NEW YORK STATE BROWNFIELDS CLEANUP PROGRAM
BCP ID No. C203039

REMEDIAL INVESTIGATION WORK PLAN

Former Dico G Auto & Truck Repair
3035 WHITE PLAINS ROAD
BRONX, NY

September 2007

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1.0 INTRODUCTION

1.1 Project Background

This Remedial Investigation Work Plan has been prepared by Environmental Business Consultants (EBC), on behalf of Bedford Park Associates, LLC, Adee & Lester, LLP and 3035 White Plains Retail, LLC ("Bedford, Adee and 3035 Retail") of Woodmere, NY, for a commercial property located at 3035 White Plains Road, Bronx, New York (**Figure 1**). Redevelopment plans for the property, formerly a service station and auto repair shop, include a residential apartment complex with first floor retail space and associated grounds. The site was formally accepted into the New York State Department of Environmental Conservation (ADEC@) Brownfields Cleanup Program (BCP) through a Brownfield Site Cleanup Agreement (BCA) executed on July, 30th, 2007. According to the Phase I Environmental Site Assessment performed at the site (EBC 2/07), the property has been in continual service as a gasoline service station and / or auto repair shop since the building was constructed in 1960.

The site has an open spill file No. 99-00851 related to soil contamination discovered during the removal of twelve 550 gallon USTs in 1999. On December 29, 2006, gasoline contamination was encountered by a geotechnical drilling company advancing soil borings on the property to determine the foundation requirements of a potential new building for the site. Based on these observations, a preliminary investigation was performed (EBC 2/16/07) in which significant levels of volatile organic compounds (VOC) in soil and/or groundwater were identified at several locations on the property. These areas were associated with the location of known and suspected UST or dispenser areas.

The purpose of this Remedial Investigation Work Plan is to collect data of sufficient quality and quantity to characterize the nature and extent of petroleum contamination in on-site groundwater and soil gas, to complete a qualitative exposure assessment for future occupants of the building and the surrounding community and to evaluate alternatives to remediate the contamination.

The overall objectives of the project are to prepare the site for unrestricted use as defined in the Brownfield Cleanup Agreement and to remediate known and unknown environmental conditions at the site to the satisfaction of the DEC and the New York State Department of Health (NYSDOH).

An Interim Remedial Measure (IRM) has been proposed for this project to remove petroleum contamination from the primary source areas, and contaminants related to urban fill, through excavation and disposal. The intent of the IRM is to substantially reduce the threat of potential exposures, while the process of completing the remedial investigation at the site proceeds. An IRM Work Plan has been prepared by EBC, and is being submitted with this document.

1.2 Site Location and Description

The subject property address is 3035 White Plains Road. It is located on the west side of White Plains Road between Adee Avenue and Burke Avenue in the Bronx, New York. The site is designated as Section 4545, Lot 14 by the New York City Department of Assessment.

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The subject property consists of a 16,880 ft^2 parcel, which is improved with a single-story 1,653 ft^2 masonry building with 3 service bays (see **Figure 2**). The building was constructed in 1960 as a service station and is currently used as an auto repair shop. The property is surrounded by a 6-foot high chain link fence which also bisects the site just north of the service station building. The surrounding area is characterized by commercial businesses (mostly retail) along White Plains Road. Residential areas are located behind (east-west) this commercial corridor. An elevated section of the Metro-North Railway passes in front of the property, directly over White Plains Road.

The property descriptive narrative is as follows:
All that certain plat or parcel of land, situate lying and being in the Borough and County Bronx, City and State of New York and being bounded and described as follows:

beginning at the corner formed by the intersection of the westerly side of white plains road and the southerly side of Lester Street (formerly Wilson Place); thence southerly along the westerly side of White Plains Road two hundred and sixty-four and ninety-nine one-hundredths feet to the northerly side of Adee Avenue;

thence westerly along the northerly side of Adee Avenue to a point where said northerly side of Adee Avenue is intersected by the easterly line of Elliot Avenue as said Elliott Avenue is laid down upon a map of property belonging to the estates of Peter Lorillard known as map number 448, filed April 20, 1871;

thence northwesterly along said easterly line of Elliot Avenue about two hundred and eighty feet to the point of intersection of said easterly line of Elliot Avenue with the southerly line of Lester Street;

thence easterly along the southerly side of Lester Street one hundred and thirty-one and forty-six one-hundredths feet, more or less, to the westerly side of White Plains Road to the point or place of beginning. Excepting so much thereof as has been taken by the City of New York for the widening of Adee Ave at a point where it intersects the westerly side of White Plains Road.

1.3 Redevelopment Plan

The site is to be redeveloped through the new construction of a 74-unit multifamily building with approximately 11,000 sf of ground floor commercial space. The building will include a basement level and first floor parking garage which will extend through much of the southern half of the property. The parking garage will encompass the areas formerly occupied by the UST, dispenser and service station building. The basement area, which will also include utility, meter and equipment rooms, will be excavated into the shallow bedrock surface to a final depth of 10 feet below grade.

The remainder of the site which be used for first floor commercial space, will have a slab on grade construction which will require excavation for support column footings and approximately the top 1 foot of overburden soil to accommodate the slab.

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1.4 Summary of Previous Investigations

The following environmental reports were previously prepared for this site:

- Phase I Environmental Site Assessment (EBC, February 2007)
- Summary Report on Preliminary Sampling (EBC, February 16, 2007)
- Interim Remedial Measure Work Plan (EBC, August, 2007)

1.4.1 Summary of the Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA), in accordance with ASTM E 1527, was completed by Environmental Business Consultants (EBC) and documented in a report dated February, 2007. The Phase I ESA revealed that the property was historically used as an automotive service station from at least 1960 to 1999. Since 1999 the site has been used mainly as a truck and automotive repair shop and scrap yard. The records search identified two NYSDEC petroleum spill files, one of which remains open. The site inspection identified numerous environmental concerns including the improper storage of fuel oil, waste oil and automotive fluids.

The Phase I revealed the following recognized environmental conditions:

- The site has an open spill file No. 99-00851 related to soil contamination discovered during the removal of twelve 550 gallon USTs in 1999. No documentation regarding endpoint sampling, impacts to groundwater or other media was available.
- The improper storage of hazardous and non-hazardous materials including gasoline, fuel oil, automotive fluids and solvents.
- The outdoor storage of derelict vehicles, auto parts, scrap metals and trash.
- The presence of a surface drain with obvious staining around the structure.
- The historic use of the property as a gas station from 1960 to 1999, and as an automotive repair facility from 1960 to the present.

The Phase I concluded that the site has been impacted by petroleum products associated with underground leaking storage tanks, and that the potential exists for impacts to other areas of the site from the former dispenser system and associated piping, from the improper storage and use of petroleum products, solvents and automotive chemicals, and from the outdoor storage of derelict vehicles, auto parts and scrap metals.

The shallow groundwater and bedrock surface conditions at the site, combined with the documented historic use of the property, increases the potential liability for off-site impact to businesses and residences through the vapor intrusion pathway.

1.4.2 Summary of Preliminary Sampling

On December 29, 2006, gasoline contamination was encountered by a geotechnical drilling

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company advancing soil borings on the property to determine the foundation requirements of a potential new building for the site. On January 3, 2007, EBC visited the site and directed the geotechnical company to collect new samples from the area in which the contamination was discovered. This area corresponded to the general location of a former dispenser island, according to the property owner. Based on discussions with the property owner, two more borings were installed at locations which corresponded roughly to the location of a second dispenser island and the former UST area. Due to difficulties in accessing these areas from derelict vehicles stored on the property, optimal locations could not be achieved. Strong gasoline odors were noted from the samples collected from the borings near both of the former dispenser islands.

Since the geotechnical contractor was not equipped to collect groundwater samples, EBC returned to the site on January 10, 2007 to obtain a groundwater sample near the south property line, in an area where the contractor had previously encountered groundwater. The groundwater sample was collected from a depth of approximately 9 feet using a track-mounted probing machine.

Elevated VOCs above TAGM guidance levels were reported in the samples collected from the approximate location of the two former dispenser islands. Total VOCs in these areas exceeded 200,000 ug/kg. VOCs, indicative of gasoline contamination, were reported in all 3 borings. Elevated SVOCs were also reported in all 3 borings.

Fourteen VOC compounds, associated with gasoline, were found in excedance of the water quality standards. Total VOCs in the sample exceeded 27,000 ug/l. One SVOC parameter, naphthalene at a concentration of 820 ug/l, was also detected in excedance of its water quality standard (10 ug/L).

Based on the results of soil and groundwater samples collected and the historic use of the site, the preliminary investigation concluded that the site had been impacted by its use as a service station and repair shop over the past 45 years. The report noted that the borings installed were located based on general guidance from the property owner and that they were unlikely to represent worst case conditions. Although the boring near the former UST area had no VOC excedances, due to access problems it was not directly within the assumed UST location. Contamination was previously discovered in this area during removal of the USTs and a spill was reported to the DEC (No. 99-00851). Since there is no documentation that endpoint samples were collected from the excavation nor was an investigation performed to determine the extent of affected media, the report concluded that it is highly likely that significant contamination remains in this area of the property.

Groundwater from a single boring location was found to contain gasoline-related VOCs at levels significantly above water quality standards. Since the boring was located close to the south property line, the report concluded that it was highly likely that contaminated groundwater was migrating off of the property. The report noted that the sample was not believed to be hydraulically downgradient of the impacted soil areas, and, therefore, VOC concentrations may be considerably higher in other areas of the site or at off-site locations.

The report noted that other areas of the property may be affected with VOCs, SVOCs and metals

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due to materials stored at the site and recommended that a comprehensive investigation be performed encompassing all potentially affected media (soil, soil gas, groundwater). The report noted that because shallow soil and groundwater were affected, remedial action, and / or mitigation and control measures may be needed to prevent vapor intrusion, if the property is developed as intended.

1.5 Summary of Proposed Interim Remedial Measure

The IRM proposed for the site (EBC 8/07) consists of the excavation and disposal of both impacted soil, associated with the former UST and dispenser areas, and non-impacted soil, as necessary, for the construction of a basement level parking garage, support footings and foundation slab. In addition, an application of chemical oxidants may be applied in the UST and dispenser areas, as needed, for the treatment of residual gasoline contamination. The IRM will be performed in accordance with the methods and specifications as described under the NYSDEC Draft DER-10, *Technical Guidance for Site Investigation and Remediation* (December, 2002). The overall remedial goal is to meet Track 1 Cleanup Objectives and achieve unrestricted use of the property.

To meet Track 1 objectives, further excavation may be undertaken beyond the planned construction excavation depth of 1 foot, in areas beneath the grade-level slab.

1.6 Site Conceptual Model

Although the date(s) and circumstances surrounding the release of gasoline at the site are not known, it can be assumed that it occurred sometime prior to the removal of the tanks and dispensers in 1999. Gasoline released from the tanks would be expected to pool in the tank bed, which was likely excavated into the bedrock surface to a depth of 8 feet, and migrate down and laterally through joints and cracks in the bedrock until groundwater was encountered at approximately 9 feet below surface.

Since there is evidence of a release at the dispensers as well, it is anticipated that a spill at these locations would migrate along the contours of the shallow bedrock surface (approximately 4 ft below grade) to the south where the bedrock surface is below the water table. Once the gasoline had come into contact with the groundwater it would be expected to migrate south following the general topography of the area. This may explain the VOCs detected in groundwater near the southern property line where the bedrock overburden is more than 10 feet thick. Volatile organic compounds (VOCs) would be expected to off-gas from the groundwater where it would migrate toward low pressure areas such as utility conduits or basements.

The depth to bedrock at the site, as determined from geotechnical borings varies from approximately four feet in the northern and eastern parts of the site to approximately 10 feet in the southern tip of the property. It is likely that the former underground storage tank area was previously excavated into the bedrock surface to a depth of approximately eight feet to accommodate the eleven 550 gallon USTs.

Groundwater is present in the overburden materials in the southern end of the property at a depth of approximately 12 feet below the surface. Based on observations reported at other spill release

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sites in the area, groundwater is also expected to be present in the upper weathered surface of the bedrock.

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2.0 SAMPLING AND ANALYSIS PLAN

2.1 Geophysical Survey

A geophysical survey will be performed to identify potential contaminant source areas buried metallic objects such as 55-gallon drums, and undocumented underground storage tanks (USTs). If undocumented contaminant source objects are present, the results of the geophysical investigation may also provide important information necessary for a removal action.

The geophysical survey will utilize time-domain electromagnetic induction (TDEMI) which can detect ferrous and non-ferrous metallic objects, such as a single 55-gallon drum, at a depth of up to 10 ft below grade surface.

The TDEMI system utilized at the site will be a High Sensitivity Metal Detector designed primarily for industrial site assessment such as the Geonics EM61. It will detect relatively shallow metallic features, both ferrous and non-ferrous.

The geophysical investigation will be carried out in the north and northeast areas of the site within the planned retail section of the new building, since minimal excavation is planned for this area.
The survey area consists of approximately 9,000 square feet level property with an earth base.

TDEMI data will be processed and interpreted using manufacturer-supplied software. TDEMI data will be interpolated to accurate New York State Planar coordinates (relative to NAD83), appropriate shifts and filters will be applied, and data will be extrapolated to a regularly spaced grid system using accepted mathematical methods. These data will then be displayed as high-resolution color contour maps. Anomalies indicative of buried drums or USTs will be further investigated by advancing test pits for positive identification.

If all or a portion of this area is excavated to the bedrock surface the area of the geophysical survey will be reduced or eliminated accordingly.

2.2 Soil Sampling

Eighteen soil borings will be advanced to evaluate the extent and degree of impact in the identified and suspect source areas and to obtain general soil quality information across the site. At each soil boring location soil samples will be collected continuously in 4-foot intervals using a Geoprobe™ sampling system. The Geoprobe™ uses a direct push hydraulic percussion system to drive and retrieve core samplers. A track-mounted Geoprobe™ model 54DT or 6620DT will be utilized for soil sampling depending on availability and scheduling.

Soil samples will be retrieved using a 2-inch diameter, 4-foot long macro-core sampler with disposable acetate liners. At each location, sampling will continue to rejection or to the bedrock surface. The depth to bedrock at the selected locations is estimated to be between 4 and 12 feet below surface grade. Based on the geotechnical borings, previously performed at the site, the bedrock surface is expected to be deeper (8-12 ft below surface) in the southern third of the site and shallower (4-6 ft below surface) in the north and eastern areas of the property.

Collected soil samples will be characterized by an environmental technician and field screened

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for the presence of volatile organic compounds (VOCs) using a photo-ionization detector (PID). One composite sample from each 4-foot sample will be submitted for laboratory analysis. The location of the soil borings is shown on **Figure 3.**

2.3 Groundwater Sampling

Groundwater monitoring wells will be installed to define the extent of VOCs in groundwater at the site and to determine the magnitude and direction of a potential contaminant plume migrating from the site. To achieve this twelve monitoring wells will be installed to provide coverage of both the interior of the site and along the site boundary to assess off-site contamination and plume migration.

Groundwater is known to occur in the overburden materials at the south end of the site at a depth of approximately 9 feet. It is expected to occur within the shallow bedrock in other areas of the site. The monitoring wells will be installed into both overburden and bedrock materials to a depth of approximately 5 feet below the water table using a rotary drill rig equipped with an air hammer.

Monitoring wells will be constructed of 2-inch diameter pvc casing and five to ten feet of 0.010 inch slotted pvc well screen. A No.00 morie or equivalent filter sand will be placed in the borehole to within 2 feet above the top of the screen. A 1-foot hydrated bentonite seal will be placed on top of the filter sand and the remainder of the borehole will be backfilled to grade. The wells will be completed with either flush mount manholes or protective sleeves as appropriate for the well location and site conditions. Following installation, each of the wells will be surveyed to determine relative casing elevation to the nearest 0.01 ft and horizontal position to the nearest 0.1 ft.

Prior to sampling, a synoptic round of depth-to-groundwater (DTW) measurements will be obtained from the wells to determine the water table elevation and to calculate the volume of standing water in the well. One to three volumes of standing water will be evacuated (purged) from each well using a peristaltic or submersible pump at a flow rate of approximately 200 ml/minute to minimize the suspension of particulates in the well.

Upon completion of purging, a groundwater sample will be obtained using either a disposable, dedicated polyethylene bailer and string or using disposable dedicated polyethylene tubing a stainless steel check valve and the hand oscillation method. All purging and sampling data will be recorded on dedicated well sampling forms. A sample matrix showing the number, type and analysis of samples collected during the Remedial Investigation is provided as **Table 1**. The proposed location of the monitoring wells is shown in **Figure 4.**

2.4 Soil Vapor Sampling

Soil vapor samples will be collected in accordance with the Draft Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH 2/05) to determine if the medium is contaminated with VOCs. If VOCs are present, the results will be used to evaluate current off-site human exposures and future human exposures within the planned building. The evaluation of current off-site exposure will be useful in determining if further off-site investigation of the

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exposure pathway is warranted. The evaluation of future on-site exposure will determine whether or not the use of control measures will be necessary to prevent exposure by commercial workers in the first floor retail space of the new building.

In order to determine the vapor quality in the soil beneath the site, soil vapor samples will be taken from twelve vapor implants located as shown in **Figure 5**. Vapor sampling locations were selected to be representative of conditions beneath the planned basement-level parking garage area, and beneath the slab on grade retail area, in the northeast corner of the site. Additional vapor sampling locations were selected near the property line to assess the potential for off-site vapor migration. Since the bedrock surface varies from 4 to 10 feet across the site, the vapor implants will be set at a depth of 3 feet.

2.4.1 Soil Vapor Sampling Protocols

The vapor implants will be installed with Geoprobe™ equipment and constructed in the same manner at all locations to minimize possible discrepancies. The implants will be made from stainless steel and fitted with polyethylene tubing. Coarse sand or glass beads will be added to create a sampling zone of one to two feet in length and sealed above with a bentonite slurry for a minimum distance of 3 feet.

After installation of the probes, one to three volumes (i.e., the volume of the sample probe and tube) will be purged prior to collecting the samples to ensure samples collected are representative. Flow rates for both purging and collecting will not exceed 0.2 liters per minute to minimize outdoor air infiltration during sampling. Samples will be collected in Summa® canisters which have been certified clean by the laboratory and analyzed by using USEPA Method TO-15. All samples will be collected over the same period of time and submitted to Severn Trent Laboratories, Inc. (STL), an Environmental Laboratory Approval Program (ELAP) certified laboratory.

A sample log sheet will be maintained summarizing sample identification, date and time of sample collection, sampling depth, identity of samplers, sampling methods and devices, soil vapor purge volumes, volume of soil vapor extracted, vacuum of canisters before and after samples are collected, apparent moisture content of the sampling zone, and chain of custody protocols.

As part of the vapor intrusion evaluation, a tracer gas will be used in accordance with NYSDOH protocols to serves as a quality assurance/quality control (QA/QC) device to verify the integrity of the soil vapor probe seal. Helium will be used as the tracer gas and a box will serve to keep it in contact with the probe during the testing. A portable monitoring device will be used to analyze a sample of soil vapor for the tracer prior to sampling. If tracer sample results show a significant presence of the tracer, the probe seals will be adjusted to prevent infiltration. At the conclusion of the sampling round, a second tracer sample will be collected to confirm the integrity of the probe seals.

After the collection of the analytical sample, a field reading will be recorded at each sampling points utilizing a photoionization detector capable of detecting organic compounds in the parts

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per billion range.

2.5 Laboratory Analysis

Samples will be submitted to the laboratory for a standard turnaround time, which is estimated to be one to two weeks. The proposed sampling program is summarized in **Table 1**.

2.5.1 Analysis of Soil and Groundwater Samples

Collected soil and groundwater samples will be placed in pre-cleaned laboratory supplied glassware, and placed in a cooler packed with ice for transport to the laboratory. Sample analysis will be provided by Chemtech Laboratories, Inc. of Mountainside, NJ, a New York State ELAP certified environmental laboratory. Groundwater samples will be analyzed for one or more or the following parameters depending on location. Soil samples will be analyzed for the full suite of analytes regardless of location.

- Volatile organic Compounds (VOCs) by EPA Method 8260;
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270 (STARS List);
- Target Analyte List (TAL) metals, and
- Pesticides/PCBs by Method 8081/8082.

2.5.2 Analysis of Soil Vapor Samples

Analytical procedures and corresponding reporting limits will be identified when reporting the sampling results. Samples will be analyzed by USEPA Method TO-15 for the STARS list of volatile organic compounds. All samples will be analyzed by Chemtech Laboratories, Inc. of Mountainside, NJ, a New York State ELAP certified environmental laboratory.

2.6 Quality Assurance / Quality Control

The fundamental QA objective with respect to accuracy, precision, and sensitivity of analysis for laboratory analytical data is to achieve the QC acceptance of the analytical protocol. The accuracy, precision and completeness requirements will be addressed by the laboratory for all data generated.

Collected samples will be appropriately packaged, placed in coolers and shipped via overnight courier or delivered directly to the analytical laboratory by field personnel. Samples will be containerized in appropriate laboratory provided glassware and shipped in plastic coolers. Samples will be preserved through the use of ice or “cold-paks” to maintain a temperature of 4^{o}C.

2.6.1 Soil and Groundwater Samples

Dedicated disposable materials (polyethylene tubing, dedicated samplers, etc.) will be used for collecting groundwater samples, and for soil samples (disposable acetate liners) therefore, field equipment (rinsate) blanks will not be part of the QA/QC program. Trip blanks will accompany samples each time they are transported to the laboratory.

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2.6.2 Soil Vapor Samples

Extreme care will be taken during all aspects of sample collection to ensure that sampling error is minimized and high quality data are obtained. The sampling team members will avoid actions (e.g.,
using permanent marker pens and wearing freshly dry-cleaned clothes or personal fragrances) which can cause sample interference in the field. A tracer gas, helium, will be used in accordance with NYSDOH sampling protocols to serve as a QA/QC device to verify the integrity of the soil vapor probe seals. QA/QC protocols will be followed for sample collection and laboratory analysis, such as use of certified clean sample devices, meeting sample holding times and temperatures, sample accession, and chain of custody.

Samples will be delivered to the analytical laboratory as soon as possible after collection. The laboratory analyzes QC samples with each analytical batch, including a Method Blank (MB), Laboratory Control Sample (LCS), and a Laboratory Control Sample Duplicate (LCSD). Internal standards are added to all calibration standards, samples, and blanks to verify that the analytical system is in control.

2.7 Management of Investigation Derived Wastes

Investigation derived wastes include contaminated soil, groundwater and disposable sampling equipment generated during the remedial investigation.

Soil from test pits and soil borings will be returned to their original location. Excess soil from the installation of monitoring wells and groundwater generated from purging will be placed in U.S. Department of Transportation (DOT) – approved drums. These materials will either be disposed of at an appropriate off-site disposal facility or will be disposed of along with other soil and groundwater during subsequent remedial activities to be implemented under the IRM or RAWP,

Disposable sampling equipment (gloves, tubing, acetate liners, etc.) will be placed in heavy-duty plastic bags and disposed of properly.

3.0 REMEDIAL INVESTIGATION REPORT

Following completion of the investigation and receipt of the analytical data, EBC will prepare a Remedial Investigation Report which will include the following:

1. A description of the work which was performed under the off-site RI.

2. Any modification from this work scope and the reason for the modifications

3. The nature and extent of the off-site groundwater plume

4. Soil, and groundwater conditions that were observed

5. Analytical data in tabular form comparing results to the most current applicable guidance.

6. Cross sections and data figures

7. Laboratory analytical data, sampling logs and well completion logs for all samples and areas covered by the investigation.

8. Scaled drawings showing the locations of temporary sampling points, monitoring wells and surface water sampling locations.

4.0 REMEDIAL INVESTIGATION PROJECT SCHEDULE

The estimated duration of the IRM project is four to six weeks. The IRM includes the demolition and removal of the building, installation of test pits for waste characterization sampling, excavation of soils, and soil disposal.

The RI will be performed before and possibly during the early stages of the IRM and, as such, may nee to be coordinated with implementation of the IRM to some degree. The first step in initiating the field sampling activities will be to call in case numbers to the one call utility mark-out center. This effort will begin within one week following the NYSDEC authorization to proceed.

It is estimated that the soil sampling program will be completed in three days. Installation of the eight monitoring wells will take another three days to complete with installation of the soil vapor probes to be completed in one additional day. Groundwater sampling and soil gas sampling will each be accomplished in one day. Laboratory results are expected to be available within 3 weeks of the submission of samples. Completion of the RI report is expected to take two weeks following the receipt of laboratory samples.

5.0 REFERENCES

6 NYCRR Part 375 Environmental Remediation Programs Subparts 375-1, 375-3 and 375-6

Environmental Business Consultants, Phase I Environmental Site Assessment, 3035 White Plains Road, Bronx, NY, February, 2007

Environmental Business Consultants, Preliminary Subsurface Investigation Report, 3035 White Plains Road, Bronx, NY, February 16, 2007

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NYSDEC, Division of Water, June 1998, Addendum April 2000, Technical and Administrative Guidance Series 1:1:1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

NYSDOH, Center for Environmental Health, February 2005, *Draft Guidance for Evaluating Soil Vapor Intrusion in the State of New York.*

USEPA, Environmental Response Team, August 11, 1994. SOP # 2001, Field Sampling Guidelines.

USEPA, Environmental Response Team, July 27, 1995. SOP # 1704, Summa Canister Sampling

USEPA, Environmental Response Team, January 26, 1995. SOP # 2007, Groundwater Well Sampling

USEPA, Environmental Response Team, August 11, 1994. SOP # 2006, Sampling Equipment Decontamination.

TABLES

FIGURES

ATTACHMENT - A

Standard Operating Procedures

TABLE 1
SUMMARY OF SUPPLEMENTAL RI INVESTIGATION
SAMPLING PROGRAM, RATIONALE AND ANALYSES

Matrix	Location	Approximate Number of Samples	Rationale for Sampling	Laboratory Analyses
Soil	18 Soil borings located throughout the site, including suspect source areas	18-36	Identification and characterization of source areas, evaluation of non-impacted soil for urban fill parameters	VOCs/SVOCs by 8260/8270, TAL metals, pesticides and PCBs by EPA 8081/8082
Total (Soil)		**18-36**		
Groundwater	5 monitoring wells selected to be representative of groundwater across entire site	5	Evaluate general groundwater quality for non-COCs	TAL metals (dissolved, total), pesticides and PCBs by EPA 8081/8082
Groundwater	All 12 monitoring wells	12	Evaluate concentration and extent of on-site plume	VOCs, by EPA 80260, SVOCs by EPA 8270
Total (Groundwater)		**17**		
Soil Gas	12 soil gas implants located across the site	12	determine whether medium is contaminated, characterize the nature and extent of contamination and evaluate potential for impact to new building and off-site migration	VOCs by EPA TO15
Total (Soil Gas)		**12**		