

Prepared for:

**Sergi's Images, Inc.  
260 Van Brunt Street  
Brooklyn, NY 11231**

**NYS Department of Environmental Conservation  
Division of Remediation, Remedial Bureau B  
625 Broadway, 12th Floor  
Albany, NY 12233-7015**

Prepared By:

**REUS Engineers, P.C.  
Center Moriches, NY**

Date:

**May 2019**

Site No:

**C224199**

Project Number

**02-43303A**

# **INTERIM REMEDIAL MEASURES WORK PLAN**

**NYSDEC BCP SITE  
260-262 VAN BRUNT, LLC  
262 VAN BRUNT STREET PROPERTY  
RED HOOK, BROOKLYN, NEW YORK**

**REUS Engineers, P.C.**

## INTERIM REMEDIAL MEASURES WORK PLAN

### Prepared for

**Facility:** 260-262 Van Brunt, LLC Site  
Red Hook, Brooklyn, New York

I, Russell Kemp, certify that I am currently a New York State Professional Engineer as defined in 6 NYCRR Part 375 and that this Interim Remedial Measures Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

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Signature  
President

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Date

**PE SIGNATURE AND STAMP TO BE PROVIDED IN FINAL DOCUMENT**

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## 1. INTRODUCTION AND PURPOSE

This Interim Remedial Measures (IRM) Work Plan has been prepared by REUS Engineers, P.C. (REPC)<sup>1</sup> for the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site # C224199, identified as 260-262 Van Brunt, LLC located at 262 Van Brunt Street, Brooklyn, Kings County, New York (Subject Property, facility) (see Figure 1). Per NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (NYSDEC, May 2010) Section 1.11(c), this project represents a non-emergency IRM which will be implemented to address a previously-identified source of contamination before necessarily completing the planned Remedial Investigation (RI).

This work plan describes the procedures to be utilized to remediate (by excavation, transport and disposal) unsaturated soils impacted by volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) within the footprint of the on-site building associated with former on-site disposal of solvent-impacted waste waters. On behalf of the BCP Participant, REPC has prepared and submitted to the NYSDEC a RI/Alternatives Analysis (AA) Work Plan (including a Quality Assurance Project Plan [QAPP] and Health and Safety Plan [HASP]) under a separate cover.

### 1.1 Site Location and Description

The Subject Property, located at 262 Van Brunt Street, consists of a 13,500 square foot parcel within a highly industrialized area of the Red Hook Neighborhood of Brooklyn, New York (Tax Map ID: Brooklyn Block 517, Lot 1). The BCP Site is currently owned by 260-262 Van Brunt, LLC and includes a single-story warehouse building; and, a limited parking area along the western portion of the parcel (see Figure 2). The Subject Property is currently utilized for storage purposes associated with the owner's business.

The Subject Property is predominantly covered by the building structure which encompasses roughly 95% of the Subject Property and as such, encompasses nearly the entire property footprint. The only substantial area not covered by the building footprint is a limited parking area / truck staging area located adjacent to roll-up access doors located at the southwest corner of the building along Van Brunt Street.

### 1.2 Site Environmental Setting

The Subject Property lies at an elevation of approximately two to four-feet above mean sea level (amsl) with its highest elevation along Van Brunt Street sloping gently downwards to the northwest towards Upper New York Bay (per Google Earth June 25, 2016 aerial photograph). The vicinity of the Subject Property is densely developed with the majority of the surface areas being dominated by building envelopes, paved parking areas, paved road ways, etc., with relatively-minor open, permeable areas. Therefore, surface water runoff in the vicinity of the Subject Property is generally controlled by the New York City (NYC) stormwater abatement system.

The following is a summary of the local geology and hydrogeology based upon data provided in reports by others, as discussed in the RI/AA Work Plan:

<sup>1</sup> REUS Engineers, P.C. is a Professional Corporation licensed to perform engineering services in New York State.

- The sub-surface geologic conditions in the general vicinity of the Subject Property are typically characterized by urban fill overlying sand deposits with gravel and silt / clay deposits. New York City historic fill materials are typically composed of a mixture of heterogeneous soil intermixed with brick fragments, asphalt, wire, concrete, dimensional lumber fragments, plastic and other anthropogenic debris; and, range in thickness from a few feet to multiple feet.
- The Subject Property lies on a relatively level coastal plain within the Red Hook Neighborhood of Brooklyn. According to a 1997 United States Geological Survey (USGS) report, groundwater in the vicinity of the Subject Property is anticipated to flow in a west-northwest direction towards adjacent Upper New York Bay. Groundwater has been confirmed to occur at approximately seven-feet below grade surface (bgs) beneath the Subject Property

Public drinking and industrial water for Kings County are supplied primarily by the New York City reservoir system; groundwater within the vicinity of the Subject Property is not used for potable purposes and likely will not be used in the future as a potable source. According to a database report discussed in more detail below, there are no public water supply wells in the vicinity (e.g., with one-half mile) of the Subject Property, and the registered wells are typical USGS water-level monitoring wells. Based on available USGS information, any groundwater impacts in the vicinity of the Subject Property are expected to be confined to a shallow water-bearing unit flowing in a generally westerly direction, which would not impact potable water supplies.

Sanitary wastes generated at the Subject Property are discharged to the NYC municipal sewer system.

### **1.3 Subject Property History**

The Subject Property is located in a densely-developed commercial and industrialized area of Red Hook, Brooklyn since the 1800s. The following provided a summary of the history of the Subject Property.

#### **1.3.1 BCP Site Ownership**

The following provides a summary of the ownership history of the Subject Property (i.e., 262 Van Brunt):

- The Subject Property was previously owned by Anthony Vitale, the owner who received title by deed dated July 31, 2002. There are no current address or phone records listed for this owner and it is believed that he is deceased.
- The previous owner and Seller to Mr. Vitale was 262 Van Brunt St. Inc., a domestic Corporation formed with the NYS Secretary of State on June 3, 1959. There are no current address or phone records listed for this owner.

#### **1.3.2 BCP Site Operational History**

According to the EDR database report, the Subject Property has been identified on the following databases:

- New York State Brownfield Cleanup Program (BCP); and,
- NYSDEC Spill No. 1405708. The spill case was closed of December 2, 2014 when the site was transferred to the BCP.

In order to provide an initial review of the operations history of the Subject Property, REPC collected information from historical data sources consisting of Sanborn Maps, aerial photographs, topographic maps, City Directory listings, dating back to 1886 (see Table 1 and Appendix B of the RI/AA Work Plan). Based upon a review of these data sources, the following provides a summary of the history of the Subject Property:

- From circa 1886 (the earliest available record date) to 1925, the Subject Property was developed with an on-site building which was utilized as a stables and / or car barn facility for the Van Brunt Street and Erie Basin Rail Road Company. During this time period, there were residential dwellings (likely apartments) on the Subject Property; and in 1915, a portion of the Subject Property was utilized for "Pigsfeet Pickling."
- By 1938, the former improvements on the 262 Van Brunt Street parcel were razed and the land was vacant.
- From circa 1938 to 1940, all on-site infrastructure appeared to have been demolished and the Subject Property was vacant.
- From circa 1944 to the present day, the Subject Property was improved with a single building in its approximate current configuration. The parcel was redeveloped between 1943 and 1945 with the current building. The building was utilized as a "general merchandise warehouse" and by an auto garage and trucking company in the late 1940s and 1950s; however, by 1959 at least part of the building was utilized for a "junk shop" including rags and paper and later was utilized by a salvage company.
- By 1969 the building was utilized for "waste paper baling." By the mid-1970s, the building was occupied by a trucking / motor company and may have included repair activities; however, a plastic company occupied at least a portion of the building in 1985 per review of City Directories, which may have conducted injection molding. Operations such as injection molding may include the use of chlorinated solvents. By the late 1990s and into the mid-2000s, the building was utilized by a theatrical staging company for storage of props and dry goods until 2010.

According to New York City Department of Building Records (NYC DOB) Certificates of Occupancy (CO), the construction of the on-site building for use as an office and storage garage for more the five cars, was completed on December 27, 1944. The facility was improved with a boiler room cellar and a ground / first floor. The 1960 NYC DOB CO indicates the following:

- The facility was used as a junk shop (rags and paper) and loading berth;
- The storage of gasoline and approved type pump located on the outside / front of building; and,
- Fire Department approval dated March 10, 1960 for fuel oil and gasoline tank installation.

Most recently, the Subject Property was utilized by the Standard Bus Company from circa 2010 to 2015 and was utilized as a bus-repair / maintenance facility. Reportedly, on-site maintenance personnel discharged solvent-containing waste water to interior floor drains / drywells which resulted in the observed impacts to site soils.

According to the Enviroscience Consultants, Inc. (Enviroscience) August 12, 2014 Investigation Report (Enviroscience 2014 Report), the Subject Property was improved with four tanks that are presently out-of-service USTs (see Figure 2). Three of the out-of-service USTs were located at the southwest corner of the on-site building and a fourth UST was located in the central-southern portion of the on-

site building. Two of the USTs were accessed and proved to be filled with water (reportedly, a common historical tank abandonment technique).

#### 1.4 Summary of Environmental Conditions

A previous investigation has been conducted by Enviroscience in August of 2014 at the Subject Property to evaluate potential soil and/or groundwater impacts associated with the four on-site USTs and two drainage structures which received solvent-impacted waste waters. As summarized in Figure 2:

- Four soil boring (i.e., SB-1 through SB-4) were conducted.
- Soil samples collected from depths of approximately six-feet bgs (e.g., just above the water table).
- The SB-1 and SB-2 soil samples were submitted to York Analytical Laboratories, Inc. (York), a New York State Department of Health (NYSDOH)-Environmental Laboratory Accreditation Program (ELAP)-certified laboratory in accordance with Level A Analytical Services Protocols (ASP) and analyzed for NYSDEC petroleum-related volatile organic compounds (VOCs) by EPA Method 8260 and petroleum-related semi-volatile organic compounds (SVOCs) by EPA Method 8270. The soil analytical data were compared to the NYSDEC Unrestricted Soil Cleanup Objectives (USCOs) included in 6 NYCRR Part 375-6.
- The SB-3 and SB-4 soil samples were analyzed by York for NYSDEC Target Compound List (TCL) VOCs by EPA Method 8260 and the SB-3 sample was also analyzed for TCL SVOCs by EPA Method 8270.
- Groundwater samples were collected from SB-3 and SB-4. Both samples were analyzed by York for NYSDEC TCL VOCs by EPA Method 8260 and the SB-3 groundwater sample was also analyzed for TCL SVOCs by EPA Method 8270. The groundwater analytical data were compared to the NYSDEC Class GA Groundwater Standards and Guidance Values set forth in the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations – Reissued June 1998 and April 2000 Addendum.

As summarized in Figure 2, and Tables 1 and 2 in the Enviroscience 2014 Report:

- No petroleum-related VOCs were detected in the SB-1 soil sample. Low concentrations of petroleum-related SVOCs (e.g., below their respective NYSDEC USCOs) were detected in this sample.
- The only petroleum-related VOC detected in the SB-2 soil sample was naphthalene at 170 micrograms per kilogram (ug/kg).<sup>2</sup> The NYSDEC USCO for this SVOC is 12,000 ug/kg. Several petroleum-related SVOCs were detected at concentrations exceeding their respective NYSDEC USCO, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene.

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<sup>2</sup> This detection was assigned a "B" qualifier by York indicating that it likely represents a laboratory artifact.

- The only two TCL VOCs detected in the SB-3 soil sample at concentrations exceeding their respective NYSDEC USCOS were tetrachloroethene (PCE) at 1,400 ug/kg and acetone (a common laboratory artifact). Low concentrations (e.g., below their respective NYSDEC USCOS) of 1,1,2-trichloroethane and several SVOCs were detected in this sample.
- The only TCL VOC detected at a concentration exceeding its respective NYSDEC Class GA Standard in the SB-3 groundwater sample was 27 micrograms per liter (ug/l) of PCE (Class GA standard is 5.0 ug/l). Several petroleum-related SVOCs which are assigned very low Class GA Standards (e.g., 0.002 ug/l) were detected just exceeding their respective NYSDEC Class GA Standards, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and chrysene.
- No TCL VOCs were detected in the SB-4 soil sample.
- The only TCL VOC detected at a concentration exceeding its respective NYSDEC Class GA Standard in the SB-4 groundwater sample was 10 ug/l of PCE.

Enviroscience conducted a subsurface investigation at the Subject Property in September of 2014 (see Appendix B of the RI/AA Work Plan for a copy of the Enviroscience Report), the results of which indicated the following:

- Elevated concentrations of PCE (i.e., 160 to 8,000 micrograms per cubic meter [mcg/m<sup>3</sup>]) were detected in sub-slab soil vapor samples collected from 260-262 Van Brunt Street;
- Elevated concentrations of PCE (i.e., 360-380 mcg/m<sup>3</sup>) were detected in indoor air samples from 260 Van Brunt Street that are above the NYSDOH air guideline (30 mcg/m<sup>3</sup>), as well as above the level at which the NYSDOH recommends that immediate action be taken to reduce exposure (300 mcg/m<sup>3</sup>);
- Concentrations of TCE (i.e., 2.1 and 2.8 mcg/m<sup>3</sup>) were detected in indoor air samples above the NYSDOH air guideline (2 mcg/m<sup>3</sup>) on the first and second floors of an apparent finished office space located at 260 Van Brunt Street; and
- PCE was detected in an outdoor air sample near 260-262 Van Brunt Street at 31 mcg/m<sup>3</sup>, which is higher than what NYSDOH commonly associates with ambient background.

The only TCL VOC detected at concentrations exceeding a NYSDEC Unrestricted SCO was 2,900 ug/kg in the SB-6 sample. This is below PCE's Restricted Residential SCO of 5,500 ug/kg.

The only TCL VOC detected at a concentration exceeding its Class GA groundwater quality standard was 8.8 ug/l PCE in the SB-6 groundwater sample. It should be noted that the SB-6 location is within the boundary for the area targeted for remediation as part of the IRM.

According to the property owner, the property at 260 Van Brunt St. is owner occupied and Owner communicated notice of the soil vapor results to the tenant. Further, the Owner has indicated that the ventilation system at 260 Van Brunt has been updated in accordance with the NYSDOH direction to result in a positive ambient air pressure within the occupied areas of 260 Van Brunt Street.



## 2. DESCRIPTION OF IRM

The soil IRM will consist of the excavation, transportation and off-site disposal of VOC and SVOC-impacted soils within the footprint of the on-site building in accordance with the attached diagram (see Figure 2). The following provides the work-flow components associated with the implementation of the IRM

### 2.1 Waste-characterization Sample Collection and Analyses

In order to allow for the most flexibility in the excavation task discussed below, soil samples will be collected utilizing the direct-push drilling technique for waste-characterization purposes. For the purposes of this IRM Work Plan, it has been assumed that up to 1,000 cubic yards of excavated materials will be transported to the proposed Soil Safe Metro 12 facility located in Carteret, New Jersey.<sup>3</sup> Six soil borings will be conducted within the estimated excavation footprint with samples being collected on a nominal continuous basis from the surface-to-six-feet bgs.

Per Soil Safe's requirements (see Appendix A and Table 1), the waste-characterization samples will be analyzed for the following analyte suites by a NYSDOH-National Environmental Laboratory Accreditation Program (NELAP)-certified laboratory in accordance with Level A ASP:<sup>4</sup>

- Total petroleum hydrocarbons (TPH) – diesel-range organics (DRO) and gasoline-range organics (GRO);
- TCL VOCs;
- Poly aromatic hydrocarbons (PAHs);
- TCL polychlorinated biphenyls (PCBs);
- Target analyte list (TAL) metals; and,
- Toxicity Characteristic Leaching Procedure (TCLP) RCRA metals.

The NYSDEC will be provided with the waste-characterization analytical data and information of the selected landfill facility(s) for review during the excavation project.

### 2.2 Soil Excavation, Transport and Disposal

The preliminary, estimated limits of the on-site excavation based upon the soil sampling conducted to date are indicated in Figure 2.

The following provides a detailed summary of the soil excavation work-flow component:

- Prior to conducting any intrusive field work, a geophysical survey will be conducted to mark out sub-grade utilities. The appropriate Dig Safe One Call center will also be notified.

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<sup>3</sup> Note that the Participant may wish to select an alternative disposal facility(s) which may be more cost effective and have differing waste-characterization requirements. The NYSDEC will be provided with any revised waste-characterization requirements prior to mobilization.

<sup>4</sup> Level B ASP protocols are not applicable as the resultant data will be utilized strictly for waste-characterization purposes.

- Prior to mobilization, the selected excavation contractor will prepare a brief soil staging / load out plan for internal use. This will allow for the temporary staging of impacted soils (inside the on-site building) and / or allow for the direct load out of impacted soils.
- If required for structural stability issues, the selected contractor may elect to utilize shoring boxes, sheet-piling systems, etc., to protect the integrity of the on-site building infrastructure. Such activities are the responsibility of the contractor and are not incorporated into this IRM Work Plan.
- The soils will be excavated to a maximum anticipated depth of six-feet bgs (e.g., to the top of the water table).
- Sub-surface utilities and piping encountered during excavation activities (e.g., those associated with floor drains/sumps, hydraulic vehicle lifts, USTs, etc.) will be removed as part of the excavation.
- A qualified, on-site REPC scientist / geologist will inspect resultant bottom and side-wall soil samples for visual and olfactory evidence of impacts. The soils will be field screened for the presence of total VOCs utilizing a calibrated photo-ionization detector (PID).
- The excavated soils will be placed atop and covered by plastic sheeting at a location within the on-site building pending their eventual load out for transport and disposal, as discussed below.
- Once the field evidence indicates that the impacted materials have been successfully removed, end-point, confirmatory soil samples will be collected and submitted to a NYSDOH NELAP-certified analytical laboratory. The samples will be analyzed in accordance with NYSDEC ASP Category B laboratory data deliverable format. The samples will be analyzed for NYSDEC TCL VOCs plus ten tentatively-identified compounds (TICs) by EPA Method 8260C and NYSDEC TCL SVOCs plus 20 TICs by EPA Method 8270D. The protocols for the collection and analyses of the soil samples are included in the QAPP prepared for the RI/AA Work Plan. Table 2 provides the IRM-specific soil samples to be collected, as well as the quality assurance/quality control (QA/QC) samples to be utilized.
- The NYSDEC will be provided with preliminary draft analytical data tables / figures indicating the locations and results of the post-excavation, confirmatory soil samples for review. Upon NYSDEC concurrence that the excavation activities are complete, the owner of the Subject Property will make the decision as to whether the excavation will be back filled, or remain open to support future anticipated site development.
- All excavated materials will be transported to and disposed of at a pre-NYSDEC approved landfill.

### 3. IRM QUALITY ASSURANCE PROJECT PLAN

The scope of the IRM Work Plan has been developed to support the excavation, transport and disposal of impacted soils from within the footprint of the on-site building. The majority of the field and analytical laboratory methodologies to support the IRM were included in the QAPP prepared for the RI/AA Work Plan. The only additional work-flow component required to support the IRM, which was not included in the existing QAPP, was the collection of soil samples for waste-characterization purposes prior to the conduct of the excavation activities.

#### 3.1 Soil Sampling with Direct Push Drill Rig

At each of six locations, the following procedures will be utilized to collect grab or composite soil samples from the surface to a maximum estimate depth of six-feet bgs for waste-characterization purposes:

- An access hole will be cut through the concrete slab;
- Soil samples will be collected on a nominal continuous basis by advancing a four-to-five-foot-long stainless steel macrocore sampler with a direct-push drill rig. Each macrocore sampler will be equipped with factory-decontaminated, plastic acetate liners;
- Aliquots of the soil will be field screened for the presence of total VOCs utilizing a calibrated PID;
- The samples will also be described in accordance with the Unified Soil Classification System (USCS). All field observations will be recorded by the REPC representatives' in the project-dedicated field log book; and,
- A flag / stake marked with the sample identification will be placed in the access boring.

The non-VOC sample aliquots will be composited in the field to provide the Soil Safe-required composites. The samples for TCL VOC analyses will be collected as grab samples per the procedures included in the RI/AA Work Plan QAPP and composited in the laboratory.

#### 3.2 Post-Excavation Confirmatory Soil Sampling

As indicated in Table 2, the following confirmatory, end-point soil samples, plus appropriate QA/QC samples, will be collected and analyzed for TCL VOCs plus 10 TICs by EPA Method 8260 and TCL SVOCs plus 20 TICs:

- Eight bottom samples; and,
- 12 side-wall samples.

All sample collection, preservation and analyses activities will be conducted in accordance with RI/AA Work Plan and addenda included above.

Per the RI/AA Work Plan, the post-excavation soil sample analytical data will be compared to the NYSDEC soil cleanup objectives (SCOs) and supplemental SCOs identified in 6 NYCRR 375-6.8 and the Commissioner's Policy on Soil Cleanup Guidance (CP-51), as amended. Initially, the IRM soil analytical data will be compared to NYSDEC Unrestricted SCOs. Other NYSDEC SCOs (i.e., Residential, Restricted Residential, Commercial or Industrial) may be utilized dependent upon the resultant analytical data and final approved future use of the Subject Property.

## 4. HEALTH AND SAFETY PLAN

A site-specific Health and Safety Plan (HASP) was prepared and included as part of the RI/AA Work Plan. All of the IRM field work will be performed using the site-specific HASP. Please note that the HASP includes a Community Air Monitoring Plan (CAMP) prepared in accordance with DER-10, Appendix 1A. REPC will implement the CAMP during all intrusive activities at the Subject Property. The CAMP included in the site-specific HASP has been revised to include air monitoring in the direction of nearest potential receptor. During the project planning activities, consideration will be made to conduct the IRM excavation activities during off business hours when the building will not be occupied or the work space will be enclosed and equipped with appropriate emissions controls.

## 5. IRM CONSTRUCTION COMPLETION REPORT

An IRM Construction Completion Report (CCR) will be prepared, signed by a NYS-licensed PE and will include the following components per DER-10:

- A description of the remedy, as constructed per the IRM Work Plan.
- A summary of the remedial action completed, including:
  - A descriptions of any problems encountered during construction and their associated resolution;
  - A description of changes to the IRM Work Plan with justification(s);
  - Quantities and concentrations of contaminants removed;
  - A listing of the waste streams, quantities of materials disposed and disposal facilities; and,
  - Restoration actions.
- Summary tables and figures indicating pre-IRM soil and groundwater data and post-excavation, confirmatory soil analytical data clearly showing the successful completion of the IRM. The figure(s) will show the volume of excavated soils and remaining, post-IRM impacted soils, if any.
- A detailed description of the applicable areas of remedial action compliance (e.g., NYSDEC SCOs, CAMP summaries, etc.).
- A details cost-expenditure breakdown.
- PE-stamped As-Built drawing of the IRM work, including all soil removals with surveyed limits of the excavation and locations of final confirmatory samples.
- Identification of applicable institutional controls, if any.

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## TABLES

**Table 1**  
**Soil Safe Waste Characterization Matrix**

Analyte	Facility Required Frequency (CY)	Estimated No. of Samples <sup>1</sup>
TPH (DRO and GRO) <sup>2</sup>	400	3
TCL VOCs	800	2
TCL PCBs	800	2
PAHs	800	2
TAL Metals	800	2
TCLP Metals <sup>3</sup>	1 per Site	1

Notes:

<sup>1</sup> Assumes 1,000 cubic yards of materials.

<sup>2</sup> Total Petroleum Hydrocarbons - Gasoline-related Organics and Diesel-related Organics by EPA Modified Method 8015.

<sup>3</sup> Arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver.

**Table 2**  
**Laboratory Analytical Sample Requirements for IRM and QA / QC Summary Table**

Sample				Analyte		QA / QC Samples <sup>1</sup>				
Remediation Area	Sample Type	Sample Identification	Matrix	TCL VOCs <sup>2</sup>	TCL SVOCs <sup>3</sup>	TB	RB	BD	MS	MSD
Interior Building Excavation	Bottom	PXB-1	Soil	1	1	8	1 / 1	1 / 1	1 / 1	1 / 1
		PXB-2		1	1					
		PXB-3		1	1					
		PXB-4		1	1					
		PXB-5		1	1					
		PXB-6		1	1					
		PXB-7		1	1					
		PXB-8		1	1					
	Side-wall	PXSW-01		1	1					
		PXSW-02		1	1					
		PXSW-03		1	1					
		PXSW-04		1	1					
		PXSW-05		1	1					
		PXSW-06		1	1					
		PXSW-07		1	1					
		PXSW-08		1	1					
		PXSW-09		1	1					
		PXSW-10		1	1					
		PXSW-11		1	1					
		PXSW-12		1	1					
			<b>Sub-Totals:</b>	<b>20</b>	<b>20</b>					

Notes:

Trip Blank - One per sample cooler.

RB - Rinsate / Field Blank - One per sample equipment type.

BD - Blind Duplicate one in 20.

MS / MSD - Matrix Spike / Matrix Spike Duplicate one in 20.

All samples will be analyzed in accordance with NYSDEC Level B ASP.

<sup>1</sup> Samples will be managed, where feasible, in maximum 20 sample SDGs. As such, the number of QA QC samples indicated herein may be revised.

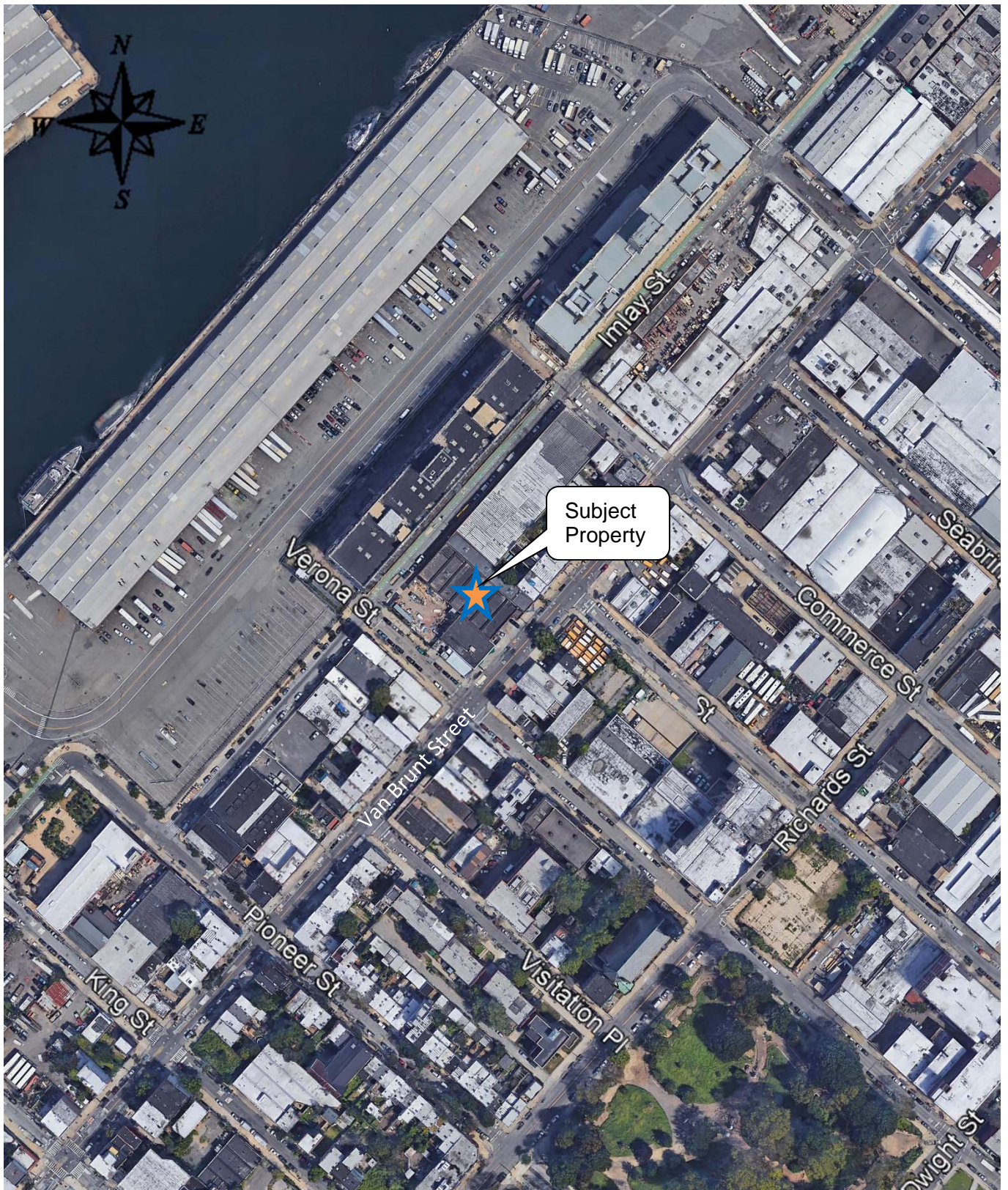
<sup>2</sup> TCL VOCs + 10 TICs by EPA Method 8260C.

<sup>3</sup> TCL SVOCs + 20 TICs by EPA Method 8270D.



## FIGURES





**Figure 1**  
Site Location Map




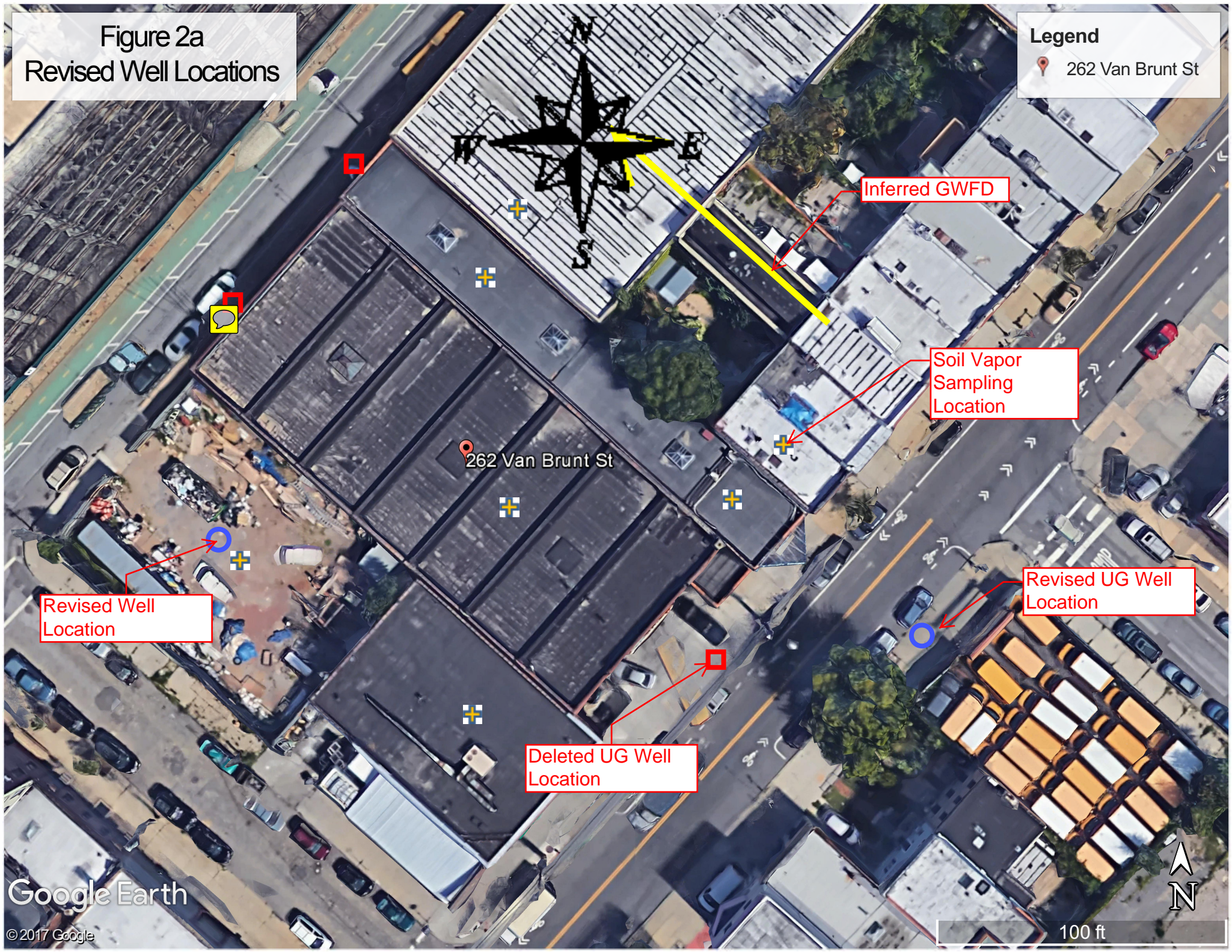




Figure 2a  
Revised Well Locations

**Legend**

 262 Van Brunt St





**APPENDIX A**  
**SOIL SAFE FACILITY WASTE**  
**CHARACTERIZATION REQUIREMENTS**

[Home](#)[About Us](#)[Services](#)[Facilities](#)[Forms & Downloads](#)[Contact Us](#)

## Facility Information

### SSI-Metro12

[Sampling / Analysis Requirements](#)[Material Characterization Report](#)[Operating Permits](#)[Soil Safe Credit Application](#) (PDF)

### SSI-Logan

[Sampling / Analysis Requirements](#)[Material Characterization Report](#)[Operating Permit](#) (PDF)[Soil Safe Credit Application](#) (PDF)[Home](#) > [Forms and Downloads](#) > [Sampling / Analysis Requirements](#) > [SSI-Metro12](#)

## SSI-Metro12

Sampling and Analysis Requirements for Residential Sites with No Metals, PCB's, PAH's, other contaminants or known or suspected Historic Fill:

### Test

TPH or EPH

VOC

### Sampling Frequency

One composite result per every 400 cubic yards.

One grab result per every 800 cubic yards.

**SSI-Brandywine**[Sampling / Analysis Requirements](#)[Material Characterization Report](#)[Operating Permit](#) (PDF)[Soil Safe Credit Application](#) (PDF)**SSI-Adelanto**[Sampling / Analysis Requirements](#)[Soil Data and Certification Sheet](#)[Operating Permits](#)[Soil Safe Credit Application](#) (PDF)**Miscellaneous**[Industry Resources](#)[Career Opportunities](#)[Contact Us](#)**REQUEST A QUOTE**

Sampling and Analysis Requirements for Commercial Sites with no known or suspected Historic Fill:

Test	Sampling Frequency
TPH or EPH	One composite result per every 400 cubic yards.
VOC	One grab result per every 800 cubic yards.
Total Metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver)	Minimum of one composite per site.
TCLP Metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver)	Minimum of one composite per site.

If PCB's, PAH's or other contaminants are known or suspected, then the following additional analytical will be required:

Test	Sampling Frequency
PCB's	One composite result per every 800 cubic yards.
PAH's	One composite result per every 800 cubic yards.
Other Contaminants	One composite result per every 800 cubic yards.

Sampling and Analysis Requirements for all Industrial Sites as well as Non-Qualifying Residential & Commercial Sites and all sites with known or suspected Historic Fill:

Test	Sampling Frequency
TPH or EPH	One composite result per every 400 cubic yards.
VOC	One grab result per every 800 cubic yards.
PCB's	One composite result per every 800 cubic yards.
PAH's	One composite result per every 800 cubic yards.
Total Metals	One composite result per every 800

(TAL Metals List)

cubic yards.

**TCLP Metals**(Arsenic, Barium, Cadmium, Chromium, Lead, Mercury,  
Selenium, Silver)

Minimum of one composite per site.

If PCB's, PAH's or other contaminants are known or suspected, then the following additional analytical will be required:

**Test****Sampling Frequency**

Other Contaminants

One composite result per every 800 cubic yards.

Project volumes are estimates and many times volume increases will require additional testing to meet Soil Safe's Permit frequency requirements. Additional testing is the responsibility of each client. Arrangements can be made with Soil Safe to aid in additional testing. Please contact your Sales Representative to discuss any additional testing needs.

Soil Safe, Inc. | 6700 Alexander Bell Drive, Suite 300 | Columbia, MD 21046

1-800-562-4365 | Fax: 410-872-9082 | [info@soilsafe.com](mailto:info@soilsafe.com)

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