Associated Environmental Services, Ltd.

July 29, 2013

Mr. Michael MacCabe
New York State Department of
Environmental Conservation
625 Broadway
Albany, New York 12233-7016

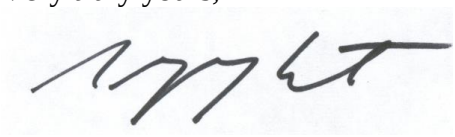
Re: Supplemental Site Characterization Work Plan
1199 Sutter Avenue
Brooklyn, New York
Site ID #224141

Dear Mr. MacCabe:

Associated Environmental Services, Ltd. (AES) submits the enclosed draft Supplemental Site Characterization Work Plan (SSCWP) for the property located at 1199 Sutter Avenue in Brooklyn, New York, NYSDEC Site # 224141. The SSCWP has been provided in both hard copy and electronic copy for your review.

Please feel free to contact me with questions regarding this matter. Thank you for your prompt attention.

Very truly yours,



Gregory Ernst
Project Manager

Associated Environmental Services, Ltd.
Enc.

CC: Anthony Bileddo w/attachment
Krista Anders w/ attachment (electronic copy only)
James Rigano, Esq. w/o attachment
John Byrne, Esq. w/o attachment

SUPPLEMENTAL SITE CHARACTERIZATION WORK PLAN

1199 SUTTER AVENUE
BROOKLYN, NEW YORK

Site ID # 224141
NYSDEC SPILL NO. 0902686

Prepared For:

AAA Sutter Realty LLC.
153-157 Seventh Street
Garden City, New York 11530
&
New York State Department of Environmental Conservation
Bureau of Program Management- Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7012

July 29, 2013

Prepared By:

Associated Environmental Services, Ltd.
25 Central Avenue
Hauppauge, New York 11788

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1.0 INTRODUCTION

Associated Environmental Services, Ltd. (AES) respectfully submits this Supplemental Site Characterization Work Plan (Work Plan) for the property located at 1199 Sutter Avenue in Brooklyn, New York (hereinafter referred to as the subject property). The subject property location is depicted on Figure 1. The Supplemental Site Characterization will be conducted to address the requirements by the New York State Department of Environmental Conservation (NYSDEC) under the Brownfield Site Cleanup Agreement, Index Number C224141-04013, relating to contaminant impacts from the former dry cleaning operation at the subject property. The Brownfield Site Cleanup Agreement takes the place of NYSDEC Spill No. 0902686 previously assigned to the property.

The Supplemental Site Characterization will be conducted to acquire additional data as recommended by the NYSDEC Case Manager, Mr. Michael MacCabe, based on the results of the August 19, 2011 Site Characterization at the property . The proposed work will complete delineation of groundwater impacts, and evaluate the potential for soil vapor intrusion within the building's basement beneath the grocery store within the subject property adjacent to the former dry cleaner operation. The following Work Plan provides a brief description of the site history, the methods and procedures to be utilized to collect groundwater and soil vapor data; conduct laboratory analysis; and evaluate the resultant data to delineate the groundwater impacts downgradient of the subject property and determine the potential for soil vapor intrusion into the grocery store basement.

2.0 SITE BACKGROUND

The following section provides a description of the subject property and summarizes the previous investigations. A site plan of the property is provided on Figure 2.

2.1 Site Description

The subject property is designated as 1199-1221 Sutter Avenue in Brooklyn, New York and bounded by Sutter Avenue to the south, Chestnut Street to the east, residential properties to the north and Crystal Street to the west. The subject property contains a single-story commercial building along the southern portion and an asphalt parking lot covering the northern portion of the subject property. Catch basins within the parking lot direct runoff into the municipal stormwater drainage system. The building is divided into five separate retail/office units. A former dry cleaner establishment was located within the eastern-most unit, which is currently occupied by a self-service Laundromat. Sanitary waste and waste water from the Laundromat are discharged to the municipal sewerage system located beneath Sutter Avenue. The building is underlain with a basement segmented for each retail/office unit with utilities, storage and service rooms.

The subject property is located within the Pavement & Buildings-Flatbush-Riverhead Series Soil Map Unit, which is described as anthropogenic urban fill overlying glacial outwash deposits and characterized as a sandy loam. The property is generally flat and is fully developed with impermeable surface cover comprised of building, asphalt parking lot and concrete sidewalks.

The site is underlain by the Upper Glacial Aquifer, which is composed of outwash-plain deposits of stratified sand and gravel. The Upper Glacial Aquifer is the only formation considered in this investigation. Groundwater beneath the subject property is encountered approximately 13 feet below grade and is characterized as Class GA indicating it as a potential source of potable water. Based on regional data, groundwater flow is to the south. Groundwater is not utilized as a source of potable water at the subject property.

2.2 Previous Investigations

The following section provides a brief description of prior environmental investigations conducted at the subject property, and summaries of the results and recommendations stemming from each investigation. The location and designation of the sample points associated with the previous investigations are provided on Figure 2. A summary of the previous investigation and remediation sample data is provided in Tables 1 and 2.

2.2.1 Phase II Environmental Site Assessment (Atlantic Environmental Solutions, Inc. January 2009)

An initial investigation comprised of a Phase II Environmental Site Assessment (ESA) was conducted at the subject property to evaluate a recognized environmental condition (REC) associated with the former

dry cleaner operation that was located within the eastern-most unit of the building. As part of this investigation, two soil borings were drilled adjacent to the former dry cleaner's unit to collect soil and groundwater samples for laboratory analysis. The results of the analysis detected a concentration of tetrachloroethene (PCE) above NYSDEC cleanup objective in one soil sample, S3, and in both groundwater samples, S2 and S3. Additionally, concentrations of trichloroethene (TCE) were detected in the groundwater samples in exceedance of the applicable NYSDEC guidance.

2.2.2 Supplemental Phase II Subsurface Investigation (AES, April 2009)

Based on the results of the initial investigation, the supplemental investigation was conducted to determine the severity of the PCE and TCE contamination and delineate the extent of the impacts in the soil and groundwater underlying the former dry cleaners. A total of eight soil borings were drilled; six borings, B-1 through B6, were located within the parking lot and sidewalk adjacent to the building and two borings, B-7 and B-8, were located within the basement area of the former dry cleaners.

A contaminant concentration (i.e., in excess of the NYSDEC guidance values) of PCE was detected in the soil sample from boring B-7, however, no other contaminant concentrations of VOCs were detected in the soil samples from the property. The results of the groundwater sample analysis detected concentrations of PCE at borings B-4 through B-8 in excess of the NYSDEC Ambient Water Quality Standards and Guidance Values (Water Quality Values) provided in the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1. Concentrations of TCE were also detected above the NYSDEC Water Quality Values in borings B-6 through B-8. Finally, concentrations of cis-1,2-dichloroethene (c-1,2-DCE), a common byproduct of PCE and TCE degradation, were detected above the NYSDEC Water Quality Values in the groundwater samples from B-5 and B-7.

Based on the results of the supplemental subsurface investigation, AES recommended the injection of potassium permanganate into the subsurface to mitigate the concentrations of PCE, TCE and c-1,2-DCE detected in the groundwater. Coupled with the aforementioned proposed injections, the installation of shallow and deep groundwater monitoring wells was recommended to evaluate and monitor the effectiveness of the proposed remedial approach. Prior to initiating the proposed remedial approach, the NYSDEC was notified of the site conditions and Spill No. 0902686 was assigned for the pending remedial action.

2.2.3 Interim Remedial Measure (AES, August 2009)

Between August 5, 2009 and August 24, 2009, a four percent solution of potassium permanganate was injected at 12 grid points at intervals of 40, 35, 20, 15, and 10 feet below grade within and adjacent to the former dry cleaner facility. Groundwater samples were collected at the time of injection and then subsequently two months following the injections.

The results of the August 2009 initial groundwater sample analysis detected PCE in one deep well, MW-

4D, and in three shallow wells, MW-1S, MW-2S, and MW-4S during the August 2009 initial sampling event. Concentrations of acetone and chloroform in exceedance of their respective NYSDEC Water Quality Values were also detected in well MW-4S at this time. The results of the November 2009 performance monitoring samples indicated the concentration of PCE had decreased in MW-1S and was no longer detected in MW-2S. Concentrations of PCE MW-3S and MW-4S were higher than the August 2009 data, but showed significant improvement from the Phase II Subsurface Investigation data. Degradation products including TCE and c-1,2-DCE were also detected in MW-4S. Concentrations of acetone and chloroform were no longer detected in the November 2009 samples. Based on the performance data, AES concluded had been effective, but that additional sampling data was warranted to further evaluate the success of the injection program and determine if additional injections should be performed.

2.2.4 Groundwater Monitoring (AES, February 25, 2010)

On February 25, 2010, groundwater samples were collected from the four shallow monitoring wells (MW-1S through MW-4S). Groundwater data indicated the concentrations of VOCs were generally consistent with the November 2009 concentrations, however, the concentrations of VOCs in well MW-1S had increased since the November 2009 sampling, but remained at roughly one half of the levels detected during the Phase II Subsurface Investigation from April 2009. Thus the increase of VOC concentrations in MW-1S since the November 2009 was likely due to rebound from the initial injection of potassium permanganate at the property. Based on the second set of data, AES recommends a second round of potassium permanganate injections be conducted at greater density than the previous injections in order to fully remediate the residual VOC contamination in the groundwater.

2.2.5 Site Characterization (AES, July 2011)

In July 2011, a Site Characterization was conducted to complete delineation of soil impacts, determine the current groundwater quality and flow, and evaluate the potential for soil vapor intrusion within the building's basement beneath the former dry cleaners. Three additional soil borings, B-10 through B-12 were drilled within the rear parking lot behind the Laundromat, one monitoring well, MW-5, were installed along the south side of Sutter Avenue, downgradient of the property, and a sub-slab vapor and indoor and outdoor air sampling was performed. The existing monitoring wells and the newly installed monitoring well MW-5 were surveyed and water level measurements were collected to determine groundwater flow is to the south-southwest.

The results of the soil sample analysis detected a concentration of PCE in B-11 at 1.6 mg/kg, slightly above the 6NYCRR Part 375 Unrestricted Use Soil Cleanup Objective (UUSCO) but well below the Restricted Commercial Use Soil Cleanup Objective (RCUSCO). The results of the soil sample analysis confirmed the delineation of soil impacts is limited to the area immediately adjacent to the stormdrain in the rear parking lot behind the former dry cleaner operation.

The results of the groundwater investigation determined groundwater flow is to the south-southwest with a hydraulic gradient of 0.0033 feet per foot. Groundwater data detected PCE and its associated degradation byproducts, TCE, c-1,2-DCE, and t-1,2-DCE in the shallow groundwater beneath the subject property with the highest concentrations of VOCs detected in well MW-4 located within the basement of the Laundromat, and that the groundwater quality has remained consistent with the prior water quality data collected at the property. The groundwater plume has been delineated to the upgradient and side-gradient boundaries, however, concentrations of PCE, TCE and c-1,2-DCE were detected in exceedance of the Water Quality Values in the downgradient well MW-5 located on the south side of Sutter Avenue. The Site Characterization concluded that the groundwater plume is stagnant beneath the subject property, but the downgradient limit of the plume extends southerly beyond Sutter Avenue.

The concentrations of VOCs detected in the sub-slab soil vapor sample will necessitate mitigation as indicated by the NYSDOH decision matrices criteria. However, the data is inconclusive to indicate if vapor intrusion is occurring within the Laundromat basement area.

3.0 METHODOLOGY

The Supplemental Site Characterization will be conducted to further delineate impacted groundwater to the south of Sutter Avenue beneath the adjacent NYC Housing Authority (NYCHA) property, and the determine the potential for soil vapor intrusion to adversely impacted indoor air quality in the basement beneath the grocery store adjacent to the former dry cleaning operation. The Supplemental Site Characterization will be conducted in compliance with the NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation. All field activities will be recorded on the appropriate field logs.

The groundwater characterization will determine the downgradient limits of contaminant plume migration and assess current groundwater quality entering beneath the nearest NYCHA apartment building located along the plume's path. Onsite soil vapor/indoor air/outside air evaluation will be conducted beneath the grocery store. Off-site soil vapor testing is not proposed during this Supplemental Site Characterization, but may be performed using the procedures provided herein, if groundwater data indicates the contamination has migrated beneath the NYCHA apartment building. The following sections describe the procedures and protocols proposed to conduct the Supplemental Site Characterization.

The NYCHA property, identified as the Cypress Hills Houses, is located to the south of Sutter Avenue and extends westward to Fountain Avenue, southward to Linden Boulevard, and eastward to Euclid Avenue (see Figure 1). Seven additional monitoring wells will be installed along the southern sidewalk of Sutter Avenue to delineate the lateral boundaries of the downgradient plume and within the NYCHA property to delineate the horizontal boundary of the downgradient plume. The additional monitoring wells will consist of a deep well, MW-5D, drilled adjacent to the exist monitoring well MW-5, shallow and a deep wells, MW-6S and MW-6D, drilled to the east of well MW-5 along the Sutter Avenue sidewalk, shallow and a deep wells, MW-7S and MW-7D, drilled to the west of MW-5 along the Sutter Avenue sidewalk, and shallow and deep wells, MW-8S and MW-8D, drilled to the south of MW-5, within the NYCHA property. The locations of the proposed wells are provided on Figure 3. Additional downgradient wells may be installed to the south of Sutter, but would be dependent on approved access by the NYCHA. Additional wells to the south of the NYCHA property would be required to be approximately 1,500 feet away from the subject property and thus would not provide useful data attributable to the subject property.

Based on the sub-slab vapor data, sub-slab vapor and indoor air samples will be collected beneath the adjacent grocery store to determine the potential risk of vapor intrusion into this portion of the property. The sub-slab and indoor air samples will be collected near the northeastern portion of the grocery store basement in the vicinity of the store's kitchen area, where workers are routinely present. The sub-slab vapor sampling location is provided on Figure 3. As previously conducted, sub-slab vapor and indoor air samples will be collected over eight hours using laboratory-supplied Summa canisters, and using the established QA/QC measures.

3.1 Groundwater Monitoring Wells

Once completed, the newly-installed monitoring wells at the subject property will be surveyed to determine groundwater flow in conjunction with the existing on-site wells. An automatic laser level will be used to determine the elevation of the top of well casing to within 0.01 feet relative to an arbitrary site datum of 20 feet. The top of the well casing will be marked using an indelible ink marker to note the measuring point from which to collect water-level measurements within the well. The depth to water will be measured to the nearest 0.01 of a foot using a Solinst electronic oil/water interface probe and the readings subsequently recorded on the field log. The water-table elevation will be then determined by subtracting the depth to water from the measuring-point elevation.

3.1.1 Monitoring Well Installation

The wells will be constructed of two-inch diameter, schedule 40 PVC with American Society of Testing Materials (ASTM) F-480 pipe threading and 10 feet of two-inch diameter, 0.020-inch (20-slot) PVC well screen. Solvent glue will not be used in assembling the well screen or riser casing. The shallow wells will be constructed between 15 to 25 feet below grade (bg) so that the well screen will be installed at the top of the water table. The deep wells will be constructed with the same materials as the shallow wells, but with five feet of well screen installed between 35 and 40 feet bg.

The depth to water at the site is approximately 13 feet bg. The water-level in the borehole will be measured immediately before construction of the well. The borehole will be drilled to approximately two feet below the proposed depth of the well and will be measured with a weighted tape just prior to well construction to determine if there has been any borehole collapse. The well casing and screen will be constructed of new materials which will be stored and assembled on clean plastic sheeting. Once the well is inserted into the borehole, the annulus between the well casing and the borehole will be completed with sand pack, a bentonite seal, and backfilled to grade.

The sand pack (Morie No. 1 sand) will be emplaced so that it extends to a minimum depth of six inches below the bottom of the screen and a minimum depth of two feet above the top of the well screen. The depth to the top of the gravel pack will be confirmed by measuring down the annular space between the well casing and the borehole with a weighted tape. If heaving sands are encountered, the well will be pressurized and an upward flow of potable water will be maintained in the annular space to facilitate well installation. If difficulties are encountered during placement of the sand pack, then the sand may be tamped with a small diameter rod.

A bentonite seal (minimum of two feet) will be emplaced above the sand pack. The top of the bentonite seal will be measured with a weighted tape and hydrated with potable water prior to backfilling. A protective steel, flush-mounted curb box and locking cap will be installed after completion of the well. If drilling damages the adjacent sidewalk, the sidewalk will be repaired as required by New York City regulations.

3.1.2 Well Development Procedures

The monitoring well will be developed using a disposable polyethylene bailer. The bailer will be repeatedly lowered into the well and briefly actuated within well to surge and flush sediments from the well. The well will be developed until the turbidity is below 50 NTUs to provide sediment-free water for sampling. Development water will be disposed in the manner described in the waste disposal section below.

3.1.3 Groundwater Sampling Procedures

This section describes the types of equipment and procedures that will be used to obtain groundwater samples from the existing and newly-installed monitoring wells installed at the subject property. At a minimum, sampling procedure standards and techniques will be in accordance with the United States Environmental Protection Agency (USEPA) guidance document EPA/540/S-95/504.

The wells will be sampled in order of least suspected contamination to most suspected contamination to minimize potential cross-contamination. After removing the well cap for sampling, a PID reading will be obtained from the well casing and breathing zone and recorded on the Sampling Log. The depth to water in each well will be measured to the nearest 0.01 of a foot using an electronic water-level indicator and recorded on the field log. To avoid cross contamination between wells, the immersed portion of the water-level indicator will be cleaned between measurements with a detergent solution, followed by a potable water rinse.

Prior to sampling, the wells will be purged using the low-flow sampling technique to remove standing water in each well. A variable-speed two-inch diameter submersible pump and dedicated polyethylene tubing will be used to purge the wells at a pumping rate no greater than one liter per minute (LPM). While purging the well, field parameters including pH, temperature, specific conductivity, dissolved oxygen, oxidation/reduction potential (redox), and turbidity will be monitored at five-minute intervals within a flow-through cell using a field-calibrated Horiba U-52 portable meter. Each well will be purged when field parameters of the discharge water have stabilized (i.e., consecutive readings within 10 percent). Once the well is purged, the pumping rate will be slowly lowered to approximately 0.1 LPM to ensure that the groundwater sample is not agitated. The purged water will be disposed of in the manner described in the waste disposal section of this Work Plan.

New, disposable surgical gloves will be worn during sample collection. Water from the pump discharge will be used to fill the sample bottles using care not aerate the sample. The VOC containers will be filled and capped, so that no headspace or air bubbles are present. In addition, overflowing bottles will be avoided to prevent the loss of floating substances or preservatives which may have already been added to the bottle. All sample bottle caps will be secured snugly, but not over-tightened.

Sample bottles will be packed on ice to maintain a temperature of approximately 4^{o} Celsius. The samples will be submitted to Alpha Analytical, a New York State Department of Health (NYSDOH)-Environmental Laboratory Approval Program (ELAP)-certified laboratory located in Westborough, Massachusetts, for analysis.

The groundwater samples will be submitted for analysis of Target Compound List (TCL) VOCs using USEPA Method 8260. The analytical results will be provided as a New York Analytical Services Protocol (ASP) Category B data package. The analytical results will be compared to the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

3.2 Sub-Slab Soil Vapor/Ambient Air Sampling

One sub-slab soil vapor sample will be collected beneath the poured concrete slab within the basement of the grocery store on the subject property. The sub-slab soil vapor sample will be collected in compliance with the New York Department of Health (NYSDOH) *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* issued in October of 2006 (hereinafter, the NYSDOH Guidance Document). The location of the proposed sub-slab soil vapor sample is provided on Figure 3.

The sub-slab soil vapor sampling point will be installed using hand-held power tools. The soil vapor point will consist of one-quarter inch polyethylene tubing set no greater than two inches beneath the bottom of the concrete floor slab. The annular space surrounding the tubing will be filled with washed #1 crushed stone as a filter pack. Bentonite clay will be installed atop of the filter pack to prevent atmospheric air infiltration.

As a quality assurance/quality control (QA/QC) measure, helium will be introduced into a closed/sealed space surrounding the sampling tube as a tracer gas to confirm the integrity of the sample point seal to ensure that no atmospheric air intrusion affects the sub-slab soil vapor sample (e.g., no "short circuiting" occurs). A sealed space around the sampling tube will be formed utilizing an inverted container placed over the area where the sampling tubing exits the floor. The polyethylene sampling tubing will be run through the sealed space and separate polyethylene tubing will be run from the helium supply through a hole on the top of the container. The container will also contain a small vent hole from which atmospheric air may escape while the helium is introduced. While helium is introduced into the sealed container, a portable helium detector will be attached to the sub-slab sampling tubing to check for possible leaks in the floor seal. If helium is detected, the sub-slab sample point will be resealed and the QA/QC measure repeated until helium is not detected within the sub-slab sample point.

Once the QA/QC measure is completed, the sub-slab soil vapor sampling point will be purged using a PID to provide a preliminary screening of VOC in the sub-slab soil vapor. A laboratory-supplied vacuum Summa canister will be connected to the polyethylene tubing subsequent to the purging and the samples will be collected over a two hours using a flow regulator calibrated by the laboratory. The sampling tubing will be connected to the Summa canister using the appropriate air-tight compression fitting. Additionally, an indoor air quality sample will be collected concurrently and over the same duration as the sub-slab soil vapor sample. The indoor air sample will be collected using laboratory-supplied Summa canisters set atop three-foot tall stand in order to represent the air quality within the typical breathing zone (between three

and five feet above grade, as required in the NYSDOH Guidance Document). The sample will be collected to establish indoor air ambient conditions at the subject property.

AES personnel will conduct an inspection of the basement areas to evaluate chemical use within the building. Labels will be reviewed to determine the chemical nature of various products including, but not limited to, cleaners, lubricants, glues/adhesives, paints, etc. The inspection data will be compared to the indoor air analytical data to determine if onsite chemical use has deleteriously impacted the indoor air quality of the building.

The sub-slab vapor and air samples will be analyzed for VOCs using USEPA Method TO-15. The analytical results will be provided as a New York ASP Category B data package. The analytical results will be compared to the NYSDOH Guidance Document decision matrices provided therein.

3.3 Waste Disposal

The proposed monitoring wells will be installed using Geoprobe direct-push equipment, thus no drill cuttings are expected to be generated during drilling activities. Groundwater from well development and sampling activities will be containerized into US DOT-approved 55-gallon drums, labeled and stored in a staging area at the subject property. Soiled personal protective equipment, disposable sampling equipment, and supplies will be placed into a plastic bag and disposed of as trash. The drums containing these materials will be labeled to identify their respective contents.

3.4 Quality Assurance

The following quality assurance measures will be conducted during the Supplemental Site Characterization. A Quality Assurance Officer (QAO) is not believed to be required for this project. These measures will be conducted to provide accurate, representative data in the characterization of environmental conditions at the subject property.

3.4.1 Instrument Calibration

The field instruments used to field screen the groundwater parameters and soil vapor will be calibrated daily prior to the start of the sampling activities. The calibration and operation of the field instruments will be within manufacturer's recommendations during the Supplemental Site Characterization.

3.4.2 Decontamination Procedures

In order to ensure sample integrity and reduce the risk of cross-contamination, all non-disposable sampling equipment will be decontaminated before and after each use. The equipment will be washed with a detergent and water solution to remove all residual materials, rinsed with potable water, and then allowed to air dry. All disposable materials, such as the groundwater and soil vapor sampling tubing will be used

new and then discarded after a single use.

3.4.3 Chain-of-Custody Protocol

The soil and groundwater samples submitted for laboratory analysis will be recorded on a chain-of-custody form. The chain-of-custody form includes information such as the site location, the sample date, the time of sample collection, the required analysis, preservatives utilized, sample designation, and the name and signature of the person who conducted the sampling. Finally, the chain-of-custody will be signed by the laboratory representative who received the samples for analysis. Completed copies of the chain-of-custody forms will be provided as attachment to the laboratory data packages.

3.4.4 Data Usability Summary Report

Once received, the laboratory data will be evaluated by an independent party to determine that the data is appropriate and accurate for the evaluation of the site conditions. A Data Usability Summary Report as described in Appendix 2B of DER-10 will be prepared in documentation for the verification of the data.

3.5 Data Evaluation and Report Preparation

Upon receipt of the analytical data, a report will be prepared detailing the results of the investigation. The report will include a site plan figure depicting sampling locations and groundwater flow, summary data tables, site photographs and applicable appendices. The report will provide recommendations for additional site investigation to delineate contamination, and identify appropriate mitigation and remediation measures, as needed.

3.6 Schedule

Upon approval of the Work Plan, AES will initiate field sampling activities within 10 days. The above-described scope of work is anticipated to require four days of field work. The laboratory analysis will be conducted using SW-846 holding and turnaround times, typically seven to ten business days. Data validation and report preparation will be completed within 30 days of the receipt of the laboratory data.

4.0 HEALTH AND SAFETY

The Supplemental Site Characterization will be conducted utilizing the following protocols and personal protective equipment (PPE). The worker's breathing zone will be monitored for VOCs using a photo-ionization detector (PID) to evaluate potential exposure to the contaminated media.

An AES Site Supervisor will be on-site to monitor the investigation activities, and ensure compliance with the protocols specified herein. Prior to the start of the field activities, the Site Supervisor will be responsible for the designation of the work zone, support zone, and clean zone. The work zone will be an area surrounding the immediate work being performed where the greatest potential hazards exist. Only the necessary workers required to perform the work will be permitted in this zone. A support zone will be established for the storage of equipment and personnel decontamination. A clean zone will be established for site control of visitors, equipment deliveries, and communications.

All air monitoring data will be documented on the field logs. Air monitoring instrument (i.e., PID) will be calibrated and maintained by the Site Supervisor in accordance with the manufacturer's specifications. The concentrations of contaminants (VOCs) shall be measured in employees' breathing zones several times during the task using the direct reading instrument. The specific frequency of the monitoring shall vary with monitoring performed more frequently during operations having a greater potential for exposure.

If VOCs concentrations are below 5 ppm above background, work activities can proceed as described above. If VOC levels are greater than 5 ppm over background but less than 25 ppm over background at the perimeter of the work area for a sustained period of 5 minutes, activities can resume provided VOC levels 200 feet from the work area are below 5 ppm over background. If VOC concentrations are above 25 ppm at the perimeter of the work area, activities must be shutdown pending re-evaluation and potential upgrade of the worker's PPE.

Based on the available site data, the investigation activities will be performed in Level D protection. However, should site conditions warrant, certain tasks of the investigation activities may be conducted in Level C protection. The following is a description of the personal protective equipment required for each level:

Level D:

- Hard hat.
- Disposable coveralls (optional).
- Steel-toe and shank, chemical-resistant boots.
- Chemical-resistant gloves.
- Hearing protection, NRR of 35 decibels (as necessary).

Level C:

- Full-face air purifying respirator equipped with HEPA filters.
- Hard hat.
- Disposable coveralls (optional).
- Steel-toe and shank, chemical-resistant boots.
- Chemical-resistant gloves.
- Hearing protection, NRR of 35 decibels (as necessary).

Disposable PPE will be properly bagged and disposed of. Employees will wash their hands and faces with detergent and water prior to eating or smoking. Smoking will not be permitted during work on site.

4.1 Safe Work Practices

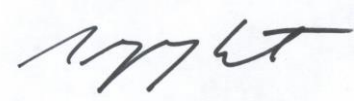
- A copy of this Work Plan will be available for reference at the site during the planned field activities.
- The AES Site Supervisor will inform all workers of the potential physical and chemical site hazards. The Site Supervisor will be responsible for site access and control.
- Before any intrusive ground work begins, all underground utilities and structures must be checked and cleared.
- No eating, drinking, and smoking will be permitted in the work zone.
- No sources of ignition, such as matches or lighters, will be permitted in the work and support zones.
- The buddy system will be used in the work zone.

Any on-site person who becomes ill or injured must immediately notify the Site Supervisor. Should an emergency occur, the Site Supervisor will call 911 to summon help to the site. The Site Supervisor will inform any emergency personnel as to the nature of the work and provide available site data for their use, if requested.

4.2 Community Air Monitoring Program

Community Air Monitoring Plan procedures and protocols as provided in Appendix 1A of the Final DER-10 will be utilized during the Supplemental Site Characterization activities. Continuous monitoring of VOCs will be conducted using a MiniRAE 2000 photo-ionization detector (PID) at the appropriate upwind and downwind locations during all ground intrusive activities.

Prepared By:



Gregory Ernst
Project Manager
Associated Environmental Services, Ltd.

Table 1.
Summary of Soil Sample Data
1199 Sutter Avenue, Brooklyn, New York
NYSDEC Site ID #224141

Parameters:	Part 375 UUSCOs	Part 375 RCUSCOs	Sample Location: S1 Sample Depth: 4-5 ft. bg Sampling Date: 1/6/09	S2 14-15 ft. bg 1/6/09	S3 10 ft. bg 1/6/09	S3D 14-15 ft. bg 1/6/09	S4 6-7 ft. bg 1/6/09	S5 14-15 ft. bg 1/6/09	B-7 0-5 ft. bbf 4/1/09	B-8 0-5 ft. bbf 4/1/09	B-10 5-6 ft. bg 7/19/11	B-11 5-6 ft. bg 7/19/11	B-12 9-10 ft. bg 7/19/11
Tetrachloroethene	1.30	150	--	--	**37.50**	0.443	--	--	**5.1**	1.2	0.68	**1.6**	0.56
Cis-1,2-dichloroethene	0.250	500	--	--	--	--	--	--	0.043	--	0.048	0.0038 J	0.052
Methylene chloride	0.050	500	--	--	--	--	--	--	0.014	0.016	0.011 J	0.01 J	0.011 J
Trichloroethene	0.470	200	--	--	0.414	--	--	--	0.073	0.01	0.033	0.024	0.034
Toluene	0.700	500	--	--	--	--	--	--	--	--	0.001 J	--	--
Ethyl benzene	1.000	390	--	--	--	--	--	--	--	--	0.011	0.0028	0.011
trans-1,2-Dichloroethene	0.190	500	--	--	--	--	--	--	--	--	0.020	--	0.022
m/p-Xylene	0.26*	500*	--	--	--	--	--	--	--	--	0.035	0.0079	0.036
o-Xylene	0.26*	500*	--	--	--	--	--	--	--	--	0.0092	0.002 J	0.0094
Acetone	0.050	500	--	--	--	--	--	--	--	--	**0.17**	0.023 J	**0.21**
2-Butanone	0.120	500	--	--	--	--	--	--	--	--	0.086	--	0.11
Acenaphthylene	100	500	0.074	--	--	--	--	--	NA	NA	NA	NA	NA
Acenaphthene	20	500	0.150	--	--	--	0.043	--	NA	NA	NA	NA	NA
Dibenzofuran	100	500	0.098	--	--	--	--	--	NA	NA	NA	NA	NA
Fluorene	30	500	0.180	--	--	--	--	--	NA	NA	NA	NA	NA
Phenanthrene	100	500	1.510	--	--	--	0.471	--	NA	NA	NA	NA	NA
Anthracene	100	500	0.407	--	--	--	0.098	--	NA	NA	NA	NA	NA
Fluoranthene	100	500	2.730	--	--	--	0.773	--	NA	NA	NA	NA	NA
Pyrene	100	500	2.470	--	--	--	0.618	--	NA	NA	NA	NA	NA
Benzo(a)anthracene	1	5.6	**1.630**	--	--	--	0.357	--	NA	NA	NA	NA	NA
Chrysene	1	56	**1.650**	--	--	--	0.360	--	NA	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	50	500	0.424	0.814	1.46	0.29	0.605	0.429	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	1	5.6	**1.090**	--	--	--	0.213	--	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.8	56	**1.810**	--	--	--	0.366	--	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	**1.190**	0.046	--	--	0.245	--	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.5	5.6	0.342	--	--	--	--	--	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.33	0.56	0.125	--	--	--	--	--	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	100	500	0.247	--	--	--	--	--	NA	NA	NA	NA	NA

Notes:
Concentrations in milligrams per kilogram (mg/kg)
NA - Not analyzed/not applicable
-- - Not Detected
UUSCO - Unrestricted Use Soil Cleanup Objective
RCUSCO - Restricted Commercial Use Soil Cleanup Objective
Bold values indicate exceedance of the UUSCO
Outlined values indicate exceedance of RCUSCO
bg - below grade
bbf - below basement floor

Associated Environmental Services, Ltd.

Table 2.

Summary of Groundwater Sample Data
1199 Sutter Avenue
Brooklyn, New York
NYSDEC Site No. #224141

Parameters	TOGS Value	Corresponding Phase II Data	Monitoring Well							Corresponding Phase II Data	Monitoring Well						
Sample Designation:		B-6	MW-1S				MW-1D			B-5	MW-2S				MW-2D		
Date:		4/1/09	8/27/09	11/2/09	2/25/10	7/20/11	8/27/09	11/2/09	7/20/11	4/1/09	8/27/09	11/2/09	2/25/10	7/20/11	8/27/09	11/2/09	7/20/11
2-Butanone	50	<3.0	<10	<10	<10	<10	<10	<10	<5	<3.0	<10	<10	<10	<5	<10	<10	<5
Acetone	50	<2.0	<50	<50	<50	<10	<50	<50	<5	<2.0	<50	<50	<50	<5	<50	<50	<5
Chloroform	7	<1.0	<5	<5	<5	**30**	<5	<5	0.9	<1.0	<5	<5	<5	**13**	<5	<5	1.1
cis-1,2-Dichloroethene	5	4.6	<5	<5	**5.82**	0.71 J	<5	<5	<0.5	**6.8**	<5	<5	<5	0.20 J	<5	<5	<0.5
Tetrachloroethene	5	**380**	**98.3**	**48.2**	**172**	**84**	5	<5	**6.8**	**93**	**18.9**	<5	<5	**10**	<5	<5	**9.6**
Bromodichloromethane	50	<1.0	<5	<5	<5	1.2	<5	<5	<0.5	<1.0	<5	<5	<5	0.63	<5	<5	<0.5
Vinyl Chloride	2	<1.0	<5	<5	<5	<2.0	<5	<5	<1.0	<1.0	<5	<5	<5	<1.0	<5	<5	<1.0
trans-1,2-Dichloroethene	5	<1.0	<5	<5	<5	<1.5	<5	<5	0.21 J	<1.0	<5	<5	<5	0.46 J	<5	<5	0.40 J
Trichloroethene	5	**14**	<5	<5	**8.37**	3.2	<5	<5	1.7	2.7	<5	<5	<5	0.36 J	<5	<5	0.95

Notes:
All data is in micrograms per liter (ug/L)
TOGS - NYSDEC Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values
NA - Not analyzed/not available
Bold indicate an exceedance of the applicable regulatory guidanc value.

Associated Environmental Services, Ltd.

Table 2.

Summary of Groundwater Sample Data
1199 Sutter Avenue
Brooklyn, New York
NYSDEC Site No. #224141

Parameters	TOGS Value	Corresponding Phase II Data	Monitoring Well							Corresponding Phase II Data	Monitoring Well						
Sample Designation:		S2	MW-3S				MW-3D			B-7	MW-4S				MW-4D		MW-5
Date:		1/6/09	8/27/09	11/2/09	2/25/10	7/20/11	8/27/09	11/2/09	7/20/11	4/1/09	8/27/09	11/2/09	2/25/10	7/20/11	8/27/09	11/2/09	7/20/11
2-Butanone	50	<0.21	<10	<10	<10	<5	<10	<10	<5	<3.0	24.4	<10	<10	<12	<10	<10	<12
Acetone	50	10.3	<50	<50	<50	<5	<50	<50	<5	<2.0	**577**	<50	<50	<12	<50	<50	<12
Chloroform	7	<0.14	<5	<5	<5	**14**	<5	<5	1.8	<1.0	**97.7**	<5	<5	**15**	<5	<5	**29**
cis-1,2-Dichloroethene	5	NA	<5	<5	<5	<0.5	<5	<5	0.34 J	**81**	<5	**16.9**	<5	4.3	<5	<5	**9.8**
Tetrachloroethene	5	**187**	<5	**14.9**	<5	0.73	<5	<5	**20**	**610**	**51**	**359**	**348**	**470**	**23.1**	<5	**98**
Bromodichloromethane	50	<0.14	<5	<5	<5	1.1	<5	<5	<0.5	<1.0	<5	<5	<5	<1.2	<5	<5	<1.2
Vinyl Chloride	2	<0.14	<5	<5	<5	<1.0	<5	<5	<1.0	<1.0	<5	<5	<5	<2.5	<5	<5	0.70 J
trans-1,2-Dichloroethene	5	<0.14	<5	<5	<5	0.65 J	<5	<5	0.51 J	<1.0	<5	<5	<5	0.67 J	<5	<5	0.60 J
Trichloroethene	5	1.5	<5	<5	<5	<0.5	<5	<5	1.1	**42**	<5	**20.4**	**11.9**	**14**	<5	<5	**5.2**

Notes:
All data is in micrograms per liter (ug/L)
TOGS - NYSDEC Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values
NA - Not analyzed/not available
Bold indicate an exceedance of the applicable regulatory guidanc value.

Associated Environmental Services, Ltd.

Table 3
Sub-Slab Soil Vapor/Indoor Outdoor Air Data Summary
1199 Sutter Avenue, Brooklyn, New York
NYSDEC Site #224141

Parameter:	Sample Location: / Sampling Date:	USEPA TSSGC	SS-1 7/20/11	IA-1 7/20/11	OA-1 7/20/11
Propylene		NA	--	1.91	--
Dichlorodifluoromethane		2,000	--	3.81	2.38
Chloromethane		NA	--	3.45	1.2
Vinyl Chloride		280	**795**	--	--
Ethanol		NA	--	920	14.9
Acetone		3,500	--	--	6.44
Trichlorofluoromethane		7,000	--	27.8	1.4
Isopropanol		NA	--	61.4	1.81
Freon 113		NA	3,720	--	--
trans-1,2-Dichloroethene		NA	390	--	--
1,1-Dichloroethane		5,000	380	--	--
2-Butanone		10,000	--	16.5	2.13
cis-1,2-Dichloroethene		350	**3,830**	--	--
Ethyl Acetate		32,000	--	8.11	--
Chloroform		110	**444**	38.4	--
Tetrahydrofuran		NA	--	17.5	--
1,2-Dichloroethane		94	**538**	--	--
n-Hexane		2,000	--	7.79	--
1,1,1-Trichloroethane		22,000	**4,020**	--	--
Benzene		310	--	3.77	0.831
Cyclohexane		NA	--	2.11	--
Bromodichloromethane		140	--	1.67	--
Trichloroethene		22	**9,730**	1.27	--
2,2,4-Trimethylpentane		NA	--	1.63	--
Heptane		NA	--	5.04	--
Toluene		4,000	757	11.4	1.96
Tetrachloroethene		810	**428,000**	68.5	--
Ethylbenzene		2,200	330	1.7	--
p+m Xylenes		70,000	--	6.34	--
Styrene		10,000	262	3.62	--
o Xylene		70,000	--	2.96	--
4-Ethyltoluene		NA	--	1.9	--
1,3,5-Trimethylbenzene		60	--	2.9	--
1,2,4-trimethylbenzene		60	--	8.65	--
1,4-Dichlorobenzene		8,000	--	2.84	--

Notes:
All concentrations provided in micrograms per cubic meter (ug/m^3)
-- Not Detected
NA - Not Applicable/Not Available
TSSGC - Target Shallow Soil Gas Concentration
Bold and outlined values indicate exceedance of the TSSGC.

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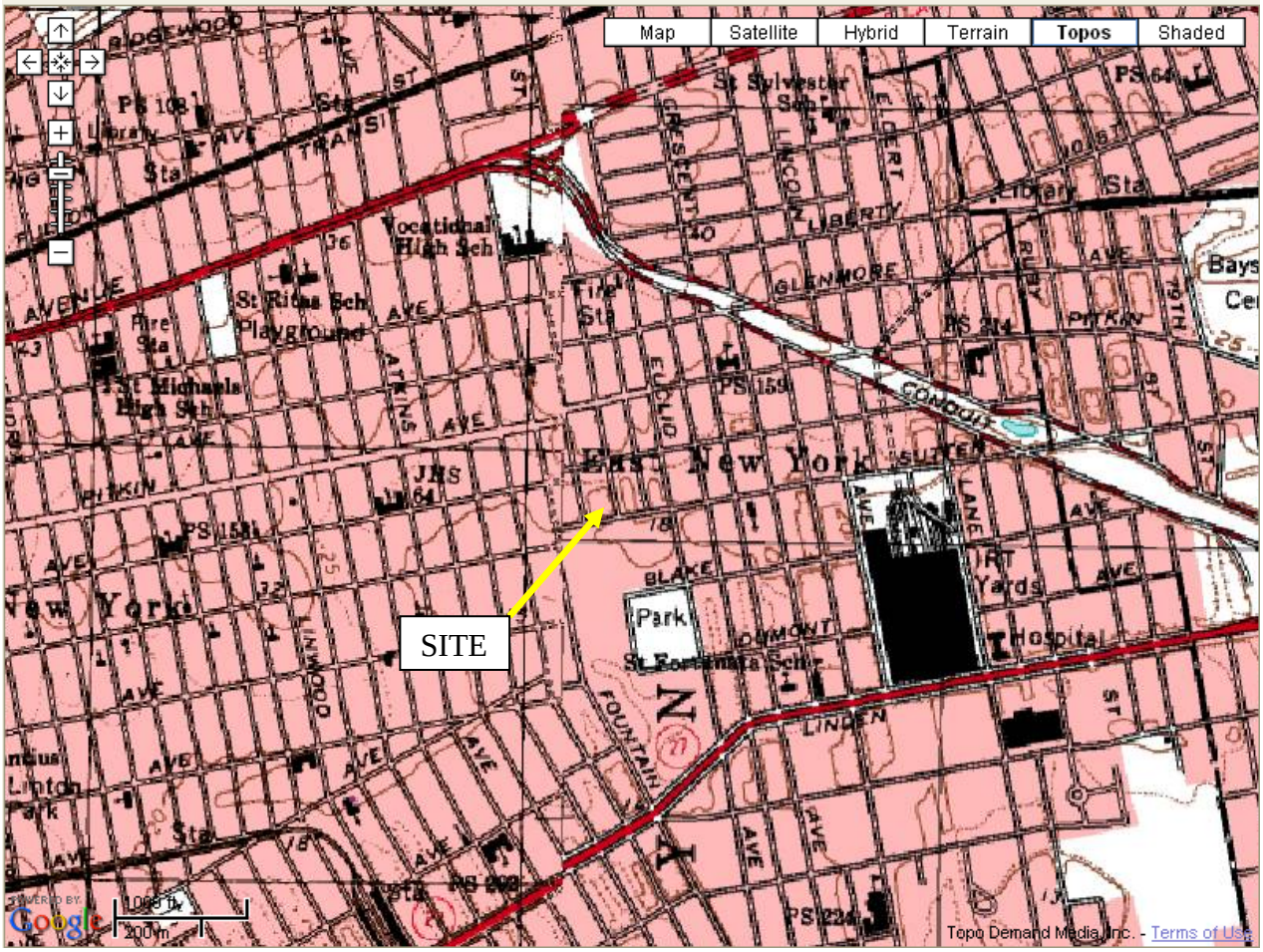
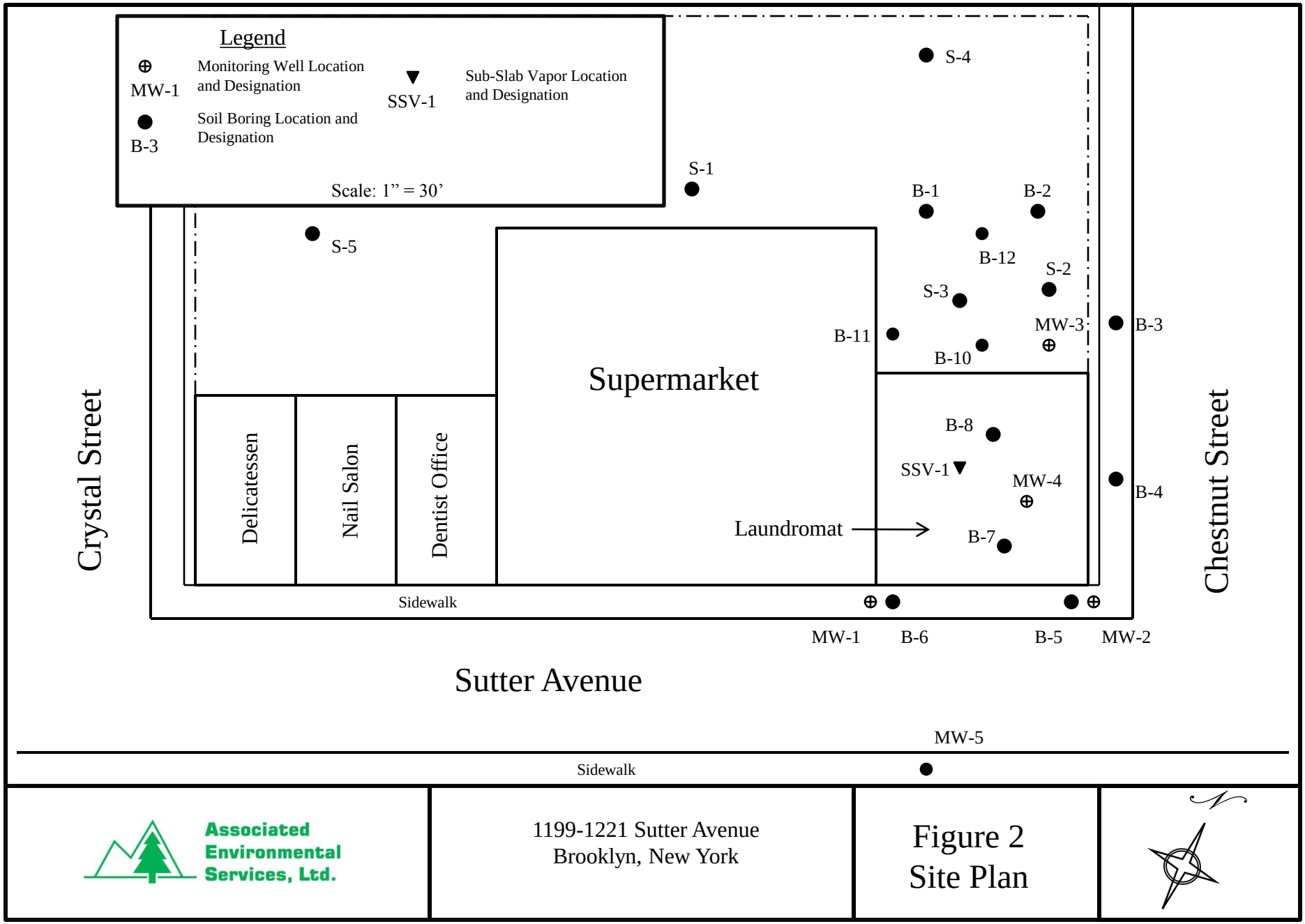


FIGURE 1.0 SITE LOCATION

1199-1221 SUTTER AVENUE
BROOKLYN, NEW YORK

Associated Environmental Services, Ltd.



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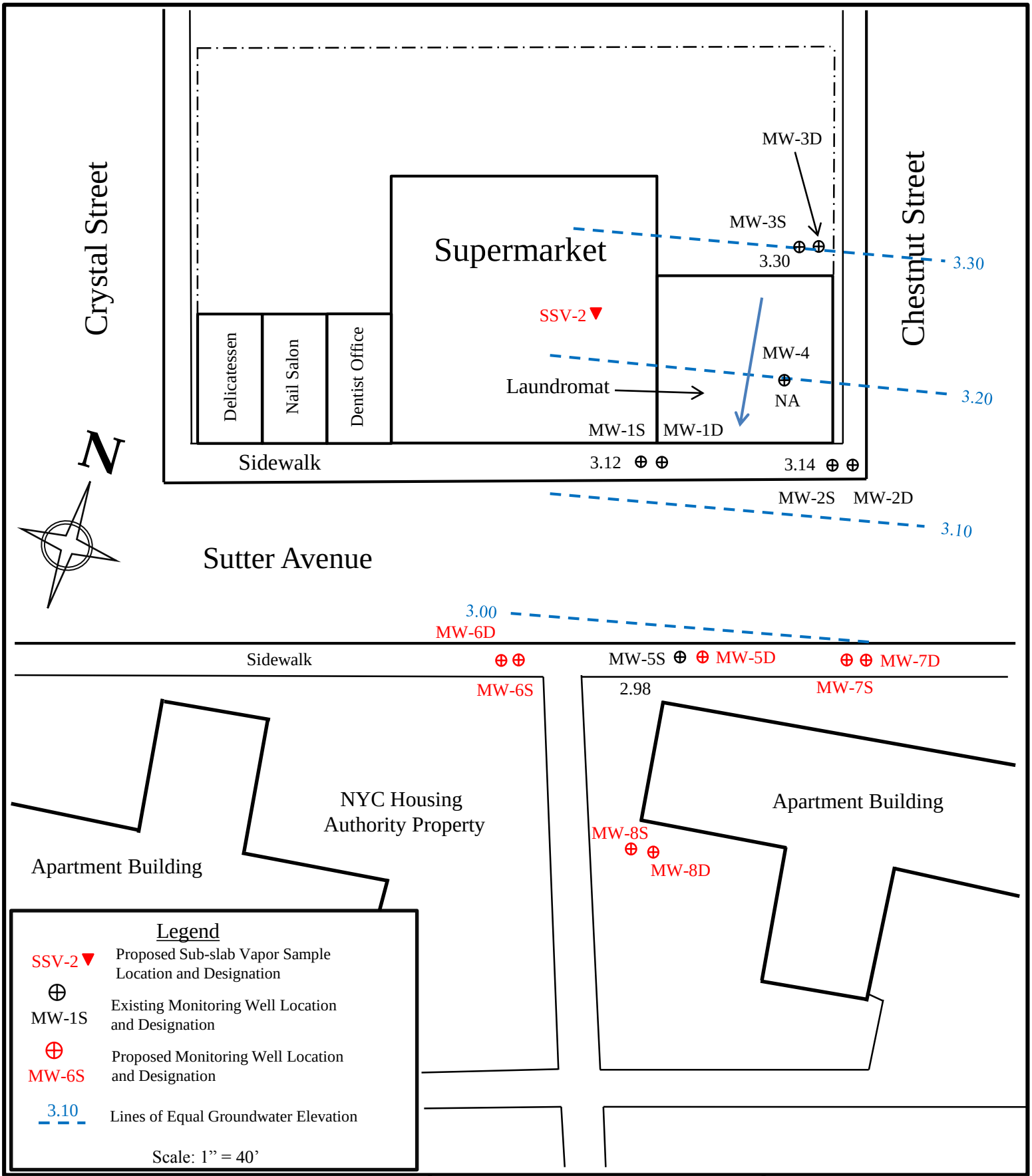
1199-1221 Sutter Avenue
Brooklyn, New York

Figure 2
Site Plan



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1199-1221 Sutter Avenue
Brooklyn, New York

Figure 3
Proposed Sampling Locations