NY
York Project (SDG) No.: 19L0443

Hydro Tech Environmental (Brooklyn)
15 Ocean Avenue, Suite 2B
Brooklyn NY, 11225
Attention: Paul Matli

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on December 11, 2019 and listed below. The project was identified as your project: **190055 11-28 31st Drive Queens NY**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
19L0443-01	MW-1-20191210	Water	12/10/2019	12/11/2019
19L0443-02	MW-2-20191210	Water	12/10/2019	12/11/2019
19L0443-03	MW-3-20191210	Water	12/10/2019	12/11/2019
19L0443-04	MW-4-20191210	Water	12/10/2019	12/11/2019
19L0443-05	Trip Blank-20191210	Water	12/10/2019	12/11/2019

General Notes for York Project (SDG) No.: 19L0443

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 12/20/2019

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: MW-1-20191210 **York Sample ID:** 19L0443-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19L0443	190055 11-28 31st Drive Queens NY	Water	December 10, 2019 12:00 am	12/11/2019

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	12/19/2019 12:30	12/20/2019 08:24	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	12/19/2019 12:30	12/20/2019 08:24	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*101 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*96.9 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*100 %*	*79-122*

Sample Information

Client Sample ID: MW-2-20191210 **York Sample ID:** 19L0443-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19L0443	190055 11-28 31st Drive Queens NY	Water	December 10, 2019 12:00 am	12/11/2019

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	**Tetrachloroethylene**	**21.9**		ug/L	0.200	0.500	1	EPA 8260C	12/19/2019 12:30	12/20/2019 08:53	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	**Trichloroethylene**	**1.35**		ug/L	0.200	0.500	1	EPA 8260C	12/19/2019 12:30	12/20/2019 08:53	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*102 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*98.5 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*98.3 %*	*79-122*

Sample Information

Client Sample ID: MW-3-20191210 **York Sample ID:** 19L0443-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19L0443	190055 11-28 31st Drive Queens NY	Water	December 10, 2019 12:00 am	12/11/2019

Sample Information

Client Sample ID: MW-3-20191210 **York Sample ID:** 19L0443-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19L0443	190055 11-28 31st Drive Queens NY	Water	December 10, 2019 12:00 am	12/11/2019

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	**Tetrachloroethylene**	**1.27**		ug/L	0.200	0.500	1	EPA 8260C	12/19/2019 12:30	12/20/2019 09:21	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	12/19/2019 12:30	12/20/2019 09:21	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*100 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*98.9 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*98.8 %*	*79-122*

Sample Information

Client Sample ID: MW-4-20191210 **York Sample ID:** 19L0443-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19L0443	190055 11-28 31st Drive Queens NY	Water	December 10, 2019 12:00 am	12/11/2019

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	**Tetrachloroethylene**	**1.75**		ug/L	0.200	0.500	1	EPA 8260C	12/19/2019 12:30	12/20/2019 09:50	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	12/19/2019 12:30	12/20/2019 09:50	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*102 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*97.7 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*99.3 %*	*79-122*

Sample Information

Client Sample ID: Trip Blank-20191210 **York Sample ID:** 19L0443-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19L0443	190055 11-28 31st Drive Queens NY	Water	December 10, 2019 12:00 am	12/11/2019

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Information

Client Sample ID: **Trip Blank-20191210** **York Sample ID:** **19L0443-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19L0443	190055 11-28 31st Drive Queens NY	Water	December 10, 2019 12:00 am	12/11/2019

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	12/19/2019 12:30	12/20/2019 10:22	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	12/19/2019 12:30	12/20/2019 10:22	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*101 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.1 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*100 %*	*79-122*

Analytical Batch Summary

Batch ID: BL91072 **Preparation Method:** EPA 5030B **Prepared By:** MAT

YORK Sample ID	Client Sample ID	Preparation Date
19L0443-01	MW-1-20191210	12/19/19
19L0443-02	MW-2-20191210	12/19/19
19L0443-03	MW-3-20191210	12/19/19
19L0443-04	MW-4-20191210	12/19/19
19L0443-05	Trip Blank-20191210	12/19/19
BL91072-BLK1	Blank	12/19/19
BL91072-BS1	LCS	12/19/19
BL91072-BS2	LCS	12/19/19
BL91072-BSD1	LCS Dup	12/19/19
BL91072-BSD2	LCS Dup	12/19/19
BL91072-MS1	Matrix Spike	12/19/19
BL91072-MSD1	Matrix Spike Dup	12/19/19

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL91072 - EPA 5030B											
Blank (BL91072-BLK1)									Prepared: 12/19/2019 Analyzed: 12/20/2019		
Tetrachloroethylene	ND	0.500	ug/L								
Trichloroethylene	ND	0.500	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.2*		*"*	*10.0*		*102*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.78*		*"*	*10.0*		*97.8*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*9.92*		*"*	*10.0*		*99.2*	*79-122*				
LCS (BL91072-BS1)									Prepared: 12/19/2019 Analyzed: 12/20/2019		
Tetrachloroethylene	8.51		ug/L	10.0		85.1	82-131				
Trichloroethylene	12.8		"	10.0		128	82-128				
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.3*		*"*	*10.0*		*103*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.79*		*"*	*10.0*		*97.9*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.1*		*"*	*10.0*		*101*	*79-122*				
LCS (BL91072-BS2)									Prepared: 12/19/2019 Analyzed: 12/20/2019		
Tetrachloroethylene	8.86		ug/L	10.0		88.6	82-131				
Trichloroethylene	10.9		"	10.0		109	82-128				
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.0*		*"*	*10.0*		*100*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.80*		*"*	*10.0*		*98.0*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.1*		*"*	*10.0*		*101*	*79-122*				
LCS Dup (BL91072-BSD1)									Prepared: 12/19/2019 Analyzed: 12/20/2019		
Tetrachloroethylene	8.39		ug/L	10.0		83.9	82-131		1.42	30	
Trichloroethylene	11.7		"	10.0		117	82-128		8.57	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.1*		*"*	*10.0*		*101*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.83*		*"*	*10.0*		*98.3*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*9.98*		*"*	*10.0*		*99.8*	*79-122*				
LCS Dup (BL91072-BSD2)									Prepared: 12/19/2019 Analyzed: 12/20/2019		
Tetrachloroethylene	8.68		ug/L	10.0		86.8	82-131		2.05	30	
Trichloroethylene	11.0		"	10.0		110	82-128		0.183	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.2*		*"*	*10.0*		*102*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.99*		*"*	*10.0*		*99.9*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.0*		*"*	*10.0*		*100*	*79-122*				

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL91072 - EPA 5030B											
Matrix Spike (BL91072-MS1)	*Source sample: 19L0443-04 (MW-4-20191210)								Prepared: 12/19/2019 Analyzed: 12/20/2019		
Tetrachloroethylene	13.9		ug/L	10.0	1.75	122	64-139				
Trichloroethylene	12.0		"	10.0	0.00	120	53-145				
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.4*		*"*	*10.0*		*104*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.80*		*"*	*10.0*		*98.0*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*9.93*		*"*	*10.0*		*99.3*	*79-122*				
Matrix Spike Dup (BL91072-MSD1)	*Source sample: 19L0443-04 (MW-4-20191210)								Prepared: 12/19/2019 Analyzed: 12/20/2019		
Tetrachloroethylene	13.9		ug/L	10.0	1.75	122	64-139		0.144	30	
Trichloroethylene	12.3		"	10.0	0.00	123	53-145		2.89	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*10.1*		*"*	*10.0*		*101*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.67*		*"*	*10.0*		*96.7*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*9.85*		*"*	*10.0*		*98.5*	*79-122*				

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19L0443-01	MW-1-20191210	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19L0443-02	MW-2-20191210	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19L0443-03	MW-3-20191210	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19L0443-04	MW-4-20191210	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19L0443-05	Trip Blank-20191210	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

CCV-E The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615
132-02 89th Ave, Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization for YORK to proceed with the analyses requested below.
Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 19L0443

YOUR Information	Report To:	Invoice To:
Company: HTE	Company: Same	Company: Same
Address: 15 Ocean Ave, 2nd Fl, Bklyn, NY 11225	Address:	Address:
Phone.: 718-636-0800	Phone.:	Phone.:
Contact: Paul E. Meth	Contact:	Contact:
E-mail: Pmeth@hydrotechenvironmental.com	E-mail:	E-mail:

YOUR Project Number: 190055

YOUR Project Name: 11-28 31 Drive, LIC, NY

YOUR PO#: 52428

Turn-Around Time

- RUSH - Next Day
- RUSH - Two Day
- RUSH - Three Day
- ~~RUSH~~ - Four Day ✓
- Standard (5-7 Day)

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Anusha Agrawal

Samples Collected by: (print your name above and sign below)

Anusha

Matrix Codes

S - soil / solid
GW - groundwater
DW - drinking water
WW - wastewater
O - Oil | Other

Samples From

New York ✓
New Jersey
Connecticut
Pennsylvania
Other

Report / EDD Type (circle selections)

Summary Report (circled) | CT RCP | Standard Excel EDD (circled)
QA Report (circled) | CT RCP DQA/DUE | EQuIS (Standard)
NY ASP A Package | NJDEP Reduced Deliverables | NYSDEC EQuIS (circled)
NY ASP B Package (circled) | NJDKQP | NJDEP SRP HazSite
Other:

YORK Reg. Comp.

Compared to the following Regulation(s): (please fill in)

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
MW-1-20191210	GW	12/10/2019	PCE and TCE via EPA 8260B	3 x 40 ml vials
MW-2-20191210				X
MW-3-20191210				X
MW-4 (MS/MSD)-20191210				6 x 40ml vials
~~MW-5-20191210~~				~~2 x 40ml vials~~
Trip Blank-20191210	DI	✓	✓	2 x 40ml vials

Comments:

Preservation: (check all that apply)

HCl ___ MeOH ___ HNO_3 ___ H_2SO_4 ___ NaOH ___ ZnAc ___
Ascorbic Acid ___ Other: _____

Special Instruction

Field Filtered ____
Lab to Filter ____

Samples Relinquished by / Company	Date/Time	Samples Received by / Company
Anusha	12/10, 12:55 PM	
Samples Received by / Company	Date/Time	Samples Relinquished by / Company
KBarbarock	12/11/19 1150	KBarbarock
Samples Relinquished by / Company	Date/Time	Samples Received by / Company

Date/Time	Samples Relinquished by / Company	Date/Time
12/10 12:55 PM		12-11-19 1150
Date/Time	Samples Received by / Company	Date/Time
12-11-19 1742		
Date/Time	Samples Received in LAB by	Temp. Received at Lab
	12-11-19 1742	2.4 Degrees C

Attachment D

Copy of DUSR

11-28 31st

ALPHA
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Geology
Hydrology
Remediation
Water Supply

January 16, 2020

Mr. Paul I. Matli, Ph.D.
Hydro Tech Environmental
15 Ocean Ave., Suite 2B
Brooklyn, NY 11225

Re: Data Validation Report
December 2019 Ground Water Sampling Event
11-28 31st Drive, LIC, NY

Dear Dr. Matli:

The data usability summary report and data validation summary are attached to this letter for the above referenced project. The data for York Analytical Laboratories, Inc. SDG 19L0443 were acceptable with some minor issues that are identified in the validation summary. There were no data that were qualified as rejected, unusable (R) in the data pack.

We have attached lists of data validation acronyms and data qualifiers to assist you in the interpretation of the reviews. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Hydro Tech Environmental, Corp.

Sincerely,
Alpha Geoscience
Donald Anné

Donald Anné
Senior Chemist

DCA:dca
attachments

z:\projects\2015\15600 - 15620\15604-11-28 31 drive\2020\11-28 31 drive-201.ltr.docx

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U	=	Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
R	=	Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
N	=	Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
J	=	Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
J-	=	Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.
J+	=	Analyte is present. Reported value may be biased high andassociated with a higher level of uncertainty than is normally expected with the analytical method.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

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Geology

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Data Usability Summary Report for
York Analytical Laboratories, Inc., SDG: 19L0443

4 Ground Water Samples and 1 Trip Blank
Collected December 10, 2019

Prepared by: Donald Anné
January 16, 2020

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contains the results of 4 ground water samples and 1 trip blank analyzed for volatiles only.

The overall performances of the analyses are acceptable. York Analytical Laboratories, Inc. did fulfill the requirements of the analytical methods.

The data are mostly acceptable with some issues that are identified in the accompanying data validation reviews. The following data were qualified:

- The positive volatile results for tetrachloroethylene were qualified as "estimated" (J) in samples MW-2-20191210, MW-3-20191210, and MW-4-20191210 because the %D for tetrachloroethylene was above the allowable maximum in the associated continuing calibration.

All data are considered usable, with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

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Geology
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QA/QC Review of Method 8260C Volatiles Data for York Analytical Laboratories, Inc., SDG: 19L0443

4 Ground Water Samples and 1 Trip Blank Collected December 10, 2019

Prepared by: Donald Anné
January 16, 2020

Holding Times: Samples were analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRFs for applicable compounds were above the method minimums, as required.

The average RRF for trichloroethylene and tetrachloroethylene were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for applicable compounds were above the method minimums, as required. The %D for tetrachloroethylene was above the method maximum on 12-20-19 (V815707.D).

The RRF for trichloroethylene and tetrachloroethylene were above the allowable minimum (0.010), as required.

The %D for tetrachloroethylene was above the allowable maximum (25%) on 12-20-19 (V815707.D). Positive results for tetrachloroethylene should be considered estimated (J) in associated samples.

Blanks: The analyses of method and trip blanks reported trichloroethylene and tetrachloroethylene as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples and trip blank.

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www.alphageoscience.com

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for tetrachloroethylene and trichloroethylene were below the allowable maximum and percent recoveries were within QC limits for aqueous MS/MSD sample MW-4-20191210.

Laboratory Control Sample: The relative percent differences for trichloroethylene and tetrachloroethylene were below the allowable maximum and the percent recoveries were within QC limits for aqueous samples BL91072-BS1, BL91072-BSD1, BL91072-BS2, and BL91072-BSD2.

Compound ID: Checked compounds and surrogates were within GC quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

FORM VII **CONTINUING CALIBRATION CHECK**

EPA 8260C

Laboratory:	York Analytical Laboratories, Inc.	SDG:	19L0443
Client:	Hydro Tech Environmental (Brooklyn)	Project:	190055 11-28 31st Drive Queens NY
Instrument ID:	VOA No. 8	Calibration:	YL90018
Lab File ID:	V815707.D	Calibration Date:	12/12/19 14:43
Sequence:	Y9L2028	Injection Date:	12/20/19
Lab Sample ID:	Y9L2028-CCV1	Injection Time:	05:03

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloroethylene	A	10.0	15.8	0.6493632	1.025434	0.2	57.9	20 *
Trichloroethylene	A	10.0	11.5	0.5825691	0.6695636	0.2	14.9	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

HydroTech Environmental
ENGINEERING AND GEOLOGY, DPC

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Long Island Office
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WWW.HYDROTECHENVIRONMENTAL.COM

May 4, 2020

Ms. Sondra Martinkat
New York State Department of Environmental Conservation
47-40 21st Street
Long Island City, NY 11101-5407

Re: Quarterly Status Report # 3 – December 2019 to February 2020
11-28 31st Drive, Queens, NY
NYSBCP Site #C241159

Dear Ms. Martinkat:

This report is intended to serve as a Quarterly Status Report (QSR), covering the period from December 2019 through February 2020 for the above-referenced Site. The Site is enrolled in the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) and is assigned number **C241159**. The scope of work presented is based upon the NYSDEC-approved Site Management Plan (SMP) dated November 2018 and was performed on behalf of the property owner, GBT Real Estate, LLC. The scope of work involves the quarterly monitoring and sampling of five existing monitoring wells and the quarterly monitoring of the active Sub-Slab Depressurization System (SSDS).

Groundwater Monitoring and Sampling

In accordance with the NYSDEC-approved SMP, the five monitoring wells MW-1 to MW-4 and MW-6 have been gauged on a quarterly basis for the presence of free product and also to determine the depth to groundwater. The location of monitoring wells is shown in **Figure 1**. The groundwater monitoring and sampling for the quarterly period covered in this report was in fact performed during March 2020 instead of February 2020 due a back order of sampling materials. This gauging was performed on March 20, 2020 utilizing a Solinst 122 Oil/Water Interface Probe. During this event, access to monitoring well MW-6 has been obstructed by a locked construction fence erected around a vacant property located to the north of the Site. None of the remaining monitoring wells were found to contain free product. The depth to water during this monitoring event ranged from 9.71 feet in MW-4 to 11.40 feet in MW-1. This depth to water in these wells represents an increase by an average 0.26 feet since the last event during November 2019.

Table 1 provides the groundwater monitoring and elevation data for the period covered by this report and historical monitoring data. **Attachment A** provides the well monitoring sheet.

Utilizing historical monitoring well casing elevations and the depth to water, the groundwater elevation in the wells were then determined. The groundwater elevations indicate the groundwater flow direction beneath the Site continues to be toward the southwest, consistent

with the historic flow directions mapped for this Site. **Figure 2** provides a contour map of groundwater flow direction during March 2020.

Passive Diffusion Bag (PDB) samplers for the groundwater sampling were then placed inside each of the four the monitoring wells MW-1 to MW-4 following well gauging. The PDBs were left inside the wells for the duration of 14 days and were recovered on March 16, 2019.

The groundwater samples collected from the PDBs were placed in laboratory-supplied containers and secured in a cooler filled with ice and maintained at a maximum 4 degrees Celsius. The samples were transmitted under proper chain of custody procedures to a State-certified (ELAP) laboratory and analyzed for tetrachloroethylene (PCE) and trichloroethylene (TCE) in accordance with EPA Method 8260.

Investigatory-derived waste (IDW) consisting of excess liquid generated during the sampling from of PDBs were placed into a 55-gallon drum. The drum was disposed of in accordance with DER-10 Technical Guidance for Site Investigation and Remediation (May 2010). **Attachment B** provides a copy of the final disposal manifest.

Laboratory analytical results for PCE and TCE in groundwater samples are provided in **Table 2**. Table 2 also provides the PCE and TCE concentrations over time and a comparison to NYSDEC 6NYCRR Part 703.5 Class groundwater Quality Standards (GQS). **Attachment C** provides a copy of the laboratory analytical report.

As **Table 2** indicates, PCE was detected in MW-2 and MW-4 at a concentrations that marginally exceed its GQS of 5 µg/L. PCE is present in MW-2 at a concentration of 6.77 µg/L, which represents a 70% decrease from 21.90 µg/L detected during the previous sampling in December 2019. PCE in MW-4 occurred at 6.7 µg/L, which represents a slightly increased from 1.75 µg/L detected during December 2019. PCE continues to be undetected in MW-1 and its concentrations in MW-3 continues to be below its GQS. TCE was only detected in MW-2 at a concentration less than GQS of 5 µg/L. TCE was not detected in MW-1, MW-3 or MW-4.

Overall findings of this investigation continue to support the findings made over the course of historic groundwater sampling performed at this Site since November 2018. These findings reflect a general reduction in PCE and TCE concentrations since the completion of the remedial injection program.

The groundwater data was submitted electronically to the NYSDEC through the Environmental Information Management System using the NYSDEC standardized Electronic Data Deliverable (EDD) format. A Data Usability Summary Report (DUSR) was also prepared for the analytical results by an independent data reviewer, Mr. Donald Anne of Alpha Geoscience in Clifton Park, NY. The DUSR indicates the data is acceptable and is considered usable. A copy of the DUSR is provided in **Attachment D**.

Active Sub-Slab Depressurization System

The active SSDS has been monitored on a quarterly basis. For the period covered in this report, the monitoring of SSDS was performed alongside the gauging of monitoring wells on March 20, 2020. During this monitoring event, a Qualified Environmental Professional inspected the system for proper functioning in accordance with the SSDS Operation and Maintenance Plan in the SMP. **Figure 3** provides the location of the vacuum monitoring points associated with the SSDS.

Table 3 provides the SSDS Monitoring Data collected during March 2020. The SSDS vacuum observed at the inline Dwyer Magnehelic dial type vacuum gauge was recorded at -0.74 inches H_2O. The effluent of the SSDS was monitored with a Photoionization Detector (PID); no organic vapors were detected. The radius of influence of the SSDS was monitored by measuring the vacuum at the three permanent sub-slab vacuum monitoring points VMP-1 to VMP-.

The vacuum at the vacuum monitoring points VMP-1 to VMP-3 was measured using Model 8710 DP-Calc™ Micromanometer, which measures differential pressure in inches H_2O. Differential pressure readings obtained at the three vacuum monitoring points indicate a vacuum ranging between -0.023 and -0.035 inches H_2O across the building slab. This level of negative pressure is consistent with the previous monitoring performed during November 2019 and it continues to reflect a satisfactory sub-slab vacuum communication for mitigating potential soil vapor intrusion beneath the building.

The groundwater sampling and SSDS monitoring will continue on a quarterly basis in accordance with the NYSDEC-approved SMP. The next quarterly groundwater sampling and SSDS monitoring event is scheduled for May 2020.

Should you have any questions, please feel free to contact our office at your convenience.

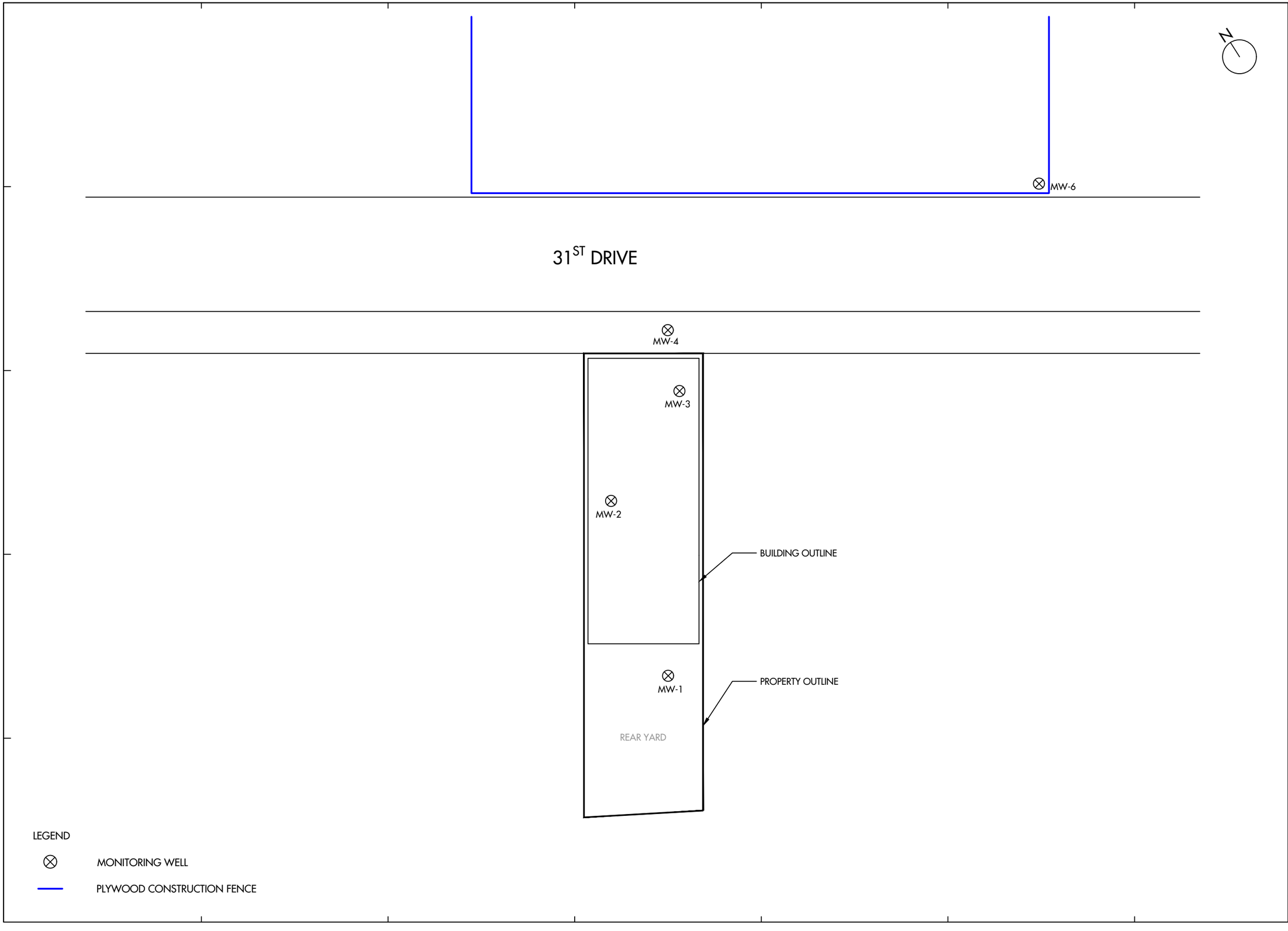
Very Truly Yours,
HydroTech Environmental Engineering and Geology, DPC

Paul I. Matli, PhD, PG
Senior Project Manager

PIM/as
Enc.

cc: Mr. George Man – GBT Real Estate LLC (by email) w/ Enc.
HydroTech file 190055 w/ Enc.

Figures



DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

77 ARKAY DRIVE, SUITE K
HAUPPAUGE, NY 11788

15 OCEAN AVENUE, SUITE 2B BROOKLYN, NY 11225

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FAX: (631) 462-5877

BASE DRAWING PREPARED BY

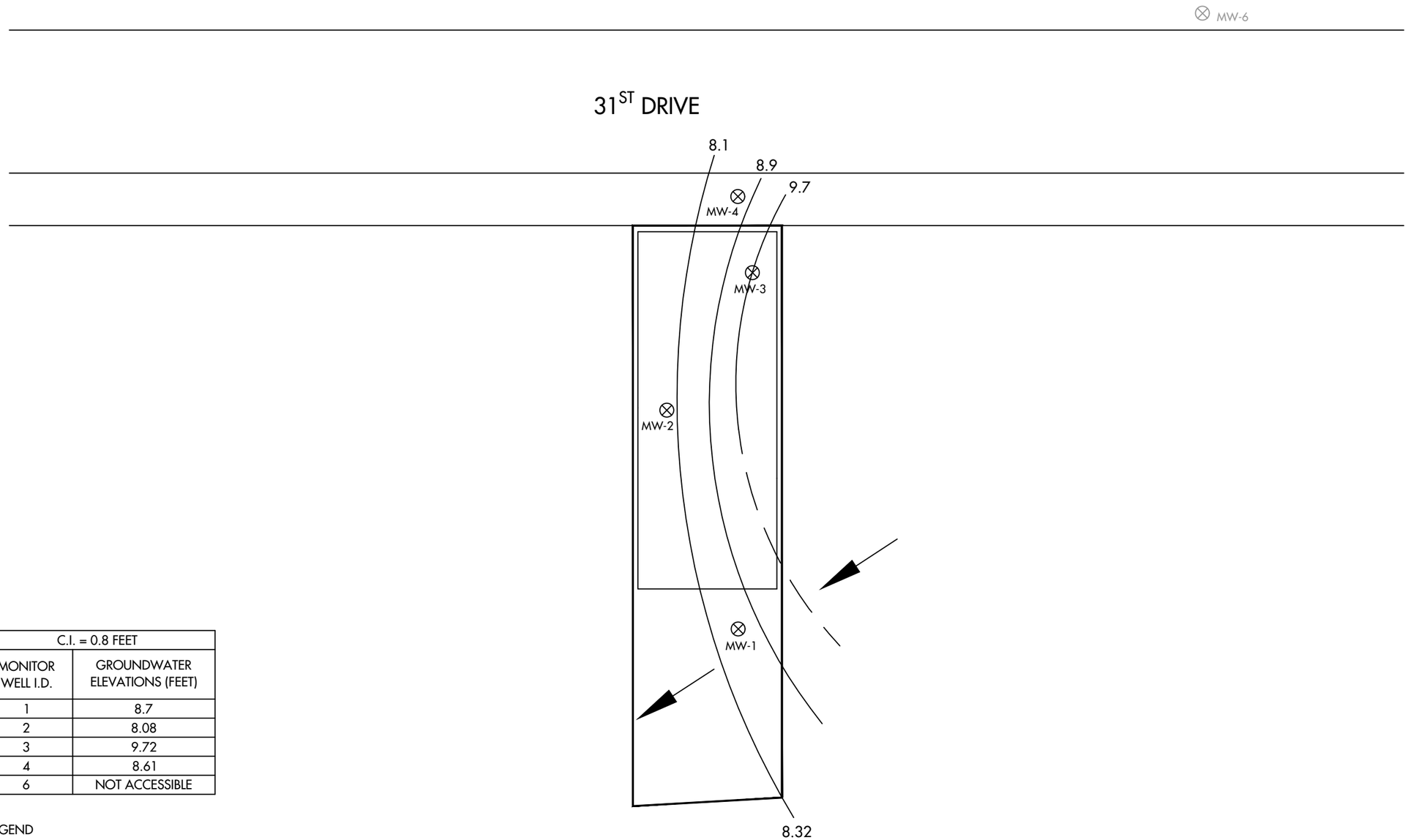
PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 1: SITE MAP

PROJECT NO.	DATE
190055	11/14/19
DRAWN BY: A.R.	REVIEWED BY: P.M.
SCALE (11X17): NOT TO SCALE	APPROVED BY: T.K.



C.I. = 0.8 FEET	
MONITOR WELL I.D.	GROUNDWATER ELEVATIONS (FEET)
1	8.7
2	8.08
3	9.72
4	8.61
6	NOT ACCESSIBLE

LEGEND

⊗ MONITORING WELL

NOTE:
DASHED LINE WHERE CONTOUR IS INFERRED

DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

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HAUPPAUGE, NY 11788

15 OCEAN AVENUE, SUITE 2B BROOKLYN, NY 11225

TEL: (631) 462-5866

FAX: (631) 462-5877

BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

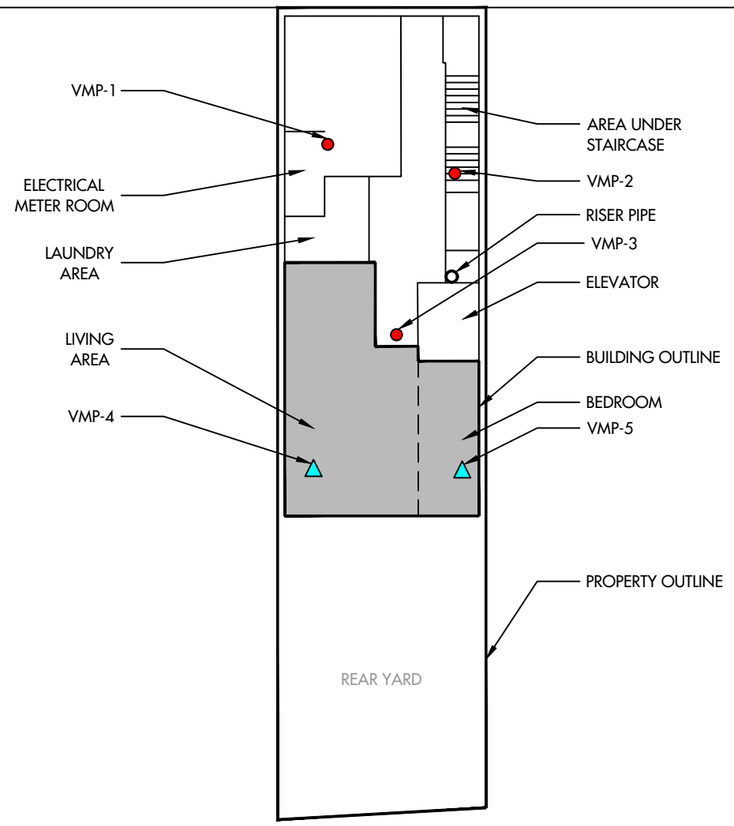
FIGURE 2: GROUNDWATER FLOW CONTOUR MAP

PROJECT NO.	DATE
190055	3/24/20
DRAWN BY A.R.	REVIEWED BY P.M.
SCALE (11X17) NOT TO SCALE	APPROVED BY T.K.

DATE	DESCRIPTION	CHK

SEAL & SIGNATURE

31ST DRIVE



LEGEND

- PERMANENT VACUUM MONITORING POINTS
- TEMPORARY VACUUM MONITORING POINTS (DECOMMISSIONED AFTER SSDS STARTUP)
- RESIDENTIAL UNIT

HYDROTECH ENVIRONMENTAL ENGINEERING AND GEOLOGY, DPC

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15 OCEAN AVENUE, SUITE 2B BROOKLYN, NY 11225

TEL: (631) 462-5866

FAX: (631) 462-5877

BASE DRAWING PREPARED BY

PROJECT NAME AND ADDRESS

11-28 31ST DRIVE
QUEENS, NY 11106

PROJECT FIGURE

FIGURE 3: VACUUM MONITORING POINTS MAP

PROJECT NO.	DATE
190055	11/14/19
DRAWN BY: A.R.	REVIEWED BY: P.M.
SCALE (11X17): NOT TO SCALE	APPROVED BY: T.K.

Tables

Table 1

Groundwater Monitoring Results Over Time

11-28 31st Drive, Queens, NY

Well ID	Casing Elevation	August 2019			November 2019			March 2020		
		DTP	DTW	Water Table Elevation	DTP	DTW	Water Table Elevation	DTP	DTW	Water Table Elevation
MW-1	12.7	ND	11.08	8.38	ND	11.23	8.53	ND	11.4	8.7
MW-2	12.7	ND	11.01	8.31	ND	11.15	8.45	ND	10.78	8.08
MW-3	11.51	ND	9.96	8.45	ND	10.1	8.59	ND	11.23	9.72
MW-4	11.10	ND	9.44	8.34	ND	9.60	8.50	ND	9.71	8.61
MW-6	9.47	ND	9.97	10.5	ND	10.15	10.68	ND	NA	NA

All values reported in feet.

DTW…Depth to Water from top of casing

DTP…Depth to Product from top of casing

ND…None Detected

NA…Not Accessible

Water Table elevations adjusted by a site benchmarck elevation of 10 feet

Tabel 2
Groundwater Samples Analytical Results for PCE and TCE _ Over Time
11-28 31st Drive, Queens, NY

Sample ID	MW-1													
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		########		3/17/2020	
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q
Tetrachloroethylene	0.2	U	**0.28**	J	0.22	U	0.22	U	0.22	U	0.20	U	0.20	U
Trichloroethylene	0.2	U	0.2	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U

Sample ID	MW-2													
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		#######		########		3/17/2020	
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q
Tetrachloroethylene	**3.03**		**25**		**20**		**11.60**		**20.1**		**21.90**		**6.77**	
Trichloroethylene	0.2	U	**0.40**	J	**0.63**		**0.68**		**1.21**		**1.35**		**0.52**	

Sample ID	MW-3													
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		12/10/2019		3/17/2020	
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q
Tetrachloroethylene	**20.83**		**4.10**		**1.20**		0.22	U	**0.92**		**1.27**		**1.50**	
Trichloroethylene	**0.52**		0.2	U	0.20	U	0.20	U	0.20	u	0.20	U	0.20	U

Sample ID	MW-4													
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		#######		12/10/2019		3/17/2020	
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q
Tetrachloroethylene	**3,799.8**		**70**		**13**		**2.28**		**2.87**		**1.75**		**6.70**	
Trichloroethylene	**17**		**0.66**		**0.43**	J	0.20	U	0.20		0.20	U	0.20	U

Sample ID	MW-6												Trip Blank		QGS
Sampling Date	1/13/2015		2/19/2018		7/24/2018		11/20/2018		8/30/2019		#######	3/17/2020	3/17/2020		
Compound	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	Q	µg/L	µg/L	µg/L	Q	
Tetrachloroethylene	**85.83**	D	**75**		**43**		**28.4**		**49.6**	D	**NA**	**NA**	0.20	U	5
Trichloroethylene	**8.90**		**15**		**0.46**	J	**0.48**	J	**0.42**	DJ			0.20	U	5

NOTES:

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
NS=this indicates that no regulatory limit has been established for this analyte
GWS=NYSDEC TOGS Standards and Guidance Values - GA
▨ Shaded concentration exceeds GQS

1/13/2015=Sampling performed during the Remedial Investigation
2/19/2018=Baseline sampling performed prior to ISCO Injection Program
7/24/2018= Sampling performed 2 months post-ISCO injections
11/20/2018=Quaretrly sampling performed 5 months post-ISCO injections
8/30/2019=Quartely samplig performed 15 months post-ISCO Injections
NA= Not sampled due to limited access

Table 3

SSDS Monitoring Data Log Sheet Over Time

11-28 31 Drive ,Queens, New York,
NYSDEC Site Number: C241159

Date/Time	SSDS Vacuum	SSDS Effluent			Vaccum Monitoring Points				
					VMP-1	VMP-2	VMP-3	VMP-4	VMP-5
		PID	Flow	Temp	Vacuum				
9/9/2019	-0.74	0.2	518	76.46	-0.031	-0.040	-0.041	-0.036	-0.039
10/15/2019	-0.74	NA	NA	NA	-0.030	-0.036	-0.042	-0.036	-0.038
12/10/2019	-0.74	0.1	470.8	62.2	-0.024	-0.032	-0.034	D	D
3/2/2020	-0.74	0.1	440.1	65.5	-0.023	-0.035	-0.033	D	D

Vacuum --- Inch Water Flow

PID --- ppm

Flow --- CFM

Temperature --- ◦F

NA---Not measured

D---Decommissioned

Attachments

Attachment A
Well Monitoring Sheet

WELL MONITORING LOG SHEET

Project Name: 11-28 3 Drive Date: 3-17-2010

Client: Mr. George Man Instrument: _____

Site Location: 11-28 31 Drive Spill No.: _____

Monitoring Schedule: Monthly : _____ Quartely : _____ Bi-Annually :_____

Legend

S = Snow D = Dry G = Gone C = Can't Locate

DTW = Depth to Water DTP = Depth to Product PT = Product Thickness ND = None Detected

Monitoring Well	D.T.P.	D.T.W.	Riser abovegrund
MW-1	ND	11.4	
MW-2	ND	11.78	
MW-3	ND	11.23	
MW-4	ND	9.71	
MW-6	NA	NA	

Notes: All measurements in feet, below the nortnern top of well casing

Notes:

All measurements are reported in feet

ND=none detected

D=destroyed

NA

Reported By:

Paul I. Matli

Attachment B
Drum Disposal Manifest

18-2326-20 3934391 ~~3934386~~ 4/2

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	N / A	1	(267) 406-0083	42373

GENERATOR

5. Generator's Name and Mailing Address
GBT Real Estate LLC
11-28 31st Drive
Long Island City NY 11106
Generator's Phone: 371 416-2002

Att: George Man Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
Innovative Recycling Technologies, Inc.
U.S. EPA ID Number: NYR000134940

7. Transporter 2 Company Name
Republic Environmental Systems (Trans Group)LLC
U.S. EPA ID Number: PAD982661381

8. Designated Facility Name and Site Address
Republic Environmental Systems (PA), LLC
2869 Sandstone Drive
Hatfield PA 19440
Facility's Phone: 215 822-8995
U.S. EPA ID Number: PAD085690592

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non Hazardous Purge Water Non-DOT Regulated Material	01	DM	50	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
9.1)996775
Doc# 182319-20

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: James Ulrich on behalf of | Signature | Month 3 | Day 26 | Year 20

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: James Ulrich | Signature | Month 3 | Day 26 | Year 20

Transporter 2 Printed/Typed Name: Melissa B Deluca | Signature | Month 4 | Day 1 | Year 2020

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: MALVEY SMITH | Signature | Month 04 | Day 02 | Year 20

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

Attachment C

Laboratory Analytical Report

Technical Report

prepared for:

Hydro Tech Environmental (Brooklyn)
15 Ocean Avenue, Suite 2B
Brooklyn NY, 11225
Attention: Paul Matli

Report Date: 03/25/2020
Client Project ID: 190055 11-28 31st Drive Queens NY
York Project (SDG) No.: 20C0824

Report Date: 03/25/2020
Client Project ID: 190055 11-28 31st Drive Queens NY
York Project (SDG) No.: 20C0824

Hydro Tech Environmental (Brooklyn)
15 Ocean Avenue, Suite 2B
Brooklyn NY, 11225
Attention: Paul Matli

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on March 18, 2020 and listed below. The project was identified as your project: **190055 11-28 31st Drive Queens NY**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
20C0824-01	MW-1 (MS/MSD) - 20200317	Water	03/17/2020	03/18/2020
20C0824-02	MW-2 - 20200317	Water	03/17/2020	03/18/2020
20C0824-03	MW-3 - 20200317	Water	03/17/2020	03/18/2020
20C0824-04	MW-4 - 20200317	Water	03/17/2020	03/18/2020
20C0824-05	Trip Blank - 20200317	Water	03/17/2020	03/18/2020

General Notes for York Project (SDG) No.: 20C0824

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 03/25/2020

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: MW-1 (MS/MSD) - 20200317 **York Sample ID:** 20C0824-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20C0824	190055 11-28 31st Drive Queens NY	Water	March 17, 2020 12:00 am	03/18/2020

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	03/24/2020 12:30	03/25/2020 00:18	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	03/24/2020 12:30	03/25/2020 00:18	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*85.4 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*97.5 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*105 %*	*79-122*

Sample Information

Client Sample ID: MW-2 - 20200317 **York Sample ID:** 20C0824-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20C0824	190055 11-28 31st Drive Queens NY	Water	March 17, 2020 12:00 am	03/18/2020

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	**Tetrachloroethylene**	**6.77**	CCV-E	ug/L	0.200	0.500	1	EPA 8260C	03/24/2020 12:30	03/25/2020 00:46	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	**Trichloroethylene**	**0.520**		ug/L	0.200	0.500	1	EPA 8260C	03/24/2020 12:30	03/25/2020 00:46	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*91.0 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*96.6 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*104 %*	*79-122*

Sample Information

Client Sample ID: MW-3 - 20200317 **York Sample ID:** 20C0824-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20C0824	190055 11-28 31st Drive Queens NY	Water	March 17, 2020 12:00 am	03/18/2020

Sample Information

Client Sample ID: MW-3 - 20200317 **York Sample ID:** 20C0824-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20C0824	190055 11-28 31st Drive Queens NY	Water	March 17, 2020 12:00 am	03/18/2020

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	**Tetrachloroethylene**	**1.49**	CCV-E	ug/L	0.200	0.500	1	EPA 8260C	03/24/2020 12:30	03/25/2020 01:15	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	03/24/2020 12:30	03/25/2020 01:15	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*91.4 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*96.1 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*103 %*	*79-122*

Sample Information

Client Sample ID: MW-4 - 20200317 **York Sample ID:** 20C0824-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20C0824	190055 11-28 31st Drive Queens NY	Water	March 17, 2020 12:00 am	03/18/2020

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	**Tetrachloroethylene**	**6.70**	CCV-E	ug/L	0.200	0.500	1	EPA 8260C	03/24/2020 12:30	03/25/2020 01:43	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	03/24/2020 12:30	03/25/2020 01:43	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*92.8 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*96.2 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*102 %*	*79-122*

Sample Information

Client Sample ID: Trip Blank - 20200317 **York Sample ID:** 20C0824-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20C0824	190055 11-28 31st Drive Queens NY	Water	March 17, 2020 12:00 am	03/18/2020

Volatile Organics, 8260 - TCE/PCE

Log-in Notes:

Sample Notes:

Sample Information

Client Sample ID: **Trip Blank - 20200317** **York Sample ID:** **20C0824-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20C0824	190055 11-28 31st Drive Queens NY	Water	March 17, 2020 12:00 am	03/18/2020

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	03/24/2020 12:30	03/25/2020 02:12	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C	03/24/2020 12:30	03/25/2020 02:12	AB
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*94.3 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*96.2 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*103 %*	*79-122*

Analytical Batch Summary

Batch ID: BC01436 **Preparation Method:** EPA 5030B **Prepared By:** CLS2

YORK Sample ID	Client Sample ID	Preparation Date
20C0824-01	MW-1 (MS/MSD) - 20200317	03/24/20
20C0824-02	MW-2 - 20200317	03/24/20
20C0824-03	MW-3 - 20200317	03/24/20
20C0824-04	MW-4 - 20200317	03/24/20
20C0824-05	Trip Blank - 20200317	03/24/20
BC01436-BLK1	Blank	03/24/20
BC01436-BS1	LCS	03/24/20
BC01436-BSD1	LCS Dup	03/24/20
BC01436-MS1	Matrix Spike	03/24/20
BC01436-MSD1	Matrix Spike Dup	03/24/20

Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC01436 - EPA 5030B											
Blank (BC01436-BLK1)								Prepared & Analyzed: 03/24/2020			
Tetrachloroethylene	ND	0.500	ug/L								
Trichloroethylene	ND	0.500	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	*8.49*		*"*	*10.0*		*84.9*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.75*		*"*	*10.0*		*97.5*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.7*		*"*	*10.0*		*107*	*79-122*				
LCS (BC01436-BS1)								Prepared & Analyzed: 03/24/2020			
Tetrachloroethylene	9.63		ug/L	10.0		96.3	82-131				
Trichloroethylene	9.87		"	10.0		98.7	82-128				
Surrogate: SURR: 1,2-Dichloroethane-d4	*8.91*		*"*	*10.0*		*89.1*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.60*		*"*	*10.0*		*96.0*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.4*		*"*	*10.0*		*104*	*79-122*				
LCS Dup (BC01436-BSD1)								Prepared & Analyzed: 03/24/2020			
Tetrachloroethylene	9.53		ug/L	10.0		95.3	82-131		1.04	30	
Trichloroethylene	9.91		"	10.0		99.1	82-128		0.404	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*8.65*		*"*	*10.0*		*86.5*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.75*		*"*	*10.0*		*97.5*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.5*		*"*	*10.0*		*105*	*79-122*				
Matrix Spike (BC01436-MS1)	*Source sample: 20C0824-01 (MW-1 (MS/MSD) - 20200317)							Prepared: 03/24/2020 Analyzed: 03/25/2020			
Tetrachloroethylene	10.4		ug/L	10.0	0.00	104	64-139				
Trichloroethylene	10.9		"	10.0	0.00	109	53-145				
Surrogate: SURR: 1,2-Dichloroethane-d4	*9.20*		*"*	*10.0*		*92.0*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.52*		*"*	*10.0*		*95.2*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.2*		*"*	*10.0*		*102*	*79-122*				
Matrix Spike Dup (BC01436-MSD1)	*Source sample: 20C0824-01 (MW-1 (MS/MSD) - 20200317)							Prepared: 03/24/2020 Analyzed: 03/25/2020			
Tetrachloroethylene	10.6		ug/L	10.0	0.00	106	64-139		1.62	30	
Trichloroethylene	10.8		"	10.0	0.00	108	53-145		1.02	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*9.44*		*"*	*10.0*		*94.4*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.53*		*"*	*10.0*		*95.3*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.2*		*"*	*10.0*		*102*	*79-122*				

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
20C0824-01	MW-1 (MS/MSD) - 20200317	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
20C0824-02	MW-2 - 20200317	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
20C0824-03	MW-3 - 20200317	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
20C0824-04	MW-4 - 20200317	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
20C0824-05	Trip Blank - 20200317	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

CCV-E The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

YORK
ANALYTICAL LABORATORIES, INC.
120 RESEARCH DR. STRATFORD, CT 06615
(203) 325-1371 FAX (203) 357-0166

Field Chain-of-Custody Record

Page____ of ____

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions unless superseded by written contract.

York Project No. 2000824

YOUR Information	Report to:	Invoice To:	Your Project ID	Turn-Around Time	Report/Deliverable Type
Company: HydroTech Env. Eng & Geol Dl	SAME [x]	SAME [ ]	#190055	RUSH-Same Day	Summary Report x
Address: 15 Ocean Ave. 2nd Fl	Name:	Name: SAME	11-28 31 Drive, LIC NY	RUSH-Next Day	QA Report x
Bklyn , NY 11225	Company:	Company:	Purchase Order #	RUSH-Two Day	CT RCP
Phone.: 718-636-0800	Address:	Address:		RUSH-Three Day	CT RCP DQA/DUE Pkg
Contact: Paul I. Matli			52479	~~RUSH~~-Four Day X	NY ASP A Package
E-mail: pmatli...hydrotechenvironmental.com	E-mail:	E-mail mward...hydrotechenvironmental.c	Samples from CT__NY__NJ__	Standard (5-7day)	NY ASP B Package x

Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.

Paul I. Matli (signature)
Samples Collected/Authorized By (Signature)
Paul I. Matli
Name (printed)

Matrix Codes
S - soil
Other - specify(oil, etc.)
WW - wastewater
GW - groundwater
DW - drinking water
Air-A - ambient air
Air-SV - soil vapor

Volatiles		Semi-Vols.	Pest/PCB/Herb	Metals	Misc. Org.	Full Lists
8260 full	TICs	8270 or 625	8082PCB	RCRA8	TPH GRO	Pri.Poll.
624	Site Spec.	STARS list	8081Pest	PP13 list	TPH DRO	TCL Organics
STARS list	Nassau Co.	BN Only	8151Herb	TAL	CT ETPH	TAL Met/CN
BTEX	Suffolk Co.	Acids Only	CT RCP	CT15 list	NY 310-13	Full TCLP
MTBE	Ketones	PAH list	App. IX	TAGM list	TPH 1664	Full App. IX
TCL list	Oxygenates	TAGM list	Site Spec.	NJDEP list	Air TO14A	Part360-Routine
TAGM list	TCLP list	CT RCP list	SPLP or TCLP	Total	Air TO15	Part360-Baseline
CT RCP list	524.2	TCL list	TCLP Pest	Dissolved	Air STARS	Part360-Expanded No Dioxins/Furans
Arom. only	502.2	NJDEP list	TCLP Herb	SPLP or TCLP	Air VPH	Part360-Expanded Full List
Halog.only	NJDEP list	App. IX	Chlordane	Indiv. Metals	Air TICs	NYCDEP Sewer
App.IX list	SPLP or TCLP	TCLP BNA	608 Pest	LIST Below	Methane	NYSDEC Sewer
8021B list		SPLP or TCLP	608 PCB		Helium	TAGM

Report/Deliverable Type (continued):
- NJDEP Reduced Deliv
- Excel x
- NYSDEC EQuIS X
- NJDEP SRP HazSite
- EQuIS
- GIS/KEY (std)
- **YORK Regulatory Comp Excel** *compared to:* **See Comment below**
- OTHER:

Sample Identification	Date+Time Sampled	Matrix	Analysis Requested (List above includes common analysis)	Container Description
MW-1 (MS/MSD) - 20200317	3/17/2020	GW	PCE and TCE via EPA 8260B	9 x 40 mils vials
MW-2 - 20200317	x	X	X	3 x 40 mils vials
MW-3 - 20200317	x	X	X	x
MW-4 - 20200317	x	X	X	x
Trip Blank - 20200317	x	DI	X	2 x 40 mils vials

Rec'd Eric Snyder 3/14/20 2235
Rel Eric Snyder 3/18/20 1826

Comments:
x = same as before
Compare to NYSDEC - 1.1.1 TOGS- GQS
Samples collected via PDBs

Preservation (check all appliciable): 4°C____ Frozen____ HCl____ MeOH____ HNO_3____ H_2SO_4____ NaOH____ ZnAc____ Ascorbic Acid____ Other____

Special Instructions
Field Filtered ☐
Lab to Filter ☐

Samples Relinquished By	Date/Time	Samples Received By	Date/Time	Temperature on Receipt
Paul Matli	3/18/20 9:15am	Allie v York	03/18/20 9:10	3.4 °C
Allie v York	03/18/20	K Blocker	3/18/20 1826	

Samples Relinquished By / Date/Time / Samples Received in LAB by / Date/Time

Attachment D

Copy of DUSR

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Hydrology
Remediation
Water Supply

April 7, 2020

Mr. Paul I. Matli, Ph.D.
Hydro Tech Environmental
15 Ocean Ave., Suite 2B
Brooklyn, NY 11225

Re: Data Validation Report
March 2020 Ground Water Sampling Event
11-28 31st Drive, LIC, NY

Dear Dr. Matli:

The data usability summary report and data validation summary are attached to this letter for the above referenced project. The data for York Analytical Laboratories, Inc. SDG 20C0824 were acceptable with some minor issues that are identified in the validation summary. There were no data that were qualified as rejected, unusable (R) in the data pack.

We have attached lists of data validation acronyms and data qualifiers to assist you in the interpretation of the reviews. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Hydro Tech Environmental, Corp.

Sincerely,
Alpha Geoscience
Donald Anné

Donald Anné
Senior Chemist

DCA:dca
attachments

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Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U	=	Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
R	=	Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
N	=	Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
J	=	Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
J-	=	Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.
J+	=	Analyte is present. Reported value may be biased high andassociated with a higher level of uncertainty than is normally expected with the analytical method.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

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Data Usability Summary Report for
York Analytical Laboratories, Inc., SDG: 20C0824

4 Ground Water Samples and 1 Trip Blank
Collected March 17, 2020

Prepared by: Donald Anné
April 7, 2020

The data package contains the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contains the results of 4 ground water samples and 1 trip blank analyzed for volatiles only.

The overall performances of the analyses are acceptable. York Analytical Laboratories, Inc. did fulfill the requirements of the analytical methods.

The data are mostly acceptable with some issues that are identified in the accompanying data validation reviews. The following data were qualified:

- The positive volatile results for tetrachloroethylene were qualified as "estimated" (J) in samples MW-2-20200317, MW-3-20200317, and MW-4-20200317 because the %D for tetrachloroethylene was above the allowable maximum in the associated continuing calibration.

All data are considered usable, with estimated (J) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

z:\projects\2015\15600 - 15620\15604-11-28 31 drive\2020\20c0824.dus.docx

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QA/QC Review of Method 8260C Volatiles Data for
York Analytical Laboratories, Inc., SDG: 20C0824

4 Ground Water Samples and 1 Trip Blank
Collected March 17, 2020

Prepared by: Donald Anné
April 7, 2020

Holding Times: Samples were analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRFs for applicable compounds were above the method minimums, as required.

The average RRF for trichloroethylene and tetrachloroethylene were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for applicable compounds were above the method minimums, as required. The %D for tetrachloroethylene was above the method maximum on 03-24-20 (V81749.D).

The RRF for trichloroethylene and tetrachloroethylene were above the allowable minimum (0.010), as required.

The %D for tetrachloroethylene was above the allowable maximum (25%) on 03-24-20 (V81749.D). Positive results for tetrachloroethylene should be considered estimated (J) in associated samples.

Blanks: The analyses of method and trip blanks reported trichloroethylene and tetrachloroethylene as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples and trip blank.

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Matrix Spike/Matrix Spike Duplicate: The relative percent differences for tetrachloroethylene and trichloroethylene were below the allowable maximum and percent recoveries were within QC limits for aqueous MS/MSD sample MW-1 (MS/MSD)-20200317.

Laboratory Control Sample: The relative percent differences for trichloroethylene and tetrachloroethylene were below the allowable maximum and the percent recoveries were within QC limits for aqueous samples BC01436-BS1 and BC04136-BSD1.

Compound ID: Checked compounds and surrogates were within GC quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

Appendix 3: EC/IC Inspection and Certification Form

Enclosure 2

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

Site Details **Box 1**

Site No. **C241159**

Site Name 11-28 31st Drive

Site Address: 11-28 31st Drive Zip Code: 11106
City/Town: Queens
County: Queens
Site Acreage: 0.055

Reporting Period: December 20, 2018 to April 20, 2020

	YES	NO
1. Is the information above correct?	☐	☑
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☑
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☑

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	☑	☐
7. Are all ICs/ECs in place and functioning as designed?	☑	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☑

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☑	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C241159 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
4-502-22	GBT Real Estate LLC	Soil Management Plan Ground Water Use Restriction Site Management Plan O&M Plan IC/EC Plan Landuse Restriction Monitoring Plan

Prohibition of use of groundwater without treatment
Compliance with a soils management plan
Compliance with a site management plan
Quarterly monitoring of groundwater
Use as restricted residential
Compliance with Operations & Maintenance Plan for SSDS

Box 4

Description of Engineering Controls

Parcel	Engineering Control
4-502-22	Vapor Mitigation Monitoring Wells

Sub-slab depressurization system
Groundwater monitoring with treatment by ISCO if needed

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☑	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☑	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. C241159

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I Paul I. Mathi at 15 Ocean Ave Brooklyn NY 11235
print name print business address

am certifying as Remedial party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Paul D. Mmm 5/20/2020
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification — Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

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

I Tarek Z Khouri at 15 Ocean Ave. Brooklyn N.Y 11225

print name — print business address

am certifying as a Professional Engineer for the Remedial party

(Owner or Remedial Party)

STATE OF NEW YORK
TAREK ZAKI KHOURI
086611
LICENSED PROFESSIONAL ENGINEER

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

5/30/2020

Date