ATTACHMENT C
SECTION III: PROPERTY'S ENVIRONMENTAL HISTORY

Item 1 - Environmental Reports

The following environmental reports were prepared for the Site:

- *September 14, 2020 Phase I Environmental Site Assessment (ESA) prepared by Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan)*
- *May 4, 2021 Phase II Environmental Site Investigation (ESI) Report prepared by Langan*

These reports were prepared for Block 3770, Lot 22 and Block 3769, Lot 1. Only parts of Block 3770, Lot 22 – about 13,650 square feet within the northern part (proposed Building 1) and 11,400 square feet within the southern part of Lot 22 (proposed Building 2) – are proposed for enrollment in the Brownfield Cleanup Program (BCP); the remaining parts of Block 3770, Lot 22 and the adjoining Block 3769, Lot 1 are excluded from this BCP application. Environmental reports are summarized below and included with this attachment. Summaries presented below were updated from the original reports to provide focus on the portions of Lot 22 that are the subject of this BCP application.

September 14, 2020 Phase I Environmental Site Assessment prepared by Langan

The September 2020 Phase I ESA was conducted in accordance with ASTM E1527-13 (Standard Practice for ESA: Phase I ESA Process) and the USEPA AAI Rule for the purpose of identifying Recognized Environmental Condition (RECs), Historical RECs (HRECs), controlled RECs (CREC), and Business Environmental Risks (BERs). The Phase I ESA identified two RECs, one BER and one non-ASTM consideration in relation to the proposed BCP site:

- REC 1 – Historical Uses of the Site
  Historical operations at the Site include millinery (612 Sutter Avenue, 1928-1965) and drycleaner (608 Sutter Avenue, 1940-1973).

  REC 1 includes historical petroleum bulk storage (PBS) associated with the off-site residential building on Block 3770, Lot 22 (350 Sheffield Avenue), which contained a 7,500-gal No. 6 fuel-oil underground storage tank (UST) removed in 2008, and a 7,000-gal No. 2 fuel oil aboveground storage tank (AST) closed in-place in 2016. Soil, groundwater, and/or soil vapor may have been impacted by spills or releases of petroleum products, solvents, and other hazardous substances associated with historical uses.

- REC 2 – Current and Historical Use of Adjoining and Surrounding Properties
  Historical and current use of the adjoining and surrounding properties include drycleaners (1966-present), manufactured gas production and storage (1887-1960), an electrical substation (1966-present), and a metal smelting and refining works (1908-2007). Two surrounding properties, the former Brooklyn Union Gas and Belmont Works facilities, are listed in the Superfund Enterprise Management System (SEMS)-Archive (United States Environmental Protection Agency (USEPA) ID: NYD980532097), Hazardous Substance Waste Disposal Site Inventory (HSWDS) (Facility ID: HS2005), and Volunteer Cleanup Program (VCP) (HW Code: V00709, 224060) databases.

  Gasification plants are associated with coal tar distillates that can travel to neighboring properties through soil and groundwater. Dry cleaners are associated with chlorinated solvents that, through undocumented releases, have potential to impact groundwater and soil vapor in the surrounding area. Unreported releases or spills petroleum products, solvents, and other hazardous substances associated with current and historical adjoining property uses may have affected soil vapor and/or groundwater beneath the site.

  Two documented petroleum releases were associated with buildings on the west-adjoining property (Block 3769, Lot 1) for historical petroleum bulk storage (PBS) and petroleum impacted soil that was left in place following spill remediation.

- BER 1 – Historic Fill
  Historic fill found in urban environments typically contains varying amounts of ash, demolition debris, and/or municipal waste products and may contain contaminants (e.g., semivolatile organic compounds [SVOCs] or inorganics/metals) at concentrations above current regulatory standards and sometimes at hazardous concentrations.

- Non-ASTM Consideration
  Buildings on the site (including the supermarket in the northern part of Lot 22, proposed Building 1) were built in 1974, potentially with asbestos-containing material ACM, LBP, and PCB-containing materials.

May 4, 2021 Phase II Environmental Site Investigation prepared by Langan

A Phase II ESI was conducted in general accordance with ASTM E1903-19 (Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessments) in December 2020 to evaluate soil and soil vapor at the proposed BCP site. The Phase II ESI included a geophysical survey, the advancement of ten soil borings (five within Building 1 and four within Building 2), and the installation of three soil vapor points (two within Building 1 and one within Building 2), and collection of 16 soil samples and three soil vapor samples. Groundwater was not encountered in the deepest boring (44 feet below grade). The following observations were made:

- Geophysical Survey – Anomalies resembling potential subsurface utilities (such as electrical, gas, sewer and water) were identified during the survey. Large geophysical anomalies resembling USTs were not identified during the survey.
- Soil – SVOCs and inorganics/metals were detected in soil at concentrations above Title 6 of the New York Codes, Rules and Regulations (6 NYCRR) Part 375 Unrestricted Use (UU) and Restricted Use Restricted-Residential (RURR) Soil Cleanup Objectives (SCOs).
- Soil Vapor – Up to 30 volatile organic compounds (VOCs) were detected in soil vapor, including trichloroethene (TCE), which was detected at concentrations above that which the New York State Department of Health (NYSDOH) decision matrix recommendation ranges from "no further action" to "mitigate".

Item 2 - Sampling Data

Sampling data from the May 4, 2021 Phase II ESI were compared to applicable New York State criterion or guidance values. Soil sample analytical results were compared to Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (6 NYCRR) New York State Department of Environmental Conservation (NYSDEC) Part 375 UU and RURR SCOs. Soil vapor samples were compared to the NYSDOH decision matrices. Laboratory analytical reports are included as attachments to the Phase II ESI (appended to this attachment).

Soil

Soil sample analytical results were compared to the UU and RURR SCOs. Detected compounds that exceed UU SCOs are summarized below. Those detected compounds that also exceed RURR SCOs are in **bold**.

SVOCs

- SB03_0-2: benzo(k)fluoranthene, **indeno(1,2,3-cd)pyrene**
- SB03_2-4: **benzo(a)anthracene, benzo(a)pyrene**, **benzo(b)fluoranthene**, **benzo(k)fluoranthene**, **chrysene**, **dibenzo(a,h)anthracene**, and **indeno(1,2,3-cd)pyrene**
- SB07_2-4: **benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene,** benzo(k)fluoranthene, chrysene, **dibenzo(a,h)anthracene**, and **indeno(1,2,3-cd)pyrene**
- SB10_4-5: **benzo(a)anthracene**, **benzo(a)pyrene**, **benzo(b)fluoranthene**, **benzo(k)fluoranthene**, **chrysene**, **dibenzo(a,h)anthracene**, and **indeno(1,2,3-cd)pyrene**
- SB10_20-22: **benzo(a)anthracene**, **benzo(a)pyrene**, **benzo(b)fluoranthene**, benzo(k)fluoranthene, chrysene, **dibenz(a,h)anthracene**, and **indeno(1,2,3-cd)pyrene**

- SB12_2-4: **benzo(a)anthracene**, **benzo(a)pyrene**, **benzo(b)fluoranthene**, benzo(k)fluoranthene, chrysene, **dibenz(a,h)anthracene**, and **indeno(1,2,3-cd)pyrene**
- SB13_2-4: **benzo(a)anthracene**, **benzo(a)pyrene**, **benzo(b)fluoranthene**, **benzo(k)fluoranthene**, **chrysene**, **dibenzo(a,h)anthracene**, and **indeno(1,2,3-cd)pyrene**

Pesticides

- SB03_0-2: 4,4'-DDT
- SB03_2-4: 4,4'-DDD, 4,4'-DDE, 4,4'-DDT
- SB07_2-4: 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin
- SB07_12-14: 4,4-DDE', 4,4'-DDT, dieldrin
- SB09_0-2: 4,4'-DDE, 4,4'-DDT
- SB10_4-5: 4,4'-DDD, 4,4'-DDE, 4,4'-DDT
- SB10_13-15: 4,4'-DDE, 4,4'-DDT
- SB10_20-22: 4,4'-DDE, 4,4'-DDT
- SB12_2-4: 4,4'-DDD, 4,4'-DDE, 4,4'-DDT
- SB13_2-4: 4,4'-DDD, 4,4'-DDE, 4,4'-DDT

Metals

- SB03_0-2: copper, lead, nickel and zinc
- SB03_2-4: **barium**, **lead** and zinc
- SB07_2-4: **barium**, cadmium, **lead** and zinc
- SB07_12-14: **barium**, lead and zinc
- SB10_4-5: **barium**, **lead** and zinc
- SB10_13-15: **barium**, lead and zinc
- SB10_20-22: **barium**, lead and zinc
- SB12_2-4: **barium**, lead and zinc
- SB13_2-4: **barium**, copper, lead and zinc

Soil Vapor

Several petroleum-related and chlorinated VOCs were detected in soil vapor above typical background concentrations. Currently, there is no standard in New York State for direct comparison to soil vapor results; however, the NYSDOH provides a series of health guidance values. Based on a comparison of the detected soil vapor concentrations to the NYSDOH decision matrices (revised 2017), the recommended action ranges from "no further action" to "mitigate". Soil vapor analytical results are summarized below.

- The concentration of total detected VOCs in soil vapor ranged from 76.35 micrograms per cubic meter (µg/m^3) in SV03 to 622.34 µg/m^3 in SV04.
- The chlorinated VOC, tetrachloroethene (PCE), was detected in all three soil vapor samples at concentrations ranging from 3.7 µg/m^3 in SV03 to 320 µg/m^3 in SV04. PCE and TCE were detected in sample SV04 above concentrations at which the NYSDOH decision matrix recommendation ranges from "no further action" to "mitigate".
- Petroleum-related VOCs benzene, toluene, ethylbenzene and xylenes (BTEX) were detected in all three soil vapor samples.

Item 2 - Known or Suspected Sources of Contaminants

- Historical use of the northern part of Lot 22 (Building 1) as a dry cleaner and a millinery may have contributed to the release of hazardous substances, such as petroleum, metals and chlorinated solvents, to the subsurface.
- Historical uses of the surrounding areas included dry cleaners and industrial facilities such as a gasification plant, an electrical substation, and a smelting and refining works facility.
- Historic fill of unknown origin was identified in the subsurface and is a potential source of impacts at the proposed BCP site.
- Sources of barium at concentrations above background levels are suspected to be:
    - Backfilling with used brick after demolition of the dwellings that previously occupied the majority of Block 3770, Lot 22
    - Potential deposits migrating as airborne particulates from coal ash and coal combustion on adjoining industrial properties (i.e., gasification plant, smelting and refining, rubber manufacturing)

Item 3 – Site Figures

The following figures and tables summarize the concentrations of each contaminant by media type included in this attachment that exceed their respective NYS criterion or guidance values. Data tables, extracted from the May 2021 Phase II ESI, are also appended to this attachment.

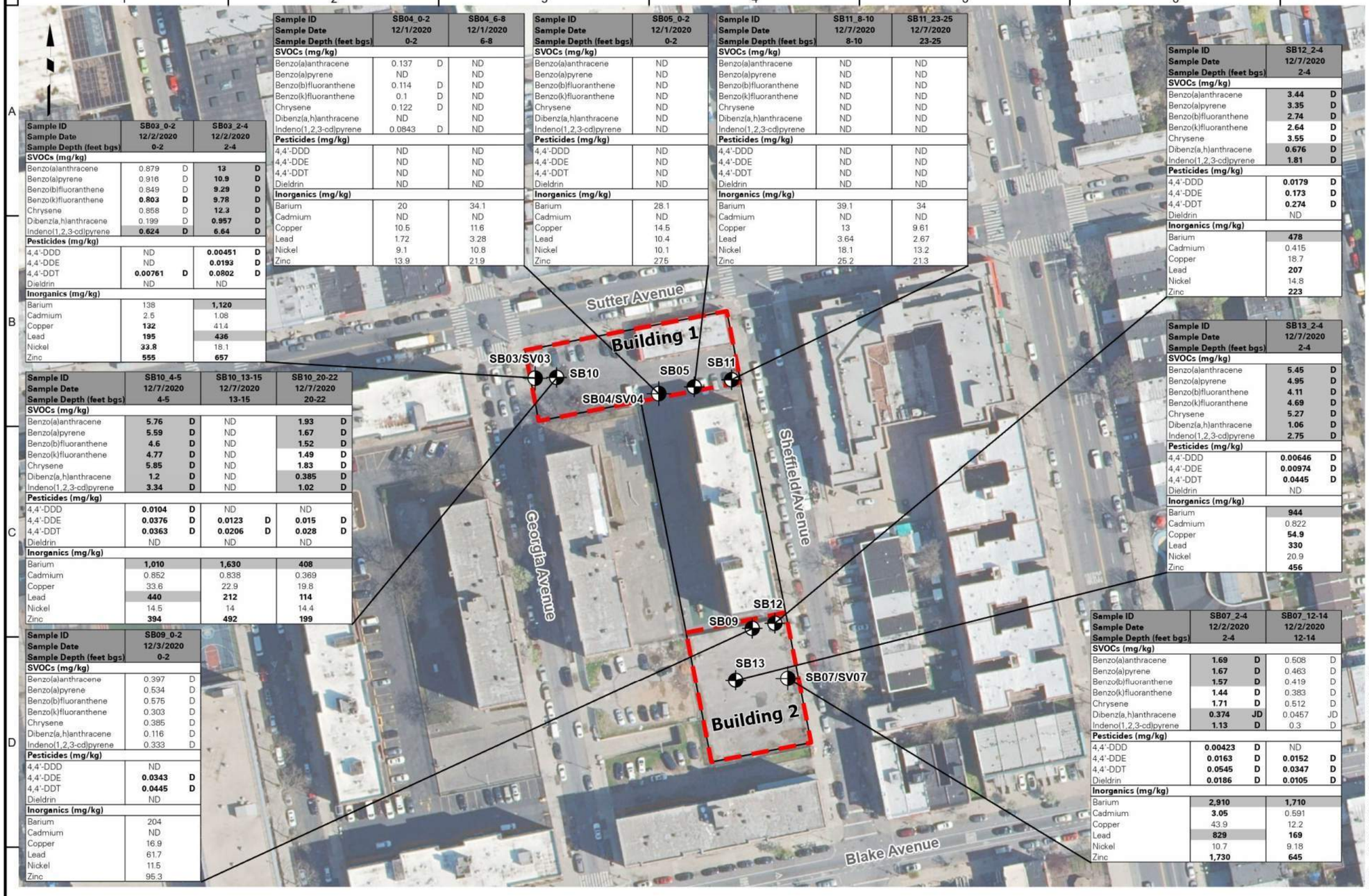
- Figure C-1: Soil Sample Analytical Results Map
- Figure C-2: Soil Vapor Sample Analytical Results Map
- Table 1: Soil Sample Analytical Results
- Table 2: Soil Vapor Sample Analytical Results

Item 4 – Past Uses of the Site

The site was improved with several three- to four-story shops and two- to three-story residential buildings as early as 1908. By 1977, all buildings were removed and the area within proposed Building 1 was improved with a one-story commercial building at the corner of Sutter and Sheffield Avenues and the area within proposed Building 2 was an asphalt-paved lot. The site has remained largely unchanged since 1977. According to available records, historical uses of the proposed BCP site have included:

- Proposed Building 1:
    - Commercial shops at 592-614 Sutter Avenue (1908-1966)
    - Millinery at 612 Sutter Avenue (1928-1965)
    - Laundry/dry cleaner at 608 Sutter Ave (1940-1973)
    - Deli/supermarket at 592 Sutter Avenue (1994)
- Proposed Building 2:
    - Multifamily dwellings and flats at 360-374 Sheffield Avenue (1908-1966)

Adjoining and surrounding properties were developed with residential, commercial and industrial buildings as early as 1908. By 1977, the Building 1 footprint was surrounded by commercial stores followed by light industrial buildings to the north, vacant land to the east, and six-story apartment buildings to the south and west; the Building 2 footprint was surrounded by a six story apartment building to the north, three- to four-story residential and commercial buildings to the east, a six-story apartment building (Turnkey Houses and Model Cities Program) to the south, and a underground garage with a partial asphalt-paved lot to the west. Commercial and industrial facilities identified adjoining and surrounding the site include The Brooklyn Union Gas Co. gasometer (1908-1950), a metal smelting and refining works (1908-2007), a rubber product manufacturer (1928-1981), an electrical substation (1966-2007), and a dry cleaner (1966-2007).



Sample ID	SB03_0-2		SB03_2-4	
Sample Date	12/2/2020		12/2/2020	
Sample Depth (feet bgs)	0-2		2-4	
SVOCs (mg/kg)				
Benzo(a)anthracene	0.879	D	**13**	D
Benzo(a)pyrene	0.916	D	**10.9**	D
Benzo(b)fluoranthene	0.849	D	**9.29**	D
Benzo(k)fluoranthene	**0.803**	D	**9.78**	D
Chrysene	0.858	D	**12.3**	D
Dibenz(a,h)anthracene	0.199	D	**0.957**	D
Indeno(1,2,3-cd)pyrene	**0.624**	D	**6.64**	D
Pesticides (mg/kg)				
4,4'-DDD	ND		**0.00451**	D
4,4'-DDE	ND		**0.0193**	D
4,4'-DDT	**0.00761**	D	**0.0802**	D
Dieldrin	ND		ND	
Inorganics (mg/kg)				
Barium	138		**1,120**	
Cadmium	2.5		1.08	
Copper	**132**		41.4	
Lead	**195**		**436**	
Nickel	**33.8**		18.1	
Zinc	**555**		**657**	

Sample ID	SB04_0-2		SB04_6-8	
Sample Date	12/1/2020		12/1/2020	
Sample Depth (feet bgs)	0-2		6-8	
SVOCs (mg/kg)				
Benzo(a)anthracene	0.137	D	ND	
Benzo(a)pyrene	ND		ND	
Benzo(b)fluoranthene	0.114	D	ND	
Benzo(k)fluoranthene	0.1	D	ND	
Chrysene	0.122	D	ND	
Dibenz(a,h)anthracene	ND		ND	
Indeno(1,2,3-cd)pyrene	0.0843	D	ND	
Pesticides (mg/kg)				
4,4'-DDD	ND		ND	
4,4'-DDE	ND		ND	
4,4'-DDT	ND		ND	
Dieldrin	ND		ND	
Inorganics (mg/kg)				
Barium	20		34.1	
Cadmium	ND		ND	
Copper	10.5		11.6	
Lead	1.72		3.28	
Nickel	9.1		10.8	
Zinc	13.9		21.9	

Sample ID	SB05_0-2
Sample Date	12/1/2020
Sample Depth (feet bgs)	0-2
SVOCs (mg/kg)	
Benzo(a)anthracene	ND
Benzo(a)pyrene	ND
Benzo(b)fluoranthene	ND
Benzo(k)fluoranthene	ND
Chrysene	ND
Dibenz(a,h)anthracene	ND
Indeno(1,2,3-cd)pyrene	ND
Pesticides (mg/kg)	
4,4'-DDD	ND
4,4'-DDE	ND
4,4'-DDT	ND
Dieldrin	ND
Inorganics (mg/kg)	
Barium	28.1
Cadmium	ND
Copper	14.5
Lead	10.4
Nickel	10.1
Zinc	27.5

Sample ID	SB11_8-10	SB11_23-25
Sample Date	12/7/2020	12/7/2020
Sample Depth (feet bgs)	8-10	23-25
SVOCs (mg/kg)		
Benzo(a)anthracene	ND	ND
Benzo(a)pyrene	ND	ND
Benzo(b)fluoranthene	ND	ND
Benzo(k)fluoranthene	ND	ND
Chrysene	ND	ND
Dibenz(a,h)anthracene	ND	ND
Indeno(1,2,3-cd)pyrene	ND	ND
Pesticides (mg/kg)		
4,4'-DDD	ND	ND
4,4'-DDE	ND	ND
4,4'-DDT	ND	ND
Dieldrin	ND	ND
Inorganics (mg/kg)		
Barium	39.1	34
Cadmium	ND	ND
Copper	13	9.61
Lead	3.64	2.67
Nickel	18.1	13.2
Zinc	25.2	21.3

Sample ID	SB12_2-4
Sample Date	12/7/2020
Sample Depth (feet bgs)	2-4
SVOCs (mg/kg)	
Benzo(a)anthracene	**3.44** D
Benzo(a)pyrene	**3.35** D
Benzo(b)fluoranthene	**2.74** D
Benzo(k)fluoranthene	**2.64** D
Chrysene	**3.55** D
Dibenz(a,h)anthracene	**0.676** D
Indeno(1,2,3-cd)pyrene	**1.81** D
Pesticides (mg/kg)	
4,4'-DDD	**0.0179** D
4,4'-DDE	**0.173** D
4,4'-DDT	**0.274** D
Dieldrin	ND
Inorganics (mg/kg)	
Barium	**478**
Cadmium	0.415
Copper	18.7
Lead	**207**
Nickel	14.8
Zinc	**223**

Sample ID	SB13_2-4
Sample Date	12/7/2020
Sample Depth (feet bgs)	2-4
SVOCs (mg/kg)	
Benzo(a)anthracene	**5.45** D
Benzo(a)pyrene	**4.95** D
Benzo(b)fluoranthene	**4.11** D
Benzo(k)fluoranthene	**4.69** D
Chrysene	**5.27** D
Dibenz(a,h)anthracene	**1.06** D
Indeno(1,2,3-cd)pyrene	**2.75** D
Pesticides (mg/kg)	
4,4'-DDD	**0.00646** D
4,4'-DDE	**0.00974** D
4,4'-DDT	**0.0445** D
Dieldrin	ND
Inorganics (mg/kg)	
Barium	**944**
Cadmium	0.822
Copper	**54.9**
Lead	**330**
Nickel	20.9
Zinc	**456**

Sample ID	SB10_4-5		SB10_13-15		SB10_20-22	
Sample Date	12/7/2020		12/7/2020		12/7/2020	
Sample Depth (feet bgs)	4-5		13-15		20-22	
SVOCs (mg/kg)						
Benzo(a)anthracene	**5.76**	D	ND		**1.93**	D
Benzo(a)pyrene	**5.59**	D	ND		**1.67**	D
Benzo(b)fluoranthene	**4.6**	D	ND		**1.52**	D
Benzo(k)fluoranthene	**4.77**	D	ND		**1.49**	D
Chrysene	**5.85**	D	ND		**1.83**	D
Dibenz(a,h)anthracene	**1.2**	D	ND		**0.385**	D
Indeno(1,2,3-cd)pyrene	**3.34**	D	ND		**1.02**	D
Pesticides (mg/kg)						
4,4'-DDD	**0.0104**	D	ND		ND	
4,4'-DDE	**0.0376**	D	**0.0123**	D	**0.015**	D
4,4'-DDT	**0.0363**	D	**0.0206**	D	**0.028**	D
Dieldrin	ND		ND		ND	
Inorganics (mg/kg)						
Barium	**1,010**		**1,630**		**408**	
Cadmium	0.852		0.838		0.369	
Copper	33.6		22.9		19.8	
Lead	**440**		**212**		**114**	
Nickel	14.5		14		14.4	
Zinc	**394**		**492**		**199**	

Sample ID	SB09_0-2	
Sample Date	12/3/2020	
Sample Depth (feet bgs)	0-2	
SVOCs (mg/kg)		
Benzo(a)anthracene	0.397	D
Benzo(a)pyrene	0.534	D
Benzo(b)fluoranthene	0.575	D
Benzo(k)fluoranthene	0.303	D
Chrysene	0.385	D
Dibenz(a,h)anthracene	0.116	D
Indeno(1,2,3-cd)pyrene	0.333	D
Pesticides (mg/kg)		
4,4'-DDD	ND	
4,4'-DDE	**0.0343**	D
4,4'-DDT	**0.0445**	D
Dieldrin	ND	
Inorganics (mg/kg)		
Barium	204	
Cadmium	ND	
Copper	16.9	
Lead	61.7	
Nickel	11.5	
Zinc	95.3	

Sample ID	SB07_2-4		SB07_12-14	
Sample Date	12/2/2020		12/2/2020	
Sample Depth (feet bgs)	2-4		12-14	
SVOCs (mg/kg)				
Benzo(a)anthracene	**1.69**	D	0.508	D
Benzo(a)pyrene	**1.67**	D	0.463	D
Benzo(b)fluoranthene	**1.57**	D	0.419	D
Benzo(k)fluoranthene	**1.44**	D	0.383	D
Chrysene	**1.71**	D	0.512	D
Dibenz(a,h)anthracene	**0.374**	JD	0.0457	JD
Indeno(1,2,3-cd)pyrene	**1.13**	D	0.3	D
Pesticides (mg/kg)				
4,4'-DDD	**0.00423**	D	ND	
4,4'-DDE	**0.0163**	D	**0.0152**	D
4,4'-DDT	**0.0545**	D	**0.0347**	D
Dieldrin	**0.0186**	D	**0.0105**	D
Inorganics (mg/kg)				
Barium	**2,910**		**1,710**	
Cadmium	**3.05**		0.591	
Copper	43.9		12.2	
Lead	**829**		**169**	
Nickel	10.7		9.18	
Zinc	**1,730**		**645**	

LEGEND

- SOIL BORING LOCATION
- SOIL BORING/SOIL VAPOR SAMPLE LOCATION
- PROPOSED BCP SITE BOUNDARY
- BLOCK 3770, LOT 22 BOUNDARY

Analyte	CAS Number	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted-Residential SCOs
SVOCs (mg/kg)			
Benzo(a)anthracene	56-55-3	1	1
Benzo(a)pyrene	50-32-8	1	1
Benzo(b)fluoranthene	205-99-2	1	1
Benzo(k)fluoranthene	207-08-9	0.8	3.9
Chrysene	218-01-9	1	3.9
Dibenz(a,h)anthracene	53-70-3	0.33	0.33
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	0.5
Pesticides (mg/kg)			
4,4'-DDD	72-54-8	0.0033	13
4,4'-DDE	72-55-9	0.0033	8.9
4,4'-DDT	50-29-3	0.0033	7.9
Dieldrin	60-57-1	0.005	0.2
Inorganics (mg/kg)			
Barium	7440-39-3	350	400
Cadmium	7440-43-9	2.5	4.3
Copper	7440-50-8	50	270
Lead	7439-92-1	63	400
Nickel	7440-02-0	30	310
Zinc	7440-66-6	109	10,000

NOTES:
1. WORLD AERIAL IMAGERY BASEMAP IS PROVIDED THROUGH LANGAN'S ESRI AND ARCGIS SOFTWARE LICENSING AND ARCGIS ONLINE.
2. TAX LOT BOUNDARIES PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING.
3. SOIL SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TITLE 6 OF THE OFFICIAL COMPILATION OF NEW YORK CODES, RULES, AND REGULATIONS (NYCRR) PART 375 UNRESTRICTED USE AND RESTRICTED USE RESTRICTED-RESIDENTIAL SOIL CLEANUP OBJECTIVES (SCO).
4. DETECTED ANALYTICAL RESULTS ABOVE UNRESTRICTED USE SCOs ARE BOLDED.
5. DETECTED ANALYTICAL RESULTS ABOVE RESTRICTED USE RESTRICTED-RESIDENTIAL SCOS ARE SHADED.
6. bgs = BELOW GRADE SURFACE
7. mg/kg= MILLIGRAMS PER KILOGRAM
8. ND = NOT DETECTED

QUALIFIERS:
D = THE CONCENTRATION REPORTED IS A RESULT OF A DILUTED SAMPLE

100 0 100
SCALE IN FEET

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Project
SUTTER CROSSING
BLOCK No. 3770, P/O LOT No. 22
BROOKLYN STATE

Figure Title
SOIL SAMPLE ANALYTICAL RESULTS MAP

Project No. 170456301
Date 5/11/2021
Scale 1"=100'
Drawn By MG

Figure No. C-1

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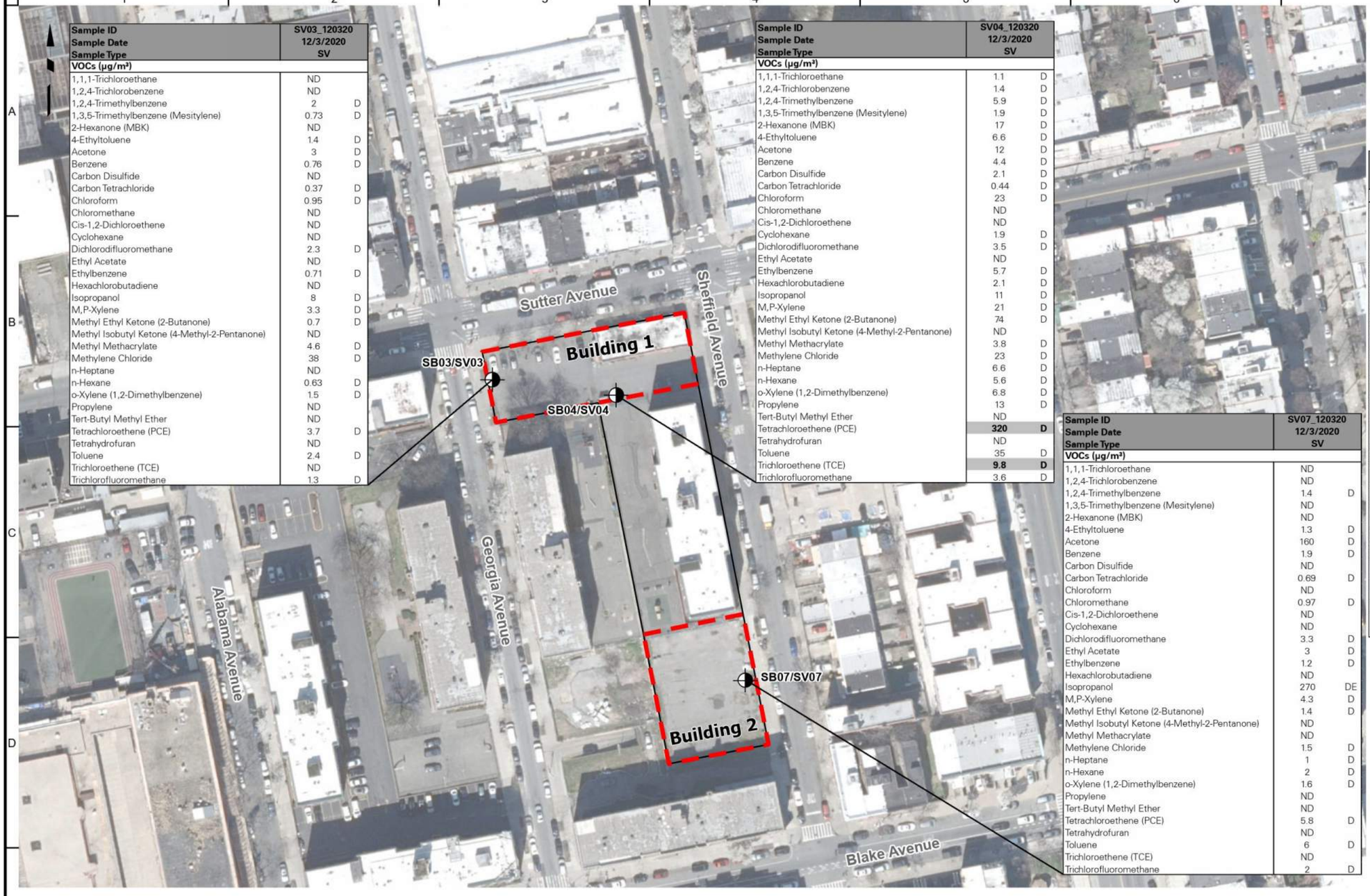

Sample ID	SV03_120320
Sample Date	12/3/2020
Sample Type	SV
VOCs (µg/m³)	
1,1,1-Trichloroethane	ND
1,2,4-Trichlorobenzene	ND
1,2,4-Trimethylbenzene	2 D
1,3,5-Trimethylbenzene (Mesitylene)	0.73 D
2-Hexanone (MBK)	ND
4-Ethyltoluene	1.4 D
Acetone	3 D
Benzene	0.76 D
Carbon Disulfide	ND
Carbon Tetrachloride	0.37 D
Chloroform	0.95 D
Chloromethane	ND
Cis-1,2-Dichloroethene	ND
Cyclohexane	ND
Dichlorodifluoromethane	2.3 D
Ethyl Acetate	ND
Ethylbenzene	0.71 D
Hexachlorobutadiene	ND
Isopropanol	8 D
M,P-Xylene	3.3 D
Methyl Ethyl Ketone (2-Butanone)	0.7 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ND
Methyl Methacrylate	4.6 D
Methylene Chloride	38 D
n-Heptane	ND
n-Hexane	0.63 D
o-Xylene (1,2-Dimethylbenzene)	1.5 D
Propylene	ND
Tert-Butyl Methyl Ether	ND
Tetrachloroethene (PCE)	3.7 D
Tetrahydrofuran	ND
Toluene	2.4 D
Trichloroethene (TCE)	ND
Trichlorofluoromethane	1.3 D

Sample ID	SV04_120320
Sample Date	12/3/2020
Sample Type	SV
VOCs (µg/m³)	
1,1,1-Trichloroethane	1.1 D
1,2,4-Trichlorobenzene	1.4 D
1,2,4-Trimethylbenzene	5.9 D
1,3,5-Trimethylbenzene (Mesitylene)	1.9 D
2-Hexanone (MBK)	17 D
4-Ethyltoluene	6.6 D
Acetone	12 D
Benzene	4.4 D
Carbon Disulfide	2.1 D
Carbon Tetrachloride	0.44 D
Chloroform	23 D
Chloromethane	ND
Cis-1,2-Dichloroethene	ND
Cyclohexane	1.9 D
Dichlorodifluoromethane	3.5 D
Ethyl Acetate	ND
Ethylbenzene	5.7 D
Hexachlorobutadiene	2.1 D
Isopropanol	11 D
M,P-Xylene	21 D
Methyl Ethyl Ketone (2-Butanone)	74 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ND
Methyl Methacrylate	3.8 D
Methylene Chloride	23 D
n-Heptane	6.6 D
n-Hexane	5.6 D
o-Xylene (1,2-Dimethylbenzene)	6.8 D
Propylene	13 D
Tert-Butyl Methyl Ether	ND
Tetrachloroethene (PCE)	**320 D**
Tetrahydrofuran	ND
Toluene	35 D
Trichloroethene (TCE)	**9.8 D**
Trichlorofluoromethane	3.6 D

Sample ID	SV07_120320
Sample Date	12/3/2020
Sample Type	SV
VOCs (µg/m³)	
1,1,1-Trichloroethane	ND
1,2,4-Trichlorobenzene	ND
1,2,4-Trimethylbenzene	1.4 D
1,3,5-Trimethylbenzene (Mesitylene)	ND
2-Hexanone (MBK)	ND
4-Ethyltoluene	1.3 D
Acetone	160 D
Benzene	1.9 D
Carbon Disulfide	ND
Carbon Tetrachloride	0.69 D
Chloroform	ND
Chloromethane	0.97 D
Cis-1,2-Dichloroethene	ND
Cyclohexane	ND
Dichlorodifluoromethane	3.3 D
Ethyl Acetate	3 D
Ethylbenzene	1.2 D
Hexachlorobutadiene	ND
Isopropanol	270 DE
M,P-Xylene	4.3 D
Methyl Ethyl Ketone (2-Butanone)	1.4 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	ND
Methyl Methacrylate	ND
Methylene Chloride	1.5 D
n-Heptane	1 D
n-Hexane	2 D
o-Xylene (1,2-Dimethylbenzene)	1.6 D
Propylene	ND
Tert-Butyl Methyl Ether	ND
Tetrachloroethene (PCE)	5.8 D
Tetrahydrofuran	ND
Toluene	6 D
Trichloroethene (TCE)	ND
Trichlorofluoromethane	2 D

LEGEND

- SOIL BORING/SOIL VAPOR SAMPLE LOCATION
- PROPOSED BCP SITE BOUNDARY
- BLOCK 3770, LOT 22 BOUNDARY

Analyte	NYSDOH Decision Matrices Minimum Concentrations
VOCs (µg/m³)	
1,1,1-Trichloroethane	100
1,2,4-Trichlorobenzene	~
1,2,4-Trimethylbenzene	~
1,3,5-Trimethylbenzene (Mesitylene)	~
2-Hexanone (MBK)	~
4-Ethyltoluene	~
Acetone	~
Benzene	~
Carbon Disulfide	~
Carbon Tetrachloride	6
Chloroform	~
Chloromethane	~
Cis-1,2-Dichloroethene	6
Cyclohexane	~
Dichlorodifluoromethane	~
Ethyl Acetate	~
Ethylbenzene	~
Hexachlorobutadiene	~
Isopropanol	~
M,P-Xylene	~
Methyl Ethyl Ketone (2-Butanone)	~
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	~
Methyl Methacrylate	~
Methylene Chloride	100
n-Heptane	~
n-Hexane	~
o-Xylene (1,2-Dimethylbenzene)	~
Propylene	~
Tert-Butyl Methyl Ether	~
Tetrachloroethene (PCE)	100
Tetrahydrofuran	~
Toluene	~
Trichloroethene (TCE)	6
Trichlorofluoromethane	~

NOTES:
1. WORLD AERIAL IMAGERY BASEMAP IS PROVIDED THROUGH LANGAN'S ESRI AND ARCGIS SOFTWARE LICENSING AND ARCGIS ONLINE.
2. TAX LOT BOUNDARIES PROVIDED BY THE NEW YORK CITY DEPARTMENT OF CITY PLANNING.
3. SOIL VAPOR SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE MINIMUM SOIL VAPOR CONCENTRATIONS AT WHICH MITIGATION IS RECOMMENDED AS SET FORTH IN THE NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH) OCTOBER 2006 GUIDANCE FOR EVALUATING SOIL VAPOR INTRUSION IN THE STATE OF NEW YORK DECISION MATRICES FOR SUB-SLAB VAPOR AND INDOOR AIR AND SUBSEQUENT UPDATES (2017).
4. ONLY DETECTED ANALYTES ARE SHOWN IN THE TABLE
5.DETECTED ANALYTICAL RESULTS ABOVE THE MINIMUM SOIL VAPOR CONCENTRATIONS RECOMMENDING MITIGATION ARE BOLDED AND SHADED.
6. ~ = REGULATORY LIMIT FOR THIS ANALYTE DOES NOT EXIST
7. µg/m³= MICROGRAMS PER CUBIC METER
8. ND = NOT DETECTED

QUALIFIERS:
D = THE CONCENTRATION REPORTED IS A RESULT OF A DILUTED SAMPLE.
E = THE RESULT IS ESTIMATED AND CANNOT BE ACCURATELY REPORTED DUE TO LEVELS ENCOUNTERED OR INTERFERENCES.

100 0 100
SCALE IN FEET

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Project
SUTTER CROSSING
BLOCK No. 3770, P/O LOT No. 22
BROOKLYN STATE

Figure Title
SOIL VAPOR SAMPLE ANALYTICAL RESULTS MAP

Project No. 170456301
Date 7/15/2021
Scale 1"=100'
Drawn By MG
Figure No. C-2

Path: \\langan.com\data\NYC\data3\170456301\ArcGIS\APRX\170456301\170456301.aprx Date: 7/15/2021 User: mgeorgalas Time: 10:08 AM

Table 1
Brownfield Cleanup Program Application
Soil Sample Analytical Results

Sutter Crossing
600 Sutter Avenue and 350 Sheffield Avenue
Brooklyn, New York
Langan Project No. 170456301

Block and Lot			Block 3770, Lot 22 - Site 1																	
Location	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted-Residential SCOs	SB03		SB03		SB04		SB04		SB05		SB10		SB10		SB10		SB11		SB11	
Sample ID			SB03_0-2		SB03_2-4		SB04_0-2		SB04_6-8		SB05_0-2		SB10_4-5		SB10_13-15		SB10_20-22		SB11_8-10		SB11_23-25	
Laboratory ID			20L0146-02		20L0146-01		20L0060-03		20L0060-02		20L0060-01		20L0402-01/RE1		20L0402-07		20L0402-06/RE1		20L0402-02		20L0402-03	
Sample Date			12/2/2020		12/2/2020		12/1/2020		12/1/2020		12/1/2020		12/7/2020		12/7/2020		12/7/2020		12/7/2020		12/7/2020	
Sample Depth (feet bgs)			0-2		2-4		0-2		6-8		0-2		4-5		13-15		20-22		8-10		23-25	
Volatile Organic Compounds (mg/kg)																						
Acetone	0.05	100	0.0052	U	0.0054	U	0.0045	U	0.0052	U	0.0048	U	0.013		0.0049	U	0.019		0.0054	J	0.0051	U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0044	J	0.0027	U	0.0022	U	0.0026	U	0.0024	U	0.0029	U	0.0024	U	0.0027	U	0.0024	U	0.0026	U
Semivolatile Organic Compounds (mg/kg)																						
2-Methylnaphthalene	~	~	0.0465	U	0.252	D	0.0419	U	0.0429	U	0.0426	U	0.0669	JD	0.0443	U	0.0424	U	0.0432	U	0.0427	U
Acenaphthene	20	100	0.0689	JD	0.755	D	0.0419	U	0.0429	U	0.0426	U	0.471	D	0.0443	U	0.149	D	0.0432	U	0.0427	U
Acenaphthylene	100	100	0.11	D	1.51	D	0.0419	U	0.0429	U	0.0426	U	0.595	D	0.0443	U	0.173	D	0.0432	U	0.0427	U
Anthracene	100	100	0.217	D	2.79	D	0.0508	JD	0.0429	U	0.0426	U	1.37	D	0.0443	U	0.45	D	0.0432	U	0.0427	U
Benzo(a)anthracene	1	1	0.879	D	**13**	D	0.137	D	0.0429	U	0.0426	U	**5.76**	D	0.0443	U	**1.93**	D	0.0432	U	0.0427	U
Benzo(a)pyrene	1	1	0.916	D	**10.9**	D	0.0419	U	0.0429	U	0.0426	U	**5.59**	D	0.0443	U	**1.67**	D	0.0432	U	0.0427	U
Benzo(b)fluoranthene	1	1	0.849	D	**9.29**	D	0.114	D	0.0429	U	0.0426	U	**4.6**	D	0.0443	U	**1.52**	D	0.0432	U	0.0427	U
Benzo(g,h,i)Perylene	100	100	0.637	D	7.17	D	0.0822	JD	0.0429	U	0.0426	U	3.58	D	0.0443	U	1.11	D	0.0432	U	0.0427	U
Benzo(k)fluoranthene	0.8	3.9	**0.803**	D	**9.78**	D	0.1	D	0.0429	U	0.0426	U	**4.77**	D	0.0443	U	**1.49**	D	0.0432	U	0.0427	U
Benzyl Butyl Phthalate	~	~	0.0934	D	0.184	D	0.0419	U	0.0429	U	0.0426	U	0.0446	U	0.0443	U	0.0424	U	0.0432	U	0.0427	U
Biphenyl (Diphenyl)	~	~	0.0465	U	0.0648	JD	0.0419	U	0.0429	U	0.0426	U	0.0446	U	0.0443	U	0.0424	U	0.0432	U	0.0427	U
Bis(2-ethylhexyl) phthalate	~	~	0.303	D	0.296	D	0.0419	U	0.0429	U	0.0426	U	0.122	D	0.0443	U	0.332	D	0.0432	U	0.0427	U
Carbazole	~	~	0.0949	D	0.973	D	0.0419	U	0.0429	U	0.0426	U	0.0446	U	0.0443	U	0.198	D	0.0432	U	0.0427	U
Chrysene	1	3.9	0.858	D	**12.3**	D	0.122	D	0.0429	U	0.0426	U	**5.85**	D	0.0443	U	**1.83**	D	0.0432	U	0.0427	U
Dibenz(a,h)anthracene	0.33	0.33	0.199	D	**0.957**	D	0.0419	U	0.0429	U	0.0426	U	**1.2**	D	0.0443	U	**0.385**	D	0.0432	U	0.0427	U
Dibenzofuran	7	59	0.0465	U	0.0473	U	0.0419	U	0.0429	U	0.0426	U	0.278	D	0.0443	U	0.0676	JD	0.0432	U	0.0427	U
Dibutyl phthalate	~	~	0.0465	U	0.0473	U	0.0419	U	0.0429	U	0.0426	U	0.0446	U	0.0443	U	0.103	D	0.0432	U	0.0427	U
Fluoranthene	100	100	1.91	D	25.8	D	0.264	D	0.0429	U	0.0476	JD	10.4	D	0.0443	U	3.61	D	0.0432	U	0.0427	U
Fluorene	30	100	0.0778	JD	1.01	D	0.0419	U	0.0429	U	0.0426	U	0.444	D	0.0443	U	0.144	D	0.0432	U	0.0427	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	**0.624**	D	**6.64**	D	0.0843	D	0.0429	U	0.0426	U	**3.34**	D	0.0443	U	**1.02**	D	0.0432	U	0.0427	U
Naphthalene	12	100	0.0465	U	0.426	D	0.0419	U	0.0429	U	0.0426	U	0.182	D	0.0443	U	0.0514	JD	0.0432	U	0.0427	U
Phenanthrene	100	100	0.817	D	13.3	D	0.191	D	0.0429	U	0.0426	U	5.42	D	0.0443	U	1.93	D	0.0432	U	0.0427	U
Pyrene	100	100	1.32	D	21.8	D	0.227	D	0.0429	U	0.0503	JD	9.89	D	0.0443	U	3.22	D	0.0432	U	0.0427	U
Pesticides (mg/kg)																						
4,4'-DDD	0.0033	13	0.00184	U	**0.00451**	D	0.00164	U	0.00169	U	0.00166	U	**0.0104**	D	0.00177	U	0.00168	U	0.00172	U	0.00169	U
4,4'-DDE	0.0033	8.9	0.00184	U	**0.0193**	D	0.00164	U	0.00169	U	0.00166	U	**0.0376**	D	**0.0123**	D	**0.015**	D	0.00172	U	0.00169	U
4,4'-DDT	0.0033	7.9	**0.00761**	D	**0.0802**	D	0.00164	U	0.00169	U	0.00166	U	**0.0363**	D	**0.0206**	D	**0.028**	D	0.00172	U	0.00169	U
Alpha Chlordane	0.094	4.2	0.0125	D	0.00188	U	0.00164	U	0.00169	U	0.00166	U	0.00805	D	0.00177	U	0.00548	D	0.00172	U	0.00169	U
Chlordane (alpha and gamma)	~	~	0.198	D	0.0376	U	0.0328	U	0.0338	U	0.0332	U	0.125	D	0.0353	U	0.0337	U	0.0343	U	0.0339	U
Dieldrin	0.005	0.2	0.00184	U	0.00188	U	0.00164	U	0.00169	U	0.00166	U	0.00177	U	0.00177	U	0.00168	U	0.00172	U	0.00169	U
Endrin Aldehyde	~	~	0.00184	U	0.00188	U	0.00164	U	0.00169	U	0.00166	U	0.00177	U	0.00177	U	0.00168	U	0.00172	U	0.00169	U
Gamma-Chlordane	~	~	0.00749	D	0.00188	U	0.00164	U	0.00169	U	0.00166	U	0.00788	D	0.00177	U	0.00568	D	0.00172	U	0.00169	U
Polychlorinated Biphenyls (mg/kg)																						
Chromium, Trivalent	30	180	26.7		22		12.6		12.8		10.9		17.3		20.1		17.1		22.6		21	
PCB-1260 (Aroclor 1260)	~	~	0.0186	U	0.019	U	0.0165	U	0.0171	U	0.0168	U	0.0211		0.0178	U	0.017	U	0.0173	U	0.0171	U
Total PCBs	0.1	1	0.0186	U	0.019	U	0.0165	U	0.0171	U	0.0168	U	0.0211		0.0178	U	0.017	U	0.0173	U	0.0171	U
Inorganics (mg/kg)																						
Aluminum	~	~	12,300		10,600		4,160		6,190		4,300		9,660		7,440		6,260		5,040		5,740	
Antimony	~	~	2.8	U	2.86	U	2.52	U	2.58	U	2.57	U	2.7	U	2.69	U	2.57	U	2.62	U	2.58	U
Arsenic	13	16	10.3		5.36		1.51	U	1.55	U	1.54	U	7.13		2.56		1.54	U	1.57	U	1.55	U
Barium	350	400	138		**1,120**		20		34.1		28.1		**1,010**		**1,630**		**408**		39.1		34	
Beryllium	7.2	72	0.056	U	0.057	U	0.05	U	0.052	U	0.051	U	0.054	U	0.054	U	0.051	U	0.052	U	0.052	U
Cadmium	2.5	4.3	2.5		1.08		0.303	U	0.31	U	0.308	U	0.852		0.838		0.369		0.314	U	0.31	U
Calcium	~	~	6,960		37,400		1,090		960		1,410		35,500		30,600	B	15,800	B	1,370	B	991	B
Chromium, Total	~	~	26.7		22		12.7		13.2		11.2		17.3		20.1		17.1		22.6		21	
Cobalt	~	~	9.55		5.86		4.11		5.73		6.97		6.15		4.91		6.02		9.09		5.35	
Copper	50	270	**132**		41.4		10.5		11.6		14.5		33.6		22.9		19.8		13		9.61	
Iron	~	~	17,600		19,600		15,100		19,500		17,500		17,600		28,000		37,400		31,600		25,000	
Lead	63	400	**195**		**436**		1.72		3.28		10.4		**440**		**212**		**114**		3.64		2.67	
Magnesium	~	~	2,390		5,010		1,370		2,330		1,360		3,940		3,790		2,770		1,370		1,310	
Manganese	1,600	2,000	243		386		284		329		318		508		389		533		459		508	
Mercury	0.18	0.81	0.0981		0.0377	U	0.0303	U	0.031	U	0.0308	U	0.174		0.141		0.114		0.0314	U	0.031	U
Nickel	30	310	**33.8**		18.1		9.1		10.8		10.1		14.5		14		14.4		18.1		13.2	
Potassium	~	~	880		936		388	B	948	B	474	B	1,030		1,140	B	831	B	552	B	593	B
Sodium	~	~	134		372		86.3		161		123		466		284		184		139		102	
Vanadium	~	~	27.2		29.8		18.7		30		23.9		28.2		30.5		26.9		53.9		26.2	
Zinc	109	10,000	**555**		**657**		13.9		21.9		27.5		**394**		**492**		**199**		25.2		21.3	
General Chemistry (%)																						
Solids, Percent	~	~	89.4		87.6		99		96.9		97.4		92.7		92.8		97.3		95.4		96.8	

Notes provided on Page 3.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.

Table 1
Brownfield Cleanup Program Application
Soil Sample Analytical Results

Sutter Crossing
600 Sutter Avenue and 350 Sheffield Avenue
Brooklyn, New York
Langan Project No. 170456301

Block and Lot	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use Restricted-Residential SCOs	Block 3770, Lot 22 - Site 2									
Location			SB07		SB07		SB09		SB12		SB13	
Sample ID			SB07_2-4		SB07_12-14		SB09_0-2		SB12_2-4		SB13_2-4	
Laboratory ID			20L0146-06		20L0146-05		20L0219-04		20L0402-04/RE1		20L0402-05/RE1	
Sample Date			12/2/2020		12/2/2020		12/3/2020		12/7/2020		12/7/2020	
Sample Depth (feet bgs)			2-4		12-14		0-2		2-4		2-4	
Volatile Organic Compounds (mg/kg)												
Acetone	0.05	100	0.0054	U	0.0049	J	0.0044	U	0.0069	J	0.0063	J
Methyl Ethyl Ketone (2-Butanone)	0.12	100	0.0042	J	0.0025	U	0.0036	J	0.0034	J	0.0022	J
Semivolatile Organic Compounds (mg/kg)												
2-Methylnaphthalene	~	~	0.239	U	0.0448	U	0.0435	U	0.0438	U	0.0451	U
Acenaphthene	20	100	0.256	JD	0.0536	JD	0.0435	U	0.0901	D	0.303	D
Acenaphthylene	100	100	0.239	U	0.0448	U	0.0776	JD	0.419	D	0.691	D
Anthracene	100	100	0.642	D	0.171	D	0.0742	JD	0.516	D	1.21	D
Benzo(a)anthracene	1	1	**1.69**	D	0.508	D	0.397	D	**3.44**	D	**5.45**	D
Benzo(a)pyrene	1	1	**1.67**	D	0.463	D	0.534	D	**3.35**	D	**4.95**	D
Benzo(b)fluoranthene	1	1	**1.57**	D	0.419	D	0.575	D	k*	D	**4.11**	D
Benzo(g,h,i)Perylene	100	100	1.07	D	0.299	D	0.366	D	1.95	D	2.87	D
Benzo(k)fluoranthene	0.8	3.9	**1.44**	D	0.383	D	0.303	D	**2.64**	D	**4.69**	D
Benzyl Butyl Phthalate	~	~	0.239	U	0.0448	U	0.0435	U	0.0438	U	0.0451	U
Biphenyl (Diphenyl)	~	~	0.239	U	0.0448	U	0.0435	U	0.0438	U	0.0451	U
Bis(2-ethylhexyl) phthalate	~	~	0.239	U	0.0529	JD	0.0435	U	0.331	D	0.0611	JD
Carbazole	~	~	0.29	JD	0.0922	D	0.0435	U	0.124	D	0.0451	U
Chrysene	1	3.9	**1.71**	D	0.512	D	0.385	D	**3.55**	D	**5.27**	D
Dibenz(a,h)anthracene	0.33	0.33	**0.374**	JD	0.0457	JD	0.116	D	**0.676**	D	**1.06**	D
Dibenzofuran	7	59	0.239	U	0.0448	U	0.0435	U	0.0438	U	0.135	D
Dibutyl phthalate	~	~	0.239	U	0.0448	U	0.0435	U	0.0438	U	0.0451	U
Fluoranthene	100	100	4.17	D	1.2	D	0.725	D	5.99	D	10.1	D
Fluorene	30	100	0.264	JD	0.06	JD	0.0435	U	0.104	D	0.242	D
Indeno(1,2,3-cd)pyrene	0.5	0.5	**1.13**	D	0.3	D	0.333	D	**1.81**	D	**2.75**	D
Naphthalene	12	100	0.239	U	0.0448	U	0.0435	U	0.0438	U	0.0451	U
Phenanthrene	100	100	3.11	D	0.843	D	0.234	D	2.01	D	4.65	D
Pyrene	100	100	3.09	D	0.881	D	0.511	D	6.11	D	9.04	D
Pesticides (mg/kg)												
4,4'-DDD	0.0033	13	**0.00423**	D	0.00176	U	0.0017	U	**0.0179**	D	**0.00646**	D
4,4'-DDE	0.0033	8.9	**0.0163**	D	**0.0152**	D	**0.0343**	D	**0.173**	D	**0.00974**	D
4,4'-DDT	0.0033	7.9	**0.0545**	D	**0.0347**	D	**0.0445**	D	**0.274**	D	**0.0445**	D
Alpha Chlordane	0.094	4.2	0.00187	U	0.00176	U	0.0017	U	0.00737	D	0.00178	U
Chlordane (alpha and gamma)	~	~	0.0374	U	0.0352	U	0.0341	U	0.0348	U	0.0356	U
Dieldrin	0.005	0.2	**0.0186**	D	**0.0105**	D	0.0017	U	0.00174	U	0.00178	U
Endrin Aldehyde	~	~	0.00187	U	0.00188	D	0.0017	U	0.00174	U	0.00178	U
Gamma-Chlordane	~	~	0.00187	U	0.00176	U	0.0017	U	0.0074	D	0.00178	U
Polychlorinated Biphenyls (mg/kg)												
Chromium, Trivalent	30	180	20.3		16.5		13.9		16.4		22.2	
PCB-1260 (Aroclor 1260)	~	~	0.0189	U	0.0178	U	0.0172	U	0.0176	U	0.018	U
Total PCBs	0.1	1	0.0189	U	0.0178	U	0.0172	U	0.0176	U	0.018	U
Inorganics (mg/kg)												
Aluminum	~	~	7,150		5,140		5,830		6,940		8,830	
Antimony	~	~	2.87	U	2.7	U	2.63	U	2.65	U	2.71	U
Arsenic	13	16	11.6		3.49		1.58	U	2.69		1.91	
Barium	350	400	**2,910**		**1,710**		204		**478**		**944**	
Beryllium	7.2	72	0.057	U	0.054	U	0.053	U	0.053	U	0.054	U
Cadmium	2.5	4.3	**3.05**		0.591		0.315	U	0.415		0.822	
Calcium	~	~	56,700		31,900		5,410		13,200	B	9,130	B
Chromium, Total	~	~	20.3		16.5		13.9		16.4		22.2	
Cobalt	~	~	4.48		3.81		5.25		5.84		6.98	
Copper	50	270	43.9		12.2		16.9		18.7		**54.9**	
Iron	~	~	14,600		16,900		16,700		17,700		25,100	
Lead	63	400	**829**		**169**		61.7		**207**		**330**	
Magnesium	~	~	5,520		4,890		2,140		2,950		2,610	
Manganese	1,600	2,000	450		418		374		376		328	
Mercury	0.18	0.81	0.0379	U	0.0356	U	0.0401		0.0584		0.112	
Nickel	30	310	10.7		9.18		11.5		14.8		20.9	
Potassium	~	~	729		600		829		771	B	797	B
Sodium	~	~	353		201		144		139		137	
Vanadium	~	~	23.6		24.7		22.3		23.1		29.2	
Zinc	109	10,000	**1,730**		**645**		95.3		**223**		**456**	
General Chemistry (%)												
Solids, Percent	~	~	87		92.7		95.2		94.2		92.2	

Notes provided on Page 3.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.

Table 1
Brownfield Cleanup Program Application
Soil Sample Analytical Results

Sutter Crossing
600 Sutter Avenue and 350 Sheffield Avenue
Brooklyn, New York
Langan Project No. 170456301

1. Soil sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of
2. Only detected analytes are shown in the table.
3. Detected analytical results above Unrestricted Use SCOs are bolded.
4. Detected analytical results above Restricted Use Restricted-Residential SCOs are shaded.
5. Analytical results with reporting limits (RL) above the lowest applicable criteria are italicized.
6. ~ = Regulatory limit for this analyte does not exist
7. bgs = below grade surface
8. mg/kg = milligrams per kilogram
9. PCB = Polychlorinated Biphenyls
10. % = percent

Qualifiers:
B = The analyte was found in the associated analysis batch blank.
D = The concentration reported is a result of a diluted sample.
J = The analyte was detected above the Method Detection Limit (MDL), but below the RL; therefore, the result is an estimated concentration.
P = The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.
U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.

Table 2
Brownfield Cleanup Program Application
Soil Vapor Sample Analytical Results

Sutter Crossing
600 Sutter Avenue and 350 Sheffield Avenue
Brooklyn, New York
Langan Project No. 170456301

Block and Lot		BLOCK 3770, LOT 22					
Location	NYSDOH Decision Matrices Minimum Concentrations	SV03		SV04		SV07	
Sample ID		SV03_120320		SV04_120320		SV07_120320	
Laboratory ID		20L0229-02		20L0229-03		20L0229-05	
Sample Date		12/3/2020		12/3/2020		12/3/2020	
Sample Type		SV		SV		SV	
Volatile Organic Compounds (µg/m³)							
1,1,1-Trichloroethane	100	0.81	U	1.1	D	0.85	U
1,2,4-Trichlorobenzene	~	1.1	U	1.4	D	1.2	U
1,2,4-Trimethylbenzene	~	2	D	5.9	D	1.4	D
1,3,5-Trimethylbenzene (Mesitylene)	~	0.73	D	1.9	D	0.77	U
2-Hexanone (MBK)	~	1.2	U	17	D	1.3	U
4-Ethyltoluene	~	1.4	D	6.6	D	1.3	D
Acetone	~	3	D	12	D	160	D
Benzene	~	0.76	D	4.4	D	1.9	D
Carbon Disulfide	~	0.46	U	2.1	D	0.49	U
Carbon Tetrachloride	6	0.37	D	0.44	D	0.69	D
Chloroform	~	0.95	D	23	D	0.76	U
Chloromethane	~	0.31	U	0.36	U	0.97	D
Cis-1,2-Dichloroethene	6	0.15	U	0.17	U	0.15	U
Cyclohexane	~	0.51	U	1.9	D	0.54	U
Dichlorodifluoromethane	~	2.3	D	3.5	D	3.3	D
Ethyl Acetate	~	1.1	U	1.3	U	3	D
Ethylbenzene	~	0.71	D	5.7	D	1.2	D
Hexachlorobutadiene	~	1.6	U	2.1	D	1.7	U
Isopropanol	~	8	D	11	D	270	DE
M,P-Xylene	~	3.3	D	21	D	4.3	D
Methyl Ethyl Ketone (2-Butanone)	~	0.7	D	74	D	1.4	D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	~	0.61	U	0.72	U	0.64	U
Methyl Methacrylate	~	4.6	D	3.8	D	0.64	U
Methylene Chloride	100	38	D	23	D	1.5	D
n-Heptane	~	0.61	U	6.6	D	1	D
n-Hexane	~	0.63	D	5.6	D	2	D
o-Xylene (1,2-Dimethylbenzene)	~	1.5	D	6.8	D	1.6	D
Propylene	~	0.26	U	13	D	0.27	U
Tert-Butyl Methyl Ether	~	0.54	U	0.63	U	0.56	U
Tetrachloroethene (PCE)	100	3.7	D	**320**	D	5.8	D
Tetrahydrofuran	~	0.88	U	1	U	0.92	U
Toluene	~	2.4	D	35	D	6	D
Trichloroethene (TCE)	6	0.2	U	**9.8**	D	0.21	U
Trichlorofluoromethane	~	1.3	D	3.6	D	2	D
Total CVOCs	~	3.7		331		5.8	
Total VOCs	~	76.4		622		469	

Notes:
1. Soil vapor sample analytical results are compared to the minimum soil vapor concentrations at which mitigation is recommended as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State
2. Only detected analytes are shown in the table.
3. Detected analytical results above the minimum soil vapor concentrations recommending mitigation are bolded and shaded.
4. Analytical results with reporting limits (RL) above the minimum soil vapor concentrations recommending mitigation are italicized.
5. ~ = Regulatory limit for this analyte does not exist
6. µg/m³ = micrograms per cubic meter
7. SV = Soil Vapor

Qualifiers:
D = The concentration reported is a result of a diluted sample.

Table 2
Brownfield Cleanup Program Application
Soil Vapor Sample Analytical Results

Sutter Crossing
600 Sutter Avenue and 350 Sheffield Avenue
Brooklyn, New York
Langan Project No. 170456301

Block and Lot		BLOCK 3770, LOT 22		
Location	NYSDOH Decision Matrices Minimum Concentrations	SV03	SV04	SV07
Sample ID		SV03_120320	SV04_120320	SV07_120320
Laboratory ID		20L0229-02	20L0229-03	20L0229-05
Sample Date		12/3/2020	12/3/2020	12/3/2020

E = The result is estimated and cannot be accurately reported due to levels encountered or interferences.
U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.