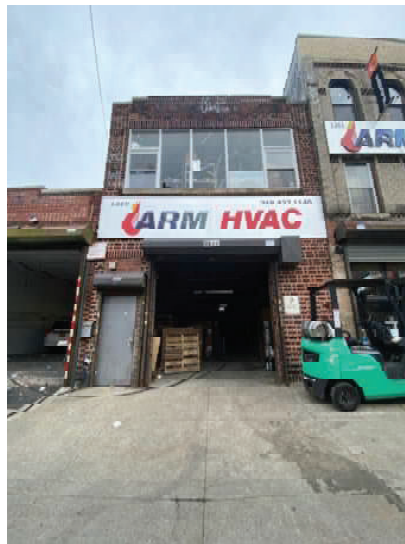




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## **Phase II Environmental Site Assessment**



**1249 to 1273 39<sup>th</sup> Street and 1268 to 1272 38<sup>th</sup> Street  
Brooklyn, New York**

**NYSDEC Spill No. 20-06350**

**Prepare for:**

Dime Community Bank  
Attn: Ms. Pin Lee  
1 Huntington Quadrangle, Suite 3C16  
Melville, NY 11747

Merritt Project No. M19888

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**OCTOBER 12, 2020**

## Phase II Environmental Site Assessment

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Appendix C – Boring Logs

Appendix D - Analytical Data

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## **Phase II Environmental Site Assessment (ESA)**

**1249 to 1273 39<sup>th</sup> Street and 1268 to 1272 38<sup>th</sup> Street  
Brooklyn, New York**

**NYSDEC Spill No. 20-06350**

**October 8, 2020**

Merritt Environmental Consulting Corp. (MECC) in conjunction with Touchstone Environmental Group (TEG) appreciates the opportunity to work on behalf of Dime Community Bank at the property located at 1249 to 1273 39<sup>th</sup> Street and 1268 to 1272 38<sup>th</sup> Street Brooklyn, New York.

Should you require any additional information or have any comments regarding the contents of this report, please feel free to contact our office at your convenience.

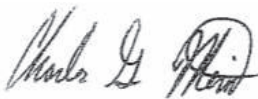
We declare that, to the best of my professional knowledge and belief, Rachel Ataman, P.G. meets the definition of an environmental professional as defined in §312.10 of 40 C.F.R. 312, and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 C.F.R. Part 312.

Very Truly Yours,



---

Rachel Ataman, PG  
President /Touchstone Environmental Group



---

Charles G. Merritt  
President /Merritt Environmental Consulting Corp. (MECC)

## 1.0 EXECUTIVE SUMMARY

This Phase II Environmental Site Assessment (ESA) report has been prepared for the property located at 1249 to 1273 39<sup>th</sup> Street and 1268 to 1272 38<sup>th</sup> Street, Brooklyn, New York. This assessment has been prepared for Dime Community Bank. This Phase II Environmental Site Assessment (ESA) is based upon the Phase I Environmental Site Assessment Report by Middleton Environmental Inc. of Babylon, New York dated August 31, 2020. The Phase I ESA was performed in conformance with the scope and limitations of ASTM Standard E 1527-13. The Phase I ESA identified the following Recognized Environmental Conditions (RECs):

- A review of the 1926 through 2007 Sanborn Maps of the Subject Property identified the presence of a cleaner on the 1251 – 1269 39<sup>th</sup> Street portion of the Subject Property. A review of the 1928 through 1973 City Directories of the Subject Property identified the presence a cleaner on the 1261 – 1271 39<sup>th</sup> Street portion of the Subject Property. Furthermore, the 1926 Sanborn map depicted the presence of six (6) USTs containing benzene on 1257 39<sup>th</sup> Street portion of the Subject Property. No determination regarding the usage, storage or disposal of hazardous wastes while this facility was in operation could be made.

Middleton Environmental made the following Recommendation:

- A Phase II Environmental Site Assessment be conducted on the Subject Property in order to determine if any contamination from past improper chemical disposal and tank leakage has impacted the subsurface. This Phase II ESA is intended to determine if these RECs have impacted upon the environmental quality of the Subject Property.

Additionally, during the Phase II ESA fieldwork, a 10,000-gallon above ground storage (AST) encased in concrete was identified in the basement of 1261 39<sup>th</sup> Street. An assessment of the AST was not included in the scope of work of this Phase II ESA.

The results of the Phase II ESA indicates the benzene underground storage tanks located at 1257 39<sup>th</sup> Street are no longer present at the Subject Property, as evidenced by the results of the GPR survey which did not identify any anomalies indicative of USTs in the northeast portion of 1257 39<sup>th</sup> Street. Additionally, the benzene tanks do not appear to have impacted upon the soil quality at 1257 39<sup>th</sup> Street, as evidenced by the field screening of soil probes SP-1 through SP-3 and the analytical results of SP-1 (6 to 8 feet), SP-2 (4 to 6 feet) and SP-3 ( 2 to 4 feet).

The results of the Phase II ESA further indicated that levels of gasoline compounds were identified in the soil beneath the east-northeast portion of 1261 39<sup>th</sup> Street (workshop of current HVAC company) at concentrations exceeding their respective UUSCO. This is evidenced by the field screening of Soil Probe SP-6 which identified visual and olfactory evidence of petroleum from 2.5 to 5 feet below grade. Furthermore, the soil analytical results of SP-6 (2.5 to 5 feet) identified four gasoline compounds (1,2,4-Trimethylbenzene, 1,3,5 Trimethylbenzene, n-Butylbenzene and

n-Propyl benzene) at concentrations exceeding their respective UUSCO. Based upon these results, the NYSDEC Spill Hotline was contacted and **NYSDEC Spill No. 20-06350** was assigned to the Subject Property address 1257-1261 39<sup>th</sup> Street.

MECC notes that the soil probe could not be installed beyond 5 feet due to the presence of an unknown refusal. The extend of the petroleum release in the soil was not determined during the Phase II ESA.

The results of the Phase II ESA indicate that the historic use of the site as a dry-cleaning facility has most likely impacted upon its environmental quality. Levels of Tetrachloroethylene (PERC) and Trichloroethylene (TCE) were detected in the soil beneath the northeast portion of 1257 through 1263 39<sup>th</sup> Street at concentration less than their respective UUSCO but greater than their MDL, as evidenced by the analytical results of (SP-3, 2 to 4 feet). Based upon the nature of PERC and TCE to sink through the soil and into the groundwater table it is possible that greater concentrations of PERC and TCE are present at deeper depths and in the water table. However, due to refusal encountered at depth of 5 feet to 10 feet below grade, none of the soil probes installed during the Phase II ESA investigation could be extended to the water table and the water table could not be investigated during this investigation.

Additionally, elevated levels of chlorinated solvents including TCE, PERC and Carbon Tetrachloride and Methylene Chloride were detected in the sub-slab vapor and/or the indoor air at concentrations requiring mitigation by the NYSDOH. The greatest concentrations of chlorinated solvents were detected beneath the northeast portion of 1257-1263 39<sup>th</sup> Street as evidenced by the results of SSV-1 and SSV-2. Lower levels of chlorinated solvents were detected beneath the slab of 1261 39<sup>th</sup> Street as evidenced by the results of SSV-4 and SSV-5.

## 2.0 INTRODUCTION

This Phase II Environmental Site Assessment (ESA) report has been prepared for the property located at 1249 to 1273 39<sup>th</sup> Street and 1268 to 1272 38<sup>th</sup> Street, Brooklyn, New York. This assessment has been prepared for Dime Community Bank. This Phase II Environmental Site Assessment (ESA) is based upon the Phase I Environmental Site Assessment Report by Middleton Environmental Inc. of Babylon, New York dated August 31, 2020. The Phase I ESA was performed in conformance with the scope and limitations of ASTM Standard E 1527-13. The Phase I ESA identified the following Recognized Environmental Conditions (RECs):

- A review of the 1926 through 2007 Sanborn Maps of the Subject Property identified the presence of a cleaner on the 1251 to 1269 39<sup>th</sup> Street portion of the Subject Property. A review of the 1928 through 1973 City Directories of the Subject Property identified the presence a cleaner on the 1261 to 1271 39<sup>th</sup> Street portion of the Subject Property. Furthermore, the 1926 Sanborn map depicted the presence of six (6) USTs containing benzene on 1257 39<sup>th</sup> Street portion of the Subject Property. No determination regarding the usage, storage or disposal of hazardous wastes while this facility was in operation could be made.

Middleton Environmental made the following Recommendation:

- A Phase II Environmental Site Assessment be conducted on the Subject Property in order to determine if any contamination from past improper chemical disposal and tank leakage has impacted the subsurface. This Phase II ESA is intended to determine if these RECs have impacted upon the environmental quality of the Subject Property.

### 2.1 Site Location and Current Usage

The Subject Property is located at 1249 to 1273 39<sup>th</sup> Street and 1268 to 1272 38<sup>th</sup> Street in Brooklyn, New York.

**Figure 1** - Location Map depicts the location of the Subject Property on a street map of Brooklyn, New York. **Figure 2** - Site Plan depicts the configuration of the Subject Property and adjoining properties.

The Subject Property consists of five (5) rectangular-shaped parcels with an estimated area of 0.51 acres. The Subject Property is improved with five (5) contiguous commercial buildings, two (2) of which have three (3) floors and a basement, and three (3) of which have one (1) floors slab-on-grade. A review of the New York City Building Department property profile overview indicated that the buildings were constructed circa 1931 (however, a review of historic Sanborn Fire Insurance Maps indicated the existing buildings on the 39<sup>th</sup> Street portion of the Subject Property were constructed circa 1918, and between 1950 and 1971 for the buildings on the 38<sup>th</sup> Street portion of the Subject Property). The building at 1257 to 1262 39<sup>th</sup> Street has a partial basement along 39<sup>th</sup> Street. The building identified as 1261 39<sup>th</sup> Street has a partial basement beneath the southwest portion of the building along 39<sup>th</sup> Street. During the Phase II ESA fieldwork, a 10,000-gallon above ground storage (AST) encased in concrete was identified in

the basement of 1261 39<sup>th</sup> Street. An assessment of the AST was not included in the scope of work of this Phase II ESA.

The Subject Property buildings are a total of 31,810 square feet in area and are occupied by four (4) commercial units (Citi Collision, ARM Heating & Cooling Supply, J. Wasser & Co Property Management, Reliable Check Cashing).

## **2.2 Site History**

A dry cleaner facility is depicted as the occupant of the of 1251 through 1269 39th Street portion of the Subject Property on the 1926 through 2007 Sanborn Maps. A review of the 1928 through 1973 City Directories of the Subject Property identified the presence a cleaner on the 1261 – 1271 39th Street portion of the Subject Property. Furthermore, six (6) USTs containing benzene were depicted along the north portion of 1257 39th Street on the 1926 Sanborn Map.

Middleton Environmental Inc. of Babylon, New York performed a Phase I ESA at the Subject Property dated August 31, 2020. The Phase I ESA was performed in conformance with the scope and limitations of ASTM Standard E 1527-13. The Phase I ESA identified the following Recognized Environmental Conditions (RECs):

- A review of the 1926 through 2007 Sanborn Maps of the Subject Property identified the presence of a cleaner on the 1251 – 1269 39th Street portion of the Subject Property. A review of the 1928 through 1973 City Directories of the Subject Property identified the presence a cleaner on the 1261 – 1271 39th Street portion of the Subject Property. Furthermore, the 1926 Sanborn map depicted the presence of six (6) USTs containing benzene on 1257 39th Street portion of the Subject Property. No determination regarding the usage, storage or disposal of hazardous wastes while this facility was in operation could be made.

Middleton Environmental made the following Recommendation:

- A Phase II Environmental Site Assessment be conducted on the Subject Property in order to determine if any contamination from past improper chemical disposal and tank leakage has impacted the subsurface. This Phase II ESA is intended to determine if these RECs have impacted upon the environmental quality of the Subject Property.

**Appendix A** provides a copy of Historical Documents

### **2.3 Scope of Work**

The purpose of this investigation was to determine if the RECs identified in the Middleton Environmental Phase Phase I Environmental Site Assessment dated August 31, 2020 have impacted upon the environmental quality of the Subject Property. The investigation consisted of the installation of 6 soil probes to 15 feet below or until refusal was encountered and the analysis of 6 soil samples for volatile organic compounds (VOCs) via EPA Method 8260 and semi-volatile organic compounds (SVOCs) via EPA Method 8270 (base neutrals). Additionally, 4 sub-slab vapor probes were installed and sampled for VOCs via TO-15 and one indoor air and one outdoor air sample were collected and analyzed for VOCs via TO-15.

During the Phase II ESA fieldwork, a 10,000-gallon above ground storage (AST) encased in concrete was identified in the basement of 1261 39<sup>th</sup> Street. An assessment of the AST was not included in the scope of work of this Phase II ESA.



### **3.0 PHASE II ENVIRONMENTAL SITE ASSESSMENT FIELDWORK**

#### **3.1 Investigation Procedures**

Prior to invasive work, the one-call utility mark-outs were completed in accordance with local laws to locate buried electric, natural gas, telecommunication utilities, etc. MECC was on-site to oversee the investigation on September 24, 2020 and September 25, 2020. **Appendix B** provides photographs of the fieldwork.

#### **3.2 Geophysical Survey**

A Ground Penetrating Radar (GPR) Survey was performed by PG Environmental, Corp of Hauppauge, New York utilizing a GSSI RADAN 7 fitted with a 200 MHz antenna. The GPR survey was intended to generally characterize the subsurface stratigraphic conditions, identify boundaries of suspect underground storage tanks and to clear potential sampling locations of sub-grade instructions. The GPR survey was performed throughout accessible portions of the Subject Property.

No anomalies indicative of USTs were identified during the GPR Survey. Specifically, the six benzene USTs depicted on the 1926 Sanborn map at 1257 39<sup>th</sup> Street portion of the Subject Property were not identified during the GPR survey.

#### **3.3 Soil Sampling**

Six soil probes (designated SP-1 through SP-6) were installed by PG Environmental, Corp with a Geoprobe. The soil probes were installed to investigate the suspect Benzene USTs identified on the 1926 Sanborn Map and the Historic Use of the 1251 – 1269 39<sup>th</sup> Street as a dry-cleaning facility from 1926 through 2007.

Soil Probes SP-1 through SP-3 were installed in the northeast portion of 1257-1263 39<sup>th</sup> Street in the area of the historic benzene USTs. Soil Probes SP-4, SP-5 and SP-6 were installed in the northeast portion of 1261 through 1263 39<sup>th</sup> Street and were intended to investigate the historic use of the site as a dry cleaner. MECC notes that the access to 1261 39<sup>th</sup> Street was limited due to the presence of a finished floor in the northeast portion of 1261 39<sup>th</sup> Street.

**Figure 3** provides a sampling plan.

The soil probes were installed until refusal was encountered. Refusal was encountered at ten feet below grade in SP-1 and SP-2, at eight feet below grade in SP-3, at nine feet below grade in SP-4, seven feet below grade in SP-5, and 5 five feet below grade in SP-6.

The geologist screened the soil samples at 2-foot intervals using a photo-ionization detector (PID). The geologist also classified the soil and determined if it had any visual or olfactory evidence of fill material and/or a petroleum release. The soil mainly consisted of fine to medium grained brown sand. Olfactory evidence of petroleum was identified in the soil from SP-6, 2.5 to 5 feet below grade. No evidence of petroleum including olfactory/visual or organic vapors were identified in the remaining samples collected from the site.

The following samples from each soil probe were submitted to the laboratory and analyzed for volatile organic compounds (VOCs) via EPA Method 8260 and semi-volatile organic compounds (SVOCs) via EPA Method 8270BN.

**Appendix D** provides the analytical data.

• SP-1, 6 to 8 feet	• SP-3, 2 to 4 feet	• SP-5, 5-7 feet
• SP-2, 4 to 6 feet	• SP-4, 6-8 feet	• SP-6, 2.5-5

### 3.4 Sub-Slab and Indoor Air Sampling

A total of four sub slab vapor probes (designated SSV-1 through SSV-4) were installed during the investigation with a Geoprobe on September 24, 2020. The sub-slab probes were installed directly beneath the foundation slab at a depth of a Sub-Slab Vapor Probe SSV-1 and Sub-Slab Vapor Probe SSV-2 were installed at 1257-1263 39<sup>th</sup> Street, Sub-Slab Vapor Probe SSV-3 and SSV-4 were installed at 1261 39<sup>th</sup> Street. The sub slab probes consisted of a 5-inch long ¼ inch slotted soil gas implant connected to dedicated polyethylene tubing. Bentonite was used to seal the annular space on top of each well point. **Figure 3** provides the location of the sub slab vapor probes

Following installation, leak tests were performed via helium tracer gas to evaluate the subslab vapor wells for leaks. An Ion Gas Check B4 Portable Leak Detector, calibrated and zeroed in the ambient atmosphere of the basement, was used for the leak tests. The results of the leak tests were satisfactory, indicating that any samples obtained would be indicative of sub-slab conditions. Following the leak tests, a 24-hour stabilization period was allowed to pass, per the NYSDOH Guidance Document, prior to collection of any samples.

On September 25, 2020, MECC personal returned to the site to set Summa Canisters at four sampling location to collect sub-slab vapor samples and two ambient air locations (one indoor and one outdoor sample). The Summa Canisters were certified clean by the laboratory and calibrated for a two-hour sample period.

. The vapor samples were collected in accordance with the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH October 2006). Flow rates of both purging and sampling did not exceed 0.2 L/min. A sample log sheet summarizing sample identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, soil vapor purge volumes, volume of the soil vapor extracted, vacuum of canisters before and after the samples are collected, apparent moisture content of the sampling zone, and chain of custody protocols was prepared and is provided on the chain of custody.

As part of the vapor intrusion evaluation, a tracer gas was used in accordance with NYSDOH protocols to serve as a quality assurance/quality control (QA/QC) device to verify the integrity of the soil vapor probe seal. Helium was used as the tracer gas and a box served to keep it in contact with the probe during testing. A portable monitoring device was used to analyze a sample of soil vapor for the tracer prior to sampling. The tracer gas was not detected

during the integrity test and the seal was deemed competent, thus allowing sampling to commence. An additional integrity test was conducted at the conclusion of the sampling, which determined the seal was still competent.

A total of six Summa Canisters (4 sub-slab vapor, 1 indoor air and 1 outdoor air) were transferred to a certified laboratory and analyzed for VOCs via EPA Method TO-15. **Appendix D** provides the analytical data.

### **3.5 Investigation Derived Waste**

Soil Cuttings were placed into a 55-gallon drum. The drum remains on the Subject Property and is awaiting disposal.

## 4.0 ENVIRONMENTAL FINDINGS

### 4.1 Soil Samples

A total of 6 soil samples were submitted to the laboratory for analysis. The laboratory analytical results for VOCs are provided in **Table 1A** and the laboratory analytical results for SVOCs are provided in **Table 1B**. **Table 1A** and **Table 1B** provide a comparison to the Unrestricted Use Soil Cleanup Objective (UUSCO) as provided in the NYSDEC Part 375. The results in **Table 1A** and **Table 1B** are provided in milligram per kilogram (mg/Kg).

As indicated in **Table 1A**, no VOCs were detected in SP-1, 6-8 foot and SP-2, 4 to 6 foot at concentrations exceeding their respective Method Detection Limit (MDL). As further indicated in **Table 1A**, three compounds (Acetone, Tetrachloroethylene and Trichloroethylene) were detected in the 2 to 4-foot sample from SP-3 at concentrations greater than their respective MDL but less than their respective UUSCO. Acetone was also detected in the 6 to 8-foot sample from SP-4 at a concentration exceeding its respective MDL but less than its UUSCO. No other VOCs were detected in the 6 to 8-foot sample from SP-4. Two VOCs (1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene) were detected in the 5 to 7-foot sample from SP-5 at concentrations exceeding their respective MDL but less than their respective UUSCO.

**Table 1A** also indicates that the following VOCs were detected in the 2.5 to 5-foot sample from SP-6 at concentrations exceeding their respective UUSCO:

<u>Compound</u>	<u>Results (mg/kg)</u>	<u>UUSCO (mg/kg)</u>
1,2,4-Trimethylbenzene	80	3.6
1,3,5-Trimethylbenzene	31	8.4
n-Butylbenzene	35	12
n-Propylbenzene	4	3.9
Xylenes, Total	3.7	0.26

Additionally, several VOCs including Ethyl Benzene (0.310 mg/kg), Isopropyl benzene (1.3 mg/kg), Methyl acetate (0.440 mg/kg), o-Xylene (1.9 mg/kg), p- & m- Xylenes (1.7 mg/kg), p-Isopropyl toluene (14 mg/kg), sec-Butylbenzene (9.9 mg/kg) and tert-Butylbenzene (0.810 mg/kg) were detected in the 2.5 to 5-foot sample from SP-6 at concentrations exceeding their respective MDL but less than their respective UUSCO. No other VOCs were detected in the 2.5 to 5-foot sample from SP-6 at concentrations exceeding their respective MDL.

As indicated in **Table 1B**, no SVOCs were detected in the 5 to 7-foot sample from SP-5. The compound, Di-n-octyl phthalate was detected in the 6 to 8-foot sample from SP-1, 4 to 6 foot sample from SP-2, 2 to 4 foot sample from SP-3, 4 to 6 to 8-foot sample from SP-4, and the 2.5 to 5 foot sample from SP-6 at concentrations greater than its MDL but less than its UUSCO.

Additionally, several SVOCs, including Benzo(a)anthracene (0.125 mg/kg), Benzo(a)pyrene (0.107 mg/kg), Benzo(b)fluoranthene (0.0979 mg/kg), Benzo(g,h,i) perylene (0.0705 mg/kg), Benzo(k)fluoranthene (0.0763 mg/kg), Chrysene (0.120 mg/kg), Indeno (1,2,3-cd)pyrene (0.0727 mg/kg), Phenanthrene (0.0849 mg/kg) and Pyrene (0.208 mg/kg) were detected in the 2 to 4-foot sample from SP-3 at concentrations exceeding their respective MDL but less than their respective UUSCO. No other compounds were detected in the 2 to 4-foot sample from SP-3.

Several SVOCs including 2-Methylnaphthalene (0.942 mg/kg), Bis(2-ethylhexyl) phthalate (0.937 mg/kg), Naphthalene (4.310 mg/kg), Phenanthrene (0.0462 mg/kg) were detected in the 2.5 to 5-foot sample from SP-6 at concentrations exceeding their respective MDL but less than their respective UUSCO. No other compounds were detected in the 2.5 to 5-foot sample from SP-6.

As further indicated in **Table 1B**, the following SVOCs were detected in the 4 to 6-foot sample from SP-2 at concentrations exceeding their respective UUSCO:

<u>Compound</u>	<u>Results (mg/kg)</u>	<u>UUSCO (mg/kg)</u>
Benzo(a)anthracene	4	1
Benzo(a)pyrene	3.040	1
Benzo(k)fluoranthene	2.630	0.8
Chrysene	3.250	1
Dibenzo(a,h)anthracene	0.516	0.33
Indeno(1,2,3-cd)pyrene	2.010	0.5

Additionally, several SVOCs including Acenaphthene (0.0552 mg/kg), Acenaphthylene (0.952 mg/kg), Anthracene (1.4 mg/kg), Benzo(g,h,i)perylene (1.5 mg/kg), Carbazole (0.0709 mg/kg), Dibenzofuran (0.0649 mg/kg), Phenanthrene (0.0849 mg/kg) and Pyrene (0.0462) were detected in the 4 to 6 foot sample from SP-2 at concentrations exceeding their respective MDL but less than their respective UUSCO. No other SVOCs were detected in the 4 to 6-foot sample from SP-2.

#### **4.2 Sub-Slab And Indoor Air Sampling**

A total of four sub-slab samples, one indoor and one outdoor air sample were collected.

In May 2017 the New York State Department of Health (NYSDOH) identified 8 Action VOCs, Carbon tetrachloride, 1,1-dichloroethene, cis-1,2-Dichloroethylene, Trichloroethene, Trichloroethene, Methylene chloride, Tetrachloroethylene (PCE), 1,1,1-Trichloroethane and Vinyl Chloride, which require action within the NYSDOH Soil Vapor Intrusion (SVI) Decision Matrices. Appendix E provides a copy of the NYSDOH SVI Decision Matrices.

**Table 3** provides a summary of the VOCs detected in the indoor air sample and subslab samples. **Table 3** also highlights the eight NYSDOH Action VOCs.

The indoor air sample and sub-slab vapor samples were compared to their appropriate NYSDEC decision matrix.

The compound, Trichloroethene, was detected in all of the sub-slab vapor probes (SSV-1 (320 ug/m3), SSV-2 (17 ug/m3), SSV-3 (34 ug/m3), SSV-4 (9.7 ug/m3)), the indoor air sample (1.6 ug/m3) and the outdoor air sample (01.20 ug/m3). Based upon the concentrations detected and the SVI Decision Matrix A, the compound Trichloroethene requires mitigation.

The compound, 1,1-Dichloroethene, was detected in one sub-slab vapor implant (SSV-1) at a concentration of 2.5 ug/m3. The compound 1,1-Dichloroethene was not detected in any other sub-slab vapor implant (SSV-2 through SSV-4) or in either ambient air sample at a concentration exceeding its MDL. Based upon the levels detected and the SVI Decision Matrix A, no further action is required for cis-Dichloroethene.

The compound, Carbon Tetrachloride, was detected in one sub-slab vapor implant (SSV-1) at a concentration of 4.3 ug/m3. The compound Carbon Tetrachloride was not detected in any other sub-slab vapor implant (SSV-2 through SSV-4). The compound Carbon Tetrachloride was detected in the indoor air sample (0.520 ug/m3) and outdoor air sample (0.520 ug/m3). Based upon the levels detected and the SVI Decision Matrix A, no further action is required for Carbon Tetrachloride.

The compound, Tetrachloroethene (PERC), was detected in all of the sub-slab vapor probes (SSV-1 (1,100 ug/m3), SSV-2 (280 ug/m3), SSV-3 (66 ug/m3), SSV-4 (130 ug/m3)), the indoor air sample (0.980 ug/m3) and the outdoor air sample (1.6 ug/m3). Based upon the concentrations detected and the SVI Decision Matrix B, the compound PERC requires mitigation.

The compound, 1,1,1-Trichloroethane, was detected in sub-slab vapor probe SSV-1 (360 ug/m3), sub-slab vapor probe (SSV-2 (16 ug/m3), and sub-slab vapor probe, SSV-3 (38 ug/m3). The compound 1,1,1-Trichloroethane was not detected in SSV-4 or either ambient air sample. Based upon the concentrations detected and the SVI Decision Matrix B, the compound 1,1,1-Trichloroethane requires no further action.

The compound Methylene Chloride was not detected in any of the sub-slab vapor implants (SSV-1 through SSV-4). The compound Methylene Chloride was detected in both ambient air samples. The concentration of Methylene Chloride detected in the indoor air sample was 88 ug/m3 and the concentration of Methylene Chloride detected in

the outdoor air sample was 13 ug/m<sup>3</sup>. Based upon the concentrations detected and the SVI Decision Matrix B, the compound Methylene Chloride requires the source of the Methylene Chloride to be identified, resampling or mitigation.

The compound, cis-Dichloroethene and Vinyl Chloride, were not detected in any of the sub-slab vapor implants (SSV-1 through SSV-4) or ambient air samples (OA-1 and IA-1). Based upon the concentrations detected no further work is required for the compounds cis-Dichloroethene or Vinyl Chloride.

Additionally, MECC, notes that elevated levels of gasoline compounds (1,3,5-Trimethylbenzene, 1,100 ug/m<sup>3</sup>), (Isopropanol, 1,300 ug/m<sup>3</sup>), p- & m- Xylenes (2,500 ug/m<sup>3</sup>) were detected in SSV-3 at elevated concentrations. MECC notes that these compounds are not regulated by the NYSDOH.

## 5.0 CONCLUSIONS

This Phase II Environmental Site Assessment (ESA) report has been prepared for the property located at 1249 to 1273 39<sup>th</sup> Street and 1268 to 1272 38<sup>th</sup> Street, Brooklyn, New York. This assessment has been prepared for Dime Community Bank. This Phase II Environmental Site Assessment (ESA) is based upon the Phase I Environmental Site Assessment Report by Middleton Environmental Inc. of Babylon, New York dated August 31, 2020. The Phase I ESA was performed in conformance with the scope and limitations of ASTM Standard E 1527-13. The Phase I ESA identified the following Recognized Environmental Conditions (RECs):

- A review of the 1926 through 2007 Sanborn Maps of the Subject Property identified the presence of a cleaner on the 1251 – 1269 39<sup>th</sup> Street portion of the Subject Property. A review of the 1928 through 1973 City Directories of the Subject Property identified the presence a cleaner on the 1261 – 1271 39<sup>th</sup> Street portion of the Subject Property. Furthermore, the 1926 Sanborn map depicted the presence of six (6) USTs containing benzene on 1257 39<sup>th</sup> Street portion of the Subject Property. No determination regarding the usage, storage or disposal of hazardous wastes while this facility was in operation could be made.

Middleton Environmental made the following Recommendation:

- A Phase II Environmental Site Assessment be conducted on the Subject Property in order to determine if any contamination from past improper chemical disposal and tank leakage has impacted the subsurface. This Phase II ESA is intended to determine if these RECs have impacted upon the environmental quality of the Subject Property.

Additionally, during the Phase II ESA fieldwork, a 10,000-gallon above ground storage (AST) encased in concrete was identified in the basement of 1261 39<sup>th</sup> Street. An assessment of the AST was not included in the scope of work of this Phase II ESA.

The results of the Phase II ESA indicates the benzene underground storage tanks located at 1257 39<sup>th</sup> Street are no longer present at the Subject Property, as evidenced by the results of the GPR survey which did not identify any anomalies indicative of USTs in the northeast portion of 1257 39<sup>th</sup> Street. Additionally, the benzene tanks do not appear to have impacted upon the soil quality at 1257 39<sup>th</sup> Street, as evidenced by the field screening of soil probes SP-1 through SP-3 and the analytical results of SP-1 (6 to 8 feet), SP-2 (4 to 6 feet) and SP-3 ( 2 to 4 feet).

The results of the Phase II ESA further indicated that levels of gasoline compounds were identified in the soil beneath the east-northeast portion of 1261 39<sup>th</sup> Street (workshop of current HVAC company) at concentrations exceeding their respective UUSCO. This is evidenced by the field screening of Soil Probe SP-6 which identified visual and olfactory evidence of petroleum from 2.5 to 5 feet below grade. Furthermore, the soil analytical results of SP-6 (2.5 to 5 feet) identified four gasoline compounds (1,2,4-Trimethylbenzene, 1,3,5 Trimethylbenzene, n-Butylbenzene and n-Propyl benzene) at concentrations exceeding their respective UUSCO. Based upon these results, the NYSDEC Spill



Hotline was contacted and **NYSDEC Spill No. 20-06350** was assigned to the Subject Property address 1257-1261 39<sup>th</sup> Street.

MECC notes that the soil probe could not be installed beyond 5 feet due to the presence of an unknown refusal. The extend of the petroleum release in the soil was not determined during the Phase II ESA.

The results of the Phase II ESA indicate that the historic use of the site as a dry-cleaning facility has most likely impacted upon its environmental quality. Levels of Tetrachloroethylene (PERC) and Trichloroethylene (TCE) were detected in the soil beneath the northeast portion of 1257 through 1263 39<sup>th</sup> Street at concentration less than their respective UUSCO but greater than their MDL, as evidenced by the analytical results of (SP-3, 2 to 4 feet). Based upon the nature of PERC and TCE to sink through the soil and into the groundwater table it is possible that greater concentrations of PERC and TCE are present at deeper depths and in the water table. However, due to refusal encountered at depth of 5 feet to 10 feet below grade, none of the soil probes installed during the Phase II ESA investigation could be extended to the water table and the water table could not be investigated during this investigation.

Additionally, elevated levels of chlorinated solvents including TCE, PERC and Carbon Tetrachloride and Methylene Chloride were detected in the sub-slab vapor and/or the indoor air at concentrations requiring mitigation by the NYSDOH. The greatest concentrations of chlorinated solvents were detected beneath the northeast portion of 1257-1263 39<sup>th</sup> Street as evidenced by the results of SSV-1 and SSV-2. Lower levels of chlorinated solvents were detected beneath the slab of 1261 39<sup>th</sup> Street as evidenced by the results of SSV-4 and SSV-5.

## **6.0 RECOMMENDATIONS**

Based upon the results of this investigation, MECC, makes the following recommendations:

- The 10,000-gallon AST beneath 1261 39<sup>th</sup> Street should be properly removed or abandoned in place.
- This Phase II ESA report should be provided to the NYSDEC for their review and comment. The NYSDEC will most likely require additional soil probes, groundwater probes, sub-slab vapor probes and ambient air samples to delineate the petroleum release and further investigate the presence of chlorinated solvents at the Subject Property.
- The NYSDEC will most likely require a sub-slab depressurization and vapor barrier to be installed within the buildings at the Subject Property.

## **FIGURES**

Figure 1: Location Map

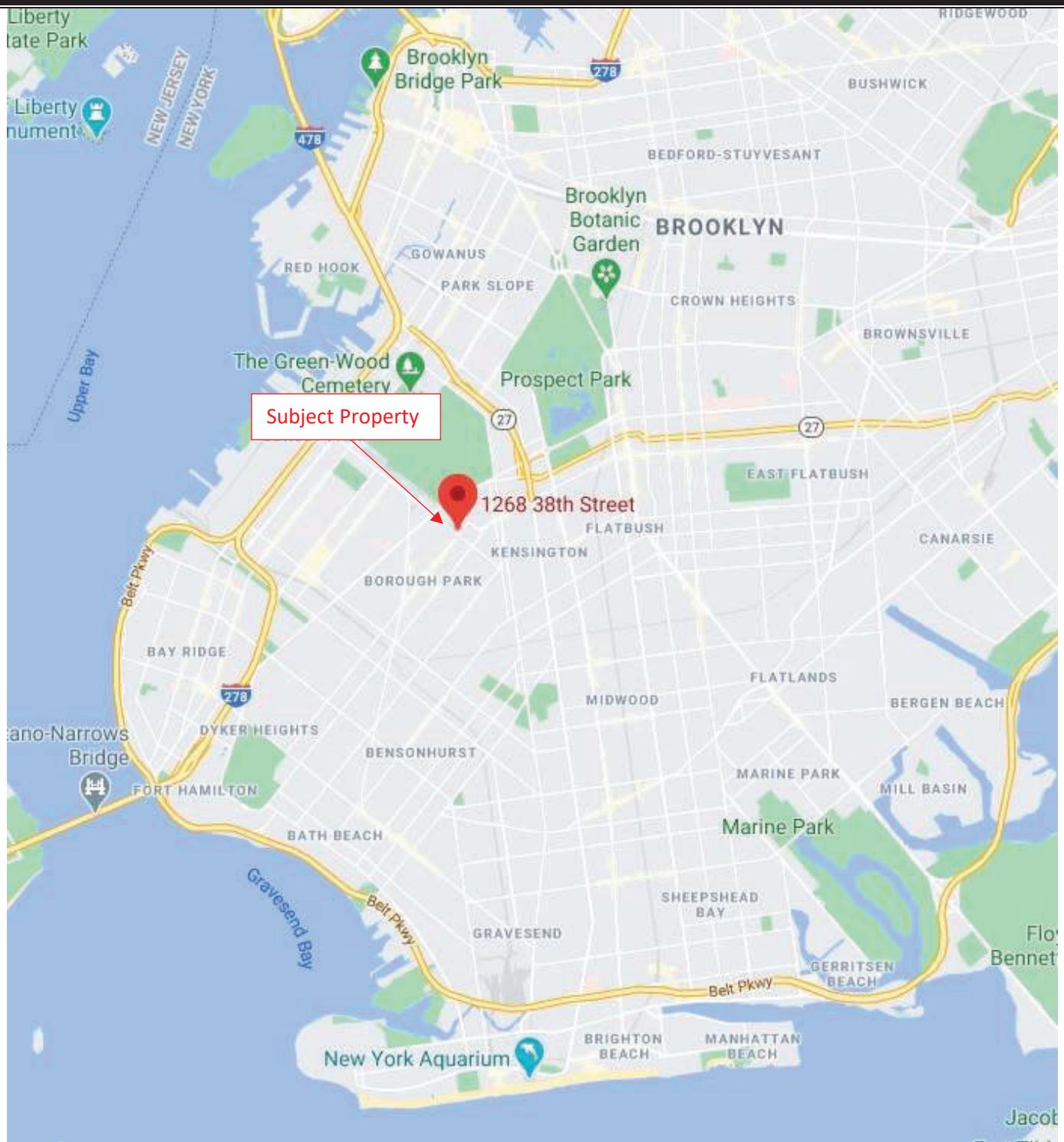
Figure 2: Site Plan

Figure 3: Sampling Plan



**Figure 2: Site Plan**  
68 East 38<sup>th</sup> Street  
Brooklyn, New York

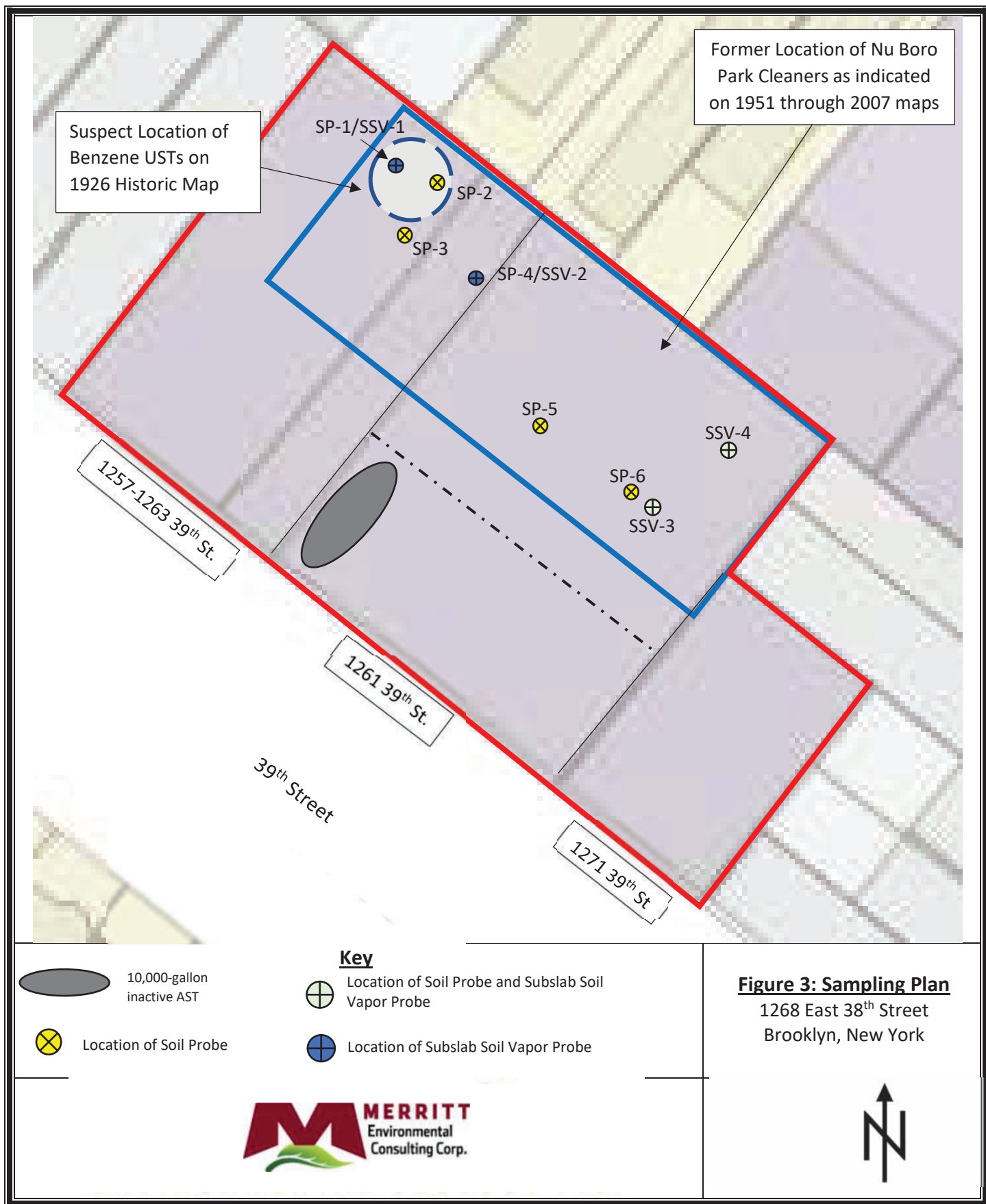




**Figure 1: Site Location Map**

1268 38<sup>th</sup> Street  
Brooklyn, New York





## **TABLES**

Table 1A: Volatile Organic Compounds in Soil

Table 1B: Semi-Volatile Organic Compounds in Soil

Table 2: Volatile Organic Compounds in Sub-Slab Vapor, Indoor Air and Outdoor Air



Table 1A  
Soil Volatile Organic Compound Analytical Results  
1249 to 1273 39th Street and 1268 to 1272 38th Street, Brooklyn, New York

Sample ID	SP-1, 6 to 8 feet		SP-2, 4 to 6 feet		SP-3, 2 to 4 feet		SP-4, 6-8 feet		SP-5, 5-7 feet		SP-6, 2.5-5 feet		NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives
Sampling Date	9/24/2020		9/24/2020		9/24/2020		9/24/2020		9/25/2020		9/25/2020		
Client Matrix	Soil		Soil		Soil		Soil		Soil		Soil		
Unit	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		
Compound	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	
1,1,1,2-Tetrachloroethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
1,1,1-Trichloroethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.68
1,1,2,2-Tetrachloroethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
1,1,2-Trichloroethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
1,1-Dichloroethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.27
1,1-Dichloroethylene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.33
1,2,3-Trichlorobenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
1,2,3-Trichloropropane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
1,2,4-Trichlorobenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
1,2,4-Trimethylbenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00560		80	D	3.6
1,2-Dibromo-3-chloropropane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
1,2-Dibromoethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
1,2-Dichlorobenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	1.1
1,2-Dichloroethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.02
1,2-Dichloropropane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
1,3,5-Trimethylbenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00260	J	31	D	8.4
1,3-Dichlorobenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	2.4
1,4-Dichlorobenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	1.8
1,4-Dioxane	0.0530	U	0.0520	U	0.0580	U	0.0540	U	0.0480	U	5.800	U	0.1
2-Butanone	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.12
2-Hexanone	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
4-Methyl-2-pentanone	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Acetone	0.00530	U	0.00520	U	0.0160		0.0160		0.00480	U	0.580	U	0.05
Acrolein	0.00530	U	0.00520	U	0.00580	U	0.00540	U	0.00480	U	0.580	U	~
Acrylonitrile	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Benzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.06
Bromochloromethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Bromodichloromethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Bromoform	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Bromomethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Carbon disulfide	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Carbon tetrachloride	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.76
Chlorobenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	1.1
Chloroethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Chloroform	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.37
Chloromethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
cis-1,2-Dichloroethylene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.25
cis-1,3-Dichloropropylene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Cyclohexane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Dibromochloromethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Dibromomethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Dichlorodifluoromethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Ethyl Benzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.310	JD	1
Hexachlorobutadiene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Isopropylbenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	1.300	D	~
Methyl acetate	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.440	JD	~
Methyl tert-butyl ether (MTBE)	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.93
Methylcyclohexane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Methylene chloride	0.00530	U	0.00520	U	0.00580	U	0.00540	U	0.00480	U	0.580	U	0.05
n-Butylbenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	35	D	12
n-Propylbenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	4	D	3.9
o-Xylene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	1.900	D	~
p- & m- Xylenes	0.00530	U	0.00520	U	0.00580	U	0.00540	U	0.00480	U	1.700	D	~
p-Isopropyltoluene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	14	D	~
sec-Butylbenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	9.900	D	11
Styrene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
tert-Butyl alcohol (TBA)	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
tert-Butylbenzene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.810	D	5.9
Tetrachloroethylene	0.00260	U	0.00260	U	0.0140		0.00270	U	0.00240	U	0.290	U	1.3
Toluene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.7
trans-1,2-Dichloroethylene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.19
trans-1,3-Dichloropropylene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
trans-1,4-dichloro-2-butene	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Trichloroethylene	0.00260	U	0.00260	U	0.00300	J	0.00270	U	0.00240	U	0.290	U	0.47
Trichlorofluoromethane	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	~
Vinyl Chloride	0.00260	U	0.00260	U	0.00290	U	0.00270	U	0.00240	U	0.290	U	0.02
Xylenes, Total	0.00790	U	0.00790	U	0.00860	U	0.00810	U	0.00730	U	3.700	D	0.26

NOTES:

Any Regulatory Exceedences are color coded by Regulation

Bolded Values exceed the MDL

Shaded Values exceed the UUSCO

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated





Table 1B

Soil Semi-Volatile Organic Compound Analytical Results  
1249 to 1273 39th Street and 1268 to 1272 38th Street, Brooklyn, New York

Sample ID	SP-1, 6 to 8 feet		SP-2, 4 to 6 feet		SP-3, 2 to 4 feet		SP-4, 6-8 feet		SP-5 5-7		SP-6 2.5-5		NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives
Sampling Date	9/24/2020		9/24/2020		9/24/2020		9/24/2020		9/25/2020		9/25/2020		
Client Matrix	Soil		Soil		Soil		Soil		Soil		Soil		
Unit	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		
Compound	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	
1,2,4-Trichlorobenzene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
1,2-Dichlorobenzene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	1.1
1,3-Dichlorobenzene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	2.4
1,4-Dichlorobenzene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	1.8
2,4-Dinitrotoluene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
2,6-Dinitrotoluene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
2-Chloronaphthalene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
2-Methylnaphthalene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.942	D	~
3,3-Dichlorobenzidine	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
3-Nitroaniline	0.0921	U	0.0933	U	0.0900	U	0.0981	U	0.103	U	0.0849	U	~
4-Bromophenyl phenyl ether	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
4-Chloroaniline	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
4-Chlorophenyl phenyl ether	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
4-Nitroaniline	0.0921	U	0.0933	U	0.0900	U	0.0981	U	0.103	U	0.0849	U	~
Acenaphthene	0.0462	U	0.0552	JD	0.0451	U	0.0492	U	0.0517	U	0.0426	U	20
Acenaphthylene	0.0462	U	0.952	D	0.0451	U	0.0492	U	0.0517	U	0.0426	U	100
Aniline	0.185	U	0.187	U	0.180	U	0.196	U	0.206	U	0.170	U	~
Anthracene	0.0462	U	1.400	D	0.0451	U	0.0492	U	0.0517	U	0.0426	U	100
Benzo(a)anthracene	0.0462	U	4	D	0.125	D	0.0492	U	0.0517	U	0.0426	U	1
Benzo(a)pyrene	0.0462	U	3.040	D	0.107	D	0.0492	U	0.0517	U	0.0426	U	1
Benzo(b)fluoranthene	0.0462	U	2.610	D	0.0979	D	0.0492	U	0.0517	U	0.0426	U	1
Benzo(g,h,i)perylene	0.0462	U	1.500	D	0.0705	JD	0.0492	U	0.0517	U	0.0426	U	100
Benzo(k)fluoranthene	0.0462	U	2.630	D	0.0763	JD	0.0492	U	0.0517	U	0.0426	U	0.8
Benzyl butyl phthalate	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Bis(2-chloroethoxy)methane	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Bis(2-chloroethyl)ether	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Bis(2-chloroisopropyl)ether	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Bis(2-ethylhexyl)phthalate	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.937	D	~
Carbazole	0.0462	U	0.0709	JD	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Chrysene	0.0462	U	3.250	D	0.120	D	0.0492	U	0.0517	U	0.0426	U	1
Dibenzo(a,h)anthracene	0.0462	U	0.516	D	0.0451	U	0.0492	U	0.0517	U	0.0426	U	0.33
Dibenzofuran	0.0462	U	0.0649	JD	0.0451	U	0.0492	U	0.0517	U	0.0426	U	7
Diethyl phthalate	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Dimethyl phthalate	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Di-n-butyl phthalate	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Di-n-octyl phthalate	0.145	D	0.222	D	0.489	D	0.394	D	0.0517	U	0.168	D	~
Fluoranthene	0.0462	U	7.070	D	0.176	D	0.0492	U	0.0517	U	0.0426	U	100
Fluorene	0.0462	U	0.106	D	0.0451	U	0.0492	U	0.0517	U	0.0426	U	30
Hexachlorobenzene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	0.33
Hexachlorobutadiene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Hexachlorocyclopentadiene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Hexachloroethane	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Indeno(1,2,3-cd)pyrene	0.0462	U	2.010	D	0.0727	JD	0.0492	U	0.0517	U	0.0426	U	0.5
Isophorone	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Naphthalene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	4.310	D	12
Nitrobenzene	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
N-Nitrosodimethylamine	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
N-nitroso-di-n-propylamine	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
N-Nitrosodiphenylamine	0.0462	U	0.0468	U	0.0451	U	0.0492	U	0.0517	U	0.0426	U	~
Phenanthrene	0.0462	U	2.820	D	0.0849	JD	0.0492	U	0.0517	U	0.0462	JD	100
Pyrene	0.0462	U	5.630	D	0.208	D	0.0492	U	0.0517	U	0.0426	U	100
Pyridine	0.185	U	0.187	U	0.180	U	0.196	U	0.206	U	0.170	U	~

NOTES:

Any Regulatory Exceedences are color coded by Regulation

Bolded Values exceed the MDL

Shaded Values exceed the UUSCO

Q is the Qualifier Column with definitions as follows:

D= result is from an analysis that required a dilution

J= analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U= analyte not detected at or above the level indicated

**Table 2**  
**Sub-slab Soil Vapor, Outdoor Air, and Indoor Air Volatile Organic Compound Analytical Results**  
**1249 to 1273 39th Street and 1268 to 1272 38th Street, Brooklyn, New York**

Sample ID	SSV-1		SSV-2		SSV-3		SSV-4		IA-1		OA-1	
Sampling Date	9/25/2020		9/25/2020		9/25/2020		9/25/2020		9/25/2020		9/25/2020	
Client Matrix	Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Indoor Ambient Air		Outdoor Ambient Air	
Unit	ug/m3		ug/m4		ug/m5		ug/m6		ug/m8		ug/m7	
Compound	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1,1,2-Tetrachloroethane	4.300	U	3.800	U	10	U	5	U	0.520	U	0.520	U
<b>1,1,1-Trichloroethane</b>	<b>360</b>	<b>D</b>	<b>16</b>	<b>D</b>	<b>38</b>	<b>D</b>	4	U	0.410	U	0.410	U
1,1,2,2-Tetrachloroethane	4.300	U	3.800	U	10	U	5	U	0.520	U	0.520	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.800	U	4.300	U	12	U	5.600	U	0.580	U	0.580	U
1,1,2-Trichloroethane	3.400	U	3	U	8.300	U	4	U	0.410	U	0.410	U
1,1-Dichloroethane	4.600	D	2.200	U	6.200	U	2.900	U	0.310	U	0.310	U
<b>1,1-Dichloroethylene</b>	<b>2.500</b>	<b>D</b>	0.550	U	1.500	U	0.720	U	0.0750	U	0.0750	U
1,2,4-Trichlorobenzene	4.600	U	4.100	U	11	U	5.400	U	0.560	U	0.560	U
1,2,4-Trimethylbenzene	<b>14</b>	<b>D</b>	<b>11</b>	<b>D</b>	<b>830</b>	<b>D</b>	<b>30</b>	<b>D</b>	<b>64</b>	<b>D</b>	<b>2.200</b>	<b>D</b>
1,2-Dibromoethane	4.800	U	4.300	U	12	U	5.600	U	0.580	U	0.580	U
1,2-Dichlorobenzene	3.800	U	3.300	U	9.200	U	4.400	U	0.460	U	0.460	U
1,2-Dichloroethane	2.500	U	2.200	U	6.200	U	2.900	U	0.310	U	0.310	U
1,2-Dichloropropane	2.900	U	2.600	U	7.100	U	3.400	U	0.350	U	0.350	U
1,2-Dichlorotetrafluoroethane	4.400	U	3.900	U	11	U	5.100	U	0.530	U	0.530	U
1,3,5-Trimethylbenzene	<b>4.300</b>	<b>D</b>	<b>3.500</b>	<b>D</b>	<b>1,100</b>	<b>D</b>	<b>25</b>	<b>D</b>	<b>38</b>	<b>D</b>	<b>0.600</b>	<b>D</b>
1,3-Butadiene	4.200	J	3.700	J	10	J	4.800	J	0.570	D	0.750	D
1,3-Dichlorobenzene	3.800	U	3.300	U	9.200	U	4.400	U	0.460	U	0.460	U
1,3-Dichloropropane	2.900	U	2.600	U	7.100	U	3.400	U	0.350	U	0.350	U
1,4-Dichlorobenzene	3.800	U	3.300	U	9.200	U	4.400	U	0.460	U	0.460	U
1,4-Dioxane	4.500	U	4	U	11	U	5.200	J	0.550	U	0.550	U
2-Butanone	<b>540</b>	<b>D</b>	<b>2,300</b>	<b>D</b>	<b>530</b>	<b>D</b>	<b>350</b>	<b>D</b>	<b>95</b>	<b>D</b>	<b>4.800</b>	<b>D</b>
2-Hexanone	<b>220</b>	<b>D</b>	<b>290</b>	<b>D</b>	13	U	<b>110</b>	<b>D</b>	0.620	U	0.620	U
3-Chloropropene	9.800	U	8.700	U	24	U	11	U	1.200	U	1.200	U
4-Methyl-2-pentanone	<b>6.200</b>	<b>D</b>	<b>3.600</b>	<b>D</b>	6.300	U	<b>60</b>	<b>D</b>	<b>73</b>	<b>D</b>	<b>0.370</b>	<b>D</b>
Acetone	<b>250</b>	<b>D</b>	<b>280</b>	<b>D</b>	<b>1,700</b>	<b>D</b>	<b>200</b>	<b>D</b>	<b>87</b>	<b>D</b>	<b>21</b>	<b>D</b>
Acrylonitrile	1.400	U	1.200	U	8.900	D	1.600	U	0.160	U	0.160	U
Benzene	<b>10</b>	<b>D</b>	<b>6.700</b>	<b>D</b>	<b>66</b>	<b>D</b>	<b>6</b>	<b>D</b>	<b>4</b>	<b>D</b>	<b>4.200</b>	<b>D</b>
Benzyl chloride	3.200	U	2.900	U	7.900	U	3.800	U	0.390	U	0.390	U
Bromodichloromethane	4.200	U	3.700	U	10	U	4.900	U	0.510	U	0.510	U
Bromoform	6.500	U	5.700	U	16	U	7.500	U	0.780	U	0.780	U
Bromomethane	2.400	U	2.200	U	5.900	U	2.800	U	0.290	U	0.290	U
Carbon disulfide	<b>10</b>	<b>D</b>	<b>6.400</b>	<b>D</b>	<b>53</b>	<b>D</b>	<b>7.200</b>	<b>D</b>	<b>0.520</b>	<b>D</b>	<b>1.200</b>	<b>D</b>
<b>Carbon tetrachloride</b>	<b>4.300</b>	<b>D</b>	0.870	U	2.400	U	1.100	U	<b>0.520</b>	<b>D</b>	<b>0.520</b>	<b>D</b>
Chlorobenzene	2.900	U	2.600	U	7	U	3.300	U	0.350	U	0.350	U
Chloroethane	1.700	U	1.500	U	4	U	1.900	U	0.200	U	0.200	U
Chloroform	<b>10</b>	<b>D</b>	<b>4.900</b>	<b>D</b>	<b>22</b>	<b>D</b>	7.100	D	<b>0.850</b>	<b>D</b>	0.370	U
Chloromethane	1.300	J	1.600	D	3.200	J	1.500	U	1.900	D	1.600	D
<b>cis-1,2-Dichloroethylene</b>	0.620	U	0.550	U	1.500	U	0.720	U	0.0750	U	0.0750	U
cis-1,3-Dichloropropylene	2.800	U	2.500	U	6.900	U	3.300	U	0.340	U	0.340	U
Cyclohexane	<b>5.400</b>	<b>D</b>	<b>2.900</b>	<b>D</b>	<b>120</b>	<b>D</b>	2.500	U	<b>27</b>	<b>D</b>	<b>1.600</b>	<b>D</b>
Dibromochloromethane	5.300	U	4.700	U	13	U	6.200	U	0.640	U	0.650	U
Dichlorodifluoromethane	<b>4</b>	<b>D</b>	<b>2.700</b>	<b>D</b>	7.500	U	3.600	U	<b>1.500</b>	<b>D</b>	<b>1.600</b>	<b>D</b>
Ethyl acetate	<b>4.500</b>	<b>U</b>	4	U	12	D	5.200	U	0.550	U	1	D
Ethyl Benzene	52	D	9.600	D	1,200	D	120	D	47	D	1.700	D
Hexachlorobutadiene	6.700	U	5.900	U	16	U	7.700	U	0.810	U	0.810	U
Isopropanol	<b>17</b>	<b>D</b>	<b>5.300</b>	<b>D</b>	<b>1,300</b>	<b>D</b>	<b>30</b>	<b>D</b>	<b>9.800</b>	<b>D</b>	<b>13</b>	<b>D</b>
Methyl Methacrylate	2.600	U	2.300	U	6.200	U	<b>3</b>	<b>J</b>	0.840	D	2.100	D
Methyl tert-butyl ether (MTBE)	2.300	U	2	U	5.500	U	2.600	U	0.270	U	0.270	U
<b>Methylene chloride</b>	4.300	U	3.900	U	11	U	5	U	<b>88</b>	<b>D</b>	<b>13</b>	<b>D</b>
n-Heptane	<b>13</b>	<b>D</b>	<b>13</b>	<b>D</b>	<b>250</b>	<b>D</b>	<b>6.500</b>	<b>D</b>	<b>18</b>	<b>D</b>	<b>2.400</b>	<b>D</b>
n-Hexane	<b>13</b>	<b>D</b>	<b>18</b>	<b>D</b>	<b>230</b>	<b>D</b>	<b>10</b>	<b>D</b>	<b>350</b>	<b>D</b>	<b>4.800</b>	<b>D</b>
o-Xylene	<b>59</b>	<b>D</b>	<b>12</b>	<b>D</b>	<b>930</b>	<b>D</b>	<b>150</b>	<b>D</b>	<b>46</b>	<b>D</b>	<b>2.100</b>	<b>D</b>
p- & m- Xylenes	<b>170</b>	<b>D</b>	<b>36</b>	<b>D</b>	<b>2,500</b>	<b>D</b>	<b>430</b>	<b>D</b>	<b>110</b>	<b>D</b>	<b>5.500</b>	<b>D</b>
p-Ethyltoluene	<b>15</b>	<b>D</b>	<b>13</b>	<b>D</b>	<b>840</b>	<b>D</b>	<b>30</b>	<b>D</b>	<b>40</b>	<b>D</b>	<b>2.100</b>	<b>D</b>
Propylene	<b>29</b>	<b>D</b>	<b>140</b>	<b>D</b>	2.600	U	1.200	U	0.130	U	0.130	U
Styrene	2.700	U	2.400	J	6.500	U	3.100	U	12	D	0.450	D
<b>Tetrachloroethylene</b>	<b>1,100</b>	<b>D</b>	<b>280</b>	<b>D</b>	<b>66</b>	<b>D</b>	<b>130</b>	<b>D</b>	<b>0.980</b>	<b>D</b>	<b>1.600</b>	<b>D</b>
Tetrahydrofuran	3.700	U	3.300	U	9	J	4.300	J	6.600	D	0.450	J
Toluene	<b>51</b>	<b>D</b>	<b>26</b>	<b>D</b>	<b>160</b>	<b>D</b>	<b>31</b>	<b>D</b>	<b>86</b>	<b>D</b>	<b>10</b>	<b>D</b>
trans-1,2-Dichloroethylene	2.500	U	2.200	U	6.100	U	2.900	U	1.500	D	0.300	U
trans-1,3-Dichloropropylene	2.800	U	2.500	U	6.900	U	3.300	U	0.340	U	0.340	U
<b>Trichloroethylene</b>	<b>320</b>	<b>D</b>	<b>17</b>	<b>D</b>	<b>34</b>	<b>D</b>	<b>9.700</b>	<b>D</b>	<b>0.160</b>	<b>D</b>	<b>0.120</b>	<b>D</b>
Trichlorofluoromethane (Freon 11)	3.500	U	3.100	U	8.600	U	4.100	U	1.600	D	1.400	D
Vinyl acetate	2.200	U	2	U	5.400	U	2.600	U	0.270	U	0.270	U
Vinyl bromide	2.700	U	2.400	U	6.700	U	3.200	U	0.330	U	0.330	U
<b>Vinyl Chloride</b>	0.800	U	0.710	U	2	U	0.930	U	0.0970	U	0.0970	U

**NOTES:**

Any Regulatory Exceedences are color coded by Regulation

Bolded Compound Names are Regulated by the NYSDOH

Bolded Compound Concentrations Exceed the MDL

Highlighted Compounds Exceed the NYSDOH Matrices

**Q is the Qualifier Column with definitions as follows:**

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated