PERIODIC REVIEW REPORT
NOV. 2, 2020 TO NOV. 2, 2021

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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Corrected:
February 24, 2022

CERTIFICATION

For each institutional or engineering control identified for the site, I John A. Rhodes, 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

John A. Rhodes, P.E.
NYS Professional License # 84423
Date 2/24/2022

FIGURES

TABLES

APPENDICES

1 INTRODUCTION AND EXECUTIVE SUMMARY

John Rhodes P.E. prepared this Periodic Review Report ("PRR") and IC/EC Certification for the 2021 period after implementation of corrective measures in accordance with the approved Corrective Measures Work Plan dated June 30, 2021 (CMWP). The IC/EC Certification covers November 2, 2020, through November 2, 2021.

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 Site Management Plan (SMP) as modified by the Corrective Measures Work Plan (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 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 NYSDOH on May 16, 2018; a meeting with the NYSDEC and NYSDOH on August 1, 2018, and the CMWP dated June 30, 2020.

A periodic review and certification of all institutional and engineering controls (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 SCOs was effective.
- 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. Recently, a broken SVE header pipe (1B) was discovered that caused "low pressure" alarms and repeated system shutdowns. The pipe was capped resulting in acceptable negative pressures (suction) returning to all lines. Each SVE zone is serviced by two (2) pipes. The second pipe associated with 1B was undamaged and transmitting negative pressure to the trench containing 1B. Therefore, with the capping of the broken pipe, SVE system returned to operating as intended. The broken line will be repaired in the future after material storage for the business operating on the property is modified.
- 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.

- Both the soil vapor and groundwater monitoring networks are functioning properly after corrective measures were made.

Compliance

With the completion of the corrective measures, 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:

- SVE Line 1B was closed (capped) to eliminate associated low-pressure alarms. The Line will be repaired and returned to service.
- A remote warning system has been installed (AD-2000 Automatic Voice/Pager Dialer manufactured by United Securities Products) to remotely advise system managers of system shutdowns, upgrading the on-site alarms.

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 city 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 Cleanup Objectives (SCO). 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 Soil Cleanup Objectives (SCO) from four hotspot locations, construction of a soil cover system consisting of 18 inches of imported fill, and installation of an air sparging/soil vapor extraction (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 Site Management Plan ("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 Corrective Measures Work Plan 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. In the 2020/2021 review period numerous automatic shutdowns were caused by a severed SVE header pipe (1B) causing “Low Pressure” alarms. The pipe was capped resulting in acceptable negative pressures (suction) returning to all lines. Each SVE zone is serviced by two (2) pipes. The second pipe associated with 1B was undamaged and transmitting negative pressure to the trench containing 1B. Therefore, with the capping of the broken pipe, SVE system returned to operating as intended. The broken line will be repaired in the future after material storage for the business operating on the property is modified.
    - When operating, the soil vapor extraction (SVE) system continued to prevent off-site migration of contaminated soil vapors.
- A remote warning system has been installed (AD-2000 Automatic Voice/Pager Dialer manufactured by United Securities Products) to remotely advise system managers of system shutdowns, upgrading the on-site alarms.
- **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

Automatic system shutdowns were frequent throughout the reporting period. A break in SVE Line 1B was discovered during the Annual Site Wide Inspection on November 15, 2021. This break allowed air to enter the SVE system at atmospheric pressure thereby reducing the suction (negative gage) pressure throughout the system. In turn, this caused frequent "Low Pressure" system alarms that would shut down the system. This condition was exacerbated by high groundwater levels that further reduced the negative pressures. Shutdowns associated with high groundwater occurred more frequently in the latter half of this reporting period due to unusually heavy rainfall. By looking at past records, we concluded that this condition had been causing shutdowns throughout this reporting period without our knowledge. The condition appears to have been alleviated by capping of the severed SVE pipe thereby preventing air entering at atmospheric pressures but monitoring of the effect of the repair is ongoing. The zone serviced by the severed header pipe has a second SVE pipe which maintained suction in the zone. The severed line will be repaired after material storage for the business operating on the property is modified.

Soil Vapor Migration

Concentrations in vapor probes were dependent on groundwater levels and system operations. SG-8 in the source area increased contaminant concentration with rising groundwater levels as illustrated in Figure 1 using the average monthly rainfall as a measure of groundwater levels and focusing on TCE, the major remaining contaminant. Other on-site vapor probes contained relatively low levels of contaminants, but also fluctuated with groundwater levels.

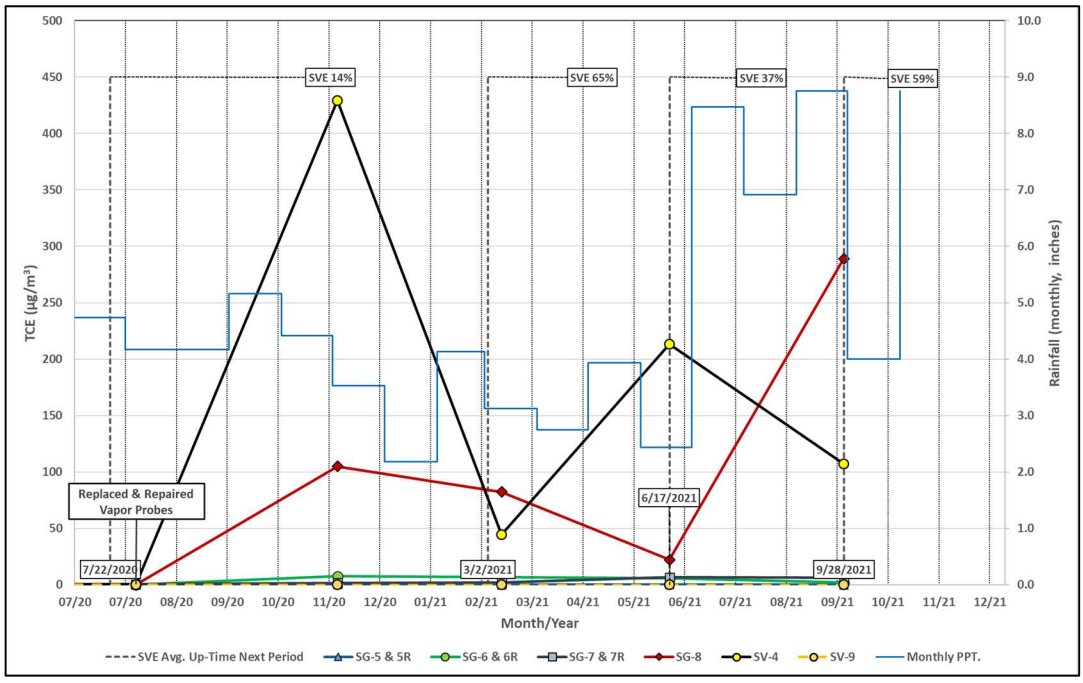


Figure 1 TCE in Soil Vapor

SV-4 located just off the property was more responsive to SVE system operations with the highest concentration of TCE occurring on December 3, 2020, after a period of numerous shutdowns caused an average up-time of only 14%. Improved operations (65% up-time) lowered the concentration of TCE in the next sample, but the concentration rose again when average up-time dropped to 37%. With the increase in up-time to 59%, TCE concentration in SV-4 again fell. 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. The capping of the severed SVE pipe immediately allowed for continuous system operation.

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. Monthly rainfall amounts (inches) are also shown. As groundwater levels are correlated with rainfall, monthly rainfall gives an indication of groundwater levels during the period of testing.

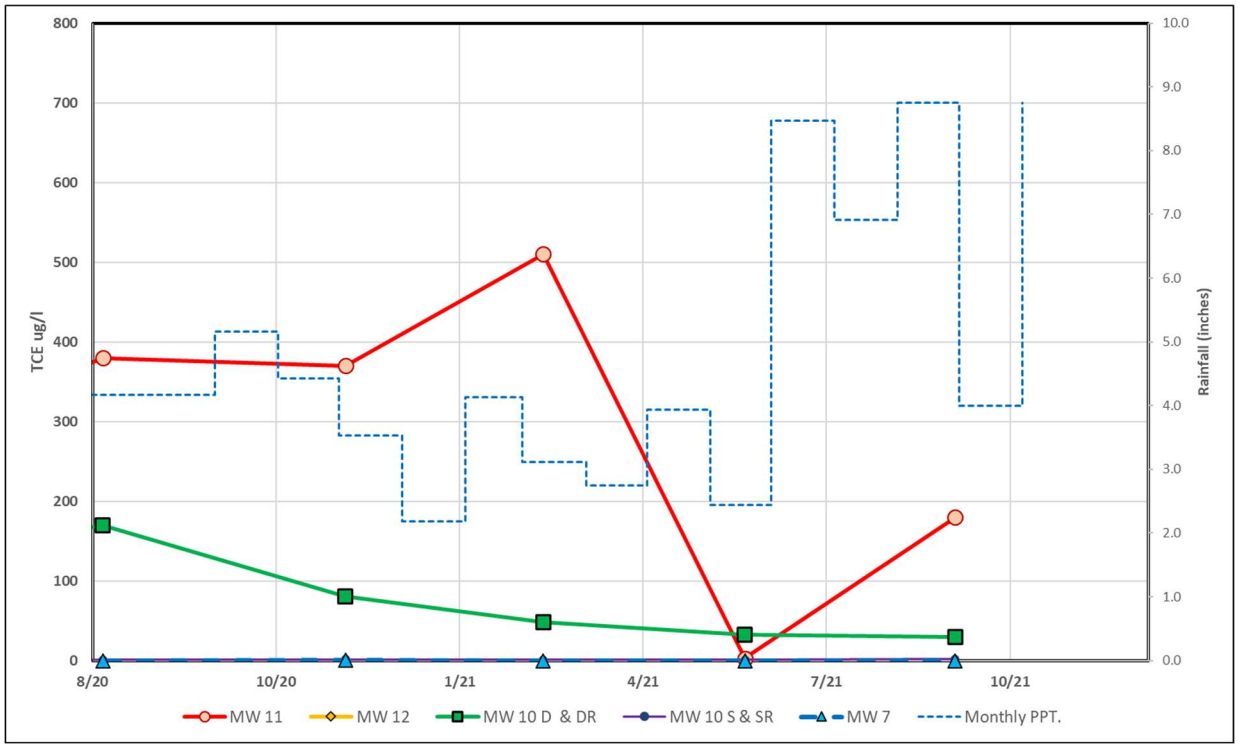


Figure 2 TCE in Groundwater

Contaminants in the MW-11 area may be responsive to groundwater levels as a result 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.

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 ECs are shown on Figure 3 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 into and through the 2020/2021 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 August 2020 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 2020, groundwater monitoring wells and soil vapor probes were maintained in compliance with the SMP as modified by the NYSDEC.

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 remains operational. In the 2020/2021 review period numerous automatic shutdowns were caused by a severed SVE header pipe (1B) causing "Low Pressure" alarms. The SVE pipe was capped and the SVE negative pressures (suction) restored. As the second SVE pipe in the same trench as the severed pipe was functioning, the SVE system was returned to acceptable operation. Recommendations are being implemented or considered:

- A remote warning system has been installed (AD-2000 Automatic Voice/Pager Dialer manufactured by United Securities Products) to remotely advise system managers of system shutdowns, upgrading the on-site alarms.
- The severed SVE header will be repaired after material storage for the business operating on the property is modified.

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)
- Quarterly sampling and testing of four on-Site vapor probes. Additionally, off site probes SV-9 and SV-4 were located, refurbished, and are now sampled quarterly.

5.2 Summary of Monitoring Completed

<u>Annual Site Wide Inspection</u>
The Annual Site Wide Inspection was done by John Rhodes, PE, on November 15, 2021. (See Appendix C.)

<u>Composite Cover System Inspection</u>
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. On-site warnings of SVE system shutdowns have been inadequate; therefore, a remote monitoring system has been added to improve awareness of system alarms that shut down the system.

Soil Vapor Monitoring

Soil vapor monitoring was conducted on all four quarters of this reporting period. Data tabulations are in Appendix B. Laboratory summary sheets 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, Figure 7 and Figure 8 provide groundwater contours. 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. Phoenix Environmental Laboratories Inc. Laboratory analytical 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 was corrected the failure of the monitoring network. Monitoring followed 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 were frequent throughout the reporting period. A break in SVE Line 1B was discovered during the Annual Site Wide Inspection on November 15, 2021. This break allowed air to enter the SVE system at atmospheric pressure thereby reducing the suction (negative gage) pressure throughout the system. In turn, this caused frequent "Low Pressure" system alarms that would shut down the system. This condition was exacerbated by high groundwater levels that further reduced the negative pressures. Shutdowns associated with high groundwater occurred more frequently in the latter half of this reporting period due to unusually heavy rainfall. By looking at past records, we concluded that this condition had been causing shutdowns throughout this reporting period without our knowledge. The condition appears to have been alleviated by capping of the severed SVE pipe thereby preventing air entering at atmospheric pressures but monitoring of the effect of the repair is ongoing. The zone serviced by the severed header pipe has a second SVE pipe which maintained suction in the zone. The severed line will be repaired after material storage for the business operating on the property is modified.

The system was on and operating for the following periods and percentages of time in the periods.

Period	Average Up-Time
From 7/22/2020 to 3/10/2021	14%
From 3/10/2021 to 6/17/2021	65%
From 6/17/2021 to 9/28/2021	31%
From 9/28/2021 to 11/11/2021	59%

On-site warnings including a warning light have been tried to advise site personnel that the system has stopped. However, this has proven inadequate. Therefore, a remote warning system has been added (AD-2000 Automatic Voice/Pager Dialer manufactured by United Securities Products).

6.2 Zone of Influence

The zone of influence of the SVE system remains adequate. A differential pressure of 0.035 *iwc* was recorded in MW-7 located off-site. This is consistent with past measurements. SV-4 also located off-site was further cleaned by air surging as a follow-up to refurbishing in August 2020. A reading of 0.022 *iwc* was obtained from SV-4 after cleaning, a result of SVE system operation. The off-site readings are consistent with on-site readings showing the extension of suction (negative) pressures outward from the SVE underground perforated piping.

7 OVERALL CONCLUSIONS AND RECOMMENDATIONS

7.1 SMP Compliance

With the implementation of the corrective measures, 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.

7.3 Recommendations, Proposals and Future Submittals

The following recommendation have been or are being implemented:

- SVE Line 1B was closed to eliminate associated low-pressure alarms. The Line will be repaired, and underground perforated piping returned to service.
- A remote warning system has been installed (AD-2000 Automatic Voice/Pager Dialer manufactured by United Securities Products) to remotely advise system managers of system shutdowns.

APPENDIX A

FIGURES

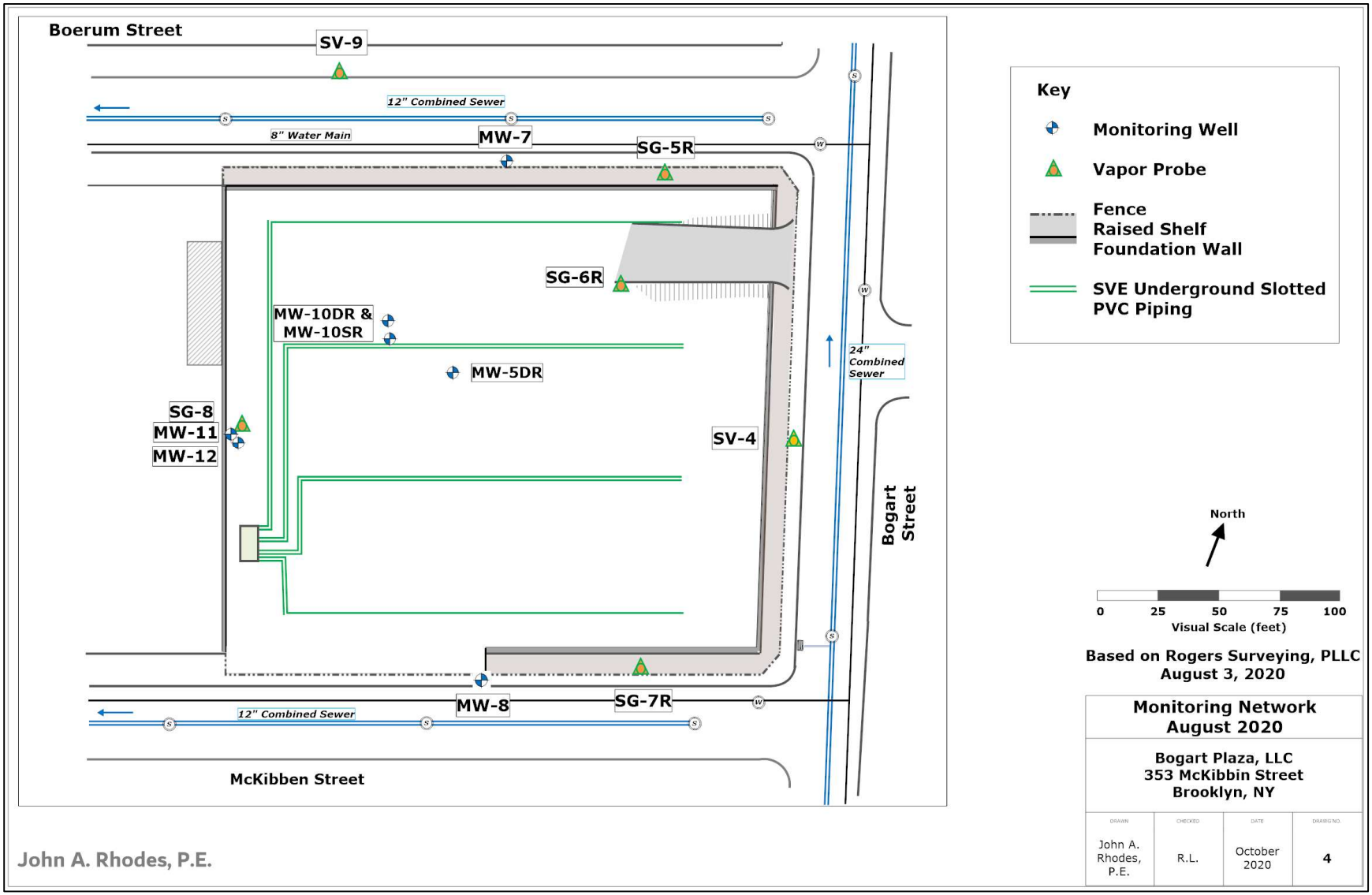
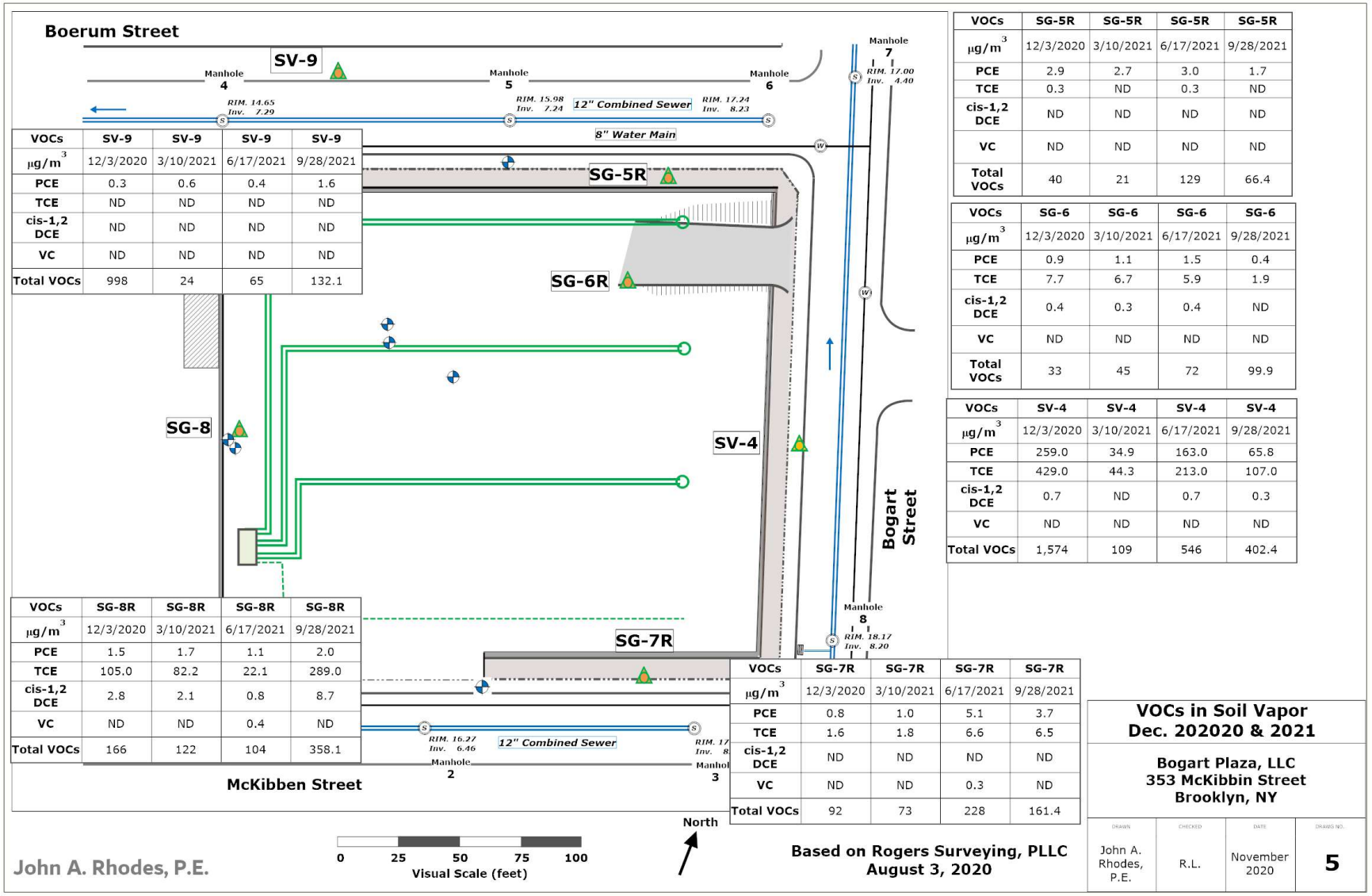


Figure 3 Site Plan & Monitoring Network



VOCs	SV-9	SV-9	SV-9	SV-9
µg/m³	12/3/2020	3/10/2021	6/17/2021	9/28/2021
PCE	0.3	0.6	0.4	1.6
TCE	ND	ND	ND	ND
cis-1,2 DCE	ND	ND	ND	ND
VC	ND	ND	ND	ND
Total VOCs	998	24	65	132.1

VOCs	SG-5R	SG-5R	SG-5R	SG-5R
µg/m³	12/3/2020	3/10/2021	6/17/2021	9/28/2021
PCE	2.9	2.7	3.0	1.7
TCE	0.3	ND	0.3	ND
cis-1,2 DCE	ND	ND	ND	ND
VC	ND	ND	ND	ND
Total VOCs	40	21	129	66.4

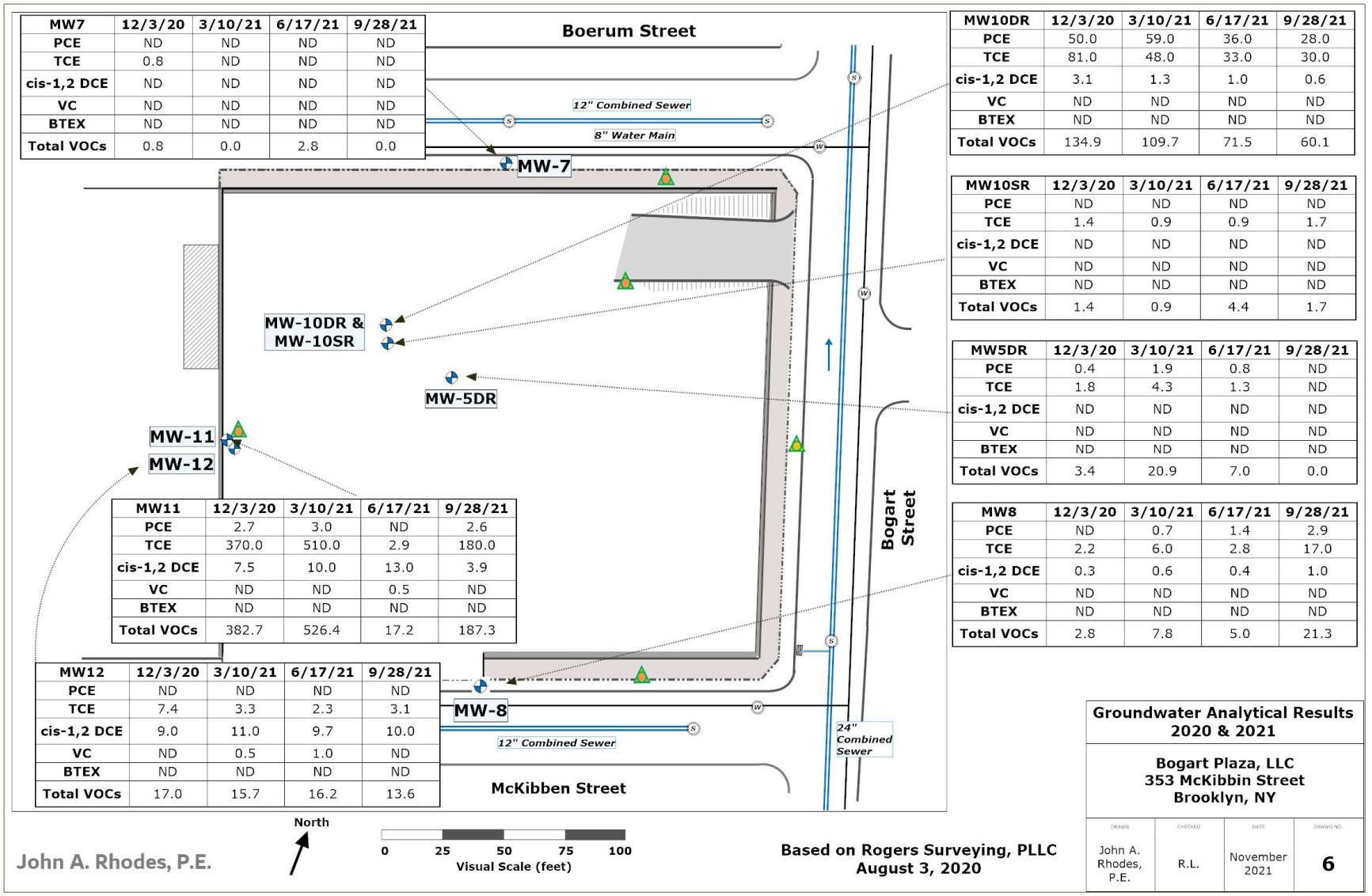
VOCs	SG-6	SG-6	SG-6	SG-6
µg/m³	12/3/2020	3/10/2021	6/17/2021	9/28/2021
PCE	0.9	1.1	1.5	0.4
TCE	7.7	6.7	5.9	1.9
cis-1,2 DCE	0.4	0.3	0.4	ND
VC	ND	ND	ND	ND
Total VOCs	33	45	72	99.9

VOCs	SV-4	SV-4	SV-4	SV-4
µg/m³	12/3/2020	3/10/2021	6/17/2021	9/28/2021
PCE	259.0	34.9	163.0	65.8
TCE	429.0	44.3	213.0	107.0
cis-1,2 DCE	0.7	ND	0.7	0.3
VC	ND	ND	ND	ND
Total VOCs	1,574	109	546	402.4

VOCs	SG-8R	SG-8R	SG-8R	SG-8R
µg/m³	12/3/2020	3/10/2021	6/17/2021	9/28/2021
PCE	1.5	1.7	1.1	2.0
TCE	105.0	82.2	22.1	289.0
cis-1,2 DCE	2.8	2.1	0.8	8.7
VC	ND	ND	0.4	ND
Total VOCs	166	122	104	358.1

VOCs	SG-7R	SG-7R	SG-7R	SG-7R
µg/m³	12/3/2020	3/10/2021	6/17/2021	9/28/2021
PCE	0.8	1.0	5.1	3.7
TCE	1.6	1.8	6.6	6.5
cis-1,2 DCE	ND	ND	ND	ND
VC	ND	ND	0.3	ND
Total VOCs	92	73	228	161.4

Figure 4 Soil Vapor Analytical Results August 2019 & 2020



MW7	12/3/20	3/10/21	6/17/21	9/28/21
PCE	ND	ND	ND	ND
TCE	0.8	ND	ND	ND
cis-1,2 DCE	ND	ND	ND	ND
VC	ND	ND	ND	ND
BTEX	ND	ND	ND	ND
Total VOCs	0.8	0.0	2.8	0.0

MW10DR	12/3/20	3/10/21	6/17/21	9/28/21
PCE	50.0	59.0	36.0	28.0
TCE	81.0	48.0	33.0	30.0
cis-1,2 DCE	3.1	1.3	1.0	0.6
VC	ND	ND	ND	ND
BTEX	ND	ND	ND	ND
Total VOCs	134.9	109.7	71.5	60.1

MW10SR	12/3/20	3/10/21	6/17/21	9/28/21
PCE	ND	ND	ND	ND
TCE	1.4	0.9	0.9	1.7
cis-1,2 DCE	ND	ND	ND	ND
VC	ND	ND	ND	ND
BTEX	ND	ND	ND	ND
Total VOCs	1.4	0.9	4.4	1.7

MW5DR	12/3/20	3/10/21	6/17/21	9/28/21
PCE	0.4	1.9	0.8	ND
TCE	1.8	4.3	1.3	ND
cis-1,2 DCE	ND	ND	ND	ND
VC	ND	ND	ND	ND
BTEX	ND	ND	ND	ND
Total VOCs	3.4	20.9	7.0	0.0

MW8	12/3/20	3/10/21	6/17/21	9/28/21
PCE	ND	0.7	1.4	2.9
TCE	2.2	6.0	2.8	17.0
cis-1,2 DCE	0.3	0.6	0.4	1.0
VC	ND	ND	ND	ND
BTEX	ND	ND	ND	ND
Total VOCs	2.8	7.8	5.0	21.3

MW11	12/3/20	3/10/21	6/17/21	9/28/21
PCE	2.7	3.0	ND	2.6
TCE	370.0	510.0	2.9	180.0
cis-1,2 DCE	7.5	10.0	13.0	3.9
VC	ND	ND	0.5	ND
BTEX	ND	ND	ND	ND
Total VOCs	382.7	526.4	17.2	187.3

MW12	12/3/20	3/10/21	6/17/21	9/28/21
PCE	ND	ND	ND	ND
TCE	7.4	3.3	2.3	3.1
cis-1,2 DCE	9.0	11.0	9.7	10.0
VC	ND	0.5	1.0	ND
BTEX	ND	ND	ND	ND
Total VOCs	17.0	15.7	16.2	13.6

Figure 5 Groundwater Analytical Results 2020 & 2021

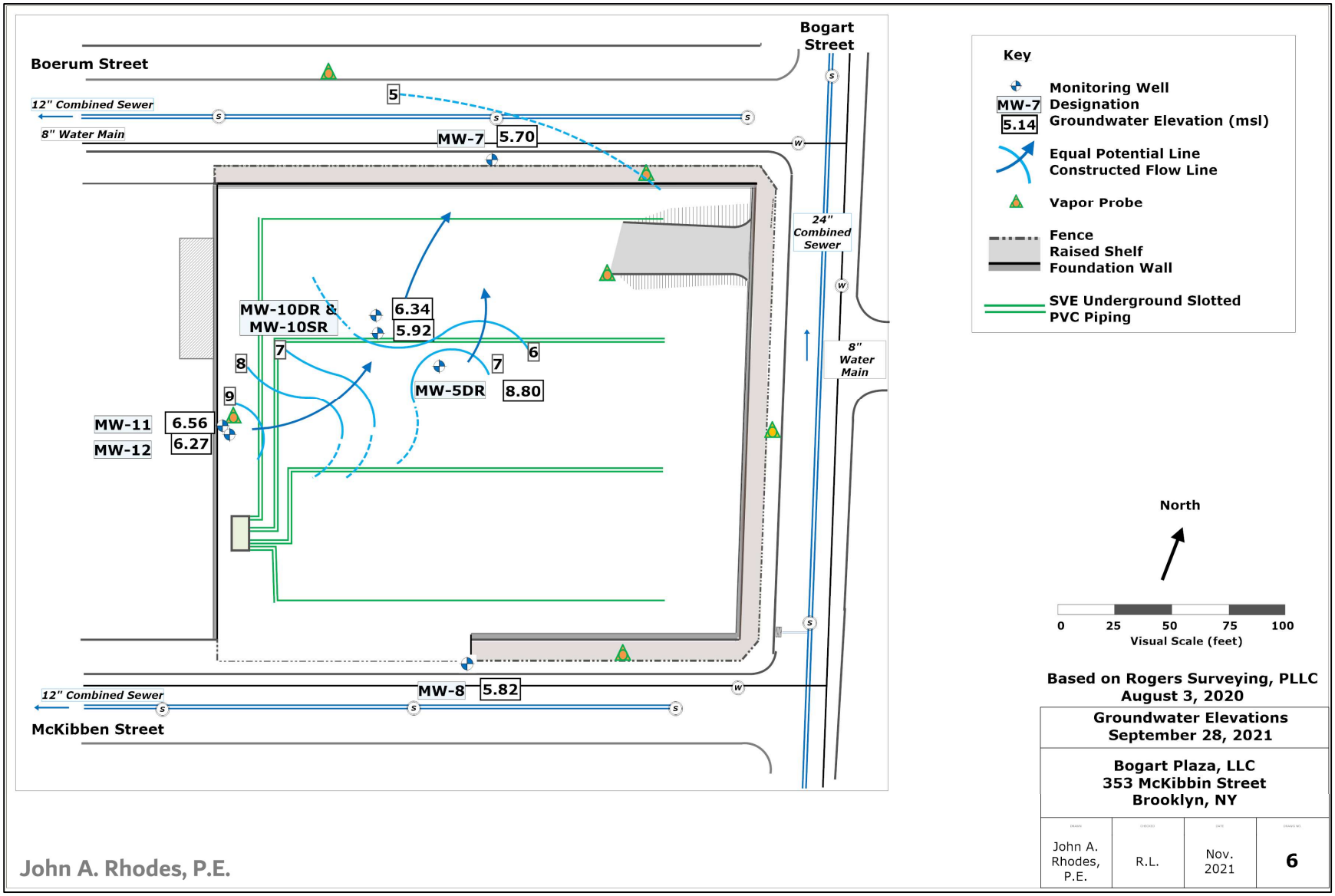


Figure 6 Groundwater Contours September 28, 2021

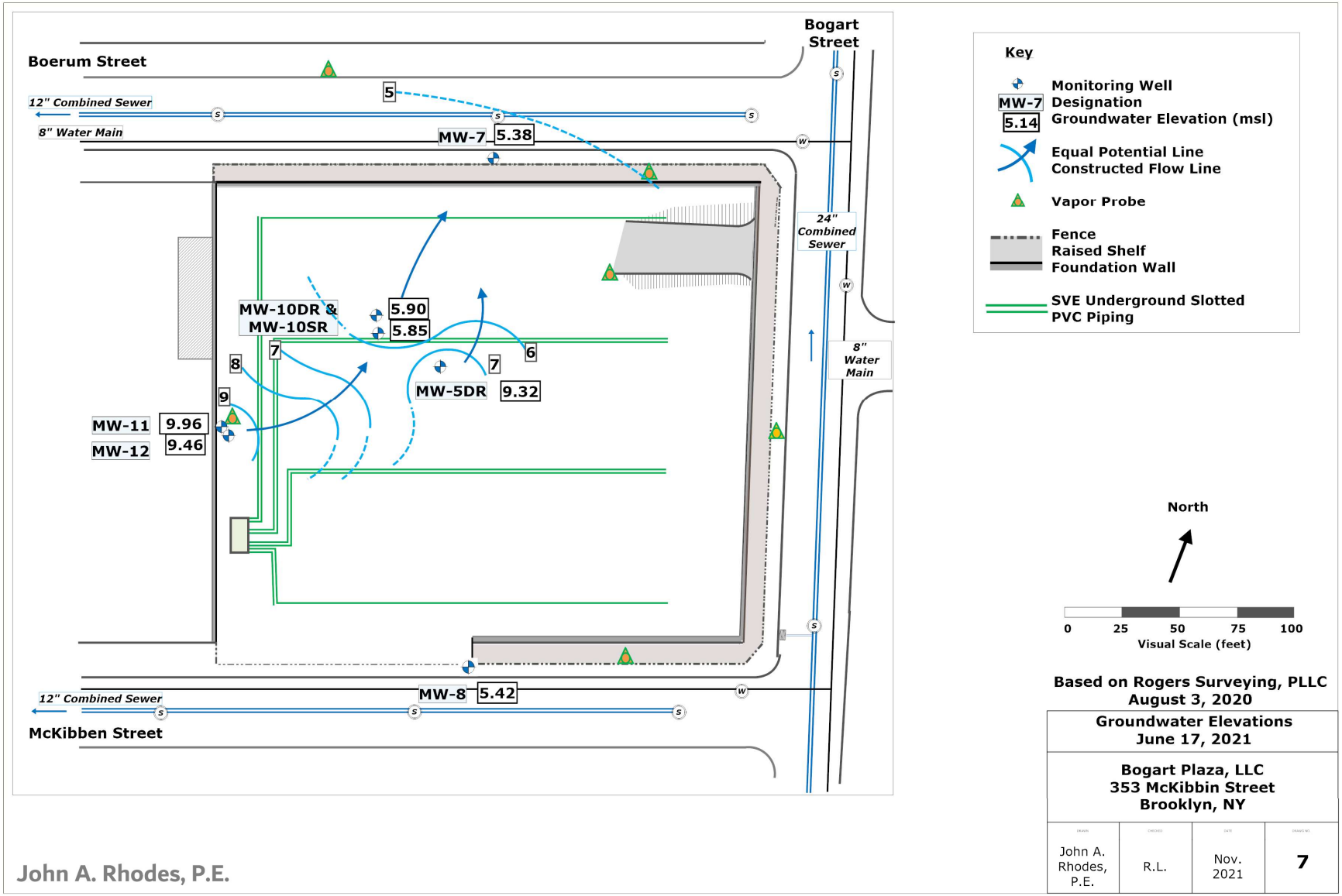


Figure 7 Groundwater Contours June 17, 2021

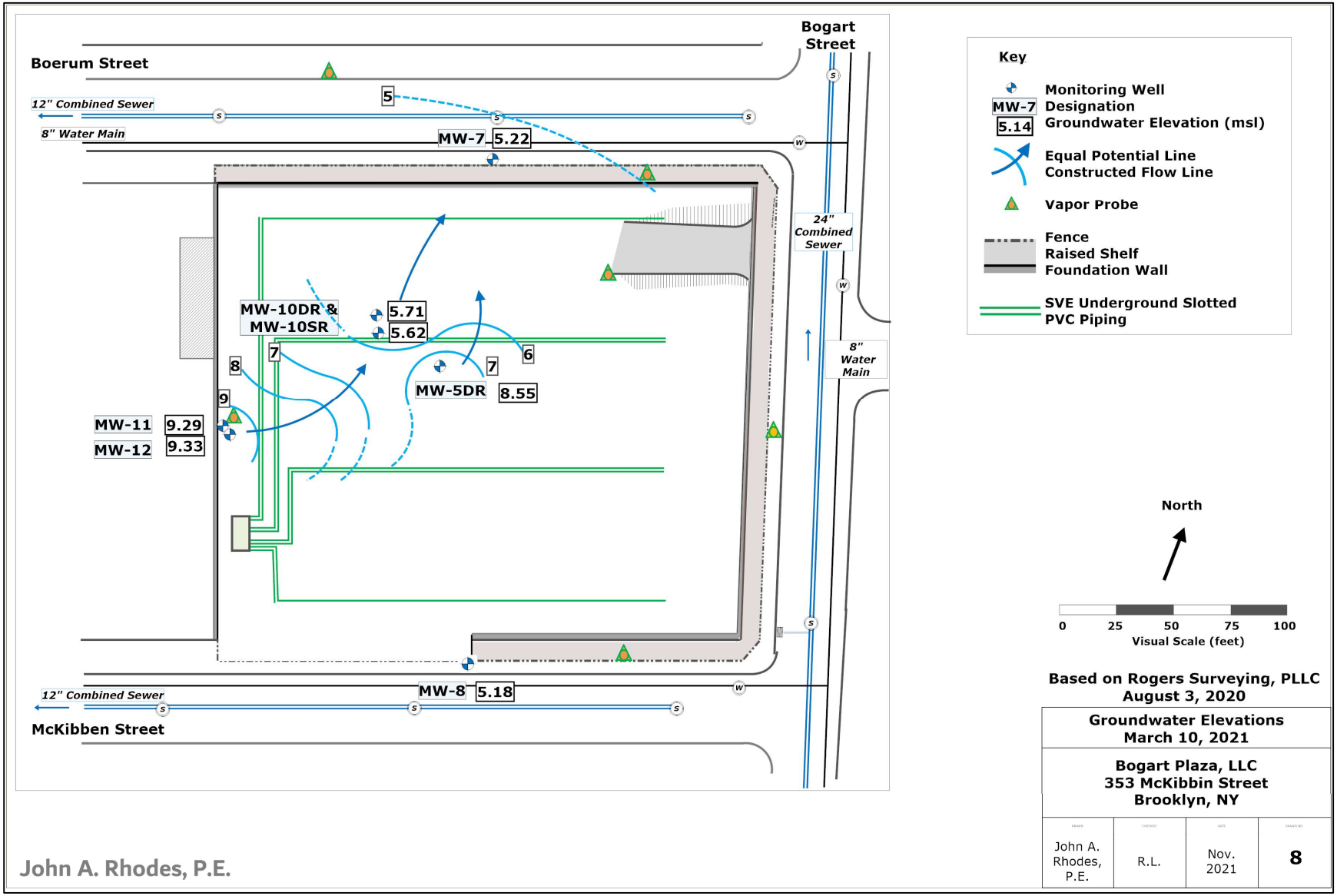


Figure 8 Groundwater Contours March 10, 2021

APPENDIX B

Data Tabulations

Table 1 Well Construction Details 2020 (from CMR)

Construction Details								
Well	**No.**	**Ext.**	**S/D**	**2-inch solid PVC Riser (*ft*)**	**2-inch Slotted PVC Screen (*ft*)**	**PVC stub-up**	**Well Depth bgs (*ft*)**	**Metal Casing Stub-up (*ft*)**
MW	7		S	12.5	10	-0.1	22.6	*flush*
MW	8		S	7.4	10	-0.2	17.6	*flush*
MW	11		D	37.8	10	3.8	44.0	4.0
MW	12		S	8.3	10	3.3	15.0	3.9
MW	5	DR	D	29.4	10	0.8	38.6	1.6
MW	10	SR	S	7.06	10	0.0	17.1	0.2
MW	10	DR	D	34.3	10	0.0	44.3	0.2

Elevations (*msl*)								
Well	**No.**	**Ext.**	**S/D**	**Top PVC Casing**	**Ground**	**Metal Casing Rim**	**Top of Screen**	**Bottom of Screen**
MW	7		S	17.05	17.2	17.16	-5.44	-5.44
MW	8		S	17.33	17.5	17.53	-0.02	-0.02
MW	11		D	20.68	16.9	20.93	-27.07	-27.07
MW	12		S	20.34	17.1	20.97	2.07	2.07
MW	5	DR	D	18.42	16.1	19.12	-11.01	-21.01
MW	10	SR	S	14.47	14.5	14.67	7.41	-2.59
MW	10	DR	D	14.61	14.6	14.81	-19.71	-29.71

				Locations		GW after Installation		
Well	**No.**	**Ext.**	**S/D**	***N***	***E***	**PVC Casing Elevation (msl)**	**DTW (ft)**	**GW Elevation (msl)**
MW	7		S	196834.0	1002469.3			
MW	8		S	196616.4	1002514.7			
MW	11		D	196691.3	1002384.4			
MW	12		S	196688.9	1002387.7			
MW	5	DR	D	196739.8	1002470.5	18.42	10.25	8.17
MW	10	SR	S	196754.9	1002437.3	14.47	9.05	5.42
MW	10	DR	D	196747.3	1002440.2	14.61	8.90	5.71

Table 2 Vapor Probe Details (from CMR)

Vapor Probe		Elevations (*msl*)		Metal Casing Stub-up (*ft*)	Locations	
		Ground	**Metal Casing Rim**		***N***	***E***
SG	5R	20.78	24.53	3.75	196845.0	1002538.4
SG	6R	17.48	21.38	3.90	196797.7	1002531.9
SG	7R	22.04	26.04	4.00	196636.9	1002580.3
SG	8	16.82	19.52	2.70	19665.0	1002387.1
SV	4	19.77	*19.77*	*flush*	196748.9	1002616.3
SV	9	16.03	*16.03*	*flush*	196852.9	1002391.3

Table 3 Groundwater Gauging 2020/2021

Well	No.		Date	Reference Elevation (ft MSL)	Depth to GW (ft)	GW Elevation (ft MSL)	Field Technician's Notes
MW	5	DR	9/28/2021	18.42	9.62	8.80	
MW	7		9/28/2021	17.05	11.35	5.70	
MW	8		9/28/2021	17.33	11.51	5.82	
MW	10	DR	9/28/2021	14.61	8.27	6.34	
MW	10	SR	9/28/2021	14.47	8.55	5.92	
MW	11		9/28/2021	**17.21**	10.65	6.56	Corrected 11/15/2021
MW	12		9/28/2021	**16.87**	10.60	6.27	Corrected 11/15/2021
MW	5	DR	6/17/2021	18.42	9.1	9.32	
MW	7		6/17/2021	17.05	11.67	5.38	
MW	8		6/17/2021	17.33	11.91	5.42	
MW	10	DR	6/17/2021	14.61	8.71	5.90	
MW	10	SR	6/17/2021	14.47	8.62	5.85	
MW	11		6/17/2021	**17.21**	10.72	6.49	Corrected 11/15/2021
MW	12		6/17/2021	**16.87**	10.88	5.99	Corrected 11/15/2021
MW	5	DR	3/10/2021	18.42	9.87	8.55	
MW	7		3/10/2021	17.05	11.83	5.22	
MW	8		3/10/2021	17.33	12.15	5.18	
MW	10	DR	3/10/2021	14.61	8.90	5.71	
MW	10	SR	3/10/2021	14.47	8.85	5.62	
MW	11		3/10/2021	**17.21**	11.39	5.82	Corrected 11/15/2021
MW	12		3/10/2021	**16.87**	11.01	5.86	Corrected 11/15/2021
MW	5	DR	12/3/2020	18.42	10.18	8.24	
MW	7		12/3/2020	17.05	11.87	5.18	
MW	8		12/3/2020	17.33	12.10	5.23	
MW	10	DR	12/3/2020	14.61	8.81	5.80	
MW	10	SR	12/3/2020	14.47	8.45	6.02	
MW	11		12/3/2020	**17.21**	11.41	5.80	Corrected 11/15/2021
MW	12		12/3/2020	**16.87**	10.98	5.89	Corrected 11/15/2021

Table 4 PCE, TCE, cis-1,2 DCE, VC & Total VOCs in Soil Vapor Samples (µg/m³)

Probe	Date	PCE	TCE	cis-1,2 DCE	VC	Total VOCs
SG-5R	**12/3/2020**	2.9	0.3	*ND*	*ND*	40
SG-6R	**12/3/2020**	0.9	7.7	*0.4*	*ND*	33
SG-7R	**12/3/2020**	0.8	1.6	*ND*	*ND*	92
SG-8	**12/3/2020**	1.5	105.0	*2.8*	*ND*	166
SV-4	**12/3/2020**	259.0	429.0	*0.7*	*ND*	1,574
SV-9	**12/3/2020**	*0.3*	*ND*	*ND*	*ND*	998
SG-5R	**3/10/2021**	2.7	ND	ND	ND	20.9
SG-6R	**3/10/2021**	1.1	6.7	0.3	ND	45.0
SG-7R	**3/10/2021**	1.0	1.8	ND	ND	73.1
SG-8	**3/10/2021**	1.7	82.2	2.1	ND	121.9
SV-4	**3/10/2021**	34.9	44.3	ND	ND	109.3
SV-9	**3/10/2021**	0.6	ND	ND	ND	23.8
SG-5R	**6/17/2021**	3.0	0.3	ND	ND	129.0
SG-6R	**6/17/2021**	1.5	5.9	0.4	ND	72.3
SG-7R	**6/17/2021**	5.1	6.6	ND	0.3	228.3
SG-8	**6/17/2021**	1.1	22.1	0.8	0.4	104.5
SV-4	**6/17/2021**	163.0	213.0	0.7	ND	546.2
SV-9	**6/17/2021**	0.4	ND	ND	ND	65.3
SG-5R	**9/28/2021**	1.7	ND	ND	ND	66.4
SG-6R	**9/28/2021**	0.4	1.9	ND	ND	99.9
SG-7R	**9/28/2021**	3.7	6.5	ND	ND	161.4
SG-8	**9/28/2021**	2.0	289.0	8.7	ND	358.1
SV-4	**9/28/2021**	65.8	107.0	0.3	ND	402.4
SV-9	**9/28/2021**	1.6	ND	ND	ND	132.1

Table 5 Groundwater Concentrations of Key Compounds (µg/l)

Well		Date	PCE	TCE	cis-1,2 DCE	VC	BTEX	Total VOCs
5	**DR**	12/3/2020	0.4	1.8	ND	ND	ND	3.4
7		12/3/2020	ND	0.8	ND	ND	ND	0.8
8		12/3/2020	ND	2.2	0.3	ND	ND	2.8
10	**DR**	12/3/2020	50.0	81.0	3.1	ND	ND	134.9
10	**SR**	12/3/2020	ND	1.4	ND	ND	ND	1.4
11		12/3/2020	2.7	370.0	7.5	ND	ND	382.7
12		12/3/2020	ND	7.4	9.0	ND	ND	17.0
5	**DR**	3/10/2021	1.9	4.3	ND	ND	ND	20.9
7		3/10/2021	ND	ND	ND	ND	ND	ND
8		3/10/2021	0.7	6.0	0.6	ND	ND	7.8
10	**DR**	3/10/2021	59.0	48.0	1.3	ND	ND	109.7
10	**SR**	3/10/2021	ND	0.9	ND	ND	ND	0.9
11		3/10/2021	3.0	510.0	10.0	ND	ND	526.4
12		3/10/2021	ND	3.3	11.0	0.5	ND	15.7
5	**DR**	6/17/2021	0.8	1.3	ND	ND	ND	7.0
7		6/17/2021	ND	ND	ND	ND	ND	2.8
8		6/17/2021	1.4	2.8	0.4	ND	ND	5.0
10	**DR**	6/17/2021	36.0	33.0	1.0	ND	ND	71.5
10	**SR**	6/17/2021	ND	0.9	ND	ND	ND	4.4
11		6/17/2021	ND	2.9	13.0	0.5	ND	17.2
12		6/17/2021	ND	2.3	9.7	1.0	ND	16.2
5	**DR**	9/28/2021	ND	ND	ND	ND	ND	ND
7		9/28/2021	ND	ND	ND	ND	ND	ND
8		9/28/2021	2.9	17.0	1.0	ND	ND	21.3
10	**DR**	9/28/2021	28.0	30.0	0.6	ND	ND	60.1
10	**SR**	9/28/2021	ND	1.7	ND	ND	ND	1.7
11		9/28/2021	2.6	180.0	3.9	ND	ND	187.3
12		9/28/2021	ND	3.1	10.0	ND	ND	13.6

Appendix C

Inspection Reports and AS/SVE Operations Log

Date:	**12/3/2020**	**Technician:**	**Marino**	**Recent Weather:**		**Sunny, 50°F**					
SVE System Line Readings	**Static Pressure on Gauge (iwc)**	**Differential Pressure from Pitot Tube (iwc)**	**Adjusted Line Flow (scfm)**	**Valve Position (% Open)**	**Air Sparge System Line Readings**	**Valve Position (% Open)**	**Flow (scfm)**	**SVE Flow Adjustment to Discharge Flow Rate**		**Vapor Probe**	**Vapor Probe Reading (iwc)**
SVE Line 1A				50%	**AS Line 1**						
SVE Line 1B				50%	**AS Line 2**						
SVE Line 2A				50%	**AS Line 3**						
SVE Line 2B				50%	**AS Line 4**						
SVE Line 3A				50%	**AS Line 5**						
SVE Line 3B				50%	**AS Line 6**						
SVE Line 4A				Closed	**AS Line 7**						
SVE Line 4B				Closed	**AS Line 8**						
Discharge Line					**AS Total Flow**			**Total Line Flow**	**Ratio for Flow Adj**		
Blower 1 ON/OFF:	ON	**Line A/B Valve:**		Both	**Operating Hours AS:**						
Blower 2 ON/OFF:	ON	**Operating Hours SVE-1:**		786.7	**Operating Hours SVE-2:**		787.3				
Notes:	**System off due to heavy rains; could not restart**										

Date:	**3/10/2021**	**Technician:**	**Levato**	**Recent Weather:**		**Sunny, 45°F**					
SVE System Line Readings	**Static Pressure on Gauge (iwc)**	**Differential Pressure from Pitot Tube (iwc)**	**Adjusted Line Flow (scfm)**	**Valve Position (% Open)**	**Air Sparge System Line Readings**	**Valve Position (% Open)**	**Flow (scfm)**	**SVE Flow Adjustment to Discharge Flow Rate**		**Vapor Probe**	**Vapor Probe Reading (iwc)**
SVE Line 1A	20	0.2	37.5	50%	**AS Line 1**			**55.6**			
SVE Line 1B	0	0.5	61.1	50%	**AS Line 2**			**90.7**			
SVE Line 2A	20	0.2	37.5	50%	**AS Line 3**			**55.6**			
SVE Line 2B	15	0.2	37.8	50%	**AS Line 4**			**56.1**			
SVE Line 3A	15	0.8	75.6	50%	**AS Line 5**			**112.1**			
SVE Line 3B	12	0.6	65.8	50%	**AS Line 6**			**97.5**			
SVE Line 4A	0.0	0.0		Closed	**AS Line 7**						
SVE Line 4B	0.0	0.0		Closed	**AS Line 8**						
Discharge Line	20.0	2.2	**315.2**	No Access	**AS Total Flow**			**Total Line Flow**	**Ratio for Flow Adj**		
Blower 1 ON/OFF:	ON	**Line A/B Valve:**		Both	**Operating Hours AS:**						
Blower 2 ON/OFF:	ON	**Operating Hours SVE-1:**		786.7	**Operating Hours SVE-2:**		787.3	**467.7**	**0.67**	**Assumed**	
Notes:	**Off on arrival, restarted**										

Date:	**6/17/2021**	**Technician:**	**Marino**	**Recent Weather:**							
SVE System Line Readings	**Static Pressure on Gauge (iwc)**	**Differential Pressure from Pitot Tube (iwc)**	**Adjusted Line Flow (scfm)**	**Valve Position (% Open)**	**Air Sparge System Line Readings**	**Valve Position (% Open)**	**Flow (scfm)**	**SVE Flow Adjustment to Discharge Flow Rate**		**Vapor Probe**	**Vapor Probe Reading (iwc)**
SVE Line 1A				50%	**AS Line 1**			**0.0**		**SG-6R**	
SVE Line 1B				50%	**AS Line 2**			**0.0**		**SV-4**	
SVE Line 2A				50%	**AS Line 3**			**0.0**		**SV-9**	
SVE Line 2B				50%	**AS Line 4**			**0.0**		**SG-5R**	
SVE Line 3A				50%	**AS Line 5**			**0.0**		**SG-8R**	
SVE Line 3B				50%	**AS Line 6**			**0.0**		**SG-7R**	
SVE Line 4A				Closed	**AS Line 7**						
SVE Line 4B				Closed	**AS Line 8**						
Discharge Line				No Access	**AS Total Flow**			**Total Line Flow**	**Ratio for Flow Adj**		
Blower 1 ON/OFF:	ON	**Line A/B Valve:**		Both	**Operating Hours AS:**						
Blower 2 ON/OFF:	ON	**Operating Hours SVE-1:**		2326.6	**Operating Hours SVE-2:**		2326.6	**0.0**			
Notes:	**System off on arrival; restarted**										

Date:	**9/28/2021**	**Technician:**	**Levato**	**Recent Weather:**		**Sunny, 45°F**					
SVE System Line Readings	**Static Pressure on Gauge (iwc)**	**Differential Pressure from Pitot Tube (iwc)**	**Adjusted Line Flow (scfm)**	**Valve Position (% Open)**	**Air Sparge System Line Readings**	**Valve Position (% Open)**	**Flow (scfm)**	**SVE Flow Adjustment to Discharge Flow Rate**		**Vapor Probe**	**Vapor Probe Reading (iwc)**
SVE Line 1A	20	0.5	53.0	50%	**AS Line 1**			**88.0**		**SG-6R**	0.026
SVE Line 1B	2	0.5	54.5	50%	**AS Line 2**			**90.4**		**SV-4**	0.014
SVE Line 2A	20	0.2	33.5	50%	**AS Line 3**			**55.6**		**SV-9**	0.020
SVE Line 2B	20	0.5	53.0	50%	**AS Line 4**			**88.0**		**SG-5R**	0.030
SVE Line 3A	12	0.5	53.6	50%	**AS Line 5**			**89.0**		**SG-8R**	0.042
SVE Line 3B	20	0.5	53.0	50%	**AS Line 6**			**88.0**		**SG-7R**	0.008
SVE Line 4A	0.0	0.0		Closed	**AS Line 7**						
SVE Line 4B	0.0	0.0		Closed	**AS Line 8**						
Discharge Line	20.0	2.0	**300.6**		**AS Total Flow**			**Total Line Flow**	**Ratio for Flow Adj**		
Blower 1 ON/OFF:	ON	**Line A/B Valve:**		Both	**Operating Hours AS:**						
Blower 2 ON/OFF:	ON	**Operating Hours SVE-1:**		3234.0	**Operating Hours SVE-2:**		3234.0	**499.0**	**0.60**		
Notes:	1B reading suspect; vapor probe readings suspect due to testing procedure confusion; procedures corrected										

Date:	**11/15/2021**	**Technician:**	**Rhodes**	**Recent Weather:**		**Cloudy 40**					
SVE System Line Readings	**Static Pressure on Gauge (iwc)**	**Differential Pressure from Pitot Tube (iwc)**	**Adjusted Line Flow (scfm)**	**Valve Position (% Open)**	**Air Sparge System Line Readings**	**Valve Position (% Open)**	**Flow (scfm)**	**SVE Flow Adjustment to Discharge Flow Rate**		**Vapor Probe**	**Vapor Probe Reading (iwc)**
SVE Line 1A	24	0.1	32.6	50%	**AS Line 1**			**39.1**		**SG-6R**	
SVE Line 1B	0	0.6	82.9	50%	**AS Line 2**			**99.3**		**SV-4**	**0.003**
SVE Line 2A	22	0.05	23.1	50%	**AS Line 3**			**27.7**		**SV-9**	
SVE Line 2B	20	0.1	32.8	50%	**AS Line 4**			**39.3**		**SG-5R**	
SVE Line 3A	18	0.6	80.7	50%	**AS Line 5**			**96.7**		**SG-8R**	
SVE Line 3B	18	0.3	57.1	50%	**AS Line 6**			**68.3**		**SG-7R**	
SVE Line 4A	0.0	0.0		Closed	**AS Line 7**					**MW-7**	**0.002**
SVE Line 4B	0.0	0.0		Closed	**AS Line 8**						
Discharge Line	36.0	2.0	**309.3**		**AS Total Flow**			**Total Line Flow**	**Ratio for Flow Adj**		
Blower 1 ON/OFF:	ON	**Line A/B Valve:**		Both	**Operating Hours AS:**						
Blower 2 ON/OFF:	ON	**Operating Hours SVE-1:**		3913.2	**Operating Hours SVE-2:**		3913.8	**370.5**	**0.83**		
Notes:	**System off on arrival, Low Vac tripped; Readings before broken Pipe closure; 1B broken and open to atmosphere =>tripping Low Vac**										

Date:	**11/15/2021**	**Technician:**	**Rhodes**	**Recent Weather:**		**Cloudy 40**					
SVE System Line Readings	**Static Pressure on Gauge (iwc)**	**Differential Pressure from Pitot Tube (iwc)**	**Adjusted Line Flow (scfm)**	**Valve Position (% Open)**	**Air Sparge System Line Readings**	**Valve Position (% Open)**	**Flow (scfm)**	**SVE Flow Adjustment to Discharge Flow Rate**		**Vapor Probe**	**Vapor Probe Reading (iwc)**
SVE Line 1A	30	0.15	40.6	50%	**AS Line 1**			**47.4**		**SG-6R**	
SVE Line 1B		0	0.0	90%	**AS Line 2**			**0.0**		**SV-4**	**0.022**
SVE Line 2A	30	0.15	40.6	50%	**AS Line 3**			**47.4**		**SV-9**	
SVE Line 2B	32	0.15	40.5	50%	**AS Line 4**			**47.3**		**SG-5R**	
SVE Line 3A	20	0.8	95.3	50%	**AS Line 5**			**111.3**		**SG-8R**	
SVE Line 3B	24	0.7	88.6	50%	**AS Line 6**			**103.4**		**SG-7R**	
SVE Line 4A	0.0	0.0		Closed	**AS Line 7**					**MW-7**	**0.035**
SVE Line 4B	0.0	0.0		Closed	**AS Line 8**						
Discharge Line	44.0	1.9	**305.7**		**AS Total Flow**			**Total Line Flow**	**Ratio for Flow Adj**		
Blower 1 ON/OFF:	ON	**Line A/B Valve:**		Both	**Operating Hours AS:**						
Blower 2 ON/OFF:	ON	**Operating Hours SVE-1:**		3913.2	**Operating Hours SVE-2:**		3913.8	**356.8**	**0.86**		
Notes:	**After broken Pipe 1B closed at break; (valve is frozen); after SV-4 cleaned out**										

Annual Site Inspection
353 McKibbin Street
Brooklyn, New York

Date: **11/15/2021** **Weather:** **40 degrees and Cloudy**

Inspector(s): **John Rhodes** **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-7 & MW-8 are in good condition.**

Monitoring **Monitoring wells now accessible and protected.**
Ponding: **Ponding water was evident based on the extent of mud.**
Air Sparging **Air Sparging was off**
SVE System **SVE System was off upon arrival. Broken SVE Line discovered and tested. Break cause low pressure throughout system. Line was capped as valve was frozen. See operating logs.**
Cover System **Cover remains at original placed thickness and has not been penetrated. However, site is depressed so rainwater and snow melt infiltrate through the cover. Muddy conditions are extensive.**
Equip. **Shed is in good condition.**
Ramps **Ramp is in good condition.**
Equipment
Blower No. 1 **3913.8**
Blower No. 2 **3913.2**
Compressor **off**

See Operations log for details

Appendix D
Site Photographs

Broken Pipe SVE 1B

Automatic System Status Warning

SVE Line 1B: front pipe to right; position of frozen valve shown

Appendix E

IC/EC Certification

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. **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: November 02, 2020 to November 02, 2021

	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? Commercial and Industrial	☒	☐
7. Are all ICs 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. 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.

3083-30	Bogart Plaza LLC	O&M Plan Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management 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.

Box 4

Description of Engineering Controls

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

Parcel	Engineering Control
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; 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.	
3083-30	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; 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 Engineering Control 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. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The 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, BROOKLYN NY 11206
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

12/1/2021
Date

EC CERTIFICATIONS

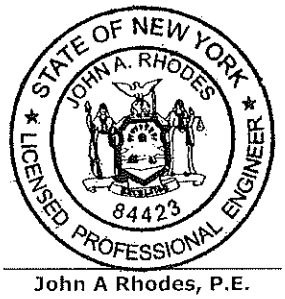
Box 7

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 John Rhodes (print name) at 5 Bedford Place, Morristown, NJ (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

John A Rhodes, P.E.
NYSPE No. 84423

12/2/2021
Date