PERIODIC REVIEW REPORT
2019/2020

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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December 10, 2020

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;

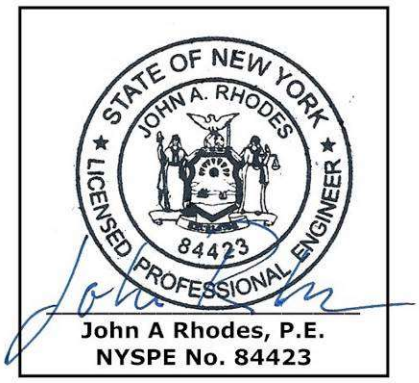
(c) Nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for this control;

(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 12/10/2020



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1.0 INTRODUCTION AND EXECUTIVE SUMMARY

John Rhodes P.E. prepared this Periodic Review Report ("PRR") and IC/EC Certification for the 2019/2020 period after implementation of corrective measures in accordance with the approved Corrective Measures Work Plan dated June 30, 2020 (CMWP). The IC/EC Certification covers May 1, 2019 through November 2, 2020.

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. At the end of May 2020, Certification could not be made due to damage to groundwater monitoring wells and vapor probes. The July 30, 2020 CMWP was implemented (see Corrective Measures Report dated October 8, 2020) returning the monitoring network to effective conditions. This PRR includes the data obtained after completion of the corrective measures.

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.
- The soil vapor extraction (SVE) system continues to prevent off-site migration of contaminated soil vapors and therefore is effective and protective.
- 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 SVE system shutdowns after significant rain events due to rising groundwater inundating SVE piping. A remote warning system for Site personnel and watchmen is recommended and being developed. Additionally, a preemptive response to forecasted rain events comprised of a Site inspection after a significant rain event is recommended and being implemented. Further recommendations will be made once Bogart Plaza is able to pave or redevelop the property.

2.0 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.

3.0 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. Additionally, the poor drainage and dirt cover create muddy conditions that damaged and destroyed monitoring wells and vapor probes. Recent corrective measures alleviated the impact on the monitoring network.
- **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). The AS/SVE system operated briefly under the prior owner's management then failed. Bogart returned the system to an effective operating status in late 2014/early 2015 after which it performed as originally intended into March 2016. In March 2016, the AS component of the system failed. Evaluation of conditions before and after AS failure demonstrated that the AS portion of the system was no longer needed; and therefore, with the approval of the NYSDEC, the AS component of the system was decommissioned. The SVE portion of the AS/SVE system continued to operate until March 8, 2017, when with the NYSDEC approval it was intentionally shut down for the purposes of evaluating potential discontinuation of the system. Due to a rebound in vapor concentrations, the SVE system was returned to service on May 17, 2018. The SVE has remained operational in the 2019/2020 review period with temporary shutdowns caused by high groundwater or for periodic maintenance.
- **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 are adequate.

The Corrective Measures Report demonstrates that the updated vapor monitoring network is effective and that the SVE system continues to meet the objective of preventing soil vapor contaminants from leaving the property. Pneumatic testing using the newly installed vapor probes with SVE system operating at 300 SCFM show an average zone of influence of 65 feet from SVE pipe (see the CMR). This capture is also reflected in soil vapor concentrations. Figure 5 is a spider map of soil vapor testing results for the August 2019 and 2020 sampling and testing events. Vapor sample

and testing results for key compounds are tabulated in Table 4 in Appendix B. Appendix C contains system performance logs in which off-Site influence of the SVE system is periodically checked.

Vapor concentrations fluctuate with variable conditions but are generally decreasing. Figure 1 is a chart of TCE concentrations in soil vapor probes of which SV-4 and SV-9 are located off-Site.

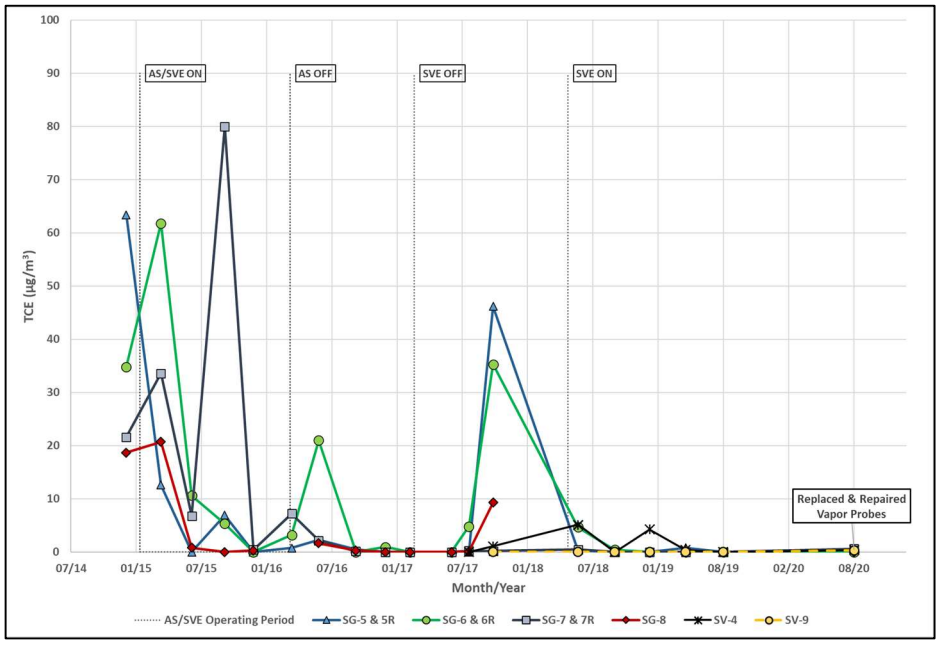


Figure 1 TCE in Soil Vapor

Groundwater flow and contaminant migration is to the north toward Boerum Street. Currently the Site is depressed below the level of the adjacent streets. There is no drainage in the depression, and in turn, no storm water run-off. All water falling on the Site infiltrates into the ground creating differential groundwater flow potentials that are resolved in the deeper groundwater zones. The resultant flow is to the north. Figure 7 provides groundwater contours for August 6, 2020 using the newly installed replacement wells. The general flow is consistent with prior analyses indicating flow from the “TCE hot spot” to the north toward Boerum Street.

The remaining contaminant of concern in groundwater is principally TCE, with appearances of PCE and 1,2 cis-DCE. Figure 6 in Appendix A provides a spider map of the August 1, 2019 and August 6, 2020 groundwater sampling and testing events for the key remaining contaminants.

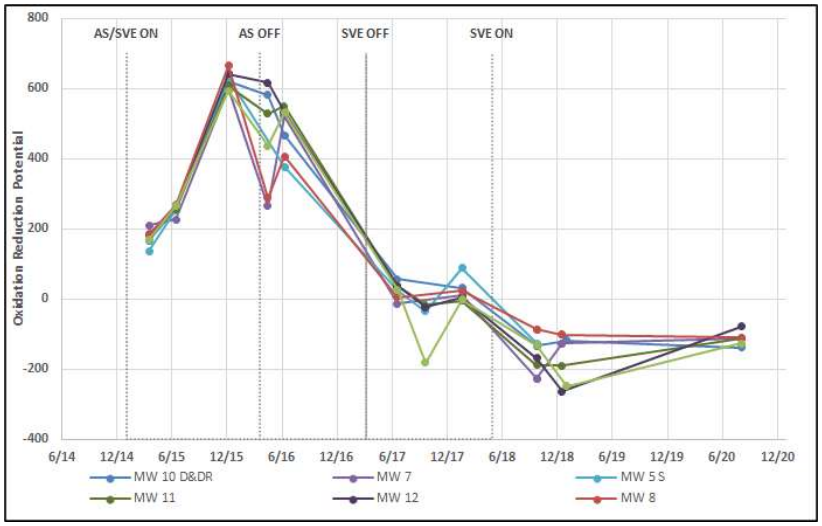


Figure 2 Oxidation Reduction Potential

The air sparging system effectively introduce dissolved oxygen into the groundwater which was enough to eliminate or reduce below standards the non-chlorinated (petroleum related) contaminants. The non-chlorinated contaminants readily degrade with elevated dissolved oxygen at this site. By increasing the dissolved oxygen in the groundwater; however, the AS system also reduced the degradation of chlorinated contaminants by dehalogenation that requires an anaerobic environment. Figure 2 shows the increase in the oxidation potential (reflecting an increase in dissolved oxygen) during the operation of the AS system, and the return to low oxidation potential after the AS system was turned off. The August 2020 data are consistent with this historic trend in dissolved oxygen.

Contaminant Migration

In August 2020, the highest concentrations of TCE were in MW-11 (280 µg/l) which is near the source, the "hot spot" identified in Remedial Investigation and excavated as part of the Remedial Action. This value is elevated compared to concentrations in 2019. Lower concentrations of TCE were detected in the newly installed monitoring well MW-10DR downgradient of MW-11 (170 µg/l). MW-5DR was successfully relocated to the outer edge of the plume resulting in a sample concentration of TCE of 16 µg/l. Sentinel well MW-7 had no detectable amounts of TCE.

PCE concentrations were approximately 1/10th of the respective TCE concentrations in MW-11 and MW-10-DR (20 and 3.5 µg/l, respectively). PCE was less than half the TCE concentration in MW-5DR (6.7 µg/l). PCE was not detected in MW-7.

Although erratic, the relative proportion of cis-1,2 DCE to TCE has increased with time and distance downgradient from the source area around MW-11, indicating degradation parent compound PCE and TCE; Vinyl chloride concentrations were not detected.

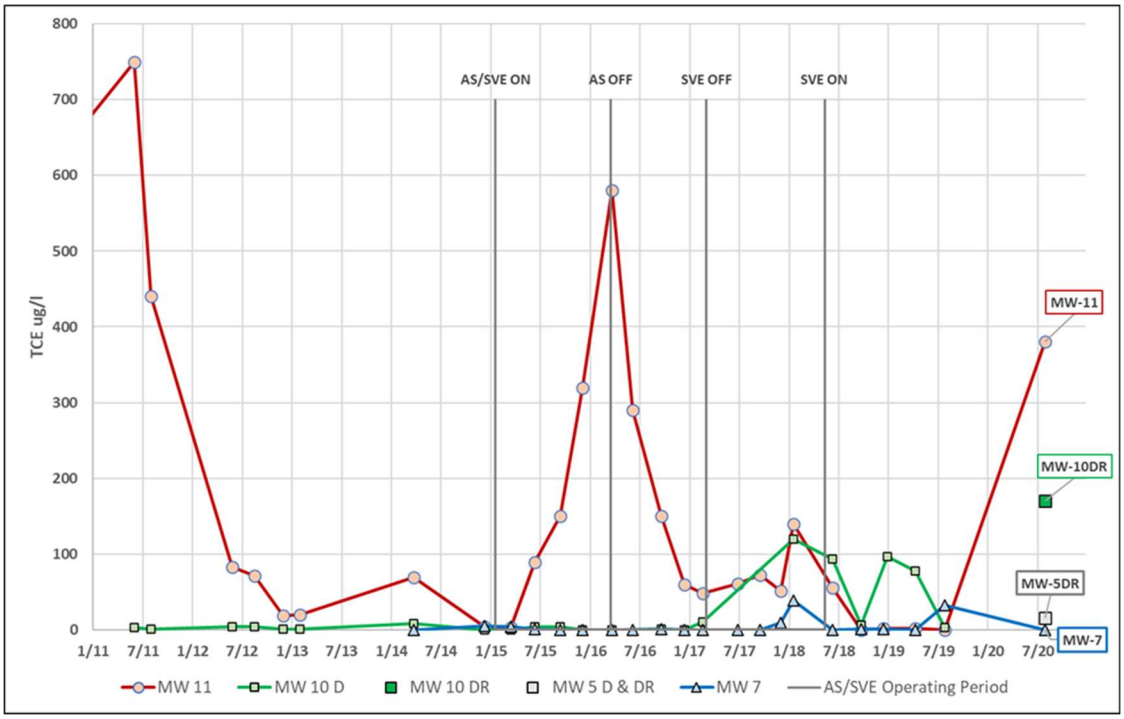


Figure 3 TCE in Groundwater

4.0 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 4 in Appendix A.

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

<u>AS/SVE system</u>
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 2019/2020 reporting period.

Operation and maintenance of the above ECs
The SVE was operated and maintained throughout the reporting period.

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 the first part of this reporting period in substantial compliance with the SMP as modified by the NYSDEC. However, thereafter the monitoring network failed thereby requiring corrective measures. With the corrective measures implemented, monitoring is again in substantial compliance with the SMP.

The monitoring system 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, and (3) the nature of the operations of the buyer. The Site transferred to Adam's European had a sand cover at an elevation several feet below the surrounding properties, and therefore, drainage was inadequate. This resulted in high infiltration rates and muddy conditions after rain events that covered monitoring probes with sedimentation. Additionally, the monitoring locations were poorly located and protected and subject to Adam's European's stockpiling and relocating of scaffolding steel and other equipment required for their business.

As we implemented the SMP monitoring plan, monitoring points were often lost or found damaged. This situation became acute in November 2019. To few monitoring wells and vapor probes were available for monitoring. In December and January, an attempt was made to resurrect the existing monitoring network but without success. Further attempts were prevented by Covid-19.

Our plan has been to replace the monitoring network once Bogart either repaved the Site for its operations or redeveloped it for other purposes; and therefore, the extended attempt to resurrect the monitoring network in late 2019 and early 2020. With the advent of Covid-19, the necessary changes to the Site for Bogart's operations were once again delayed. The decision was therefore made to propose the new monitoring network prior to modifications for business purposes.

The corrective measures implemented in August 2020 addressed the failure of the prior monitoring network by installing wells and vapor probes that could be protected from the dirt cover, poor drainage due to the depressed yard, and heavy material movement on the Site.

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 in the first part of this reporting period; however, thereafter the monitoring network failed thereby requiring corrective measures. With this PRR, reporting is again in substantial compliance with the SMP.

Protection of on-site environmental monitoring devices
Monitoring devices included groundwater monitoring wells and soil vapor probes were maintained in compliance with the SMP as modified by the NYSDEC in the first part of this reporting period, but with difficulties related to the depressed nature of the Site and related sedimentation in the vicinity

of monitoring wells, as well as construction activities off-Site. Thereafter, these difficulties overwhelmed the maintenance activities and caused the failure of the monitoring network. Corrections and improvements were made in accordance with the CMWP. Some facilities were relocated within the property fence and on a protective shelf thereby protecting them from both on and off-site activities. Bollards and protective steel casings were more strategically employed to protect on-site facilities. Some monitoring wells were relocated out of the main traffic areas and some closer to the contaminant plume. See the CMR for details.

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 paving of the property discussed with the NYSDEC in 2018 was delayed while the owner entertained a proposal for the purchase of the property. With the withdrawal of this purchase proposal, the owner prepared to pave the property for the continued use as construction materials storage. However, delays have been caused by the obtaining of a discharge permit from the NYCDEP, the lack of temporary storage areas to be used while the Site is improved, and restrictions due to the Covid-19 crisis. Therefore, and with the failure of the monitoring network in this reporting period, a corrective action was implemented to replace and upgrade the monitoring network in advance of the Site improvements.

No further recommendations are being made at this time. Recommendations will be made once Site improvements become practicable.

4.3 IC/EC Certification

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

5.0 MONITORING PLAN COMPLIANCE REPORT

5.1 Monitoring Plan Components and Compliance

In summary, the components of the Monitoring Plan in the SMP as modified by later documents are:

- Annual Site-wide inspection and 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, off site probes SV-9 and SV-4 were located, refurbished, and sampled during the SVE evaluation in 2017/2018 and have been included in the soil vapor monitoring program on a voluntary basis.

5.2 Corrective Measures

Groundwater monitoring wells were evaluated, repaired, or replaced in accordance with the with the SMP and approved CMWP. Wells MW-10DR, MW-10SR and MW-5DR were replaced and relocated. These well relocations were done to improve the monitoring by relocating wells closer to the center flow line of the contaminant plume. The relocated wells were screened to be consistent with the wells they replaced but modified as required by groundwater elevations and drilling constraints. Wells MW-7, MW-8, MW-11 and MW-12 were evaluated, repaired as necessary, and returned to service.

To prevent damage to the repaired and replaced monitoring points on-Site installations were protected by concrete filled bollards; and where appropriate, protective steel (raised) casings. Off-Site monitoring points were repaired with upgraded flush mounted protective boxes. Off-Site road construction has been completed for these areas, so the points should not be damaged by further off-Site construction.
Replacement wells included ten-foot, 2-inch diameter, 0.01-inch slot polyvinyl chloride (PVC) screens and 2-inch, Schedule 40 PVC risers. The annulus around all wells was filled with No. 1 Morie sand to approximately three feet above the top of the screen, followed by 2-feet of bentonite above the sand. The annulus above the bentonite was grouted to the surface protective casing or well box. The wells were developed via surge block and the removal of a minimum of three well volumes of water following installation.

Vapor probes SG-5, SG-6 and SG-7 were relocated to improve the monitoring of off-Site migration and for better protection. The relocated probes were placed on a protective shelf that surrounds a portion of the Site. The vapor probes were completed with steel risers set in concrete grout to further protect them. Vapor probes SG-8, SV-4 and SV-9 were evaluated and repaired.

Replacement vapor probes were installed to a depth of five feet below grade and constructed of 1-inch diameter, 0.010-inch slot schedule 40 PVC screen two feet in length in accordance with NYSDOH guidelines. The annulus around the wells was filled with No. 1 Morie sand to approximately one foot above the top of the screen, followed by bentonite grout to the surface. All joints were flush threaded with no glue joints.

Figure 4 illustrates the current monitoring well and vapor probe locations. Figure 5 and Figure 6 show both current and prior monitoring well and vapor probe locations. The CMR provides boring logs, well and vapor probe construction details, procedures for well abondonment, and development procedures. All wells and vapor probes were surveyed by a NYS licensed surveyor.

5.3 Summary of Monitoring Completed

<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. However, muddy conditions in the dirt protective layer placed on top of the cover system and poor drainage remain a problem.

AS/SVE System Inspection

The AS system remains off with NYSDEC approval. The SVE system was monitored daily except weekends by on-Site personnel. The number of professional inspections has been reduced both prior to and during the Covid-19 pandemic (see Appendix C for inspection reports and SVE operational logs).

Soil Vapor Monitoring

Soil vapor monitoring was conducted on August 1, 2019 before the failure of the monitoring network. With the corrective measures, soil vapor samples were obtained in August 2020. 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 7 provides groundwater contours obtained on August 6, 2020 that show the general flow toward the north consistent with prior groundwater flow conclusions.

Groundwater Sampling and Testing

Groundwater samples were obtained on August 1, 2019 and August 6, 2020 and evaluated by 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 6. Laboratory ASP Category B results and the Data Usability Summary Report are provided under separate cover.

5.4 Conclusions and Comparison with Remedial Objectives

The AS/SVE system has met the objective of preventing soil vapor contaminants from leaving the property. Pneumatic testing demonstrates capture of soil vapors throughout this reporting period. Sampling and testing in August 2020 confirm the effectiveness of the SVE.

TCE and related contaminant concentrations are variable, but generally decreasing in groundwater. The degradation of the TCE has increased.

The soil cap remains effective. Institutional controls remain in place and effective.

A CMWP was required this reporting period to correct the failure of the monitoring network. Corrections were made and effective monitoring recommenced in August 2020.

5.5 Recommendations/Proposals

No further recommendations are being made at this time. Recommendations will be made once Site improvements become practicable.

6.0 OPERATIONS & MANAGEMENT PLAN COMPLIANCE REPORT

The SVE operated throughout this reporting period with down times for high groundwater levels and general maintenance. Pneumatic testing in August 2020 using the newly installed vapor probes demonstrated an average influence of 0.01 iwc at 65 feet from SVE perforated pipe, thereby creating a zone of influence beyond the boundaries of the site. The zone of influence is demonstrated by negative differential pressures (induced vacuums) in vapor probes (see the CMR for further details).

We continue to have difficulty with the control system for the SVE. Water inundating the SVE perforated piping continues to be a problem that can overwhelm the water knock-out tank and reduce SVE negative pressures (vacuums) resulting in the automatic system shut-downs. The SVE is restarted after water levels recede. Other components periodically fail such as the time recorders which were recently replaced.

7.0 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.

7.3 Recommendations, Proposals and Future Submittals

The SVE system shutdowns after significant rain events due to rising groundwater inundating SVE piping. A remote warning system for Site personnel and watchmen is recommended and being developed. Additionally, a preemptive response to forecasted rain events comprised of a Site inspection after a significant rain event is recommended and being implemented. Further recommendations will be made once Bogart Plaza is able to pave or redevelop the property.

The remote warning system for SVE shutdown is best done at the Site as personnel are there who can diagnose the problem, turn the system back on if shutdown reasons are minor, and advise other higher level technical parties if not. An automatic warning light is being installed to warn Site personnel that the SVE has shut-off. As the Site is nearly continuously occupied by laborers during

work hours or watchmen during off hours, the shutdown warning will be reliably communicated to the people who can react most quickly.

Disruption is generally caused by high groundwater levels inundating the SVE piping. This condition results from rainfall and relatively high infiltration in the suppressed yard compared to surrounding areas. To address this problem, rain events will be monitored, and Site visits made after a significant rain event to check the status of the system.

Note that when shutdown of the SVE system is caused by high groundwater, the system cannot be restarted until groundwater levels have receded and SVE piping is drained.

APPENDIX A

FIGURES

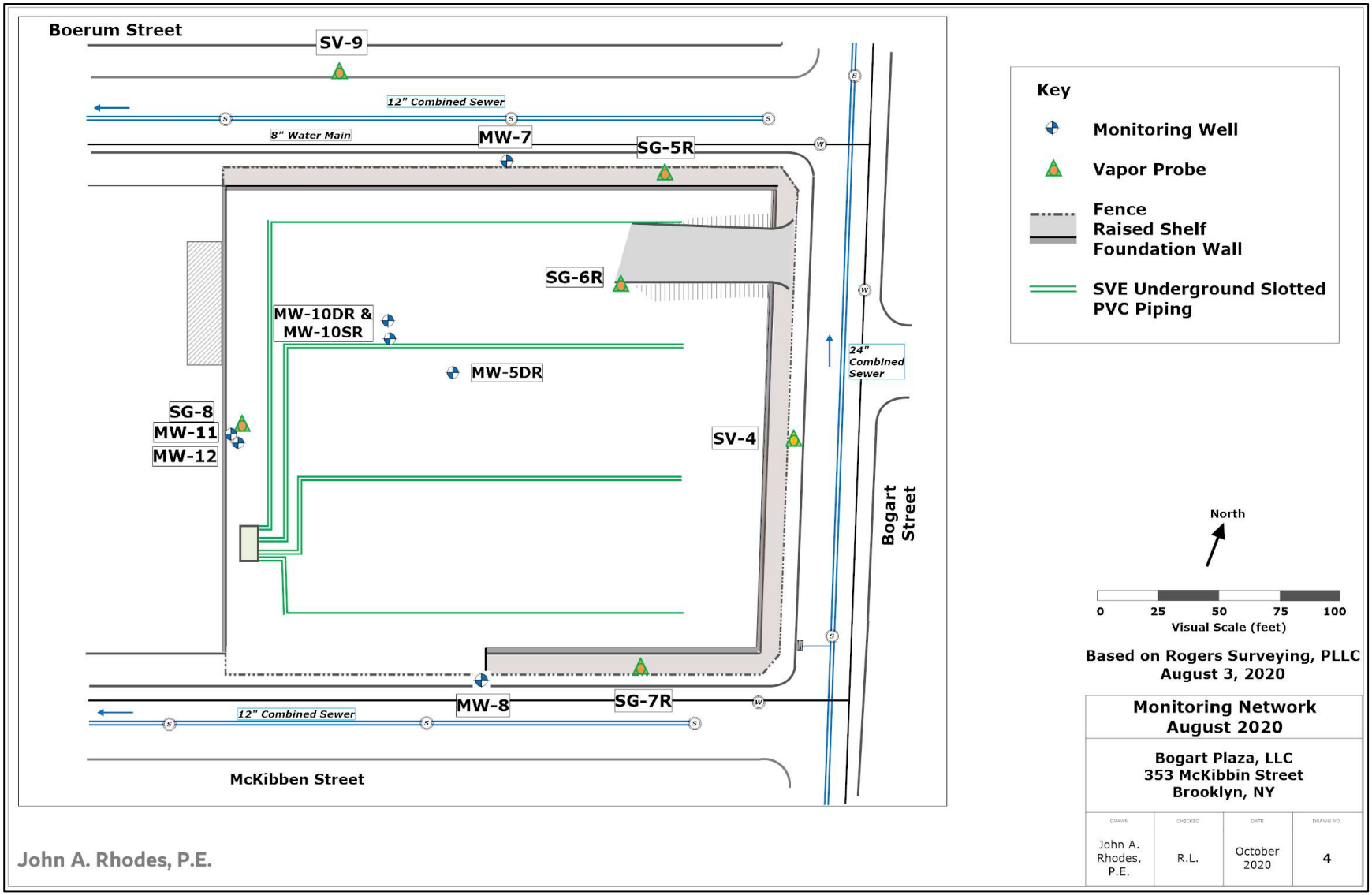
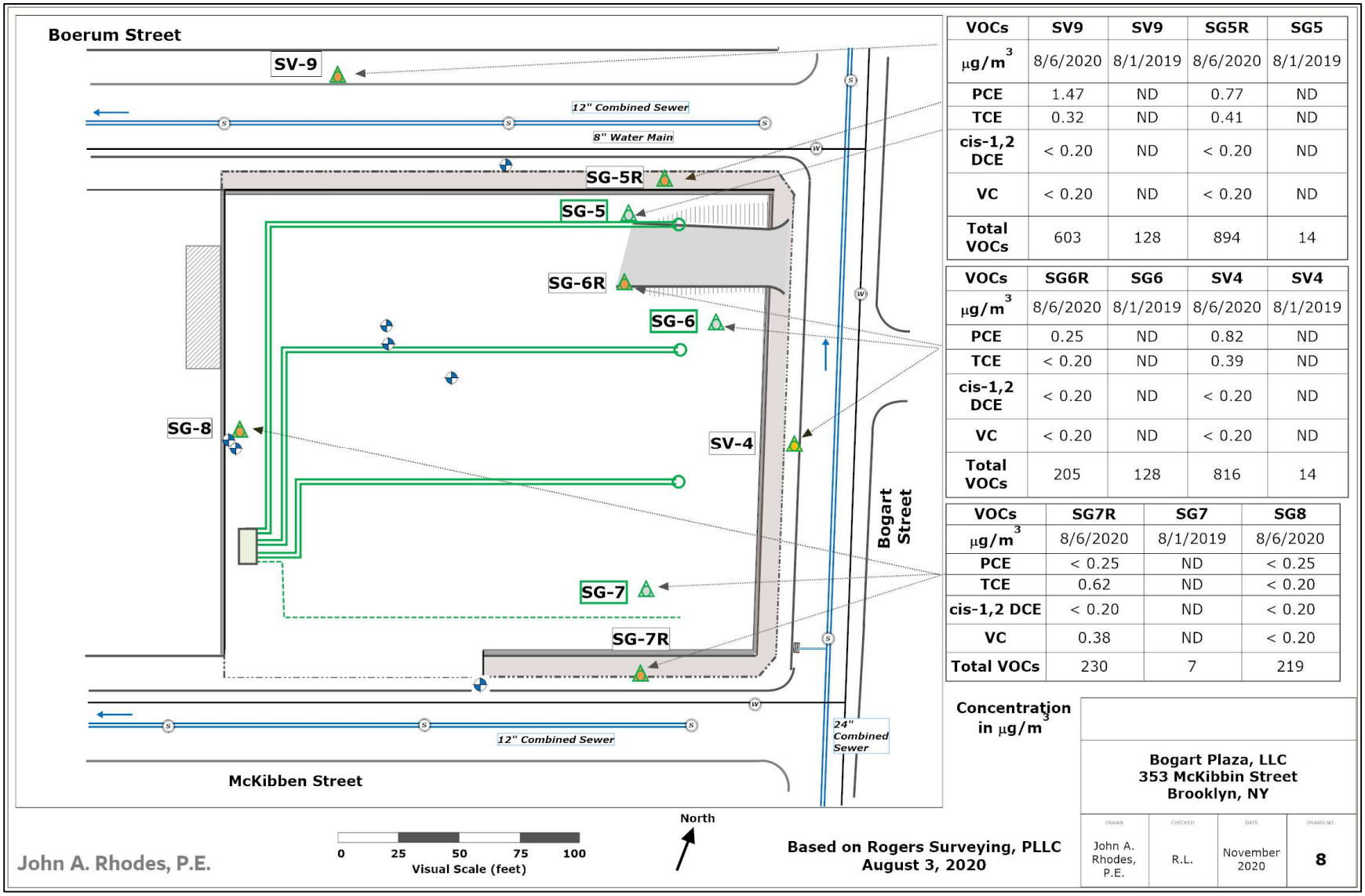


Figure 4 Site Plan & Monitoring Network Updated August 2020



VOCs	SV9	SV9	SG5R	SG5
µg/m^3	8/6/2020	8/1/2019	8/6/2020	8/1/2019
PCE	1.47	ND	0.77	ND
TCE	0.32	ND	0.41	ND
cis-1,2 DCE	< 0.20	ND	< 0.20	ND
VC	< 0.20	ND	< 0.20	ND
Total VOCs	603	128	894	14

VOCs	SG6R	SG6	SV4	SV4
µg/m^3	8/6/2020	8/1/2019	8/6/2020	8/1/2019
PCE	0.25	ND	0.82	ND
TCE	< 0.20	ND	0.39	ND
cis-1,2 DCE	< 0.20	ND	< 0.20	ND
VC	< 0.20	ND	< 0.20	ND
Total VOCs	205	128	816	14

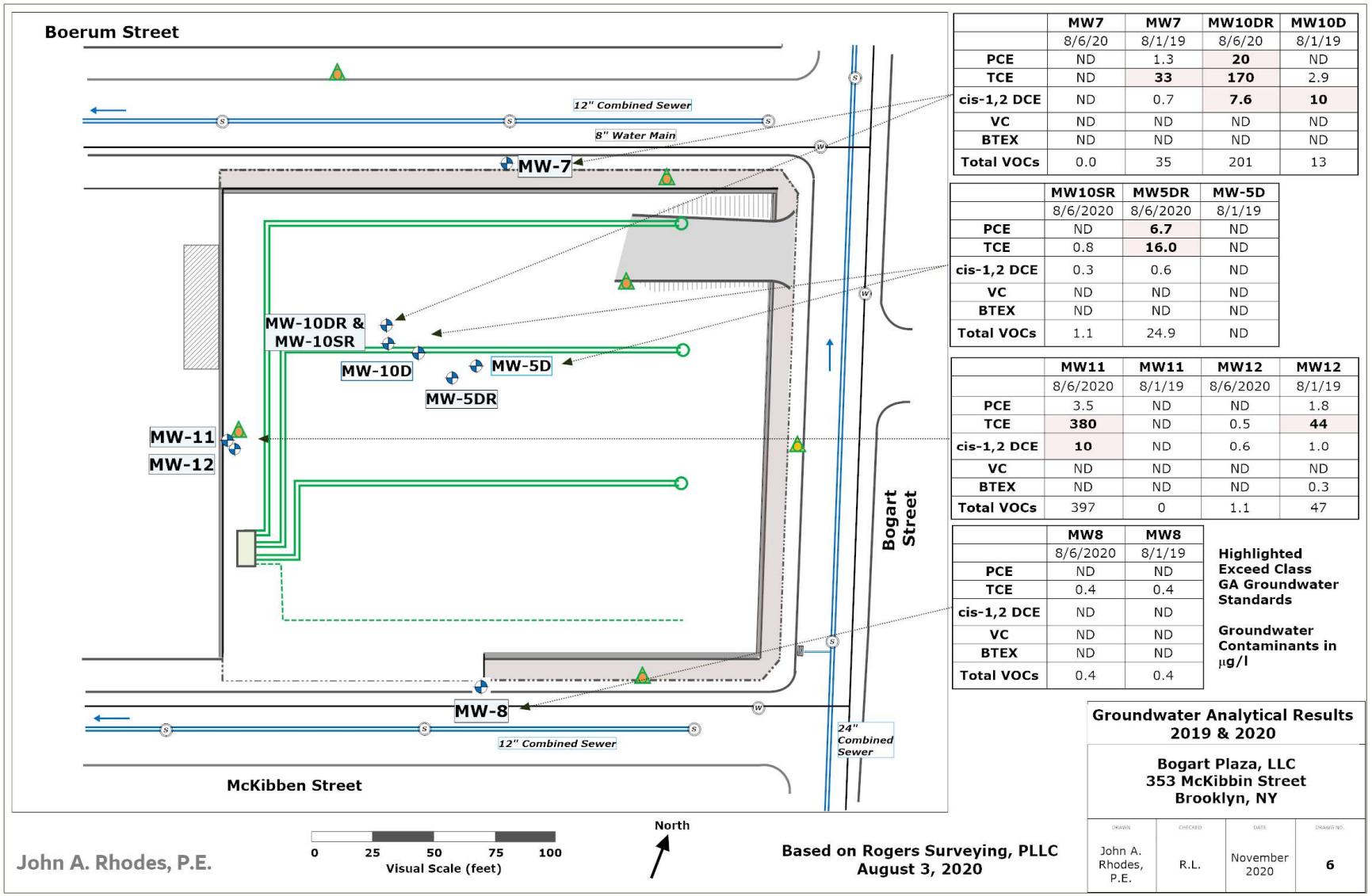
VOCs	SG7R	SG7	SG8
µg/m^3	8/6/2020	8/1/2019	8/6/2020
PCE	< 0.25	ND	< 0.25
TCE	0.62	ND	< 0.20
cis-1,2 DCE	< 0.20	ND	< 0.20
VC	0.38	ND	< 0.20
Total VOCs	230	7	219

Concentration in µg/m^3

Bogart Plaza, LLC
353 McKibbin Street
Brooklyn, NY

DRAWN	CHECKED	DATE	DRAWING NO.
John A. Rhodes, P.E.	R.L.	November 2020	8

Figure 5 Soil Vapor Analytical Results August 2019 & 2020



	MW7	MW7	MW10DR	MW10D
	8/6/20	8/1/19	8/6/20	8/1/19
PCE	ND	1.3	**20**	ND
TCE	ND	**33**	**170**	2.9
cis-1,2 DCE	ND	0.7	**7.6**	**10**
VC	ND	ND	ND	ND
BTEX	ND	ND	ND	ND
Total VOCs	0.0	35	201	13

	MW10SR	MW5DR	MW-5D
	8/6/2020	8/6/2020	8/1/19
PCE	ND	**6.7**	ND
TCE	0.8	**16.0**	ND
cis-1,2 DCE	0.3	0.6	ND
VC	ND	ND	ND
BTEX	ND	ND	ND
Total VOCs	1.1	24.9	ND

	MW11	MW11	MW12	MW12
	8/6/2020	8/1/19	8/6/2020	8/1/19
PCE	3.5	ND	ND	1.8
TCE	**380**	ND	0.5	**44**
cis-1,2 DCE	**10**	ND	0.6	1.0
VC	ND	ND	ND	ND
BTEX	ND	ND	ND	0.3
Total VOCs	397	0	1.1	47

	MW8	MW8
	8/6/2020	8/1/19
PCE	ND	ND
TCE	0.4	0.4
cis-1,2 DCE	ND	ND
VC	ND	ND
BTEX	ND	ND
Total VOCs	0.4	0.4

Highlighted Exceed Class GA Groundwater Standards

Groundwater Contaminants in µg/l

Groundwater Analytical Results 2019 & 2020

Bogart Plaza, LLC
353 McKibbin Street
Brooklyn, NY

DRAWN	CHECKED	DATE	DRAWG NO.
John A. Rhodes, P.E.	R.L.	November 2020	6

Figure 6 Groundwater Analytical Results August 2019 & 2020

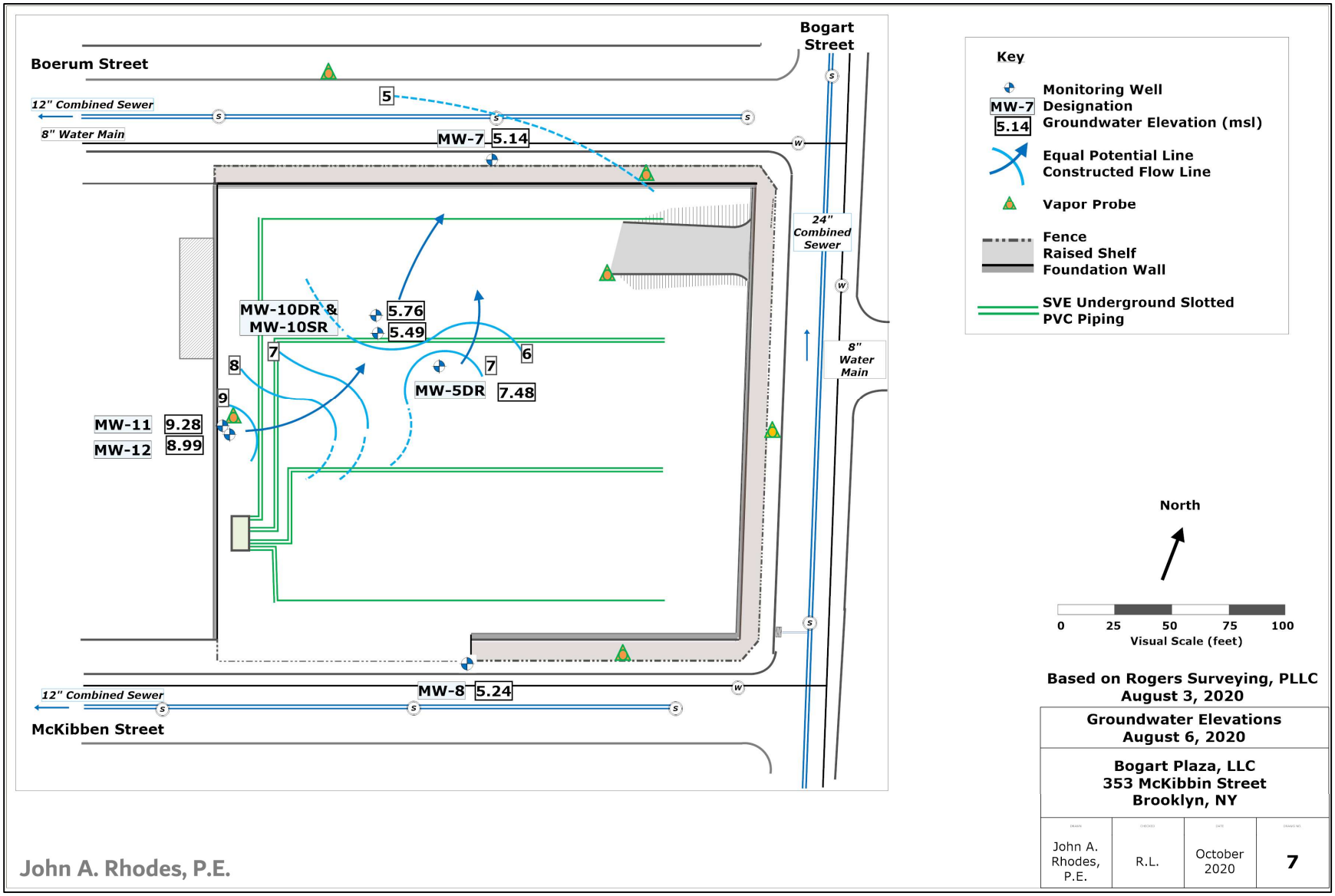


Figure 7 Groundwater Contours August 6, 2020

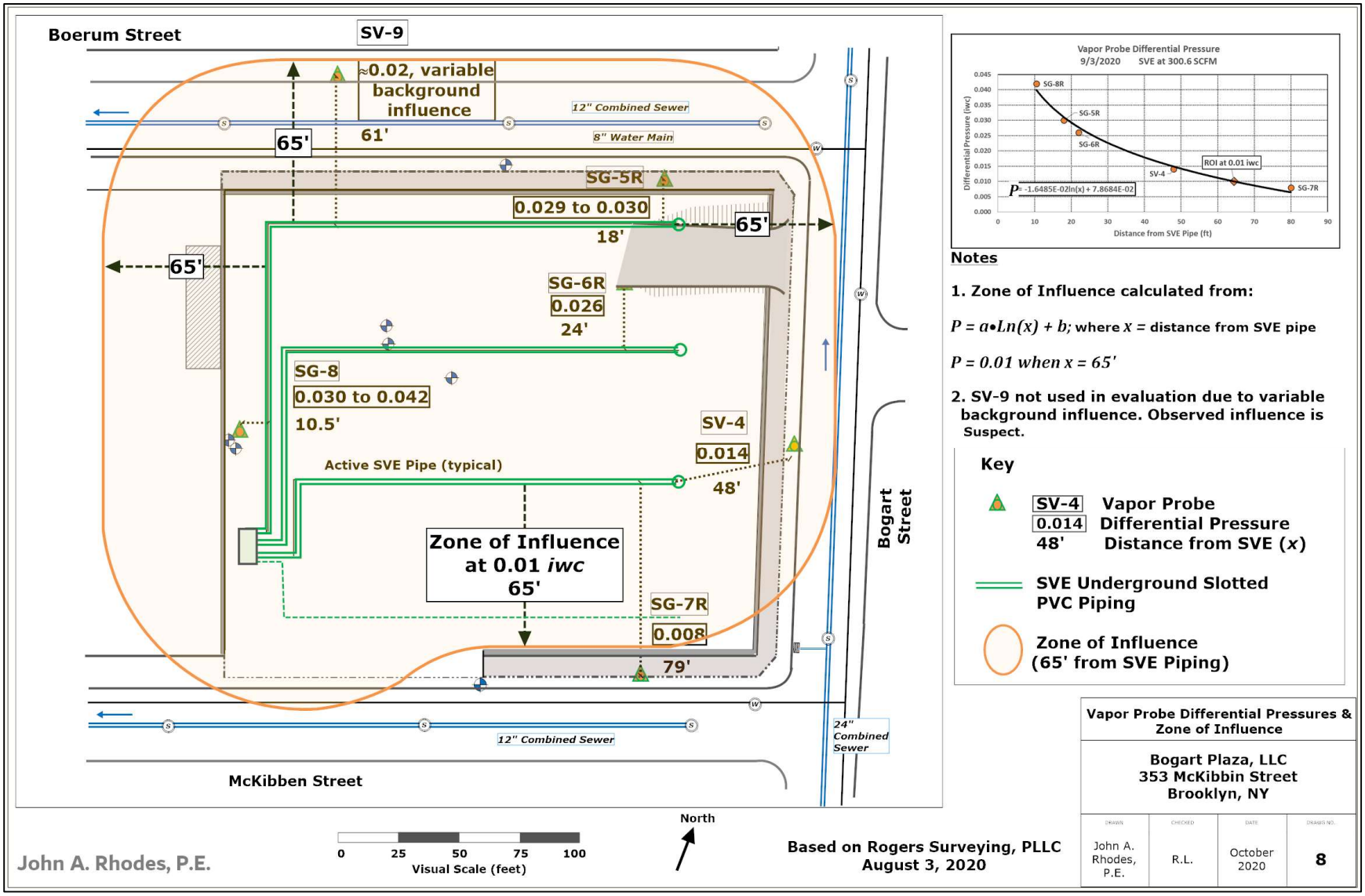


Figure 8 Vapor Probe Differential Pressure & Extent of Influence

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 8/6/2020

Well	No.		Date	Reference Elevation (ft MSL)	Depth to GW (ft)	GW Elevation (ft MSL)	Field Technician's Notes
MW	5	DR	8/6/2020	18.42	10.94	7.48	New Well
MW	7		8/6/2020	17.05	11.91	5.14	Repaired & Resurveyed
MW	8		8/6/2020	17.33	12.09	5.24	Repaired & Resurveyed
MW	10	SR	8/6/2020	14.47	8.98	5.49	New Well
MW	10	DR	8/6/2020	14.61	8.85	5.76	New Well
MW	11		8/6/2020	20.68	11.40	9.28	Repaired & Resurveyed
MW	12		8/6/2020	20.34	11.35	8.99	Repaired & Resurveyed

Table 4 PCE, TCE, cis-1,2 DCE, VC & Total VOCs in Soil Vapor Samples (µg/m^3)

Probe	No.	Date	PCE	TCE	cis-1,2 DCE	VC	Total VOCs
SV	4	8/6/2020	0.82	0.39	ND	ND	816
SV	5	8/6/2020	0.77	0.41	ND	ND	894
SV	6	8/6/2020	0.25	ND	ND	ND	205
SV	7	8/6/2020	ND	0.62	ND	0.38	230
SV	8	8/6/2020	ND	ND	ND	ND	219
SV	9	8/6/2020	1.47	0.32	ND	ND	603
SV	4	8/1/2019	ND	ND	ND	ND	9.6
SG	5	8/1/2019	ND	ND	ND	ND	14.0
SG	6	8/1/2019	ND	ND	ND	ND	20.5
SG	7	8/1/2019	ND	ND	ND	ND	7.6
SV	9	8/1/2019	ND	ND	ND	ND	127.6
SV	4	4/16/2019	0.4	1.6	ND	ND	64.7
SG	5	4/16/2019	0.8	ND	ND	ND	131.1
SG	6	4/16/2019	ND	ND	ND	ND	62.6
SG	7	4/16/2019	ND	ND	ND	ND	29.3
SV	9	4/16/2019	ND	ND	ND	ND	28.7
SV	4	1/4/2019	2.5	4.3	ND	ND	44.5
SG	5	1/4/2019	ND	ND	ND	ND	77.2
SG	6	1/4/2019	0.3	ND	ND	ND	52.3
SG	7	1/4/2019	0.5	ND	ND	ND	27.4
SV	9	1/4/2019	1.8	ND	ND	ND	14.5

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

MW	#	S/D	Date	PCE	TCE	cis-1,2 DCE	VC	BTEX	Total VOCs
MW	5	DR	8/6/2020	6.7	16.0	0.6	ND	ND	24.9
MW	7		8/6/2020	ND	ND	ND	ND	ND	0.0
MW	8		8/6/2020	ND	0.4	ND	ND	ND	0.4
MW	10	DR	8/6/2020	20.0	170.0	7.6	ND	ND	201.4
MW	10	SR	8/6/2020	ND	0.8	0.3	ND	ND	1.1
MW	11		8/6/2020	3.5	380.0	10.0	ND	ND	397.1
MW	12		8/6/2020	ND	0.5	0.6	ND	ND	1.1
MW	5	D	8/1/2019	ND	ND	ND	ND	ND	ND
MW	7		8/1/2019	1.3	33	0.73	ND	ND	35.4
MW	8		8/1/2019	ND	0.36	ND	ND	ND	0.4
MW	10	D	8/1/2019	ND	2.9	10	ND	ND	12.9
MW	11		8/1/2019	ND	ND	ND	ND	ND	ND
MW	12		8/1/2019	1.8	44	1	ND	0.34	47.1
MW	5	D	4/16/2019	ND	ND	ND	ND	ND	ND
MW	7		4/16/2019	ND	ND	ND	ND	ND	ND
MW	8		4/16/2019	ND	ND	ND	ND	ND	ND
MW	10	D	4/16/2019	3.4	78.0	1.0	ND	ND	82.4
MW	11		4/16/2019	ND	1.9	8.5	ND	ND	12.1
MW	12		4/16/2019	ND	1.9	0.9	ND	ND	4.1

Appendix C

Inspection Reports and AS/SVE Operations Log

Date:	4/16/2019	Technician:	Levato	Recent Weather:		50 °F, Sunny Windy	
SVE System Line Readings	**Static Pressure on Gauge (neg. iwc)**	**Differential Pressure from Pitot Tube (neg. iwc)**	**Adjusted Line Flow (scfm)**	**Valve Position (% Open)**	**Air Sparge System Line Readings**	**Valve Position (% Open)**	**Flow (scfm)**
SVE Line 1A	5	0.6	66.2	100%	**AS Line 1**		
SVE Line 1B	1	0.4	54.4	100%	**AS Line 2**		
SVE Line 2A	18	0.2	37.5	100%	**AS Line 3**		
SVE Line 2B	15	0.4	53.2	100%	**AS Line 4**		
SVE Line 3A	15	0.5	59.5	100%	**AS Line 5**		
SVE Line 3B	15	0.6	65.2	100%	**AS Line 6**		
SVE Line 4A	0.0	0		Closed	**AS Line 7**		
SVE Line 4B	0.0	0		Closed	**AS Line 8**		
Discharge Line	20.0	2.5	**336.0**		**AS Total Flow**		
Blower 1 ON/OFF:	ON	**Line A/B Valve:**		Both	**Operating Hours AS:**		
Blower 2 ON/OFF:	ON	**Operating Hours SVE-1:**		37534	**Operating Hours SVE-2:**		~~36270.7~~
Notes:	**SVE-2 Hr reading suspect**						

SVE Flow Adjustment to Discharge Flow Rate		Vapor Probe	Vapor Probe Reading (iwc)
98.6		**MW-7**	
81.0		**MW-4**	
55.8		**SG-5**	
79.3		**SG-7**	
88.6		**SV-4**	
97.1			
Total Line Flow	**Ratio for Flow Adj**		
500.4	**0.67**		

Date:	5/14/2019	Technician:	Rhodes	Recent Weather:		Sunny, 70 deg.	
SVE System Line Readings	**Static Pressure on Gauge (neg. iwc)**	**Differential Pressure from Pitot Tube (neg. iwc)**	**Adjusted Line Flow (scfm)**	**Valve Position (% Open)**	**Air Sparge System Line Readings**	**Valve Position (% Open)**	**Flow (scfm)**
SVE Line 1A	20	0.2	39.4	100%	**AS Line 1**		
SVE Line 1B	20	0.4	55.7	100%	**AS Line 2**		
SVE Line 2A	20	0.2	39.4	100%	**AS Line 3**		
SVE Line 2B	19	0.15	34.1	100%	**AS Line 4**		
SVE Line 3A	18	0.7	73.9	100%	**AS Line 5**		
SVE Line 3B	17	0.6	68.5	100%	**AS Line 6**		
SVE Line 4A	0.0	0		Closed	**AS Line 7**		
SVE Line 4B	0.0	0		Closed	**AS Line 8**		
Discharge Line	39.0	2.0	**310.9**		**AS Total Flow**		
Blower 1 ON/OFF:	ON	**Line A/B Valve:**		Both	**Operating Hours AS:**		
Blower 2 ON/OFF:	ON	**Operating Hours SVE-1:**		38206	**Operating Hours SVE-2:**		~~36270.7~~

SVE Flow Adjustment to Discharge Flow Rate		**Vapor Probe**	**Vapor Probe Reading (neg. iwc)**
55.6		**MW-7**	0.025
78.7		**MW-4**	
55.6		**SG-5**	
48.3		**SG-7**	
104.4		**SV-4**	0.080
96.8		**SV-9**	0.000
Total Line Flow	**Ratio for Flow Adj**		
439.4	**0.71**		

Notes: **SVE-2 Hr meter failed Neg Pressure before blowers 37 iwc; 18 iwc individually**

Date:	8/1/2019	Technician:	Levato	Recent Weather:		Sunny, 92 deg.			
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**	
SVE Line 1A	10	0.1	26.4	50%	**AS Line 1**			**39.9**	
SVE Line 1B	0	0.2	37.8	50%	**AS Line 2**			**57.4**	
SVE Line 2A	5	0.2	37.6	25%	**AS Line 3**			**56.9**	
SVE Line 2B	0	0.3	46.4	25%	**AS Line 4**			**70.2**	
SVE Line 3A	0	0.2	37.8	50%	**AS Line 5**			**57.4**	
SVE Line 3B	5	0.1	26.6	50%	**AS Line 6**			**40.3**	
SVE Line 4A	0.0	0		Closed	**AS Line 7**				
SVE Line 4B	0.0	0		Closed	**AS Line 8**				
Discharge Line	20.0	1.0	**212.5**		**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:**		39115.8	**Operating Hours SVE-2:**		~~36302.6~~	**322.1**	**0.66**
Notes:	**SVE-2 Hr meter failed**								

Date:	2/28/2020	Technician:	Levato	Recent Weather:		Sunny, 29°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**	
SVE Line 1A	2	0.1	32.6	50%	**AS Line 1**			**40.4**	
SVE Line 1B	0	0.2	46.2	50%	**AS Line 2**			**57.4**	
SVE Line 2A	0	0.2	46.2	25%	**AS Line 3**			**57.4**	
SVE Line 2B	1.5	0.3	56.5	25%	**AS Line 4**			**70.1**	
SVE Line 3A	1	0.2	46.2	50%	**AS Line 5**			**57.3**	
SVE Line 3B	1.5	0.1	32.6	50%	**AS Line 6**			**40.5**	
SVE Line 4A	0.0	0		Closed	**AS Line 7**				
SVE Line 4B	0.0	0		Closed	**AS Line 8**				
Discharge Line	20.0	1.5	**260.3**		**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:**		39169.0	**Operating Hours SVE-2:**		~~36302.6~~	**323.0**	**0.81**
Notes:		**SVE-2 Hr meter failed**							

Date:	8/8/2020	Technician:	Levato	Recent Weather:		Sunny, 29 °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	1	60.9	50%	AS Line 1			124.4		MW-7	
SVE Line 1B	0	0	0.0	50%	AS Line 2			0.0		MW-4	
SVE Line 2A	19	1	61.0	50%	AS Line 3			124.6		SG-5	
SVE Line 2B	19	1	61.0	50%	AS Line 4			124.6		SG-7	
SVE Line 3A	18	0.7	51.1	50%	AS Line 5			104.4		SV-4	
SVE Line 3B	18	0.5	43.2	50%	AS Line 6			88.2		SV-9	
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	1.7	277.1		AS Total Flow			Total Line Flow	Ratio for Flow Adj		
Blower 1 ON/OFF:	ON	Line A/B Valve:		Both	Operating Hours AS:			566.2	0.49		
Blower 2 ON/OFF:	ON	Operating Hours SVE-1:		407.7	Operating Hours SVE-2:		407.7				
Notes:	New Timer Installed:		7/22/2020								

Date:	8/27/2020	Technician:	Levato	Recent Weather:		Partly Cloudy, 75 °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	10	0.5	61.3	50%	AS Line 1			89.3			
SVE Line 1B	0	0.5	62.2	50%	AS Line 2			90.7			
SVE Line 2A	12	0.1	27.3	50%	AS Line 3			39.8			
SVE Line 2B	13	0.1	27.3	50%	AS Line 4			39.8			
SVE Line 3A	10	0.5	61.3	50%	AS Line 5			89.3			
SVE Line 3B	12	0.5	61.1	50%	AS Line 6			89.0			
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:			438.0	0.69		
Blower 2 ON/OFF:	ON	Operating Hours SVE-1:		427.2	Operating Hours SVE-2:		427.2				
Notes:	New Timer Installed:		7/22/2020								

Date:	9/3/2020	Technician:	Levato	Recent Weather:		Sunny, 80°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	10	0.5	59.2	50%	AS Line 1			89.3		SG-6R	0.026
SVE Line 1B	0	0.5	60.1	50%	AS Line 2			90.7		SV-4	0.014
SVE Line 2A	15	0.2	37.2	50%	AS Line 3			56.1		SV-9	0.020
SVE Line 2B	18	0.1	26.2	50%	AS Line 4			39.5		SG-5R	0.030
SVE Line 3A	10	0.5	59.2	50%	AS Line 5			89.3		SG-8R	0.042
SVE Line 3B	17	0.5	58.6	50%	AS Line 6			88.4		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:		594.7	Operating Hours SVE-2:		594.7	453.2	0.66		

Annual Site Inspection
353 McKibbin Street
Brooklyn, New York

Date: **3/12/2020** **Weather:** **65 degrees and Clear**

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 in poor condition with heavy construction continuing across the street. MW-7 appears damaged.**

Monitoring **Wells in the center of the site were covered by sediment or destroyed and could not be located. This confirms Rich Levato's report that wells could no longer be sampled and need to be replace. Soil vapor probes could also not be located.**
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, probably due to the rain a few days prior to the inspection. It was reset and turned back on.**
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 **Time: 39169.0**
Blower No. 2 **Meter is broken**
Compressor **off**

See Operations log for details

Appendix D
Site Photographs

Looking toward Boerum Street

Activity near MW-11, MW-12, and SG-8; cement plant in background

Storage near SG-7

Activity near MW-10; MW-11, MW-12, and SG-8 in background

Activity in yard near MW-10; looking toward Boerum Street

Photo from 2018 showing deterioration of sidewalk and MW-7 in Boerum Street

SV-5 under car

Condition of yard near MW-10D

Condition of yard near SV-6; entrance ramp in background

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, 2019 to November 02, 2020

	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; 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 Jacek Skarzynski (print name) at 589 Johnson Avenue, Brooklyn, NY 11237 (print business address),

am certifying as Owner, Bogart Plaza LLC (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

12/10/2020
Date

IC/EC CERTIFICATIONS

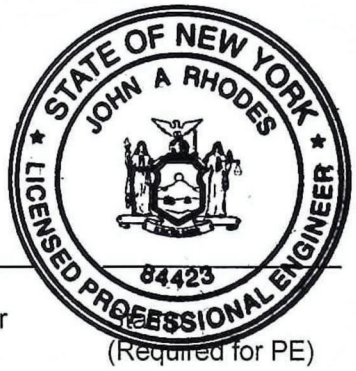
Box 7

Professional Engineer Signature

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

I John A. Rhodes, PE (print name) at 5 Bedford Place, Morristown, NJ 07960 (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

License Number (Required for PE)

12/10/2020

Date