PERIODIC REVIEW REPORT
NOV. 2, 2022 TO NOV. 2, 2023

353 MCKIBBIN STREET
BROOKLYN, NEW YORK
NYSDEC BCP SITE NO. C224102

Submitted To
New York State Department of Environmental Conservation
41-40 21st Street
Long Island City, New York 11101

Prepared For:
Bogart Plaza, LLC
589 Johnson Avenue
Brooklyn, NY 11237

Prepared By:
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January 15, 2024
January 19, 2024 Rev. 1
April 23, 2024 Rev. 2

CERTIFICATION

For each institutional or engineering control identified for the site, I Edward S. Wong, P.E., certify that all of the following statements are true:

(a) The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by DER;

(b) Nothing has occurred that would impair the ability of such control to protect public health and the environment;

(c) Nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for this control;

(d) Access to the site will continue to be provided to DER to evaluate the remedy, including access to evaluate the continued maintenance of this control; and

(e) If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for their intended purpose under the document.

Signature

Edward S. Wong, P.E.
NYS Professional License # 071703
Date: 4/23/2024

1 INTRODUCTION AND EXECUTIVE SUMMARY

Edward Wong P.E. prepared this Periodic Review Report ("PRR") and Institutional Control/Engineering Control (IC/EC) Certification for the 2023 period (which covers Nov. 2, 2022 to Nov. 2, 2023). The 2022 PRR had certified implementation of corrective measures in accordance with the approved Corrective Measures Work Plan (CMWP) dated June 30, 2021. With the implementation of the corrective measures in 2022, all components of the IC/EC and Monitoring Plans were in substantial compliance with the Site Management Plan (SMP). The only recommendations made in the 2022 PPR were: 1) Better responsiveness to the soil vapor extraction system remote warning system and 2) Managerial changes to replace ASR. ASR, has been replaced by ASR Environmental Geosciences (a division of Laurel Environmental Geosciences, D.P.C. and that ASR Environmental Geosciences has been performing all quarterly monitoring reports (QMR) since December 2022. This report and IC/EC Certification covers November 2, 2022, through November 2, 2023.

This PRR and IC/EC Certification is on behalf of the current owner, Bogart Plaza, LLC, (Bogart Plaza), an affiliated company of Adam's European Contracting Inc. It is in accordance with the approved December 2011 SMP as modified by the CMWP dated December 15, 2014; the New York State Department of Environmental Conservation (NYSDEC) CMWP approval dated December 19, 2014; the NYSDEC Site Management and PRR Response Letter dated June 1, 2015; the Proposal to Evaluate Modifications to Air Sparging/Soil Vapor Extraction (AS/SVE) System dated November 15, 2016; the NYSDEC approval letter dated January 25, 2017; the McKibbin Street Briefing, Evaluation of AS/SVE Shutdown dated February 7, 2018, a phone conference with the NYSDEC and New York State Department of Health (NYSDOH) on May 16, 2018; a meeting with the NYSDEC and NYSDOH on August 1, 2018, and the CMWP dated June 30, 2021.

A periodic review and certification of all IC/EC and monitoring results is a requirement for fulfillment of the remedial action at 353 McKibbin Street (Tax Block 3083, Lots 16 and 30, the "Site") under the New York State (NYS) Brownfield Cleanup Program (BCP), administered by the NYSDEC. IC/EC Certification is provided in Appendix E.

Remedy Performance, Effectiveness, and Protectiveness

The performance, effectiveness and protectiveness of the remedy is confirmed to be acceptable. In summary:

- Groundwater and vapor sampling and testing indicate that the excavation of soil/fill exceeding 6 NYCRR Part 375 Commercial Use Soil Cleanup Objectives (SCOs) was effective and have all been performed and completed in a timely manner.
- The soil cover system is undamaged and continues to perform as intended.
- When operating, the soil vapor extraction (SVE) system continued to prevent off-site migration of contaminated soil vapors. The system was only off for approximately 20 days in the reporting period. A telemetry system is being installed in 1st Quarter 2024 to provide real-time alerts to system issues.
- With the approval of the NYSDEC, the air sparging (AS) system remains off.
- The Environmental Easement to restrict land use remains in place and continues to perform as intended.

- Environmental Consulting personnel modifications have been made since the last reporting period whereby ASR Environmental Geosciences (a division of Laurel Environmental Geosciences, D.P.C. is the new Environmental consultant of record for the Site.
- Both the soil vapor and groundwater monitoring networks are functioning properly after corrective measures were made, but MW-7, SG-5 and most recently SV-9 have been damaged and require repairs or replacement, which are scheduled for 1st Quarter 2024.

Compliance

All components of the IC/EC and Monitoring Plans are in substantial compliance with the SMP. IC/EC Certification is provided in Appendix E.

Recommendations/Proposals

The following recommendations have been or are being implemented:

- The remote warning system installed in the prior reporting period (AD-2000 Automatic Voice/Pager Dialer manufactured by United Securities Products) improved up-time, with some lapses in timely responses. A replacement system consisting of an Obar systems GBR25-T Differential Pressure Gauge/Alarm Transmitter, EDG Wireless Cellular Gateway and EDG wireless sensor 0-10V are scheduled to be installed in the 1st Quarter 2024, which will allow the SVE system restart and improve overall operating time.
- MW-7, SG-5 and most recently SV-9 have been damaged and require repairs or replacement, which are scheduled for 1st Quarter 2024.
- It is recommended that quarterly monitoring reports (QMRs) as required by SMP including formatting of Laboratory analytical data, preparation of Letter Report and submittal to NYSDEC through the database software application EQuIS™ be conducted. This should allow quicker response times to any anomalies that occur during the yearly reporting period. As of April 19, 2024 this reports data has been provided to the NYSDEC via EQuIS™

2 SITE OVERVIEW

The Site occupies a 43,495-square-foot (SF) parcel in the Bushwick neighborhood of Brooklyn, New York. The Site is comprised of Tax Block 3083, Lots 16 and 30 and is bordered by McKibbin Street to the south, Bogart Street to the east, Boerum Street to the north, and a cement mixing facility (United Transit Mix) to the west. A municipal park is located south of the Site opposite McKibbin Street, and commercial and light manufacturing facilities are located farther north and east of the Site opposite the bordering streets. The property is graded and covered with imported backfill meeting 6 NYCRR Part 375 Commercial Use Soil SCOs. Adam's European Contracting Inc., an affiliated company of Bogart Plaza, operates the Site as a storage yard for construction materials.

A 2007 Remedial Investigation (RI) identified elevated concentrations of volatile organic compounds (VOCs), including tetrachloroethene (PCE), trichloroethene (TCE), and non-chlorinated petroleum compounds in soil, soil vapor and groundwater. Remediation under the BCP was conducted between June 2010 and June 2011. Remediation included removal of soil exceeding 6 NYCRR Part 375 Commercial Use SCOs from four hotspot locations, construction of a soil cover system consisting of 18 inches of imported fill, and installation of an AS/SVE system. The previous Site owner and affiliates received a BCP Certificate of Completion (COC) for cleanup of the Site on December 30, 2011. The COC was transferred to Bogart Plaza on March 14, 2012.

A SMP required the operation, maintenance, and monitoring of an AS/SVE system, and monitoring of groundwater and soil vapor. A draft PRR dated June 2014, by Langan Environmental Services reported that the AS/SVE system had failed due to mechanical difficulties by at least February 2014. In the fall of 2014, a CMWP was submitted and approved by the NYSDEC leading to the refurbishing and implementation of the AS/SVE system in late December 2014 (for the SVE portion) and early January 2015 (for the AS portion). The AS/SVE system was operated in substantial compliance with the SMP thereafter through the AS system failure in March 2016, and the planned SVE shutdown between March 2017 and May 2018. The SVE was restarted in May 2018 and remains in operation. The AS component of the system remains off with NYSDEC approval.

3 REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

The performance, effectiveness and protectiveness of the remedy was evaluated and is summarized as follows:

- **Excavation of soil/fill exceeding 6 NYCRR Part 375 Commercial Use SCOs:** groundwater and vapor sampling and testing indicated that this portion of the remedy was effective.
- **Construction and maintenance of a soil cover system**: the soil cover system is undamaged and continues to perform as intended; however, the increased infiltration from the cover system as designed may be affecting contaminant migration. Recent corrective measures alleviated the impact on the monitoring network and all required monitoring is provided in this PRR.
- **Installation and operation of an air sparging/soil vapor extraction (AS/SVE) system**: the AS/SVE system was to remediate groundwater contamination, prevent off-site migration of contaminated soil vapor, and mitigate soil vapor impacts to future on-site buildings (based on construction plans by the former Site owner).
    - With the approval of the NYSDEC, the AS component of the system has been decommissioned.
    - The SVE remains operational at least 93% during reporting period. In the 2022/2023 review period numerous automatic shutdowns were caused by a severed SVE header pipe (1B) causing "Low Pressure" alarms. The pipe was repaired resulting in acceptable negative pressures (suction) returning to all lines.
    - When operating, the soil vapor extraction (SVE) system continued to prevent off-site migration of contaminated soil vapors.
- The remote warning system installed in at the beginning of this reporting period (AD-2000 Automatic Voice/Pager Dialer manufactured by United Securities Products) improved system up-times, but responsiveness to remote warnings was still problematic; therefore a replacement system consisting of an Obar systems GBR25-T Differential Pressure Gauge/Alarm Transmitter, EDG Wireless Cellular Gateway and EDG wireless sensor 0-10V are scheduled to be installed for 1st Quarter 2024, will allow real time monitoring of the SVE system.
- **Execution of an Environmental Easement to restrict land use**: this portion of the remedy remains in place and continues to perform as intended.
- **Development and implementation of a SMP**: The SMP included specifications for managing the Institutional and Engineering Controls (IC/ECs), monitoring, operation and maintenance of the IC/ECs, and reporting. With the completion of corrective measures, current performance, effectiveness, and protectiveness of the monitoring network are adequate. The SVE system remains adequate to prevent off-site migration of contaminated soil vapor although repairs and improved system status communications were required and implemented.

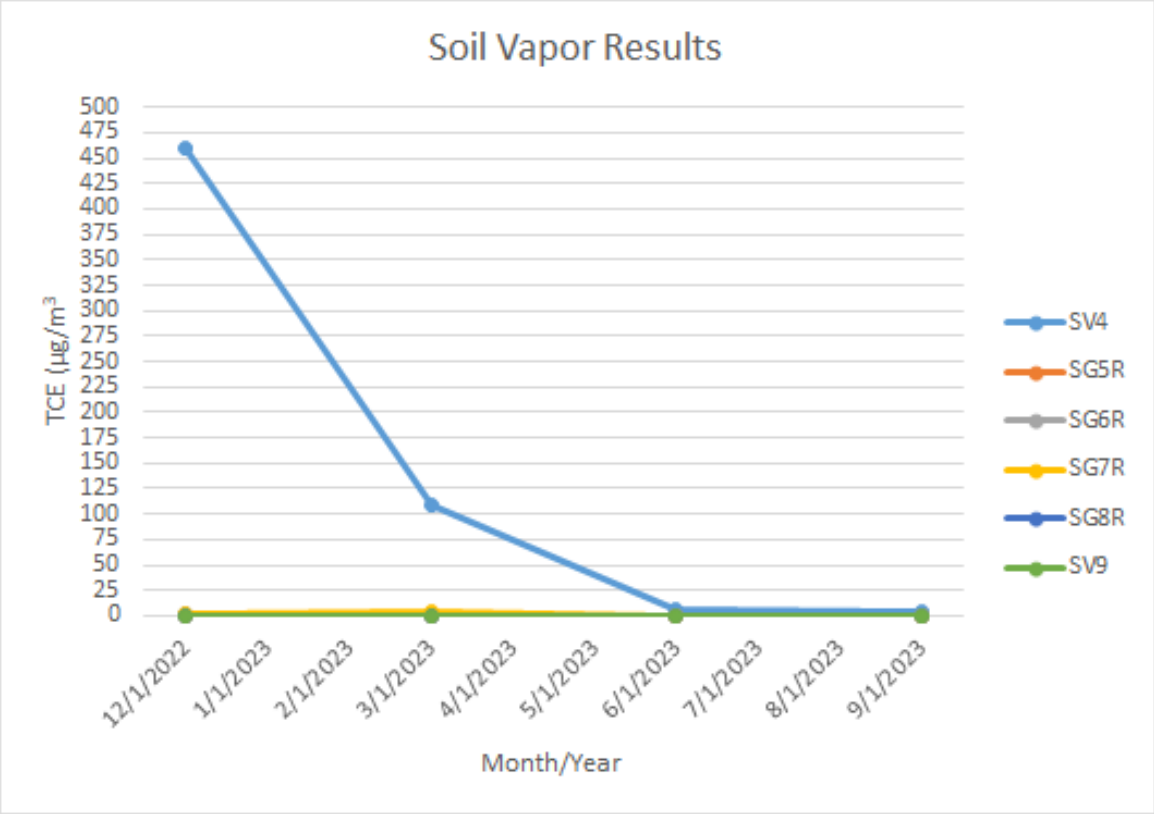
SVE System Up-Time

The repair of SVE Line 1B improved system up-times considerably. However, responsiveness to telephonic warnings of system automatic shutoffs were still problematic. Managerial changes have been made to improve responsiveness and the aforementioned telemetry upgrades planned for 1st Quarter 2024 will increase responsiveness.

Soil Vapor Migration

Concentrations in vapor probes were dependent on groundwater levels and system operations. SG-8 in the source area decrease contaminant concentration with sinking groundwater levels from 0.53 ug/m^3 in December of 2022 to non-detect in March, June, and September 2023.

Figure 1 TCE in Soil Vapor



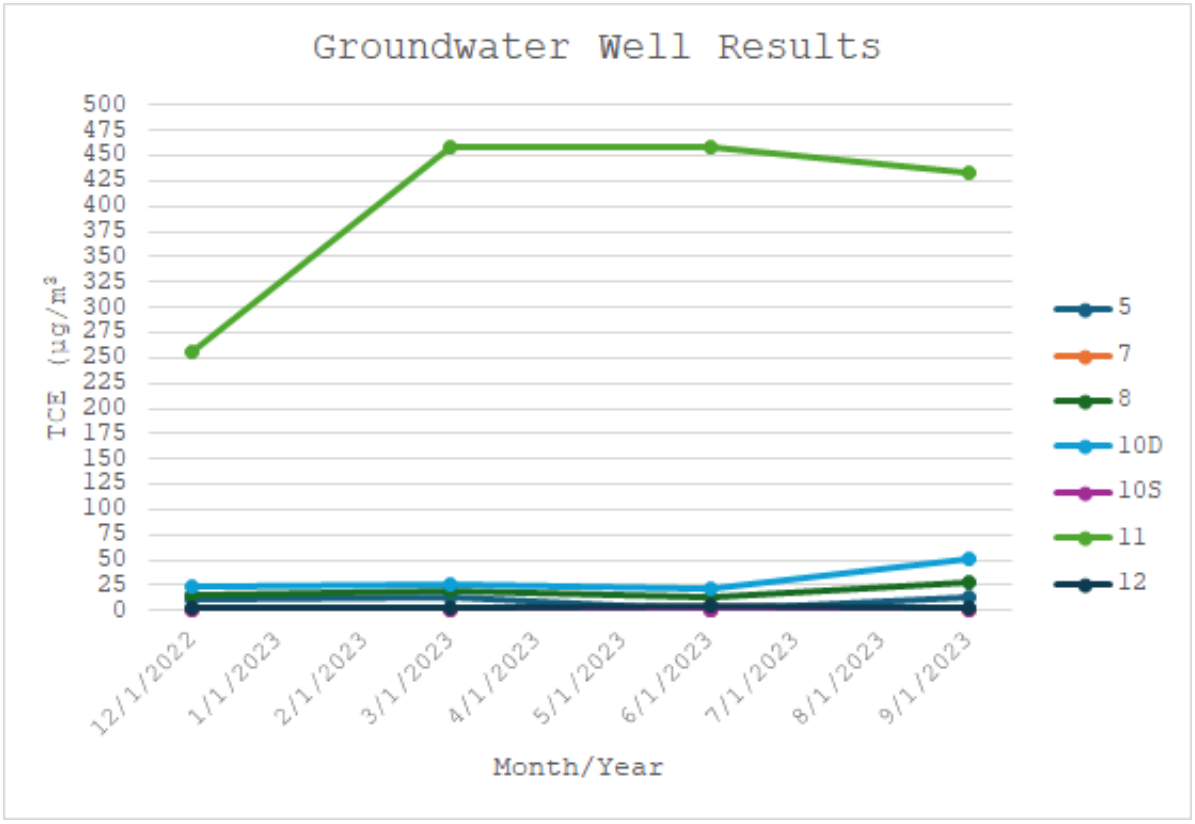
SV-4 located just off the property was more responsive to SVE system operations with the highest concentration of TCE occurring in December 2022 after periods of low up-times. Concentrations returned to low levels after system up-times were restored. No contaminants were found in off-site probe SV-9.

While the SVE system prevents off-site migration of contaminated vapors when operating, a better up-time record is needed.

Groundwater Migration

TCE is the bellwether of groundwater contaminants. Figure 2 shows the trends of TCE concentrations in groundwater in wells MW-11 (source area), MW-10DR and MW-7 (downgradient and off-site). Other wells are also shown but their trends are equivalent to and indistinguishable from MW-7.

Figure 2 TCE in Groundwater

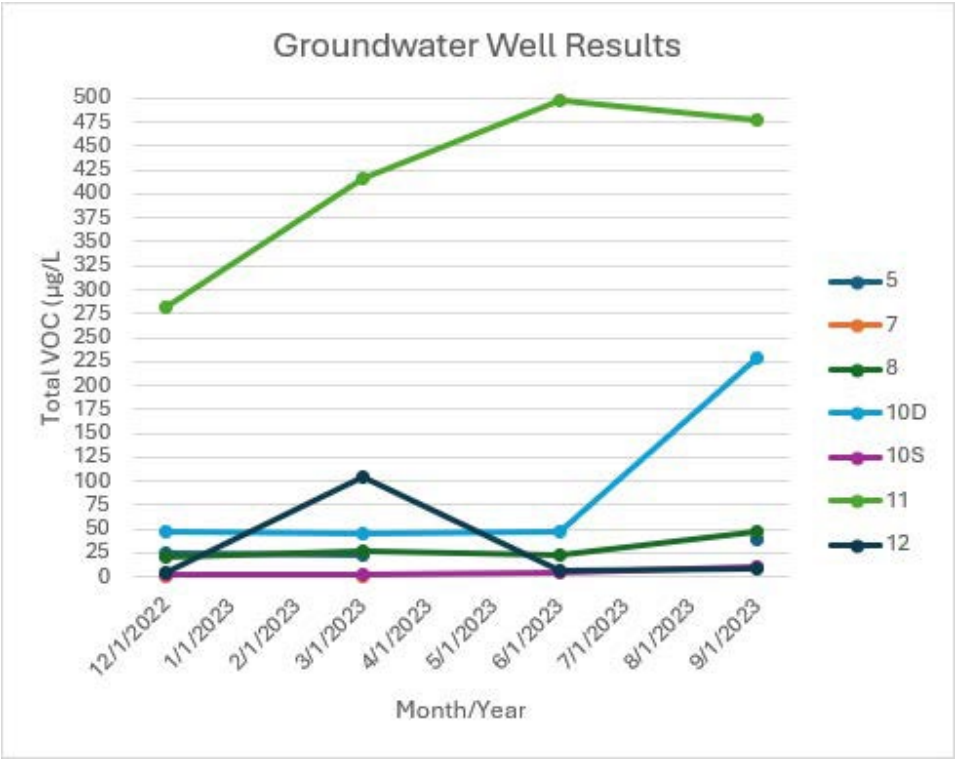


Contaminants in the MW-11 area may be responsive to groundwater levels because of transfer from the smear zone. Contaminated groundwater near MW-11 moves toward MW-10DR. Degradation, dispersion and soil vapor extraction reduce the concentration before the groundwater reaches 10-DR and in turn MW-7 located just off the property. Therefore, the remedy is preventing the migration of contaminated groundwater off the property, and slowly reducing the concentrations.

An usually historic elevation of PCE in groundwater monitoring well MW-10DR was recorded in 9/1/2024, which also resulted in an elevation of Total VOCs (see Figure 3 and Figure 4). These elevated concentrations were uncharacteristically high compared to other readings this reporting period and historic concentrations. It is a suspect outlier as the December 2023 concentrations for PCE is below 1 microgram per liter. PCE for this well should be reviewed with each quarterly sampling event and reported to the Engineer of Record for further evaluation, should an elevated value appear again.

Figure 3 PCE in Groundwater

Figure 4 – Total VOCs Groundwater



4 IC/EC PLAN COMPLIANCE REPORT

4.1 IC/EC Requirements and Compliance

A summary of the IC/ECs implemented at the site, the goals and status of each IC/EC to reach that goal, and related conclusions and recommendations follow. The locations of the monitoring network are shown in Figure 7 in Appendix A.

Cover system consisting of 18 inches of clean imported fill
The cover system remains intact. There are no signs of penetration of the cover by the current occupant of the Site.

AS/SVE system
The AS/SVE system operated from late December 2014 through:

- March 25, 2016, for the AS, at which time the AS portion of the system mechanically failed. An evaluation of conditions after this failure compared to conditions before demonstrated that the AS system was no longer needed. The AS system remains off with NYSDEC approval.
- March 8, 2017, for the SVE, at which time the system was shut-down to evaluate conditions after shut-down. Due to a rebound in contaminated vapor concentrations, the SVE system was returned to service on May 17, 2018. The SVE was then operated and monitored in this 2023 reporting period, with mechanical failures and repairs as identified elsewhere is this report.

Groundwater, soil vapor, and other environmental or public health monitoring as defined in the SMP
Groundwater, soil vapor, and other environmental or public health monitoring were done in substantial compliance with the SMP as modified by the NYSDEC. The corrective measures implemented in 2022 have been successful.

Reporting of data and information pertinent to Site management at a frequency and in a manner defined in the SMP

Monitoring was in substantial compliance with the SMP as modified by the NYSDEC and reporting is in substantial compliance with the SMP.

Protection of on-site environmental monitoring devices
With the completion of the corrective measures in August 2022, groundwater monitoring wells and soil vapor probes were maintained in compliance with the SMP as modified by the NYSDEC but monitoring at the Site indicate that one (1) 2-inch diameter groundwater monitoring well (MW-7) and two (2) soil vapor points, specifically interior vapor probe (SG-5) and off-site vapor probe SV-9 require replacement. These sampling locations have either been destroyed by on-going Site work and/or require upgrades based on observations made during quarterly sampling events in 2023 period. Replacement of these monitoring/sampling points is currently scheduled for 1st Quarter 2024.

Adherence to the Site use restrictions specified in the Environmental Easement
These restrictions included prohibitions on groundwater usage, gardening, Site use other than restricted commercial or industrial, and implementation of an Excavation Work Plan in the event of disturbance of contaminated material. These restrictions have been met in this reporting period.

4.2 Conclusions and Recommendations

The monitoring network was successfully upgraded and brought into compliance with the SMP for this reporting period. The SVE operational hours were 92% or greater. In this 2023 Monitoring Period automatic shutdowns are better managed, but improvements are needed. Recommendations are being implemented:

- The remote warning system installed in the prior reporting period (AD-2000 Automatic Voice/Pager Dialer manufactured by United Securities Products) improved up-time, with some lapses in timely responses. A replacement system consisting of an Obar systems GBR25-T Differential Pressure Gauge/Alarm Transmitter, EDG Wireless Cellular Gateway and EDG wireless sensor 0-10V are scheduled for 1st Quarter 2024, which should improve responsiveness.
- MW-7, SG-5 and most recently SV-9 have been damaged and require repairs or replacement, which are scheduled for 1st Quarter 2024.
- It is recommended that quarterly monitoring reports (QMRs) as required by SMP including formatting of Laboratory analytical data, preparation of Letter Report and submittal to NYSDEC the database software application Equis^{etum} . This should allow quicker response times to any anomalies that occur during the yearly reporting period.

4.3 IC/EC Certification

The IC/EC Certification Form is provided in Appendix E.

5 MONITORING PLAN COMPLIANCE REPORT

5.1 Monitoring Plan Components and Compliance

The components of the Monitoring Plan in the SMP as modified by later documents are:

- Annual Site-wide inspection;
- Inspection of the composite cover system;
- Quarterly groundwater sampling of monitoring wells;
- Installation of a vapor barrier prior to placement of concrete or other materials for the foundation of future building(s); and
- Quarterly sampling and testing of four on-Site vapor probes. Additionally, in the 2022 reporting period, off site probes SV-9 and SV-4 were located, refurbished and sampled. SV-9 is being refurbished again in the 1st Quarter of 2024, and will then be sampled quarterly.

5.2 Summary of Monitoring Completed

Annual Site Wide Inspection
The Annual Site Wide Inspection was done by Edward Wong, PE, on June 7, 2023. (See Appendix C.)

Composite Cover System Inspection
As described in the NYSDEC-approved December 2011 FER and SMP, the composite cover system consists of a demarcation barrier overlain by 18 inches of New York State Department of Transportation (NYSDOT) Item 4 (subbase) material imported from Pebble Lane Associates in Maspeth, New York. The material complied with the 6 NYCRR Part 375-6.8(b) SCOs, based on the December 2011 FER. Additional soil was placed on top of the composite cover system for protection.

There was no damage and/or breach of the composite cover system based on the inspections made this reporting period. The inspection reports and photographs are provided in Appendices C and D, respectively.

AS/SVE System Inspection
The AS system remains off with NYSDEC approval. A remote monitoring system was added last reporting period to improve awareness of system alarms that shut down the SVE system. Managerial changes have been made to improve responsiveness to the automatic shutdown warnings. Upgrades to sensors, remote telemetry are scheduled for 1st Quarter 2024.

Soil Vapor Monitoring
Soil vapor sampling was conducted on all four quarters of this reporting period. Data tabulations are in Appendix B. Laboratory analytical data are provided under separate cover.

Groundwater Elevation Monitoring
Groundwater flow is to the north which is consistent with prior measurements. Non-uniform infiltration due to the Site's porous cover and lack of drainage cause differential infiltration rates and variable groundwater potentials. Therefore, groundwater levels within the confines of the Site are sensitive to rain events and associated infiltration. However, evaluation of the numerous measurements since 2015 and comparisons with infiltration data demonstrate resultant flow to the north. Figure 6 provides

groundwater contours which are representative of the reporting period. These data and contours show the general flow toward the north consistent with prior groundwater flow conclusions.

Groundwater Sampling and Testing

Groundwater samples were obtained on all four quarters this reporting period. The York Analytical Laboratories, Inc. results are compared to NYSDEC TOGS 1.1.1 AWQS for Class GA groundwater. The tabulated analytical results summaries for key compounds are presented in Appendix B. A summary of the results is provided on Figure 5. Laboratory ASP Category B results and the Data Usability Summary Report are provided under separate cover.

5.3 Conclusions and Comparison with Remedial Objectives

The CMWP in August 2020 corrected the failure of the monitoring network resulting in adequate monitoring in accordance with the SMP this reporting period.

5.4 Recommendations/Proposals

No recommendations are being made at this time.

6 OPERATIONS & MANAGEMENT PLAN COMPLIANCE REPORT

6.1 SVE System Operations

The SVE has been difficult to maintain. It was designed by the Responsible Party prior to the current Site owner who bought the property expecting that the SMP would be adequate for their use of the property. However, the Responsible Party did not consider (1) the conditions of the Site after remediation, (2) the change in Site development after the Site was sold, (3) the nature of the operations of the buyer, and (4) the limited life expectancy of the AS/SVE system.

Automatic system shutdowns that were frequent during the prior reporting period were improved by the repair of the break in SVE Line 1B. The system was on and operating for the following periods and percentages of time in the periods.

From	To	Avg. Up-Time
9/28/2022	12/20/2022	95%
12/20/2022	3/24/2023	100%
3/24/2023	6/29/2023	100%
6/29/2023	9/20/2023	93%

The remote warning system (AD-2000 Automatic Voice/Pager Dialer manufactured by United Securities Products) functioned marginally during this reporting period. However, system run times were good for the reporting period.

6.2 Zone of Influence

The zone of influence of the SVE system based on consistent run times of the SVE system and past vacuum data would indicate adequate capture. This needs to be verified by taking quarterly differential pressure readings at each of the monitoring wells and vapor sampling points.

7 OVERALL CONCLUSIONS AND RECOMMENDATIONS

7.1 SMP Compliance

With the implementation of the past corrective measures and ongoing management improvements, all components of the IC/EC and Monitoring Plans are in substantial compliance with the SMP.

7.2 Performance and Effectiveness of the Remedy

The remedy is performing as designed, effective in achieving the remediation goals, and protective of the public health and environment. Repairs and improvements in the automatic warning of system interruptions were required and implemented and additional maintenance is scheduled.

7.3 Recommendations, Proposals and Future Submittals

The following recommendation have been or are being implemented:

- The remote warning system installed in the prior reporting period (AD-2000 Automatic Voice/Pager Dialer manufactured by United Securities Products) improved up-time, with some lapses in timely responses. A replacement system consisting of an Obar systems GBR25-T Differential Pressure Gauge/Alarm Transmitter, EDG Wireless Cellular Gateway and EDG wireless sensor 0-10V are scheduled for 1st Quarter 2024, which should improve responsiveness.
- MW-7, SG-5 and most recently SV-9 have been damaged and require repairs or replacement, which are scheduled for 1st Quarter 2024.
- Quarterly differential pressure readings at each of the monitoring wells and soil vapor sampling points need to be conducted. Since this has not been verified this reporting period, it is recommended that a round of vacuum differential readings be taken prior to the next quarterly monitoring date.
- It is recommended that quarterly monitoring reports (QMRs) as required by SMP including formatting of Laboratory analytical data, preparation of Letter Report and submittal to NYSDEC through EQUIS be conducted. This should allow quicker response times to any anomalies that occur during the yearly period.

APPENDIX A

FIGURES

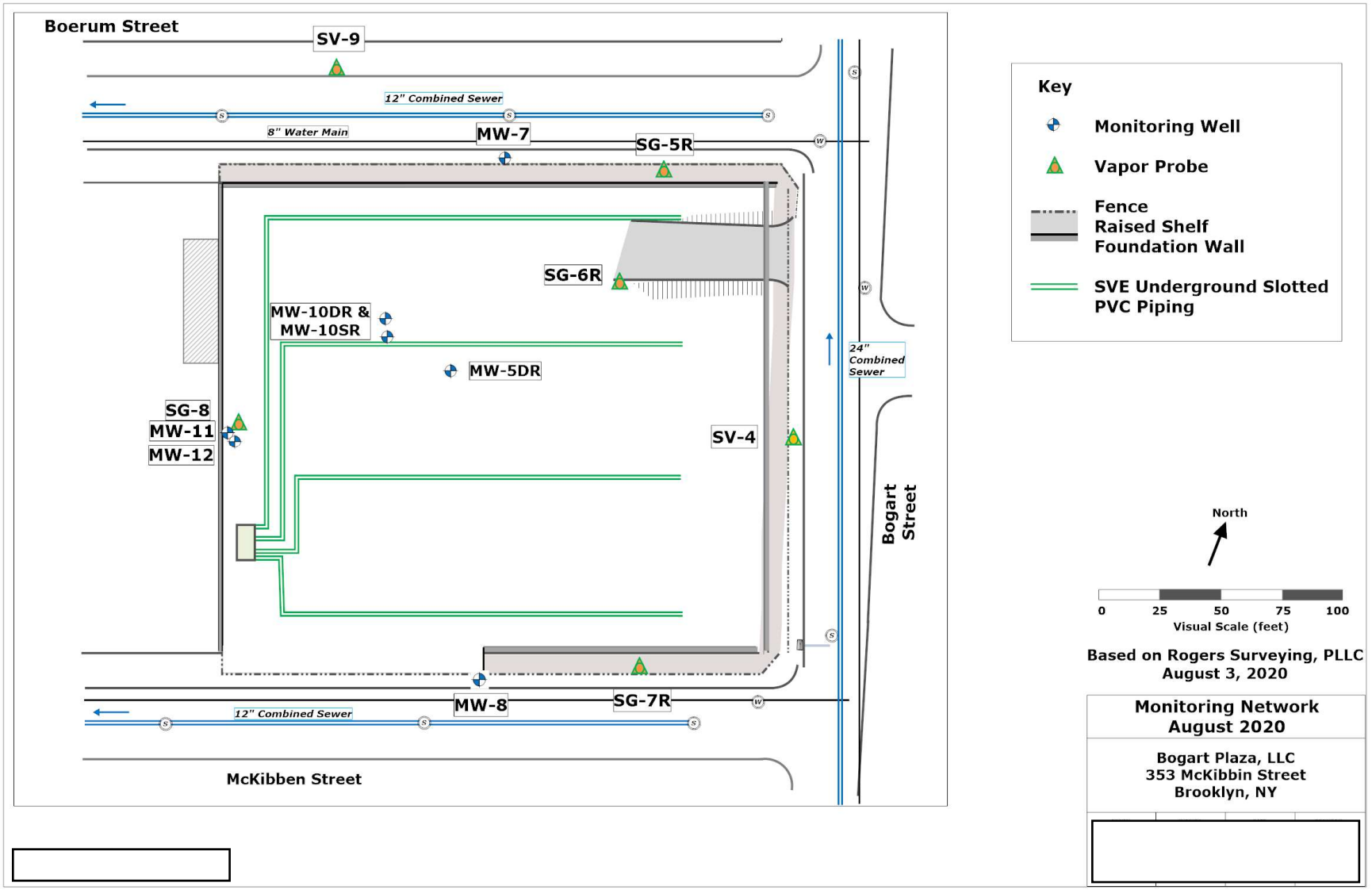
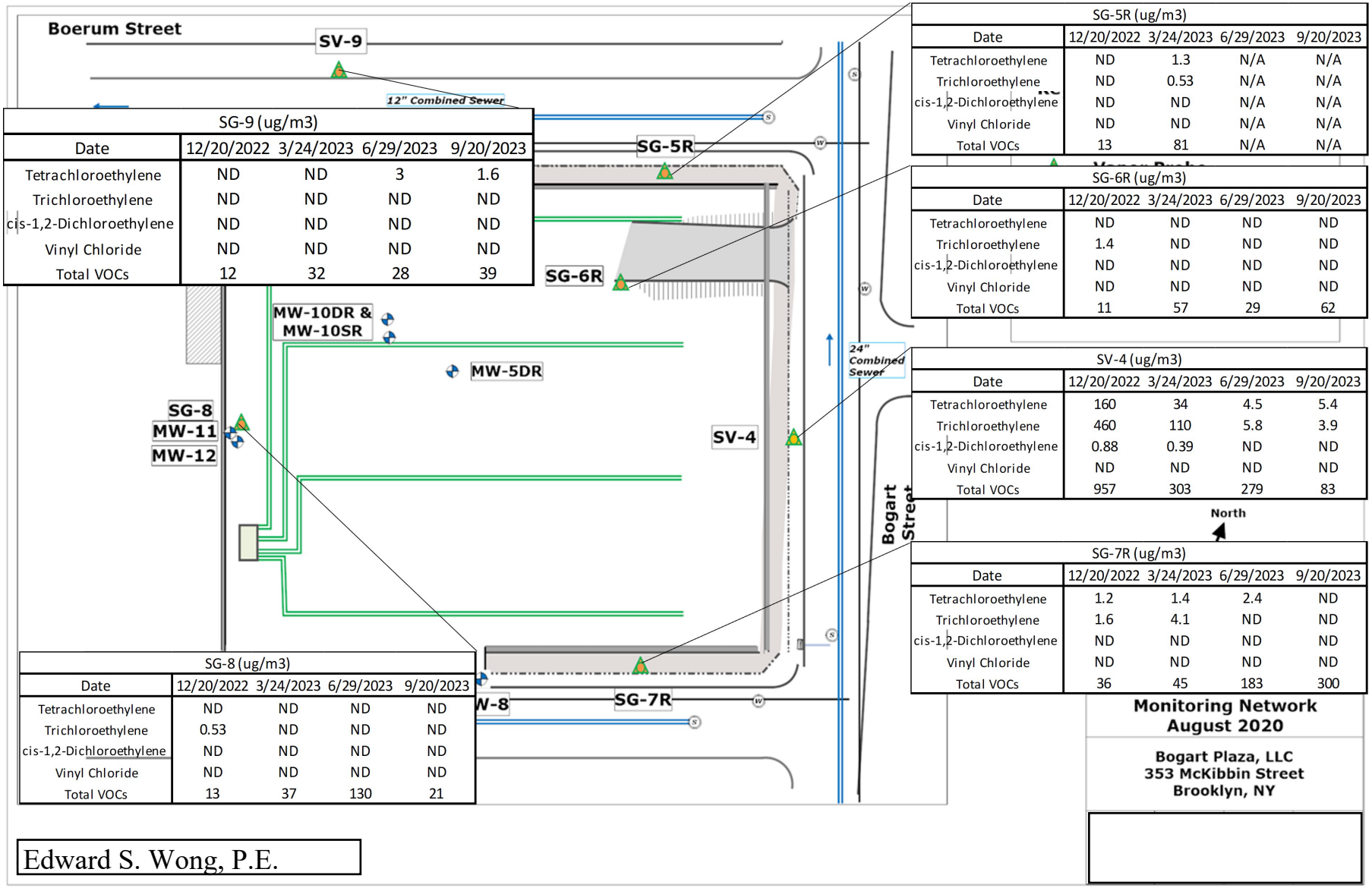


Figure 4 Site Plan & Monitoring Network



SG-9 (ug/m3)

Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	ND	ND	3	1.6
Trichloroethylene	ND	ND	ND	ND
cis-1,2-Dichloroethylene	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND
Total VOCs	12	32	28	39

SG-5R (ug/m3)

Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	ND	1.3	N/A	N/A
Trichloroethylene	ND	0.53	N/A	N/A
cis-1,2-Dichloroethylene	ND	ND	N/A	N/A
Vinyl Chloride	ND	ND	N/A	N/A
Total VOCs	13	81	N/A	N/A

SG-6R (ug/m3)

Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	ND	ND	ND	ND
Trichloroethylene	1.4	ND	ND	ND
cis-1,2-Dichloroethylene	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND
Total VOCs	11	57	29	62

SV-4 (ug/m3)

Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	160	34	4.5	5.4
Trichloroethylene	460	110	5.8	3.9
cis-1,2-Dichloroethylene	0.88	0.39	ND	ND
Vinyl Chloride	ND	ND	ND	ND
Total VOCs	957	303	279	83

SG-8 (ug/m3)

Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	ND	ND	ND	ND
Trichloroethylene	0.53	ND	ND	ND
cis-1,2-Dichloroethylene	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND
Total VOCs	13	37	130	21

SG-7R (ug/m3)

Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	1.2	1.4	2.4	ND
Trichloroethylene	1.6	4.1	ND	ND
cis-1,2-Dichloroethylene	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND
Total VOCs	36	45	183	300

Figure 6 Soil Vapor Analytical Results 2022 & 2023

MW-10DR (ug/L)				
Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	21.1	13.9	17.8	163
Trichloroethylene	23.6	26.7	21.7	50.5
cis-1,2-Dichloroethylene	1.05	0.96	0.99	9.57
Vinyl Chloride	0	0	0	0
Total VOCs	45.75	41.56	40.49	223.07

MW-7 (ug/L)				
Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	0	0	N/A	N/A
Trichloroethylene	0.26	0	N/A	N/A
cis-1,2-Dichloroethylene	0	0	N/A	N/A
Vinyl Chloride	0	0	N/A	N/A
Total VOCs	0.26	0.00	0.00	0.00

MW-10SR (ug/L)				
Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	0	0	0	4.74
Trichloroethylene	1.15	0.87	0.59	1.89
cis-1,2-Dichloroethylene	0	0	0	0
Vinyl Chloride	0	0	0	0
Total VOCs	1.15	0.87	0.59	6.63

MW-5DR (ug/L)				
Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	11.2	8.98	N/A	18.8
Trichloroethylene	10.6	12.1	N/A	14.2
cis-1,2-Dichloroethylene	0.32	0.47	N/A	1.58
Vinyl Chloride	0	0	N/A	0
Total VOCs	22.12	21.55	0.00	34.58

MW-11 (ug/L)				
Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	2.84	2.22	4.35	4.03
Trichloroethylene	257	380	459	434
cis-1,2-Dichloroethylene	7.24	21.7	24.8	28.7
Vinyl Chloride	0	0	0	0
Total VOCs	267.08	403.92	488.15	466.73

MW-12 (ug/L)				
Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	0	0	0	0
Trichloroethylene	1.58	4.47	0.63	1.93
cis-1,2-Dichloroethylene	1.23	65	0.48	1.05
Vinyl Chloride	0	27.4	1.18	0
Total VOCs	2.81	97	2.29	2.98

MW-8 (ug/L)				
Date	12/20/2022	3/24/2023	6/29/2023	9/20/2023
Tetrachloroethylene	4.67	4.9	5.39	14.2
Trichloroethylene	16.2	20.3	12.4	27.4
cis-1,2-Dichloroethylene	0.63	0.74	0.44	1.58
Vinyl Chloride	0	0	0	0
Total VOCs	21.50	25.94	18.23	43.18

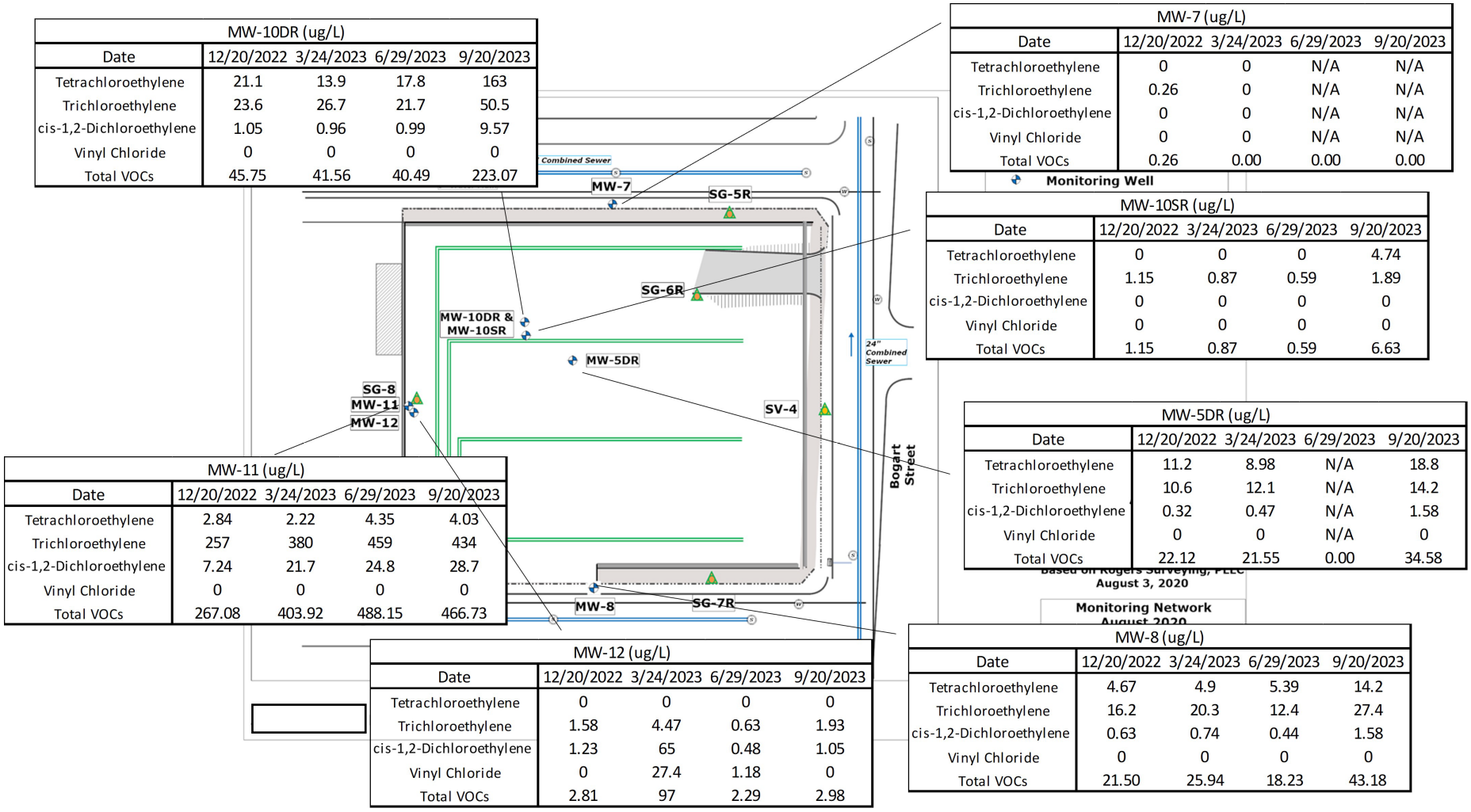


Figure 7 Groundwater Analytical Results 2022 & 2023

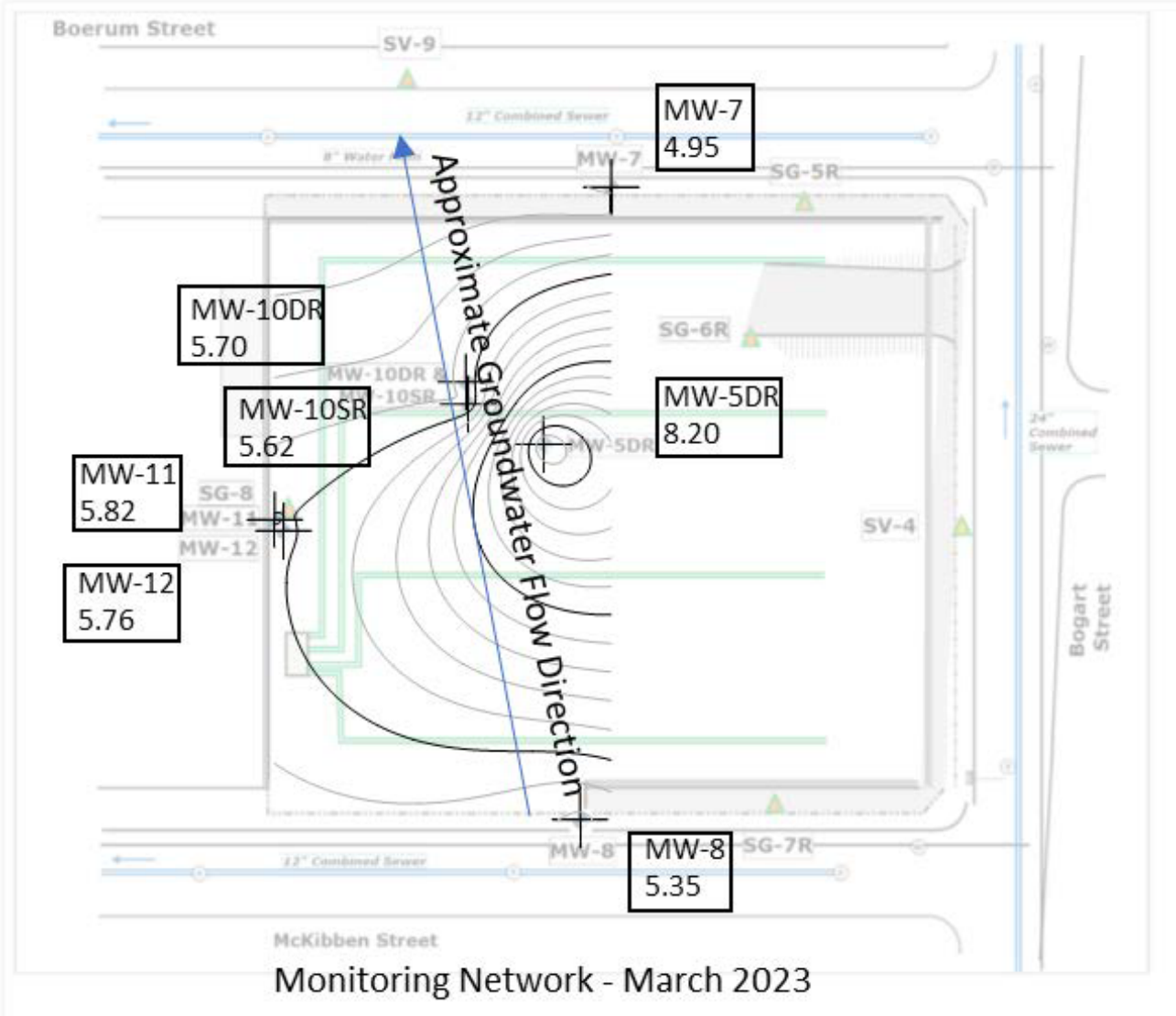


Figure 8 Groundwater Contours March 2023

APPENDIX B

Data Tabulations

Table 1 Groundwater Gauging 2022/2023

Well No.	Date	Elevation (ft. MSL)	Depth to GW (ft)	GW Elevation (ft. MSL)
MW-5D	12/20/2022	18.42	10.22	8.20
MW-7	12/20/2022	17.05	11.94	5.11
MW-8	12/20/2022	17.33	12.09	5.24
MW-10S	12/20/2022	14.47	8.99	5.48
MW-10D	12/20/2022	14.61	8.89	5.72
MW-11	12/20/2022	17.21	11.45	5.76
MW-12	12/20/2022	16.87	11.21	5.66
MW-5D	3/24/2023	18.42	10.22	8.20
MW-7	3/24/2023	17.05	12.10	4.95
MW-8	3/24/2023	17.33	11.98	5.35
MW-10S	3/24/2023	14.47	8.85	5.62
MW-10D	3/24/2023	14.61	8.91	5.70
MW-11	3/24/2023	17.21	11.39	5.82
MW-12	3/24/2023	16.87	11.11	5.76
MW-8	6/29/2023	17.33	12.00	5.33
MW-10S	6/29/2023	14.47	8.64	5.83
MW-10D	6/29/2023	14.61	8.82	5.79
MW-11	6/29/2023	17.21	11.35	5.86
MW-12	6/29/2023	16.87	11.11	5.76
MW-5D	9/20/2023	18.42	10.05	8.37
MW-8	9/20/2023	17.33	11.75	5.58
MW-10S	9/20/2023	14.47	7.39	7.08
MW-10D	9/20/2023	14.61	8.61	6.00
MW-11	9/20/2023	17.21	11.18	6.03
MW-12	9/20/2023	16.87	10.85	6.02

Table 2 PCE, TCE, cis-1,2 DCE, VC & Total VOCs in Soil Vapor Samples (µg/m³)

PCE, TCE, cis-1,2 DCE, VC, and Total VOCs in Soil Vapor Samples

Probe	Date	PCE	TCE	cis-1,2 DCE	VC	Total VOCs
SV4	12/20/2022	160	460	0.88	ND	957
SG5R	12/20/2022	ND	ND	ND	ND	13
SG6R	12/20/2022	ND	1.4	ND	ND	11
SG7R	12/20/2022	1.2	1.6	ND	ND	36
SG8R	12/20/2022	ND	0.53	ND	ND	13
SV9	12/20/2022	ND	ND	ND	ND	12
SV4	3/24/2023	34	110	0.39	ND	303
SG5R	3/24/2023	1.3	0.53	ND	ND	81
SG6R	3/24/2023	ND	ND	ND	ND	57
SG7R	3/24/2023	1.4	4.1	ND	ND	45
SG8R	3/24/2023	ND	ND	ND	ND	130
SV9	3/24/2023	ND	ND	ND	ND	32
SV4	6/29/2023	4.5	5.8	ND	ND	279
SG5	6/29/2023	N/A	N/A	N/A	N/A	N/A
SG6	6/29/2023	ND	ND	ND	ND	29
SG7	6/29/2023	2.4	ND	ND	ND	183
SG8	6/29/2023	ND	ND	ND	ND	130
SV9	6/29/2023	3	ND	ND	ND	28
SV4	9/20/2023	5.4	3.9	ND	ND	83
SG5	9/20/2023	N/A	N/A	N/A	N/A	N/A
SG6	9/20/2023	ND	ND	ND	ND	62
SG7	9/20/2023	ND	ND	ND	ND	300
SG8	9/20/2023	ND	ND	ND	ND	21
SV9	9/20/2023	1.6	ND	ND	ND	39

Table 3 Groundwater Concentrations of Key Compounds (µg/l)

Groundwater Concentration of Key Compounds

Well No.	Designation	Date	PCE	TCE	cis-1,2 DCE	VC	BTEX	Total VOCs
5	DR	12/20/2022	11.20	10.60	0.32	ND		25.53
7		12/20/2022	ND	0.26	ND	ND		0.67
8		12/20/2022	4.67	16.2	0.63	ND		21.50
10	DR	12/20/2022	21.1	23.6	1.05	ND		46.99
10	SR	12/20/2022	ND	1.15	ND	ND		3.12
11		12/20/2022	2.84	257	7.24	ND		272.00
12		12/20/2022	ND	1.58	1.23	ND		5.18
5	DR	3/24/2023	8.98	12.10	0.47	ND		21.55
7		3/24/2023	ND	ND	ND	ND		ND
8		3/24/2023	4.9	20.30	0.74	ND		26.22
10	DR	3/24/2023	13.90	26.70	0.96	ND		45.20
10	SR	3/24/2023	ND	1.15	ND	ND		3.12
11		3/24/2023	4.35	459	24.80	ND		416.38
12		3/24/2023	ND	1.58	1.23	ND		5.18
5	DR	6/29/2023	N/A	N/A	N/A	N/A	N/A	N/A
7		6/29/2023	N/A	N/A	N/A	N/A	N/A	N/A
8		6/29/2023	5.39	12.40	0.44	ND		21.95
10	DR	6/29/2023	17.8	21.7	0.99	ND		46.57
10	SR	6/29/2023	ND	0.87	ND	ND		1.28
11		6/29/2023	4.35	459	24.8	ND		498.45
12		6/29/2023	ND	4.47	65	27.4		104.20
5	DR	9/20/2023	18.80	14.20	1.58	ND		38.60
7		9/20/2023	N/A	N/A	N/A	N/A	N/A	N/A
8		9/20/2023	14.20	27.40	1.58	ND		46.97
10	DR	9/20/2023	163	50.5	9.57	ND		228.36
10	SR	9/20/2023	ND	0.59	ND	ND		5.05
11		9/20/2023	4.03	434	28.70	ND		476.55
12		9/20/2023	ND	1.93	1.05	ND		8.43

Appendix C

Inspection Reports and AS/SVE Operations Log

Soil Vapor Extraction Field Monitoring Sheet

Site:

353 McKibbin Street___

Brooklyn, NY_____

Date: _December 20, 2022_____

SVE Blower 1 ____9288.5_____ Hours

SVE Blower 2 ____9289.2_____ Hours

Vapor extraction leg	Vacuum inches of water	Flow Range ft per minute
1A	-	-
1B	-	-
2A	-	-
2B	-	-
3A	-	-
3B	-	-
4A	N/A	N/A
4B	N/A	N/A

Note: N/A – System leg is not operational.

- System leg data was not recorded.

Soil Vapor Extraction Field Monitoring Sheet

Site:

353 McKibbin Street___

Brooklyn, NY_____

Date: _March 24, 2023

SVE Blower 1 ___11382.0_____ Hours

SVE Blower 2 ___11382.7_____ Hours

Vapor extraction leg	Vacuum inches of water	Flow Range ft per minute
1A	11	0.5
1B	18	0.2
2A	21	0.5
2B	21	0.2
3A	17	0.5
3B	18	0.8
4A	N/A	N/A
4B	N/A	N/A

Note: N/A – System leg is not operational.

Soil Vapor Extraction Field Monitoring Sheet

Site:

353 McKibbin Street___

Brooklyn, NY_____

Date: ___June 29, 2023_____

SVE Blower 1 __13542.4_____ Hours

SVE Blower 2 __13543.1_____ Hours

Vapor extraction leg	Vacuum inches of water	Flow Range ft per minute
1A	12	0.4
1B	14	0.1
2A	16	0.1
2B	15	0.65
3A	16	0.3
3B	17	0.5
4A	N/A	N/A
4B	N/A	N/A
Effluent		1.6

Note: N/A – System leg is not operational.

Soil Vapor Extraction Field Monitoring Sheet

Site:

353 McKibbin Street___

Brooklyn, NY_____

Date: September 20, 2023_____

SVE Blower 1 ___15391.0_____ Hours

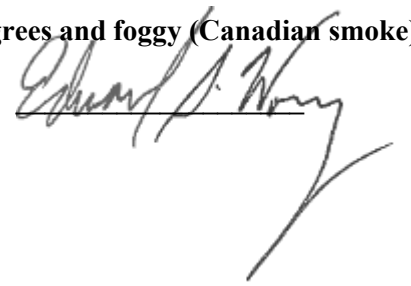
SVE Blower 2 ___15391.7_____ Hours

Vapor extraction leg	Vacuum inches of water	Flow Range ft per minute
1A	18	1.0
1B	19	0.3
2A	26	0.1
2B	25	0.2
3A	20	0.5
3B	22	0.7
4A	N/A	N/A
4B	N/A	N/A
Effluent		

Note: N/A – System leg is not operational.

Annual Site Inspection
353 McKibbin Street
Brooklyn, New York

Date: **6/07/2023** **Weather:** **69 degrees and foggy (Canadian smoke)**

Inspector(s): Edward S. Wong, P.E. **Signature(s):** 

Site Perimeter:

Fence **Good**
Leaks: **None**
Sidewalk **Bogart is in fair condition, McKibbin is in fair condition with trash piles, and Boerum is improved after heavy construction across the street. MW-8 is in good condition. MW-7 needs a cover replacement and to be cleaned of debris - maybe replaced. Doors in fence to reach vapor probes are functional.**

Monitoring **Monitoring wells now accessible and protected.**
Ponding: **Surficial activities. Area is dry (see photos).**
Air Sparging **Air Sparging was off**
SVE System **SVE System was on and functioning properly.**

Cover System **Cover remains at original placed thickness and has not been penetrated.**

Equip. **Shed is in good condition.**
Ramps **Ramp is in good condition.**
Equipment
Blower No. 1 **see Appendix C, running**
Blower No. 2 **see Appendix C, running**
Compressor **off**

See Operations log for details (Appendix C)

Appendix D
Site Photographs
June 7, 2023

Appendix E

IC/EC Certification

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. **C224102**

Site Name **353 McKibbin Street**

Site Address: 353 McKibbin Street Zip Code: 11206
City/Town: Brooklyn
County: Kings
Site Acreage: 1.070

Reporting Period: May 01, 2022 to November 02, 2023

	YES	NO
1. Is the information above correct?	X	❑
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?	❑	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	❑	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	❑	X

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?	❑	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	❑
7. Are all ICs in place and functioning as designed?	X	❑

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

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	❑	X
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)	X	❑
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. C224102

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
3083-16	Bogart Plaza LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan O&M Plan

Institutional Controls

- Compliance with the Environmental Easement by the Grantor and the Grantor's successors and assigns with all elements of this SMP;

- All Engineering Controls must be operated and maintained as specified in this SMP;

- All Engineering Controls on the Site must be inspected and certified at a frequency and in a manner defined in the SMP;

- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;

- Data and information pertinent to Site Management for the Site must be reported at the frequency and in a manner defined in this SMP;

- On-Site environmental monitoring devices, including but not limited to, groundwater monitoring wells, must be protected and replaced as necessary to ensure the devices function in the manner specified in this SMP;

- Vegetable gardens and farming on the Site are prohibited;

- The use of the groundwater underlying the Site is prohibited without treatment rendering it safe for intended purpose;

- All future activities on the property that will disturb remaining contaminated material are prohibited unless they are conducted in accordance with this SMP;

- The potential for vapor intrusion must be evaluated for any buildings developed on the Site, and any potential impacts that are identified must be mitigated;

- The Site may only be used for commercial or industrial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed;

- The Site may not be used for a higher level of use, such as unrestricted or restricted residential use, without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC; and

- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Site at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

Description of Engineering Controls

Box 4

Parcel	Engineering Control
3083-16	Vapor Mitigation Cover System

Engineering Controls

- A cover system was installed throughout the entire Site consisting of twelve inches of clean fill (NYSDOT Subbase) and tested as required by the RAWP to ensure chemical concentrations are below 6NYCRR Part 375-6.8(b). The cover system was compacted to 95% as per the NYC 2008 Construction Code. An additional six inches of clean fill was placed above the cover as a protective barrier to erosion and inclement weather conditions. The additional clean fill also complies with Part 375-6.8(b);

- The Soil Vapor Extraction System was installed in four trenches covering the entire Site. Each trench contains two 3-inch perforated PVC pipes wrapped in filter fabric. Each pipe was placed within two feet of clean ¾ inch stone. The top of the trench was also covered with filter fabric. An eighteen-inch layer of compacted clean fill (NYSDOT Subbase) was then placed over the trench. Each pipe was then connected to the equipment room consisting of a knockout tank, two blowers, and associated piping, electrical and monitoring elements;

- The Air Sparging System was designed to volatilize the solvents (particularly TCE and PCE) identified in groundwater. The AS system consists of twenty-two wells, twelve shallow and ten deep wells at the hot spot areas. Each one-inch diameter well is connected to two-inch PVC solid pipes leading to the equipment room. The two-inch piping was placed within the same trenches as the SVES system; the AS component of the system remains off with NYSDEC approval; and

- Future buildings constructed on the Site will include the installation of a vapor barrier. Once installed, such vapor barrier will be inspected prior to the placement of concrete or other materials for the building foundation.

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. C224102

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 LUKE LICHOTA at 353 McKibbin Street,
print name print business address

am certifying as OWNER (Owner or Remedial Party)

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

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

1/17/2024
Date

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 Edward S. Wong, P.E. at 315 Main Street, 2nd Fl., Huntington, NY 11743,
print name — print business address

am certifying as a Professional Engineer for the Bogart Plaza LLC
(Owner or Remedial Party)

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

Stamp (Required for PE)

1/18/2024
Date