

**ARAMARK Uniform Services (Syracuse), LLC
Christopher Service Company Site
ONONDAGA COUNTY, NEW YORK**

Site Management Plan

VCP Site #V00665-7

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1.0 Introduction and Description of Remedial Program

1.1 Introduction

This document is required as an element of the remedial program at the Former Christopher Services Company Site (hereinafter referred to as the “Site”) under the New York State (NYS) Voluntary Clean-up Program (VCP) administered by New York State Department of Environmental Conservation (NYSDEC). The site was remediated in accordance with Voluntary Cleanup Agreement (VCA) Index #B7-0643-03-09, Site # V00665-7, executed on November 6, 2003.

1.1.1 General

ARAMARK Uniform Services (Syracuse), LLC (hereafter ARAMARK) entered into a VCA with the NYSDEC to remediate a 0.75-acre property located in Solvay, New York. This VCA required ARAMARK to investigate and remediate contaminated media at the site. A figure showing the site location and boundaries of this 0.75-acre site is provided in Figure 1. The boundaries of the site are more fully described in the metes and bounds site description that is part of the Environmental Easement.

After completion of the remedial work described in the Remedial Action Work Plan, November 2009, some contamination was left in the subsurface at this site, which is hereafter referred to as “remaining contamination.” This Site Management Plan (SMP) was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by Barton & Loguidice, P.C., on behalf of ARAMARK, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 3, 2010, and the guidelines provided by NYSDEC.

This SMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required by the Environmental Easement for the site.

1.1.2 Purpose

ECs have been incorporated into the site remedy to control exposure to remaining contamination, during the use of the site, to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Onondaga County Clerk, will require compliance with this SMP and all ECs and ICs placed on the site. The ICs place restrictions on site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary to ensure compliance with all ECs and ICs required by the Environmental Easement for contamination that remains at the site. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the site, including: (1) implementation and management of all Engineering and Institutional Controls; (2) media monitoring; (3) operation and maintenance of all treatment, collection, containment, or recovery systems; (4) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports; and (5) defining criteria for termination of treatment system operations.

To address these needs, this SMP includes three plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; (3) an Operation and Maintenance Plan for implementation of remedial collection, containment, treatment, and recovery systems.

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is a violation of the Voluntary Cleanup Agreement (as amended).
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the VCA, (Index #B7-0643-03-09, Site # V000665-7) for the site, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Environmental Easement for the site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.2 Site Location, Description, and History

ARAMARK conducted an investigation of subsurface contamination in accordance with the NYSDEC's VCP at its 3009 and 3117 Milton Avenue facility located in the Village of Solvay, Onondaga County, New York (see Figure 1). The investigation and related activities were conducted under the oversight of The Wetlands Company, Barton & Loguidice, P.C. (B&L) and the NYSDEC. The site is identified in the VCP registry as VCP #V00665-7.

The Site is approximately 0.634 acres and is situated at the southeast corner of the intersection of Milton Avenue and Bailey Street. The current primary site use is for an industrial laundry facility (3117 Milton Avenue) without dry cleaning operations. There is also a residential property (3009 Milton Avenue) located on the east side of the site which is currently vacant. The industrial laundry is served by public water.

The majority of the Site consists of a two-story block building with a small parking area between the north side of the building and Milton Avenue. Beyond the rear of the building to the south is a vacant area that historically abutted the backyards of two residential properties that were located on Third Street; these properties were purchased by ARAMARK and the houses have been demolished. This vacant area is considered off-site in regards to the site definition of the Voluntary Cleanup Agreement (VCA).

The main use of the western portion of the Site has been for industrial laundry services, while the eastern portion of the Site was occupied by a residential property that is now vacant. Prior to 1946, the Site consisted of residential housing. From 1946 to 1953, the Site was used as a storage and automotive repair facility. Following 1953, water washing and dry cleaning operations were conducted at the Site as part of the industrial laundry services. According to previous environmental studies at the Site, the dates of the dry cleaning operations have not been determined. The dry cleaning operations were not open to the public.

The results of a sub-slab vapor survey indicated the presence of chlorinated solvents, trichloroethene (TCE) and tetrachloroethene (PCE), above concentrations identified in the New York State Department of Health (NYSDOH) Final Guidance for Evaluating Soil Vapor in the State of New York decision matrices that warrant mitigation efforts. The elevated chlorinated solvent concentrations were limited to the western portion of the building near the former dry cleaning area (see Figure 2). Sampling of site soils and groundwater indicated only slight exceedances of respective 6 NYCRR Part 375 and Part 703 standards; however, the site and nearby parcels use the municipal water supply and there are no other downgradient receptors.

Based upon the site investigation results, sub-slab vapor conditions in a localized area of the western portion of the building require mitigation. The Remedial Action Work Plan (November 2009) identifies the necessary tasks to complete the sub-slab vapor mitigation system design. The Work Plan was developed in accordance with the NYSDEC's May 2002 Voluntary Cleanup Guide and 6 NYCRR Part 375 and has been approved by the NYSDEC.

More detailed information regarding the Site History is available in the May 2006 Voluntary Cleanup Site Investigation Report (VCSIR).

1.3 Summary of Remedial Investigation Findings

1.3.1 Previous Investigations

Previous investigations conducted at the site include a 1999 Phase I Environmental Site Assessment (Phase I ESA) completed by LCS, a 2003 Limited Environmental Site Assessment Report and Supplement to the Site Investigation Report conducted by Ransom Environmental, and the most recently conducted Voluntary Cleanup Project Site Investigation by B&L (2004-2006).

1.3.1.1 Phase I ESA (LCS, 1999)

The first investigation conducted at the site was a Phase I ESA by LCS, Inc. in 1999. The Phase I ESA included a records review and non-intrusive site reconnaissance. No samples were collected as part of the Phase I ESA. LCS concluded that there was no historical evidence supporting the presence of a release of hazardous, toxic, or other contaminants of concern.

1.3.1.2 Limited Environmental Site Assessment (Ransom, 2003)

Ransom Environmental conducted a Limited Environmental Site Assessment in 2003. The Ransom investigation focused on two areas of concern at the Site. The areas of concern included the former location of the 12,000-gallon fuel oil UST (located below the existing 10,000-gallon carbon dioxide AST) and the former dry cleaning area located in the interior of the western portion of the building.

The 2003 Ransom investigation included the installation of soil/groundwater borings by direct push methods, followed by the installation of temporary groundwater well points. Soil and groundwater samples were collected. The investigation identified the presence of volatile organic compounds (VOCs) including petroleum hydrocarbons and chlorinated solvents, and semi-volatile organic compounds (SVOCs) at concentrations that exceeded NYSDEC

Groundwater Quality Standards. Soil samples indicated the presence of VOCs and SVOCs above the TAGM 4046 recommended soil cleanup objectives (SCOs). Monitoring well soil boring logs are included in Appendix A and all historic sampling locations are depicted on Figure 2. Since the Ransom investigation was completed, the promulgation of 6 NYCRR Part 375 has superseded TAGM 4046.

The source and extent of the contamination were partially defined by the 2003 Ransom site investigation, and were later fully defined by subsequent work described below. From the 2003 Ransom site investigation, significant exceedances of groundwater standards were observed in the former dry cleaning area, including 4,260 ppb of cis-1,2 DCE and 160 ppb of total SVOCs in GW-4; 381 ppb of PCE, 271 ppb of vinyl chloride, and 3,300 ppb of total SVOCs in GW-7; and 4,200 ppb of total SVOCs in GW-6. Slight exceedances of groundwater standards were observed adjacent to the former 12,000-gallon UST, including 6.5 ppb of cis-1,2 DCE, 5.3 ppb of PCE, and 26 ppb of total SVOCs. For soil, significant exceedances of SCOs were observed in the former dry cleaning area, including 29 ppm of PCE (1.3 ppm unrestricted SCO) in SB-7 and 91 ppm of total SVOCs in SB-6, including 21.9 ppm of chrysene (1 ppm unrestricted SCO). No soil impacts were observed adjacent to the residential property (3009 Milton Avenue).

Ransom Environmental prepared a Supplement to the Limited Environmental Site Assessment and Site Investigation Report in November 2003 to incorporate the collection of off-site groundwater samples. Two temporary well points were installed north of Milton Avenue, and two were installed west of Bailey Street in order to characterize off-site impacts (see Figure 2). Although off-site impacts appeared minimal, exceedances of groundwater standards included 11.7 ppb of PCE and 15 ppb of total SVOCs in GW-27, as well as 6.7 ppb of vinyl chloride and 34 ppb of total SVOCs in GW-28.

1.3.1.3 Voluntary Cleanup Site Investigation (2004-2006)

The Wetlands Company and B&L conducted a Voluntary Cleanup Site Investigation (VCSI), VCP Site #V00665-7, for ARAMARK in accordance with the NYSDEC's May 2002 Draft Voluntary Cleanup Program Guide (see May 2006 VCSIR for complete investigation results). Initial field activities included a site survey conducted by Ianuzi & Romans, P.C., a site inspection by B&L personnel, and a residential well survey. The site inspection identified storm sewer catch basins along Milton Avenue and Bailey Street and underground utilities; although no significant environmental concerns were noted at the Site exterior. The primary focus of the interior inspection was the former dry cleaning area. The historic dry cleaning operations at the facility had ceased by the time of the inspection, and B&L personnel did not note any evidence of staining, spills, or leaks. The residential well survey indicated that no private wells are located within one-eighth of a mile of the Site.

The field investigation activities conducted as part of the VCSI included installation of subsurface soil borings and groundwater monitoring wells, as well as the installation of sub-slab and soil vapor survey points. Sampling at the Site included subsurface soil samples from the monitoring well borings, four rounds of groundwater samples from the permanent monitoring wells, and soil vapor samples from the sub-slab and soil vapor survey points. Indoor air samples were not included as part of the sampling, as current operations at the Site would interfere with the results, making conclusions about sources of indoor air concentrations impossible. The purpose of the vapor sampling conducted at the Site was to identify the potential for sub-slab vapor intrusion, as opposed to documenting potential indoor sources that could originate from soiled products to be laundered. For example, some of the textiles that ARAMARK receives from its customers for laundering are likely to have been exposed to solvents while at the customer location. The presence of these textiles in the ARAMARK building would confound the results of any indoor air sampling program.

Compared to the results of the Ransom investigation, the SVOC concentrations in soil appear to be stabilized on- and off-site. For example, SVOC contaminant levels in soil samples taken from the more recent MW-2 are similar in magnitude to those taken from SB-4 during the

earlier Ransom investigation. Chrysene was detected at 12 ppm in the soil boring at MW-2 and at 21.9 ppm in SB-6 from the earlier Ransom Investigation. Levels of VOCs dropped significantly from the Ransom Investigation to the VCSI. Levels of PCE in soil dropped from 28.8 ppm in SB-7 to 2.5 ppb in MW-2, and levels of vinyl chloride fell from 1.3 ppm in SB-4 to 11 ppb in MW-2. Due to their isolated nature, relatively low-level concentrations, and the apparent biodegradation of VOCs and chlorinated solvents, subsurface soil impacts can be managed through vapor intrusion mitigation. The following table illustrates the decrease in soil contaminants from the Ransom Investigation to the VCSI:

Table 1. Comparison of On-Site Soil Samples		
Soil Sample Location	Ransom Investigation (2003)	Voluntary Cleanup Site Investigation (2004-2006)
SB-6/MW-2 Area	21.9 ppm chrysene	12 ppm chrysene
SB-7/MW-2 Area	28.8 ppm PCE	2.5 ppb PCE
SB-7/MW-2 Area	1.3 ppm vinyl chloride	11 ppb vinyl chloride

Groundwater also experienced a reduction in VOCs and SVOCs from the Ransom investigation to the VCSI. Cis-1,2 DCE fell from 4,260 ppb at GW-4 from the Ransom investigation to 10 ppb in MW-2. PCE experienced a similar reduction from 381 ppb in GW-7 to 12 ppb in MW-2, and vinyl chloride fell from 271 ppb in GW-7 to 18 ppb in MW-2. VOCs associated with petroleum, such as BTEX, exceeded groundwater standards during the Ransom investigation but did not exceed standards during the VCSI. SVOCs experienced a similar reduction in groundwater; total SVOCs fell from 4,200 ppb in GW-6 to 296 ppb in MW-2. The following table illustrates the decrease in groundwater contaminants from the Ransom Investigation to the VCSI:

Table 2. Comparison of On-Site Groundwater Samples		
Groundwater Sample Location	Ransom Investigation (2003)	Voluntary Cleanup Site Investigation (2004-2006)
GW-4/MW-2 Area	4,260 ppb cis-1,2 DCE	10 ppb cis-1,2 DCE
GW-4/MW-2 Area	381 ppb PCE	12 ppb PCE
GW-4/MW-2 Area	271 ppb vinyl chloride	18 ppb vinyl chloride
GW-6/MW-2 Area	BTEX exceeds standards	BTEX within standards
GW-6/MW-2 Area	4,200 total SVOCs	296 total SVOCs

Off-site, concentrations of contaminants varied from the Ransom investigation to the VCSI. PCE concentrations fell northwest of the site from 11.7 ppb in GW-27 to 0.48 ppb in MW-5, while concentrations increased from non-detect in GW-28 to 7.3 ppb in MW-6. However, vinyl chloride dropped from 6.7 ppb in GW-28 to under 1 ppb in MW-6. Total SVOCs decreased from 35 ppb in GW-28 to non-detect in MW-6, while total SVOCs increased significantly from 33 ppb in GW-26 to 783 ppb in MW-6. However, overall levels of SVOCs are decreasing both on and off-site.

Two distinct groundwater plumes emanate from the site. MW-6 delineated the western (downgradient) extent of the chlorinated solvent plume (see Figure 2). It should be noted that the groundwater monitoring program has been decommissioned and all groundwater monitoring locations have been abandoned. A petroleum-based plume (primarily indicated by elevated SVOCs) is present closer to Milton Avenue and also encompasses a limited area below the building. The plume is delineated by historic GW locations with its terminus likely extending slightly beyond MW-5.

The depth to groundwater is approximately 5 to 6 feet below grade, with the exception of shallower depths adjacent to Milton Avenue (i.e., MW-5 and MW-6). Groundwater flows from southeast to northwest. (Detailed discussions on site geology/hydrogeology are provided in the May 2006 VCSIR.) Transport of contaminants via groundwater has been limited due to a small horizontal groundwater gradient (<0.05%). The low-level groundwater exceedances combined with a lack of downgradient receptors (as confirmed by a residential well survey) justified pursuit of a vapor mitigation approach in lieu of active groundwater remediation at the site. NYSDEC granted abandonment of the entire monitoring well network consisting of the

field investigation and remediation (monitored natural attenuation) monitoring wells in light of this conclusion.

1.3.2 Site Geology

Development at the Site and surrounding properties has altered the soil characteristics. Artificial fill/overburden materials observed during subsurface activities revealed that native soils were likely removed during railroad and roadway construction around the site exterior (monitoring wells MW-3, MW-4 and MW-5) and during building construction at MW-2. The artificial fill extends to depths of up to 5 feet for the wells located north of Milton Avenue and generally consisted of sand, crushed stone and foreign materials including but not limited to brick fragments and pieces of asphalt.

Based on the borings, native unconsolidated materials at and near the site include two glacial till deposits. The upper till unit is light brown in color and consists of silt, sand, silty clay lenses with low plasticity, and occasional sub-rounded gravels and sub-angular rock fragments. The overburden color varied from light brown to dark gray at both MW-2 and MW-5 and a petroleum odor was noted at both locations in split spoon samples collected between 6 to 10 feet below the ground surface. Moisture content varied from slightly moist to very moist with occasional saturated zones perched between the clay and silt lenses. Borings were terminated upon encountering split spoon refusal in the second till unit, which is much denser and contains a greater percentage of gravel-size materials. The thickness of the underlying dense till deposit is unknown due to the limited depths of the subsurface borings. The underlying till layer likely provides a vertical barrier against contaminant migration. Borings were not advanced past this lower till interface in order to minimize the potential for creating a contaminant pathway for vertical migration through the confining till unit.

1.4 Summary of Remedial Actions

The site was remediated in accordance with the NYSDEC-approved Remedial Action Work Plan, and associated requested revisions, dated November 2009

The following is a summary Remedial Actions that were performed at the site:

1. Installation of a Sub-Slab Depressurization System (SSD System)
2. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the site.
3. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting.

Soil depressurization (sub-slab ventilation system) is being utilized to prevent sub-slab vapors from entering the building. Suction fan(s) are being utilized to produce negative pressure beneath the slab, preventing the mobilization of vapors into the building. The ventilation system was augmented by sealing potential vapor routes in the existing slab over the area of impact.

As monitored natural attenuation was approved for groundwater remediation, a groundwater monitoring program was implemented at the Site. The program consisted of periodic (annual) sampling of MW-2, as well as two additional permanent groundwater monitoring wells (MW-A and B) installed on the Site near the intersection of Milton Avenue and Bailey Avenue. The groundwater monitoring program was discontinued in May, 2014 upon approval from NYSDEC, as sampling results indicated a decline in contaminants of concern over more than one successive round of sampling.

Following approval of the original SMP, an Environmental Easement was put in place. This Easement limits the future uses of the property and prevents exposure to site soils, groundwater, and soil vapors. Under the terms of the Easement, all Department approved amendments to the SMP are incorporated into and made a poart of the Easement. The property

owner will submit a periodic certification of institutional and engineering controls for the duration that the Easement is in effect.

1.4.1 Remaining Contamination

Sub-slab ventilation will eliminate the potential contaminant exposure pathways identified below.

Based upon observed site conditions, historical investigations and existing exposure scenarios, the following are potential contaminant migration pathways:

- Volatilization of organic constituents from subsurface soils and groundwater (vapor intrusion) under the western portion of the main building (3117 Milton Avenue).
- During potential future subsurface construction activities, one or more potential exposure pathways associated with residual subsurface soil, groundwater, and soil vapors could exist for potential construction site workers or wildlife.

The potential contaminant pathway for the volatilization of organic and chlorinated solvent vapors was verified by the results of the sub-slab and soil vapor survey. The results of the soil vapor monitoring, along with the NYSDOH Decision Matrices that are the impetus for the remedial action are summarized in the following table (see Figure 2 for sample locations).

Table 3. Sub-Slab Samples		
Parameter	Sub-slab Samples	
	VP-3 (ug/m ³)	VP-4 (ug/m ³)
TCE	6,800	3,000
PCE	51,000	6,700

Sub-slab PCE concentrations >1,000 ug/m³ require mitigation per Final NYS DEC/DOH matrices (October 2006).

Sub-slab TCE concentrations >250 ug/m³ require mitigation.

*TCE/PCE concentrations in **Bold** exceed NYS DEC/DOH concentrations that require mitigation.*

TCE/PCE concentrations in the unlisted historical vapor points were below thresholds requiring mitigation.

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Detailed summaries of subsurface soil, groundwater and soil vapor sampling results are provided in the May 2006 VCSIR.

2.0 Engineering and Institutional Control Plan

2.1 Introduction

2.1.1 General

Since remaining contaminated soil and groundwater may exist beneath the site, EC/ICs are required to protect human health and the environment. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs at the site. The EC/IC Plan is one component of the SMP and is subject to revision by NYSDEC.

2.1.2 Purpose

This plan provides:

- A description of all EC/ICs on the site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the site remedy, as determined by the NYSDEC.

2.2 Engineering Controls

2.2.1 Engineering Control Systems

2.2.1.1 Sub-slab Depressurization System (SSD System)

The EPA's recommended soil vapor intrusion prevention techniques for commercial buildings are active soil depressurization, building pressurization, and sealing soil vapor entry routes. Each of these techniques is described briefly below and is recommended whether a proposed building will be constructed on fill or in cut conditions:

- Active Soil Depressurization (ASD): a fan is used to create negative pressure beneath the slab and foundation, preventing soil vapors from entering the building. This is EPA's recommended option for commercial buildings in soil vapor-prone areas;
- Building Pressurization: more air is brought into the building than is exhausted, causing air to flow from inside the building to the outside through cracks and seams in the building shell, effectively sealing soil vapor entry routes; and
- Sealing Entry Routes: includes the installation of a physical vapor barrier combined with sealing cracks and openings in the sub-slab structure.

Due to the difficulty in operating a building continuously at positive pressure, the EPA does not recommend building pressurization as a standalone soil vapor control system. Sealing entry routes is not recommended as a standalone approach due to the likelihood of damaging the vapor barrier during construction and the difficulty in sealing every entry route. Therefore, Active Soil Depressurization (ASD) is the primary mitigation technique recommended for this site, to be augmented by sealing soil vapor entry routes.

The complete ASD system consists of six primary design components:

1. Reduce or eliminate barriers to sub-slab airflow, such as sub-slab walls or footings;

2. Place a 4- to 8-inch layer of clean, coarse aggregate below the concrete slab (for new construction);
3. Install a vapor suction pit under the slab;
4. Run a 6-inch diameter PVC pipe from the suction pit to the outdoors through the roof;
5. Install an in-line suction fan designed for use in ASD systems to create negative pressure below the slab; and
6. Seal major vapor entry routes by upgrading specified barriers to vapor protective class materials and/or sealing all foundation joints, cracks, and pipe penetrations. In locations where the proposed floor finish would be polished concrete, sealing of floor slab joints and cracks would not be progressed so as to not impact the intended finish of the floor.

Vapor suction pits provide void space in the aggregate and are centrally located in each sub-slab area within the area of concern. A 6-inch PVC vent pipe runs horizontally from the suction pit to a convenient location for the pipe to be run vertically to the roof.

Procedures for operating and maintaining the SSD system are documented in the Operation and Maintenance Plan (Section 4 of this SMP). Procedures for monitoring the system are included in the Monitoring Plan (Section 3 of this SMP). The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at the site, occurs.

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10 or the corresponding section of its most recent version. Remediation and associated monitoring will be considered complete when: Monitored Natural

Attenuation of Groundwater: Two (2) consecutive rounds of annual water quality data demonstrate stabilization or reduction of the contamination plume. This was achieved in May, 2014 and NYSDEC approved discontinuation of the groundwater monitoring program.

SSD Operation and Monitoring: Annual sub-slab vapor samples will be collected from the interior soil vapor monitoring location. ARAMARK's Environmental Professional will perform an engineering review of the function of the SSD system every three (3) years. Once TCE concentrations are below 50 mcg/m³ and PCE concentrations are below 100 mcg/m³ for all of the three (3) years reviewed, ARAMARK will make a formal request to the NYSDEC to discontinue sub-slab vapor monitoring and operation of the sub-slab depressurization system.

2.2.2.1 Sub-slab Depressurization System (SSDS)

The active SSD system will not be discontinued unless prior written approval is granted by the NYSDEC. In the event that monitoring data indicates that the SSD system is no longer required, a proposal to discontinue the SSD system will be submitted by the property owner to the NYSDEC and NYSDOH.

2.3 Institutional Controls

A series of Institutional Controls is required by the NYSDEC-approved Remedial Action Work Plan to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the site to commercial/institutional uses only. Adherence to these Institutional Controls on the site is required by the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are:

- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;
- All Engineering Controls must be operated and maintained as specified in this SMP;

Site Management Plan

- All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP; and
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP.

Institutional Controls identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The site has a series of Institutional Controls in the form of site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. The Environmental Easement will require implementation of the following restrictions:

- Restriction of future use of the property to commercial or industrial use.
- Implementation of a mitigation monitoring plan outlining operational monitoring requirements. Routine maintenance items to be incorporated into the mitigation monitoring plan will include:
 - Visual inspection of the complete system including vent fan, manometers, piping and labeling;
 - Calibration of the depressurization system;
 - Testing of the warning device;
 - Weekly checks of pressure gauges in the vent pipes;
 - Annual sub-slab soil vapor air monitoring (frequency to be reduced based upon initial results). Will include collection of sub-slab vapor samples from each of the permanent vapor probes and submission for laboratory analysis. The locations of the permanent vapor monitoring locations are shown on Figure 5;

Site Management Plan

- Annual inspection of system components including fan bearings and exhaust pipe conditions;
- An annual inspection for cracks and penetrations in the slab;
- Restrictions on soil excavation including:
 - Excavated soil in areas that are anticipated to contain remaining contamination will be tested and properly handled to protect the health and safety of workers and the nearby community
 - Excavated soil will be properly managed in accordance with the NYSDEC-approved Excavation Work Plan attached as Appendix C to this SMP
- Restrictions on use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH
- Submittal of periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

2.3.1 *Excavation Work Plan*

Any future intrusive work that is anticipated to encounter or disturb the remaining contamination, including any modifications or repairs to the existing system, will be performed in compliance with the Excavation Work Plan (EWP) that is attached as Appendix C to this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the site. A sample HASP is attached as Appendix D to this SMP that is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. Based on future changes to State and federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section A-1 of the EWP. Any intrusive construction work that will encounter remaining soils will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5).

The site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations and bridge footings). The site owner will ensure that site development activities will not interfere with, or otherwise impair or compromise, the engineering controls described in this SMP.

2.3.2 *Soil Vapor Intrusion Evaluation*

Prior to the construction of any enclosed structures located over areas that contain remaining contamination and over areas in which the potential for soil vapor intrusion (SVI) has been identified (see Figure 2), an SVI evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. This mitigation system will

include a vapor barrier and passive sub-slab depressurization system that is capable of being converted to an active system.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH “Guidance for Evaluating Vapor Intrusion in the State of New York”. Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.

Preliminary (unvalidated) SVI sampling data will be forwarded to the NYSDEC and NYSDOH for initial review and interpretation. Upon validation, the final data will be transmitted to the agencies, along with a recommendation for follow-up action, such as mitigation. SVI sampling results, evaluations, and follow-up actions will also be summarized in the next Periodic Review Report.

2.4 Inspections and Notifications

2.4.1 Inspections

Inspections of all remedial components installed at the site will be conducted at the frequency specified in the SMP Monitoring Plan schedule. A comprehensive site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether Engineering Controls continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;
- If site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system;

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3). The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 5).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the site by a qualified environmental professional as determined by NYSDEC.

2.4.2 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the Voluntary Cleanup Agreement (VCA), 6NYCRR Part 375, and/or Environmental Conservation Law.
- 7-day advance notice of any proposed ground-intrusive activities in areas anticipated to contain remaining contamination pursuant to the Excavation Work Plan provided that such advance notice will not be required in the event of an emergency, as long as a follow-up description of the work is provided within 48 hours.
- Notice within 48-hours of any damage or defect to the foundations structures that reduces or has the potential to reduce the effectiveness of other Engineering Controls and likewise any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the VCA and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing.

2.5 Contingency Plan

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to the Project manager. These emergency contact lists must be maintained in an easily accessible location at the site.

Table 4. Emergency Contact Numbers	
Medical, Fire, and Police:	911
Dig Safely NY:	(800) 962-7962 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

* Note: Contact numbers subject to change and should be updated as necessary.

2.5.2 Map and Directions to Nearest Health Facility

Site Location: 3117 Milton Avenue, Solvay, NY
Nearest Hospital Name: Immediate Care West
Hospital Location: 5700 W Genesee St Ste 100, Camillus, NY
Hospital Telephone: (315) 488-6393
Directions to the Hospital:

- Start out going southwest on Milton Ave/NY-297 toward Brooks St 0.7 mi
 - Turn Left onto North Onondaga Rd/NY-173/CR-63 0.3 mi
 - Turn right onto W. Genesee St/CR-98 (5700 W. Genesee St. is on right) 2.9 mi
- Approximate Distance: 3.91 miles
Approximate Time: 9 minutes

Site Management Plan

Map Showing Route from the site to the Hospital:

Start Map [Hide](#)

A: 3117 Milton Ave, Solvay, NY 13209-2523

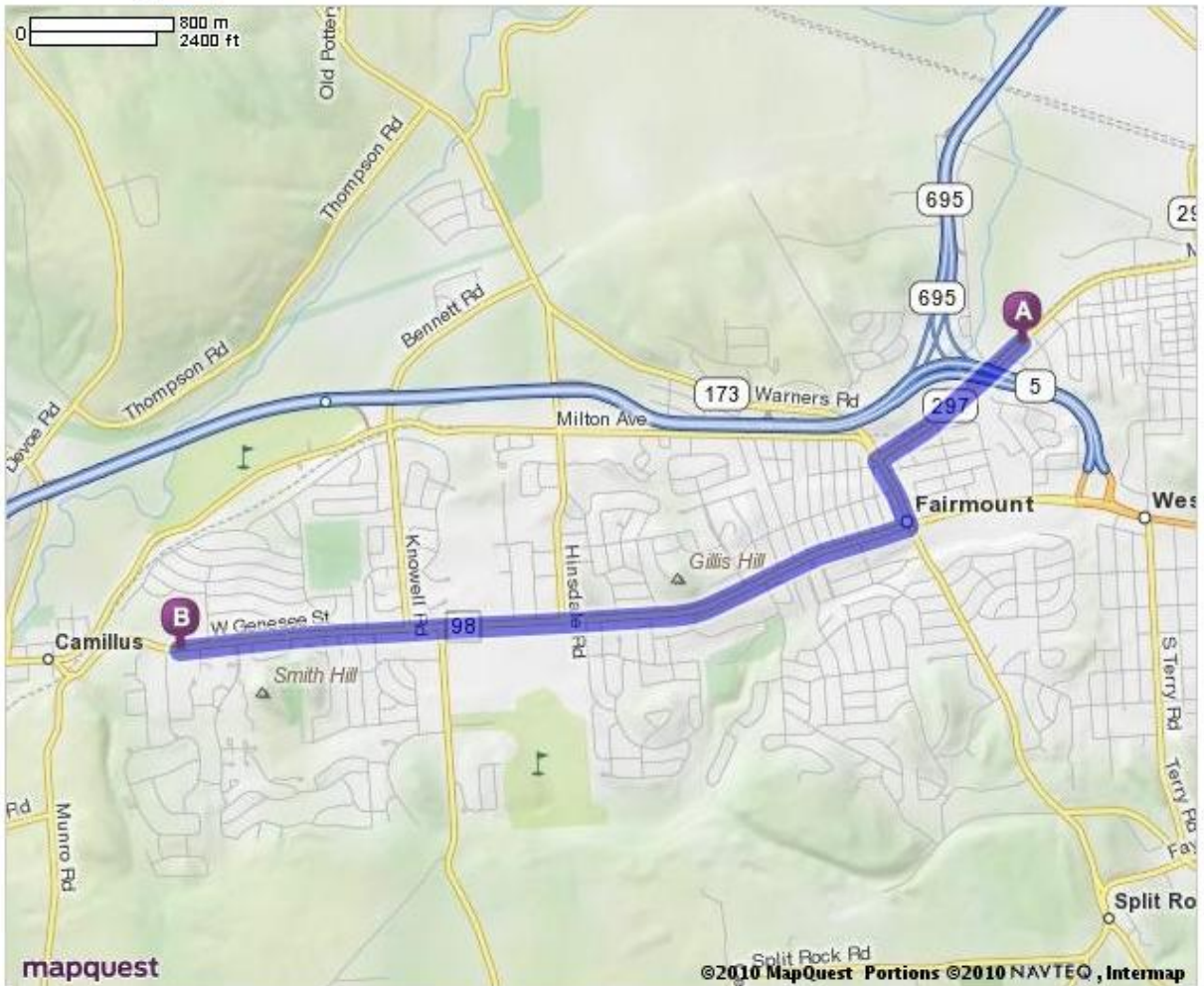


End Map [Hide](#)

B: 5700 W Genesee St, Camillus, NY 13031-3200



Route Map [Hide](#)



2.5.3 Response Procedures

2.5.3.1 Spill Control

A major spill is not anticipated at the site. Should a spill of any type occur, the employee should report it immediately to the Site Safety and Health Coordinator (SSHC)/Project Manager, who will make arrangements for the proper clean up of the spill. These arrangements will include diking and ditching, as necessary, as well as the use of absorbents such as vermiculite. The emergency response personnel will be contacted immediately by SSHC in the event that on-site materials can not immediately contain the spill.

2.5.3.2 Emergency Routes

Should an emergency signal be sounded, on-site personnel should immediately stop what they are doing, and return to the decontamination area. Personnel in the decontamination area and the support zone (refer to Sample Health and Safety Plan, Appendix D) should evaluate the emergency and contact the appropriate off site emergency personnel. Once on site personnel return to the decontamination area, there will be someone there to direct them as to what to do. It is imperative that the SSHC or designated alternate account for all site personnel. The SSHC should direct all personnel to the nearest safe refuge.

If the emergency event threatens the surrounding community, it is important that the local police and fire departments be contacted immediately regarding the potential danger.

As appropriate, the fire department and other emergency response groups will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 8). The list will also be prominently posted at the site and made readily available to all personnel at all times.

Unless otherwise directed, evacuation will be made through the decontamination area to the parking area for a head count.

2.5.3.3 Amendments to the Contingency Plan

Any proposed amendments to the contingency plan provided herein will be required to be submitted to the NYSDEC for review and approval prior to implementation. All site personnel shall be made aware of any and all changes, and revisions to the contingency plan shall be posted in a conspicuous location onsite. Potentially interested parties shall be made aware of said changes if applicable (i.e., emergency responders, waste disposal contractors, etc.).

3.0 Site Monitoring Plan

3.1 Introduction

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to mitigate contamination at the site, the soil cover system, and all affected site media identified below. Monitoring of other Engineering Controls is described in Chapter 4, Operation, Monitoring and Maintenance Plan. This Monitoring Plan may only be revised with the approval of NYSDEC.

3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g. soil vapor and soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly Part 375 SCO's for soil;
- Assessing achievement of the remedial performance criteria.
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, this Monitoring Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems (e.g., soil vapor logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Annual inspection and periodic certification.

Semi-annual monitoring of the performance of the remedy and overall reduction in contamination on-site will be conducted for the first year; and annually for the remainder of the program. The sampling frequency may be modified with the approval of the NYSDEC. Trends in contaminant levels in sub-slab vapors will be evaluated to determine if monitoring and overall system operation are no longer necessary. Monitoring programs are summarized in Table 5 and outlined in detail in Sections 3.2 and 3.3 below.

Table 5. Monitoring/Inspection Schedule				
Monitoring Program	Frequency*	Locations	Matrix	Analysis
Sub-Slab Vapor Monitoring	Semi-Annually for the first year; annually thereafter	Refer to Figure 5 of this SMP	Sub-slab vapors	VOCs
* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH				

3.2 Media Monitoring Program

3.2.1 Sub-Slab Vapor Monitoring

Sub-Slab Vapor monitoring will be performed on an annual basis to assess the performance of the SSD System.

The network of permanent sub-slab vapor survey points at both the northwest corner of the building and just north of the proposed engineering control has been installed to monitor both up-gradient and down-gradient vapor conditions at the site. The monitoring program will include collection of sub-slab vapor samples from each of the permanent vapor probes and submission for laboratory analysis.

The sampling frequency may be modified with the approval NYSDEC. The SMP will be modified to reflect changes in sampling plans approved by NYSDEC.

Deliverables for the vapor monitoring program are specified below.

3.2.1.1 Sampling Protocol

All vapor sampling activities will be recorded on a field log presented in Appendix B. The sampling log will serve as the inspection form for the vapor monitoring probe network.

Refer to the Sampling and Analysis Plan supplied as Appendix E for protocols.

3.2.1.2 Monitoring Probe Repairs, Replacement and Decommissioning

If biofouling or silt accumulation occurs in the on-site and/or off-site monitoring probes, the probes will be physically agitated/surged and redeveloped. Additionally, monitoring probes will be properly decommissioned and replaced (as per the Monitoring Plan), if an event renders the probes unusable.

Repairs and/or replacement of probes in the network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of monitoring probes for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent periodic report. Decommissioning without replacement will be done only with the prior approval of NYSDEC. Abandonment will be performed in accordance with NYSDEC procedures. Permanent vapor probes that are decommissioned because they have been rendered unusable will be reinstalled in the nearest available location, unless otherwise approved by the NYSDEC.

3.3 Site-Wide Inspection

Site-wide inspections will be performed on a regular schedule at a minimum of once a year until an alternate schedule is approved by NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect Engineering Controls or monitoring devices. During these inspections, an inspection form will be completed (Appendix F). The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;

- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- Compliance with permits and schedules included in the Operation and Maintenance Plan; and
- Confirm that site records are up to date.

3.4 Monitoring Quality Assurance/Quality Control

All sampling and analyses will be performed in accordance with the requirements of the Quality Assurance Project Plan (QAPP) prepared for the site (Appendix G). Main Components of the QAPP include:

- QA/QC Objectives for Data Measurement;
- Sampling Program:
 - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
 - Sample holding times will be in accordance with the NYSDEC ASP requirements.
 - Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.
- Sample Tracking and Custody;
- Calibration Procedures:
 - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.

- The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Analytical Procedures;
- Preparation of a Data Usability Summary Report (DUSR), which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.
- Internal QC and Checks;
- QA Performance and System Audits;
- Preventative Maintenance Procedures and Schedules;
- Corrective Action Measures.

3.5 Monitoring Reporting Requirements

Forms and any other information generated during regular monitoring events and inspections will be kept on file on-site. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP.

All monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. The report will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc);
- Copies of all field forms completed (e.g. chain-of-custody documentation, etc.);

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- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by NYSDEC. A summary of the monitoring program deliverables are summarized in Table 6 below.

Table 6. Schedule of Monitoring/Inspection Reports	
Task	Reporting Frequency*
Periodic Review Report	Annually
*The frequency of events will be conducted as specified until otherwise approved by NYSDEC.	

Table 7. Schedule of Inspections and Reports			
Program	Frequency*	Matrix	Analysis
Sub-Slab Vapor Monitoring	Semi-Annual First Year/ Annual thereafter	Vapors	VOCs
SSD System Monitoring	Bi-Annual	-	See Section 4.3.1 of SMP
Periodic Review Report	Annual	-	See Section 5.3 of SMP
Inspection Certifications	Annual		See Section 5.2
*The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH.			

4.0 Operation and Maintenance Plan

4.1 Introduction

This Operation and Maintenance Plan describes the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the site. This Operation and Maintenance Plan:

- Includes the steps necessary to allow individuals unfamiliar with the site to operate and maintain the sub-slab depressurization system;
- Includes an operation and maintenance contingency plan; and,
- Will be updated periodically to reflect changes in site conditions or the manner in which the sub-slab depressurization system are operated and maintained.

A copy of this Operation and Maintenance Plan, along with the complete SMP, will be kept at the site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of the SMP.

4.2 Engineering Control System Operation and Maintenance

Sub-slab Depressurization System

Design information (including completed construction drawings) shall be kept on file along with this document and shall be made accessible to the NYSDEC upon request.

The purpose of a sub-slab depressurization system is to create negative pressure (in relation to ambient pressure) directly under an existing or proposed structure. This negative pressure field becomes the path of least resistance for any gases present below or in the vicinity of the structure. VOCs pulled into this pressure field, either passively or with the assistance of a fan or blower, of this negative pressure field are collected in a series of pipes and are piped to an ambient air discharge point (outside of the structure).

The SSD system(s) was designed in conformance with standard engineering principles and practices.

4.2.1 System Start-Up and Testing

The system testing described below will be conducted if, in the course of the sub-slab depressurization system lifetime, significant changes are made to the system, and the system must be restarted.

Start-up of the system should not occur until several hours after the extraction hole has been grouted, to allow the grout to cure. Otherwise, the fan/blower could draw moisture from the wet grout and cause the patch to shrink and crack.

Once start-up has occurred, the following confirmatory test should be performed to illustrate proper functioning of the system:

- **Confirmation of Pressure Field** – The primary performance standard which should be used to confirm effective SSD system operation is the demonstration of a negative pressure field extending under the entire slab. Pressure and/or smoke testing at representative/"worst case" test holes after system startup should provide sufficient information to demonstrate the presence of a negative pressure field. After the pressure field is confirmed following system start-up, monitoring of the in-line manometer or other pressure gauge should be an adequate indicator of satisfactory system operation.

A report detailing the SSD system installation and operation shall be submitted to the NYSDEC after system start-up. This report should generally include the following: a plan or sketch outlining the locations of all system components and vacuum monitoring points; a brief account of field operations associated with the SSD system installation and startup; initial post-startup smoke/pressure test data and flow rate readings from the extraction and monitoring points; and a description of backdraft evaluation and documentation that a backdraft situation is not occurring.

4.2.2 System Operation: Routine Operation Procedures

If sub-slab data continues to indicate elevated concentrations of VOCs, further evaluation may be necessary to determine if the SSD system is functioning properly or if the SSD system requires modification or expansion.

4.2.3 System Operation: Routine Equipment Maintenance

The warning device should be inspected on a regular basis to make sure the system is working correctly. Additionally, the seals around suction joins should be regularly inspected.

Periodic monitoring (e.g., annual) will be conducted to document SSD system operation in accordance with performance standards. Monitoring reports on SSD systems should generally include: smoke/pressure test data and flow rate readings; laboratory and screening results (if conducted); and any problems/changes made to the system.

4.2.4 System Operation: Non-Routine Equipment Maintenance

During cooler weather, unintended trapping of moisture condensation in horizontal runs can compromise system performance. Maintenance should include inspection for such inadvertent effects and, if identified, moisture should be removed from the system to ensure continued system performance.

Fans may last for five years or more, and may then need to be repaired or replaced. It is good practice to install the fan in a manner that enables easy removal/replacement.

4.3 Engineering Control System Performance Monitoring

4.3.1 Monitoring Schedule

The sub-slab depressurization system will be tested after installation, once the system has been operational for 24 hours or more. A follow-up test will be conducted every two years to monitor the system's continued effectiveness.

Inspection frequency is subject to change with the approval of the NYSDEC. Unscheduled inspections and/or sampling may take place when a suspected failure of the SSD system has been reported or an emergency occurs that is deemed likely to affect the operation of the system. Monitoring deliverables for the SSD system are specified later in this Plan.

4.3.2 General Equipment Monitoring

A visual inspection of the complete system will be conducted during the monitoring event. SSD system components to be monitored include, but are not limited to, the following:

- Vacuum blower
- Changes in facility layout
- General system piping
- Seals and penetrations
- Ventilators
- Warning device

A complete list of components to be checked is provided in the Inspection Checklist, presented in Appendix H. If any equipment readings are not within their typical range, any equipment is observed to be malfunctioning, or the system is not performing within specifications, maintenance and repair as per the Operation and Maintenance Plan are required immediately, and the SSD system restarted.

4.3.3 System Monitoring Devices and Alarms

The SSD system has a warning device to indicate that the system is not operating properly. System warning device(s) or notifications may consist of a liquid gauge, a sound alarm, a light indicator, or a needle display, to alert occupants of a system malfunction or drop in flow. In the event that the warning device is activated, applicable testing, maintenance, and repairs will be conducted, as specified in this Plan, and the SSD system restarted. Operational problems will be noted in the subsequent Periodic Review Report.

As an added level of comfort, a carbon monoxide detector should be considered where backdrafting is, or becomes, a possibility. If installed, ensure that it is regularly tested per manufacturers' recommendations.

4.4 Maintenance and Performance Monitoring Reporting Requirements

Maintenance reports and any other information generated during regular operations at the site will be kept on-file on-site. All reports, forms, and other relevant information generated will be available upon request to the NYSDEC and submitted as part of the Periodic Review Report, as specified in the Section 5 of this SMP.

4.4.1 Routine Maintenance Reports

Checklists or forms will be completed during each routine maintenance event. Checklists/forms will include, but not be limited to the following information:

- Date;
- Name, company, and position of person(s) conducting maintenance activities;
- Maintenance activities conducted;
- Any modifications to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

4.4.2 Non-Routine Maintenance Reports

During each non-routine maintenance event, a form will be completed which will include, but not be limited to, the following information:

- Date;

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- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Presence of leaks;
- Date of leak repair;
- Other repairs or adjustments made to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and,
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

5.0 Inspections, Reporting and Certifications

5.1 Site Inspections

5.1.1 *Inspection Frequency*

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan of this SMP, as the same may be revised from time to time with NYSDEC approval. At a minimum, a site-wide inspection will be conducted annually. Inspections of remedial components will also be conducted when a breakdown of any treatment system component has occurred or whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

5.1.2 *Inspection Forms, Sampling Data, and Maintenance Reports*

All inspections and monitoring events will be recorded on the appropriate forms for their respective system, which are contained in Appendix H. Additionally, a general site-wide inspection form will be completed during the site-wide inspection (see Appendix F). These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including all media sampling data and system maintenance reports, generated for the site during the reporting period will be provided in electronic format in the Periodic Review Report.

5.1.3 *Evaluation of Records and Reporting*

The results of the inspection and site monitoring data will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented;
- Operation and maintenance activities are being conducted properly; and, based on the above items,

- The site remedy continues to be protective of public health and the environment and is performing as designed in the RAWP.

5.2 Certification of Engineering and Institutional Controls

After the last inspection of the reporting period, a qualified environmental professional or Professional Engineer licensed to practice in New York State will prepare the following certification:

For each institutional or engineering control identified for the site, I certify to the best of my knowledge and believe that all of the following statements are true:

- The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the site is compliant with the Environmental Easement;
- The engineering control systems are performing as designed and are effective;

- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices; and
- The information presented in this report is accurate and complete.
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner or Owner's Designated Site Representative].

The signed certification will be included in the Periodic Review Report described below.

5.3 Periodic Review Report

A Periodic Review Report will be submitted to the Department every year, beginning eighteen months after the Certificate of Completion or equivalent document is issued. In the event that the site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the site described in Appendix I (Metes and Bounds). The report will be prepared in accordance with NYSDEC DER-10 and submitted within 45 days of the end of each certification period. Media sampling results will also be incorporated into the Periodic Review Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site;
- Results of the required annual site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the site during the reporting period in electronic format;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables and graphical representations of contaminants of concern by media (soil vapor), which include a listing of all compounds analyzed, along

with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends;

- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- A site evaluation, which includes the following:
 - The compliance of the remedy with the requirements of the site-specific RAWP;
 - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
 - Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
 - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
 - The overall performance and effectiveness of the remedy.

The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Central Office and Regional Office in which the site is located, and in electronic format to NYSDEC Central Office, Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.

5.4 Corrective Measures Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a corrective measures plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective

measures plan until it is approved by the NYSDEC. Submission of a Corrective Measure Plan will not be required for routine repairs to the SSD system to maintain its designed use.

6.0 References

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Site Management Plan

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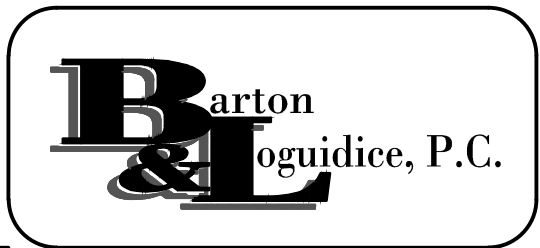
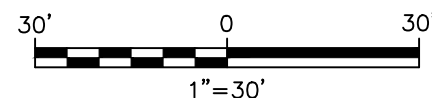
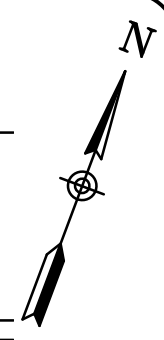
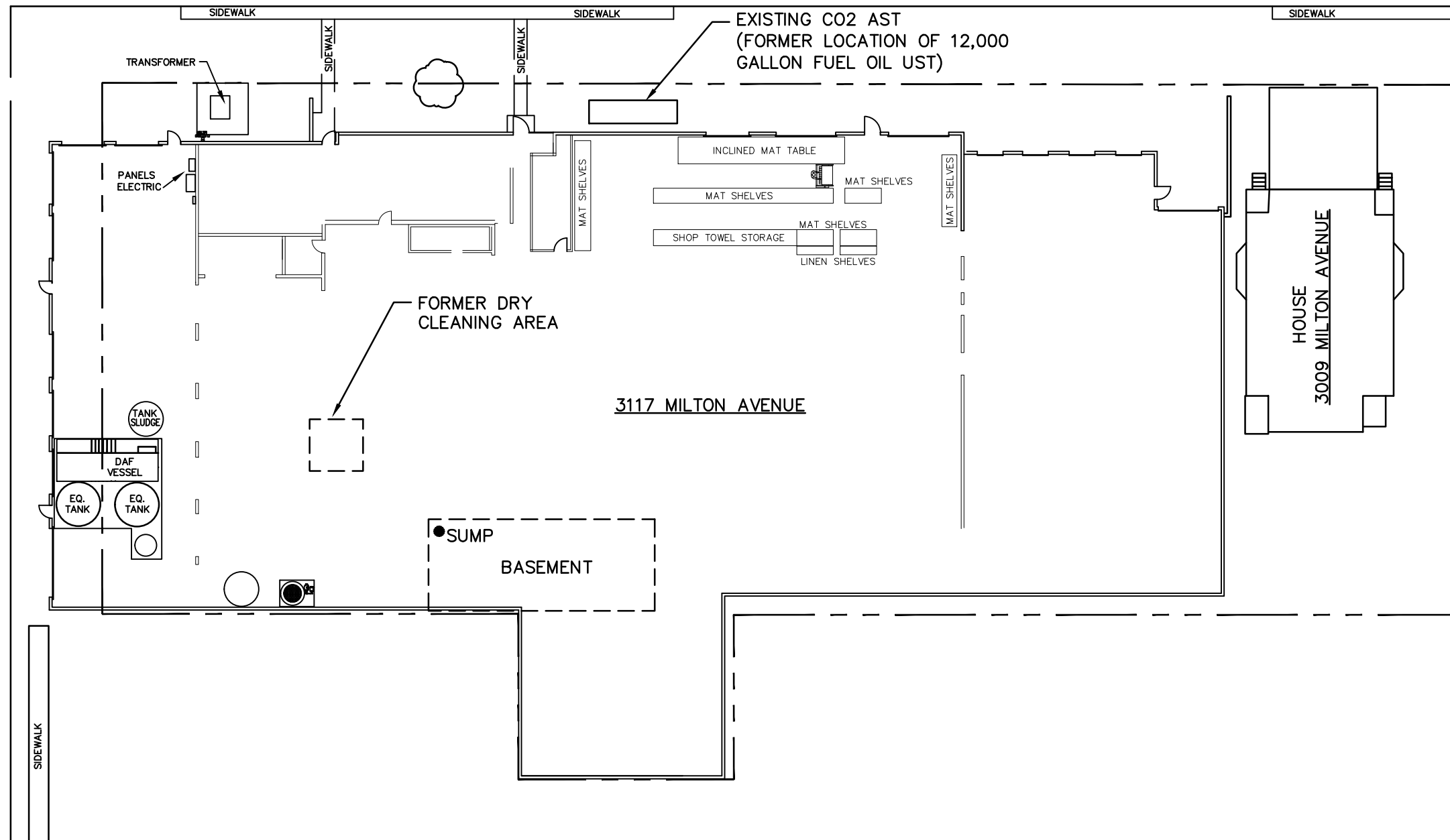
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Figure 1

Site Plan

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BAILEY AVENUE



ARAMARK UNIFORM SERVICES (SYRACUSE), LLC

SITE PLAN

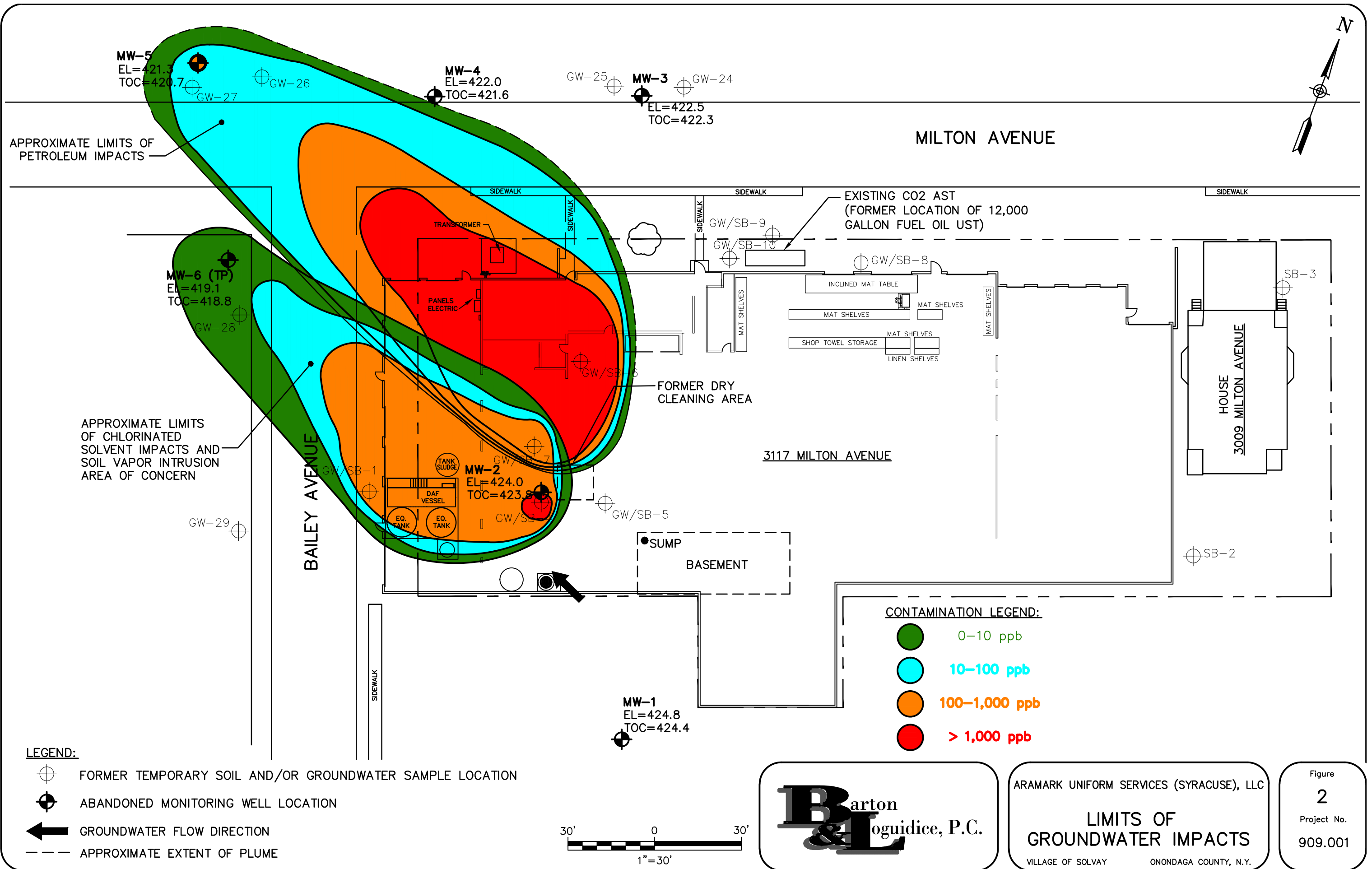
VILLAGE OF SOLVAY ONONDAGA COUNTY, N.Y.

Figure
1
Project No.
909.001

Figure 2

**Limits of Remaining Contamination
(includes soil vapor intrusion area of concern)**

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Barton & Loguidice, P.C.

ARAMARK UNIFORM SERVICES (SYRACUSE), LLC

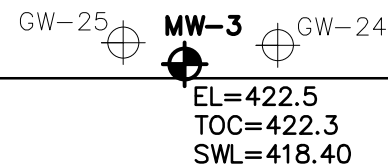
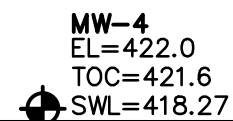
LIMITS OF GROUNDWATER IMPACTS

VILLAGE OF SOLVAY ONONDAGA COUNTY, N.Y.

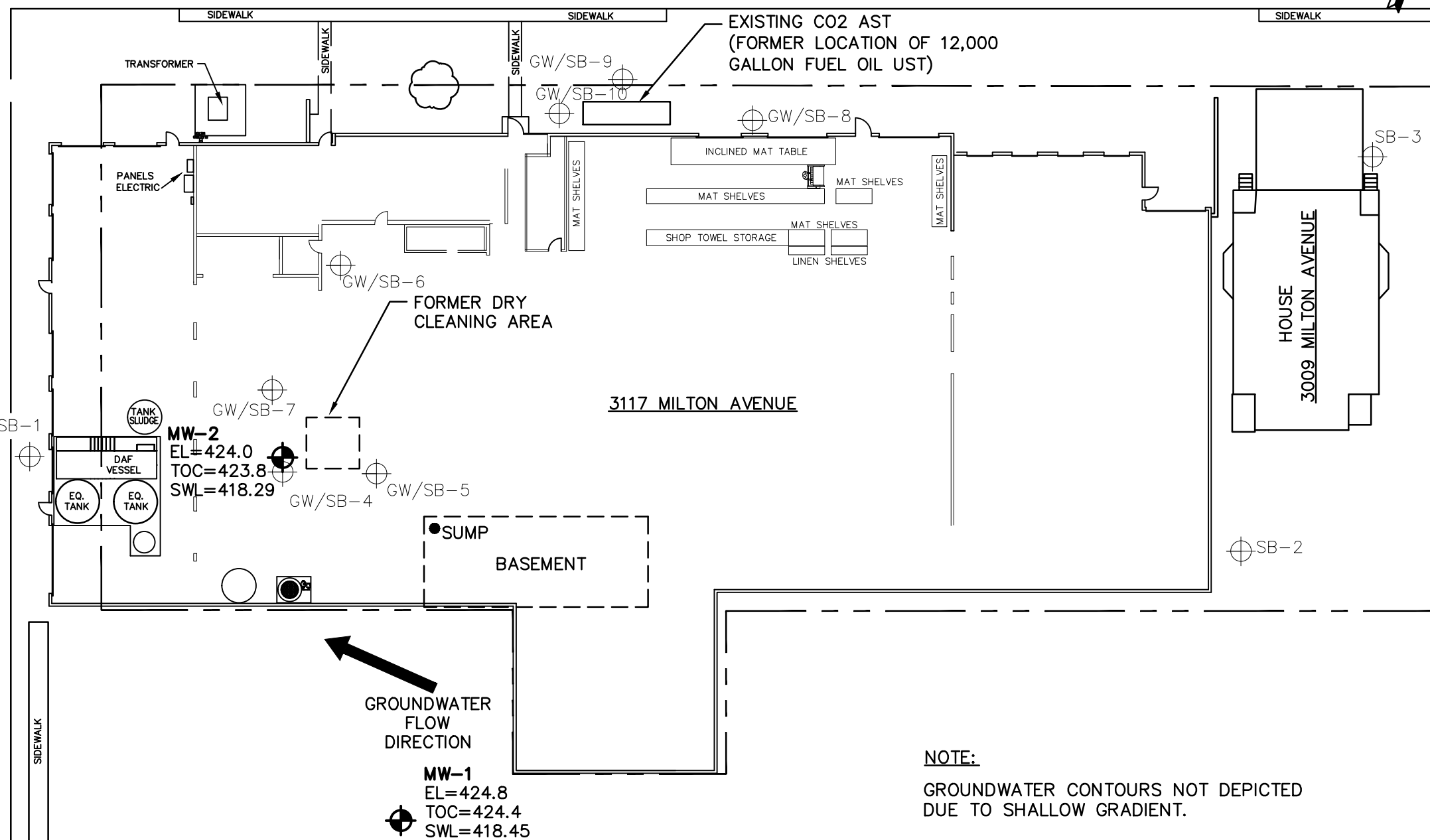
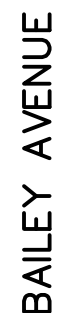
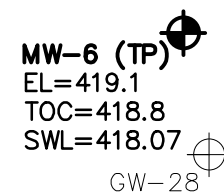
Figure 2

Project No. 909.001

Figure 3
Groundwater Elevations -April 2005



MILTON AVENUE



NOTE:

GROUNDWATER CONTOURS NOT DEPICTED
DUE TO SHALLOW GRADIENT.

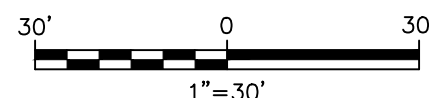
LEGEND:



EL = RIM ELEVATION

TOC = TOP OF CASING ELEVATION

SWL = STATIC WATER LEVEL ELEVATION



ARAMARK UNIFORM SERVICES (SYRACUSE), LLC

GROUNDWATER ELEVATIONS (APRIL 2005)

VILLAGE OF SOLVAY

ONONDAGA COUNTY, N.Y.

Figure

5

Project No.

909.001

Figure 4
Groundwater Elevations -June 2005

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MW-5
EL=421.3
TOC=420.7
SWL=418.18

GW-26

MW-4
EL=422.0
TOC=421.6
SWL=417.15

GW-25

MW-3
EL=422.5
TOC=422.3
SWL=417.24

GW-24

MILTON AVENUE

MW-6 (TP)
EL=419.1
TOC=418.8
SWL=417.20

GW-28

GW-29

BAILEY AVENUE

GW/SB-1

TRANSFORMER

PANELS ELECTRIC

TANK SLUDGE

DAF VESSEL

EQ. TANK

EQ. TANK

MW-2
EL=424.0
TOC=423.8
SWL=417.20

GW/SB-7

GW/SB-4

GW/SB-5

SUMP

BASEMENT

GROUNDWATER
FLOW
DIRECTION

MW-1
EL=424.8
TOC=424.4
SWL=417.39 (DRY)

SIDEWALK

SIDEWALK

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EXISTING CO2 AST
(FORMER LOCATION OF 12,000
GALLON FUEL OIL UST)

GW/SB-9

GW/SB-10

GW/SB-8

INCLINED MAT TABLE

MAT SHELVES

MAT SHELVES

SHOP TOWEL STORAGE

MAT SHELVES

LINEN SHELVES

MAT SHELVES

MAT SHELVES

MAT SHELVES

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MAT SHELVES

SIDEWALK

SB-3

SB-2

HOUSE
3009 MILTON AVENUE

NOTE:

GROUNDWATER CONTOURS NOT DEPICTED
DUE TO SHALLOW GRADIENT.

LEGEND:

- FORMER TEMPORARY SOIL AND/OR GROUNDWATER SAMPLE LOCATION
- ABANDONED MONITORING WELL LOCATION
- GROUNDWATER FLOW DIRECTION
- EL = RIM ELEVATION
- TOC = TOP OF CASING ELEVATION
- SWL = STATIC WATER LEVEL ELEVATION

30' 0 30'
1"=30'

Barton
& L
loguidice, P.C.

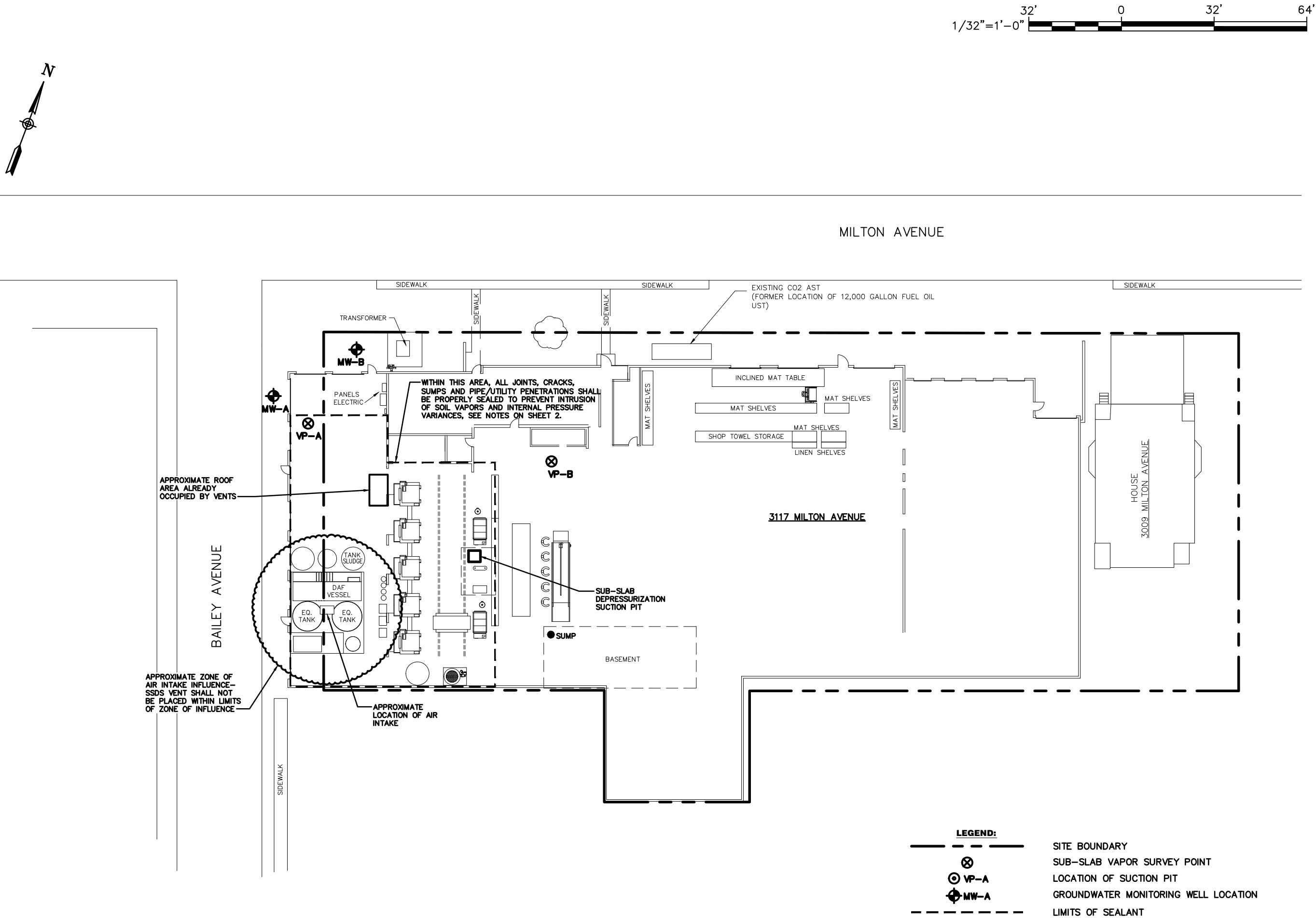
ARAMARK UNIFORM SERVICES (SYRACUSE), LLC
GROUNDWATER ELEVATIONS
(JUNE 2005)
VILLAGE OF SOLVAY ONONDAGA COUNTY, N.Y.

Figure
4
Project No.
909.001

Figure 5

**Proposed Suction Pit and
Post Construction Monitoring Locations**

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ARAMARK UNIFORM SERVICES (SYRACUSE), LLC.

SITE MANAGEMENT PLAN
SITE MANAGEMENT PLAN
MONITORING LOCATIONS

VILLAGE OF SOLVAY

ONONDAGA COUNTY, NEW YORK



Date
FEBRUARY, 2012


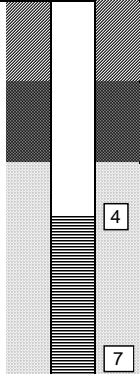
Scale
AS SHOWN

Figure Number
5

Project Number
909.001

Appendix A

Monitoring Well Boring and Construction Logs

		<h2 style="text-align: center;">SUBSURFACE INVESTIGATION LOG</h2>		BORING NO. <u> MW-1 </u> B & L Project No. <u> 909.001 </u>					
Project: <u>ARAMARK - Solvay</u>									
Client: <u>The Wetlands Company</u>									
Project Location: <u>3009 & 3007 Milton Avenue - Solvay</u>									
Drill Rig: <u>Tripod</u>			Elevation <u> </u> Datum: <u> </u>						
Casing <u>na</u>			Northing: <u> </u> Easting: <u> </u>						
Soil Sampler: <u>3-in split spoon</u>			Start Date: <u>4/6/2005</u> Finish Date: <u>same</u>						
Sample Hammer Wt. <u>na</u> Fall: <u>na</u> inches			Contractor: <u>Geologic - Northstar</u>						
Rock Sampler: <u>NA</u>			Driller: <u>Tripod field crew</u>						
Other: <u>GS EI = 424.8 TOC EI. = 424.4</u>			Geologist: <u>RLV</u>						
Depth	Sample Type	Blows per 6"	N or RQD %	Recovery (ft)	PID (PPM)	Headspace	Material Description	Well Completion Details	
—		na	na	0.75	<1	<1	Topsoil Boring located in grassy yard of adjoining property to north of site structure 0-1.5'		
—		na	na	0.75	<1	<1	GC (resembles till): Gravel; sub-angular to sub-rounded sandy, clayey, slightly silty, increasing moisture with depth but not saturated, slightly moist to moist range, light brown with oxidation staining. 1.5-7'		Bentonite Chips 1.5-3'
5		na	na	0.50	<1	<1			#0 Morie Sand Pack from 3-7'
—		na	na	0.5	<1	<1			
10							Bedrock based on dolostone fragments in spoon shoe Unable to advance past 7' with tripod, spoon bouncing on rock.		Flush-mount well completion with locking j-plug cap. Threaded end cap at bottom of casing. PVC screen is 0.010 continuous wrap.
—									
—									
15									
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Notes:									
Page									



SUBSURFACE INVESTIGATION LOG

BORING NO. MW-2

B & L Project No. 909.001

Project: **ARAMARK - Solvay**

Client: **The Wetlands Company**

Project Location: **3009 & 3007 Milton Avenue - Solvay**

Drill Rig: Geoprobe	Elevation: _____ Datum: _____
Casing: 3" split spoon	Northing: _____ Easting: _____
Soil Sampler: 3" split spoon	Start Date: 4/5/2005 Finish Date: same
Sample Hammer Wt. na Fall: na inches	Contractor: Geologic - Northstar
Rock Sampler: Portable HQ core unit	Driller: Scott Breeds
Other: GS EI = 424.0 TOC EI. = 423.8	Geologist: RLV

Depth	Sample Type	Blows per 6"	N or RQD %	Recovery (ft)	PID (PPM)	Headspace	Material Description	Well Completion Details
							Concrete slab cored 0-0.83' to access soil	<p>Grout 0-2'</p> <p>Bentonite Chips 2-3.5'</p> <p>#0 Morie Sand Pack from 3.5-12.5'</p>
		na	na	1.5	<10	5	GM: 1 - 5 ft Gravel; angular to sub-angular, sandy; fine to coarse-grained, silty, slightly clayey, brown, moist.	
		na	na	47	25			
5		na	na	4	3		GC: 5-8.5 ft Gravel, angular to sub-angular, sandy; fine to coarse-grained, clayey; low to medium plasticity, slightly silty, brown with dark gray to black lenses, moist to very moist (water perched between clays and silts)	
		na	na	12	4			
		na	na	0.50	23	12	SM: 8.5-12 ft Sand; fine to medium-grained, silty to very silty, upper 0.5' wet, slightly moist to moist from 9.5-11. Noticeable petroleum odor	
10		na	na	1.5	270	75		
		na	na	0.8	12	9		
							GM (resembles till) similar to MW-6, MW-5, MW-4	
15							Gravel; sub-rounded to sub-angular, very silty, slightly sandy to sandy, slightly clayey, reddish brown to brown, oxidation staining, slightly moist to moist.	

Flush-mount well completion with locking j-plug cap. Threaded end cap at bottom of casing. PVC screen is 0.010 continuous wrap.

Notes:



SUBSURFACE INVESTIGATION LOG

BORING NO. MW-3

B & L Project No. 909.001

Project: **ARAMARK - Solvay**

Client: **The Wetlands Company**

Project Location: **3009 & 3007 Milton Avenue - Solvay**

Drill Rig: **CME 45T** Elevation _____ Datum: _____

Casing **4.25 HAS** Northing: _____ Easting: _____

Soil Sampler: **2-in Split Spoon** Start Date: **4/4/2005** Finish Date: **same**

Sample Hammer Wt. **140 lbs** Fall: **30 inches** Contractor: **Geologic - Northstar**

Rock Sampler: **NA** Driller: **Scott Breeds**

Other: **GS EI = 422.5 TOC EI. = 422.3** Geologist: **RLV**

Depth	Sample Type	Blows per 6"	N or RQD %	Recovery (ft)	PID (PPM)	Headspace	Material Description	Well Completion Details
—	—	20/10/6/5	na	1.0	<1	<1	ARTIFICIAL FILL: Gravel and rock fragments, sand, silt, gray to brown, dry to slightly moist 0-4 ft	<p>Grout 0-1'</p> <p>Bentonite Chips 1-3'</p>
—	—	4/3/4/4	na	1.0	<1	<1		
5	—	2/1/1/2	na	0.75	<1	<1	SC (resembles till): Sand; fine to coarse-grained, silty 4-5.5 ft slightly gravelly, slightly clayey, light brown, dry	<p>#0 Morie Sand Pack from 3-12'</p>
—	—	2/1/1/1	na	2.0	<1	<1	CL: Clay; low plasticity, silty to very silty, slightly sandy; fine grained, dark brown to brown-gray, moist to very moist 5.5-10.5 ft	
10	—	2/3/4/5	na	2.0	<1	<1		
—	—	17/19/24/36	na	2.0	<1	<1	SM (resembles till): Silt, slightly sandy to sandy, slightly clayey to clayey, slightly gravelly, reddish brown, slightly moist 10.5 - TD	
15	—	50 for 0.2"		0.2			Boring TD at 12' due to contact with dense till	<p>Flush-mount well completion with locking j-plug cap. Threaded end cap at bottom of casing. PVC screen is 0.010 continuous wrap.</p>
—	—							
—	—							
—	—							
—	—							

Notes:



SUBSURFACE INVESTIGATION LOG

BORING NO. MW-4

B & L Project No. 909.001

Project: **ARAMARK - Solvay**

Client: **The Wetlands Company**

Project Location: **3009 & 3007 Milton Avenue - Solvay**

Drill Rig: **CME 45T** Elevation _____ Datum: _____

Casing **4.25 HAS** Northing: _____ Easting: _____

Soil Sampler: **2-in Split Spoon** Start Date: **4/4/2005** Finish Date: **same**


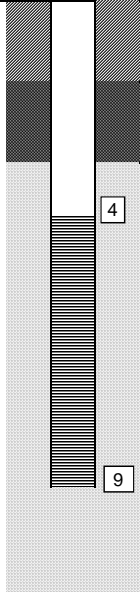
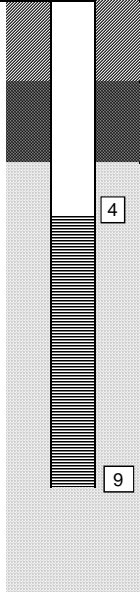
Sample Hammer Wt. **140 lbs** Fall: **30 inches** Contractor: **Geologic - Northstar**

Rock Sampler: **NA** Driller: **Scott Breeds**

Other: **GS EI = 422.0 TOC EI. = 421.6** Geologist: **RLV**

Depth	Sample Type	Blows per 6"	N or RQD %	Recovery (ft)	PID (PPM)	Headspace	Material Description	Well Completion Details
—	—	18/9/6/4	na	0.9	<1	<1	ARTIFICIAL FILL: Gravel and rock fragments, sand, silt, gray to brown, dry to slightly moist 0-5 ft	<p>Grout 0-1.5'</p> <p>Bentonite Chips 1.5-3.5'</p> <p>#0 Morie Sand Pack from 3.5-14'</p> <p>5</p> <p>12</p>
—	—	2/2/2/2	na	0.0	-	-		
5	—	2/1/1/1	na	0.75	<1	<1		
—	—	2/1/1/1	na	2.0	<1	<1	SC (resembles till): Sand; fine to coarse-grained, silty slightly gravelly, slightly clayey, light brown, dry 5-7 ft	
—	—	1/3/3/3	na	2.0	<1	<1	CL: Clay; low to medium plasticity, silty to very silty, slightly sandy; fine grained, coal fragments from 7-8 ft, dark brown to dark gray to black, gleying from 8.5-12 ft, very moist to wet at 8 ft. 7-12 ft	
10	—	1/1/3/5	na	2.0	<1	<1		
—	—	8/15/50 for 0.3"	na	2.0	<1	<1	GM (resembles till): Gravel; sub-rounded to sub-angular, very silty, slightly sandy to sandy, slightly clayey to clayey, slightly gravelly, reddish brown, oxidation, wet at interface with above clay unit, transitions to slightly moist 10.5 - TD	
15	—	50 for 0.2"					Spoon refusal at 14.2 ft in dense till	<p>Flush-mount well completion with locking j-plug cap. Threaded end cap at bottom of casing. PVC screen is 0.010 continuous wrap.</p>
—	—							
—	—							
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Notes:

		SUBSURFACE INVESTIGATION LOG		BORING NO. <u> MW-5 </u>				
				B & L Project No. <u> 909.001 </u>				
Project: ARAMARK - Solvay								
Client: The Wetlands Company								
Project Location: 3009 & 3007 Milton Avenue - Solvay								
Drill Rig: CME 45T			Elevation Datum: 					
Casing 4.25 HAS			Northing: Easting: 					
Soil Sampler: 2-in Split Spoon			Start Date: 4/6/2005 Finish Date: same					
Sample Hammer Wt. 140 lbs Fall: 30 inches			Contractor: Geologic - Northstar					
Rock Sampler: NA			Driller: Scott Breeds					
Other: GS EI = 421.3 TOC EI. = 420.7			Geologist: DMJ					
Depth	Sample Type	Blows per 6"	N or RQD %	Recovery (ft)	PID (PPM)	Headspace	Material Description	Well Completion Details
—		19/12/10/8	na	0.75	<1	<1	ARTIFICIAL FILL: Gravel and rock fragments, sand, silt, gray to brown, dry to slightly moist 0-5 ft	 <div style="position: absolute; top: 0; right: 0; width: 100px;">Grout 0-1.5'</div> <div style="position: absolute; top: 10%; right: 0; width: 100px;">Bentonite Chips 1.5-3'</div> <div style="position: absolute; top: 45%; right: 0; width: 100px;">#0 Morie Sand Pack from 3-11</div>
—		2/2/2/2	na	1.75	--	--		
5		2/1/1/2	na	2.00	<1	<1		
—		1/1/1/2	na	2.0	<1	<1		
—							SC (resembles till): Sand; fine to coarse-grained, silty slightly gravelly, slightly clayey, light brown, dry 5-7 ft	 <div style="position: absolute; top: 0; right: 0; width: 100px;">Grout 0-1.5'</div> <div style="position: absolute; top: 10%; right: 0; width: 100px;">Bentonite Chips 1.5-3'</div> <div style="position: absolute; top: 45%; right: 0; width: 100px;">#0 Morie Sand Pack from 3-11</div>
—		2/3/2/2	na	2.0			CL: Clay; low to medium plasticity, silty to very silty, slightly sandy; fine grained, coal fragments from 8-9 ft, dk brown to dark gray to black, petroleum odor 9-10 ft, very moist to wet at 7.5 ft. 7-11 ft	
10		2/1/2/4	na	2.0	<1	<1	GM (resembles till): Gravel; sub-rounded to sub-angular, very silty, slightly sandy to sandy, slightly clayey to clayey, slightly gravelly, reddish brown, oxidation, wet at interface with above clay unit, transitions to slightly moist 11 - TD	
—		16/50 for 0.2"	na	2.0	<1	<1		
15								
—							Spoon refusal at 12.25 ft in dense till	Flush-mount well completion with locking j-plug cap. Threaded end cap at bottom of casing. PVC screen is 0.010 continuous wrap.
—								
—								
—								
Notes:								



SUBSURFACE INVESTIGATION LOG

BORING NO. MW-6

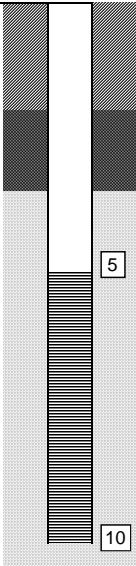
B & L Project No. 909.001

Project: **ARAMARK - Solvay**

Client: **The Wetlands Company**

Project Location: **3009 & 3007 Milton Avenue - Solvay**

Drill Rig: CME 45T	Elevation: _____ Datum: _____
Casing: 4.25 HAS	Northing: _____ Easting: _____
Soil Sampler: 2-in Split Spoon	Start Date: 4/6/2005 Finish Date: same
Sample Hammer Wt. 140 lbs Fall: 30 inches	Contractor: Geologic - Northstar
Rock Sampler: NA	Driller: Scott Breeds
Other: GS EI = 419.1 TOC EI. = 418.8	Geologist: RLV

Depth	Sample Type	Blows per 6"	N or RQD %	Recovery (ft)	PID (PPM)	Headspace	Material Description	Well Completion Details
		1/2/1/1	na	0.50	<1	<1	Topsoil 0-1.5' Boring located in grassy yard of adjoining property west of Bailey	 <p>Grout 0-2'</p> <p>Bentonite Chips 2-3.5'</p> <p>#0 Morie Sand Pack from 3.5-10.5'</p>
		2/2/1/1	na	1.50	<1	<1	GC (resembles till): Gravel; sub-angular to sub-rounded sandy, clayey, slightly silty, increasing moisture with depth, wet at 6', dark brown, dark gray/black lense at ~5 ft with petroleum odor (nothing on PID)	
5		1/1/3/2	na	1.75	<1	<1		
		2/3/10/30	na	2.0	<1	<1		
10		22/ 50 for 0.4"	na	0.25	<1	<1	GM (resembles till.): similar to MW-5 and MW-4	
							9 - TD Gravel; sub-rounded to sub-angular, very silty, slightly sandy to sandy, slightly clayey, reddish brown to brown, oxidation staining, slightly moist to moist.	
							(boring terminated at 10 ft due to transition to dense till)	Flush-mount well completion with locking j-plug cap. Threaded end cap at bottom of casing. PVC screen is 0.010 continuous wrap.
15								

Flush-mount well completion with locking j-plug cap. Threaded end cap at bottom of casing. PVC screen is 0.010 continuous wrap.

Notes:

Appendix B

Groundwater Monitoring Well and Sub-Slab
Vapor Sampling Log Forms



AIR SAMPLING DATA SHEET

SITE: ARAMARK Solvay Uniform Services (Syracuse), LLC **SAMPLE LOCATION:** _____

CLIENT: ARAMARK Solvay Uniform Services (Syracuse), LLC **JOB #:** _____

Weather Conditions: -- Temp: _____

SAMPLE TYPE: Soil Vapor ☐ Indoor Air ☐ Other (specify): _____
Sub-Slab ☐ Outdoor Air ☐ _____

SAMPLE DATA

Sample Tubing Length (feet):	
Tubing Diameter (feet):	
Volume $\text{ft}^3 = \pi \times \text{radius}^2 \times h$, multiply by 28,317 to convert to milliliters	
Volume in Air Tubing (milliliters):	

(approximately 9ml/ft for 0.25" ID tubing)

Concrete Slab Thickness: _____

Noticeable Cracks: _____

Sub-Slab Moisture: _____

Soil Moisture: _____

PURGING METHOD

Equipment: Syringe ☐
Calibrated AirCheck ☐ ml/minute flow rate =

Volume of Air Purged (ml): _____

Sampled By: _____

Date: _____ Time: _____

SAMPLING METHOD

Equipment: 400-cc MiniCan ☐ 4-Liter Summa ☐ Regulator Inflow Rate: _____
1-Liter Summa ☐ 6-Liter Summa ☐ Sample Duration (hrs): _____
1.4 Liter Summa ☐

Sampled by: _____ Time: _____ Date: _____

Start -

Stop -

SAMPLE PROBE CONSTRUCTION

Construction Method: _____

Non-VOC Sealant Used: _____

Backfill Material (if necessary): _____

Probe Abandonment Method: _____

Reg #

Can#

Field Observations/Interior Descriptions/Potential VOC sources

Samples Collected (Number/Type): _____

Samples Delivered to: _____ Time: _____ Date: _____

COMMENTS: _____

Appendix C
Excavation Work Plan

**ARAMARK Uniform Services (Syracuse), LLC
Christopher Service Company Site
3009 and 3117 Milton Avenue
Village of Solvay, New York**

**Voluntary Cleanup Project
VCP Site #V00665-7**

Excavation Work Plan

April 2011

ARAMARK Uniform Services (Syracuse), LLC
Voluntary Cleanup Program

Village of Solvay
Onondaga County, New York

Excavation Work Plan

Voluntary Cleanup Agreement (VCA) Index #B7-0643-03-09
VCP Site #V00665-7

April 2011

Prepared for:

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and

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Burbank, California 91502

Prepared by:

Barton & Loguidice, P.C.
Engineers • Environmental Scientists • Planners • Landscape Designers
290 Elwood Davis Road
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Syracuse, New York 13220



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1.0 Notification

At least 7 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the Department provided that such advance notice will not be required in the event of an emergency and as long as a follow-up description of the work is provided within 48 hours. Currently, this notification will be made to:

Brian Davidson
Environmental Geologist
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233-7016

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP:
 - Simple excavations may only require compliance with a portion of the EWP. For example, excavation of a small volume of soil from above the water table that is directly loaded for off-site disposal would not require the stockpiling or fluids management provisions of this template.

- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan, in electronic format, if it differs from the HASP provided in the appendices of the associated Site Management Plan;
- Identification of disposal facilities for potential waste streams;
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

2.0 Soil Screening Methods

Excavated soils from areas anticipated to contain remaining contamination and located outside of the existing building footprint will undergo instrument based and field identification screening. Instrument based screening will consist of utilizing a photoionization detector (PID), and field identification screening will be based on visual and olfactory observations. This screening will be conducted in-situ, or from the excavator bucket on successive 2-foot lifts of soil removed from the excavation. This soil will be segregated as follows:

- Material that requires analytical testing:
 - Soils generated from areas anticipated to contain remaining contamination and located outside of the existing building footprint with PID readings equal or greater to 50 ppm or that exhibit potential contamination through field identification screening. All soil that requires testing will be stockpiled in accordance with Section 3.0.
- Material that requires off-site disposal under the criteria identified in Section 7.0:
 - Soils that required analytical testing based on the results of instrument based and field identification screening and were determined to have contaminant concentrations in excess of Part 375 Protection of Groundwater Standards. Sampling and analytical testing will be conducted as outlined in Section 7.0.
- Material that can be returned to the subsurface under the criteria identified in Section 7.0 :
 - Soil for which PID readings were less than 50 ppm and did not exhibit signs of contamination through field identification screening

- Soils that were tested and had concentrations less than Part 375 Protection of Groundwater Standards. These soils must be replaced in-kind, and not at a different depth from which they were removed.

Soils outside of the “Limits of Remaining Contamination” shown on Figure 2 in the SMP can be assumed to be clean. Instrument based screening is not required to be conducted in areas outside of the “Limits of Remaining Contamination”. However, if field identification screening identifies new areas of contamination, then testing will be conducted as outlined above.

3.0 Stockpile Methods

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Straw bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with minimum 6-mil reinforced plastic sheeting, and covered with the same. The cover will be weighted with sandbags, tires, rope, or other means which do not penetrate the membrane. Stockpiles will be routinely inspected and damaged covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC.

4.0 Materials Excavation and Load Out

A qualified environmental professional or person under their supervision will oversee all invasive work from areas anticipated to contain remaining contamination and the excavation and load-out of all material that requires testing as outlined in Section 2.0.

The owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan. The presence of utilities and easements on the site will be investigated prior to the start of subsurface work. Dig Safely NY will be contacted in accordance with State and Local utility clearance requirements. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

5.0 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded. Copies of operating permits for the waste disposal facility; waste transporter permits for all vehicles utilized for transporting; sampling and analysis requirements of the disposal facility; and the certified scale house weigh tickets will be required to be submitted.

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes are as follows:

To get to Route 695:

- Depart SR-297 / Milton Ave toward Bailey St. 8 miles
- Turn left to stay on SR-297 / Bridge St. 8 miles
- Turn left onto State Fair Blvd / CR-800. 8 miles
- Take ramp right for SR-695 South toward Auburn 1.5 miles

To get to Route 5:

- Depart SR-297 / Milton Ave toward Brooks St. 0.7 miles
- Turn right onto SR-173 / Warners Rd. 0.5 miles
- Take ramp left for SR-5 West 2.1 miles

All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. Additional caution must be exercised, and any spills must

be promptly managed and remedied. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; [(g) community input [where necessary]]

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

6.0 Materials Disposal Off-Site

All material that is deemed to require off-site disposal as determined by methods outlined in Section 2.0 will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. Based upon the site history and investigation to date, it does not appear that on-site soils contain hazardous waste characteristics. However, contractors working on the site shall be responsible for assessing material coming out of the ground and making hazardous waste determinations pursuant to State and Federal regulations. All soil waste characterization testing will be provided prior to offsite disposal of any soil. If disposal of soil/fill from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

7.0 Materials Reuse On-Site

All material requiring testing, as outlined in Section 2.0, that is generated from areas anticipated to contain remaining contamination and located outside of the existing building footprint and is proposed for reuse at the site shall be sampled and analyzed by an analytical laboratory approved by NYSDEC. Results shall be compared to NYSDEC Part 375 Protection of Groundwater Standards to determine suitability for on-site reuse. Samples shall be collected in accordance with DER-10 and analysis shall be the full list of analytes (TCL volatiles and semi-volatiles) contained in NYSDEC Part 375 at the time of excavation. All excavated soil shall be stockpiled as described in Section 3.0 pending analysis or reuse.

Soil generated from below the building slab can be replaced in-kind as long as engineering/institutional controls are in-place without regard for whether concentrations would exceed Part 375 Protection of Groundwater Standards.

Soil generated from areas outside of the "Limits of Remaining Contamination" is assumed to be clean, and can be reused without additional testing as long as there are no signs of contamination through field identification screening. Any structural demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

8.0 Fluids Management

All liquids to be removed from the site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site, but will be managed off-site.

Discharge of water generated during large-scale construction activities to surface waters (i.e., a local pond, stream or river) will be performed under a SPDES permit.

9.0 Cover System Restoration

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the Site Management Plan. The demarcation layer, consisting of orange snow fencing material or equivalent material will be replaced to provide a visual reference to the top of the 'Anticipated Remaining Contamination Zone', the zone that requires adherence to special conditions for disturbance of areas anticipated to contain remaining contaminated soils defined in this Site Management Plan. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the 'Anticipated Remaining Contamination Zone'. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in any updates to the Site Management Plan.

10.0 Backfill from Off-Site Sources

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site. Source areas must be reviewed for current and past use and soil shall be sampled at an appropriate frequency to determine whether there is presence of TAL metals, TCL volatiles and semi-volatiles, dioxins/furans, and PCBs. Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Soil material shall be free of debris, roots, wood, scrap material, vegetable matter, refuse, soft unsound particles, frozen, deleterious, or objectionable materials. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

11.0 Stormwater Pollution Prevention

If the NYSDEC determines that a Stormwater Pollution Prevention Plan is applicable, the following conditions shall be adhered to (in addition to other conditions required by the NYSDEC):

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters

Silt fencing, straw wattles, fiber rolls, or hay bales will be installed around the entire perimeter of the construction area.

Sediment shall not be tracked onto adjacent roadways. Erosion and sediment control measures will include dust control and a stabilized construction entrance, as well as catch basin inlet protection on adjacent roadways where inlet grates are located.

Any sediment or dust tracked onto local or state roadways will be promptly removed and properly disposed of.

Any materials that pose potential for stormwater pollution (fuel canisters, lubricants, etc) will be stored inside or under cover.

All erosion and sediment control measures will be installed in accordance with the most recent version of the NYS Blue Book (New York State Standards and Specifications for Erosion and Sediment Control).

Inspections will be required per the most recent SPDES General Permit, and shall be conducted by a qualified inspector per NYSDEC requirements.

If the cumulative disturbance is over 1 acre (including clearing and grubbing), adherence to NYSDEC guidelines is required as is attainment of the proper SPDES General Permit for Stormwater Discharges from Construction Activity by submission of a Notice of Intent (NOI) to the Department and preparation of a stormwater pollution prevention plan (SWPPP). The SWPPP shall be prepared for the proposed site work by a qualified professional per NYSDEC requirements. All elements required to be in the SWPPP are identified in the SPDES General Permit. Items required for recordkeeping and posting at the site are identified in the SPDES General Permit as well, and this must be adhered to. The owner/operator can file a Notice of Termination (NOT) with the NYSDEC once site work is complete and the site is stabilized.

A copy of the applicable SPDES General Permit and necessary forms can be obtained from NYSDEC website or from the regional office.

12.0 Contingency Plan

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for full a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the periodic reports prepared pursuant to Section 5 of the SMP.

The following additional methodologies should be employed if USTs are identified during Site improvement activities:

- Notification – The Contractor shall notify the Regional DEC office, local building codes office, the qualified environmental professional, and the local fire Marshal of the discovery of tanks and intent to conduct the tank removals 30 days prior to the work. Notification of the DEC will be coordinated with the submittal of Petroleum Bulk Storage Registration

form identifying removal of the tanks. The DEC Registration form will be prepared by the Owner.

- Scheduling – All storage tank removals shall be scheduled during normal work hours.
- Petroleum Contaminated Fluids – Contractor shall remove all tank fluids prior to cleaning tank. The total quantity (in gallons) of fluids removed from each tank shall be recorded and submitted to the qualified environmental professional.
- Site Preparation:
 - a. Contractor shall not begin work until the project areas are demarcated, nearby building entrances are protected and provided with wooden barricades to prevent pedestrian access to the work area or excavation, and all nearby utilities are identified.
 - b. Utilities: Building utilities may exist within the vicinity of the tank removal areas which are not identified on the Plans. Contractor will coordinate the identification of existing buried utilities with Owner's representatives, and underground utility locating services in the area. Contractor will be responsible for repair or any damage to existing utilities, at no additional cost to the Owner.
 - c. Surface Preparation: Contractor shall remove topsoil, and saw cut existing pavements within all work areas. If concrete items require removal to complete the work (e.g. concrete building steps, curbing, sidewalks), then Contractor shall provide replacement items matched to existing or improved conditions.

- Tank Removals:
 - a. Contractor shall excavate, remove excess tank fluids, purge and test tank atmospheres, remove tanks from ground, clean tank interiors, flush and clean connecting lines and collect wash water, dispose of residual liquids and wash water generated during tank cleaning, and solids removed from the tank interiors, and dispose of tanks in accordance with applicable laws, regulations, and guidance as identified above. Removal of tanks shall include the tank, all fittings, all suction and return piping from the tanks to the equipment serviced, all associated vent piping, grounding systems, dispensing equipment and associated structures, and steel and concrete items used to anchor the tank in the ground. Soils removed from tank excavation, which are not contaminated, shall be handled as excavation spoils in accordance with this Appendix.
 - b. Soil Assessment: A qualified environmental professional will utilize and provide a photoionization detector (PID) capable of detecting the presence of petroleum vapors during the tank removal. The PID shall be utilized to screen soils located above and adjacent to the petroleum tank for the presence of petroleum vapors during tank excavation. The screening will be conducted on successive 2 foot lifts removed from the ground. If the PID identifies the presence of petroleum vapors in the soils, then the qualified environmental professional will direct the soils to be staged in a separate on-site contaminated soils pile. All contaminated soils piles shall be placed on a minimum 6-mil reinforced plastic sheeting, and covered with same. The cover shall be weighted with sandbags, tires, rope, or other means which do not penetrate the membrane.

- c. Tank Pit Assessment: Following the removal of the tank from the ground, the qualified environmental professional will conduct an assessment of the tank pit side walls and bottom. The PID will be utilized to assess the presence of residual petroleum contaminated soils located in the tank pit. The Contractor shall remove visibly contaminated soils from the tank pit for placement on the on-site contaminated soil staging piles, in accordance with the approval of the qualified environmental professional. Soil located in the proximity of building foundations, and/or utilities shall not be removed so as not to undermine the integrity of these installations. If contaminated soils extend significantly beyond the tank pit areas, then additional soils shall be removed at the discretion of the qualified environmental professional. Once the visibly contaminated soils have been removed from the tank pits, and the absence of significant remaining contamination has been confirmed with the PID, the contractor (or sub-contractor) will obtain representative samples of the soil from the four sidewalls and tank bottom of each pit. The actual location of the samples shall be determined in the field, based on the site conditions, and under the direction of the qualified environmental professional. The soil samples from the tank pit will be submitted by the qualified environmental professional to a New York State Department of Health approved laboratory for analysis of petroleum compounds.
- d. Backfilling: Backfilling shall not be commenced until all lumber, refuse, rubbish and other similar materials are removed from the excavated area. Backfill around structures may be placed by machine, provided the work shall be done carefully to prevent damage to the structure. In no case shall backfill materials be allowed to fall directly on a structure, until at least twelve (12)

inches of hand-placed material has been placed thereon and compacted.

Backfill shall be deposited in horizontal layers not more than eight (8) inches in thickness and shall be thoroughly compacted. Compaction shall be by a vibrating tamper or other approved method and shall be to a minimum dry density of ninety-five (95) percent of the maximum dry weight density in pounds per cubic foot as determined by the Modified Proctor Compaction Test (ASTM D1557). Compact adjacent areas, beyond five (5) feet of a slab or structure, to ninety (90) percent of ASTM D1557.

Backfilling shall be done immediately after work has been inspected and approved. No frozen material shall be used, nor shall backfilling be placed on or against frozen earth, debris or other deleterious matter not conducive to proper compaction.

Contractor shall take every necessary precaution during compaction of fill adjacent to foundations, walls, etc., that such items are not displaced from their proper location or damaged by compacting equipment. In the event damage or displacement occurs during or resulting from compaction of fill as specified above, the Contractor shall be responsible for correcting the same, to approval of the qualified environmental professional and at no expense to the Owner.

Controlled fill within building lines, under concrete slabs and aprons shall be granular fill consisting of clean, durable, gravel, approved blast furnace slag or stone, well graded from coarse to fine, conforming to New York State Department of Transportation Standard Specifications Item 304.12 or Item 304.14 (Subbase

Course Types 2 or 4). Areas of completed fill which are to receive slabs, pavements and structures, etc., shall be kept free of standing water or otherwise protected from any loss of compaction density.

Final surfaces should be returned to the condition existing prior to removal of the tank, unless approved by qualified environmental professional due to pending disturbance by additional Construction.

- Disposition of Materials:
 - a. Tank and Petroleum Wastes: Contractor shall remove and dispose of the tank, piping, steel and concrete associated with the removal of the tank as identified in the Submittals. All petroleum related wastes, except contaminated soils, shall be removed for disposal as identified in the Submittals.
 - b. Petroleum Contaminated Soils: Contractor will provide for all excavation, testing, staging, transport, replacement backfill, and disposal of petroleum contaminated soils, if requested by the qualified environmental professional. This work will be covered by additional item unit pricing described in Part 4.
- Cleanup: Remove and transport all non-petroleum related debris and rubbish in a manner that will prevent spillage in buildings, parking lots, and adjacent areas. Contractor will remove debris for disposal at a licensed facility off-site.

13.0 Community Air Monitoring Plan

Air Monitoring Procedures

The Project Manager or designee will conduct air monitoring in accordance with the New York State Department of Health (NYSDOH) Community Air Monitoring Plan. Direct reading instruments will be calibrated in accordance with manufacturer's requirements and the results of the calibration will be documented.

This Community Air Monitoring Plan (CAMP) sets forth the procedures for performing real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area with respect to specific activities to be completed as part of the remedial investigation. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses, and on-site or nearby workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

Continuous monitoring will be required for all subsurface intrusive activities performed during the remedial investigation and during the demolition of structures anticipated to contain contamination. Subsurface intrusive activities include, but are not limited to, soil excavation and handling, and test pitting or trenching.

Periodic monitoring for VOCs will also be required during non-intrusive activities such as the collection of surface soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during

surface soil, sediment, and groundwater sample collection activities will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well bailing/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities.

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds five (5) parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below five (5) ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shut down.

All 15-minute readings will be recorded and available for New York State Department of Environmental Conservation (NYSDEC) and NYSDOH personnel to review. Instantaneous readings, if any, used for decision making purposes will also be recorded.

Particulate concentrations will also be monitored continuously at the upwind and downwind perimeters of the exclusion zone or work area. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work may continue with dust suppression techniques if downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and if no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume if dust suppression measures and other controls are successful in

reducing the downwind PM-10 particulate concentration to within 150 mcg/m³ of the upwind level and in preventing visible dust migration.

All readings will be recorded and available for NYSDEC and NYSDOH personnel to review.

Table 1. Monitoring Protocols and Contaminant Action Levels				
Contaminant/ Atmospheric Condition	Monitoring Equipment	Monitoring Protocol	Breathing Zone* Action Level Concentrations	
			Monitored Level for Mandatory Respirator Use**	Monitored Level for Mandatory Work Stoppages***
VOCs	Photoionization detector (PID) with an 11.7 eV lamp	Initially readings will be recorded every 15 minutes. If no sustained readings are obtained in the breathing zone, readings will be recorded every 30 minutes.	5 ppm above background	25 ppm above background
Particulates	MiniRam or Dusttrak or Equivalent	Three times daily when work is being conducted that can generate dust, e.g. monitoring well installation, test pits		150 ug/m ³ at fence line (institute engineering controls to control dust) per NYSDEC TAGM 4031
<p>*Monitoring performed in the breathing zone for sustained readings of 5 minutes or more. Monitor source first; if the source is near or above the action level concentration, monitor in the breathing zone.</p> <p>**Monitored levels will require the use of approved respiratory protection specified in the Health and Safety Plan.</p> <p>***Consult the Project Manager.</p>				

These air sampling locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations. Fixed monitoring stations shall be located at the northern and eastern site perimeters, regardless of wind direction, as there are potential sensitive receptors in those vicinities.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

14.0 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-site. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

15.0 Dust Control Plan

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

16.0 Other Nuisances

If necessary, a plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

Appendix D

Sample Health and Safety Plan and Community Air Monitoring Plan

**ARAMARK Uniform Services (Syracuse), LLC
Christopher Service Company Site
3009 and 3117 Milton Avenue
Village of Solvay, New York**

**Voluntary Cleanup Project
VCP Site #V00665-7**

Health and Safety Plan

November 2010

ARAMARK Uniform Services (Syracuse), LLC
Voluntary Cleanup Program

Village of Solvay
Onondaga County, New York

Health and Safety Plan

Voluntary Cleanup Agreement (VCA) Index #B7-0643-03-09
VCP Site #V00665-7

November 2010

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Attachment 1 – Hospital Route

1.0 Purpose

The purpose of this Health and Safety Plan for the ARAMARK Uniform Services (Syracuse), LLC Voluntary Cleanup Project is to provide specific guidelines and establish procedures for the protection of personnel during the field investigation. The Plan is based on the site information available at this time and anticipated conditions to be encountered during the different phases of work. This Plan is subject to modification as data are collected and evaluated.

All personnel conducting activities on-site must be in compliance with all applicable Federal and State rules and regulations regarding safe work practices. Personnel conducting field activities must also be familiar with the procedures, requirements and provisions of this Plan. In the event of conflicting Plans and requirements, personnel must implement those safety practices that afford the highest level of protection.

1.1 Personnel

Wetlands Company:

Principal – Samuel J. Niemann, CPG

Subcontractors:

To be determined

2.0 Site Control

The purpose of site control is to minimize the exposure of site workers to potential contamination, protect the public from the site's hazards, and prevent vandalism. The degree of site control necessary depends on site characteristics and the surrounding community. At this time, there are no access restrictions to the site. During the field activities, personnel, subcontractors and visitors shall report to the on-site supervisor prior to entering the work area.

2.1 Work Zones

Since there are no access restrictions to the Site, particular attention will be placed on the condition of the site regarding three main work zone areas:

Activity Zone

This zone applies to the immediate work area and includes all materials, equipment, vehicles and personnel involved in the site activity. For example, during the installation of a monitoring well, the activity zone will encompass the borehole, drilling rig, monitoring well construction materials and equipment, sampling equipment, decontamination supplies, and drilling/well inspection personnel. Site control measures will include flagging the perimeter of the activity zone to clearly mark the limits of work and to warn employees, passers-by and visitors of the site activity. In addition, the Site Supervisor will maintain communication with personnel as the location of this zone (and the type of work being performed) changes throughout the project.

Material and Equipment Storage Zone

This zone exhibits the least amount of activity, and as a result, will require the least security. An appropriate area will be designated on-site for the storage of all equipment and supplies to be used throughout the site investigation. The area is to be kept clean and orderly at all times and free from loose equipment, tools, materials or supplies which may compromise the safety of site workers, personnel or the public. Construction materials and equipment will be covered with plastic at the end of each workday. Any spills or breakages occurring in this area will be immediately attended to before the Site work continues.

Decontamination Zone

In order to prevent incidental contact with contaminants on investigation equipment or in the wash water, all activities within the decontamination area will be completed before subsequent site work or any other activity begins. This includes:

- Complete removal of contaminants on all equipment used during the preceding phase of the investigation;
- Placement of the waste wash water and sediment in sealed drums;
- Storage of the drums in a secure and out-of-the-way place for future disposal;
- Proper labeling of drum contents;
- Cleanup (if necessary) of area outside of decontamination area; and,
- Storage of all decontamination equipment, site investigation equipment and materials in the Materials and Equipment Storage Zone.

3.0 Site Activities and Personal Protection

3.1 General Guidelines

The following is a list of the general guidelines required for the Site Activities at the ARAMARK Uniform Services (Syracuse), LLC Solvay property.

All field investigation activities must be coordinated through the designated Site Manager.

During any activity conducted on-site in which a potential exists for exposure to hazardous materials, accident or injury, at least two persons must be present who are in constant communication with each other.

Samples obtained from areas known or suspected to contain contaminated substances or materials must be handled with appropriate personal protection equipment.

All equipment used to conduct the Site Investigation must be properly decontaminated and maintained in good working order. Equipment must be inspected for signs of defects and/or contamination before and after each use.

Eating, drinking, chewing gum or tobacco, and smoking are prohibited within the work zones previously defined.

The discovery of any condition that would suggest the existence of a situation more hazardous than anticipated will result in the evacuation of the activity zone until a complete evaluation of the hazard can be performed.

3.2 Training Requirements

All personnel performing intrusive work tasks contained in and related to the Work Plan will have received training which meets the requirements of Federal Occupational Safety and Health Organization (OSHA) regulations contained in 29 CFR 1910.120 and will also have received refresher training as specified by the same standard.

3.3 Hazard Evaluation

Table 3-1 presents a summary of the potential hazards that personnel involved with Site Activities may encounter during the fieldwork. The table includes chemical, mechanical, electrical and temperature hazards and routes of possible entry for hazardous compounds.

3.4 Personal Protective Clothing and Equipment

The documented site history is evidence that contaminants associated with petroleum fuels and oils and chlorinated solvents will likely be encountered. Most of the activities proposed at the site, however, involve only limited, if any, direct contact with these contaminants. As a result, it is anticipated that all site investigation activities will be performed in Level D protective clothing and equipment. This level of protection will afford site workers with adequate safeguard regarding the typical hazards expected at the Site.

Table 1 Site Investigation Activity Hazard Evaluation						
Activity	Hazard Type					
	Mechanical	Electrical	Chemical	Physical	Biological	Temperature
Initial Site Inspection	Accidental injury from sampling equipment	Exposed cords and broken lights	Accidental inhalation, ingestion, skin absorption or eye contact with contaminants	Cuts from broken glass, slips, trips and fall hazards.	Bees and wasps	Heat Stress Frost Bite
Boring/Well Installation, Testing and Monitoring	Accidental injury from drilling rig or soil boring equipment	Buried power lines	Accidental inhalation, ingestions, skin absorption or eye contact with contaminants	Strains from carry heavy objects, slips, trips and fall hazards. Excessive noise.	None Anticipated	Heat Stress Frost Bite
Split-Spoon Soil Sampling	None Anticipated	None Anticipated	Accidental inhalation ingestion, skin absorption or eye contact with contaminants	Fall hazards.	Bees and wasps, animals	Heat Stress Frost Bite
Sub-slab Soil Vapor Survey	Accidental injury from soil boring equipment or drilling equipment	Buried power lines	Accidental inhalation ingestion, skin absorption or eye contact with contaminants	Strains from carry heavy objects, slips, trips and fall hazards. Excessive noise.	None Anticipated	Heat Stress Frost Bite
Well Sampling	None Anticipated	Generators and power cords	Accidental inhalation, ingestion, skin absorption or eye contact with contaminants	Strains from lifting. Fall hazards.	Bees and wasps	Heat Stress Frost Bite

3.5 Air Monitoring

The Site Manager or designee will conduct DOH Community Air Monitoring Plan (CAMP). Direct reading instruments will be calibrated in accordance with manufacturer's requirements and the results of the calibration will be documented.

This Community Air Monitoring Plan (CAMP) sets forth the procedures for performing real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area with respect to specific activities to be completed. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses, and on-site or nearby workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

Continuous monitoring will be required for all ground intrusive activities performed during the remedial investigation. The only anticipated ground intrusive activity includes monitoring well installation.

Periodic monitoring for VOCs will also be required during non-intrusive activities such as the collection of groundwater samples from monitoring wells. "Periodic" monitoring during sample collection will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap, monitoring during well bailing/purging, and taking a reading prior to leaving a sample location. In

some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities.

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings will be recorded and available for State (NYSDEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision making purposes will also be recorded.

Particulate concentrations will also be monitored continuously at the upwind and downwind perimeters of the exclusion zone or work area. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

All readings will be recorded and available for State (NYSDEC and NYSDOH) personnel to review.

Table 2 Monitoring Protocols and Contaminant Action Levels				
Contaminant/ Atmospheric Condition	Monitoring Equipment	Monitoring Protocol	Work Zone* Action Level Concentrations	
			Monitored Level for Mandatory Respirator Use**	Monitored Level for Mandatory Work Stoppages***
VOCs	Photoionization detector (PID) with an 11.7 eV lamp	Initially readings will be recorded every 15 minutes. If no sustained readings are obtained in the breathing zone, readings will be recorded every 30 minutes.	10 ppm above background	50 ppm above background
Particulates	MiniRam or Dustrak or equivalent	Three times daily when work is being conducted that can generate dust, e.g., monitoring well installation	Dust suppression techniques required at 100 ppm above background	150 ug/m3 at property line (institute engineering controls to control dust) per NYSDEC TAGM 4031
*Monitoring performed in the working zone for sustained readings of 5 minutes or more. Monitor source first; near the source, or if above the action level concentration, monitor in the breathing zone. **Monitored levels will require the use of approved respiratory protection. ***Consult the Site Manager.				

4.0 Emergency Response Plan

In the event of an unplanned occurrence or situation requiring outside or support service, the appropriate contact from the following list will be made:

Contact	Person or Agency	Phone Number
Aramark	Noll Ferris	(315) 488-5477
The Wetlands Company	Samuel J. Niemann, CPG	(317) 581-0668
NYSDEC Project Manager	Brian Davidson	(518) 402-9775
Law Enforcement	(V) Solvay Police, NYS Police	911
Fire Department	(V) Solvay FD	911
Ambulance	Emergency Services A&E Transport Service Empire Transportation Service	911 422-1021 477-1486
Hospital - Emergency	St. Joseph's Hospital	(315) 448-5111

4.1 Site Resources

A cellular phone will be located in the Site Manager's vehicle for emergency use.

4.2 Emergency Routes

The closest hospital to the site is St. Joseph's Hospital in Syracuse, New York. The route to be used in transport to the hospital is shown on Figure 1.

4.3 Emergency Procedures

In the event that an emergency develops on-site, the procedures identified herein are to be immediately followed. Emergency conditions are considered to exist if:

- Any member of the field team is involved in an accident or experiences any adverse effects or symptoms relating to site work; or,
- A condition is discovered that suggests the existence of a situation more hazardous than anticipated.

The following general emergency procedures should be accounted for in advance of, and upon acknowledgment of, either of the previous two observations:

- Site work area entrance and exit routes should be planned; and,
- Emergency escape routes identified and discussed prior to any site activity.

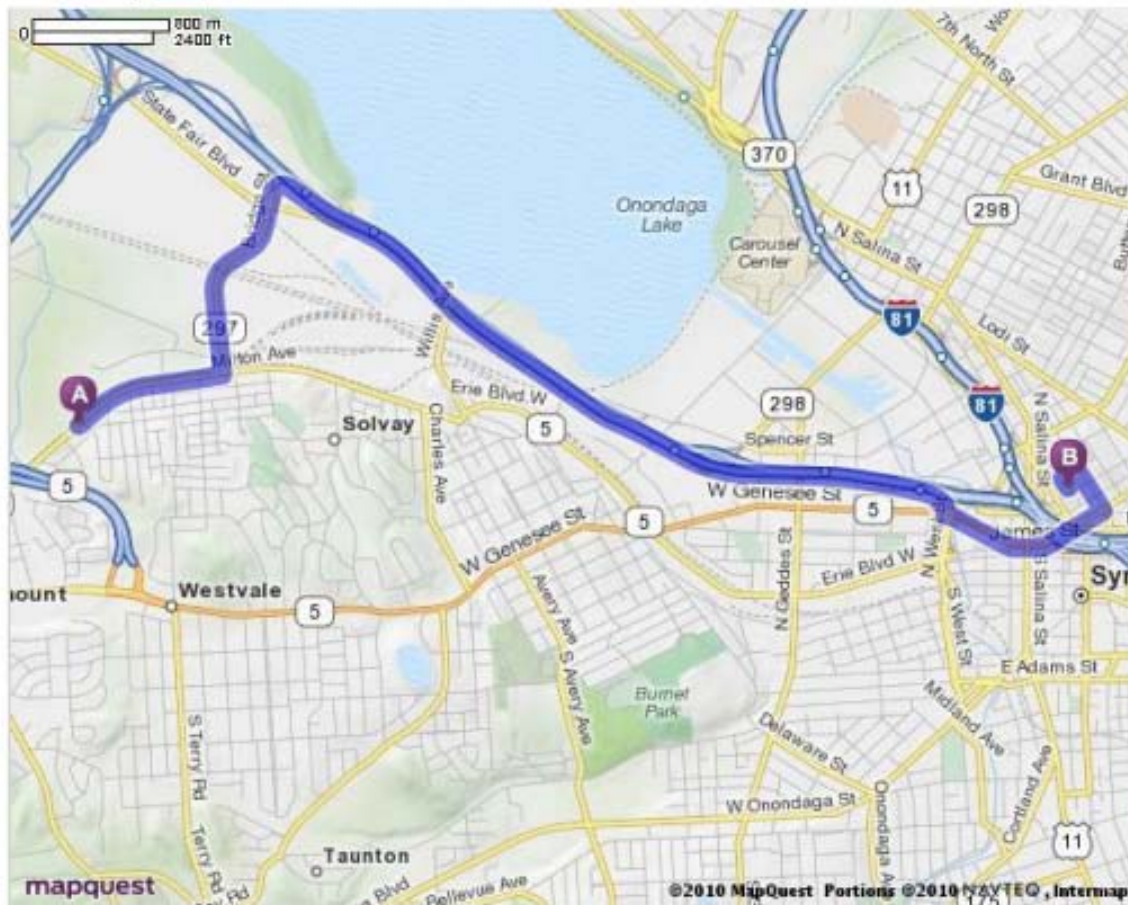
In the event of an emergency situation, the entire field team will immediately halt work, and act according to the instructions provided by the Site Manager. The appropriate emergency response agency or department will be contacted.

The Site Manager will complete the necessary accident forms and make provisions to complete the project task in progress at the time of the incident.

Figure 1
Emergency Hospital Route



Route Map [Hide](#)



1. Start out going EAST on MILTON AVE / RT-297 toward CASE ST. 0.6 mi
2. Turn LEFT onto BRIDGE ST / RT-297. Continue to follow RT-297. 0.9 mi
3. Merge onto I-690 E. 3.0 mi
4. Take the W GENESEE ST exit, EXIT 12, toward DOWNTOWN. 0.3 mi
5. Turn LEFT onto W GENESEE ST / RT-5. Continue to follow RT-5. 0.5 mi
6. Stay STRAIGHT to go onto JAMES ST. 0.2 mi
7. Turn LEFT onto N TOWNSEND ST. 0.2 mi
8. Turn LEFT onto UNION AVE. 0.1 mi
9. Turn LEFT onto PROSPECT AVE. 0.0 mi
10. 206 PROSPECT AVE is on the LEFT. 0.0 mi

St Joseph's Hospital - (315) 422-8608
206 Prospect Ave, Syracuse, NY 13203

Total Travel Estimate: 5.83 miles - about 11 minutes
(User must verify directions prior to use)

Appendix E
Sampling and Analysis Plan

**ARAMARK Uniform Services (Syracuse), LLC
Christopher Service Company Site
3009 and 3117 Milton Avenue
Village of Solvay, New York**

**Voluntary Cleanup Project
VCP Site #V00665-7**

Sampling and Analysis Plan

November 2010

ARAMARK Uniform Services (Syracuse), LLC
Christopher Service Company Site
Village of Solvay

Voluntary Cleanup Project
VCP Site #V00665-7

Sampling and Analysis Plan

November 2010

Prepared for:

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Attachments

Attachment A – Data Validation Scope of Work

Attachment B – Chain-of-Custody Form

1.0 Introduction

This document presents the Sampling and Analysis Plan (SAP) for use in the event that soil disturbance activities become necessary on the referenced site. The SAP is intended to develop procedures for handling and sampling of potentially petroleum impacted soils and/or groundwater that may be encountered during future site work and/or development.

The SAP contains five sections including this Introduction (Section 1.0). Section 2.0 outlines the sampling objectives of the Site Investigation; Section 3.0 provides a description of the field investigation and sampling program, including sample designation, sample handling, and analytical requirements. Section 4.0 details the field investigation procedures. Finally, Section 5.0 outlines the field sampling and sample quality assurance/quality control mechanisms.

2.0 Sampling Objectives

2.1 Chemical Characterization

Chemicals of concern include volatile organic compounds. Previous subsurface investigation included the installation of soil borings, soil gas survey probes, and overburden monitoring wells to determine the nature and extent of contamination. Surface and subsurface soil, sediment, soil gas, and groundwater media were also sampled and analyzed as part of the site investigation.

2.2 Data Quality Objectives

Data quality objectives (DQOs) are based on the concept that different data uses may require different levels of data quality. Data quality can be defined as the degree of uncertainty in the data with respect to precision, accuracy, and completeness. The five levels of data quality are:

- Screening (Level 1) - This provides the lowest level of data quality, but with the most rapid turnaround on results. It is often used for monitoring of health and safety conditions, preliminary comparison to Applicable or Relevant and Appropriate Requirements (ARARs), initial site characterization and location of areas designated for higher levels of sampling and analyses, and for screening of bench-scale remediation tests. These data are typically generated on-site using real-time measuring devices and include total organic vapor concentrations from PID readings, Draeger tube measurements, pH, specific conductance, dissolved oxygen, airborne particulates and any other data obtained using direct-reading instruments.

- Field Analyses (Level 2) - This level provides rapid results in the field and is generally of better quality than Level 1 data. Analyses include mobile lab generated data and computer generated modeling of site data (i.e., geophysical data, hydraulic conductivity data).
- Engineering (Level 3) - These methods provide an intermediate level of data quality and are used for site characterization. Engineering analyses may include higher levels of mobile lab generated data or laboratory generated data using rapid turnaround methods. These types of methods provide useful site characterization data, but are generally considered for screening purposes since the results are generated without the benefit of full quality control documentation.
- Confirmational (Level 4) - This provides the highest level of data quality and is appropriate for use in risk assessments, engineering design and for cost evaluations. This level requires the analytical laboratory to be NYSDOH ELAP certified for ASP/CLP categories and to provide internal quality control documentation derived from such reporting protocols. Projects requiring the full ASP/CLP laboratory reporting will also be subject to independent third-party data validation or an internal Data Usability Summary Report (DUSR).
- Non-Standard (Level 5) - This refers to analyses by non-standard protocols; for example, when exacting detection limits or analysis of an unusual chemical compound is required. These analyses often require method development or adaptation. The level of data quality is usually similar to that of Level 4.

It is recommended that the Site Manager contract with a NYSDOH ELAP certified laboratory to generate Level 4 data, as previously described, for all soil, surface water, sediment and groundwater samples collected during the Site Investigations. Level 1 and 2 data can be generated in the field by a qualified environmental professional to document health and safety monitoring, field characterization of sampling media, demonstration of the adequacy of monitoring well development efforts, and to provide rationale for construction of groundwater monitoring wells and termination of contaminated soil excavation activities.

3.0 Field Investigation

3.1 Field Investigation and Sampling Program

The objective of this task is to conduct the necessary field investigations to characterize the remaining contamination plumes on the Site and their actual or potential hazard to public health and the environment, and to identify the receptors. The field investigation is designed to provide data of adequate technical content to support the design and installation of the remedial alternative(s) identified in the Record of Decision (ROD) and Site Management Plan (SMP). The objectives of the field investigation are to:

- Characterize the true extent of remaining soil contamination associated with volatile organic compounds ;
- Delineate the true extent of groundwater contamination;
- Collect data to evaluate the potential risks that the site may pose to human health and the environment;
- Collect data to appropriately design and install remedial measure(s) identified in the Record of Decision and Site Management Plan.

The field investigation at the Site will include the following:

1. Review of Available Data and Literature
2. Site Survey and Preparation of Site Map
3. Soil Investigation
4. Groundwater Sampling and Analysis
5. Public Health and Wildlife Risk Evaluation

The objectives and methodologies of these field activities are described in greater detail within subsequent sections of this Appendix.

3.2 Sample Designation

Samples will be designated using an alphanumeric code to identify the location and media sampled. Sampling media will be identified by a two-letter code, for example: SS (surface soil), MW (monitoring well), AS (asbestos sample), etc. A two-digit number, beginning with 01 and increasing sequentially will also identify each sample location.

3.3 Sample Handling

3.3.1 Sample Container Requirements and Holding Times

Specific sample containers are required for each of the media types to be sampled, as well as the proposed analyses to be performed. Samples should be received by the laboratory within 48 hours of sample collection. In addition, there are specific holding time requirements for the type of analyses requested for each sample. These requirements are described below:

Sediment and Soils:

EPA Method 8260 & MTBE analysis requires samples to be collected in a 4 oz. glass container with a teflon-lined cap. The container must be completely filled with material to create a "zero head space" condition. The holding time is limited to 7 days. These samples do not require preservation.

EPA Method 8270 analysis requires samples to be collected in an 8 oz. glass container with a teflon-lined cap. The holding time is limited to 5 days for extraction and 40 days for analysis. These samples do not require preservatives.

EPA Method 8081 analysis requires samples to be collected in a 1 liter amber glass container. The holding time is limited to 14 days for extraction and 40 days for analysis. These samples do not require preservatives.

EPA Method 8151 analysis requires samples to be collected in a 1 liter amber glass container. The holding time is limited to 14 days for extraction and 40 days for analysis. These samples do not require preservatives.

EPA Method 6010B (Target Analyte List Metals) analysis requires samples to be collected in an 8 oz. glass container with a teflon-lined cap. The holding time is limited to 5 days from VTSR for extraction and 40 days for analysis. These samples do not require preservatives.

EPA Method 8080 (PCBs) analysis requires samples to be collected in an 8 oz. glass container with a teflon-lined cap. The holding time is limited to 5 days from VTSR for extraction and 40 days for analysis. These samples require storage at <4°C.

Groundwater

EPA Method 8260 & MTBE analysis requires samples to be collected in two 40-ml., glass vials with a teflon-lined septum cap. The container must be completely filled with water to create a "zero head space" condition. The holding time is limited to 7 days for analysis.

EPA Method 8270 analysis requires samples to be collected in a 1-liter amber glass container with a teflon-lined cap. The holding time is limited to 5 days for extraction and 40 days for analysis. These samples do not require preservation.

EPA Method 8081 analysis requires samples to be collected in a 1 liter amber glass container. The holding time is limited to 7 days for extraction and 40 days for analysis. These samples do not require preservatives.

EPA Method 8151 analysis requires samples to be collected in a 1 liter amber glass container. The holding time is limited to 7 days for extraction and 40 days for analysis. These samples do not require preservatives.

EPA Method 6010B (Target Analyte List) analysis requires samples to be collected in a 500-ml. plastic container. The holding time is limited to 6-months from VTSR. These samples require nitric acid (HNO₃) as a preservative.

EPA Method 8080 (PCBs) analysis requires samples to be collected in a 1-liter amber glass container with a teflon-lined cap. The holding time is limited to 5 days from VTSR for extraction and 40 days for analysis. These samples require storage at <4°C.

Soil Vapors

EPA Method TO-15 analysis requires air samples to be collected in stainless steel SUMMA canisters with a minimum 400-cubic centimeter capacity. An EPA Method TO-15 detection limit of 1 part-per-billion (volume of air) will be required for the laboratory analysis. The holding time is limited to 14 days and there are no preservation requirements for this analysis.

Potential Asbestos Containing Materials

Polarized Light Microscopy (PLM), Transmission Electron Microscopy (TEM). Samples of suspect asbestos containing materials will be collected by EPA and NYSDOH certified asbestos building inspectors. Samples will be placed in sealable plastic bags and/or containers for transport to the laboratory.

Sample Collection Container Summary Chart				
Matrix	Bottle	Preservative	Analytical Method ¹	Holding Time ²
Soil & Sediments ³	4 oz. Glass w/teflon-lined cap	< 4°C	8260 & MTBE	10 days
	8 oz. Glass w/teflon-lined cap	< 4°C	8270	5 days for extraction 40 days for analysis
	8 oz Glass w/teflon-lined cap	<4°C	8081 & 8151	14 days for extraction 40 days for analysis
	8 oz. Glass w/teflon-lined cap	None	6010B	6 months
	8 oz. Glass w/teflon-lined cap	< 4°C	8080	5 days for extraction 40 days for analysis
Ground Water/Aqueous ³	2-40 ml. Glass Vials with teflon-lined septum	< 4°C, HCl	8260 & MTBE	10 days
	1-liter amber glass with teflon-lined cap	< 4°C	8270	5 days for extraction 40 days for analysis
	1-liter amber glass with teflon-lined cap	< 4°C	8081 & 8151	7 days for extraction 40 days for analysis
	500-ml. plastic	HNO ₃	6010B	6 months
	1-liter amber glass with teflon-lined cap	< 4°C	8080	5 days for extraction 40 days for analysis
Soil Vapor	Summa Canister (400-cc minimum)	None	TO-15	14 days
1 - USEPA SW-846 Methods 2 - All holding times from Validated Time of Sample Receipt (VTSR) 3 - Sediment and water samples requiring off-site disposal will also be subject to TCLP analysis				

3.3.2 Sample Packaging and Shipping

Samples will be packaged and shipped in accordance with the procedures outlined in Section 5.1 of this Appendix. Samples will be delivered to the laboratory within 48 hours of sample collection.

3.3.3 Quality Assurance/Quality Control Samples

The proposed analytical program includes the collection and analysis of QA/QC samples. Duplicate groundwater water samples will be collected to demonstrate the reproducibility of sampling techniques and laboratory analysis. Field blanks will also be taken during the sampling of, sediments and soils, when dedicated sampling equipment is not used. Field blanks will not be required for groundwater since single use bailers will be used to collect these samples. A trip blank will also accompany each daily sample group delivered to the laboratory. The trip blank will consist of a pair of laboratory-prepared vials for VOC (i.e., EPA 8260 & MTBE) analysis only.

4.0 Field Investigation Procedures

4.1 Preparation for Field Entry

Prior to the initiation of field activities, the following tasks will be performed:

- Kick-off meeting with all involved personnel to review the scope of work to be performed and the Sampling and Analysis Plan;
- Review of the Health and Safety Plan by all on-site personnel;
- Operational checkout and pre-calibration of all equipment to be taken into the field;
- Location, flagging and labeling of all proposed soil probes and sampling locations;
- Identify and obtain clearance of all underground utilities associated with local utility companies and the Site;
- Arrange access for drill rig at proposed drilling locations;
- Designate decontamination area and identify water and power sources; and
- Mobilization of equipment and personnel to site.

4.2 Decontamination Procedures

4.2.1 Decontamination of Sampling Equipment

All reusable sampling equipment (scoops, beakers, trowels, etc.) will be decontaminated prior to field entry and following each use. The decontamination procedures are outlined below:

1. Alconox detergent and potable water scrub;
2. Deionized water rinse;
3. Methanol rinse;
4. Deionized water rinse; and
5. Air dry

Following this decontamination procedure, equipment will be stored in airtight polyethylene wrap or bags for future on-site use. Whenever possible, pre-cleaned equipment will be used; however, if the need arises, equipment will be cleaned in the field according to the general procedures described above.

4.2.2 Decontamination of Drilling Equipment and Reusable Tools

All drilling and excavation equipment and reusable tools will be properly decontaminated prior to site use. The purpose of this activity is to ensure that all equipment utilized at the site is contaminant free; and as such, the introduction of contaminants into a test boring or monitoring well, or cross-contamination between borings or wells, will be eliminated.

A decontamination area will be constructed on-site to facilitate the steam cleaning of the drilling rig and equipment, and miscellaneous decontamination procedures (e.g., prior to sampling, during collection of field blank samples). Ideally, this area will be constructed on a gently sloping surface to aid in the collection of wash water used in the decontamination process. Polyethylene sheeting will be placed on the ground (overlapped, if necessary, in the downslope direction to avoid any loss of water between sheets) and bermed on three sides with timbers. The polyethylene will be draped over the timbers to provide lateral containment of the wash water. The height of the berms will be sufficient

to contain twice the volume of water to be generated during any decontamination event. The depth of water in the containment area will be monitored to ensure that the level remains below the midway mark of the downslope berm. All decontamination water will be placed in storage drums for subsequent disposal before the close of each workday.

A staging area will be designated on-site for the storage of well construction materials and clean drilling equipment and tools. All materials and decontaminated equipment will be placed on clean surfaces or stored on pallets, sawhorses or plastic sheeting in the staging area.

Equipment Condition

1. All drilling and excavation equipment entering the site will be inspected for hydraulic fluid and oil leaks, and for general cleanliness. Leaking hoses, tanks, hydraulic lines, etc., will be replaced or repaired prior to entering the site.
2. All well casing and screens, and other construction materials must be new. Used materials will not be permitted for use during well construction.
3. All observations regarding the condition of equipment and materials entering or leaving the site will be recorded daily in a field book by the Site Operations Manager or Supervising Geologist.

Equipment Cleaning and Handling

Initial Cleaning

1. Following initial inspection, all drilling equipment and associated tools will be steam cleaned at the decontamination area. Typical tools and equipment to be cleaned include:
 - Drilling rods, bits
 - Augers (clips, pins and associated hardware)
 - Samplers (i.e., split-spoon, Denison, etc.)
 - Casing materials
 - Wrenches, hammers and miscellaneous hand tools
 - Mud tub/pan
 - Hoses, tanks
 - Cable clamps and other holding devices in direct contact with the drilling rods
 - Drill rig and undercarriage, wheel wells, chassis, and any other items that may come in contact with the work area
2. During the cleaning operation, equipment will be handled only with clean gloves. A new set of gloves will be utilized between successive cleanings for each location.
3. Cleaned materials will be protected from contamination during transport to the staging area by such means as the Site Operations Manager or Supervising Geologist deems necessary.
4. The Site Operations Manager or Supervising Geologist will document equipment decontamination.

On-Site Cleaning Between Borings

1. Following each boring or well installation, all drilling equipment (listed above under "initial cleaning") will be steam cleaned before moving to the next location.

4.3 Drilling Program

In the unlikely event, however, two or more wells are needed to fully characterize separate (vertically isolated) water bearing horizons, the deepest boring will be completed first to identify the vertical extent of contamination and to determine the screening depth of subsequent shallower monitoring wells. It may also be necessary to seal off upper contaminated horizons through the use of multiple casings in which progressively smaller-diameter casings are telescoped through larger casings terminated at the depth of each encountered contaminant zone.

4.3.1 *Geoprobe Borings*

The following drilling procedures will be utilized to complete the Geoprobe borings:

1. The boreholes will be advanced using direct push methods until the required depth is encountered;
2. Drilling will proceed in a manner to permit continuous sampling through the overburden materials until the required depth has been achieved;
3. Pertinent drilling and sampling information will be recorded in the field log by the Supervising Engineer/Geologist.

4.3.2 Soil Sampling and Screening

The following procedures will be performed during the Geoprobe drilling program to collect, characterize and screen soil samples:

1. At each exploratory boring location, continuous samples will be taken through the overburden materials and the extent of contamination. Before each sample is taken, the supervising geologist will confirm the sample depth;
2. Soils will be classified in accordance with the Modified Burmister Classification System. Field classification will include color, grain size, lithology, relative density, moisture content, soil texture and structure, relative permeability and common term of geologic unit;
3. PID readings will be recorded from each split-spoon as the samples are opened. The PID instrument measures airborne vapors that are detectable by photoionization. The PID will be equipped with an 11.7 electron volt (eV) ionization source, which will ionize any organic compound having an ionization potential below 11.7 eV. The ionized compounds are brought to an excited state from which their relative concentration in ppm (parts per million) can be read. The types of organic compounds most likely to be encountered at the site have ionization potentials below that of the 11.7 eV ionization source. The PID instrument is not designed to identify individual compounds, but is meant to quantify the concentration of total ionizable compounds present in an airborne state. The PID will be calibrated each

- day in order to maintain a degree of accuracy and to record the daily drifting of the instrument between calibrations;
4. If PID vapor concentrations are observed to be greater than 10 ppm, samples will be collected for laboratory analysis. Samples of the final two feet of each boring will also be taken for laboratory analysis to confirm conditions at the borehole termination depth;
 5. Samples for volatile organic compound analysis will be transferred directly, and as soon as possible, into appropriately sized and preserved soil sample containers. The remaining soil will be placed into appropriate sample containers for the analysis of total lead, semi-volatile organic compounds, pesticides and herbicides;
 6. Follow record keeping and chain-of-custody procedures as detailed in Section 5.1 of this Appendix;
 7. Soil samples not set aside for laboratory analysis will be placed in eight-ounce, wide-mouth, moisture-tight glass jars. The opening of the jar will be sealed with a foil liner and then a screw-on cap; alternatively these samples may be placed in Zip-Lock plastic bags and sealed;
 8. Sample jars or bags will be labeled with the following information: project name, project number, location identification, sample depth interval, blow counts and date. This information will also be recorded in the field log;
 9. The organic vapor levels in the headspace above the soil sample in each jar or bag will be screened using a PID (samples placed in jars should allow for a minimum 1-inch

headspace for screening) once the samples have had an opportunity to release vapors from contaminants present in the soil matrix (typically one hour). The jar's cap will be gently removed, and the tip of the PID will be inserted through the foil liner, taking care not to drive the tip into the soil. The Supervising Geologist will record peak and steady PID readings in the field log. Upon completion of the PID screening the soil will be emptied from the jars and properly disposed.; and

10. Soil samplers will be decontaminated between sample intervals using the procedures outlined below:

- Detergent wash withalconox
- Deionized water rinse
- Isopropanol rinse
- Deionized water rinse
- Air dry
- Final deionized water rinse
- Air dry

4.3.3 Installation of Temporary Wells

Temporary well installation procedures are outlined below:

1. A Geoprobe hole will be advanced to an appropriate depth to facilitate placement of the well screen across the apparent water table.

2. The well screen and riser section will be installed. The monitoring well will be constructed of 1-inch Schedule 40 PVC riser with 5-feet of continuous slot PVC well screen.
3. The well screens will be placed in such a way as to straddle the water table.
4. A clean, coarse sand pack will be placed in the annular space between the well screen and the borehole to a minimum height of 1-foot above the top of the screen section.
5. A bentonite seal will be placed above the sand pack and extend to grade.
6. A PVC slip-on cap will be placed on the well to preclude incidental introduction of precipitation or other contaminants.
7. The PVC casing will be clearly and permanently marked with the well identification number.

4.3.4 Installation of Monitoring Wells

Overburden monitoring well installation procedures are outlined below:

1. A minimum eight-inch diameter borehole will be advanced using 4-inch (inside diameter) hollow-stem augers with split-spoon sampling.
2. A six-inch thick sand pack will be placed at the bottom of the borehole for seating of the well.
3. Following initial backfilling, the well screen and riser section will be installed. The monitoring well will be constructed of

- 2-inch Schedule 40 PVC riser with an appropriate length of continuous slot PVC well screen.
4. The well screens will be placed in accordance with Section 5.7 of the Work Plan.
 5. A clean, coarse sand pack will be placed in the annular space between the well screen and the borehole to a minimum height of 1-foot above the top of the screen section.
 6. A six-inch thick, fine sand filter will be placed above the coarse sand pack.
 7. A three-foot minimum bentonite seal will be placed above the fine sand filter.
 8. An additional six-inch fine sand filter will be placed above the bentonite seal.
 9. The remaining annular space will be filled to within 2-3 feet of ground surface with cement-bentonite grout using the tremie installation method and be allowed to set for a minimum of 12 hours.
 10. A concrete surface seal, no less than 18 inches in diameter, and approximately 2-3 feet below ground surface will be constructed around the PVC riser.
 11. A six-inch diameter locking, steel protective casing will be installed over the stickup portion of the PVC well riser and set into the concrete surface seal. Flush-mounted manholes will be used for wells installed within parking lot or other traffic areas.

12. The steel protective casing (or well manholes) will be clearly and permanently marked with the well identification number.
13. Protective pipe bollards shall be installed adjacent to any stick-up well located in an area that supports vehicular traffic. These bollards shall consist of three-inch diameter carbon steel pipe placed in a concrete base and installed to a depth of two feet below ground surface. The number and location of these bollards will be determined in the field on a case by case basis by the supervising geologist.

Bedrock monitoring well installation procedures are identified below:

1. The borehole will be advanced as described above using six-inch inside diameter hollow stem augers to the bedrock surface.
2. With the hollow stem augers in place, a four-inch inside diameter carbon steel casing will be installed using either driven casing or rock socket methods. The casing shall penetrate a minimum of six-inches into the bedrock unit.
3. The borehole annular space will be grouted from the bottom by injecting a cement-bentonite grout mixture via the tremie method or an approved alternate method.
4. The grout will then be allowed to set up for a minimum of 12 hours, or as determined by the supervising geologist.
5. Following the set up period, the borehole shall be advanced using coring methods.

6. Coring shall use NX coring equipment and will advance continuously to the depth specified by the supervising geologist.
7. All NX coring shall be performed using rotary drilling methods using potable water as the drilling fluid.
8. Individual core runs will not exceed 10 feet in length.
9. Starting depth for every core run will be verified prior to core drilling by the supervising geologist.
10. Core samples will be collected, examined, and logged immediately upon retrieval, and stored in specially-designed wooden boxes.
11. Visual field classification of the rock core will include: lithology and texture, color, hardness, degree of weathering, bedding/joint/fracture spacing, discontinuities, and local geologic formation name.
12. Rock Quality Designation (RQD) will be recorded for all core samples using USGS recommended procedures.
13. Each core box will be labeled with the project name, project number, boring location, depth interval, run number, recovery, RQD, the top and bottom of the run, and the date.
14. In addition to visual classification, the supervising geologist will record all observations during core drilling, including coring rate in minutes per foot, fluid gain or loss, drill rig reactions, and types of casing and drilling fluid used.
15. The core samples will be stored at a suitable location provided by the Client.

16. Coring will be complete when sufficient water bearing fractures are encountered as determined by the supervising geologist. The well will be constructed of 2-inch Schedule 40 PVC with an appropriate length of continuous slot PVC well screen.
17. A six-inch diameter carbon steel protective casing shall be installed for the protection of the well casing. This protective casing shall be placed to a depth of two feet below ground surface and extending three feet above the surface. This casing shall be fitted with a locking cover and lock. The protective casing shall be secured in a concrete pad extending from the bottom of the casing to the ground surface.
18. Protective pipe bollards shall be installed adjacent to any stick-up well located in an area that supports vehicular traffic. These bollards shall consist of three-inch diameter carbon steel pipe placed in a concrete base and installed to a depth of two feet below ground surface. The number and location of these bollards will be determined in the field on a case by case basis by the supervising geologist.

4.3.5 Sand Pack, Bentonite Seal and Cement Grout

Sand Pack

1. The sand pack will consist of uniformly graded, clean, inert sand, of suitable grain-size to minimize the amount of fine materials from entering the well. The fine sand filter layer above the sand pack will exhibit 100% by weight passing the

No. 30 sieve, and less than 2% by weight passing the No. 200 sieve.

2. Samples of the coarse sand pack and fine sand filter materials will be provided to the sampling contractor in 8 oz. wide-mouth glass jars. Samples will be retained for a period of one year.

Bentonite Seal

1. Pure Wyoming sodium bentonite pellets or chips will be used for the bentonite seal. The size of the pellets or chips will be less than one-half the width of the annular space. An alternative method could be the use of a granular bentonite slurry, which would be installed by pressure grouting with tremie rods.
2. After the seal is installed, there will be a minimum 30-minute waiting period to allow for proper hydration of the bentonite materials before placement of the grout.

Cement-Bentonite Grout

1. Cement will be Portland Cement, Type I, in conformance with ASTM C150.
2. Bentonite will be a powdered Wyoming sodium bentonite.
3. Proportions of cement-bentonite grout mix will be approximately 94 pounds cement: 3-5 pounds bentonite: 7 gallons water.
4. The grout mix will be installed by pressure grouting through tremie rods.

5. The grouting will be complete when the grout mixture returns to the ground surface. Grouting of temporary wells will not be performed.

4.3.6 Boring Logs and Record Keeping

During the drilling of each borehole and installation of each monitoring well, an accurate log will be kept and will include the following information:

1. Date and time of construction/driller's and helper's name, and Supervising Geologist;
2. Drilling method used;
3. The reference point for all depth measurements (e.g., ground surface);
4. The depth to changes in the geologic formation(s);
5. The depth to the first water bearing zone;
6. The thickness of each stratum;
7. The description of the material comprising each stratum, including:
 - Depth and sample number;
 - Grain-size, as defined by the Modified Burmister System;
 - Color;
 - Degree of weathering, cementation and density;
 - Other physical characteristics.

8. The depth interval from which each formation sample was taken.
9. The depth at which borehole diameters (drill bit sizes) change, if applicable.
10. The depth to the static water level and changes in this level with borehole depth.
11. Total depth of completed boring (and well if not the same).
12. The depth and description of the well casing materials, screen and riser lengths, sand pack, bentonite seal, grout, and concrete surface seal.
13. The depth or location of any lost drilling materials or tools.
14. The amount of cement, bentonite and sand (number of bags) used for the installation of the well seals and sand pack.
15. Screen materials and design.
16. Casing and screen joint type.
17. Screen slot size and length.
18. Type of protective well casing and cap.
19. PID readings.

The Site's Site Management Plan presents a sample, boring log to be used during the drilling program.

4.4 Well Development

The purpose of well development is to remove fine materials from the area of the screen and prepare the monitoring well for future groundwater level measurement and sampling activities. This is achieved through various development methods until consistent water quality conditions are observed and recorded. These include stabilized (or nearly so) temperature, pH, specific conductance and turbidity measurements. Well development will be performed using the following outlined field procedures. Well development will not be performed on temporary wells.

4.4.1 Well Development Procedures

1. Inspect locking casing and surface concrete seal for integrity.
2. Open the well.
3. Measure the static water level from the top of the well casing and then the well bottom depth; calculate the volume of water in the well from the formula:

$$V = \pi R^2 H$$

Where:

V = volume (ft³)

R = inside well radius (ft)

H = length of water column (ft)

π = ~3.14

4. Lower a pre-cleaned or disposable bailer connected to a new solid braid nylon rope to the bottom of the well.

5. Bail the well until all fines are removed from the well and there is no solid sediment on the well bottom.
6. Continue bailing or install a well pumping system to complete well development. Pumps should be equipped with a backflow prevention valve.
7. If a pumping system is used, activate the pump; record the time and flow rate.
8. At 15-minute intervals during development, record temperature, pH, specific conductance and turbidity using calibrated instruments.
9. The pump will be periodically raised and lowered throughout the water column to ensure the screened interval is completely developed.
10. If low yield and slow recovery do not permit continuous pumping, the well will be periodically pumped or bailed.
11. Development will be considered complete when the following conditions have been achieved for three successive measurement intervals:
 - Temperature and specific conductance are within 10% of the previous readings.
 - pH is within 0.3 units.
 - Turbidity has reached 50 NTU's or lower. In the event that 50 NTU's cannot be achieved because of the nature of the formation, the NYSDEC will be notified and alternative criteria will be mutually agreed upon (e.g., purging to continue until NTU readings have stabilized to within $\pm 10\%$ of previous readings).

12. When the preceding conditions have been met, remove the pump, measure the water level, and secure and lock the well.
13. Record all pertinent information in the field log.

4.5 In-Situ Hydraulic Conductivity Testing

In-situ variable hydraulic conductivity testing will be performed within each completed monitoring well after sufficient development work has been accomplished. Also known as the slug or bail test, this method involves either the removal of a bail of water or the displacement of water within the well by the insertion of a slug. Upon creating an elevated or depressed head, the water level in the well is measured and recorded periodically over the recovery time.

The underlying assumption in the analysis of these tests is that the rate of inflow to the well, after inducing a hydraulic head difference, is a function of the hydraulic conductivity (k) and the unrecovered head distance. The analytical method, typically relying on graphical solution techniques (time vs. head or head ratio), rearranges the flow equation to solve for parameter k . For unconfined groundwater conditions, the Hvorslev and Bouwer-Rice methods will be used. Details of these methods are given in the publications by Hvorslev (1951), Cedergren (1977), and by Bouwer & Rice (1976) and Bouwer (1989), respectively. For confined groundwater conditions, if any are encountered, the Cooper-Bredehoeft-Papadopoulos method will be used (Cooper et al. 1967; Papadopoulos et al. 1973).

It is important to observe whether the static water level recorded prior to starting the variable head test occurs within the screened interval of the well. If so, the use of the slug test (falling head) is inappropriate due to drainage into the

vadose zone above the water table. A bail test (rising head) is preferred in such circumstances.

Depending on the rate of recovery, the water levels are recorded during the test either with an electronic probe and/or tape equipped with a sounding "popper", or with an immersed pressure transducer connected to an automatic data logger. The latter is appropriate for rapid recovery conditions, since considerable data are recorded during the first few seconds and minutes of the test, with greater accuracy than is possible using the manual observation method.

4.6 Groundwater Sampling

4.6.1 Monitoring Well Sampling Procedure

The primary objective of field personnel in obtaining groundwater samples is to collect and preserve representative samples, and adhere to proper chain-of-custody procedures in their prompt shipment to the certified laboratory for analysis within the specified holding times. Upgradient monitoring wells will be sampled before downgradient wells in the following manner:

1. Monitoring wells will be purged prior to sampling using disposable bailers or properly decontaminated pumping equipment. Temporary wells will also be purged prior to sampling. A minimum of three well volumes will be purged where possible. For wells that bail dry, purging will consist of complete evacuation. Specific Conductance, pH, Eh, temperature and turbidity will be monitored during purging to

confirm stable water quality conditions. Stable conditions are previously defined in Section 4.5.1 Well Development.

2. Following adequate recovery (within 80% of static levels), obtain sample with a disposable bailer suspended on new, solid-braid nylon rope. Transfer sample directly from the bailer to the parameter-specific sample container labeled appropriately (sample ID Number and preservative), and place in coolers with ice or ice packs. Fill sample bottles in the following order: VOCs then SVOCs, herbicides, pesticides, PCBs, then metals.
3. Calibrate all field chemistry equipment every day.
4. Follow record keeping and chain-of-custody procedures as detailed in Section 5.1.
5. Replace all well caps, and lock protective well cover.
6. At the end of the sampling day, the coolers will be taped shut with the custodian's initials placed on the tape at the points of entry. Samples will be delivered to the laboratory by field personnel upon departure from the site. Alternatively, an express carrier may be used to deliver the samples to the laboratory.

4.7 Sediment Sampling

Sediment samples may be collected from the former floor drain system at Site 1. A stainless steel scoop will be utilized to extract the sediment in the following manner:

1. Scoop sediments from the upper six inches of material within the pipe.
2. Place the sample into the parameter-specific sample container, label appropriately (sample ID number and preservative) and store in coolers with ice or ice packs as soon as possible.
3. Follow record keeping and chain-of-custody procedures as detailed in Section 5.1 of this Appendix.
4. Thoroughly decontaminate sampling scoop using the procedures outlined in Section 4.2.1 of this Appendix.
5. At the end of the sampling day, the coolers will be taped shut with the custodian's initials placed on the tape at the points of entry. Samples will be delivered to the laboratory by field personnel upon departure from the site.

4.8 Water Level Monitoring

In order to determine the horizontal hydraulic gradient(s) exhibited by the surface of the water table and potential routes of contaminant migration, water level measurements will be made at each newly installed well using the following procedures:

1. After noting the general conditions of the well (surface seal, lock, etc.) the bottom of the well will be sounded by lowering a decontaminated, weighted probe into the well.
2. Well bottom conditions will be noted (silty, blockages, etc.). The distance from the base of the screen to the top of the casing will be recorded to the nearest 1/100th of a foot.

3. The static water level will be measured and noted by sounding with an electronic tape or "popper" to the nearest 1/100th of a foot.
4. The water level readings will always be taken from a marked point on the well casing.
5. Other measurements to be taken are:
 - Stickup of well casing from ground surface or surface seal.
 - Depth to bottom of well from the top of the riser.
6. The date and time will be recorded for these measurements. Also, any pertinent weather conditions will be noted (i.e., significant recent precipitation or drought conditions).
7. Upon completion, the wells will be secured, and all downhole equipment will be decontaminated with methanol and deionized water.
8. As practicable, all water levels should be collected on the same day.

5.0 Quality Assurance/Quality Control

5.1 Record Keeping and Chain-of-Custody Documentation

The sampler's field records will contain sufficient information such that someone else can reconstruct the sampling situation without reliance on the sampler's memory. Entries in the field records will include, at a minimum, the following:

- Site name and location
- Project number
- Name and affiliation of Project Manager and sampler involved
- Sampling point name and description
- Type of sample container(s) used
- Preservative(s) used
- Well purging procedures and equipment
- Well-specific data including water level, depth and volume purged
- Sample collection procedure and equipment
- Date and time of collection
- Sample identification number(s)
- Laboratory's sample identification number(s)
- References such as maps or photographs of the sampling site, if available
- Field observations
- Pertinent weather factors such as temperature, wind direction and precipitation
- Any field measurements made, including pH, Eh, temperature, turbidity and dissolved oxygen

The field sampling data sheet is presented in the Site's Site Management Plan.

Chain-of-custody records for all samples will be maintained. A sample will be considered to be "in custody" of any individual if said sample is either in direct view of or otherwise directly controlled by that individual. Storage of samples during custody will be accomplished according to established preservation techniques, in appropriately sealed and numbered containers. Chain-of-custody will be accomplished when the samples are directly transferred from one individual to the next, with the first individual witnessing the signature of the recipient on the chain-of-custody record.

The chain-of-custody records will contain the following information:

- Respective sample numbers of the laboratory and Qualified Environmental Professional, if available
- Signature of the collector
- Date and time of collection
- Sample type (e.g., groundwater, sediment)
- Identification of well or sampling point
- Number of containers
- Parameter requested for analysis
- Signature of person(s) involved in the chain of possession
- Description of sample bottles and their condition
- Problems associated with sample collection (i.e., breakage, preservatives missing), if any

A sample chain-of-custody form is presented as Attachment 2.

All samples will be placed in a cooler on ice. If samples are to be hand delivered, no further measures are required. If samples are to be shipped via common carrier (e.g. Federal Express) bottle lids and labels are to be covered with clear tape, each sample bottle will be placed in a Ziploc plastic bag and individually wrapped in bubble wrap. Ice is to be double bagged. The cooler drain and seams will be sealed with duct tape. The cooler will be sealed with strapping tape and custody seals shall be placed on the front and back of the cooler lid.

5.2 Field Sample QA/QC Procedures

5.2.1 *Field and Trip Blanks*

To monitor the integrity of field sampling and equipment cleaning techniques, the following field quality assurance/quality control (QA/QC) procedures will be adhered to for this effort.

A field blank will be prepared on-site each day that surface water, sediment and soil samples are collected with non-dedicated or non-disposable sampling equipment. If more than one matrix is being sampled in a given day, field blanks will be prepared for each matrix. A trip blank for water samples and/or soil samples to be analyzed for VOCs will accompany sample containers through all phases of the sampling event to ensure proper bottle preparation and laboratory integrity. Trip blank and field blank samples will receive identical handling procedures as on-site samples.

Field and trip blanks are used as control or external QA/QC samples to detect contamination that may be introduced in the field (either atmospheric or from sampling equipment), in transit to or from the

sampling site, or in the bottle preparation, sample login, or sample storage stages within the laboratory. The blanks will also show any contamination that may occur during the analytical process.

Trip blanks are samples of analyte-free water, prepared at the same location and time as the preparation of bottles that are to be used for sampling. They remain with the sample bottles while in transit to the site, during sampling, and during the return trip to the laboratory. At no time during these procedures are they to be opened. Upon return to the laboratory, they are analyzed as if they were another sample, receiving the same QA/QC procedures as ordinary field samples. If these samples are accidentally opened, it will be noted on the chain-of-custody.

Field blanks are prepared in the field (at the sampling site) using empty bottles and analyte-free water supplied separately (prepared at the same time and place as the bottles used in the sampling). The preferred procedure for collection of field blanks for non-dedicated sampling equipment is to first decontaminate the sampling device (e.g., scoop, beaker), and then pour the analyte-free water over the device and collect the runoff into the empty bottles supplied with the sample bottles.

Field and trip blanks are not part of the laboratory QA/QC procedures. The latter, used to detect contamination during analytical steps, are only included as part of the laboratory service and assess the validity of the laboratory analytical procedures. Field and trip blanks are required as part of QA/QC procedures for the overall sampling and analytical program.

Duplicate samples will be collected at a frequency of one for every twenty samples from each matrix. If less than twenty samples are

collected from any matrix, then at least one duplicate will be collected from that matrix. Duplicate samples are analyzed to check the sample collection and handling process relative to the uniformity of the samples.

Matrix spike/matrix spike duplicate (MS/MSD) samples will be collected at a frequency of one for every twenty samples for each sample matrix. If less than twenty samples are collected from any matrix, then at least one MS/MSD will be collected from that matrix. The purpose of these samples is to evaluate the effect of the sample matrix on the analytical results.

5.3 Field Instrument Calibration

The on-site personnel are responsible for assuring that a master calibration/maintenance log will be maintained for each measuring device. Each log will include at least the following information where applicable:

- Name of device and/or instrument calibrated
- Device/instrument serial and/or ID number
- Frequency of calibration
- Date of calibration
- Results of calibration
- Name of person performing the calibration
- Identification of the calibration gas for PID
- Buffer solutions (pH meter)

5.4 Sample Analysis QA/QC Procedures

5.4.1 *Overview*

The purpose of the laboratory QA/QC program is to establish and maintain laboratory practices that will ensure the scientific reliability and comparability of the data generated in support of the project.

Quality assurance (QA) is the system for ensuring that all information, data, and resulting decisions compiled under an investigation are technically sound, statistically valid, and properly documented. Quality control (QC) is the mechanism through which quality assurance achieves its goals. Quality control programs define the frequency and methods of checks, audits, and reviews necessary to identify problems and dictate corrective action, thus high quality data.

The laboratory QA/QC program will outline the purpose, policies, organizations and operations established to support the chemical analyses.

The laboratory QA/QC procedures will be submitted as part of the laboratory selection process. The QA/QC document submitted by the laboratory will be appended to this document as Attachment A. The laboratory selected will be certified under the NYSDOH ELAP program.

5.4.2 Laboratory Selection Criteria

A laboratory will be selected that is qualified to perform the work required for the site. Examples of selection criteria are as follows:

1. Capabilities (facilities, personnel, instrumentation):
 - a. Previous use
 - b. Certification
 - c. References (recommendations by other users of the laboratory)
2. Services:
 - a. Turnaround time
 - b. Completeness of reports
 - c. Compliance with holding times
3. QA/QC Programs: All laboratories must have a detailed written QA/QC program meeting the minimum requirements of the NYS Department of Environmental Conservation and the NYS Department of Health, and must be NYSDOH ELAP CLP certified for all analyses being performed.
4. Approvals: All laboratories used will be approved by the Environmental Professional prior to the analysis of samples. The selected analytical laboratory will be committed to providing analytical services for groundwater, soil, sediment and surface water that are commensurate with the required protocols and current state-of-the-art analytical procedures, laboratory practices and instrumentation.

5.4.3 Data Validator Selection Criteria

A third-party independent data validator will be selected based on the required qualification presented in Attachment A, and must meet Department requirements for performing data validation.

Attachment A

Data Validation Scope of Work – NYSDEC RI/FS Program

Attachment A

Data Validation Scope of Work – NYSDEC RI/FS Program

Data validation is the systematic process by which the data quality is determined with respect to data quality criteria that are defined in project and laboratory quality control programs and in the referenced analytical methods. The data validation process consists of an assessment of the acceptability or validity of project data with respect to stated project goals and requirements for data usability. Ideally, data validation establishes the data quality in terms of project data quality objectives. Data validation consists of data editing, screening, checking, auditing, certification, review and interpretation. The purpose of data validation is to define and document analytical data quality and determine if the data quality is sufficient for the intended use(s) of the data. In accordance with DEC requirements, all project data must be of known and acceptable quality. Data validation is performed to establish the data quality for all data which are to be considered when making project decisions. Laboratories will be required to submit results which are supported by sufficient back-up data and QA/QC results to enable the reviewer to conclusively determine the quality of the data.

Qualifications of a Data Validator

In order to ensure an acceptable level of performance, the following qualifications and requirements are established for all consultants/contractors functioning as data validators. These qualifications and requirements shall apply whether the consultant/contractor is: a) retained directly through contracts executed by the State; b) retained as a subcontractor to a consultant functioning under contracts executed by the State; or c) retained by a responsible party functioning under the guidance and direction of an order on consent. Consultant/Contractor functioning as a data validator shall be independent of the laboratory generating the data.

The Consultant/Contractor functioning as a data validator shall provide evidence that all staff members involved in the data validation process have: a) a bachelor's

degree in chemistry or natural sciences with a minimum of 20 hours in chemistry; and b) one (1) year experience in the implementation and application of the protocols used in generating the data for which they are responsible. The successful completion of the EPA Data Validation Training course may be substituted for the analytical experience requirement. In addition, these same staff members must have a minimum of one (1) year experience evaluating CLP data packages for contract protocol compliance.

Specific Tasks to be Completed by the Data Validator

Evaluated Completeness of Laboratory Data Package

The data validator shall review the data package to determine completeness. A complete data package will consist of the following components:

- All sample chain-of-custody forms;
- The case narrative(s) including all sample analysis summary forms*;
- Quality Assurance/Quality Control summaries including all supporting documentation;
- All relevant calibration data including all supporting documentation;
- Instrument and method performance data;
- Documentation showing the laboratory's ability to attain the contract specified method detection limits for all target analytes in all required matrices;
- All data report forms including examples of the calculations used in determining final concentrations; and
- All raw data used in the identification and quantification of the contract specified target compounds.

*These forms appear as an addendum to the NYSDEC CLP forms package and will be required for all data submissions regardless of the protocol requested.

All deficiencies in the requirement for completeness shall be reported to the consultant immediately. The laboratory shall be contacted by the consultants Quality Assurance Officer and shall be given ten calendar days to produce the documentation necessary to remove the deficiencies.

Compliance of Data Packages with Work Plan

The validator shall review the submitted data package to determine compliance with those portions of the Work Plan that pertain to the generation of laboratory data. Compliance is defined by the following criteria:

- The data package is complete as defined above;
- The data has been generated and reported in a manner consistent with the requirements of the Quality Assurance Program Plan and the laboratory subcontract;
- All protocol required QA/QC criteria have been met;
- All instrument tune and calibration requirements have been met for the time frame during which the analyses were completed;
- All protocol required initial and continuing calibration data is present and documented;
- All data reporting forms are complete for all samples submitted. This will include all requisite flags, all sample dilution/concentration factors and all pre-measurement sample cleanup procedures; and

- All problems encountered during the analytical process have been reported in the case narrative along with any and all actions taken by the laboratory to correct these problems.

The data validation task requires that the validator conduct a detailed comparison of the reported data with raw data submitted as part of the supporting documentation package. It is the responsibility of the validator to determine that the reported data can be completely substantiated by applying protocol defined procedures for the identification and quantification of the individual analytes. To assist the validator in this determination, the following documents are recommended; however, the EPA Functional Guidelines will be used for format only. The specific requirements noted in the project Work Plan are prerequisite, for example holding times or special analytical project needs, to those noted in the Functional Guidelines.

- The particular protocol(s) under which the data was generated (e.g., NYSDEC Contract Laboratory Protocol; EPA SW-846; EPA Series 500 Protocols).
- Data validation guidance documents such as;
 - “Functional Guidelines for Evaluation of Inorganic Data” (published by EPA Region 2);
 - “Functional Guidelines for Evaluation of Organic Analyses”, Technical Directive Document No. HQ-8410-01 (published by EPA); and
 - “Functional Guidelines for Evaluating Pesticides/PCB’s Analyses” Technical Directive Document No. HQ-8410-01 (published by EPA).

NOTE: These documents undergo periodic revision. It is assumed that the selected data validator will have access to the most current applicable documents and guidelines.

Reporting

The validator shall submit a final report covering the results of the data review process. This report shall be submitted to the Project Manager or his designee and shall include the following:

- A general assessment of the data package as determined by the degree to which the package is complete and complies with the protocols set forth in the Work Plan;
- A detailed description of any and all deviations from the required protocols. These descriptions must include references to the portions of the protocols involved in the alleged deviations;
- Any and all failures in the validator's attempt to reconcile the reported data with the raw data from which it was derived. Specific references must be included. Telephone logs should be included in the validation report.
- Detailed assessment by the validator of the degree to which the data has been compromised by any deviations from protocol, QA/QC breakdowns, lack of analytical control, etc., that occurred during the analytical process'
- The report shall include, as an attachment, a copy of the laboratory's case narrative, including the DEC required sample and analysis summary sheets;
- The report shall include an overall appraisal of the data package; and

- The validation report shall include a chart presented in a spreadsheet format, consisting of site name, sample numbers, data submitted to laboratory, year of CLP or analytical protocol used, matrix, fractions analyzed (e.g., volatiles, semi-volatiles, Pest/PCB, metals, CN). Space should be provided for a reference to the NYSDEC CLP when non-compliance is involved and a column for an explanation of such violation.

Attachment B
Chain-of-Custody Form

Appendix F
Site-wide Inspection Form

SITE MANAGEMENT PLAN
ANNUAL SITE-WIDE INSPECTION
 TO BE COMPLETED BY OWNER ANNUALLY

Site Name: Christopher Service Company Site

Site No.: V00665-7

Site Address: 3117 Milton Avenue, Solvay, NY

Owner: ARAMARK Uniform Services (Syracuse), LLC

Owner Address: 115 North First Street, Burbank, California 91502

Date: _____

Inspected By: _____

Inspector's Signature: _____

Inspector's Address: _____

Site Management Plan (SMP) Compliance	YES	NO	N/A	COMMENTS
Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?				
Has the Environmental Easement been upheld?				
Have site-use restrictions been upheld (restricted commercial)?				
Has the groundwater use restriction been upheld?				
Has all intrusive work been conducted in accordance with the SMP?				
Was the Excavation Work Plan followed?				
Was the Community Air Monitoring Plan followed?				
Has the SSDS been inspected and maintained?				
Are all records related to the site maintained and up-to-date?				
Document the general site conditions at the time of the site inspection:				

Appendix G
Quality Assurance Project Plan

**ARAMARK Uniform Services (Syracuse), LLC
Christopher Service Company Site
3009 and 3117 Milton Avenue
Village of Solvay, New York**

**Voluntary Cleanup Project
VCP Site #V00665-7**

Quality Assurance Project Plan

November 2010

ARAMARK Uniform Services (Syracuse), LLC
Voluntary Cleanup Program

Village of Solvay
Onondaga County, New York

Quality Assurance Project Plan

Voluntary Cleanup Agreement (VCA) Index #B7-0643-03-09
VCP Site #V00665-7

November 2010

Prepared for:

The Wetlands Company
1040 East 86th Street
Suite 46C
Indianapolis, Indiana 46240

and

ARAMARK Uniform Services (Syracuse), LLC
115 North First Street
Burbank, California 91502

Prepared By:

Barton & Loguidice, P.C.
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Syracuse, New York 13220



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Attachments

Attachment A – Data Validation Scope of Work

Attachment B – Chain of Custody Form

1.0 Introduction

This document presents the Quality Assurance Project Plan (QAPP) for use in the event that soil disturbance activities become necessary on the Site. The QAPP outlines the field sampling quality assurance/quality control mechanisms.

2.0 Quality Assurance/Quality Control

2.1 Record Keeping and Chain-of-Custody Documentation

The sampler's field records will contain sufficient information such that someone else can reconstruct the sampling situation without reliance on the sampler's memory. Entries in the field records will include, at a minimum, the following:

- Site name and location
- Project number
- Name and affiliation of Project Manager and sampler involved
- Sampling point name and description
- Type of sample container(s) used
- Preservative(s) used
- Well purging procedures and equipment
- Well-specific data including water level, depth and volume purged
- Sample collection procedure and equipment
- Date and time of collection
- Sample identification number(s)
- Laboratory's sample identification number(s)
- References such as maps or photographs of the sampling site, if available
- Field observations
- Pertinent weather factors such as temperature, wind direction and precipitation
- Any field measurements made, including pH, Eh, temperature, turbidity and dissolved oxygen

The field sampling data sheet is presented as an Appendix to the Site's Site Management Plan.

Chain-of-custody records for all samples will be maintained. A sample will be considered to be "in custody" of any individual if said sample is either in direct view of or otherwise directly controlled by that individual. Storage of samples during custody will be accomplished according to established preservation techniques, in appropriately sealed and numbered containers. Chain-of-custody will be accomplished when the samples are directly transferred from one individual to the next, with the first individual witnessing the signature of the recipient on the chain-of-custody record.

The chain-of-custody records will contain the following information:

- Respective sample numbers of the laboratory and Qualified Environmental Professional, if available
- Signature of the collector
- Date and time of collection
- Sample type (e.g., groundwater, sediment)
- Identification of well or sampling point
- Number of containers
- Parameter requested for analysis
- Signature of person(s) involved in the chain of possession
- Description of sample bottles and their condition
- Problems associated with sample collection (i.e., breakage, preservatives missing), if any

A sample chain-of-custody form is presented as Figure A2-1.

All samples will be placed in a cooler on ice. If samples are to be hand delivered, no further measures are required. If samples are to be shipped via common carrier (e.g. Federal Express) bottle lids and labels are to be covered with clear tape, each sample bottle will be placed in a Ziploc plastic bag and individually wrapped in bubble wrap. Ice is to be double bagged. The cooler drain and seams will be sealed with duct tape. The cooler will be sealed with strapping tape and custody seals shall be placed on the front and back of the cooler lid.

2.2 Field Sample QA/QC Procedures

2.2.1 Field and Trip Blanks

To monitor the integrity of field sampling and equipment cleaning techniques, the following field quality assurance/quality control (QA/QC) procedures will be adhered to for this effort.

A field blank will be prepared on-site each day that surface water, sediment and soil samples are collected with non-dedicated or non-disposable sampling equipment. If more than one matrix is being sampled in a given day, field blanks will be prepared for each matrix. A trip blank for water samples and/or soil samples to be analyzed for VOCs will accompany sample containers through all phases of the sampling event to ensure proper bottle preparation and laboratory integrity. Trip blank and field blank samples will receive identical handling procedures as on-site samples.

Field and trip blanks are used as control or external QA/QC samples to detect contamination that may be introduced in the field (either atmospheric or from sampling equipment), in transit to or from the

sampling site, or in the bottle preparation, sample login, or sample storage stages within the laboratory. The blanks will also show any contamination that may occur during the analytical process.

Trip blanks are samples of analyte-free water, prepared at the same location and time as the preparation of bottles that are to be used for sampling. They remain with the sample bottles while in transit to the site, during sampling, and during the return trip to the laboratory. At no time during these procedures are they to be opened. Upon return to the laboratory, they are analyzed as if they were another sample, receiving the same QA/QC procedures as ordinary field samples. If these samples are accidentally opened, it will be noted on the chain-of-custody.

Field blanks are prepared in the field (at the sampling site) using empty bottles and analyte-free water supplied separately (prepared at the same time and place as the bottles used in the sampling). The preferred procedure for collection of field blanks for non-dedicated sampling equipment is to first decontaminate the sampling device (e.g., scoop, beaker), and then pour the analyte-free water over the device and collect the runoff into the empty bottles supplied with the sample bottles.

Field and trip blanks are not part of the laboratory QA/QC procedures. The latter, used to detect contamination during analytical steps, are only included as part of the laboratory service and assess the validity of the laboratory analytical procedures. Field and trip blanks are required as part of QA/QC procedures for the overall sampling and analytical program.

Duplicate samples will be collected at a frequency of one for every twenty samples from each matrix. If less than twenty samples are

collected from any matrix, then at least one duplicate will be collected from that matrix. Duplicate samples are analyzed to check the sample collection and handling process relative to the uniformity of the samples.

Matrix spike/matrix spike duplicate (MS/MSD) samples will be collected at a frequency of one for every twenty samples for each sample matrix. If less than twenty samples are collected from any matrix, then at least one MS/MSD will be collected from that matrix. The purpose of these samples is to evaluate the effect of the sample matrix on the analytical results.

2.3 Field Instrument Calibration

The on-site personnel are responsible for assuring that a master calibration/maintenance log will be maintained for each measuring device. Each log will include at least the following information where applicable:

- Name of device and/or instrument calibrated
- Device/instrument serial and/or ID number
- Frequency of calibration
- Date of calibration
- Results of calibration
- Name of person performing the calibration
- Identification of the calibration gas for PID
- Buffer solutions (pH meter)

2.4 Sample Analysis QA/QC Procedures

2.4.1 *Overview*

The purpose of the laboratory QA/QC program is to establish and maintain laboratory practices that will ensure the scientific reliability and comparability of the data generated in support of the project.

Quality assurance (QA) is the system for ensuring that all information, data, and resulting decisions compiled under an investigation are technically sound, statistically valid, and properly documented. Quality control (QC) is the mechanism through which quality assurance achieves its goals. Quality control programs define the frequency and methods of checks, audits, and reviews necessary to identify problems and dictate corrective action, thus high quality data.

The laboratory QA/QC program will outline the purpose, policies, organizations and operations established to support the chemical analyses.

The laboratory QA/QC procedures will be submitted as part of the laboratory selection process. The QA/QC document submitted by the laboratory will be appended to this document as Attachment A. The laboratory selected will be certified under the NYSDOH ELAP program.

2.4.2 Laboratory Selection Criteria

A laboratory will be selected that is qualified to perform the work required for the site. Examples of selection criteria are as follows:

1. Capabilities (facilities, personnel, instrumentation):
 - a. Previous use
 - b. Certification
 - c. References (recommendations by other users of the laboratory)
2. Services:
 - a. Turnaround time
 - b. Completeness of reports
 - c. Compliance with holding times
3. QA/QC Programs – All laboratories must have a detailed written QA/QC program meeting the minimum requirements of the NYS Department of Environmental Conservation and the NYS Department of Health, and must be NYSDOH ELAP CLP certified for all analyses being performed.
4. Approvals – All laboratories used will be approved by the Environmental Professional prior to the analysis of samples. The selected analytical laboratory will be committed to providing analytical services for groundwater, soil, sediment and surface water that are commensurate with the required protocols and current state-of-the-art analytical procedures, laboratory practices and instrumentation.

2.4.3 Data Validator Selection Criteria

A third-party independent data validator will be selected based on the required qualification presented in Attachment A, and must meet Department requirements for performing data validation.

Attachment A
Data Validation Scope of Work

Attachment A

Data Validation Scope of Work – NYSDEC RI/FS Program

Data validation is the systematic process by which the data quality is determined with respect to data quality criteria that are defined in project and laboratory quality control programs and in the referenced analytical methods. The data validation process consists of an assessment of the acceptability or validity of project data with respect to stated project goals and requirements for data usability. Ideally, data validation establishes the data quality in terms of project data quality objectives. Data validation consists of data editing, screening, checking, auditing, certification, review and interpretation. The purpose of data validation is to define and document analytical data quality and determine if the data quality is sufficient for the intended use(s) of the data. In accordance with DEC requirements, all project data must be of known and acceptable quality. Data validation is performed to establish the data quality for all data which are to be considered when making project decisions. Laboratories will be required to submit results which are supported by sufficient back-up data and QA/QC results to enable the reviewer to conclusively determine the quality of the data.

Qualifications of a Data Validator

In order to ensure an acceptable level of performance, the following qualifications and requirements are established for all consultants/contractors functioning as data validators. These qualifications and requirements shall apply whether the consultant/contractor is: a) retained directly through contracts executed by the State; b) retained as a subcontractor to a consultant functioning under contracts executed by the State; or c) retained by a responsible party functioning under the guidance and direction of an order on consent. Consultant/Contractor functioning as a data validator shall be independent of the laboratory generating the data.

The Consultant/Contractor functioning as a data validator shall provide evidence that all staff members involved in the data validation process have: a) a bachelor's

degree in chemistry or natural sciences with a minimum of 20 hours in chemistry; and b) one (1) year experience in the implementation and application of the protocols used in generating the data for which they are responsible. The successful completion of the EPA Data Validation Training course may be substituted for the analytical experience requirement. In addition, these same staff members must have a minimum of one (1) year experience evaluating CLP data packages for contract protocol compliance.

Specific Tasks to be Completed by the Data Validator

Evaluated Completeness of Laboratory Data Package

The data validator shall review the data package to determine completeness. A complete data package will consist of the following components:

- All sample chain-of-custody forms;
- The case narrative(s) including all sample analysis summary forms*;
- Quality Assurance/Quality Control summaries including all supporting documentation;
- All relevant calibration data including all supporting documentation;
- Instrument and method performance data;
- Documentation showing the laboratory's ability to attain the contract specified method detection limits for all target analytes in all required matrices;
- All data report forms including examples of the calculations used in determining final concentrations; and
- All raw data used in the identification and quantification of the contract specified target compounds.

*These forms appear as an addendum to the NYSDEC CLP forms package and will be required for all data submissions regardless of the protocol requested.

All deficiencies in the requirement for completeness shall be reported to the consultant immediately. The laboratory shall be contacted by the consultants Quality Assurance Officer and shall be given ten calendar days to produce the documentation necessary to remove the deficiencies.

Compliance of Data Packages with Work Plan

The validator shall review the submitted data package to determine compliance with those portions of the Work Plan that pertain to the generation of laboratory data. Compliance is defined by the following criteria:

- The data package is complete as defined above;
- The data has been generated and reported in a manner consistent with the requirements of the Quality Assurance Program Plan and the laboratory subcontract;
- All protocol required QA/QC criteria have been met;
- All instrument tune and calibration requirements have been met for the time frame during which the analyses were completed;
- All protocol required initial and continuing calibration data is present and documented;
- All data reporting forms are complete for all samples submitted. This will include all requisite flags, all sample dilution/concentration factors and all pre-measurement sample cleanup procedures; and

- All problems encountered during the analytical process have been reported in the case narrative along with any and all actions taken by the laboratory to correct these problems.

The data validation task requires that the validator conduct a detailed comparison of the reported data with raw data submitted as part of the supporting documentation package. It is the responsibility of the validator to determine that the reported data can be completely substantiated by applying protocol defined procedures for the identification and quantification of the individual analytes. To assist the validator in this determination, the following documents are recommended; however, the EPA Functional Guidelines will be used for format only. The specific requirements noted in the project Work Plan are prerequisite, for example holding times or special analytical project needs, to those noted in the Functional Guidelines.

- The particular protocol(s) under which the data was generated (e.g., NYSDEC Contract Laboratory Protocol; EPA SW-846; EPA Series 500 Protocols).
- Data validation guidance documents such as;
 - “Functional Guidelines for Evaluation of Inorganic Data” (published by EPA Region 2);
 - “Functional Guidelines for Evaluation of Organic Analyses”, Technical Directive Document No. HQ-8410-01 (published by EPA); and
 - “Functional Guidelines for Evaluating Pesticides/PCB’s Analyses” Technical Directive Document No. HQ-8410-01 (published by EPA).

NOTE: These documents undergo periodic revision. It is assumed that the selected data validator will have access to the most current applicable documents and guidelines.

Reporting

The validator shall submit a final report covering the results of the data review process. This report shall be submitted to the Project Manager or his designee and shall include the following:

- A general assessment of the data package as determined by the degree to which the package is complete and complies with the protocols set forth in the Work Plan;
- A detailed description of any and all deviations from the required protocols. These descriptions must include references to the portions of the protocols involved in the alleged deviations;
- Any and all failures in the validator's attempt to reconcile the reported data with the raw data from which it was derived. Specific references must be included. Telephone logs should be included in the validation report.
- Detailed assessment by the validator of the degree to which the data has been compromised by any deviations from protocol, QA/QC breakdowns, lack of analytical control, etc., that occurred during the analytical process'
- The report shall include, as an attachment, a copy of the laboratory's case narrative, including the DEC required sample and analysis summary sheets;
- The report shall include an overall appraisal of the data package; and

- The validation report shall include a chart presented in a spreadsheet format, consisting of site name, sample numbers, data submitted to laboratory, year of CLP or analytical protocol used, matrix, fractions analyzed (e.g., volatiles, semi-volatiles, Pest/PCB, metals, CN). Space should be provided for a reference to the NYSDEC CLP when non-compliance is involved and a column for an explanation of such violation.

Attachment B
Chain of Custody Form

Appendix H

EC System Inspection Checklist(s)

**ARAMARK Uniform Services (Syracuse), LLC
Christopher Service Company Site
Vapor Intrusion Mitigation System Inspection Checklist**

Address inspected: _____ **Village of Solvay, NY**

Person(s) interviewed: _____

Date of inspection: _____

Inspector(s): _____

Make and Model of Fan _____

Date System Installed _____

Suction Static Pressure **SSP#1** _____ **SSP#2** _____ **SSP#3** _____

1.0 Systems Installation and Interior Piping Requirements

Yes No Unk / NA

1.1 Are all manifold and suction point piping solid, rigid pipe not less than 3 in. inside diameter? _____

1.2 Are all pipe interior joints and connections in mitigation systems sealed permanently?
(Exceptions include installation of fans and sump covers) _____

1.3 Does the system piping avoid attachment to or support by existing pipes, ducts, conduits
or any kind of equipment? _____

1.4 Does the system piping avoid blocking window and doors or access to installed equipment? _____

1.5 Are supports for system piping installed at least every six (6) feet on horizontal runs? _____

1.6 Are vertical runs secured above or below the points of penetration through floors, ceilings
and roofs, or at least every (8) feet on runs that do not penetrate floors, ceilings or roofs? _____

1.7 Are suction point pipes supported and secured in a permanent manner that prevents their
downward movement to the bottom of suction pits or sump pits, or into the soil beneath
a soil-gas-retarder membrane? _____

1.8 Are horizontal runs in system piping sloped to ensure that water from rain or condensation
drains downward into the ground beneath the slab or soil-gas-retarder membrane? _____

1.9 Does the system piping pass the smoke stick check (no leaks)? _____

2.0 General Sealing Requirements

2.1 Are openings around the suction point piping penetrations of the slab properly sealed using
methods and materials that are permanent \ durable and pass the smoke stick check? _____

2.2 Are accessible openings around utility penetrations of the foundation walls and slab, test
holes, wells and other openings in slabs properly sealed using methods and materials that are
permanent / durable and pass the smoke stick check? _____

2.3 Are openings / cracks sealed where the slab meets the foundation wall (if appropriate)? _____

***This Inspection form was adapted from an existing checklist obtained from tl

	Yes	No	Unk/NA
2.4 Is urethane caulk or equivalent material used, and when the joint is greater than ½ inch in width, is a foam backer rod or other comparable filler material inserted into the joint before the application of the sealant (principally from the outside)?	_____	_____	_____
2.5 When installing baseboard-type suction systems, are all baseboard sealed to walls and floors with adhesives also designed and recommended for such installations?	_____	_____	_____
2.6 Are all utility and other penetrations through a soil-gas-retarder membrane sealed?	_____	_____	_____
2.7 Did all cracks or openings in the slab or wall pass the smoke test? If not, identify the location of failed cracks or openings in the Notes & Comments Section below.	_____	_____	_____

3.0 Electrical Requirements

3.1 Is the plugged cord used to supply power to the fan no more than 6 feet in length?	_____	_____	_____
3.2 Does the plugged cord avoid penetrating a wall or being sealed within a wall?	_____	_____	_____
3.3 Is the power supply to the fan hard-wired with an electrical disconnect within line of sight and 4 feet of the fan?	_____	_____	_____
3.4 Does the power supply have a seal to determine if access has occurred?	_____	_____	_____
3.5 Is the access seal on the power supply intact?	_____	_____	_____
3.6 Is the electrical service panel labeled to indicate the circuit breaker powering the SSDS fan?	_____	_____	_____

4.0 Sub-Membrane Depressurization Requirements

4.1 Is a sub-membrane depressurization system part of the mitigation system?	_____	_____	_____
4.2 If yes, did the sub-membrane depressurization system pass the smoke test?	_____	_____	_____

5.0 Sump Pit Requirements

5.1 Is there a sump pit in basement?	_____	_____	_____
If yes:			
5.2 Is the sump pit installed with an impermeable cover and sealed with O-ring or silicone caulking?	_____	_____	_____
5.3 Is the sump pit cover designed to facilitate removal for sump pit maintenance?	_____	_____	_____
5.4 Is there a mitigation system designed to draw soil-gas from the sump pit?	_____	_____	_____

6.0 Monitors and Labeling Requirements

6.1 Does each suction point have a mechanism to measure vacuum?	_____	_____	_____
6.2 Is the mechanical mitigation system's monitor, such as manometer type pressure gauges, clearly marked to indicate the initial pressure readings?	_____	_____	_____
6.3 Is the current vacuum reading within 0.25" water of the initial reading for low vacuum fans and within 5% of the commissioned vacuum for high vacuum fans?	_____	_____	_____

Homeowner Address

Date:

Inspector's Name:

***This Inspection form was adapted from an existing checklist obtained from tl

	Yes	No	Unk/NA
6.4 Is a system description label placed on the mitigation system or other prominent location?	_____	_____	_____
6.5 Is the label legible from a distance of at least three feet and does it display the following information: Purpose of the system ("Vapor Intrusion Mitigation"), name, address and phone number of the contact person.	_____	_____	_____
6.6 Does the mitigation system prevent backdrafting of combustion products into the structure?	_____	_____	_____
6.7 Does the mitigation system include an audible alarm to inform occupants of a system malfunction?	_____	_____	_____

7.0 System Vent Discharge Point Requirements

7.1 Is the vent pipe vertical and upward, outside the structure, at least 10 feet above ground level, and above the edge of the roof ? (Req. A)	_____	_____	_____
7.2 Is the discharge of the vent pipe ten feet or more away from any window, door, or other opening into conditioned or otherwise occupiable spaces of the structure, if the vapor discharge point is not at least 2 feet above the top of such openings? (Req. B)	_____	_____	_____
7.3 Is the discharge of the vent pipe ten feet or more away from any opening into the conditioned or other occupiable spaces of an adjacent building? Chimney flues shall be considered openings. (Req. C)	_____	_____	_____
7.4 For vent stack pipes that penetrate the roof, is the point of discharge at least 12 in. above the surface of the roof? (Req. D)	_____	_____	_____
7.5 For vent stack pipes attached to or penetrating the sides of the buildings, is the point of discharge vertical and a minimum of 12 inches above the surface of the roof.	_____	_____	_____
7.6 Does the horizontal run of vent stack pipe penetrate the gable end walls? (Req. E)	_____	_____	_____
7.7 If yes, does the piping outside the structure routed to a vertical position so that the discharge point meets the requirements of (A) , (B) , (C) , and (D) ?	_____	_____	_____
7.8 Do points of discharge that are not in a direct line of sight from openings into conditioned or otherwise occupiable space because of intervening objects, such as dormers, chimneys, windows around the corner, etc. meet the separation requirements of (A) , (B) , (C) , (D) and (E) ?	_____	_____	_____
7.9 Is the outside vent piping fastened to the structure of the building with hangers, strapping or other supports that will secure it adequately (every 8 feet)?	_____	_____	_____
7.10 Is vent stack piping's ID at least as large as the largest used in the manifold piping? Manifold piping to which two or more suction points are connected shall be at least 4 inch ID. (3x4 inch aluminum downspout is an acceptable deviation)	_____	_____	_____
7.11 If system piping is installed on the exterior of a building, is piping sealed from the outside at point of entry to the building?	_____	_____	_____

8.0 Fan Installation Requirements

8.1 Is the fan installed in a configuration that avoids condensation buildup in the fan housing?	_____	_____	_____
--	-------	-------	-------

Homeowner Address _____

Date: _____

Inspector's Name: _____

***This Inspection form was adapted from an existing checklist obtained from tl

	Yes	No	Unk/NA
8.2 Is the fan mounted on the exterior of buildings rated for outdoor use or installed in a weather proof protective housing?	_____	_____	_____
8.3 Is the fan mounted and secured in a manner that minimizes transfer of vibration to the structural framing of the building?	_____	_____	_____
8.4 Does the system operate without noise or vibration above normal conditions?	_____	_____	_____

9.0 Design Drawing and As-Built Drawing Requirements

9.1 Was the system installed as per the design drawings submitted to the municipality?	_____	_____	_____
--	-------	-------	-------

10.0 Notes & Comments

Appendix I
Metes and Bounds

SCHEDULE "A" PROPERTY DESCRIPTION

Enter Property Description

No:

1103-30113

The land referred to in this Commitment is described as follows:

An ENVIRONMENTAL EASEMENT Granted Pursuant to Article 71, Title 36 of the New York State Environmental Conservation Law over the following described parcels:

PARCEL A:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Geddes, Village of Solvay, County of Onondaga and State of New York and further being Lots No. One (1) and Two (2) of Block No. four (4) of the lands of Myron C. Darrow Estate on Farm Lots 136 and 144 Geddes and Lot 24 Camillus, according to a map thereof made by F.J. Schnauber, C.E. and dated April 12, 1926 and filed in the Onondaga County Clerk's Office of Onondaga County September 29, 1926.

PARCEL B:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Geddes, County of Onondaga and State of New York, being a part of Farm Lot #136 in said Town and further being Lot #3 of Block #4 of the lands of Myron C. Darrow Estate on Farm Lots #136 and 144 Geddes and Lot #24 Camillus, according to a map thereof made by F.J. Schnauber, C.E., dated April 12, 1926 and filed in the Clerk's Office of Onondaga County September 29, 1926.

ALSO, ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Geddes, County of Onondaga and State of New York, and further being a part of Lot #13 in Block #4 of the lands of Myron C. Darrow Estate on Farm Lots #136 and #144 Geddes and Lot #24 Camillus according to a map thereof made by F.J. Schnauber, C.E. dated April 12, 1926 and filed in the Clerk's Office of Onondaga County September 29, 1926. Said part of Lot #13 of Block #4 of said Tract being a parcel of and 40 feet deep across the rear of said premises (Lot #3 Block #4), being the northerly 40 feet of said Lot #13.

PARCEL C:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Geddes, Village of Solvay, County of Onondaga and State of New York, and further being Lot Number Four (4) of Block Number Four (4) of the lands of Myron C. Darrow Estate on Farm Lots 136 and 144 Geddes and Lot 24 Camillus, according to a map thereof made by F.J. Schnauber, C.E., dated April 12, 1926 and filed in the Clerk's Office of Onondaga County September 29, 1926.

PARCEL D:

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Geddes, Village of Solvay, County of Onondaga and State of New York, and known as Lots #5 & #6 of Block 4 of the Myron C. Darrow Tract according to a map made by F.J. Schnauber, C.E., filed in the Onondaga County Clerk's Office on September 29, 1926.

SAID ENVIRONMENTAL EASEMENT IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

All that piece or parcel of land, situate in the Town of Geddes, Village of Solvay, County of Onondaga and State of New York, being a portion of Farm Lots 136 & 144 Geddes and Lot 24 Camillus and further being Lot

No:

1103-30113

The land referred to in this Commitment is described as follows:

Numbers One (1), Two (2), Three (3), Four (4), Five (5), Six (6) and a portion of Lot Thirteen (13) in Block Four (4) as shown on a map of the lands of Myron C. Darrow Estate dated April 12, 1926, filed as Map Number 2042 in the Office of the Clerk of the County of Onondaga and more particularly described as follows:

BEGINNING at a point on the southeasterly boundary of New York State Route 297 (Milton Avenue), an existing state highway, at its intersection with the northeasterly boundary of Bailey Street, an existing village street, thence:

Along the southeasterly boundary of N.Y.S. Route 297, North 45° 58' 30" East a distance of 320.00 feet to a point at its intersection with the division line between the property of Aramark Uniform Services (Syracuse) LLC (reputed owner) on the northwest and the property of Deli-Boy Provision Co. (reputed owner) on the southeast, thence:

Along the last mentioned division line South 44° 01' 30" East a distance of 125.00 feet to a point at its intersection with the division line between the property of Aramark Uniform Services (Syracuse) LLC (reputed owner) on the northwest and the property of Mary F. Palumbo (reputed owner) on the southeast, thence:

Along the last mentioned division line South 45° 58' 30" West and continuing along the division lines of Desantis, the Victoria Duda Trust and Devereaux (reputed owners) on the southeast, a total distance of 170.00 feet to an angle point, thence:

South 44° 01' 30" East a distance of 40.00 feet continuing along the last mentioned division line to a point at its intersection with the division line between the property of Aramark Uniform Services (Syracuse) LLC (reputed owner) on the northwest and the property of Dan Simiele and Beverly Simiele (reputed owners) on the southeast, thence:

Along the last mentioned division line South 45° 58' 30" West a distance of 50.00 feet to a point on the division line between the property of Aramark Uniform Services (Syracuse) LLC (reputed owner) on the northeast and other property of Aramark Uniform Services (Syracuse) LLC (reputed owner) being Lot Twelve (12) of the aforementioned subdivision on the northwest, thence:

Along the last mentioned division line North 44° 01' 30" West a distance of 40.00 feet to an angle point, thence:

South 45° 58' 30" West continuing along the said division line and along the division line of Aramark Uniform & Career Apparel Inc. (reputed owner) on the southeast, a total distance of 100.00 feet to a point on the northeasterly boundary of Bailey Street, thence:

Along the last mentioned street boundary North 44° 01' 30" West a distance of 125.00 feet to the point of beginning, being 42,000 +/- square feet or 0.964 acres, more or less.

Appendix J
Environmental Easement

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36
OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 6th day of June, 2011, between Owner(s) Aramark Uniform Services (Syracuse) LLC, having an office at 1209 Orange Street, City of Wilmington, County of New Castle, State of Delaware, (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 3009 and 3117 Milton Avenue in the Village of Solvay, County of Onondaga and State of New York, known and designated on the tax map of the County Clerk of Onondaga as tax map parcel numbers: Section 003. Block 02 Lot(s) 1.1, 4 and 5, being the same as that property conveyed to Aramark Uniform Acquisition LLC (which changed its name to Aramark Uniform Services (Syracuse) LLC on October 28, 2003) by deed dated January 31, 2003 and recorded in the Onondaga County Clerk's Office in Book 4765 at Page 038 and by deed dated December 1, 1995 recorded in the Onondaga County Clerk's Office in Book 4044 at Page 0171 to Christopher Service Co., INC., d/b/a/ Allied Industrial Laundry, which was merged to Aramark Uniform Services (Syracuse) LLC, by Certificate of Merger filed with the Secretary of State at the Division of Corporations Office, all of the above comprising approximately 0.964 ± acres, and hereinafter more fully described in the Land Title Survey dated November 30, 2010, revised December 14, 2010 and April 27, 2011 prepared by Popli Design Group, Architecture and Engineering, which will be attached to the Site Management Plan. The property description and survey (the "Controlled Property") is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of VCA Index Number: B7-0643-03-09, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP.

(4) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(5) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(6) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(7) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP.

(8) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP.

(9) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential or Restricted Residential purposes, and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:
(i) are in-place;
(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a

defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. In the event of a violation of this Environmental Easement, Grantee may revoke the Release and Covenant Not to Sue issued pursuant to the Voluntary Cleanup Agreement for the Controlled Property in accordance with its terms.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to: Site Number: V 00665-7
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to: Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed

by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Grantor: Aramark Uniform Services (Syracuse) LLC

By: 

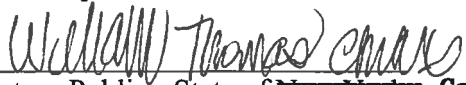
Print Name: David Michaelson

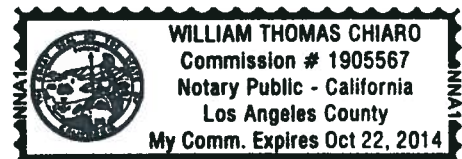
Title: Vice President Date: June 6, 2011

Grantor's Acknowledgment

STATE OF ~~NEW YORK~~) **CALIFORNIA**
) ss:
COUNTY OF **LOS ANGELES**

On the 6th day of June, in the year 2011, before me, the undersigned, personally appeared David Michaelson, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.


Notary Public - State of ~~New York~~ **California**
William Thomas Chiaro



THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner.

By: _____

Dale A. Desnoyers, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the _____ day of _____, in the year 20__, before me, the undersigned, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public - State of New York

SCHEDULE "A" ENVIRONMENTAL EASEMENT
PROPERTY DESCRIPTION

ARAMARK SITE # V00665-7

3009/3117 Milton Avenue, Village of Solvay, County of Onondaga, NY

Tax Map No(s): 003. - 02-1.1, 003. - 02 - 4 & 003. - 02 -5

An ENVIRONMENTAL EASEMENT Granted Pursuant to Article 71, Title 36 of the New York State Environmental Conservation Law over the following described parcels:

PARCEL A:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Geddes, Village of Solvay, County of Onondaga and State of New York and further being Lots No. One (1) and Two (2) of Block No. four (4) of the lands of Myron C. Darrow Estate on Farm Lots 136 and 144 Geddes and Lot 24 Camillus, according to a map thereof made by F.J. Schnauber, C.E. and dated April 12, 1926 and filed in the Onondaga County Clerk's Office of Onondaga County September 29, 1926.

PARCEL B:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Geddes, County of Onondaga and State of New York, being a part of Farm Lot #136 in said Town and further being Lot #3 of Block #4 of the lands of Myron C. Darrow Estate on Farm Lots #136 and 144 Geddes and Lot #24 Camillus, according to a map thereof made by F.J. Schnauber, C.E., dated April 12, 1926 and filed in the Clerk's Office of Onondaga County September 29, 1926.

ALSO, ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Geddes, County of Onondaga and State of New York, and further being a part of Lot #13 in Block #4 of the lands of Myron C. Darrow Estate on Farm Lots #136 and #144 Geddes and Lot #24 Camillus according to a map thereof made by F.J. Schnauber, C.E. dated April 12, 1926 and filed in the Clerk's Office of Onondaga County September 29, 1926. Said part of Lot #13 of Block #4 of said Tract being a parcel of land 40 feet deep across the rear of said premises (Lot #3 Block #4), being the northerly 40 feet of said Lot #13.

PARCEL C:

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Geddes, Village of Solvay, County of Onondaga and State of New York, and further being Lot Number Four (4) of Block Number Four (4) of the lands of Myron C. Darrow Estate on Farm Lots 136 and 144 Geddes and Lot 24 Camillus, according to a map thereof made by F.J. Schnauber, C.E., dated April 12, 1926 and filed in the Clerk's Office of Onondaga County September 29, 1926.

PARCEL D:

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Geddes, Village of Solvay, County of Onondaga and State of New York, and known as Lots #5 & #6 of Block 4 of the Myron C. Darrow Tract according to a map made by F.J. Schnauber, C.E., filed in the Onondaga County Clerk's Office on September 29, 1926.

SAID ENVIRONMENTAL EASEMENT IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

All that piece or parcel of land, situate in the Town of Geddes, Village of Solvay, County of Onondaga and State of New York, being a portion of Farm Lots 136 & 144 Geddes and Lot 24 Camillus and further being Lot Numbers One (1), Two (2), Three (3), Four (4), Five (5), Six (6) and a portion of Lot Thirteen (13) in Block Four (4) as shown on a map of the lands of Myron C. Darrow Estate dated April 12, 1926, filed as Map Number 2042 in the Office of the Clerk of the County of Onondaga and more particularly described as follows:

BEGINNING at a point on the southeasterly boundary of New York State Route 297 (Milton Avenue), an existing state highway, at its intersection with the northeasterly boundary of Bailey Street, an existing village street, thence:

Along the southeasterly boundary of N.Y.S. Route 297, North 45 deg. 58' 30" East a distance of 320.00 feet to a point at its intersection with the division line between the property of Aramark Uniform Services (Syracuse) LLC (reputed owner) on the northwest and the property of Deli-Boy Provision Co. (reputed owner) on the southeast, thence:

Along the last mentioned division line South 44 deg. 01' 30" East a distance of 125.00 feet to a point at its intersection with the division line between the property of Aramark Uniform Services (Syracuse) LLC (reputed owner) on the northwest and the property of Mary F. Palumbo (reputed owner) on the southeast, thence:

Along the last mentioned division line South 45 deg. 58' 30" West and continuing along the division lines of Desantis, the Victoria Duda Trust and Devereaux (reputed owners) on the southeast, a total distance

of 170.00 feet to an angle point, thence:

South 44 deg. 01' 30" East a distance of 40.00 feet continuing along the last mentioned division line to a point at its intersection with the division line between the property of Aramark Uniform Services (Syracuse) LLC (reputed owner) on the northwest and the property of Dan Simiele and Beverly Simiele (reputed owners) on the southeast, thence:

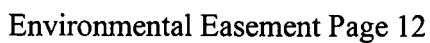
Along the last mentioned division line South 45 deg. 58' 30" West a distance of 50.00 feet to a point on the division line between the property of Aramark Uniform Services (Syracuse) LLC (reputed owner) on the northeast and other property of Aramark Uniform Services (Syracuse) LLC (reputed owner) being Lot Twelve (12) of the aforementioned subdivision on the northwest, thence:

Along the last mentioned division line North 44 deg. 01' 30" West a distance of 40.00 feet to an angle point, thence:

South 45 deg. 58' 30" West continuing along the said division line and along the division line of Aramark Uniform & Career Apparel Inc. (reputed owner) on the southeast, a total distance of 100.00 feet to a point on the northeasterly boundary of Bailey Street, thence:

Along the last mentioned street boundary North 44 deg. 01' 30" West a distance of 125.00 feet to the point of beginning, being 42,000 +/- square feet or 0.964 acres, more or less.

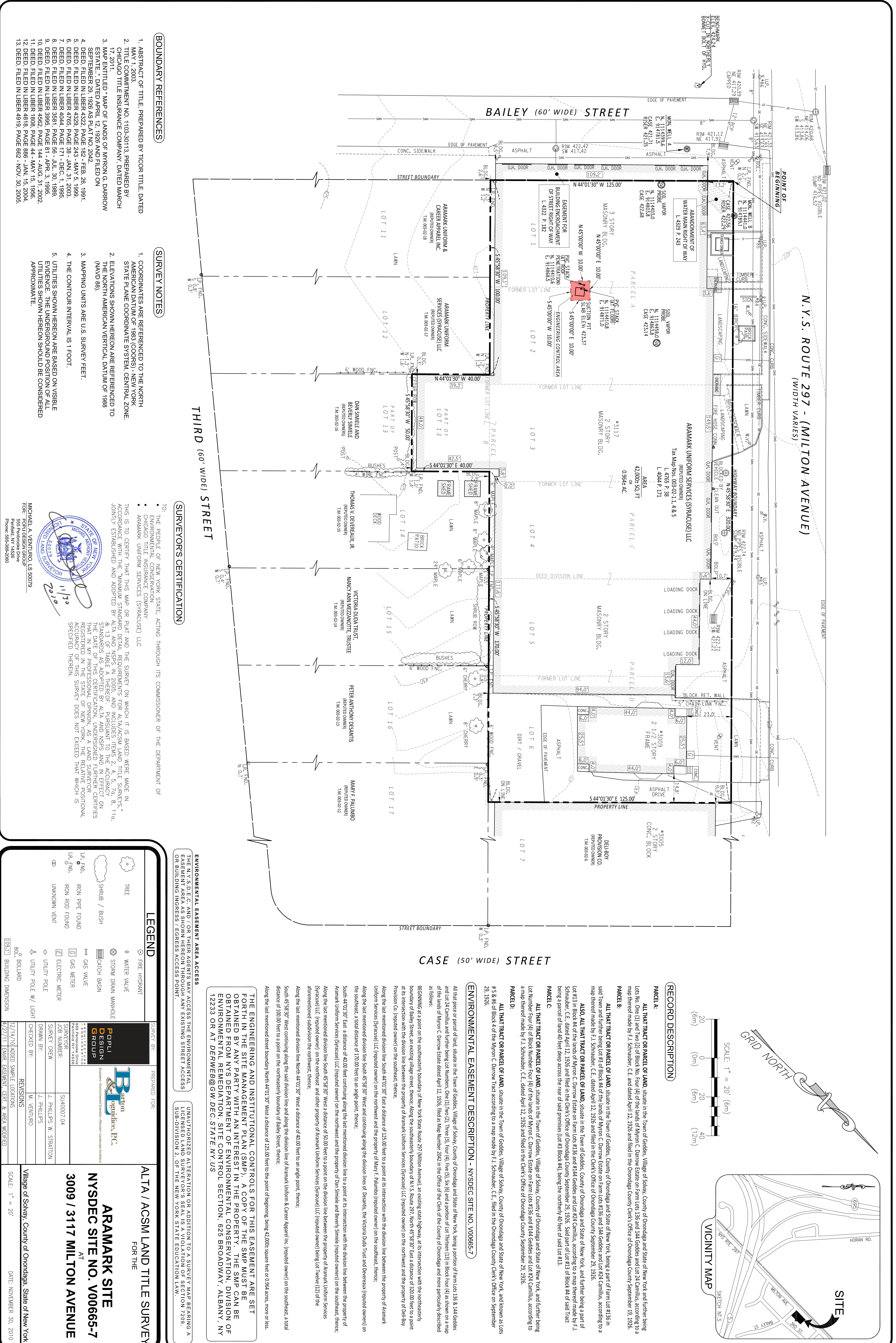
SURVEY



Appendix K

Stormwater Pollution Prevention Plan
(To be developed by Site Contractor if needed)

Appendix L
EC ALTA Survey



Appendix M
EC System Component Manuals



INSTALLATION & OPERATING INSTRUCTIONS
Instruction P/N IN015 Rev E
FOR CHECKPOINT IIa™ P/N 28001-2 & 28001-3
RADON SYSTEM ALARM

INSTALLATION INSTRUCTIONS
(WALL MOUNTING)

Select a suitable wall location near a vertical section of the suction pipe. The unit should be mounted about four or five feet above the floor and as close to the suction pipe as possible. Keep in mind that with the plug-in transformer provided, the unit must also be within six feet of a 120V receptacle. **NOTE: The Checkpoint IIa is calibrated for vertical mounting, horizontal mounting will affect switchpoint calibration.**

Drill two 1/4" holes 4" apart horizontally where the unit is to be mounted.

Install the two 1/4" wall anchors provided.

Hang the CHECKPOINT IIa from the two mounting holes located on the mounting bracket. Tighten the mounting screws so the unit fits snugly and securely against the wall.

Drill a 5/16" hole into the side of the vent pipe about 6" higher than the top of the unit.

Insert the vinyl tubing provided about 1" inside the suction pipe.

Cut a suitable length of vinyl tubing and attach it to the pressure switch connector on the CHECKPOINT IIa.

CALIBRATION AND OPERATION.

The CHECKPOINT IIa units are calibrated and sealed at the factory to alarm when the vacuum pressure falls below the factory setting and should not normally require field calibration. Factory Settings are:

28001-2 - .25" WC Vacuum

28001-3 - .10" WC Vacuum

To Verify Operation:

With the exhaust fan off or the pressure tubing disconnected and the CHECKPOINT IIa plugged in, both the red indicator light and the audible alarm should be on.

Turn the fan system on or connect the pressure tubing to the fan piping. The red light and the audible alarm should go off. The green light should come on.

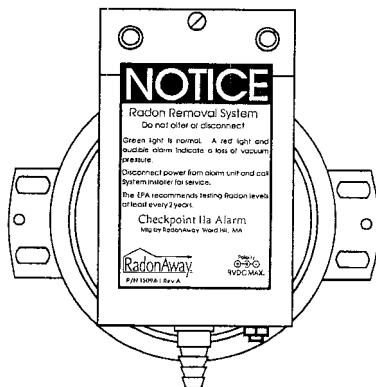
Now turn the fan off. The red light and audible alarm should come on in about two or three seconds and the green light should go out.

WARRANTY INFORMATION

Subject to applicable consumer protection legislation, RadonAway warrants that the CHECKPOINT IIa will be free from defective material and workmanship for a period of (1) year from the date of purchase. Warranty is contingent on installation in accordance with the instructions provided. This warranty does not apply where repairs or alterations have been made or attempted by others; or the unit has been abused or misused. Warranty does not include damage in shipment unless the damage is due to the negligence of RadonAway. All other warranties, expressed or written, are not valid. To make a claim under these limited warranties, you must return the defective item to RadonAway with a copy of the purchase receipt. RadonAway is not responsible for installation or removal cost associated with this warranty. In no case is RadonAway liable beyond the repair or replacement of the defective product FOB RadonAway.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE IS NO WARRANTY OF MERCHANTABILITY. ALL OTHER WARRANTIES, EXPRESSED OR WRITTEN, ARE NOT VALID.

For service under these warranties, contact RadonAway for a Return Material Authorization (RMA) number and shipping information. **No returns can be accepted without an RMA.** If factory return is required, the customer assumes all shipping costs to and from factory.



Manufactured by:
RadonAway
Ward Hill, MA
(978)-521-3703



Installation Instructions for Radon Fans Model HP/FR

READ & SAVE THESE INSTRUCTIONS!



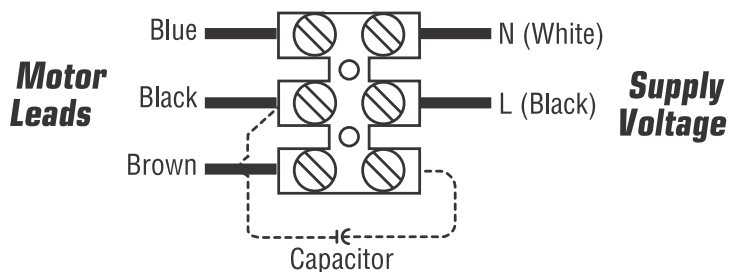
Warnings

DO NOT CONNECT POWER SUPPLY UNTIL FAN IS COMPLETELY INSTALLED, MAKE SURE ELECTRICAL SERVICE TO THE FAN IS LOCKED IN "OFF" POSITION.

1. Suitable for use with solid-state speed control.
2. This unit has rotating parts and safety precautions should be exercised during installation, operation and maintenance.
3. CAUTION: "For General Ventilation Use Only. Do Not Use To Exhaust Hazardous Or Explosives Materials and Vapors."
4. **WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS-OBSERVE THE FOLLOWING:**
 - a. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the factory.
 - b. Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
 - c. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
 - d. The combustion airflow needed for safe operation of fuel burning equipment may be affected by this unit's operation. Follow the heating equipment manufacturer's guidelines and safety standards such as those published by the National Fire Protection Association (NFPA), the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) and the local code authorities.
 - e. When cutting or drilling into wall or ceiling, do not damage electrical wires or other hidden utilities.
 - f. Ducted fans must always be vented to the outdoors.
 - g. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application.
 - h. NEVER place a switch where it can be reached from a tub or shower.
5. **WARNING!** Check voltage at the fan to see if it corresponds to the motor nameplate.

GUARDS MUST BE INSTALLED WHEN FAN IS WITHIN REACH OF PERSONNEL OR WITHIN SEVEN (7) FEET OF WORKING LEVEL OR WHEN DEEMED ADVISABLE FOR SAFETY.

Wiring Diagram



Five (5) Year Warranty

This warranty supersedes all prior warranties

Installation that will result in condensate forming in the outlet ducting should have a condensate bypass installed to route the condensate outside of the fan housing. Conditions that are likely to produce condensate include but are not limited to: outdoor installations in cold climates, long lengths of outlet ducting, high moisture content in soil and thin wall or aluminum outlet ducting. Failure to install a proper condensate bypass may void any warranty claims.

DURING ENTIRE WARRANTY PERIOD:

FANTECH will repair or replace any part which has a factory defect in workmanship or material. Product may need to be returned to the fan-tech factory, together with a copy of the bill of sale and identified with RMA number.

FOR FACTORY RETURN YOU MUST:

- Have a Return Materials Authorization (RMA) number. This may be obtained by calling FANTECH either in the USA at 1.800.747.1762 or in CANADA at 1.800.565.3548. Please have bill of sale available.
- The RMA number must be clearly written on the outside of the carton, or the carton will be refused.
- All parts and/or product will be repaired/replaced and shipped back to buyer; no credit will be issued.

OR

The Distributor may place an order for the warranty part and/or product and is invoiced. The Distributor will receive a credit equal to the invoice only after product is returned prepaid and verified to be defective.

FANTECH WARRANTY TERMS DO NOT PROVIDE FOR REPLACEMENT WITHOUT CHARGE PRIOR TO INSPECTION FOR A DEFECT. REPLACEMENTS ISSUED IN ADVANCE OF DEFECT INSPECTION ARE INVOICED, AND CREDIT IS PENDING INSPECTION OF RETURNED MATERIAL. DEFECTIVE MATERIAL RETURNED BY END USERS SHOULD NOT BE REPLACED BY THE DISTRIBUTOR WITHOUT CHARGE TO THE END USER, AS CREDIT TO DISTRIBUTOR'S ACCOUNT WILL BE PENDING INSPECTION AND VERIFICATION OF ACTUAL DEFECT BY FANTECH.

THE FOLLOWING WARRANTIES DO NOT APPLY:

- Damages from shipping, either concealed or visible. Claim must be filed with freight company.
- Damages resulting from improper wiring or installation.
- Damages or failure caused by acts of God, or resulting from improper consumer procedures, such as:
 1. Improper maintenance
 2. Misuse, abuse, abnormal use, or accident, and
 3. Incorrect electrical voltage or current.
- Removal or any alteration made on the FANTECH label control number or date of manufacture.
- Any other warranty, expressed, implied or written, and to any consequential or incidental damages, loss or property, revenues, or profit, or costs of removal, installation or reinstallation, for any breach of warranty.

WARRANTY VALIDATION

- The user must keep a copy of the bill of sale to verify purchase date.
- These warranties give you specific legal rights, and are subject to an applicable consumer protection legislation. You may have additional rights which vary from state to state.

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Item #: 401443
Rev Date: 010307