

**511 West 21st Street
New York, New York**

PERIODIC REVIEW REPORT

NYSDEC BCP Site No. C231080

Prepared for:

510 West 22nd Street Partners, LLC and
510 West 22nd Street Owner, LLC
c/o Vornado Realty Trust

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Prepared by:

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FLS Project Number: 10118-003

MAY 2022

**Periodic Review Report
511 West 21st Street
BCP Site No. C231080**

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EXECUTIVE SUMMARY

This Periodic Review Report (PRR) documents the activities subject to the Site Management Plan (SMP) for 511 West 21st Street (Site) for the reporting period (April 21, 2021 – April 21, 2022). The Site is comprised of Brownfield Cleanup Program (BCP) Site No. C231080 and was remediated pursuant to BCA Index No. C231080-02-13 with the New York State Department of Environmental Conservation (NYSDEC). The engineering and institutional controls (EC/IC) were implemented and were maintained in accordance with the NYSDEC-approved SMP.

The purpose of this PRR and Annual Certification is to document on-going Site management activities associated with the permanent ECs and ICs in place at the Site, and to certify that these controls are being maintained in accordance with the Brownfield Cleanup Agreement (BCA).

The Site management activities conducted during the reporting period include the following:

- Inspection of the sub-slab depressurization system (SSDS), a component of the vapor mitigation system implemented at the Site;
- Visual inspection of the concrete slab to confirm the absence of cracks and fissures.
- Semi-annual groundwater monitoring.

The implementation of Site management activities was performed by Fleming, Lee Shue Environmental Engineering and Geology, D.P.C. (FLS). It was determined that ECs and ICs remain effective and continued to be protective of public health and environment.

Compliance with the EC/IC Plan is further discussed in Section 3. Compliance with the media monitoring plan is discussed in Section 4 and compliance with the Operation and Maintenance of the ECs is discussed in Section 5. Conclusions with recommendations are provided in Section 6.

1.0 SITE OVERVIEW

1.1 Site Description

The Site is located in New York City, New York County, New York and is identified as Block 693 and Lot 23 on the New York City Tax Map. The Site is an approximately 0.45-acre area and is bounded by West 22nd Street to the north, West 21st Street to the south, The High Line (NYC Public Park) to the east, and commercial buildings to the west. Figure 1 presents a Site Location Map

1.2 Site Development Status

The development on the Site includes a 13-story commercial building. The development footprint is a lot line-to-lot line building as shown in Figure 2.

1.3 Nature and Extent of Contamination

NYSDEC spill number #00-10394 was opened when petroleum contamination was discovered in 2000. Remedial investigations at the Site between May 2007 and October 2014 found Underground Storage Tanks and soils with elevated levels of volatile organic compounds (VOC), semi-volatile organic compounds (SVOC) and metals. Groundwater and soil vapor indicated elevated concentrations of gasoline-related chemical constituents. Offsite investigations downgradient identified concentrations of VOCs in groundwater attributable to the on-Site spill. Spill number #00-10394 was subsequently closed by NYSDEC in October 2018. Pre-remediation groundwater and soil vapor sample locations with summary of elevated analytical data are depicted on Figures 3A and 4A. Pre-remediation VOC analytical data are summarized in Tables 1 and 3.

1.4 Site Remediation

The Site was remediated in accordance with the NYSDEC-approved Remedial Action Work Plan dated March 2015, which included the following remedial activities:

1. Excavation of soil/fill for development purposes. Excavated soil was screened for indications of contamination (by visual means, odor, and monitoring with a photoionization detector)

during intrusive Site work. All remaining soil in the Track 2 area met Commercial Use Soil Clean-up Objectives (CUSCOs), while the soils beneath remaining portion of the original slab having met Track 4 CUSCOs;

2. Off-Site disposal of all material removed from the Site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal;
3. Collection and analysis of end-point samples to evaluate attainment of Track 2 CUSCOs;
4. Installation of a passive SSDS as a preventative measure to prevent vapor intrusion at the Site;
5. Construction and maintenance of an engineered composite cover in the Track 2 area consisting of a vapor barrier and a concrete pressure slab to prevent human exposure to residual contaminated soil/fill remaining under the Site;
6. Maintenance of an engineered composite cover in the Track 4 area consisting of the original building slab to prevent human exposure to residual contaminated soil/fill remaining under the Site;
7. Monitoring natural attenuation of groundwater; and
8. Development of an SMP for long term management of residual contamination as required by the Environmental Easement, including plans for: (1) ECs /ICs, (2) monitoring, (3) operation and maintenance and (4) reporting.

2.0 REMEDY EVALUATION

During the reporting period, groundwater samples were collected from MW-3 in September 2021. See Figures 3A and B for post-remediation monitoring well locations. Groundwater analytical results for the most recent sampling events are summarized in Table 2. Groundwater data indicates that concentrations under the Site have decreased by over an order of magnitude from pre-remediation contaminant concentrations. Additional data from the most recent groundwater monitoring event is presented in Section 4.2. Typically, a second semi-annual groundwater sampling event is conducted in March, however, following the results of the September 2021 sampling event, FLS recommended to discontinue the groundwater monitoring program on Site. At the time of this report, NYSDEC and the New York State Department of Health (NYSDOH) have not yet finalized a determination regarding this request. However, NYSDEC did approve a request to postpone additional groundwater sampling until a final decision had been made. A copy of this approval is included in Appendix B.

On March 26, 2020, NYSDEC approved the elimination of further monitoring of sub-slab vapor and indoor air. As such, indoor air and ambient air samples were not collected during the reporting period. Data from historic vapor intrusion investigations is presented in Section 4.3.

The annual inspection of the on-Site ECs, which include the SSDS and composite cover system, was conducted on May 16, 2022, and demonstrated that the ECs performed as designed and continue to be protective of human health and the environment.

3.0 INSTITUTIONAL AND ENGINEERING CONTROLS COMPLIANCE

3.1 Institutional Controls

The ICs are non-physical controls, such as Site use restrictions, implemented in order to protect human health and the environment. The SMP requires annual certification of the ICs for the Site to ensure that they continue to be implemented in order to prevent exposure to residual contamination. The ICs for the Site include the SMP (including the Soils/Materials Management Plan, EC/IC Plans, and the Operation, Maintenance and Monitoring Plan), restrictions on groundwater use, farming, and vegetable gardens, and an environmental easement.

3.2 Engineering Controls

The ECs are physical controls employed to contain, stabilize, and monitor residual contamination. Since residual contaminated soil, groundwater, and soil vapor exists beneath the Site, the ECs continue to protect human health and the environment. The on-Site ECs required by the SMP consist of a passive SSDS (fully installed in 2018) and a composite cover system

The SMP requires an annual inspection and certification of the ECs to ensure that they continue to perform as designed and continue to be protective of human health and the environment.

3.3 Certification of Engineering and Institutional Controls

The owner is responsible for overseeing, documenting, and certifying that any work at the Site was performed by or on behalf of each and done in accordance with the applicable SMP. The annual certifications were performed by FLS on behalf of 510 West 22nd Street Owner, LLC. The completed EC/IC Certification Form is provided as Appendix A.

4.0 MONITORING PLAN COMPLIANCE

4.1 Groundwater Monitoring

The majority of the existing groundwater monitoring wells were demolished during building construction, and two new monitoring wells (MW-1 and MW-3) were installed. Former MW-6 was repaired and developed by a licensed environmental driller and has been designated MW-2. As outlined in the SMP, quarterly groundwater monitoring (later reduced to semi-annual sampling in September 2019) was conducted to confirm natural attenuation of VOCs in groundwater. On September 4, 2020, NYSDEC approved reduction of the monitoring well network to include only MW-3. Monitoring wells MW-1 and MW-2 remain in place and continue to be gauged as a part of groundwater elevation data collection. The groundwater monitoring well locations are shown on Figure 2.

A semi-annual groundwater monitoring events was conducted on September 21, 2021. Following the results of the September 2021 sampling event, FLS recommended to discontinue the groundwater monitoring program on Site. At the time of this report, NYSDEC and the NYSDOH have not yet finalized a determination regarding this request. However, NYSDEC did approve a request to postpone additional groundwater sampling until a final decision had been made. Copies of NYSDEC and NYSDOH approvals are included as Appendix B.

4.2 Groundwater Monitoring Results

The most recent groundwater samples were collected in September 2021 and were analyzed for VOCs by SGS Laboratories using EPA Method 8260. Results, analysis and recommendations are presented in the 2021 Semi-Annual Groundwater Monitoring Report dated December 2021. Contaminants of concern were detected in location MW-3 at concentrations above the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values (TOGS), including benzene, toluene, xylene, and methyl-tert-butyl ether (MTBE). However, these concentrations remain well below pre-remediation groundwater concentrations:

Contaminant	TOGS Standard (µg/L)	MW-3 (Historical Maximums) (µg/L)	MW-3 (September 2021) (µg/L)
Benzene	1	3,870	12.6
MTBE	10	6,100	142
Toluene	5	3,990	40.5

4.3 Historic Soil Vapor Monitoring

The SMP initially required soil vapor intrusion (SVI) sampling to be conducted within the Track 4(A) area during the heating season (November 15 – March 15). Two SVI sampling investigations were conducted on Site in February 2019 and January 2020. Analytical results were compared on-to the Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006) Decision Matrices (updated May 2017). Key contaminants of concern to NYSDEC and NYSDOH for the Site (Freon-12, BTEX, hexane, ethanol chlorinated solvents etc.) were either reduced or remained at low-level concentrations. Considering these findings, in the February 2020 SVI Investigation Summary Report, FLS recommended to discontinue further monitoring of sub-slab vapor and indoor air, and to leave the SSDS as a passive system. On March 26, 2020, NYSDEC approved these measures, and concluded no further monitoring of the sub-slab vapor and indoor air was necessary (Appendix B). As such, no further sub-slab vapor or indoor air monitoring occurred during this reporting period.

5.0 OPERATION AND MAINTENANCE PLAN COMPLIANCE

5.1 Site Inspections

The inspections of the ECs are conducted by FLS on an annual basis. FLS inspected the on-Site SSDS and composite cover system on May 16, 2022. Site photographs are and Site inspection sheets are included as Appendices C and D, respectively.

The inspection consisted of the following elements:

- Inspections of the on-Site SSDS including flow rate readings at the vertical riser;
- Inspections of the composite cover system, including the conditions of the on-Site foundation slab and sidewalls; and
- Inspections of the first floor and perimeter for signs of vapor intrusion.

5.2 Inspection Results

The ECs for the Site were inspected and continue to perform as designed, protecting human health and the environment. There were no areas where the composite cover systems appeared impaired, compromised or otherwise damaged.

The SSDS was inspected and flow rate at the vertical riser was measured as 2.75 CFM, 74.6 % relative humidity, and a temperature of 70.7°F. The riser appeared in good condition and was free of obstruction.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Compliance with the SMP

Based on the evaluation of the inspections and monitoring data, FLS concludes the following:

- The ECs and ICs were in place and remained effective at the Site in from April 2021 through April 2022.
- The latest groundwater sampling was conducted in September 2021. Several VOC concentrations were detected above the TOGs Standard at location MW-3. However, concentrations of VOCs at MW-3 have largely decreased or remained at similar levels and, overall, represent a significant decrease from pre-remediation concentrations.

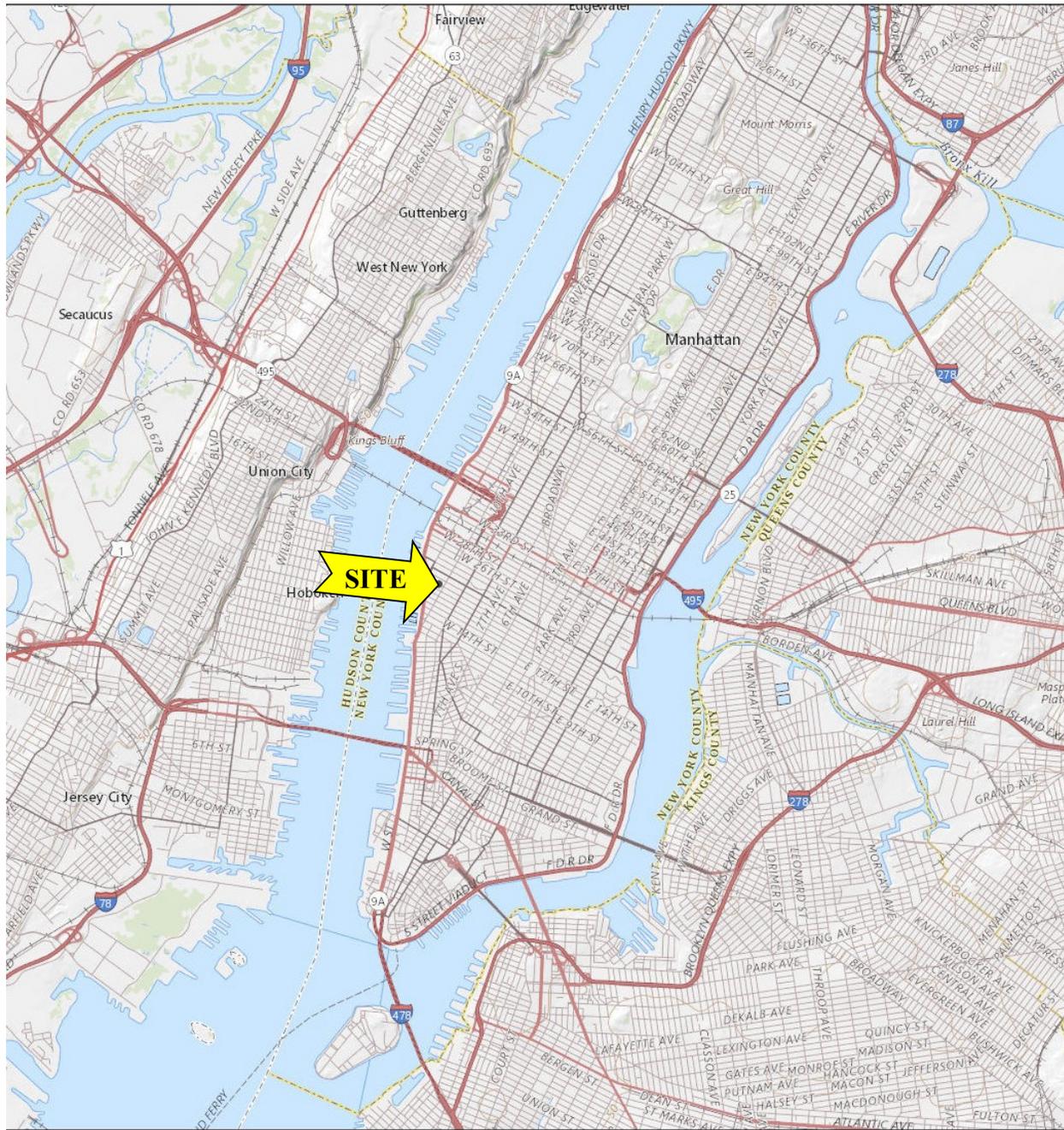
Based on the evaluation of the inspections and monitoring data, FLS recommends the following:

- As detailed in the September 2021 Semi-Annual Groundwater Report, based on evidence of sustained low-level asymptotic data trends for contaminants of concern on Site, FLS recommends to discontinue the groundwater monitoring program on Site. As approved by NYSDEC, FLS will postpone groundwater sampling activities until a determination is reached.
- All ECs and ICs at the Site will continue in operation and monitoring in 2022.
- The SSDS will continue to operate passively to mitigate potential soil vapor intrusion into the building.

6.2 Future PRR Submittals

In accordance with the approved SMP, PRRs will be submitted on an annual basis. The next PRR will be due in May 2023.

FIGURES



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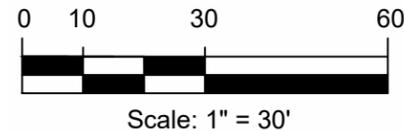
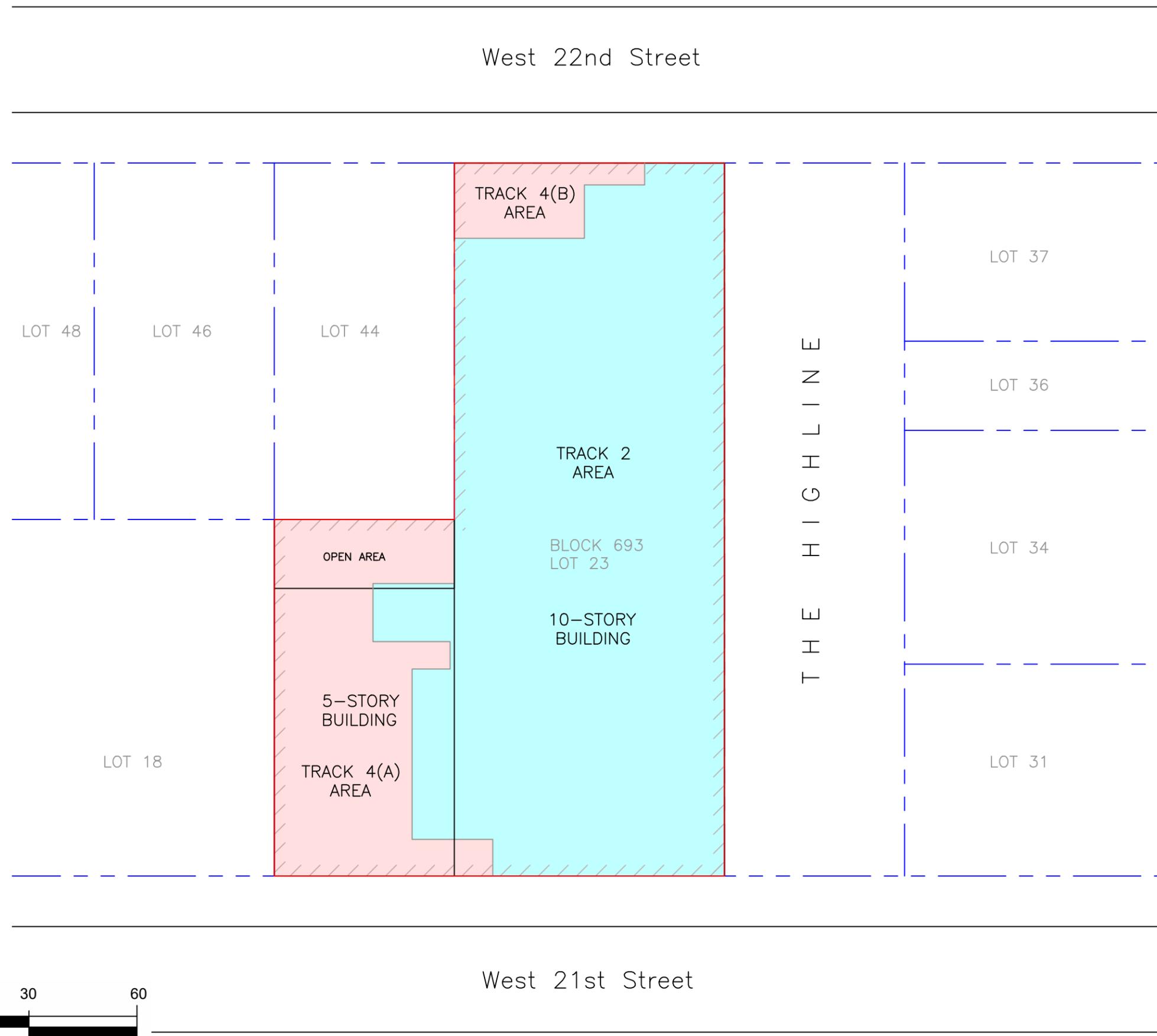
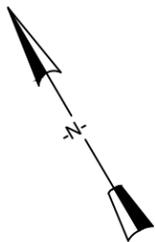
Quadrant 7.5 Minute Topographic Map, published by the USGS, and obtained from National Map Viewer ©2018

FIGURE 1: SITE LOCATION MAP

**Fleming
Engineering**

SITE: 511 West 21st Street
New York, N.Y. -

CLIENT: 510 West 22nd Street Partners, LLC



Fleming Engineering

158 West 29th Street, 9th Fl.
New York, NY 10001

511 West 21st Street
Block 693 Lot 23

FIGURE 2

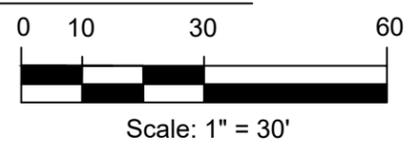
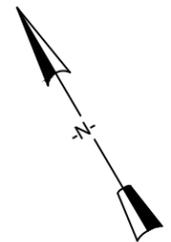
SITE LAYOUT

Date
May 2021

Project Number
10173-002

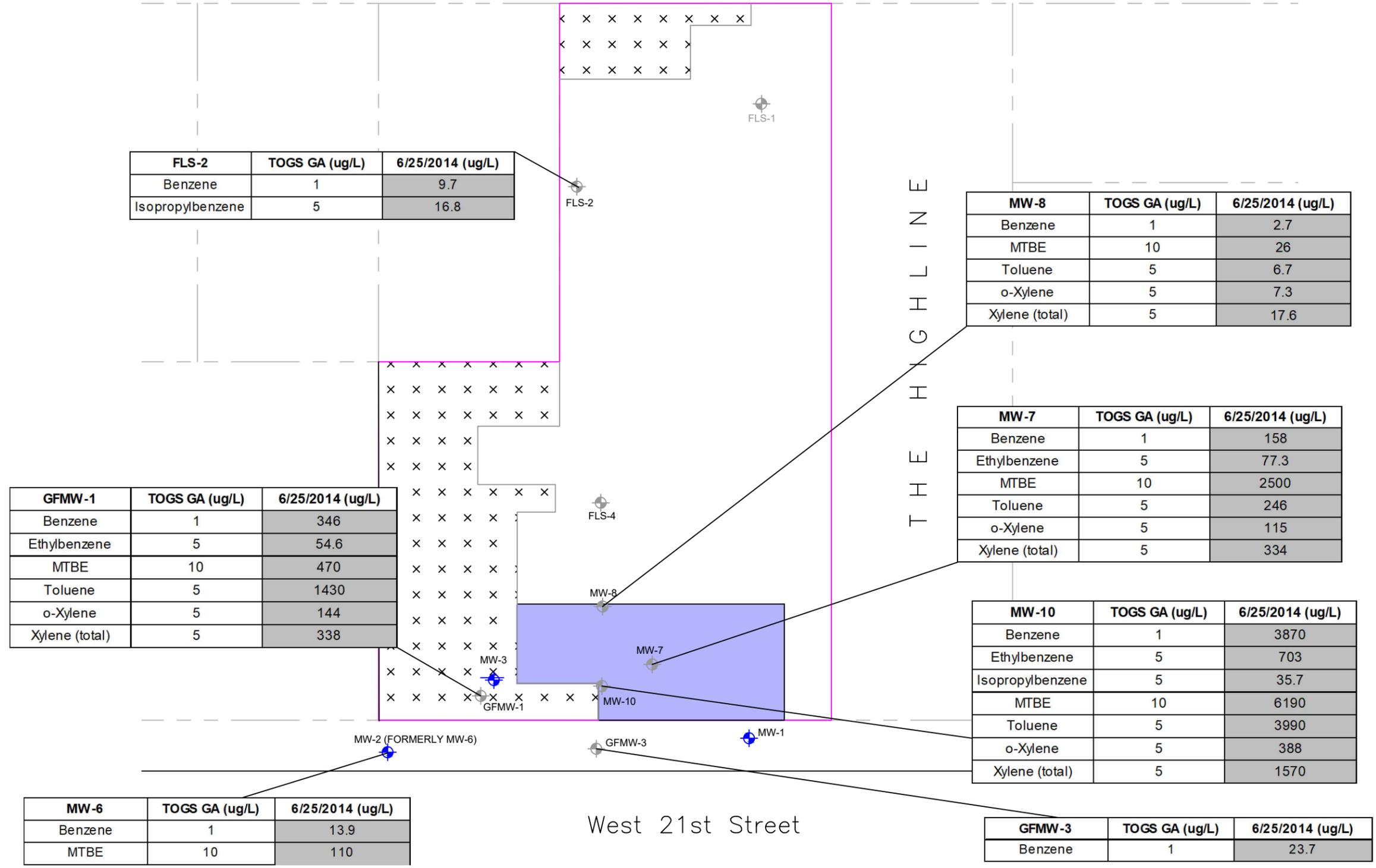
LEGEND

- SITE BOUNDARY/
INSTITUTIONAL CONTROL
BOUNDARY
- BUILDING OUTLINE
- LOT LINES
- TRACK 4 AREA
- TRACK 2 AREA



West 22nd Street

West 21st Street



FLS-2	TOGS GA (ug/L)	6/25/2014 (ug/L)
Benzene	1	9.7
Isopropylbenzene	5	16.8

MW-8	TOGS GA (ug/L)	6/25/2014 (ug/L)
Benzene	1	2.7
MTBE	10	26
Toluene	5	6.7
o-Xylene	5	7.3
Xylene (total)	5	17.6

MW-7	TOGS GA (ug/L)	6/25/2014 (ug/L)
Benzene	1	158
Ethylbenzene	5	77.3
MTBE	10	2500
Toluene	5	246
o-Xylene	5	115
Xylene (total)	5	334

GFMW-1	TOGS GA (ug/L)	6/25/2014 (ug/L)
Benzene	1	346
Ethylbenzene	5	54.6
MTBE	10	470
Toluene	5	1430
o-Xylene	5	144
Xylene (total)	5	338

MW-10	TOGS GA (ug/L)	6/25/2014 (ug/L)
Benzene	1	3870
Ethylbenzene	5	703
Isopropylbenzene	5	35.7
MTBE	10	6190
Toluene	5	3990
o-Xylene	5	388
Xylene (total)	5	1570

MW-6	TOGS GA (ug/L)	6/25/2014 (ug/L)
Benzene	1	13.9
MTBE	10	110

GFMW-3	TOGS GA (ug/L)	6/25/2014 (ug/L)
Benzene	1	23.7



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158 West 29th Street, 9th Fl.
New York, NY 10001

511 West 21st Street
Block 693 Lot 23

Figure 3A

PRE-REMEDIAL EXCEEDANCES OF VOCs IN GROUNDWATER

Date
May 2020

Project Number
10173-002

LEGEND

- PROPERTY LINES
- SITE BOUNDARY
- EXISTING SLAB TO REMAIN
- PETROLEUM IMPACTED EXCAVATION TO TRACK 2 SCOs
- SUB-SLAB SOIL VAPOR SAMPLING LOCATION

FILE: P:\10118 - Vornado\003 - 511 West 21st Street (Formerly Albanese)\Reports\PRRs\2022\Figures\3B 2021 Q3 GW Exceedance Figure.dwg DATE: 5/16/2022



158 West 29th Street, 9th Fl.
New York, NY 10001

511 W. 21st Street
New York, NY
BCP Site # C231080

Figure 3B

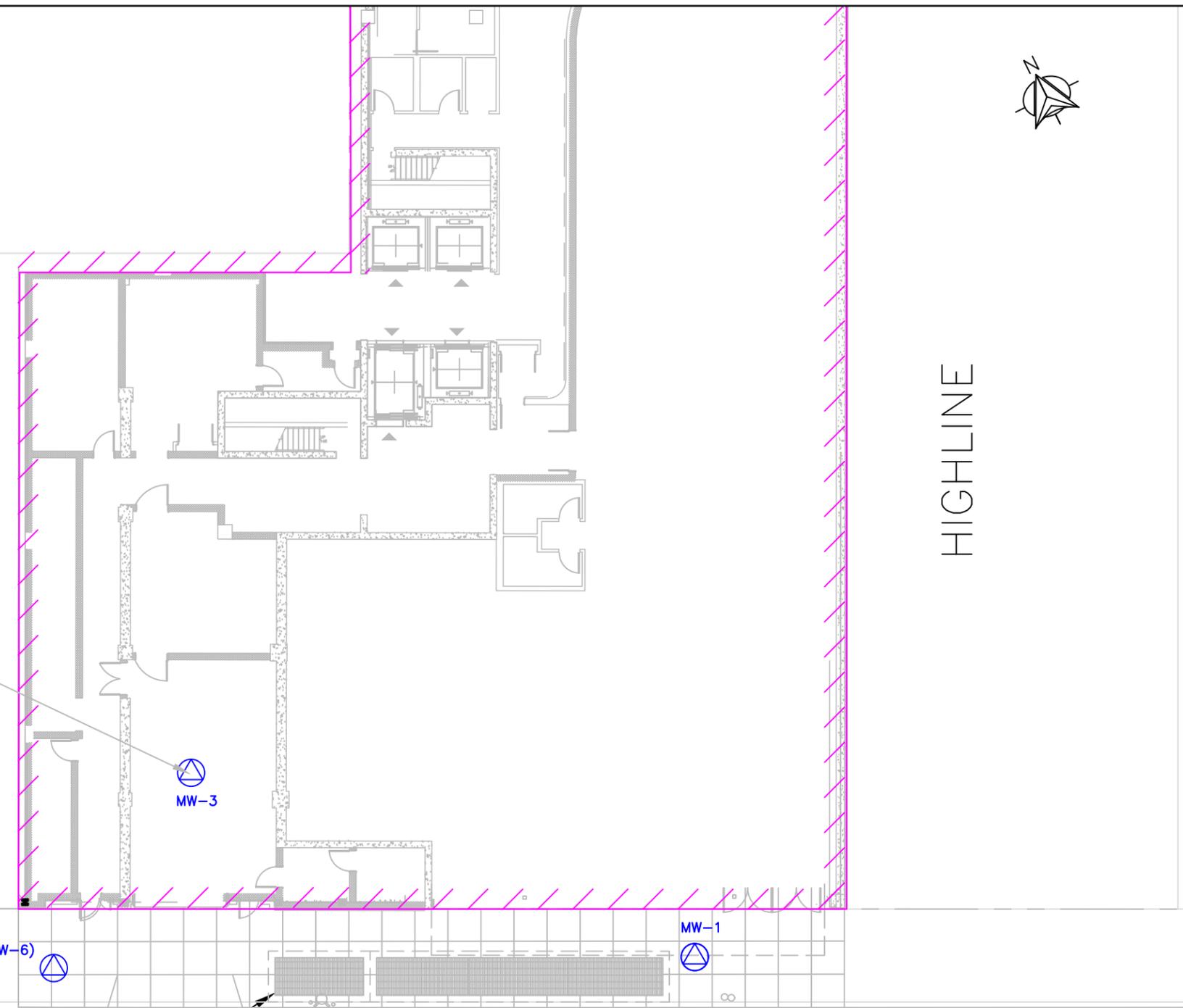
**Post-Remediation
Semi-Annual
Groundwater
Sampling Results**

September 2021

Project Number
10118-003

LEGEND

-  BUILDING OUTLINE
-  MONITORING WELL LOCATION



MW-3	3/12/2020	9/15/2020
Benzene	12.0	10.9
Toluene	30.4	30.6
Ethylbenzene	2.2	1.9
Xylene (total)	13.4	11.9
MTBE	260	191
	3/12/2021	9/21/2021
Benzene	2.4	12.6
Toluene	6.4	40.5
Ethylbenzene	ND (0.60)	2.3
Xylene (total)	2.4	14.1
MTBE	40.7	142

Compound	Class	GA Value
Benzene	1	ug/L
Ethylbenzene	5	ug/L
Toluene	5	ug/L
Xylene (total)	5	ug/L
MTBE	10	ug/L

Notes:
Groundwater results and TOGS values in ug/L.
Samples were collected 9/21/2021.
Results qualified J are estimated.
Highlighted Results show Target Compound List (Method 8260) VOCs above TOGs class GA AWQS.
Technical Operational Guidance Services (TOGS)
Ambient Water Quality Standards and Guidance Values (AWQS)



West 21st Street

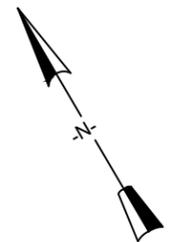
CON EDISON TRANSFORMER VAULT

MW-2
(formerly MW-6)

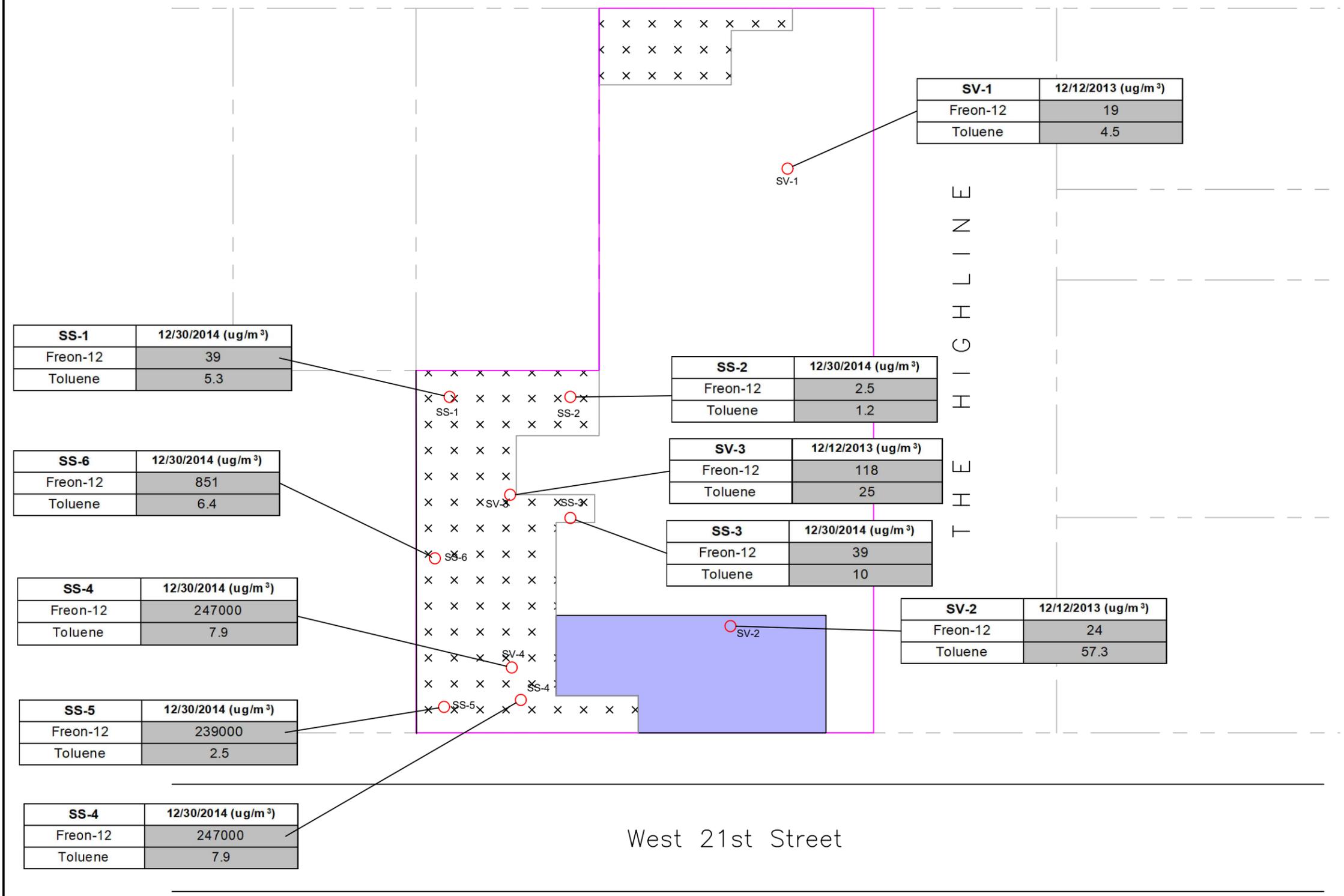
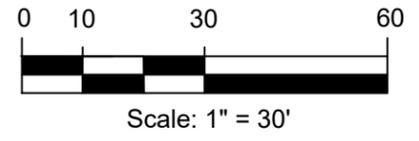
MW-1

MW-3

HIGHLINE



West 22nd Street



West 21st Street



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New York, NY 10001

511 West 21st Street
Block 693 Lot 23

Figure 4A

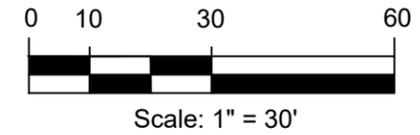
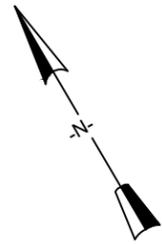
PRE-REMEDIATION VOCS IN SUB-SLAB VAPOR

Date
May 2020

Project Number
10173-002

LEGEND

- PROPERTY LINES
- SITE BOUNDARY
- EXISTING SLAB TO REMAIN
- PETROLEUM IMPACTED EXCAVATION TO TRACK 2 SCOs
- VAPOR INTRUSION SAMPLING LOCATION



West 22nd Street

West 21st Street

T H E H I G H L I N E

IA-1	1/17/2020 (ug/m ³)
Benzene	0.7
Freon-12	2.4
Ethanol	8.5
Ethylbenzene	0.33 J
Toluene	6.4
Xylene (total)	1.4

IA-2	1/17/2020 (ug/m ³)
Benzene	0.64
Freon-12	2.3
Ethanol	14
Ethylbenzene	0.43 J
Toluene	6.8
Xylene (total)	2

AA-2	1/17/2020 (ug/m ³)
Benzene	0.51
Freon-12	2.2
Ethanol	3.8
Ethylbenzene	ND (0.69)
Toluene	5.3
Xylene (total)	0.42 J



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New York, NY 10001

511 West 21st Street
Block 693 Lot 23

Figure 4B

POST-REMEDIATION VOCS IN SUB-SLAB VAPOR

Date
May 2020

Project Number
10173-002

LEGEND

- - - - PROPERTY LINES
- SITE BOUNDARY
- x x x x EXISTING SLAB TO REMAIN
- PETROLEUM IMPACTED EXCAVATION TO TRACK 2 SCOs
- VAPOR INTRUSION SAMPLING LOCATION

TABLES

Table 1 - Groundwater Sampling Analytical Results (Pre-Remediation)
511 West 21st Street, New York, NY

Client Sample ID:		NY TOGS Class	FLS-1	FLS-1	FLS-1	FLS-2	FLS-2	FLS-2	FLS-3	FLS-3	FLS-3	FLS-4	FLS-4	FLS-4
Lab Sample ID:		GA GW Standards	JB56029-1	JB57431-1	JB70310-4	JB56029-2	JB57431-1	JB70310-5	JB56029-3	JB57431-1	JB70310-6	JB56029-4	JB57431-1	JB70310-7
Date Sampled:		(NYSDEC 6/2004)	12/17/2013	1/10/2014	6/25/2014	12/17/2013	1/10/2014	6/25/2014	12/17/2013	1/10/2014	6/25/2014	12/17/2013	1/10/2014	6/25/2014
Matrix:			Ground Water											
GC/MS Volatiles (SW846 8260C)														
Acetone	ug/l	-	24.5	14.1	7.4 J	4.0 J	ND (3.3)	ND (3.3)	10	6.4 J	ND (3.3)	ND (67)	252	ND (3.3)
Benzene	ug/l	1	5.3	1.9	0.53 J	3.7	4.4	9.7	ND (0.28)	ND (0.28)	ND (0.28)	ND (5.6)	ND (0.28)	ND (0.28)
Bromochloromethane	ug/l	5	ND (0.42)	ND (8.3)	ND (0.42)	ND (0.42)								
Bromodichloromethane	ug/l	-	ND (0.21)	ND (4.2)	ND (0.21)	ND (0.21)								
Bromoform	ug/l	-	ND (0.30)	ND (6.0)	ND (0.30)	ND (0.30)								
Bromomethane	ug/l	5	ND (0.56)	ND (11)	ND (0.56)	ND (0.56)								
2-Butanone (MEK)	ug/l	-	15.3	17.9	4.1 J	ND (3.2)	4.0 J	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	ND (64)	5.2 J	ND (3.2)
Carbon disulfide	ug/l	60	ND (0.18)	ND (3.6)	ND (0.18)	ND (0.18)								
Carbon tetrachloride	ug/l	5	ND (0.23)	ND (4.5)	ND (0.23)	ND (0.23)								
Chlorobenzene	ug/l	5	ND (0.35)	ND (6.9)	ND (0.35)	ND (0.35)								
Chloroethane	ug/l	5	ND (0.39)	ND (7.8)	ND (0.39)	ND (0.39)								
Chloroform	ug/l	7	ND (0.25)	23.7	1.5	2.2								
Chloromethane	ug/l	5	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	0.62 J	ND (0.36)	ND (0.36)	0.55 J	ND (0.36)	ND (7.3)	ND (0.36)	ND (0.36)
Cyclohexane	ug/l	-	71.3	40.3	5.5	1.2 J	1.9 J	7.9	ND (0.18)	ND (0.18)	ND (0.18)	ND (3.6)	0.49 J	ND (0.18)
1,2-Dibromo-3-chloropropane	ug/l	0.04	ND (1.3)	ND (25)	ND (1.3)	ND (1.3)								
Dibromochloromethane	ug/l	-	ND (0.19)	ND (3.8)	ND (0.19)	ND (0.19)								
1,2-Dibromoethane	ug/l	0.0006	ND (0.16)	ND (3.2)	ND (0.16)	ND (0.16)								
1,2-Dichlorobenzene	ug/l	3	ND (0.20)	ND (4.1)	ND (0.20)	ND (0.20)								
1,3-Dichlorobenzene	ug/l	3	ND (0.31)	ND (6.3)	ND (0.31)	ND (0.31)								
1,4-Dichlorobenzene	ug/l	3	ND (0.30)	ND (6.0)	ND (0.30)	ND (0.30)								
Dichlorodifluoromethane	ug/l	5	ND (0.63)	ND (13)	ND (0.63)	ND (0.63)								
1,1-Dichloroethane	ug/l	5	ND (0.26)	ND (5.2)	ND (0.26)	ND (0.26)								
1,2-Dichloroethane	ug/l	0.6	ND (0.22)	ND (4.4)	ND (0.22)	ND (0.22)								
1,1-Dichloroethene	ug/l	5	ND (0.34)	ND (6.9)	ND (0.34)	ND (0.34)								
cis-1,2-Dichloroethene	ug/l	5	ND (0.24)	ND (4.8)	ND (0.24)	ND (0.24)								
trans-1,2-Dichloroethene	ug/l	5	ND (0.38)	ND (7.6)	ND (0.38)	ND (0.38)								
1,2-Dichloropropane	ug/l	1	ND (0.28)	ND (5.6)	ND (0.28)	ND (0.28)								
cis-1,3-Dichloropropene	ug/l	-	ND (0.15)	ND (3.0)	ND (0.15)	ND (0.15)								
trans-1,3-Dichloropropene	ug/l	-	ND (0.21)	ND (4.1)	ND (0.21)	ND (0.21)								
Ethylbenzene	ug/l	5	0.87 J	0.37 J	ND (0.21)	17.3	1.9	0.51 J	ND (0.21)	ND (0.21)	ND (0.21)	69.6	13.8	ND (0.21)
Freon 113	ug/l	5	ND (0.77)	ND (15)	ND (0.77)	ND (0.77)								
2-Hexanone	ug/l	-	ND (1.7)	ND (34)	ND (1.7)	ND (1.7)								
Isopropylbenzene	ug/l	5	14.9	7.6	2.4	12.9	11	16.8	ND (0.22)	ND (0.22)	ND (0.22)	9.5 J	2.6	ND (0.22)
Methyl Acetate	ug/l	-	ND (1.5)	ND (30)	ND (1.5)	ND (1.5)								
Methylcyclohexane	ug/l	-	56.2	43.4	3.4 J	3.7 J	2.9 J	2.0 J	ND (0.15)	ND (0.15)	ND (0.15)	ND (3.1)	2.1 J	ND (0.15)
Methyl Tert Butyl Ether	ug/l	10	5.6	6.1	3.4	0.87 J	0.90 J	0.57 J	ND (0.29)	ND (0.29)	ND (0.29)	ND (5.7)	ND (0.29)	5
4-Methyl-2-pentanone(MIBK)	ug/l	-	ND (1.5)	ND (30)	ND (1.5)	ND (1.5)								
Methylene chloride	ug/l	5	ND (0.86)	ND (17)	ND (0.86)	ND (0.86)								
Styrene	ug/l	5	ND (0.30)	ND (6.0)	ND (0.30)	ND (0.30)								
1,1,2,2-Tetrachloroethane	ug/l	5	ND (0.20)	ND (3.9)	ND (0.20)	ND (0.20)								
Tetrachloroethene	ug/l	5	0.41 J	0.64 J	0.37 J	ND (0.25)	ND (0.25)	ND (0.25)	0.32 J	ND (0.25)	ND (0.25)	ND (5.0)	ND (0.25)	ND (0.25)
Toluene	ug/l	5	1	ND (0.44)	ND (0.44)	7.7	ND (0.44)	0.55 J	ND (0.44)	ND (0.44)	ND (0.44)	39.8	4.1	0.53 J
1,2,3-Trichlorobenzene	ug/l	5	ND (0.24)	ND (4.9)	ND (0.24)	ND (0.24)								
1,2,4-Trichlorobenzene	ug/l	5	ND (0.22)	ND (4.3)	ND (0.22)	ND (0.22)								
1,1,1-Trichloroethane	ug/l	5	ND (0.25)	ND (5.0)	ND (0.25)	ND (0.25)								
1,1,2-Trichloroethane	ug/l	1	ND (0.21)	ND (4.2)	ND (0.21)	ND (0.21)								
Trichloroethene	ug/l	5	ND (0.50)	ND (10)	ND (0.50)	ND (0.50)								
Trichlorofluoromethane	ug/l	5	ND (0.33)	ND (6.7)	ND (0.33)	ND (0.33)								
Vinyl chloride	ug/l	2	ND (0.41)	ND (8.3)	ND (0.41)	ND (0.41)								
m,p-Xylene	ug/l	-	0.45 J	ND (0.40)	ND (0.40)	90.6	8.6	0.54 J	ND (0.40)	ND (0.40)	ND (0.40)	200	42.2	ND (0.40)
o-Xylene	ug/l	5	0.40 J	ND (0.19)	ND (0.19)	46.4	4.3	0.21 J	ND (0.19)	ND (0.19)	ND (0.19)	158	32.5	ND (0.19)
Xylene (total)	ug/l	5	0.84 J	ND (0.19)	ND (0.19)	137	12.9	0.75 J	ND (0.19)	ND (0.19)	ND (0.19)	358	74.7	0.30 J
GC/MS Volatile TIC														
Total TIC, Volatile	ug/l	-	1316 J	831 J	189.8 J	544 J	611 J	574 J	0	0	0	590 J	80.1 J	0

Legend:
Hit
Exceedance
J - Estimated Value

Table 1 - Groundwater Sampling Analytical Results (Pre-Remediation)
511 West 21st Street, New York, NY

Client Sample ID:	NY TOGS Class	MW-5	MW-5	MW-6	MW-6	MW-7	MW-7	MW-8	MW-8	MW-9	MW-9	MW-10	MW-10	
Lab Sample ID:	GA GW Standards	JB56029-5	JB70310-16	JB56029-6	JB70310-8	JB56029-7	JB70310-9	JB56029-8	JB70310-10	JB56029-9	JB70310-11	JB56029-10	JB70310-12	
Date Sampled:	(NYSDEC 6/2004)	12/17/2013	6/25/2014	12/17/2013	6/25/2014	12/17/2013	6/25/2014	12/17/2013	6/25/2014	12/17/2013	6/25/2014	12/17/2013	6/25/2014	
Matrix:		Ground Water												
GC/MS Volatiles (SW846 8260C)														
Acetone	ug/l	-	ND (3.3)	28.5	12.6	ND (3.3)	ND (3.3)	ND (67)	ND (8.4)					
Benzene	ug/l	1	ND (0.28)	ND (0.28)	13.5	13.9	87.3	158	19.9	2.7	0.75 J	ND (0.28)	2360	3870
Bromochloromethane	ug/l	5	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (4.2)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (8.3)	ND (1.0)	
Bromodichloromethane	ug/l	-	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (4.2)	ND (0.53)	
Bromoform	ug/l	-	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (3.0)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (6.0)	ND (0.75)	
Bromomethane	ug/l	5	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (5.6)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (11)	ND (1.4)	
2-Butanone (MEK)	ug/l	-	ND (3.2)	24.7	ND (3.2)	ND (3.2)	ND (3.2)	ND (64)	ND (8.0)					
Carbon disulfide	ug/l	60	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (1.8)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (3.6)	ND (0.46)	
Carbon tetrachloride	ug/l	5	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (2.3)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (4.5)	ND (0.57)	
Chlorobenzene	ug/l	5	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (3.5)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (6.9)	ND (0.87)	
Chloroethane	ug/l	5	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (3.9)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (7.8)	ND (0.97)	
Chloroform	ug/l	7	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (2.5)	ND (0.25)	0.49 J	0.49 J	ND (0.25)	ND (4.9)	ND (0.61)	
Chloromethane	ug/l	5	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (3.6)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (7.3)	ND (0.91)	
Cyclohexane	ug/l	-	ND (0.18)	ND (0.18)	ND (0.18)	0.26 J	17.5 J	13.1	45.3	0.85 J	ND (0.18)	98.1 J	96.1	
1,2-Dibromo-3-chloropropane	ug/l	0.04	ND (1.3)	ND (25)	ND (3.2)									
Dibromochloromethane	ug/l	-	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (1.9)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (3.8)	ND (0.48)	
1,2-Dibromoethane	ug/l	0.0006	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (1.6)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (3.2)	ND (0.40)	
1,2-Dichlorobenzene	ug/l	3	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (2.0)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (4.1)	ND (0.51)	
1,3-Dichlorobenzene	ug/l	3	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (3.1)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (6.3)	ND (0.79)	
1,4-Dichlorobenzene	ug/l	3	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (3.0)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (6.0)	ND (0.75)	
Dichlorodifluoromethane	ug/l	5	ND (0.63)	ND (0.63)	ND (0.63)	ND (6.3)	2.9 J	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (13)	ND (1.6)	
1,1-Dichloroethane	ug/l	5	ND (0.26)	ND (0.26)	ND (0.26)	ND (2.6)	ND (0.26)	ND (5.2)	ND (0.65)					
1,2-Dichloroethane	ug/l	0.6	ND (0.22)	ND (0.22)	ND (0.22)	ND (2.2)	ND (0.22)	ND (4.4)	ND (0.55)					
1,1-Dichloroethene	ug/l	5	ND (0.34)	ND (0.34)	ND (0.34)	ND (3.4)	ND (0.34)	ND (6.9)	ND (0.86)					
cis-1,2-Dichloroethene	ug/l	5	ND (0.24)	ND (0.24)	ND (0.24)	ND (2.4)	ND (0.24)	ND (4.8)	ND (0.60)					
trans-1,2-Dichloroethene	ug/l	5	ND (0.38)	ND (0.38)	ND (0.38)	ND (3.8)	ND (0.38)	ND (7.6)	ND (0.95)					
1,2-Dichloropropane	ug/l	1	ND (0.28)	ND (0.28)	ND (0.28)	ND (2.8)	ND (0.28)	ND (5.6)	ND (0.70)					
cis-1,3-Dichloropropene	ug/l	-	ND (0.15)	ND (0.15)	ND (0.15)	ND (1.5)	ND (0.15)	ND (3.0)	ND (0.38)					
trans-1,3-Dichloropropene	ug/l	-	ND (0.21)	ND (0.21)	ND (0.21)	ND (2.1)	ND (0.21)	ND (4.1)	ND (0.52)					
Ethylbenzene	ug/l	5	ND (0.21)	ND (0.21)	1.4	0.90 J	52	77.3	34.4	3.8	0.39 J	ND (0.21)	720	703
Freon 113	ug/l	5	ND (0.77)	ND (0.77)	ND (0.77)	ND (7.7)	ND (0.77)	ND (15)	ND (1.9)					
2-Hexanone	ug/l	-	ND (1.7)	1.8 J	ND (1.7)	ND (1.7)	ND (1.7)	ND (34)	9.3 J					
Isopropylbenzene	ug/l	5	ND (0.22)	ND (0.22)	ND (0.22)	ND (2.2)	4.6	10.9	0.36 J	ND (0.22)	ND (0.22)	35.6 J	35.7	
Methyl Acetate	ug/l	-	ND (1.5)	ND (30)	ND (3.8)									
Methylcyclohexane	ug/l	-	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	5.8 J	6.3	21.3	ND (0.15)	ND (0.15)	36.4 J	42.4	
Methyl Tert Butyl Ether	ug/l	10	ND (0.29)	5.5	120	110	1840	2500	96.8	26	ND (0.29)	2710	6190	
4-Methyl-2-pentanone(MIBK)	ug/l	-	ND (1.5)	ND (30)	ND (3.7)									
Methylene chloride	ug/l	5	ND (0.86)	ND (0.86)	ND (0.86)	ND (8.6)	ND (0.86)	ND (17)	ND (2.2)					
Styrene	ug/l	5	ND (0.30)	ND (0.30)	ND (0.30)	ND (3.0)	ND (0.30)	ND (6.0)	ND (0.76)					
1,1,2,2-Tetrachloroethane	ug/l	5	ND (0.20)	ND (0.20)	ND (0.20)	ND (2.0)	ND (0.20)	ND (3.9)	ND (0.49)					
Tetrachloroethene	ug/l	5	ND (0.25)	ND (0.25)	ND (0.25)	ND (2.5)	ND (0.25)	ND (5.0)	ND (0.63)					
Toluene	ug/l	5	ND (0.44)	ND (0.44)	5.9	3.7	372	246	32	6.7	0.95 J	2340	3990	
1,2,3-Trichlorobenzene	ug/l	5	ND (0.24)	ND (0.24)	ND (0.24)	ND (2.4)	ND (0.24)	ND (4.9)	ND (0.61)					
1,2,4-Trichlorobenzene	ug/l	5	ND (0.22)	ND (0.22)	ND (0.22)	ND (2.2)	ND (0.22)	ND (4.3)	ND (0.54)					
1,1,1-Trichloroethane	ug/l	5	ND (0.25)	ND (0.25)	ND (0.25)	ND (2.5)	ND (0.25)	ND (5.0)	ND (0.62)					
1,1,2-Trichloroethane	ug/l	1	ND (0.21)	ND (0.21)	ND (0.21)	ND (2.1)	ND (0.21)	ND (4.2)	ND (0.53)					
Trichloroethene	ug/l	5	ND (0.50)	ND (0.50)	ND (0.50)	ND (5.0)	ND (0.50)	ND (10)	ND (1.3)					
Trichlorofluoromethane	ug/l	5	ND (0.33)	ND (0.33)	ND (0.33)	ND (3.3)	ND (0.33)	ND (6.7)	ND (0.84)					
Vinyl chloride	ug/l	2	ND (0.41)	ND (0.41)	ND (0.41)	ND (4.1)	ND (0.41)	ND (8.3)	ND (1.0)					
m,p-Xylene	ug/l	-	ND (0.40)	ND (0.40)	2	1.3	264	219	133	10.4	0.85 J	1600	1190	
o-Xylene	ug/l	5	ND (0.19)	ND (0.19)	2.3	1.3	156	115	57.7	7.3	0.25 J	667	388	
Xylene (total)	ug/l	5	ND (0.19)	ND (0.19)	4.3	2.6	421	334	190	17.6	1.1	2270	1570	
GC/MS Volatile TIC														
Total TIC, Volatile	ug/l	-	13 J	120 J	1016.4 J	289.3 J	420 J	1597 J	704 J	14.1 J	0	0	5930 J	8930 J

Legend:
Hit
Exceedance
J - Estimated Value

Table 1 - Groundwater Sampling Analytical Results (Pre-Remediation)
511 West 21st Street, New York, NY

Client Sample ID:		NY TOGS Class	GFMW-1	GFMW-2	GFMW-3	FLS-24	FLS-24	FIELD BLANK	FIELD BLANK	FB06252014	TRIP BLANK 1	TRIP BLANK 2	TRIP BLANK 3	TRIP BLANK	TRIP BLANK
Lab Sample ID:		GA GW Standards	JB70310-1	JB70310-2	JB70310-3	JB70310-13	JB56029-11	JB56029-12	JB57431-5	JB70310-15	JB56029-13	JB56029-14	JB56029-15	JB57431-6	JB70310-14
Date Sampled:		(NYSDEC 6/2004)	6/25/2014	6/25/2014	6/25/2014	6/25/2014	12/17/2013	12/17/2013	1/10/2014	6/25/2014	12/17/2013	12/17/2013	12/17/2013	1/10/2014	6/25/2014
Matrix:			Ground Water	Field Blank	Field Blank	Field Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank				
GC/MS Volatiles (SW846 8260C)															
Acetone	ug/l	-	ND (8.4)	ND (3.3)	ND (3.3)	ND (3.3)	45.1 J	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)
Benzene	ug/l	1	346	ND (0.28)	23.7	ND (0.28)	ND (2.8)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)
Bromochloromethane	ug/l	5	ND (1.0)	ND (0.42)	ND (0.42)	ND (0.42)	ND (4.2)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)
Bromodichloromethane	ug/l	-	ND (0.53)	ND (0.21)	ND (0.21)	0.28 J	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
Bromoform	ug/l	-	ND (0.75)	ND (0.30)	ND (0.30)	ND (0.30)	ND (3.0)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)
Bromomethane	ug/l	5	ND (1.4)	ND (0.56)	ND (0.56)	ND (0.56)	ND (5.6)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)
2-Butanone (MEK)	ug/l	-	ND (8.0)	ND (3.2)	ND (3.2)	ND (3.2)	ND (32)	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)
Carbon disulfide	ug/l	60	ND (0.46)	ND (0.18)	ND (0.18)	ND (0.18)	ND (1.8)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
Carbon tetrachloride	ug/l	5	ND (0.57)	ND (0.23)	ND (0.23)	ND (0.23)	ND (2.3)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)
Chlorobenzene	ug/l	5	ND (0.87)	ND (0.35)	ND (0.35)	ND (0.35)	ND (3.5)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)
Chloroethane	ug/l	5	ND (0.97)	ND (0.39)	ND (0.39)	ND (0.39)	ND (3.9)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
Chloroform	ug/l	7	ND (0.61)	ND (0.25)	ND (0.25)	2.4	23.8	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
Chloromethane	ug/l	5	ND (0.91)	ND (0.36)	ND (0.36)	ND (0.36)	ND (3.6)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)
Cyclohexane	ug/l	-	4.4 J	ND (0.18)	3.3 J	ND (0.18)	ND (1.8)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)
1,2-Dibromo-3-chloropropane	ug/l	0.04	ND (3.2)	ND (1.3)	ND (1.3)	ND (1.3)	ND (13)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3)
Dibromochloromethane	ug/l	-	ND (0.48)	ND (0.19)	ND (0.19)	ND (0.19)	ND (1.9)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
1,2-Dibromoethane	ug/l	0.0006	ND (0.40)	ND (0.16)	ND (0.16)	ND (0.16)	ND (1.6)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,2-Dichlorobenzene	ug/l	3	ND (0.51)	ND (0.20)	ND (0.20)	ND (0.20)	ND (2.0)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
1,3-Dichlorobenzene	ug/l	3	ND (0.79)	ND (0.31)	ND (0.31)	ND (0.31)	ND (3.1)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)
1,4-Dichlorobenzene	ug/l	3	ND (0.75)	ND (0.30)	ND (0.30)	ND (0.30)	ND (3.0)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)
Dichlorodifluoromethane	ug/l	5	ND (1.6)	ND (0.63)	ND (0.63)	ND (0.63)	ND (6.3)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)
1,1-Dichloroethane	ug/l	5	ND (0.65)	ND (0.26)	ND (0.26)	ND (0.26)	ND (2.6)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)
1,2-Dichloroethane	ug/l	0.6	ND (0.55)	ND (0.22)	ND (0.22)	ND (0.22)	ND (2.2)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,1-Dichloroethene	ug/l	5	ND (0.86)	ND (0.34)	ND (0.34)	ND (0.34)	ND (3.4)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)
cis-1,2-Dichloroethene	ug/l	5	ND (0.60)	ND (0.24)	ND (0.24)	ND (0.24)	ND (2.4)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
trans-1,2-Dichloroethene	ug/l	5	ND (0.95)	ND (0.38)	ND (0.38)	ND (0.38)	ND (3.8)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)
1,2-Dichloropropane	ug/l	1	ND (0.70)	ND (0.28)	ND (0.28)	ND (0.28)	ND (2.8)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)
cis-1,3-Dichloropropene	ug/l	-	ND (0.38)	ND (0.15)	ND (0.15)	ND (0.15)	ND (1.5)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)
trans-1,3-Dichloropropene	ug/l	-	ND (0.52)	ND (0.21)	ND (0.21)	ND (0.21)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
Ethylbenzene	ug/l	5	54.6	ND (0.21)	0.22 J	ND (0.21)	49.9	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
Freon 113	ug/l	5	ND (1.9)	ND (0.77)	ND (0.77)	ND (0.77)	ND (7.7)	ND (0.77)	ND (0.77)	ND (0.77)	ND (0.77)	ND (0.77)	ND (0.77)	ND (0.77)	ND (0.77)
2-Hexanone	ug/l	-	ND (4.3)	ND (1.7)	ND (1.7)	ND (1.7)	ND (17)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)
Isopropylbenzene	ug/l	5	1.0 J	ND (0.22)	1.7 J	ND (0.22)	6.9 J	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Methyl Acetate	ug/l	-	ND (3.8)	ND (1.5)	ND (1.5)	ND (1.5)	ND (15)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)
Methylcyclohexane	ug/l	-	0.73 J	ND (0.15)	ND (0.15)	ND (0.15)	3.1 J	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)
Methyl Tert Butyl Ether	ug/l	10	470	1.9	2.9	5.3	ND (2.9)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)
4-Methyl-2-pentanone(MIBK)	ug/l	-	ND (3.7)	ND (1.5)	ND (1.5)	ND (1.5)	ND (15)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)
Methylene chloride	ug/l	5	ND (2.2)	ND (0.86)	ND (0.86)	ND (0.86)	ND (8.6)	ND (0.86)	ND (0.86)	ND (0.86)	ND (0.86)	ND (0.86)	ND (0.86)	ND (0.86)	ND (0.86)
Styrene	ug/l	5	ND (0.76)	ND (0.30)	ND (0.30)	ND (0.30)	ND (3.0)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)
1,1,2,2-Tetrachloroethane	ug/l	5	ND (0.49)	ND (0.20)	ND (0.20)	ND (0.20)	ND (2.0)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
Tetrachloroethene	ug/l	5	ND (0.63)	ND (0.25)	ND (0.25)	ND (0.25)	ND (2.5)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
Toluene	ug/l	5	1430	ND (0.44)	ND (0.44)	0.69 J	30.2	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)
1,2,3-Trichlorobenzene	ug/l	5	ND (0.61)	ND (0.24)	ND (0.24)	ND (0.24)	ND (2.4)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2,4-Trichlorobenzene	ug/l	5	ND (0.54)	ND (0.22)	ND (0.22)	ND (0.22)	ND (2.2)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
1,1,1-Trichloroethane	ug/l	5	ND (0.62)	ND (0.25)	ND (0.25)	ND (0.25)	ND (2.5)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)
1,1,2-Trichloroethane	ug/l	1	ND (0.53)	ND (0.21)	ND (0.21)	ND (0.21)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
Trichloroethene	ug/l	5	ND (1.3)	ND (0.50)	ND (0.50)	ND (0.50)	ND (5.0)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)
Trichlorofluoromethane	ug/l	5	ND (0.84)	ND (0.33)	ND (0.33)	ND (0.33)	ND (3.3)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)
Vinyl chloride	ug/l	2	ND (1.0)	ND (0.41)	ND (0.41)	ND (0.41)	ND (4.1)	ND (0.41)	ND (0.41)	ND (0.41)	ND (0.41)	ND (0.41)	ND (0.41)	ND (0.41)	ND (0.41)
m,p-Xylene	ug/l	-	193	ND (0.40)	ND (0.40)	0.40 J	143	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)
o-Xylene	ug/l	5	144	ND (0.19)	ND (0.19)	0.20 J	114	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Xylene (total)	ug/l	5	338	ND (0.19)	ND (0.19)	0.61 J	257	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
GC/MS Volatile TIC															
Total TIC, Volatile	ug/l	-	454 J	56 J	77.4 J	0	1350 J	0	0	0	0	0	0	0	0

Legend:
Hit
Exceedance
J - Estimated Value

Table 3
Soil Vapor and Indoor Air Analytical Results
Albanese 511 W. 21st Street

Client Sample ID:	SV-1	SV-2	SV-3	SV-4	IA-1	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	IA-1	SS-1	SS-2	SS-1	SS-2	IA-1	IA-2	AA-1	IA-1	IA-2	AA-1		
Lab Sample ID:	JBS5641-1	JBS5641-2	JBS5641-3	JBS5641-4	JBS5641-5	JBS8244-1	JBS8244-2	JBS8244-3	JBS8244-4	JBS8244-5	JBS8244-6	JC193930-1	18C1215-01	18C1215-02	JC83612-4	JC83612-2	JC83612-5	JC83612-3	JC83612-1					
Date Sampled:	12/12/2013	12/12/2013	12/12/2013	12/12/2013	12/12/2013	12/30/2014	12/30/2014	12/30/2014	12/30/2014	12/30/2014	12/30/2014	3/10/2016	3/30/2018	3/30/2018	2/27/2019	2/27/2019	2/27/2019	2/27/2019	2/27/2019	1/17/2020	1/17/2020	1/17/2020	1/17/2020	
Matrix:	Soil Vapor Comp.	Soil Vapor Comp.	Soil Vapor Comp.	Soil Vapor Comp.	Ambient Air Comp.	Soil Vapor Comp.	Indoor Air Comp.	Soil Vapor Comp.	Soil Vapor Comp.	Soil Vapor Comp.	Soil Vapor Comp.	Indoor Air Comp.	Indoor Air Comp.	Ambient Air Comp.	Indoor Air Comp.	Indoor Air Comp.	Ambient Air Comp.							
MS Volatiles (TO-15) - ug/m3	Pre-Remediation					Pre-Remediation							Post-Remediation											
Acetone	67-64-1	ug/m3	194	75.5	17	6130	7.8	21	32.8	40.4	22	14	34.4	120	190	24	430	57.2	70.8	14	5.9	31.4	5.2	
1,3-Butadiene	106-99-0	ug/m3	ND (0.058)	ND (0.058)	ND (0.10)	ND (44)	ND (0.444)	ND (0.075)	ND (0.062)	1.9	ND (1)	ND (0.082)	ND (0.10)	ND (0.082)	ND (0.082)	ND (0.082)	ND (0.35)	ND (0.35)	ND (0.35)					
Benzene	71-43-2	ug/m3	15	13	22	ND (70)	1.5	1.2	0.51 J	2.2	0.64	0.32 J	2.5	4.5	9.1	1	16	2.5	6.1	4.8	0.89	0.7	0.64	0.51
Bromodichloromethane	75-27-4	ug/m3	ND (0.22)	ND (0.22)	ND (0.39)	ND (170)	ND (0.17)	ND (0.19)	ND (0.26)	ND (1)	ND (1)	ND (0.14)	ND (0.18)	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.54)	ND (0.54)	ND (0.54)					
Bromofrom	75-25-2	ug/m3	ND (0.30)	ND (0.30)	ND (0.52)	ND (230)	ND (0.23)	ND (0.36)	ND (0.17)	ND (1.6)	ND (1.6)	ND (0.31)	ND (0.38)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.33)	ND (0.33)	ND (0.33)					
Bromomethane	74-83-9	ug/m3	ND (0.089)	ND (0.089)	ND (0.16)	ND (70)	ND (0.066)	ND (0.13)	ND (0.070)	ND (0.58)	ND (0.6)	0.35 J	ND (0.085)	ND (0.070)	ND (0.070)	ND (0.070)	ND (0.62)	ND (0.62)	ND (0.62)					
Bromoethene	593-60-2	ug/m3	ND (0.083)	ND (0.083)	ND (0.14)	ND (66)	ND (0.061)	ND (0.15)	ND (0.079)	ND (0.66)	ND (0.68)	ND (0.079)	ND (0.096)	ND (0.079)	ND (0.079)	ND (0.079)	ND (0.62)	ND (0.62)	ND (0.62)					
Benzyl Chloride	100-44-7	ug/m3	ND (0.17)	ND (0.17)	ND (0.30)	ND (130)	ND (0.13)	ND (0.24)	ND (0.14)	ND (0.78)	ND (0.8)	ND (0.23)*	ND (0.29)*	ND (0.23)*	ND (0.23)*	ND (0.23)*	ND (0.82)	ND (0.82)	ND (0.82)					
Carbon disulfide	75-15-0	ug/m3	75.2	35.4	117	ND (56)	ND (0.562)	1.6	1	5.6	1.7	1.2	3.4	0.53 J	9	1.8	268	66.6	ND (0.059)	ND (0.059)	ND (0.059)	ND (0.50)	0.16 J	ND (0.50)
Chlorobenzene	108-90-7	ug/m3	ND (0.16)	ND (0.16)	ND (0.27)	ND (120)	ND (0.12)	ND (0.16)	ND (0.26)	ND (0.69)	ND (0.71)	ND (0.097)	ND (0.12)	ND (0.097)	ND (0.097)	ND (0.097)	ND (0.74)	ND (0.74)	ND (0.74)					
Chloroethane	75-00-3	ug/m3	ND (0.071)	ND (0.071)	ND (0.13)	ND (55)	ND (0.053)	ND (0.11)	ND (0.095)	ND (0.4)	ND (0.4)	0.26 J	ND (0.13)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.42)	ND (0.42)	ND (0.42)					
Chloroform	67-66-3	ug/m3	35	14	3.9	ND (93)	ND (0.093)	ND (0.12)	0.59 J	0.88 J	1.1	3.2	ND (0.12)	0.83 J	16	2.8	7.3	9.3	ND (0.078)	ND (0.078)	ND (0.078)	ND (0.78)	ND (0.78)	ND (0.78)
Chloroethene	74-87-3	ug/m3	0.95	ND (0.093)	ND (0.16)	ND (70)	1.3	ND (0.16)	0.37 J	ND (0.16)	1.2	ND (0.32)	0.78	0.99	1.3	1.2	1.2	1.1	1.2					
3-Chloropropene	107-05-1	ug/m3	ND (0.12)	ND (0.12)	ND (0.20)	ND (69)	ND (0.088)	ND (0.12)	ND (0.085)	ND (0.23)	ND (2.3)	ND (2.4)	ND (1.0)	ND (1.3)	ND (1.0)	ND (1.0)	ND (1.0)	ND (0.50)	ND (0.50)	ND (0.50)				
2-Chlorotoluene	95-48-9	ug/m3	ND (0.14)	ND (0.14)	ND (0.24)	ND (100)	ND (0.10)	5.2	2.5	5.2	4.7	ND (0.17)	ND (0.17)	ND (0.17)	ND (0.098)	NT	NT	1.8	1.6	ND (0.10)	ND (0.10)	ND (0.83)	ND (0.83)	ND (0.83)
Carbon tetrachloride	56-23-5	ug/m3	ND (0.094)	ND (0.094)	ND (0.16)	ND (75)	ND (0.069)	ND (0.16)	0.69	0.28	0.49	0.35	ND (0.15)	0.46	0.44	0.45	0.52	0.49	ND (0.50)					
Cyclohexane	110-82-7	ug/m3	34	20	28	ND (210)	0.55 J	ND (0.093)	13	ND (0.093)	ND (0.093)	ND (0.093)	ND (0.093)	8.9	22	0.96	13	13	12	13	ND (0.62)	ND (0.55)	0.33 J	ND (0.55)
1,1-Dichloroethane	75-34-3	ug/m3	ND (0.089)	ND (0.089)	ND (0.15)	ND (69)	ND (0.065)	ND (0.11)	ND (0.061)	ND (0.61)	ND (0.63)	ND (0.038)	ND (0.049)	ND (0.038)	ND (0.038)	ND (0.038)	ND (0.65)	ND (0.65)	ND (0.65)					
1,1-Dichloroethene	75-35-4	ug/m3	ND (0.11)	ND (0.11)	ND (0.19)	ND (87)	ND (0.083)	ND (0.21)	ND (0.083)	ND (0.15)	ND (0.15)	ND (0.052)	ND (0.067)	ND (0.052)	ND (0.052)	ND (0.052)	ND (0.63)	ND (0.63)	ND (0.63)					
1,2-Dibromoethane	106-93-4	ug/m3	ND (0.28)	ND (0.28)	ND (0.48)	ND (220)	ND (0.21)	ND (0.32)	ND (1.2)	ND (1.2)	ND (1.1)	ND (1.4)	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.1)	2.2	ND (0.61)	ND (0.61)					
1,2-Dichloroethane	107-06-2	ug/m3	ND (0.089)	ND (0.089)	ND (0.15)	ND (69)	ND (0.065)	ND (0.093)	ND (0.070)	ND (0.61)	ND (0.63)	ND (0.069)	ND (0.085)	ND (0.069)	ND (0.069)	ND (0.069)	ND (0.65)	ND (0.65)	ND (0.65)					
1,2-Dichloropropane	78-87-5	ug/m3	ND (0.24)	ND (0.24)	ND (0.43)	ND (190)	ND (0.18)	ND (0.33)	ND (0.13)	ND (0.69)	ND (0.72)	ND (0.069)	ND (0.088)	ND (0.069)	ND (0.069)	ND (0.069)	ND (0.74)	ND (0.74)	ND (0.74)					
1,4-Dioxane	123-91-1	ug/m3	ND (0.29)	ND (0.29)	ND (0.50)	ND (220)	ND (0.22)	ND (0.43)	ND (0.16)	1.3	ND (1.1)	3.6	ND (0.19)	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.58)	ND (0.58)	ND (0.58)					
Dichlorodifluoromethane	75-71-8	ug/m3	18	2	11	173000	ND (0.22)	2.5	3.9	247000	239000	851	3.2	4.5	8.3	4610	65.1	2.3	2.4	2.5	2.4	2.3	2.2	
Dibromochloromethane	124-46-1	ug/m3	ND (0.53)	ND (0.53)	ND (0.57)	ND (260)	ND (0.25)	ND (0.32)	ND (0.45)	ND (1.1)	ND (1.1)	ND (0.23)	ND (0.28)	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.88)	ND (0.88)	ND (0.88)					
trans-1,2-Dichloroethene	156-60-5	ug/m3	ND (0.079)	ND (0.079)	ND (0.14)	ND (59)	ND (0.059)	ND (0.28)	ND (0.11)	ND (0.59)	ND (0.62)	0.34 J	ND (0.029)	0.35 J	ND (0.023)	ND (0.023)	ND (0.63)	ND (0.63)	ND (0.63)					
cis-1,2-Dichloroethene	156-59-2	ug/m3	ND (0.15)	ND (0.15)	ND (0.25)	ND (110)	ND (0.11)	ND (0.091)	ND (0.083)	ND (0.15)	ND (0.15)	ND (0.037)	3.1	ND (0.037)	ND (0.037)	ND (0.037)	ND (0.63)	ND (0.63)	ND (0.63)					
cis-1,3-Dichloropropene	10061-01-5	ug/m3	ND (0.11)	ND (0.11)	ND (0.20)	ND (86)	ND (0.086)	ND (0.11)	ND (0.068)	ND (0.68)	ND (0.7)	ND (0.073)	ND (0.091)	ND (0.073)	ND (0.073)	ND (0.073)	ND (0.73)	ND (0.73)	ND (0.73)					
m,p-Dichlorobenzene	541-74-1	ug/m3	ND (0.20)	ND (0.20)	ND (0.35)	ND (150)	ND (0.15)	ND (0.21)	ND (0.32)	ND (0.9)	ND (0.9)	ND (0.090)	ND (0.11)	ND (0.090)	ND (0.090)	ND (0.090)	ND (0.48)	ND (0.48)	ND (0.48)					
p-Dichlorobenzene	95-50-1	ug/m3	ND (0.23)	ND (0.23)	ND (0.41)	ND (180)	ND (0.17)	ND (0.096)	ND (0.9)	ND (0.93)	ND (0.10)	ND (0.13)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.19)	ND (0.19)	ND (0.19)						
Dibromobenzene	106-46-7	ug/m3	ND (0.17)	ND (0.17)	ND (0.30)	ND (130)	ND (0.13)	ND (0.22)	0.78	ND (0.9)	ND (0.93)	ND (0.084)	ND (0.11)	ND (0.084)	ND (0.084)	ND (0.084)	ND (0.48)	ND (0.48)	ND (0.48)					
trans-1,3-Dichloropropene	10061-02-6	ug/m3	ND (0.13)	ND (0.13)	ND (0.22)	ND (100)	ND (0.095)	ND (0.11)	ND (0.082)	ND (0.68)	ND (0.7)	ND (0.073)	ND (0.091)	ND (0.073)	ND (0.073)	ND (0.073)	ND (0.73)	ND (0.73)	ND (0.73)					
Ethanol	64-17-5	ug/m3	2.8	3	ND (360)	ND (0.36)	11	9	7.3	9.6	10	16	133	0	0	192	78.2	72.2	112	9.2	8.5	14	3.8	
Ethylbenzene	100-41-4	ug/m3	ND (0.12)	ND (0.12)	ND (0.4)	ND (91)	0.61 J	0.48 J	ND (0.15)	0.65 J	1.7	1.1	0.52 J	32	11	4.4	2.7	1.4	6.9	2.5	0.48 J	0.33 J	0.43 J	ND (0.69)
Ethyl Acetate	141-78-6	ug/m3	ND (0.27)	ND (0.27)	ND (0.47)	1000	5.4	3.1	1.4	ND (2.2)	1.2	1.2	1.3	ND (1.1)	ND (1.1)	ND (1.1)	ND (1.4)	ND (1.1)	5.4	0.61	3.6	4.3	1.4	
4-Ethyltoluene	622-96-8	ug/m3	ND (0.098)	2.2	2.0 J	ND (74)	ND (0.074)	ND (0.16)	70.8	3.6	4	1.2	ND (0.15)	2.9	ND (0.12)	ND (0.12)	ND (0.79)	ND (0.79)	ND (0.79)					
Freon 113	76-13-1	ug/m3	ND (0.21)	24	ND (0.37)	ND (160)	2.9	ND (0.31)	ND (0.31)	1.1	ND (0.31)	ND (0.31)	ND (0.16)	ND (1.1)	ND (1.2)	0.74	ND (0.13)	ND (0.11)	ND (0.11)	ND (0.61)	ND (0.61)	ND (0.61)		
Freon 114	76-14-2	ug/m3	ND (0.20)	ND (0.20)	ND (0.34)	ND (150)	ND (0.15)	ND (0.22)	ND (1)	ND (1.1)	ND (1.0)	ND (0.13)	ND (0.10)	ND (0.10)	ND (0.10)	ND (0.56)	ND (0.56)	ND (0.56)						
Heptane	142-82-5	ug/m3	11	2	ND (62)	ND (6.2)	0.45 J	0.45 J	0.45 J	0.53 J	2.5	11	9	7	11	2.5	13	9.8	0.7	9.8	0.7	0.31 J	0.38 J	ND (0.66)
Hexachlorobutadiene	87-58-3																							

APPENDIX A

Institutional and Engineering Control Certification Form



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



	Site Details	Box 1	
Site No.	C231080		
Site Name 511 West 21st Street			
Site Address: 511 West 21st Street Zip Code: 10011			
City/Town: New York			
County: New York			
Site Acreage: 0.453			
Reporting Period: April 21, 2021 to April 21, 2022			
		YES	NO
1.	Is the information above correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Box 2	
		YES	NO
6.	Is the current site use consistent with the use(s) listed below? Commercial and Industrial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Are all ICs in place and functioning as designed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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

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

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? YES NO
(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. C231080

Box 3

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
693-23	510 West 22nd Street Owner, LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allow the use and development of the controlled property for commercial or industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or NYCDOH; and
- require compliance with the Department approved Site Management Plan.

Description of Engineering Controls

Box 4

<u>Parcel</u>	<u>Engineering Control</u>
693-23	Cover System

- A site cover currently exists and will be maintained on the Track 4 cleanup (western) portion of the site to allow for commercial use of the site. Any site redevelopment will maintain the existing site cover, which consists either of the structures such as buildings, pavement, sidewalks or soil where the upper one feet of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for commercial use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

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 complete.

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. C231080

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 Arnold F. Fleming at 158 WEST 29TH STREET, 9TH FL, NEW YORK, NY 10001,
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.

Arnold F. Fleming

May 18, 2022

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

Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional 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.

Arnold F. Fleming at 158 WEST 29TH STREET, 9TH FL, NEW YORK, NY 100
print name print business address

am certifying as a Qualified Environmental Professional for the Owner
(Owner or Remedial Party)

Arnold F. Fleming



5/18/2022

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

Stamp (Required for PE)

Date

APPENDIX B

NYSDEC and NYSDOH Approvals and Correspondence

Joel Kane

From: Joel Kane
Sent: Thursday, March 10, 2022 10:44 AM
To: 'Perez-Maldonado, Javier (DEC)'
Cc: 'Palevic, Ardian'; 'McArter, John'; Mark Hutson; Arnold Fleming; Jordan Arey; 'Jennifer Coghlan'
Subject: RE: 511 W. 21st Street | C231080 | Semi-Annual Groundwater Report Q2-Q3 2021

Hello Javier,

Thank you for taking my call this morning. Per our discussion, we will put a hold on conducting the next groundwater sampling event at the 511 W. 21st Street Site (typically conducted in March) until NYSDOH and DEC have reached a decision regarding the recommendations from the 2021 Q2-Q3 Semi-Annual Groundwater Report.

Feel free to reach out if there are any questions regarding the report.

Thanks again,

Joel Kane
Project Manager
Fleming-Lee Shue
158 West 29th Street
New York, NY, 10001
P: (212) 675-3225
F: (212) 675-3224
C: (406) 321-0586

From: Joel Kane
Sent: Tuesday, February 15, 2022 1:46 PM
To: 'Perez-Maldonado, Javier (DEC)' <javier.perez-maldonado@dec.ny.gov>
Cc: 'Palevic, Ardian' <APalevic@VNO.com>; 'McArter, John' <JMcArter@VNO.com>; Mark Hutson <mark@flemingleeshue.com>; Arnold Fleming <arnie@flemingleeshue.com>; Jordan Arey <jordan@flemingleeshue.com>; 'Jennifer Coghlan' <jcoghlan@sprlaw.com>
Subject: RE: 511 W. 21st Street | C231080 | Semi-Annual Groundwater Report Q2-Q3 2021

Hello Javier,

Hope you are well. Following up on the 2021 Q2-Q3 Semi-Annual Groundwater Report for 511 W. 21st Street (C231080). As discussed in our last call, FLS recommended to discontinue groundwater monitoring at the Site following evidence of sustained bulk reductions and asymptotic data trends.

Last we spoke, the report was going to be forwarded to NYSDOH for comment. At this time, does either NYSDEC or NYSDOH have any questions regarding the report or recommendations?

The next scheduled semi-annual groundwater event is in late March. Is it possible to have a decision regarding the recommendations prior to this event?

I am available for a call to discuss if needed.

Thanks again,

Joel Kane

Project Manager

Fleming-Lee Shue, Inc.

158 West 29th Street

New York, NY, 10001

P: (212) 675-3225

F: (212) 675-3224

C: (406) 321-0586

From: Joel Kane

Sent: Tuesday, December 21, 2021 12:57 PM

To: 'Perez-Maldonado, Javier (DEC)' <javier.perez-maldonado@dec.ny.gov>

Cc: 'Palevic, Ardian' <APalevic@VNO.com>; 'McArter, John' <JMcArter@VNO.com>; Mark Hutson <mark@flemingleeshue.com>; Arnold Fleming <arnie@flemingleeshue.com>; Jordan Arey <jordan@flemingleeshue.com>; Jennifer Coghlan <jcoghlan@sprlaw.com>

Subject: 511 W. 21st Street | C231080 | Semi-Annual Groundwater Report Q2-Q3 2021

Hello Javier,

Hope you are well. Please see attached, the 2021 Q2-Q3 Semi-Annual Groundwater Report for 511 W. 21st Street (C231080).

Based on the findings presented herein, including evidence of sustained bulk reductions of all contaminants of concern, low-concentration asymptotic data trends, and current engineering controls employed at the Site which are protective of human health, FLS recommends to discontinue the groundwater monitoring program at the Site.

As always, let me know if there are any questions, comments or concerns.

Thanks again,

Joel Kane

Project Manager

Fleming-Lee Shue, Inc.

158 West 29th Street

New York, NY, 10001

P: (212) 675-3225

F: (212) 675-3224

C: (406) 321-0586

Joel Kane

From: Perez-Maldonado, Javier (DEC) <javier.perez-maldonado@dec.ny.gov>
Sent: Friday, September 04, 2020 3:25 PM
To: Joel Kane
Subject: RE: 511 W. 21st Street | C231080 | Semi-Annual Groundwater Report

Joel,

The modifications to the groundwater program are acceptable. The monitoring wells MW-1 and MW-2 should remain in place until further notice.

Regards,

Javier Perez-Maldonado

Project Manager, Division of Environmental Remediation

New York State Department of Environmental Conservation

625 Broadway, Albany, NY 12233

P: 518-402-9767 | F: 518-402-9773 | javier.perez-maldonado@dec.ny.gov

www.dec.ny.gov |  |  | 



From: Joel Kane <joel@flemingleeshue.com>
Sent: Friday, September 4, 2020 9:51 AM
To: Perez-Maldonado, Javier (DEC) <javier.perez-maldonado@dec.ny.gov>
Subject: RE: 511 W. 21st Street | C231080 | Semi-Annual Groundwater Report

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Javier,

Have you had a chance to review the Semi-Annual Groundwater Report for 511 W. 21st Street? As discussed, we are holding our SMP modifications until we receiving your comments on our newest suggested modifications to the Groundwater Monitoring program.

Thanks again,

Joel Kane

Project Manager

Fleming-Lee Shue, Inc.

158 West 29th Street
New York, NY, 10001

P: (212) 675-3225

F: (212) 675-3224

C: (406) 321-0586

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau B

625 Broadway, 12th Floor, Albany, NY 12233-7016

P: (518) 402-9767 | F: (518) 402-9773

www.dec.ny.gov

March 26, 2020

510 West 22nd Street Partners LLC
c/o Albanese Development Corporation
1050 Franklin Avenue
Garden City, NY 11530
Attention: Martin Dettling

Re: **Soil Vapor Intrusion Investigation
Summary Report**
511 West 21st Street
Site ID No. C231080
New York, New York County

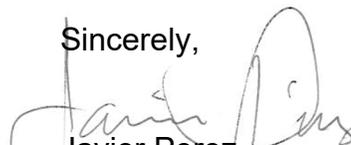
Dear Mr. Dettling:

The New York State Department of Environmental Conservation (Department), in conjunction with the New York State Department of Health (NYSDOH), has reviewed the Soil Vapor Intrusion Investigation Summary Report, dated February 19, 2020, for the 511 West 21st Street site. Based on that review the report is approved.

The Department agrees with the report's conclusion that no further monitoring of sub-slab vapor and indoor air is necessary. Please submit a revised Site Management Plan that reflects such change.

Should you have any questions regarding this communication don't hesitate to contact me.

Sincerely,



Javier Perez
Project Manager
Division of Environmental Remediation



Department of
Environmental
Conservation



Ec: J. Grathwol
S. Karpinski
S. McLaughlin
M. Hutson
A. Fleming

APPENDIX C

Site Photographs

SITE INSPECTION – Photograph Log
511 West 21st Street, New York, New York.



Photo 1: Exterior of Site from West 21st Street – facing north

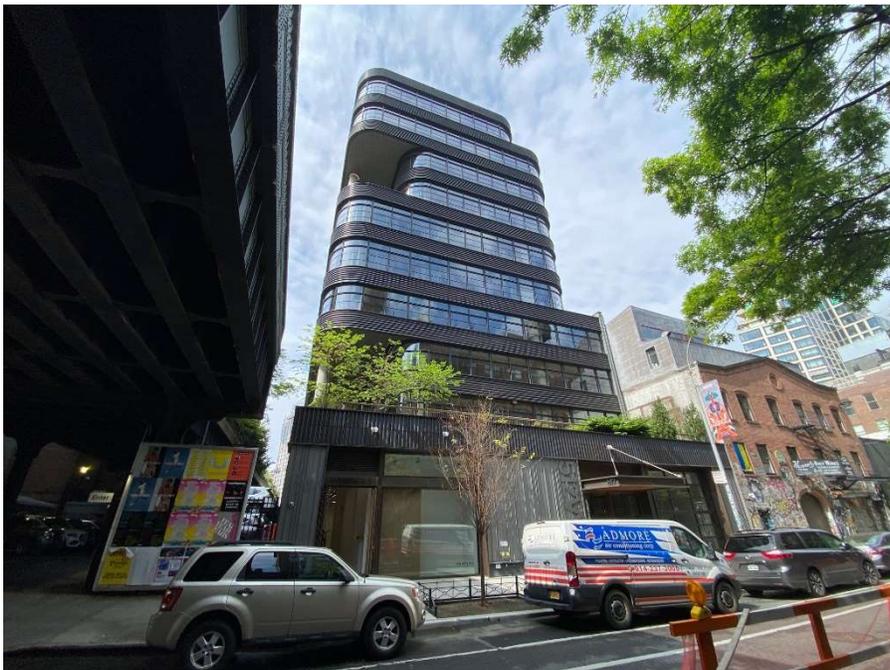


Photo 2: Exterior of Site from West 22nd Street – facing south



Photo 3: First floor hallway – facing south

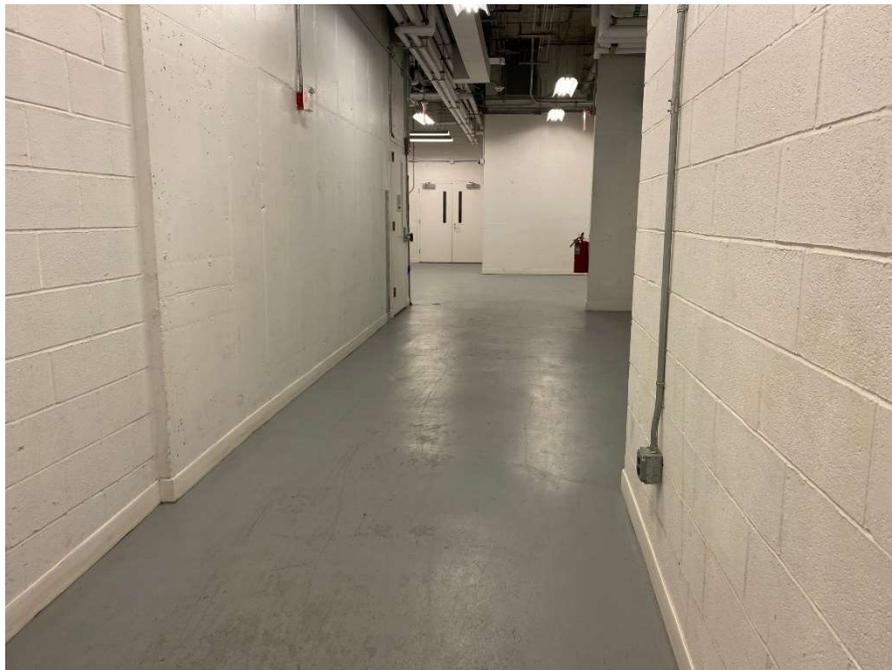


Photo 4: First floor hallway – facing east



Photo 5: Refuse room

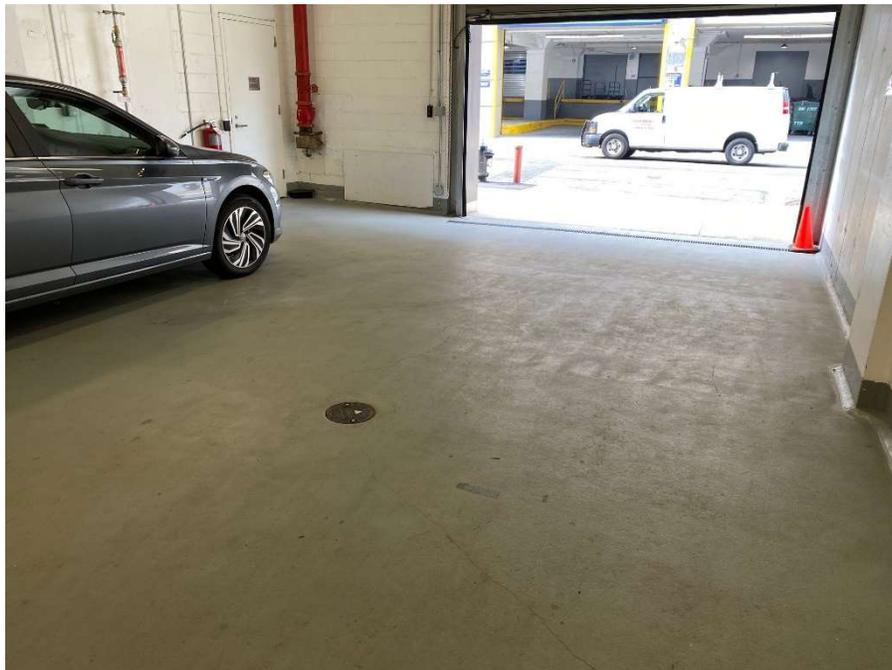


Photo 6: Loading dock/garage area



Photo 7: Bicycle Storage area



Photo 8: SSDS riser area

APPENDIX D

Site Inspection Sheet

**SUB-SLAB DEPRESSURIZATION SYSTEM
ANNUAL INSPECTION/ MONITORING CHECKLIST**

511 West 21st Street - C231080
New York, New York
Block 693, Lot 23

SSDS Component	Condition	No	Yes	Describe Deficiency	Any Corrective Action Performed? If so, describe
Composite Cover	Holes, cracks or other physical deficiencies?	x			
Vapor Barrier	Holes, cracks or other physical deficiencies?	x			
Riser pipes	Holes, cracks or other physical deficiencies?	x			
	Blockages in riser pipes?	x			
	Flow Rate (CFM)		2.75		
	Relative Humidity (%)		74.6		
	Temperature (F)		70.7		
SSDS BMS alarm	Operational?	x		Not Installed	No BMS installed in building
SSDS Blower	Operational?		N/A	Passive System	

Jordan Arey

Name of Inspector

Signature of Inspector

5/16/2022

Date of Inspection

