

**DRAFT**

**FOCUSED SUBSURFACE SITE INVESTIGATION**

**210 DOUGLASS STREET  
BROOKLYN, NEW YORK 11217**

Prepared for

**Midwood Management  
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Prepared by

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- Appendix E Draft Interim Remedial Measure Pre-Design Report dated April 2013
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**SIGNATURE PAGE**

The undersigned certifies that: (a) Frank Galdun is a Qualified Environmental Professional as defined in RCNY § 43-1402(ar); (b) has primary direct responsibility for implementation of the Focused Subsurface Site Investigation (the "FSSI") at the 210 Douglass Street property (the "Site"); (c) Frank Galdun is responsible for the content of this FSSI Report; and (d) Frank Galdun has reviewed the content of the FSSI Report and found that it is accurate and complete to the best of his knowledge and contains all generated soil, groundwater and soil gas laboratory analysis data produced by the FSSI.

**ASSESSMENT RESOURCES & TECHNOLOGIES, INC.**



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Frank Galdun  
Project Geologist & Qualified Environmental Professional

## 1.0 INTRODUCTION

This FSSI Report presents the results of the work performed at the Site. The FSSI was conducted in general accordance with the scope of work defined in the proposal dated October 14, 2013 by Assessment Resources & Technologies, Inc. (“ART”).

This project was triggered by the results of ART’s recently completed Phase I Environmental Site Assessment (the “ESA”), which identified potential adverse impact to the environmental integrity of the Site. ART understands that use of this FSSI Report is intended as an environmental due diligence instrument prior to proposed Site acquisition by the Client. This study included installation of five soil borings using hydraulic direct-push drilling equipment and collection of three subsurface soil gas samples for laboratory analysis (two samples under the Site building slab and one sample under the Site parking lot).

The principal intent of this FSSI was to determine if historical Site operations contributed to the known contamination beneath the Site that originates from Gowanus Canal sediment and from a historical manufactured gas plant (MGP) located east-southeast of the Site across the Gowanus Canal. The Gowanus Canal in its entirety has been designated by the United States Environmental Protection Agency as a federal Superfund site.

### 1.1 Background and Site Description

The Site contains one (1) two-story warehouse/industrial building with a footprint of approximately 17,500 square feet. The remainder of the Site contains a paved parking lot and alley along the Gowanus Canal bulkhead (Gowanus Canal borders the east side of the Site). The total size of the Site is estimated at 24,850 square feet. The Site is located adjacent to the west side of the Gowanus Canal in an area that has been used for various industrial purposes and for historical coal gasification facilities. The Gowanus Canal is identified on the federal National Priorities List as a Superfund site. The current Site improvements were constructed in 1954 and the Site building historically contained a plastic parts manufacturing operation and a cardboard products factory with printing operations for an extended period of time. Prior to 1954 the Site contained a coal yard and the northern section of the Site (parking lot) was part of an electrical parts manufacturing facility. Currently, the Site building contains a television show production studio. Properties to the west of the Site (hydraulic upgradient area) were also used for manufacturing operations.

The Site parking lot is identified as “Parcel VIII” in a remedial investigation report produced to address the nature and extent of the contamination caused by a former manufactured gas plant (MGP) historically located east of the Site across the Gowanus Canal. This prior subsurface study of Parcel VIII (Site parking lot) identified coal tar-related and possibly petroleum-related soil contamination. Based upon ART’s review of publicly available documents and User--supplied documents, it appears that the Site parking lot was selected for investigation solely because the Site owner allowed access. Based on a review of publicly available and client-supplied subsurface investigation reports, the most severe impact by these substances appears to be located at depths below approximately 20-25 feet below ground surface (bgs). The upland (west) extent of this deep contaminant condition appears reach at least to the west end of the Site building. The contaminant types previously documented in the Site area include coal tar

and free-phase petroleum composed of semi-volatile organic compounds (SVOCs) and volatile organic compounds (VOCs) principally in the forms of benzene, toluene, ethylbenzene and xylenes (BTEX). These substances have been previously detected in deeper soil and groundwater at the Site by investigations associated with the Gowanus Canal Superfund area.

## **1.2 Site Stratigraphy and Hydrogeology**

Based on the results of this current study, and upon the results of prior subsurface investigations conducted at the Gowanus Canal and upland areas, a wedge-shaped layer of fill with its thick end at the Gowanus Canal bulkhead is present beneath the Site. This material was found to variously consist of concrete, cobbles and possibly boulders, wood, coal, cinders, and historical concrete support/foundation structures possibly associated with former Site coal storage at the bulkhead area along the east perimeter of the Site. The thickness of the fill is estimated at an average of approximately 15 feet at the east side of the Site along the bulkhead to roughly five feet at the west side of the Site (under the west end of the Site building). This FSSI identified naturally occurring sediment beneath the fill and consists of medium to fine sand interbedded with organic-rich clay and silt layers along the Gowanus Canal Bulkhead. Please note that difficulty in penetrating fill material was encountered in the three borings installed near the Gowanus Canal bulkhead (B1 through B3). B1 was the only location along the bulkhead area where continuous soil samples could be collected at depth. Refusal and partial destruction of soil sampling tools on concrete and rock occurred at 12 feet bgs at B2 and B3. However groundwater sampling tools, which are narrower in diameter, did penetrate the fill so that both shallow and deep groundwater samples could be collected for laboratory analysis at all three of these borings.

Two of the soil borings were installed inside the Site building (B4, B5). Meadow mat was encountered at 16 feet bgs in B4, which is consistent with the stratigraphy identified in soil borings installed by others along Douglass Street to the north of the Site and Degraw Street adjacent to the south side of the Site. Other naturally occurring sediment encountered in B4 included organic-rich silty clay and sand above the meadow mat layer and coarse sand with minor gravel below the meadow mat. The meadow mat, silt and clay are typical of a tidal marsh environment, which was historically present at the Site. Again, this stratigraphy is consistent with that described in prior investigations of the area in the immediate vicinity of the Site. B5 was installed at the east side of the Site building and encountered refusal on wood and rock fill at four feet bgs during three separate attempts at various locations. No groundwater samples were collected from this boring.

Groundwater was encountered at a depth as shallow as five feet bgs (B1, installed in the Site parking lot near the canal). B1 through B3 were installed during a high tide period where ART observed a rise in the water level of at least three feet in the Gowanus Canal. Groundwater depth in the immediate vicinity of the Gowanus Canal appears to be strongly influenced by these tidal fluctuations. Since this affect may also cause changes in the local direction of groundwater flow, ART elected to collect all groundwater samples during the subsequent low tide period. All conclusions presented in this FSSI are based on a west-northwest to east-southeast direction of local groundwater flow.

According to the United States Geological Survey (USGS) *Brooklyn, NY* Topographic Quadrangle Map, dated 1995, the elevation of the Site is estimated at five to ten feet above

mean sea level. Based on Site observations and the review of the topographic map, local surface topography slopes gently down to the east-southeast towards the Gowanus Canal.

## 2.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

The recently completed Phase I Environmental Site Assessment report by ART (the “ESA Report”) included a review of a document titled *Final Remedial Investigation Report, Fulton Municipal Works Manufactured Gas Plant (MGP) Site, Brooklyn, New York* dated July 2012 by GEI Consultants (the “Final RIR”). The Final RIR is addressed to National Grid, a local utility that had acquired successor companies to the Fulton Municipal Gas Company, which formerly owned and operated the former Fulton Municipal Works MGP. This former facility is located at a cluster of properties east and southeast of the Site across the Gowanus Canal. National Grid is identified by USEPA as a responsible party for cleanup of the former Fulton Municipal Works MGP and possibly for addressing the Gowanus Canal contamination. The principal contaminants of concern identified in the Final RIR consist of coal tar containing SVOCs. The contaminant is typically found as a dense nonaqueous phase liquid (DNAPL). The scope of the final RIR included installation of a soil boring at the parking lot within the Site (identified in the Final RIR as Parcel VII). Soil borings and monitoring well installation were also completed in sidewalks along Douglass Street and Degraw Street to the north and south of the Site. Generally, the Final RIR identified deeper soil and groundwater contamination beneath the Site by VOCs and SVOCs along with observed free-phase petroleum and coal tar. Additional discussion of the Final RIR is included in ART’s ESA Report.

Subsequent to completion of the ESA, ART received additional reports from the New York State Department of Environmental Conservation (NYSDEC). The most significant of these documents as it relates to the Site contains information on stratigraphy and lateral extent of the contamination beneath the Site and is titled *Draft Interim Remedial Measure Pre-Design Investigation Data Summary Report, Fulton Municipal Works, Former Manufactured Gas Plant Site, Brooklyn, New York*, dated April 2013 by GEI Consultants (the “Draft IRM Pre-Design Report”). The Draft IRM Pre-Design Report was prepared on behalf of National Grid for submittal and review by NYSDEC and USEPA. The scope of work described in the Draft IRM Pre-Design Report includes delineation of contamination in upland areas to the east and west of the Gowanus Canal in the vicinity of the former Fulton Municipal Works MGP area (the historical Fulton Municipal Works area was located south-southeast of the Site across the Gowanus Canal). The upland delineation work was conducted by installing soil borings at various locations along the east and west sides of the Gowanus Canal; it appears that these tasks were required by NYSDEC after review and comment of a draft RIR prepared by GEI Consultants.

Specifically two roughly north-to-south stratigraphic cross-sections the upland area west of Gowanus Canal are included within the Draft IRM Pre-Design Report. Both of these cross-sections include the Site. The cross-sections were developed by installing additional upland borings along Douglass Street and Degraw Street as well as within Parcel VIII (Site parking lot). Cross-section C-C<sup>1</sup> passes through the Site and is directly adjacent to (and parallel with) the Gowanus Canal bulkhead. Cross-section D-D<sup>1</sup> is denoted in the Draft IRM Pre-Design Report approximately 35-40 feet west of the bulkhead (also parallel with the bulkhead). Cross-section D-D<sup>1</sup> passes under the Site building. Both of these cross-sections show petroleum and coal tar saturated soil at depth starting at below approximately 20 feet bgs, which is consistent with information disclosed by ART’s review of other prior reports. It appears that little or no laboratory analysis of soil or groundwater samples was conducted and all delineation work described in the Draft IRM Pre-Design Report consisted of visual and physical evaluation

of soil samples. The cross-sections show three types of material beneath the Site: near-surface fill; then tidal marsh deposits composed of interbedded clay, silt, silty sand and meadow mat; then a thick sequence of medium to coarse sand extending to the bedrock surface. A copy of the Draft IRM Pre-Design Report is provided in Appendix E.

ART's recently completed ESA Report identified a hazardous material/petroleum product spill incident at an incident that was reported to NYSDEC at an adjoining property. The information obtained by the ESA indicates that elevated PCE and benzene concentrations were detected in groundwater at 198 Douglass Street, which consists of a building located directly adjacent to the north and west borders of the Site. This reported condition raised the potential of groundwater contamination at the Site by these volatile organic compounds, which was assumed to be originating from hydraulic upgradient sources.

For reference purposes, ART has also included a comment letter issued by NYSDEC concerning their review of a the Final RIR when it was submitted in draft form. This letter is included as Appendix F. This document is dated January 18, 2012 and provides insight on the nature, extent, and mobility of the coal tar contamination at the Gowanus Canal from a regulatory agency perspective. The comments in this letter appear to have prompted the contaminant delineation work described in the Draft IRM Pre-Design Report.

### 3.0 FOCUSED SUBSURFACE SITE INVESTIGATION

In order to address the concerns raised by the ESA, this FSSI included sampling and laboratory analysis of soil, groundwater and soil gas samples.

This FSSI was implemented with the following goals:

- Determine if elevated levels of VOCs exist in shallow groundwater at the Site. While petroleum related VOCs (benzene, toluene ethylbenzene and xylenes or "BTEX") are expected and are commonly associated with historical MGP operations, the presence or absence of chlorinated VOCs needed to be established.
- Establish VOC and SVOC concentrations in soil and groundwater to understand the extent of deeper soil/groundwater impact by these substances, and to determine if the Site may be a contributing source of this condition (this goal was accomplished in large part by receipt and review of the Draft IRM Pre-Design Report).
- Collect a sufficient number of groundwater samples to determine if the Site may be a source (or contributing source) of VOCs or SVOCs in the shallow aquifer.
- Determine if elevated levels of volatile organic vapors exist beneath the Site building floor slab or the parking lot.

Tables have been prepared that summarize the laboratory reports of analysis of the various sample media. These tables are included in the appropriate sections of this FSSI Report.

### 3.1 Soil Sampling Procedures

ART retained Laurel Environmental Associates, Ltd. to employ a track-mounted hydraulic direct-push drill rig to install three soil borings at the exterior portions of the Site. These soil borings are identified as B1 through B3. In addition, a portable direct push drill unit was used to install two soil borings inside the Site building (B4 and B5). Access to the Site building interior was limited by a large movie film set that occupied the majority of the interior.

Mr. Frank Galdun, Project Geologist with ART was present to direct the driller and to conduct soil sample collection and assessment tasks. All field work was completed on November 2, 2013. For the exterior borings, five-foot plastic sleeve was inserted into each hollow drill tube and was driven into the subsurface. The sleeves are removed from the tubes as they are extracted from the soil boring. Soil quality evaluation and soil sampling is conducted by cutting the sleeves longitudinally, exposing the collected soil. All steel drill tubes were decontaminated between boring locations using a water/detergent wash with a water rinse to minimize the potential for cross-contamination. For the interior borings, four-foot plastic sampling sleeves were used by the portable unit.

Continuous soil samples were collected for field screening at all of the borings. All soil samples were evaluated for visual or olfactory evidence of contamination. A portable

photoionization detector (PID) was used to measure volatile organic vapor levels in each soil sample. Observations and lithologic descriptions for each soil boring are presented in Appendix B.

The maximum depth of the soil borings was 30 feet bgs at B1 and B4, which were the only boring locations where continuous soil sampling could be conducted without encountering refusal. However with the exception of B5, which encountered refusal at four feet bgs, groundwater sampling tools were able to penetrate the fill layer to collect deep groundwater samples. Soil quality field screening results showed little or no physical evidence of soil contamination in the shallow borings where refusal occurred on fill (B2, B3, B5). However, ART confirmed that deeper soil encountered in B1 and B4 was impacted by heavy petroleum and/or coal tar-related material below approximately 20 feet bgs. Further, elevated PID readings were recorded in shallow soil at B4, which was installed at the west end of the Site building interior. A PID reading as high as 400 parts per million (ppm) was recorded in soil at approximately four feet bgs in this boring. PID readings were low to trace in shallower soil as well as deeper soil above 20 feet bgs. No apparent signature odors typical of petroleum or other substances were identified in this intermediate soil interval (four feet to 16 feet bgs) in B4.

A minimum of one soil sample was collected from each boring for laboratory analysis. Generally, soil samples were retained from shallower depths to determine if an on-site source of contamination is present at the Site. One exception to this general procedure took place at B4 where elevated PID readings were detected in shallower soil. ART retained three grab soil samples from differing depths from this boring for laboratory analysis. A total of seven soil samples were submitted to the laboratory during this FSSI. See the Site Plan in Appendix A for the locations of all borings. The identifications assigned to the samples denote the borings and depths from which they were collected.

ART submitted the seven soil samples to Chemtech, a New York State Department of Health-Certified environmental laboratory (NYSDOH Lab ID No. 11376). ART placed all samples collected during this study in containers holding the appropriate preservatives. The laboratory supplied all sample containers used by ART. All samples were shipped on ice to Chemtech within 24 hours of collection. In addition, ART completed all appropriate chain of custody documents prior to sample shipment.

Soil samples were analyzed at Chemtech under varying parameters and the following listing summarizes analytical parameter selection:

<b>B1 5'-5.5'</b>	VOCs by EPA Method 8260; SVOCs by EPA Method 8270; and Polychlorinated Biphenyls (PCBs)
<b>B2 2'-6'</b>	VOCs (EPA Method 8260); SVOCs (EPA Method 8270)
<b>B3 5'-9'</b>	VOCs (EPA Method 8260); SVOCs (EPA Method 8270); and PCBs
<b>B4 3'-5'</b>	VOCs (EPA Method 8260); SVOCs (EPA Method 8270); and PCBs
<b>B4 12.5'-13.5'</b>	VOCs (EPA Method 8260); SVOCs (EPA Method 8270)
<b>B4 21'</b>	VOCs (EPA Method 8260)
<b>B5 3'-4'</b>	VOCs (EPA Method 8260); SVOCs (EPA Method 8270)

### 3.2 Groundwater Sampling Procedures

All of the soil borings were converted to temporary monitoring wells. In addition both shallow and deep groundwater samples were collected from discrete depths at each boring (total eight groundwater samples).

The groundwater samples were collected by inserting hollow steel tubing equipped with an extendible four-foot long stainless steel screen to the selected depth. Once the desired depth was reached, the screen was released and the steel tubing was withdrawn four feet upwards (thereby exposing the screen for groundwater sample collection). A peristaltic pump was used to collect groundwater samples using low-flow techniques. The screened interval for the shallow borings intersected the water table. Deep groundwater samples were collected at depths ranging from 19 feet bgs to 19 feet bgs in the various borings. Before sampling occurred, each temporary well was purged until turbidity was visibly reduced using a peristaltic pump with attached dedicated flexible tubing equipped with a bottom foot valve.

During well gauging and sampling activities, ART consistently observed a petroleum sheen and detected moderate to strong petroleum odor in all deep groundwater samples. Little or no physical evidence of groundwater contamination was identified in the shallow groundwater samples.

The eight groundwater samples are listed below (sample identifications include the boring from which each sample was collected, and depth of sample collection). In addition, the list includes the selected parameters of laboratory analysis selected for each sample:

- B1GW 5'-9'** VOCs (EPA Method 8260); SVOCs (EPA Method 8270)
- B1GW 25'-29'** VOCs (EPA Method 8260); SVOCs (EPA Method 8270)
- B2GW 7'-12'** VOCs (EPA Method 8260); SVOCs (EPA Method 8270); and PCBs
- B2GW 20'-25'** VOCs (EPA Method 8260); SVOCs (EPA Method 8270)
- B3GW 7'-12'** VOCs (EPA Method 8260); SVOCs (EPA Method 8270); and PCBs
- B3GW 25'-29'** VOCs (EPA Method 8260); inadequate water yield/sample volume for SVOC analysis due to destruction of sampling equipment
- B4GW 7'-12'** EPA Method 8260); SVOCs (EPA Method 8270)
- B4GW 19'-23'** VOCs (EPA Method 8260); SVOCs (EPA Method 8270); and PCBs

Sample containerization, handling, transport and chain of custody procedures defined in Section 3.1 were applied to the groundwater samples.

### 3.3 Soil Gas Sampling Procedures

Three separate probes were installed using an electric hammer drill equipped with a one foot long drill bit. Each of these probes was paired with the soil boring locations shown on the Site Plan. The soil gas probes were installed at a minimum of ten feet in distance from the soil borings. Soil gas samples submitted to the laboratory are identified as SG1 Outside, SG2 Interior, and SG3 interior.

All soil gas samples were collected in accordance with the New York State Department of Health Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2006 (the "Final Guidance").

Soil vapor implants were installed at one foot bgs. The vapor implants were installed using 3/16" flexible tubing inserted into a stainless steel bayonet screen that is six inches in length.

After setting the bayonets at the desired depths, dedicated flexible tubing was extended to ground surface at each soil gas sampling point and sealed with hydrated bentonite at ground surface. Sample collection activities were initiated after the end of the work shift to allow for equilibration, and after the soil borings were completed and sealed. A minimum waiting period of four hours occurred before purging and sampling was conducted. Three implant volumes were purged from each sampling point prior to the collection of any soil-gas samples. All purging and sampling was performed with a flow rate of no more than 0.2 liters of air per minute. Sample log sheets are provided as Appendix E.

As part of this vapor intrusion evaluation, a tracer gas consisting of helium 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 seals. A container (plastic pail) was placed over each soil gas sampling point to contain the helium. A portable helium detector was used to analyze a sample of soil vapor for the tracer gas prior to sampling. At the conclusion of the sampling round, tracer monitoring was performed to confirm the integrity of the probe seals.

All soil gas samples were collected into six liter Summa canisters certified clean by the laboratory. Each canister was equipped with a regulator set for a two hour sampling period. All samples were analyzed at Chemtech for VOCs under EPA Method TO-15. These samples were hand-delivered to Chemtech with the soil and groundwater samples collected during this study.

## 4.0 LABORATORY ANALYTICAL RESULTS

### 4.1 Soil Sample Analysis Results

All soil samples were analyzed for VOCs. All laboratory analysis results for soil samples were compared against the Unrestricted Use Soil Cleanup Objectives (SCOs) as defined in NYSDEC Division of Environmental Remediation, 6 NYCRR Part 375, Environmental Remediation Programs, dated December 14, 2006. The Unrestricted Use SCOs are the most stringent soil quality criteria defined in 6 NYCRR Part 375. For those VOCs or SVOCs not listed in 6 NYCRR Part 375, the Supplemental Soil Cleanup Objectives listed in NYSDEC Policy CP-51 / Soil Cleanup Guidance, dated October 21, 2010 was used.

VOCs were detected in certain soil samples and Table 1 summarizes these results:

Substance	Sample Location and Depth							SCO
	B1 5'-5.5'	B2 2'-6'	B3 5'-9'	B4 3'-5'	B4 12.5'-13.5'	B4 21'	B5 3'-4'	
Trichloroethene	0.0029j	ND	ND	0.0921	0.0013j	0.0028j	ND	0.47
Perchloroethylene	ND	ND	ND	0.0014j	ND	ND	ND	1.2
cis-1,2-Dichloroethene	ND	0.0031j	ND	ND	ND	ND	ND	0.25
1,2,4-Trimethylbenzene	ND	ND	ND	0.0013j	0.0012j	ND	ND	3.6
Naphthalene	ND	ND	ND	0.0019j	ND	0.0049j	ND	12
Methylene chloride	ND	0.011	0.0044j	0.0073	0.0045j	ND	0.0074	0.05
Acetone	0.0083j	0.782	0.0209j	0.0077j	0.0115j	0.0134j	0.0082j	0.05
<b>Total VOCs</b>	0.0112	0.7961	0.0253	0.1117	0.0185	0.0211	0.0156	

#### NOTES

1. All results are expressed in milligrams per kilogram (mg/kg), which can also be expressed as parts per million (ppm).
2. ND - Parameter non-detected, below method reporting limits.
3. Results in bold exceed the Unrestricted Use Soil Cleanup Objectives defined in the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation, 6 NYCRR Part 375, Environmental Remediation Programs, Policy CP-51 / Soil Cleanup Guidance, dated October 21, 2010.
4. j-The concentration was detected at a value below the reporting limit (rl) but above the minimum detection limit (mdl)

None of the reported VOCs concentrations exceed each respective Unrestricted Use SCO. While trichloroethene (TCE) and perchloroethylene (PCE) were both detected in soil samples collected from B4, all reported concentrations are considered trace in severity by ART. These two substances are chlorinated VOCs and are not related to historical MGP operations. Acetone and methylene chloride were detected in several samples, but both of these substances are common laboratory-introduced contaminants and are not considered by ART to reflect actual soil quality. The remaining detected VOCs are petroleum-related (naphthalene and 1,2,4-trimethylbenzene) but again were detected at what are considered trace concentrations.

SVOCs were detected in the soil samples. Table 2 on the following page summarizes these laboratory results.

**FOCUSED SUBSURFACE SITE INVESTIGATION  
210 DOUGLASS STREET, BROOKLYN, NEW YORK**

**Table 2: SVOC Analytical Results of Soil Samples  
Detected compounds only**

Compound	Sample Location and Depth						SCO
	B1 5'-5.5'	B2 2'-6'	B3 5'-9'	B4 3'-5'	B4 12.5'-13.5'	B5 3'-4'	
Acenaphthene	0.12j	ND	ND	0.23j	ND	0.29j	20
Acenaphthylene	ND	ND	ND	0.796j	ND	0.11j	100
Anthracene	0.22j	0.14j	ND	0.72	ND	0.64	100
Benzo(a)anthracene	0.45	0.48j	0.25j	1.7	0.0925j	1.9	1.0
Benzo(b)fluoranthene	0.47	0.5j	0.26j	1.2	ND	1.7	1.0
Benzo(k)fluoranthene	0.23j	0.21j	0.13j	0.72	ND	0.86	0.8
Benzo(a)pyrene	0.43	0.64	0.22j	1.2	ND	1.5	1.0
Benzo(g,h,i)perylene	0.29j	0.48j	0.15j	0.85	ND	1.1	100
Dibenzo(a,h)anthracene	0.0978j	ND	ND	0.26j	ND	0.41	0.33
Chrysene	0.42	0.39j	0.18j	1.5	ND	1.6	1.0
Fluoranthene	1.1	0.73	0.39j	2.9	0.2j	3.2	100
Fluorene	0.081j	ND	ND	0.19j	ND	0.27j	30
Phenanthrene	0.83	0.43j	0.29j	2.7	0.3j	2.3	100
Pyrene	0.91	0.87	0.36j	2.9	0.22j	2.9	100
Indeno(1,2,3-cd)pyrene	0.25j	0.3j	0.12j	0.8	ND	1.0	0.5
<b>Total SVOCs</b>	5.8988	4.21	2.35	18.666	0.8125	19.78	

**NOTES**

1. All results are expressed in milligrams per kilogram (mg/kg), which can also be expressed as parts per million (ppm).
2. ND - Parameter non-detected, below method reporting limits.
3. Results in bold exceed Unrestricted Use Soil Cleanup Objectives as defined in the New York State Department of Environmental Conservation, Division of Environmental Remediation, 6 NYCRR Part 375, Environmental Remediation Programs, dated December 14, 2006 and the Soil Cleanup Levels for Fuel Oil Contaminated Soil as defined in the New York State Department of Environmental Conservation policy document titled *CP-51 / Soil Cleanup Guidance*, dated October 21, 2010
4. "j" qualifier represents results that are estimated values because they are less than the quantitation limit but greater than the method detection limit

While some SVOCs were detected at concentrations that exceed individual Unrestricted Use SCOs, ART considers them as reflective of common urban fill material and not as a release of contaminants in liquid form to the environment. None of the individual detected SVOC concentrations are considered as severe or as greatly exceeding the Unrestricted Use SCOs.

Three of the soil samples were further analyzed for PCBs and the following table summarizes the laboratory report.

**Table 3: PCB Analytical Results of Soil Samples  
Detected compounds only**

Compound	Sample Location and Depth			SCO
	B1 5'-5.5'	B3 5'-9'	B4 3'-5'	
Total PCBs	ND	ND	1.1	0.1

**NOTES**

1. All results are expressed in milligrams per kilogram (mg/kg), which can also be expressed as parts per million (ppm).
2. ND - Parameter non-detected, below method reporting limits.
3. Results in bold exceed Unrestricted Use Soil Cleanup Objectives as defined in the New York State Department of Environmental Conservation, Division of Environmental Remediation, 6 NYCRR Part 375, Environmental Remediation Programs, dated December 14, 2006

PCBs were detected in B4 3'-5' at a concentration that exceeds the Unrestricted Use SCO. ART believes that this result reflects the nature of the fill material in this area and likely does not reflect a Site-wide condition in which elevated levels of PCBs exist (no PCBs were detected in the two remaining samples).

## 4.2 Groundwater Sample Analysis Results

VOCs were detected in the eight groundwater samples. Table 4 provides a summary of the groundwater VOC analysis:

<b>Table 4: Laboratory Results for Direct Push Groundwater Samples (EPA Method 8260) Detected Compounds Only</b>									
EPA 8260 VOCs	Sample Location and Depth								TOGS Standard
	B1GW 5'-9'	B1GW 25'-29'	B2GW 7'-12'	B2GW 20'-25'	B3GW 7'-12'	B3GW 25'-27'	B4GW 7'-12'	B4GW 19'-23'	
Acetone	ND	69.7	ND	ND	ND	140	ND	ND	50
2-Butanone	ND	ND	ND	ND	ND	18.1j	ND	ND	40
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	5
Ethylbenzene	ND	40.2	ND	210	ND	0.52j	ND	0.57j	5
Isopropylbenzene	ND	29.3	ND	4.4j	ND	ND	ND	2.2j	5
n-Butylbenzene	ND	ND	ND	0.61j	ND	ND	ND	ND	5
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	5
n-Propylbenzene	ND	8.3	ND	1.7j	ND	ND	ND	0.58j	5
Benzene	ND	440	ND	180	ND	1.0j	4.4j	150	0.7
p-Isopropyltoluene	ND	5.1	ND	4.9j	ND	0.99j	ND	ND	5
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	10
Toluene	ND	0.94j	ND	280	ND	1.6j	ND	0.41j	5
1,2,4-Trimethylbenzene	ND	58.5	ND	31.9	ND	0.69j	ND	0.49j	5
1,3,5-Trimethylbenzene	ND	ND	ND	9.0	ND	ND	ND	ND	5
Xylenes	ND	31.7	ND	191	ND	1.63	ND	1.5	5
Methyl-tert-butyl-Ether (MTBE)	ND	11.1	ND	ND	ND	ND	ND	3.7j	10
Naphthalene	ND	130	ND	3000	ND	290	1.6j	9.1	10
Perchloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	5
Trichloroethene	ND	ND	ND	ND	ND	0.97j	1.8j	ND	5
<b>Total VOCs</b>	0.0	824.84	0.0	3913.51	0.0	455.5	7.8	168.55	

### NOTES

1. Results expressed in micrograms per liter (ug/l), which can also be expressed as parts per billion (ppb).
2. Any result in bold exceeds New York State Department of Health Maximum Contaminant Level for drinking water, and the guidance values or standard listed in the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1) *Ambient Water Quality Standards and Guidance Values*.
3. ND: Parameter non-detected, below method detection limits.
4. j-The concentration was detected at a value below the reporting limit (rl) but above the minimum detection limit (mdl)

As shown on the table, a clear pattern of VOC concentrations exceeding applicable regulatory limits exists in the deeper groundwater samples, which is consistent with groundwater quality data obtained from reports prepared in connection with the Gowanus Canal Superfund site. The only exception was the detected level of benzene reported in B4GW 7'-12', which exceeds the applicable regulatory limit. No benzene was detected in the three soil samples collected from B4, which is an indicator of an off-site source of this petroleum-related VOC (B4 was installed at a hydraulic upgradient position at the Site,

making it unlikely that an on-site source of benzene contamination is present). Further, benzene was detected at much greater concentrations in the majority of the deeper groundwater samples inclusive of B4GW 19'-23'. These results are considered by ART as representative of adverse impact by migration of coal tar and coal tar-related VOCs (including benzene) from the Gowanus Canal sediments and the nearby historical MGP.

SVOCs were detected in the groundwater samples and Table 5 summarizes the laboratory report of analysis:

<b>Table 5: Laboratory Results for Direct Push Groundwater Samples (EPA Method 8270) Detected Compounds Only</b>								
Compound	Sample Location and Depth							TOGS Standard
	B1GW 5'-9'	B1GW 25'-29'	B2GW 7'-12'	B2GW 20'-25'	B3GW 7'-12'	B4GW 7'-12'	B4GW 19'-23'	
Acenaphthylene	ND	ND	ND	43.9	ND	ND	ND	20
Acenaphthene	ND	91.1	ND	40	ND	ND	6.3j	20
Anthracene	ND	ND	ND	8.4j	ND	ND	D	50
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	ND	0.002
Fluoranthene	ND	ND	ND	7.6j	5.8j	ND	ND	50
Fluorene	ND	13.8	ND	25.8	ND	ND	ND	50
Phenanthrene	ND	9.9j	ND	28.2	ND	ND	ND	50
Pyrene	ND	ND	ND	10.8	7.6j	ND	ND	50

**NOTES**

1. Results expressed in parts per billion (ppb).
2. Any result in bold exceeds New York State Department of Health Maximum Contaminant Level for drinking water, and the guidance values or standard listed in the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1) *Ambient Water Quality Standards and Guidance Values*.
3. ND: Parameter non-detected, below method detection limits.
4. j-The concentration was detected at a value below the reporting limit (rl) but above the minimum detection limit (mdl)

As shown on Table 5, two of the deeper groundwater samples contained SVOCs above applicable regulatory limits. This data also verifies that contaminant concentrations (VOCs and SVOCs) increase with depth in soil and groundwater.

### 4.3 Soil Gas Sample Analysis Results

The three soil gas samples were analyzed at Chemtech under EPA Method TO-15: VOCs. Table 6 summarizes the laboratory report of analysis.

<b>Table 6: Soil Gas Sample Analysis Results EPA Method TO-15, detected compounds only</b>			
Compound	SG1 Outside	SG2 Interior	SG3 Interior
Acetone	308	ND	154
Carbon Disulfide	180	53.6	58.6
Chloroform	ND	2.69	208
Methylene Chloride	2.85	1.74	33
2-Butanone (methyl ethyl ketone)	28.3	2.68	9.14j
Carbon Tetrachloride	0.25j	0.31j	34
Dichlorodifluoromethane	3.12	0.45j	ND
Trichlorofluoromethane	1.74j	1.18j	ND
Chloroethane	2.64	0.32j	ND
Chloromethane	0.83j	0.74j	ND
Benzene	6.39	11.5	32.6
Ethylbenzene	15.6	21.3	40.0
Toluene	33.9	24.9	39.6
Xylenes	116.9	132.4	273.6
Naphthalene	3.3	9.96	5.24j
1,3,5-Trimethylbenzene	16.2	3.29	ND
1,2,4-Trimethylbenzene	ND	14.8	10.8j
1,4-Dichlorobenzene	ND	11.4	7.21j
4-Ethyltoluene	26.1	6.88	5.41j
Cyclohexane	4.13	79.9	28.6
Heptane	20.5	8.2	14.3j
Hexane	114	18.7	ND
tert-Butyl Alcohol (TBA)	6.67	ND	22.4
1,1-Dichloroethane	ND	11.7	ND
1,1,1-Trichloroethane	0.16j	66.8	20.2j
Perchloroethylene	1.7j	0.41j	91.6
Trichloroethene	1.61j	ND	9136
cis-1,2-Dichloroethene	ND	ND	7.93j
4-Methyl-2-Pentanone	2.58	ND	ND
Styrene	ND	9.79	5.96j
Tetrahydrofuran	10.3	2.01	ND

**NOTES**

1. All results are expressed in micrograms per cubic meter of air (ug/m<sup>3</sup>)
2. J = Concentration is approximate and is less than the quantitation limit but greater than the method detection limit (MDL)
3. "ND" Not Detected

Several substances were reported in all samples and all are common laboratory-introduced VOCs. Table 6 clusters these VOCs as the first five substances.

The Final Guidance does include a decision matrix with guidance values for carbon tetrachloride, PCE, TCE and 1,1,1-trichloroethane (1,1,1-TCA) for indoor air and sub-slab soil vapor. All of these substances were variously detected in the three samples as shown in Table 6. The Final Guidance states that Decision Matrix 1 is to be applied to carbon tetrachloride and TCE if detected. SG3 Interior was the only sample in which these substances were detected at high enough concentrations to warrant concern, particularly with respect to the detected TCE concentration, which is 9136 ug/m<sup>3</sup>. At this concentration, Decision Matrix 1 recommends “mitigate” even if TCE is not detected in indoor air. ART considers this TCE concentration in SG3 Indoor as elevated.

The Final Guidance indicates that Decision Matrix 2 should be used for evaluating PCE and 1,1,1-TCA concentrations in indoor air and sub-slab soil vapor. All PCE and 1,1,1-TCA concentrations detected in the samples are below 100 ug/m<sup>3</sup>., which is the maximum allowable concentration under Decision Matrix 2 whereby no further action is recommended (as long as any indoor air sample analysis shows that these substances are present at concentrations that are less than 3.0 ug/m<sup>3</sup>).

Various petroleum-related VOCs were also detected in detected in the samples, in particular benzene, toluene, ethylbenzene and xylenes, which are known contaminants in soil and groundwater beneath the Site. While some of these substances were detected at moderately high levels, no regulatory standard exists for these VOCs in soil sub-slab soil vapor. .

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

The principal intent of this FSSI was to determine if the Site may be a source of actionable concentrations of VOCs in soil or groundwater. Shallow and deep groundwater samples were collected from four of the five soil borings as the primary means establishing if an on-site VOC source exists. A fifth soil boring was installed (B5 on the sketch in Appendix A) but multiple refusals of the drilling equipment at a shallow depth occurred preventing groundwater sample collection. As shown on the summary data on the sketch, shallow groundwater samples were reported to contain trace to low total VOCs, while the deeper samples contain markedly higher VOC content. This pattern of deeper groundwater contamination is consistent with information reviewed by ART pertaining to the nature and extent of the groundwater contamination at the east-adjointing Gowanus Canal, which has been placed on the federal Superfund list. The deeper on-site groundwater sample laboratory analytical data generally confirms that migration of coal tar-related contaminants (including VOCs) from the Gowanus Canal and possibly a nearby historical manufactured gas plant (MGP) migrated beneath the Site. Significantly, little or no impact to shallow groundwater quality has occurred at the Site, which is again consistent with the data obtained from monitoring wells installed in local sidewalks near the Site (these sidewalk monitoring wells were previously installed by others during separate investigations of the Gowanus Canal contamination). Significantly, no chlorinated VOCs were detected above applicable regulatory limits in any of the soil or groundwater samples collected during this study. The types of VOCs (as well as SVOCs) detected in the deeper groundwater samples are also consistent with those discovered under the former MGP and the Gowanus Canal.

Three soil gas samples were collected during this study. Two of these samples were collected from within the warehouse section of the Site building. All samples were analyzed at the laboratory for VOCs. The only laboratory result that shows unusually elevated VOC content was reported in Sample SG3 Interior, which was collected from near the west end of the Site building interior and under the floor slab. Trichloroethene (TCE) was detected at a concentration of 9136 ug/m<sup>3</sup>. This chlorinated VOC is not related to contamination caused by MGP operations and was commonly used as a metal degreasing and cleaning agent by industrial operations.

A soil boring (B4) was installed within ten feet of SG3 Interior. Field instrumentation showed that elevated volatile organic vapors were present in shallow soil samples collected from this boring. However, laboratory analysis of individual shallow, intermediate, and deep soil samples detected only what are considered by ART as trace concentrations of TCE. Further the shallow groundwater sample collected from this boring (B4GW 7'-12') was reported by the laboratory to contain only a trace concentration of this substance. No TCE was detected by the laboratory in the deeper groundwater sample collected from this boring (B4GW 19'-23'). TCE was either not detected or detected at trace concentrations in all remaining groundwater samples, which were collected at presumed hydraulic downgradient positions relative to B4. ART believes that the source of the elevated TCE in SG3 Interior may be an isolated area of minor impact in subsurface soil or possibly some unknown and nearby off-site source. However, the Final Guidance does recommend further action ("mitigate") when TCE concentrations as high as that detected in SG3 Interior are discovered. ART understands that the client has authorized a series of indoor sample collection and laboratory analysis to determine if

elevated levels of TCE or possibly other chlorinated VOCs exist at detectable levels within the Site building. Corrective action may be necessary to address the sub-slab conditions under the west side of the Site building.

Any future Site owner will likely need to conduct periodic indoor air quality monitoring and possibly initiate corrective action in connection with the volatile organic vapors detected beneath the Site building. In addition, increased costs will be incurred to remove fill material for off-site disposal during redevelopment since PCBs and certain SVOCs were detected in the material above Unrestricted Use SCOs. Groundwater is present within approximately five feet bgs at the Site, any future development that includes construction dewatering could incur added costs for pretreatment. While little or no contamination above applicable regulatory limits was detected in shallow groundwater samples, clearly the shallow zone is hydraulically connected to deeper groundwater and pumping could draw contaminants to shallower depths.

## **6.0 Limitations of the FSSI**

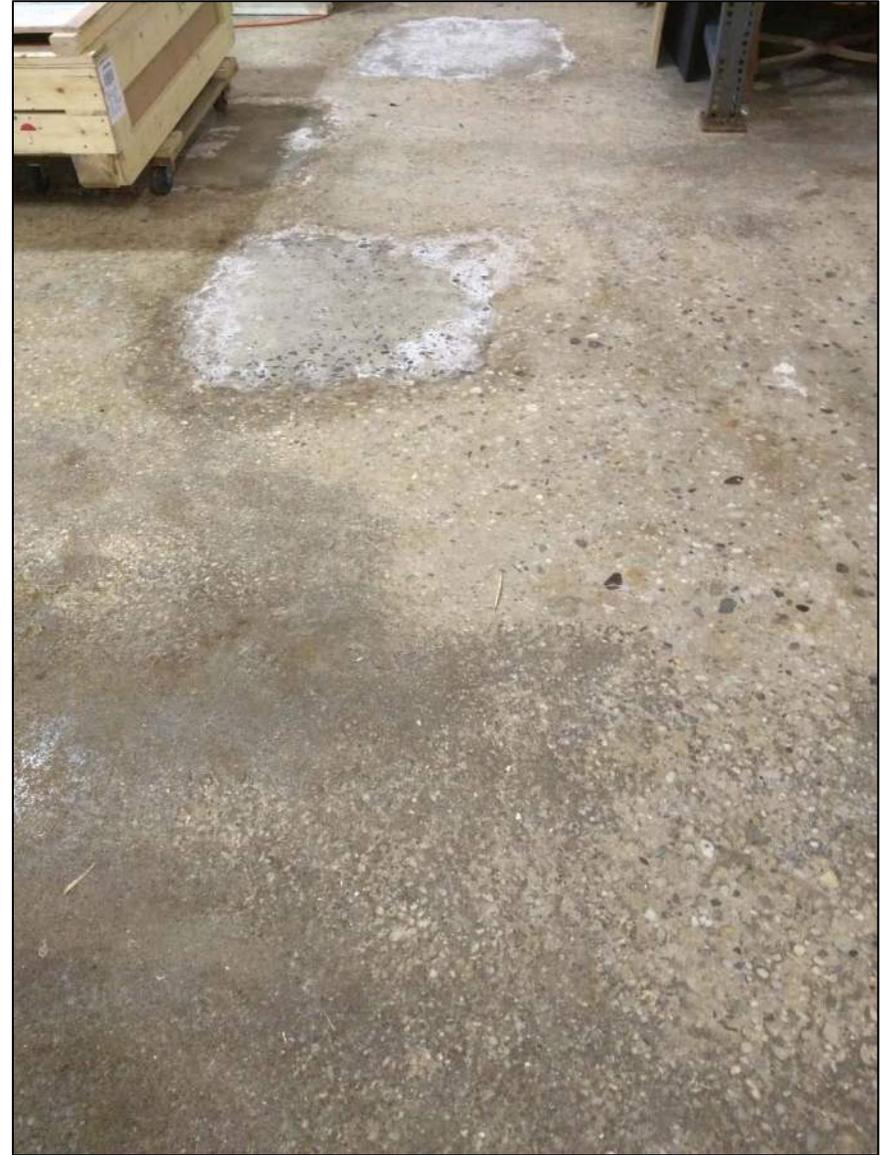
The scope of the FSSI is intended to aid in evaluating whether additional investigation would be prudent. The tasks that comprise this FSSI are not exhaustive or definitive. ART has made no independent investigation of the accuracy of these secondary sources and has assumed them to be accurate and complete. ART does not warrant the accuracy or completeness of information provided by secondary sources (ART has no reason to believe that the secondary sources provided or acquired during this study contain intentionally false or misleading information). ART does not warrant that all contamination that may exist on the Site has been discovered, that the Site is suitable for any particular purpose or that the Site is clean or free of liability.

**Phase I Environmental Site Assessment**  
*198 Douglass Street, Brooklyn, New York*

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**APPENDIX J**

Site Photographs



**Concrete patched holes in original slab; southwest room of the Site**

**NYSDEC Spill and  
New York Hazardous Waste Database Details**

<b>FORMER O.Z. ELECTRICAL</b> <b>198 DOUGLASS STREET,</b> <b>BROOKLYN, NY 11217</b>	Map ID: 1 Direction: SW Distance (mi.): N/A Distance (ft.): TP Relative: Higher Actual: 7 FT ASL	Database(s): SHWS SPILLS	EDR ID: S108057803 EPA ID: N/A
 SHOW MAP ()			
SHWS			
<b>Program:</b> <b>Site Code:</b> <b>Classification:</b> <b>Region:</b> <b>Acres:</b> <b>HW Code:</b> <b>Record Add:</b> <b>Record Upd:</b> <b>Updated By:</b> <b>Site Description:</b>	HW 450318 N 2 0.17 224152 06/10/2011 08/24/2012 DPKAPLAN	<p><b>LOCATION:</b> The Site is located at 198 Douglass Street in Brooklyn, between Bond Street and the Gowanus Canal. <b>SITE FEATURES:</b> The property is 0.18 acres and features a one-story warehouse building which is currently used for the storage of art and antique goods and furniture. <b>CURRENT USE/ZONING:</b> The property is currently used for the storage of antique goods. It is zoned for manufacturing use. <b>HISTORICAL USES:</b> The Site has historically been used for a variety of industrial purposes. Prior to its current use, the Site was owned and operated by Paramount Plumbing (approx. 1995 to 1998) and O.Z. Electrical Manufacturing Company Inc. (approx. 1960 to 1995). O.Z. also formerly owned and operated on the adjacent property (196 Douglass) as well as three buildings to the west, across Bond Street (262 Bond Street). Earlier owners/operators include P.H. Hughes Lime, Brick and Lath Yard (approx. 1887 to 1900); a gravel/crushed stone yard (approx. 1900 to 1930); and the Knickerbockers Ice Company, which included a machine shop (1930?s). <b>SITE GEOLOGY AND HYDROGEOLOGY:</b> Fill material consisting of sand, silt, gravel, and construction/demolition debris has been encountered to approximately 10 feet below ground surface (fbgs). Beneath the fill material (10 to 36 fbgs) is a sequence of inter-bedded silt, clay, sand, and peat layers atop fine to coarse-grained sand to a depth of approximately 48 fbgs. Groundwater has been encountered at depths ranging from 1.5 fbgs to 9 fbgs, during various investigations. USEPA Superfund investigations in the area of the Gowanus Canal have found that shallow groundwater flows toward the canal at both low and high tide. Intermediate groundwater generally flows upward toward the canal. Based on water chemistry measurements in surface water and groundwater (collected during Superfund investigations of the Gowanus Canal), it was concluded that infiltration from the canal controls water quality in shallow wells adjacent to the canal, with decreasing influence with distance from the canal. The site did not qualify for addition to the Registry of Inactive Hazardous Disposal Sites.</p>	
<b>Env Problem:</b>	<p><b>NATURE AND EXTENT OF CONTAMINATION:</b> A Site Investigation performed in April/May 2012 confirmed that tetrachloroethene (PCE) previously detected in groundwater was limited and not indicative of a release of hazardous waste. <b>GROUNDWATER:</b> In 2006, PCE was detected in groundwater at a concentration of 1,600 parts per billion (ppb) and benzene at 14 ppb, from one grab groundwater sample collected from one boring. In the 2012 Site Investigation, groundwater was sampled from four groundwater monitoring wells. Groundwater samples were analyzed for volatile organic compounds (VOCs). Several VOCs were detected; however, the only contaminants detected at concentrations that exceed standards were isopropylbenzene (detected at 5.1 ppb compared to the standard of 5.0 ppb) and methyl tertiary butyl ether (MTBE) (detected at 10.7 ppb compared to the standard of 10 ppb). The standards cited for groundwater are the NYS Ambient Water Quality Standards and Guidance Values for Water Class GA from NYSDEC Technical &amp; Operational Guidance Series (TOGS) 1.1.1. <b>SOIL:</b> The 2012 Site Investigation included soil sampling from 7 soil borings and analysis for VOCs. The only contaminant detected above standards was isopropylbenzene, detected at 3.91 parts per million (ppm) compared to the CP-51 Supplemental Soil Cleanup Objective for protection of groundwater of 2.3 ppm. A few VOCs were detected on site in the 2006 soil boring, but at very low concentrations. <b>SOIL VAPOR:</b> In soil vapor, trichloroethene (TCE) was detected in two samples at a maximum concentration of 200 micrograms per cubic meter (ug/m3); however TCE was not detected above reporting limits in concurrent indoor air</p>		

	samples. The site did not qualify for addition to the Registry of Inactive Hazardous Disposal Sites.
<b>Health Problem:</b>	Not reported
<b>Dump:</b>	Not reported
<b>Structure:</b>	Not reported
<b>Lagoon:</b>	Not reported
<b>Landfill:</b>	Not reported
<b>Pond:</b>	Not reported
<b>Disp Start:</b>	Not reported
<b>Disp Term:</b>	Not reported
<b>Lat/Long:</b>	Not reported
<b>Dell:</b>	Not reported
<b>Record Add:</b>	Not reported
<b>Record Upd:</b>	Not reported
<b>Updated By:</b>	Not reported
<b>Own Op:</b>	On-Site Operator
<b>Sub Type:</b>	03
<b>Owner Name:</b>	Jean Lignel
<b>Owner Company:</b>	Not reported
<b>Owner Address:</b>	332 Bleecker St., Apt. 10
<b>Owner Addr2:</b>	Not reported
<b>Owner City,St,Zip:</b>	New York, NY 10014-2980
<b>Owner Country:</b>	United States of America
<b>Own Op:</b>	Owner
<b>Sub Type:</b>	05
<b>Owner Name:</b>	Stephen D. Kramer, Esq. c/o Phillips Nizer, LLP
<b>Owner Company:</b>	Matthews Investments Limited
<b>Owner Address:</b>	666 Fifth Avenue
<b>Owner Addr2:</b>	Not reported
<b>Owner City,St,Zip:</b>	New York, NY 10103-0084
<b>Owner Country:</b>	United States of America
<b>HW Code:</b>	Not reported
<b>Waste Type:</b>	Not reported
<b>Waste Quantity:</b>	Not reported
<b>Waste Code:</b>	Not reported
<b>Crossref ID:</b>	Not reported
<b>Cross Ref Type Code:</b>	Not reported
<b>Cross Ref Type:</b>	Not reported
<b>Record Added Date:</b>	Not reported
<b>Record Updated:</b>	Not reported
<b>Updated By:</b>	Not reported
<b>SPILLS</b>	
<b>Facility ID:</b>	0603334
<b>Facility Type:</b>	ER
<b>DER Facility ID:</b>	316117
<b>Site ID:</b>	366030
<b>DEC Region:</b>	2
<b>Spill Date:</b>	2006-06-02
<b>Spill Number/Closed Date:</b>	0603334 / Not Reported
<b>Spill Cause:</b>	Unknown
<b>Spill Class:</b>	Possible release with minimal potential for fire or hazard or Known release with no damage. DEC Response. Willing Responsible Party. Corrective action taken.
<b>SWIS:</b>	2401
<b>Investigator:</b>	DPKAPLAN
<b>Referred To:</b>	Not reported
<b>Reported to Dept:</b>	2006-06-26
<b>CID:</b>	409
<b>Water Affected:</b>	Not reported
<b>Spill Source:</b>	Unknown

<b>Spill Notifier:</b>	Local Agency
<b>Cleanup Ceased:</b>	Not reported
<b>Cleanup Meets Std:</b>	False
<b>Last Inspection:</b>	Not reported
<b>Recommended Penalty:</b>	False
<b>UST Trust:</b>	False
<b>Remediation Phase:</b>	1
<b>Date Entered In Computer:</b>	2006-06-26
<b>Spill Record Last Update:</b>	2011-11-14
<b>Spiller Name:</b>	JEFFERY FLANNIGAN
<b>Spiller Company:</b>	Not reported
<b>Spiller Address:</b>	Not reported
<b>Spiller City,St,Zip:</b>	NY
<b>Spiller Company:</b>	999
<b>Contact Name:</b>	JEFFERY FLANNIGAN
<b>Contact Phone:</b>	(212) 268-1767
<b>DEC Memo:</b>	"DEC Piper contacted Caller Jeff Flannigan. He will copy report and analytical and send to DEC. 9/8/06- DEC Piper reviewed subsurface investigation report. AS per report, investigaestigation was due to the presence of petroleum vaprs inside work area. 1 boring was completed. Groundwater was encountrered at 9 feet bgs. A water sample was collected at 34 feet which contained elevated levels of benzene, PCE and a variety of SVOCs were above standards. A soil sample was collected at 36 feet bgs which indicated trace levels of clorinated solvents. Indoor air samples revealed elevated levels of petroleum and clorinated solvents were detected above standards. Due to the soil and gw samples not being collected at the gw interface, the concentrations observed where collected, and indoor air quality, additional investigation is warranted. Case referred to remediation. 9/20/06- DEC Piper . Spill transfferred to remediation as per Austin on 9/8/06. 11/13/06 - reviewed site assessment report, found PERC in GW. Need to contact consultant to get more delineation of the GW contamination. - KST 4/11/08 - This spill has been transferred to D. Kaplan. Since previous reports were missing the representative of the site was contacted and the subsurface investigation report was obtained from the environmental consultant. 5/7/08 - Met the environmental consultant (Djamel Lekmine, AMEC), architect Jeff Flannigan who was acting as representative of the owner (was in charge of construction at the time the spill was reported), and attorney for the owner at the site. The entire lot is covered with a building with slab on grade finished floor. The building serves as a storage facility for fine art. It was explained that additional investigation was necessary. 5/19/08 - Environmental consultant sent a proposed work plan for additional investigation which was very incomplete (see edocs). 5/27/08 - A letter was sent to the environmental consultant describing additional requirements for a subsurface investigation. 8/26/08 - Attorney for the owner has been trying to work out a site access agreement with the owner of the adjacent property (196 Douglass St). Representative for the owner of 196 indicated that they are unwilling to grant site access. 9/26/08 - After negotiations with the owner of 196 Douglass for site access proved unsuccessful, DEC attorney (John Urda) sent a letter to the owner siting statutory authority for site access for investigation work. See edocs. 5/11/09- The work was performed February 10th and 11th. The report has not yet been received. 6/18/10-Vought-Received inquiry from DEC Austin as to whether Site should be transferred to Vought as P-Site . Vought discussed with DEC O'Connell and spill reassigned from Kaplan to Vought and entered into P-Site Tracking Spreadsheet. 2/8/11-Vought-Spill transferred from DEC Vought to DEC Kaplan for further action. 6/10/11 - Transferred to hazardous waste program as potential hazardous waste site (P site 224152) "
<b>Remarks:</b>	"THERE WAS SOIL SAMPLE TESTING AND GROUND WATER TESTING. THERE WAS DIFFENENT MATERIAL THAT WAS FOUND AT THE SITE. THERE ARE TRACES OF VOLITALE ORGANIC COMPOUND, TETRACHLOROETHENE,ETHYLBENZENE, XYLENE WAS FOUND IN SOIL SAMPLE. THE WATER SAMPLE HAD BENZINE, TETRACHLOROETHENE. THEY WERE DIGGING AT THIS SITE."
<b>Material</b>	
<b>Site ID:</b>	366030
<b>Operable Unit ID:</b>	1123996
<b>Operable Unit:</b>	01
<b>Material ID:</b>	2184492
<b>Material Code:</b>	0040B
<b>Material Name:</b>	PCE

<b>Case No.:</b>	Not reported
<b>Material FA:</b>	Other
<b>Quantity:</b>	Not reported
<b>Units:</b>	Gallons
<b>Recovered:</b>	Not reported
<b>Resource Affected:</b>	Not reported
<b>Oxygenate:</b>	Not reported
<b>Site ID:</b>	366030
<b>Operable Unit ID:</b>	1123996
<b>Operable Unit:</b>	01
<b>Material ID:</b>	2113473
<b>Material Code:</b>	0854A
<b>Material Name:</b>	benzene
<b>Case No.:</b>	00071432
<b>Material FA:</b>	Hazardous Material
<b>Quantity:</b>	.00
<b>Units:</b>	Gallons
<b>Recovered:</b>	.00
<b>Resource Affected:</b>	Not reported
<b>Oxygenate:</b>	Not reported
<b>Tank Test</b>	