

**New York State Department of Environmental Conservation
Division of Environmental Remediation, Region One**

Stony Brook University

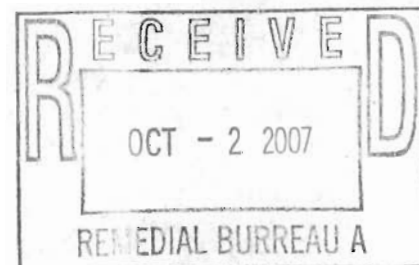
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Alexander B. Grannis
Commissioner



September 27, 2007

Mr. Mike Maddocks
Director, Environmental Programs and Regulatory Compliance
The Home Depot
2455 Paces Ferry Road
Atlanta, GA 30339-4024

Re: Final Vapor Intrusion Investigation Plan dated September 2007
101 Green Acres Road Site (Site #1-30-084), Valley Stream, NY.

Dear Mr. Maddocks:

The New York State Department of Environmental Conservation (NYSDEC) is in receipt of your revised Final Vapor Intrusion Investigation Plan dated September 2007 for the 101 Green Acres Road site. This correspondence is to advise you that, upon review, the Final Vapor Intrusion Investigation Plan has been determined to be complete and is hereby approved.

Please call me at (631) 444-0247 if you have any questions.

Sincerely,

Abdur Rahman
Environmental Engineer 1.

cc: W. Parish
B. Jankauskas
J. DeFracnco, NCDH
S. Karpinski, NYSDOH
Tom Drew, Weston Solutions, Inc.

**Vapor Intrusion Investigation Plan
Valley Stream, NY
(Site ID 1-30-084)**



September 2007

Prepared for

Home Depot USA, Inc.

by

**WESTON SOLUTIONS, INC.
West Chester, Pennsylvania 19380**

W.O. No. 13890.001.001

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OVERVIEW

The New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation and Home Depot USA, Inc. (Home Depot, current property owner) have agreed to conduct a vapor intrusion investigation at 101 Green Acres Road, Valley Stream, NY (Site). The NYSDEC documented this agreement in a Short Order Form (Order) dated 3 July 2006. Home Depot retained Weston Solutions, Inc. (WESTON) to develop a Vapor Intrusion Investigation Plan (Investigation Plan) pursuant to the Order. As presented in Section 2 of this Investigation Plan, extensive investigation, sampling and some impacted soil removal have been previously conducted at the Site. Indoor air quality testing in the nearest homes did not indicate any impact from site related constituents and the Record of Decision (ROD) (NYSDEC, March 2000) did not identify vapor intrusion as a significant exposure pathway of concern. This vapor intrusion investigation will obtain data to supplement the site characterization to assess for the presence of vapor and potential for intrusion.

The Investigation Plan has been organized in the following manner:

Section 1 - Objectives

Section 2 - Summary of Previous Site Investigation and Remediation Activities

Section 3 - Sampling Location Rationale and Collection Methodology

Section 4 - Data Evaluation, Reporting, and Recommended Actions

The *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* prepared by the New York State Department of Health (NYSDOH) effective October 2006 (herein referred to as the NYSDOH Guidance Document) was used in the development of this Investigation Plan. The historical Site information and data, as described further in Section 2 of this Plan, was reviewed and was used as the basis for the sampling location rationale presented in Section 3.

Site investigations and remediation activities have been performed over the past 15 years and these activities have been documented by the following consultants and agencies:

1. Storb Environmental Corporation (Storb)
2. ENVIRON International Corporation (ENVIRON)
3. Soil Mechanics Drilling Corporation
4. New York State Department of Environmental Conservation (NYSDEC)
5. New York State Department of Health (NYSDOH)
6. Nassau County Department of Health (NCDOH)

1. OBJECTIVES

This Investigation Plan has been developed to provide supplemental data on the potential presence of subsurface vapors and potential for intrusion at the Site. The objectives of this investigation are:

- Identification of the presence of volatile organic compounds (VOCs) in soil and sub-slab vapor zones.

Subsurface vapor sampling will primarily focus on the south/southeast portion of the property where VOCs had been historically detected in groundwater and soil gas samples. Impacted soil removal was conducted in localized hot spot areas prior to Home Depot building construction on the Site and groundwater VOC concentrations have generally shown a decreasing trend. This should contribute to a reduction in sources for possible vapors. Vapor sampling will be conducted under the floor slab in the southeast corner and southern side where employee rooms are located in the Home Depot building to measure current conditions (presence or absence of vapor concentrations) which could migrate into the building. Additional sub-slab vapor sampling will be conducted in the interior of the building in the vicinity of three locations at which historical soil gas samples exhibited elevated VOC concentrations. Subsurface vapor samples will be collected outside the southeast perimeter of the building and along the southeast property line to measure possible vapor migration pathways extending off-site. A subsurface vapor sample will be collected in the western portion of the facility at the Garden Center where impacted soil and a former underground storage tank (UST) had been removed in the early 1990s. Subsurface vapor samples will also be collected within three (3) locations (former study areas) which were associated with former septic/drain fields or former degreasing operations on the property. Impacted soil was removed in 1991 (following the historic sampling event) from two (2) of these three (3) locations. These samples will be collected to confirm that soil vapors are not collecting under the asphalt/concrete in these areas. An

additional subsurface vapor sample will be collected at the northwest (hydraulically upgradient) portion of the Site to identify any upgradient vapor sources. Proposed vapor sample locations (26 total) and rationale are presented in Section 3 of this Investigation Plan.

- Assessment/evaluation of potential soil vapor intrusion of VOCs identified in the subsurface vapor zone.

Results of the subsurface vapor investigation will be evaluated to determine the future course of action for evaluating the vapor intrusion pathway into the building or off-site. Data and information used to perform this evaluation will be provided to the NYSDEC in a letter report. Discussion pertaining to reporting can be found in Section 4.

2. SUMMARY OF PREVIOUS SITE INVESTIGATION AND REMEDIATION ACTIVITIES

Previous investigations conducted at the Site have identified various petroleum-related compounds and chlorinated VOCs in groundwater, soil, and/or soil vapor at isolated locations. Table 2-1 summarizes investigation, remediation, and monitoring activities conducted at the Site. Figure 2-1 depicts previous investigation areas and sampling locations on the Site.

Primary constituents of concern (COCs) as stated in the ROD include tetrachloroethene (PCE), trichloroethene (TCE), 1,1,1-trichloroethane (TCA), dichloroethane (DCA), 1,1-dichloroethene (1,1-DCE), and various Freon compounds. Soil remediation (i.e. soil excavation and off-site disposal) has been conducted at the Site associated with “hot spots” identified during these investigations and underground storage tanks (USTs) have been removed. This soil and USTs may have been a source for the vapors which had been previously measured.

Groundwater monitoring, conducted in accordance with the Site *Operation and Maintenance Plan* (Environ, March 2000), has demonstrated a general decreasing trend in VOC concentrations. Since the VOCs in groundwater are a possible source for VOCs in the soil gas, this decreasing groundwater constituent trend is also favorable.

The ROD was issued in March 2000 and considered all of the previous site characterization activities (listed in Table 2-1). Based on all of the past remediation (soil removal, UST removal) and characterization, No Further Remedial Action was selected as the final remedy for the Site. No Further Action (NFA) was selected primarily because there were no likely exposure pathways and the Site did not pose a significant threat to human health or the environment. The vapor sampling described in this Investigation Plan will provide subsurface vapor data to assess the potential for intrusion.

Table 2-1
Summary of Previous Site Activities

Date	Activity / Consultant	Tasks	Results
1990	Phase II / Storb ¹	<ol style="list-style-type: none"> 1. Soil logging and groundwater sampling at 5 test pit locations (TP1 through TP5). 2. Surface water sampling at 2 locations (Hook Creek). 	<ol style="list-style-type: none"> 1. Chlorinated VOCs detected at test pits TP2 and TP5. 2. According to the ROD, no Site-related contamination was found in the surface water samples.²
1991	Phase III / ENVIRON ¹	<ol style="list-style-type: none"> 1. Soil sampling at 5 study areas (SA1 through SA5) identified as cesspools/former septic systems and an area of stressed vegetation (boring locations B1 through B28). 2. Installation and sampling of 8 groundwater monitor wells (MW-1 through MW-8). 3. Soil gas sampling at 29 locations (SG-1 through SG-29) from under the slab of former Building 1 prior to building demolition. 	<p>According to the ROD, known USTs #1 through #3 (see Figure 2-1) were identified as a source of the contamination on-site. These 3 USTs were removed during the study area (SA) remediation described below.</p> <ol style="list-style-type: none"> 1. A total of approximately 130 cubic yards (cy) of VOC-impacted soil (chlorinated and petroleum-related) were excavated for off-site disposal from within areas SA1 (boring B1 and B4), SA3 (boring B15), and SA5 (boring B18). 2. Detection of VOCs (chlorinated and petroleum-related) in groundwater. Freon compounds were detected in MW-3 which was south of the Home Depot facility and is now abandoned. 3. Soil gas samples analyzed for limited VOCs - TCA, TCE, PCE, and BTEX. TCE and PCE were detected primarily in the mid portion of the former building and adjacent to the north end of Area SA2. TCA was detected at elevated concentrations (up to 3.7 ppm) in the south/southeast portion of the former building.
1992	Supplemental Soil Gas / Storb ¹	Soil gas sampling at 40 locations (SG-1 through SG-40) from under the slab of former Building 2 prior to building demolition.	Limited VOCs were analyzed - TCA, TCE, PCE, and BTEX. Detections in isolated locations within the former building footprint. Significantly lower concentrations than detected beneath former Building 1 (1991 investigation).



Table 2-1 (Continued)
Summary of Previous Site Activities

Date	Activity / Consultant	Tasks	Results
1993	Post Demolition Soil Sampling and Remediation / ENVIRON ¹	Soil sampling at 12 locations (following demolition of Buildings 1 and 2 including slabs) targeting stained areas observed during demolition activities (sample locations PD01, PD02, and PD10 through PD12) and soil gas "hot spots" (sample locations PD03 through PD09).	<p>VOC-impacted soil (chlorinated and petroleum-related) was excavated for off site disposal (soil remediation activities conducted on behalf of Bulova (excavation areas EX01 and EX02) and Home Depot (materials associated with UST #4)).</p> <ol style="list-style-type: none"> 1. Soil excavation area EX01 (see Figure 2-1). VOC-impacted soil removed from this area was primarily chlorinated hydrocarbons, with the most elevated concentrations detected in soil at location PD06. 2. Soil excavation area EX02 (see Figure 2-1). VOC-impacted soil removed from this area was primarily petroleum-related hydrocarbons, with the most elevated concentrations detected in soil at sampling location PD10. 3. A total of 10-post excavation soil samples were collected (five from each area). No results reviewed from this confirmation sampling event. The <i>O&M Plan</i> (ENVIRON, March 2000) states that no Freon compounds were detected in these confirmation samples. <p>According to the ROD, the cumulative volume for soil remediation activities conducted on behalf of Bulova and Home Depot was 1,200 cy, along with the removal of UST #4, which was discovered during demolition of Building 2. An NYSDEC Spills Number (93-07732) was assigned to the Site in 1993. The NYSDEC closed this Spills file in 1995.</p>
1993 – 1998	Groundwater Monitoring / Soil Mechanics ¹	Groundwater monitoring reportedly conducted associated with NYSDEC Spills Number 93-07732 throughout this timeframe.	No Further Action (NFA) granted on 22 November 1995. The purpose of the additional groundwater quarterly monitoring data (from 1996 through 1998) is not known.

Table 2-1 (Continued)
Summary of Previous Site Activities

Date	Activity / Consultant	Tasks	Results
1997	Groundwater Investigation / ENVIRON ¹	No documentation was available for this investigation; however it is mentioned in the 1998 <i>Groundwater Delineation Investigation Report</i> (ENVIRON, 5 August 1998) that "additional on-site groundwater delineation sampling was completed based on the Geoprobe ground water sampling results from October 1997." Appears to have consisted of 6 Geoprobe locations (GP-1 through GP-6) in the southeast corner of the Site.	Based on the groundwater results of this investigation, additional horizontal and vertical delineation was performed in the southeast corner of the Site. This information was obtained from the <i>Groundwater Delineation Investigation Report</i> (ENVIRON, 5 August 1998)
1998	Groundwater Investigation / ENVIRON ¹	<ol style="list-style-type: none"> On-site groundwater VOC delineation (vertical and horizontal) appears to have consisted of 8 Geoprobe locations; 7 locations (GP-7 through GP-14) in the southeast corner of the Site and 1 location in the northern portion of the Site (upgradient background location). Off-site groundwater characterization via collection of groundwater samples at 6 locations (OS-1 through OS-6). On-site hydrogeologic characterization (location SB-1). 	<ol style="list-style-type: none"> Completed horizontal and vertical delineation of VOCs in the southeast corner of the Site. VOC concentrations immediately south of former Building 1 were higher in shallow groundwater interval (i.e. GP-11 at 10 to 20 feet bgs), with concentrations increasing in deeper intervals (down to 40 feet bgs) at a location to the south and east of GP-11. VOCs were detected in groundwater collected from the upgradient location (GP-12). Chlorinated VOCs were detected at locations OS-4 and OS-5 at concentrations above federal maximum contaminant levels (MCLs). Confirmed the presence of the regional confining layer (i.e. "20-foot clay") at approximately 42 feet bgs.



Table 2-1 (Continued)
Summary of Previous Site Activities

Date	Activity / Consultant	Tasks	Results
1999	RI / ENVIRON ¹	1. Soil gas sampling in 7 locations (GP-1, GP-2, GP-8, GP-9, GP-13, GP-14, and GP-15) at the southeast corner of the Site.	1. Various VOCs (chlorinated and petroleum-related) were detected in soil gas. Notable concentrations of PCE (0.134 ppm) at GP-1, TCA (0.483 ppm at GP-8), and Freon 113 (4.34 ppm at GP-15). Numerous underground utilities have been identified in this immediate area. Results were compared to the Residential Volatilization Criteria for Soil Vapors used by the State of Connecticut (no screening values established by NYSDEC at the time). All compounds detected were well below residential volatilization criteria. No criteria was available for Freon 113.
		2. Additional hydrogeologic characterization activities: a. Advanced 2 off-site borings (SB-2 and SB-3). Groundwater samples were collected within 3 sampling intervals from 39 feet to 63 feet bgs. b. Advanced 2 on-site soil conductivity borings (GP-5B and GP-9B). Groundwater samples collected from the top of the saturation zone, above the first potential confining unit ("20-foot clay"), below suspected Gardiners Clay unit, and at the bottom of the borings. c. Conducted a groundwater flow evaluation for the Site.	2. Hydrogeologic characterization: a. Completed to a depth of 65 feet bgs. Confining clay layer ("20-foot clay") encountered at 44-45 feet bgs. Chlorinated VOCs were detected in all groundwater samples collected at both boring locations. b. Completed to a depth of approximately 75 feet bgs. Both boring locations exhibited elevated detections of chlorinated VOCs at the top of the saturation zone (6 to 10 feet bgs). c. Groundwater flows to the southeast with a hydraulic gradient of less than 0.001 ft/ft. Groundwater elevations have exhibited seasonal fluctuations of up to 2 feet.

Table 2-1 (Continued)
Summary of Previous Site Activities

Date	Activity / Consultant	Tasks	Results
1999 (Continued)	RI / ENVIRON ¹	3. Groundwater monitoring well sampling at the six on-site wells (MW-HD1 through MW-HD6).	3. Detected chlorinated VOCs not associated with the Site (including Freon 12) at upgradient well locations MW-HD1 and MW-HD2 suggesting on-site influence from an off-site source. Confirmed that the southeast corner of the Site exhibits the most elevated concentrations of VOCs in groundwater.
		4. Freon data review	4. Elevated concentrations of Freon compounds have been detected in the southeast corner of the Site beginning in 1997. No source has been found.
Following RI but prior to ROD ²	Supplemental Investigation / Home Depot, NYSDEC, NYSDOH, and NCDOH	1. Indoor air sampling in nearby residences conducted by NYSDOH and NCDOH.	1. As stated in the ROD, NYSDOH determined that none of the primary contaminants of concern related to the Site were present in the nearby homes.
		2. Surface water sampling in the catch basins and on-site drainage system conducted by NCDOH.	2. As stated in the ROD, NCDOH did not find any VOC contamination in the catch basins. Hook Creek was dry at the time of sampling.
		3. Sediment sampling at Hook Creek conducted by NYSDOH and NCDOH.	3. As stated in the ROD, sediment in Hook Creek was not found to be impacted with VOCs.
		4. Groundwater monitoring well sampling.	4. No specific information provided in the ROD for the groundwater sampling or well survey.
		5. Private well survey of nearby residences	
2000	ROD and O&M Plan / NYSDEC and ENVIRON ¹		1. Reclassification of the Site from a Class 2 to a Class 4 (downgraded risk).
			2. Selected remedies include: a. On-site and off-site groundwater monitoring for VOCs. Installation of an off-site monitoring well (MW-HD7). b. Deed restriction on groundwater usage on-site. c. Reevaluation of monitoring results after 2 years to determine if continued monitoring is necessary or if the Site may be delisted.
			3. Quarterly groundwater monitoring plan attached.



Table 2-1 (Continued)
Summary of Previous Site Activities

Date	Activity / Consultant	Tasks	Results
2000 - 2003	Groundwater Monitoring / ENVIRON ¹	Quarterly groundwater sampling events were completed in March 2002 and showed an overall decreasing trend in on-site concentrations of VOCs.	Based on the results provided by ENVIRON ³ , NYSDEC requested an additional sampling round in a letter dated 16 October 2002 which would include wells MW-HD5, MW-HD4, MW-HD6, and MW-HD7 for VOC analysis (including Freon). Potential off-site migration of Freon 113 was noted as the primary concern. NYSDEC agreed to review this data and make a determination (16 October 2002). An additional groundwater monitoring round was performed in December 2002 and presented in a letter report to the NYSDEC (4 March 2003). No decision regarding delisting was found in the Site documents reviewed. It is not certain if any further groundwater monitoring has been performed.

Notes:

¹ - Unless otherwise specified in the text, information presented in this table was summarized from the historical investigations as documented in the Site *Operation and Maintenance Plan* (ENVIRON, March 2000).

² - Reference: *Record of Decision*, NYSDEC, March 2000.

³ - Reference: *Groundwater Monitoring Program Results*, ENVIRON 14 May 2002.

Storb - Storb Environmental Corporation

ENVIRON - ENVIRON International Corporation

NYSDEC - New York State Department of Environmental Conservation

NYSDOH - New York State Department of Health

NCDOH - Nassau County Department of Health

TCA - 1,1,1-Trichloroethane

TCE - Trichloroethene

PCE - Tetrachloroethene

BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes

DCE - Dichloroethene

DCA - Dichloroethane

UST - underground storage tank

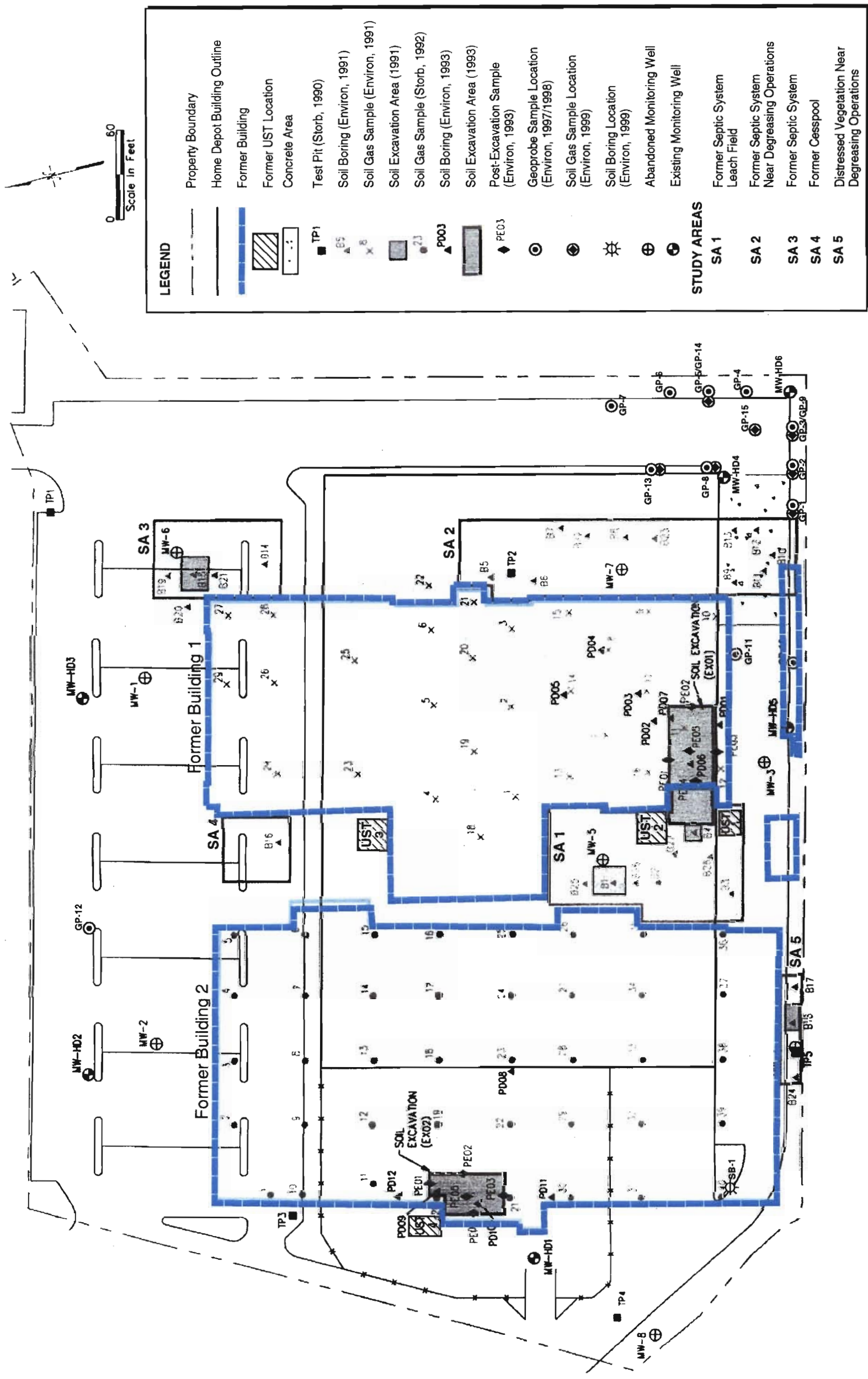
VOCs - volatile organic compounds

RI - Remedial Investigation

ROD - Record of Decision (NYSDEC, March 2000)

O&M Plan - Operation and Maintenance Plan (ENVIRON, March 2000). The O & M Plan is an attachment to the ROD.

MCL - maximum contaminant level



SOURCE: HENDERSON AND BODWELL CONSULTING ENGINEERS GRADING & UTILITIES PLAN, SEPT. 1992

FIGURE 2-1 PREVIOUS INVESTIGATION AREAS AND SAMPLING LOCATIONS
HOME DEPOT U.S.A., INC.
VALLEY STREAM, NEW YORK
2-8

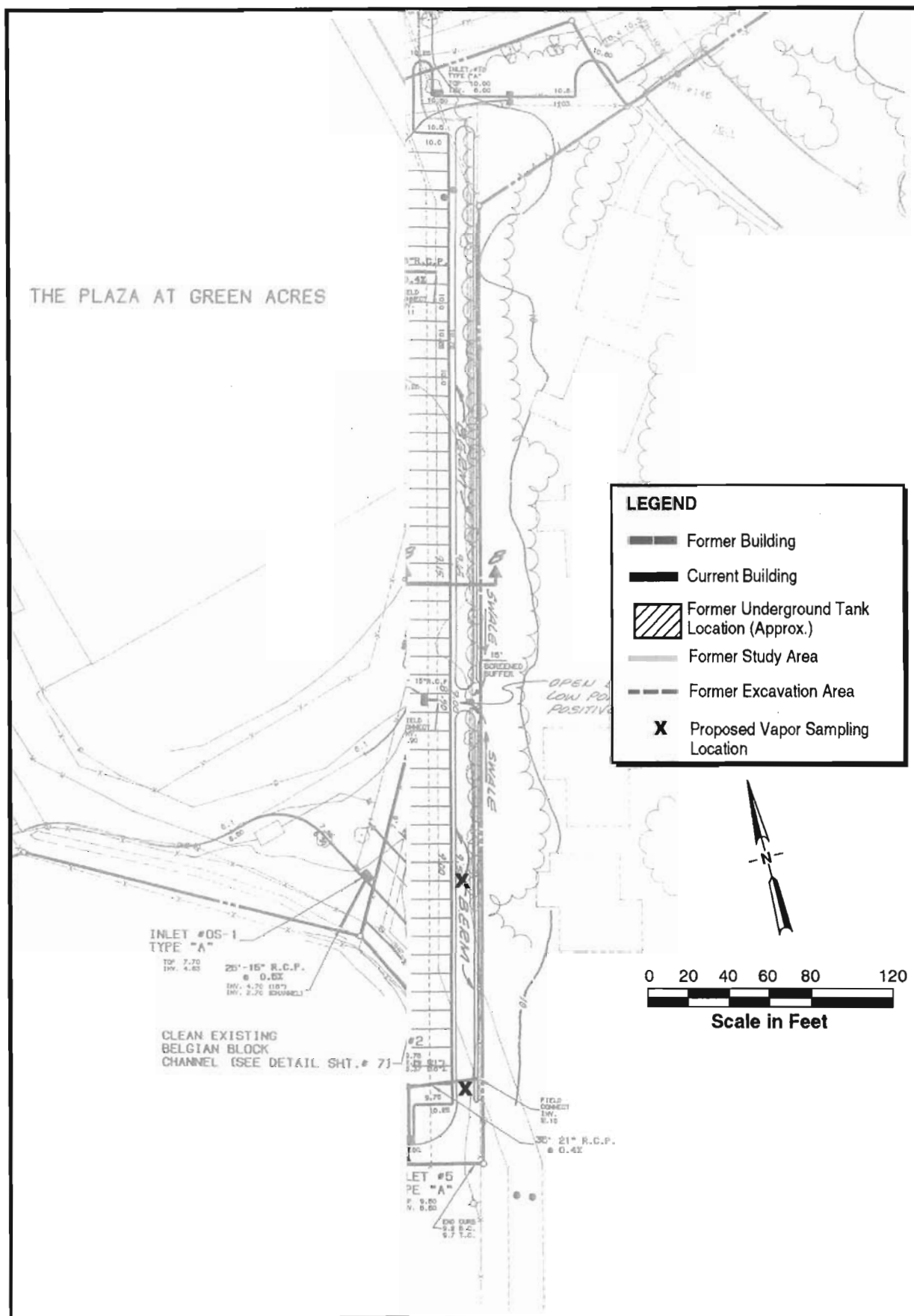
3. SAMPLING LOCATION RATIONALE AND COLLECTION METHODOLOGY

Sample Location Rationale

As shown in Figure 3-1, locations have been selected to sample for soil vapor resulting from residual VOC concentrations in groundwater and soil. These proposed locations may be refined in the field based upon accessibility, field observation, and a subsurface utility search. This utility search will focus on the southeast portion of the Site and outside of the building. Soil vapor sampling locations will be adjusted as necessary in this area of the Site to locate sampling in proximity to identified subsurface utility lines. A Draft Site-Specific Health and Safety Plan can be found in Attachment 1 of this Plan. Copies of WESTON's Field Operating Procedures (FOPs) will be available at the site during field activities.

Upon review of available reports and results from historical investigations (Table 2-1), subsurface vapor sampling will be performed in the following locations:

- **Southeast Corner of the Site** – This location of the Site has been identified as the main area of interest with respect to VOC concentrations in shallow groundwater which could produce VOCs in soil vapor. Groundwater VOC concentrations have generally shown a decreasing trend, however, current conditions are not known. Soil gas sampling conducted in 1999 in the southeast corner showed very low levels of some chlorinated VOCs and higher concentrations of Freon 113. Subsurface vapor sampling will be conducted in this area as follows:
 - A total of 4 soil vapor samples will be collected at locations along the southeastern Site property boundary, which is asphalt-paved. Three (3) of these locations will be near the storm water sewer in the southeast corner where it exits the property or extends near the property line. High levels of Freon 113 were also measured in groundwater in this area. These locations will provide information regarding the storm sewer bedding as a potential vapor pathway extending off-site. The fourth



06P-1392-05

**FIGURE 3-1 VAPOR SAMPLING LOCATIONS
HOME DEPOT U.S.A., INC.
VALLEY STREAM, NEW YORK**

location is along the property line across from the nearest residence and will measure any vapor pathway in this direction.

A total of 4 soil vapor samples will be collected at locations outside the building perimeter. These samples will measure potential vapor pathways from the building slab toward the property line.

- A total of 5 soil vapor samples collected below the building's interior slab at locations within the southeast corner of the building. These samples will measure the potential presence of sub-slab vapors and possible intrusion into the building.
- **General Locations Within the Existing Building** – A total of 3 sub-slab vapor samples will be collected at locations within the existing building at which historic soil gas sampling (conducted in 1991 and 1992 within former Buildings 1 and 2) detected chlorinated VOCs at concentrations warranting further investigation. Subsurface vapor sampling will be conducted in this area as shown in Figure 3-1 and as follows:
 - Former location SG-14 (Environ, 1991) – This former Building 1 soil gas sampling location detected 1,1,1-TCA at 3,700,000 $\mu\text{g}/\text{m}^3$.
 - Former location SG-19 (Environ, 1991) – This former Building 1 soil gas sampling location detected TCE at 34,000 $\mu\text{g}/\text{m}^3$.
 - Former location SG-23 (Strob, 1992) – This former Building 2 soil gas sampling location detected TCE at 140,000 $\mu\text{g}/\text{m}^3$.
- **Former Investigation Area SA2** (former septic/drain field- adjacent to and upgradient of the southeast corner of the building) – A total of 2 sub-slab vapor samples will be collected from the SA2 area to determine if there is any vapor migration from this area. SA2 had been previously investigated and VOC concentrations in soil were below cleanup objectives.
- **Former Investigation Areas SA3 and SA4**, (former septic/drain fields- north of the building) – A total of 2 soil vapor samples (one sample from each area) will be collected from the SA3 and SA4 areas to determine if there is any vapor from potential residual concentrations of VOCs in soil. Historic investigations conducted in these areas lead to the

excavation and off-site disposal of soil from within area SA3 (as shown in Figure 3-1). VOC concentrations in soil samples from area SA4 were below cleanup objectives.

- **Former Investigation Area SA5**, (former area of stressed vegetation adjacent to a former degreasing area) – One (1) soil vapor sample will be collected to determine if there is any vapor from potential residual concentrations of VOCs in soil. Historic investigations conducted in this area lead to the excavation and off-site disposal of soil from within area SA5 (as shown in Figure 3-1).
- **Southern Edge of Building** – A total of 3 sub-slab vapor sampling locations will be selected near former investigation area SA1 (former septic/drain field), former Excavation Area 1 (EX01), and former USTs Nos. 1 and 2. These locations will determine the presence of any remaining VOC vapors under the slab in the employee occupied office, break area, and bathroom enclosures.
- **Former Excavation Area 2 (EX-02) and Former UST No. 4** – One (1) soil vapor sample will be collected in this paved area (currently the Garden Center) to confirm that soil vapors are not present under the asphalt. This area is partially enclosed and should not be a primary concern.
- **Upgradient Location** (in the north/northwest corner of the Site) – One (1) location will be selected in the north/northwest corner of the Site to assess potential upgradient off-site source(s).

A total of 26 locations are proposed for vapor sample collection and laboratory analysis for site related VOCs (chlorinated VOCs and Freon 113). Sample locations are depicted in Figure 3-1. Locations will be finalized based upon previous sampling locations that exhibited elevated VOC concentrations in soil gas and shallow groundwater, proximity of underground utilities, building footer locations, and accessibility.



Sample Collection Methodology

A combination of soil vapor and sub-slab vapor samples will be collected from the Site using the following methodology as stipulated in Section 2 of the NYSDOH Guidance Document:

- Semi-permanent soil and sub-slab vapor probes will be installed/constructed as stipulated in Sections 2.7.1 and 2.7.2 of the NYSDOH Guidance Document.
- Sample locations will be biased to areas on-site at which previous site investigations detected elevated VOC concentrations.
- Sample probe locations will be documented using a global positioning system (GPS) unit.
- Sketches will be generated in the field documenting floor plan information such as chemical storage areas, doorways, subsurface drains and floor penetrations, underground utility information, etc.
- A pre-sampling building inspection will be conducted as stipulated in Section 2.11. of the NYSDOH Guidance Document. Utility clearance will be obtained to locate buried utility lines or structures.
- Samples will be collected while the HVAC system is operating in a manner consistent with normal operating conditions. In addition, an evaluation of the existing heating, ventilation, and air conditioning system(s) (HVAC) will be conducted to determine if positive or negative pressure is being induced on the structure.
- Vapor samples will be collected during hours when the facility is not operational to mitigate the potential for interference from products and/or activities that emit VOCs. Written documentation that the HVAC system(s) is(are) in full operation during the time samples are collected will be recorded and provided as an attachment to the data evaluation letter report discussed in Section 4 of this Investigation Plan.
- Tracer gas sampling, as stipulated in Section 2.7.5 of the NYSDOH Guidance Document will be conducted at each probe location. Tracer gas testing will be performed before and after the vapor sample is collected using the Summa canister. Probe tubing will be fitted at ground surface with a valved connection, which will allow vapor flow to either the flow-



regulated pump/helium detector or the Summa canister. An enclosure will be placed at ground surface around the sealed sample point and tubing (including the valved connection mentioned above). Helium will then be introduced into the enclosure. The valved connection will initially be set to direct the soil/sub-slab vapors to a flow-regulated pump, which will purge the sample line at a rate of approximately 80 to 100 ml/min for about 1 to 2 minutes. After purging a helium detector will be connected to the same connection and the instrument reading will be recorded by field personnel. If no significant level of helium is detected by the field instrument, the valve will be adjusted to allow vapor flow only to the Summa canister and sample collection will be conducted as described below. If the field instrument detects a significant level of helium during the tracer gas test, field personnel will check the surface seal and the valved connection and make any necessary adjustments before retesting the system. A vapor sample will be collected after the tracer gas test indicates no significant leakage. After the vapor sample is collected with the Summa canister, the valve will be closed to the Summa canister and opened to the helium detector to confirm that there is no helium entrainment occurring. If a significant concentration of helium is detected by the field instrument at the conclusion of sample collection, the Summa vapor sample will be discarded and appropriate adjustments will be made to the probe assembly in attempt to eliminate leakage. Following these system adjustments, tracer gas testing and sampling will be repeated at the probe location using the methods described above.

- Vapor samples will be collected in Summa canisters. Flow regulators will be used to ensure sampling flow rates do not exceed 0.2 liters per minute and will be set for 1-hour sample collection duration. To correspond with the sampling duration time of 1 hour, a 6 L Summa canister will be used with a sample collection rate of 80 mL/min at each sampling location.
- Two duplicate samples will be collected during the investigation: one from a sub-slab vapor sampling point and the other from a soil vapor sampling point.
- All samples will be submitted to Air Toxics LTD Laboratory (Air Toxics) for analysis of site-specific target compounds via EPA Method TO-15. Air Toxics is an ELAP-certified laboratory. The target compound list will include PCE, TCE, 1,1,1-TCA, 1,1-DCA, 1,1-



DCE, Freon 113 and the tracer gas helium (helium is not a TO-15 analyte). The target reporting limit for the listed TO-15 compounds will be less than $1 \mu\text{g}/\text{m}^3$. Please note that reporting limits above $1 \mu\text{g}/\text{m}^3$ could result from required sample dilution or from matrix interference.

4. DATA EVALUATION, REPORTING, AND RECOMMENDED ACTIONS

This vapor intrusion investigation is being performed to identify potential subsurface VOC concentrations resulting from residual soil and/or groundwater VOC impact. NYSDEC does not currently have standards, criteria, or guidance for concentrations of compounds in soil vapor. The results of this subsurface vapor investigation will be evaluated taking into consideration additional factors as stipulated in Section 3.2 of the NYSDOH Guidance Document, such as the nature and extent of contamination in all environmental media, current land use, site-specific and building-specific factors that can affect soil vapor migration and intrusion. A Data Usability Summary Report will be prepared in accordance with Section 2 and Appendix 2B of the *Draft Technical Guidance for Site Investigation and Remediation* (DER-10), NYSDEC, December 2002. Recommended actions will be developed using the guidance provided in Sections 3.3.1 and 3.3.2 of the NYSDOH Guidance Document. Upon selection of the appropriate action, WESTON will prepare a letter report which will provide an overview of sampling activities, present data, discuss factors used in the evaluation process, and propose a course of action for the Site.

ATTACHMENT 1
DRAFT SITE-SPECIFIC HEALTH AND SAFETY PLAN

DRAFT SITE HEALTH AND SAFETY PLAN
(HASP)

Office: **West Chester**
Site Name: **Valley Stream**
Client: **Confidential**
Work Location: **New York**
WO#: **13890.001.001.0001**

SITE HEALTH AND SAFETY PLAN (HASP)

Prepared by: Jeana Wolters

W.O. Number: 13890.001.001.0001

Date: 4/30/2007

Project Identification Vapor Intrusion Investigation

Office: West Chester

Site Name: Valley Stream

Client: Confidential

Work Location Address: 101 Green Acres Rd, Valley Stream, NY

Site History: Property developed in 1920s. Used as a small airport until 1948, when Bulova Watch Company occupied the property and conducted manufacturing until 1990. Demolition of all Site structures in 1993 and erection of Home Depot. Historic use of chlorinated solvents and fuel oil at the Site. CVOCs and Freon 113 in shallow groundwater.

Scope of Work:

Conduct a phased vapor investigation for the property associated with CVOC and Freon 113 concentrations found in shallow groundwater at the Site.

☐ Site visit only; site HASP not necessary. List personnel here and sign off below:

Regulatory Status:

Site regulatory status:

CERCLA/SARA **RCRA** **Other Federal Agency**

☐ U.S. EPA

☐ U.S. EPA

☐ DOE

☒ State

☐ State

☐ USACE

☐ NPL Site

NRC

☐ Air Force

☐ OSHA

☐ 10 CFR 20

☐ _____

Hazard Communication (Req'd See Attachment D)

☐ 1910

☐ 1926

☐ State

Safety Officer Manual (Required to be On-Site)

Based on the Hazard Assessment and Regulatory Status, determine the Standard HASP(s) applicable to this project. Indicate below which Standard HASP will be used and append the appropriate pages of this form along with the Standard Plan.

☐ Stack Test

☐ _____

☐ Air Emissions

☐ _____

☐ Asbestos

☐ _____

☐ Industrial Hygiene

☐ _____

☐ _____

☐ _____

Review and Approval Documentation:

Reviewed by:

SO/DSM/CHS

Name (Print)

Signature

Date: _____

Other

Name (Print)

Signature

Date: _____

Approved by:

Project Manager

Name (Print)

Signature

Date: _____

Hazard Assessment and Equipment Selection:

In accordance with WESTON's Personal Protective Equipment Program and 29 CFR 1910.132, at the site prior to personnel beginning work, the SHSC and/or the Site Manager have evaluated conditions and verified that the personal protective equipment selection outlined within this HASP is appropriate for the hazards known or expected to exist. (Refer to Safety Officer Manual Section 2, Personal Protection Program, for guidance.)

☒ **FSO**

☒ Site Manager

Date: _____

Name

Signature

☒ **Environmental Compliance Officer**

☒ **Dangerous Goods Shipping Coordinator**

Name

Signature

Project start date: pending

End date: pending

This site HASP **must be reissued/reapproved** for any activities conducted after:

Date: 5/01/08

Amendment date(s)

1.
2.
3.
4.
5.

By:

Vehicle Use Assessment and Selection

Driving is one of the most hazardous and frequent activities for WESTON Employees. The most appropriate type vehicle(s) authorized for use on this project is/are:

1. 4 x 4 vehicles
2. automobiles
- 3.
- 4.

The following Project Team Member's qualifications and experience in driving these types of vehicles was evaluated and found to be acceptable (indicate vehicle type(s) number next to employee name).

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

The project site was evaluated and a **Traffic Control Plan** ☐ is required ☒ is not required.

If required, the **Traffic Control Plan** can be found in Attachment H.

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1. PERSONNEL ON SITE INFORMATION

1.1 WESTON REPRESENTATIVES

Organization/Branch	Name/Title	Address	Telephone
West Chester Office	Dayna Pelc	1400 Weston Way West Chester PA 19380	610-701-7400
West Chester Office	Dana Armstrong	1400 Weston Way West Chester PA 19380	610-701-7400
West Chester Office	Jeana Wolters	1400 Weston Way West Chester PA 19380	610-701-7400

Roles and Responsibilities:

Install soil and subsurface probes and conduct air sampling per the Approved Work Plan

1.2 WESTON SUBCONTRACTORS

Organization/Branch	Name/Title	Address	Telephone
	Name Title	Street city, state, zip	
	Name Title	Street city, state, zip	
	Name Title	Street city, state, zip	

Roles and Responsibilities:

No Subcontractors will be necessary during groundwater monitoring events

SITE-SPECIFIC HEALTH AND SAFETY PERSONNEL

The Site Field Safety Officer (FSO) for activities to be conducted at this site is: Dana Armstrong

The FSO has total responsibility for ensuring that the provisions of this Site HASP are adequate and implemented in the field.

Changing field conditions may require decisions to be made concerning adequate protection programs. Therefore, the personnel assigned as FSOs are experienced and meet the additional training requirements specified by OSHA in 29 CFR 1910.120.

Qualifications:

HAZWOPER, First Aid/CPR and BBP certifications, 3 years of field experience

Designated alternates include: Dayna Pelc, Jeana Wolters

1.3 SITE PERSONNEL AND CERTIFICATION STATUS

1.3.1 Weston Employee Certification

Name: Jeana Wolters Title: Principle Project Scientist Task(s): 1 Certification Level or Description: Level B; C - SHSO <input checked="" type="checkbox"/> Medical Current <input checked="" type="checkbox"/> Training Current <input checked="" type="checkbox"/> Fit Test Current (Qual.) <input type="checkbox"/> Fit Test Current (Quant.)	Name: Dayna Pelc Title: Task(s): 1 Certification Level or Description: Level B; SHSO <input checked="" type="checkbox"/> Medical Current <input checked="" type="checkbox"/> Training Current <input checked="" type="checkbox"/> Fit Test Current (Qual.) <input type="checkbox"/> Fit Test Current (Quant.)
Name: Dana Armstrong Title: Task(s): 1 Certification Level or Description: Level B; D - SHSO <input checked="" type="checkbox"/> Medical Current <input checked="" type="checkbox"/> Training Current <input checked="" type="checkbox"/> Fit Test Current (Qual.) <input type="checkbox"/> Fit Test Current (Quant.)	Name: Title: Task(s): Certification Level or Description: <input type="checkbox"/> Medical Current <input type="checkbox"/> Training Current <input type="checkbox"/> Fit Test Current (Qual.) <input type="checkbox"/> Fit Test Current (Quant.)
Name: Title: Task(s): Certification Level or Description: <input type="checkbox"/> Medical Current <input type="checkbox"/> Training Current <input type="checkbox"/> Fit Test Current (Qual.) <input type="checkbox"/> Fit Test Current (Quant.)	Name: Title: Task(s): Certification Level or Description: <input type="checkbox"/> Medical Current <input type="checkbox"/> Training Current <input type="checkbox"/> Fit Test Current (Qual.) <input type="checkbox"/> Fit Test Current (Quant.)
Name: Title: Task(s): Certification Level or Description: <input type="checkbox"/> Medical Current <input type="checkbox"/> Training Current <input type="checkbox"/> Fit Test Current (Qual.) <input type="checkbox"/> Fit Test Current (Quant.)	Name: Title: Task(s): Certification Level or Description: <input type="checkbox"/> Medical Current <input type="checkbox"/> Training Current <input type="checkbox"/> Fit Test Current (Qual.) <input type="checkbox"/> Fit Test Current (Quant.)
Name: Title: Task(s): Certification Level or Description: <input type="checkbox"/> Medical Current <input type="checkbox"/> Training Current <input type="checkbox"/> Fit Test Current (Qual.) <input type="checkbox"/> Fit Test Current (Quant.)	Name: Title: Task(s): Certification Level or Description: <input type="checkbox"/> Medical Current <input type="checkbox"/> Training Current <input type="checkbox"/> Fit Test Current (Qual.) <input type="checkbox"/> Fit Test Current (Quant.)
Name: Title: Task(s): Certification Level or Description: <input type="checkbox"/> Medical Current <input type="checkbox"/> Training Current <input type="checkbox"/> Fit Test Current (Qual.) <input type="checkbox"/> Fit Test Current (Quant.)	Name: Title: Task(s): Certification Level or Description: <input type="checkbox"/> Medical Current <input type="checkbox"/> Training Current <input type="checkbox"/> Fit Test Current (Qual.) <input type="checkbox"/> Fit Test Current (Quant.)

TRAINING CURRENT - Training: All personnel, including visitors, entering the exclusion or contamination reduction zones must have certifications of completion of training in accordance with OSHA 29 CFR 1910, 29 CFR 1926, or 29 CFR 1910.120.

FIT TEST CURRENT - Respirator Fit Testing: All persons, including visitors, entering any area requiring the use or potential use of any negative pressure respirator must have had, as a minimum, a qualitative fit test, administered in accordance with OSHA 29 CFR 1910.134 or ANSI, within the last 12 months. If site conditions require the use of a full-face, negative-pressure, air-purifying respirator for protection from asbestos or lead, employees must have had a qualitative fit test, administered according to OSHA 29 CFR 1910.1001 or 1025/1926, within the last 6 months.

MEDICAL CURRENT - Medical Monitoring Requirements: All personnel, including visitors, entering the exclusion or contamination reduction zones must be certified as medically fit to work and to wear a respirator, if appropriate, in accordance with 29 CFR 1910, 29 CFR 1926/1910, or 29 CFR 1910.120.

The Site Field Safety Officer is responsible for verifying all certifications and fit tests.

SITE PERSONNEL AND CERTIFICATION STATUS

1.3.2 Subcontractor's Health and Safety Program Evaluation

Name of Subcontractor:

Address:

Activities To Be Conducted by Subcontractor:

Evaluation Criteria

Medical program meets OSHA/WESTON criteria

- ☐ Acceptable
☐ Unacceptable

Comments:

Personal protective equipment available

- ☐ Acceptable
☐ Unacceptable

Comments:

On-site monitoring equipment available, calibrated, and operated properly

- ☐ Acceptable
☐ Unacceptable

Comments:

Safe working procedures clearly specified

- ☐ Acceptable
☐ Unacceptable

Comments:

Training meets OSHA/WESTON criteria

- ☐ Acceptable
☐ Unacceptable

Comments:

Emergency procedures

- ☐ Acceptable
☐ Unacceptable

Comments:

Decontamination procedures

- ☐ Acceptable
☐ Unacceptable

Comments:

General health and safety program evaluation

- ☐ Acceptable
☐ Unacceptable

Comments:

Additional comments:

- ☐ Subcontractor has agreed to and will conform with the WESTON HASP for this project.
- ☐ Subcontractor will work under his own HASP, which has been accepted by project PM.

Evaluation Conducted by: Certifications for all subcontractors personnel will be added to the HASP prior to beginning work.

Date:

Subcontractor

Name:

Title:

Task(s):

Certification Level or Description:

- ☐ Medical Current ☐ Training Current
☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)

Name:

Title:

Task(s):

Certification Level or Description:

- ☐ Medical Current ☐ Training Current
☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)

Name:

Title:

Task(s):

Certification Level or Description:

- ☐ Medical Current ☐ Training Current
☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)

Name:

Title:

Task(s):

Certification Level or Description:

- ☐ Medical Current ☐ Training Current
☐ Fit Test Current (Qual.) ☐ Fit Test Current (Quant.)

2. HEALTH AND SAFETY EVALUATION

2.1 HEALTH AND SAFETY EVALUATION

2.1.1 Task Hazard Assessment

Background Review: ☒ Complete ☐ Partial If partial why?

Activities Covered Under This Plan:

No.	Task/Subtask	Description	Schedule
1		Installation and sampling of soil and subslab vapor probes.	pending

Types of Hazards:

Numbers refer to one of the following hazard evaluation forms. Complete hazard evaluation forms for each appropriate hazard class.

Physiochemical 1

- ☐ Flammable
- ☐ Explosive
- ☐ Corrosive
- ☐ Reactive
- ☐ O₂ Rich
- ☐ O₂ Deficient

Chemically Toxic 1

- ☒ Inhalation ☐ Carcinogen
- ☐ Ingestion ☐ Mutagen
- ☐ Contact ☐ Teratogen
- ☐ Absorption
- ☐ OSHA 1910.1000 Substance (Air Contaminants)
- ☐ OSHA Specific Hazard Substance Standard (Refer to following page for listing)

Radiation 3

- Ionizing:
- ☐ Internal exposure
 - ☐ External exposure
- Non-ionizing:
- ☒ UV ☐ IR
 - ☐ RF ☐ MicroW
 - ☐ Laser

Biological 2

- ☐ Etiological Agent
- ☐ Other (plant, insect, animal)
- ☐ **Physical Hazards 4**
- ☐ Construction Activities

Source/Location of Contaminants and Hazardous Substances:

Directly Related to Tasks

- ☒ Air
- ☐ Other Surface
- ☐ Groundwater
- ☐ Soil
- ☐ Surface Water
- ☐ Sanitary Wastewater
- ☐ Process Wastewater
- ☐ Other _____

Indirectly Related to Tasks — Nearby Process(es) That Could Affect Team Members:

- ☒ Client Facility/WESTON Work Location
- ☐ Nearby Non-Client Facility
- Describe:
- ☒ Have activities (task[s]) been coordinated with facility?

HEALTH AND SAFETY EVALUATION

2.1.2 Chemical Hazards of Concern

☐ N/A

Chemical Contaminants of Concern

Provide the data requested for chemical contaminants on HASP Form 25 or attach data sheets from an acceptable source such as NIOSH pocket guide, condensed chemical dictionary, ACGIH TLV booklet, etc. List chemicals and concentrations below and locate data sheets in Attachment B of this HASP.

☐ N/A

Identify hazardous materials used or on-site and attach Material Safety Data Sheets (MSDSs) for all reagent type chemicals, solutions, or other identified materials that in normal use in performing tasks related to this project could produce hazardous substances. Ensure that all subcontractors and other parties working nearby are informed of the presence of these chemicals and the location of the MSDSs. Obtain from subcontractors and other parties, lists of the hazardous materials they use or have on-site and identify location of the MSDSs here. List chemicals and quantities below and locate MSDSs in Attachment B of this HASP.

Chemical Name	Concentration	Chemical Name	Quantity
Freon 113	0		
Tetrachloroethene			
Trichloroethene			
1,1,1-Trichloroethane			
1,1-Dichloroethane			
BTEX			
- see attached tables and figures for applicable locations and concentrations			
OSHA-SPECIFIC HAZARDOUS SUBSTANCES			
The following substances may require specific medical, training, or monitoring based on concentration or evaluation of risk. See the appropriate citation listed under 29 CFR 1910 or 1926 for additional information.			
<input type="checkbox"/> 1910.1001 Asbestos	<input type="checkbox"/> 1910.1002 Coal tar pitch volatiles	<input type="checkbox"/> 1910.1003 4-Nitrobiphenyl, etc.	<input type="checkbox"/> 1910.1004 alpha-Naphthylamine
<input type="checkbox"/> 1910.1005 [Reserved]	<input type="checkbox"/> 1910.1006 Methyl chloromethyl ether	<input type="checkbox"/> 1910.1007 3,3'-Dichlorobenzidine (and its salts)	<input type="checkbox"/> 1910.1008 bis-Chloromethyl ether
<input type="checkbox"/> 1910.1009 beta-Naphthylamine	<input type="checkbox"/> 1910.1010 Benzidine	<input type="checkbox"/> 1910.1011 4-Aminodiphenyl	<input type="checkbox"/> 1910.1012 Ethyleneimine
<input type="checkbox"/> 1910.1013 beta-Propiolactone	<input type="checkbox"/> 1910.1014 2-Acetylaminofluorene	<input type="checkbox"/> 1910.1015 4-Dimethylaminoazobenzene	<input type="checkbox"/> 1910.1016 N-Nitrosodimethylamine
<input type="checkbox"/> 1910.1017 Vinyl chloride	<input type="checkbox"/> 1910.1018 Inorganic arsenic	<input type="checkbox"/> 1910.1025 Lead (Att. FLD# 46)	<input type="checkbox"/> 1910.1027 Cadmium
<input type="checkbox"/> 1910.1028 Benzene	<input type="checkbox"/> 1910.1029 Coke oven emissions	<input type="checkbox"/> 1910.1043 Cotton dust	<input type="checkbox"/> 1910.1044 1,2-Dibromo-3-chloropropane
<input type="checkbox"/> 1910.1045 Acrylonitrile	<input type="checkbox"/> 1910.1047 Ethylene oxide	<input type="checkbox"/> 1910.1048 Formaldehyde	<input type="checkbox"/> 1910.1050 Methyleneedianiline
<input type="checkbox"/> 1910.1051 1,3 Butadiene	<input type="checkbox"/> 1910.1052 Methylene chloride		

TABLE 4
Summarized Soil Gas Sampling Results
Bulova Technologies, Inc., Valley Stream, New York

Sample	TCA	TCE	PCE	Benzene	Toluene	Ethyl Benzene	Xylenes	TVHC
SG-1	4	0.7	0.2	<0.01	0.1	<0.07	0.08	0.7
SG-2	4	13	6	<0.01	0.2	<0.07	0.1	1
SG-3	3	7	5	<0.01	0.8	<0.07	1	3
SG-4	3	0.7	0.1	<0.01	<0.03	<0.07	<0.09	0.5
SG-5	7	30	10	<0.01	<0.03	<0.07	<0.09	2
SG-6	5	21	14	<0.01	<0.03	<0.07	<0.09	2
SG-7	1	0.01	0.02	<0.01	0.3	<0.07	0.6	0.9
SG-8	660	<0.3	<0.1	<0.01	<0.03	<0.07	<0.09	11
SG-9	28	0.03	0.2	<0.01	0.7	<0.07	0.8	3
SG-10	0.3	0.2	0.5	<0.01	0.7	<0.07	0.5	2
SG-11	1	9	0.3	<0.01	<0.03	<0.07	<0.09	5
SG-12	0.9	7	0.4	<0.01	<0.03	<0.07	<0.09	2
SG-13	2	0.2	0.5	<0.01	0.05	<0.06	<0.08	
SG-14	3700	<5	4	<0.1	<0.3	<0.6	<0.8	0.7
SG-15	0.4	0.004	0.005	<0.01	0.06	<0.06	<0.8	<0.2
SG-16	21	21	0.3	<0.01	<0.03	<0.06	<0.08	3
SG-17	130	1	2	<0.01	<0.03	<0.06	<0.08	6

TABLE 4
Summarized Soil Gas Sampling Results
Bulova Technologies, Inc., Valley Stream, New York

Sample	TCA	TCE	PCE	Benzene	Toluene	Ethyl Benzene	Xylenes	TVHC
SG-18	0.3	1	0.1	<0.01	<0.03	<0.06	<0.08	<0.08
SG-19	5	34	9	<0.01	<0.03	<0.06	<0.08	1
SG-20	4	22	16	<0.01	0.4	<0.06	0.2	2
SG-21	3	20	13	<0.01	0.04	<0.06	<0.08	0.5
SG-22	2	4	2	<0.01	0.07	<0.06	<0.08	0.5
SG-23	7	<0.05	0.3	<0.01	<0.03	<0.06	<0.08	0.3
SG-24	8	0.6	2	<0.01	<0.03	<0.06	<0.08	0.2
SG-25	10	0.1	1	<0.01	<0.03	<0.06	<0.08	0.3
SG-26	5	0.6	0.2	<0.01	<0.03	<0.06	<0.08	0.2
SG-27	0.5	0.09	0.02	<0.01	<0.03	<0.06	<0.08	<0.08
SG-28	1	0.06	0.02	<0.01	0.06	<0.06	<0.08	0.06
SG-29	0.4	0.01	0.02	<0.01	0.06	<0.06	0.07	0.4

Notes:

All concentrations in $\mu\text{g/l}$

TCA: 1,1,1-Trichloroethane

TCE: Trichloroethylene

PCE: Tetrachloroethylene

TVHC: Total Volatile Hydrocarbons

1961A:PAA01685.WS1

TRACER RESEARCH CORPORATION - ANALYTICAL RESULTS
 STORB ENVIRONMENTAL/BULLOVA TECHNOLOGIES/HEMPSTEAD, NEW YORK/JOE#2-92-368-S
 05/26/92

SAMPLE	TCA		TCE		PCB		BENZENE		TOLUENE		ETHYL BENZENE		XYLENES		TVHC	
	ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l		ug/l	
AIR	0.003		0.0002		0.0009		0.6		0.8		<0.06		0.6		8	
SG-2-5'	0.2		0.4		3		0.1		0.2		<0.06		<0.07		1	
SG-3-5'	0.7		0.6		4		0.2		1		<0.6		<0.7		11	
SG-4-3.5'	0.7		<0.04		0.6		0.05		0.09		<0.06		0.4		0.7	
SG-5-4'	0.04		0.009		0.01		0.3		0.5		<0.1		<0.1		2	
SG-6-4'	0.6		0.08		0.6		0.04		0.08		<0.06		<0.07		0.2	
SG-7-4'	0.002		<0.002		0.005		0.2		0.3		<0.06		0.6		2	
SG-8-4'	<0.09		2		4		<0.2		<0.3		4		8		52	
SG-9-4'	1		22		44		0.03		<0.03		<0.06		<0.07		2	
SG-10-4'	1		<0.2		1		<0.03		<0.06		<0.1		<0.1		0.3	
SG-11-4'	8		<0.2		0.3		<0.2		<0.3		<0.6		<0.7		2	
AIR	0.0006		<0.0002		0.0005		<0.02		<0.03		<0.06		<0.07		0.1	

Analyzed by: Mike Gervasini
 Proofed by: *[Signature]*

TRACER RESEARCH CORPORATION - ANALYTICAL RESULTS
 STORB ENVIRONMENTAL/BULLOVA INDUSTRIES/HEMPSTEAD, NEW YORK/JOE#2-92-368-S
 05/27/92

SAMPLE	TCA ug/l	TCE ug/l	PCE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENES ug/l	TVHC ug/l
AIR	0.001	<0.0002	0.001	0.04	0.01	<0.06	<0.08	0.6
SG-12-4'	0.08	0.002	0.002	0.1	0.1	<0.06	<0.08	0.6
SG-13-4'	2	<0.003	0.03	<0.02	0.05	<0.06	<0.08	0.6
SG-14-4'	0.5	<0.03	0.2	0.08	0.2	<0.06	0.08	0.7
SG-15-4'	0.3	0.2	0.4	0.03	0.02	<0.06	<0.08	0.1
SG-16-4'	0.3	0.02	0.04	0.04	0.1	<0.06	<0.08	0.5
SG-17-4'	0.2	0.1	0.03	0.05	0.2	<0.06	0.8	3
SG-18-4'	1	0.6	0.06	<0.02	0.02	<0.06	<0.08	2
SG-19-4'	0.04	0.02	0.01	0.3	2	4	5	9
SG-20-4'	8	0.7	96	<0.2	0.5	<0.6	<0.8	11
SG-21-4'	0.5	<0.2	0.8	0.03	0.05	<0.06	<0.08	0.2
AIR	0.004	<0.0002	0.002	<0.02	<0.02	<0.06	<0.08	<0.08
SG-22-4'	2	0.09	2	<0.02	0.03	<0.06	<0.08	0.9
SG-23-4'	8	140	4	<0.2	<0.2	<0.7	<0.8	30
SG-24-4'	2	6	0.3	<0.02	<0.03	<0.07	<0.08	3
SG-25-4'	0.06	0.08	0.005	0.06	0.2	<0.07	<0.08	0.4
SG-26-5'	2	0.6	0.4	<0.2	<0.2	<0.7	<0.8	7
SG-27-3.5'	3	0.07	0.2	<0.02	0.03	<0.07	<0.08	2
SG-28-4'	12	2	0.2	<0.02	0.02	<0.07	<0.08	4
SG-29-4'	6	0.07	0.2	<0.02	<0.02	<0.07	<0.08	1
SG-30-5'	4	<0.04	0.08	<0.02	<0.02	<0.07	<0.08	0.5
SG-31-4'	7	0.07	0.2	<0.02	<0.02	<0.07	<0.08	1
AIR	0.002	<0.0002	0.002	<0.02	<0.02	<0.07	<0.08	<0.08

Analyzed by: Mike Gervasini
 Proofed by: *[Signature]*

TRACER RESEARCH CORPORATION - ANALYTICAL RESULTS
 STORB ENVIRONMENTAL/BULOVA INDUSTRIES/HEMPSTEAD, NEW YORK/JO#2-92-368-S
 05/28/92

SAMPLE	TCA ug/l	TCE ug/l	PCE ug/l	BENZENE ug/l	TOLUENE ug/l	ETHYL BENZENE ug/l	XYLENES ug/l	TVHC ug/l
AIR	0.001	0.0002	0.002	0.04	0.04	<0.08	<0.1	0.08
SG-32-5'	0.8	0.0006	0.01	<0.02	0.07	<0.08	<0.1	2
SG-33-5'	0.03	<0.004	0.007	0.02	0.04	<0.08	<0.1	0.1
SG-34-5'	5	0.1	0.4	<0.02	0.04	<0.08	<0.1	3
SG-35-5'	2	0.4	0.4	<0.02	<0.04	<0.08	<0.1	0.6
SG-36-5'	0.9	0.3	0.5	<0.02	<0.04	<0.08	<0.1	0.4
SG-37-5'	5	1	2	<0.02	<0.04	<0.08	<0.1	2
SG-38-5'	4	0.5	0.4	<0.02	<0.04	<0.08	<0.1	0.8
SG-39-5'	14	0.2	0.5	<0.02	<0.04	<0.08	<0.1	2
SG-40-5'	2	0.04	0.1	<0.02	<0.04	<0.08	<0.1	0.3
SG-1-5'	0.003	<0.004	0.007	<0.02	<0.04	<0.08	<0.1	<0.1
AIR	0.001	<0.0002	0.004	0.02	0.04	<0.08	<0.1	0.2

Analyzed by: Mike Gervasi
 Proofed by: *Handwritten Signature*

TABLE 2
Summary of Sampling Results

Compound	Soil Sample Location												Ground Water Sample Location	
	PD01	PD02	PD03	PD04	PD05	PD06	PD07	PD08	PD09	PD10	PB11	PD12	MW03	
ethylbenzene	ND	ND	ND	ND	ND	941	322	ND	ND	1,170	ND	ND/ND	ND	
ethylene Chloride	ND	ND	ND	ND	ND	ND	88.6	ND	ND	ND	ND	ND/ND	ND	
trichloroethene	104	ND	ND	ND	ND	327	ND	ND	21.5	ND	ND	ND/ND	7.2	
luene	ND	ND	ND	ND	ND	337	ND	ND	ND	505	ND	ND/ND	ND	
trans-dichloroethene	ND	ND	ND	ND	ND	940	ND	ND	ND	ND	ND	ND/ND	ND	
ichloroethene	ND	ND	ND	ND	ND	4,670	ND	ND	ND	ND	ND	ND/ND	ND	
1,1-Trichloroethane	ND	80.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
total Petroleum Hydrocarbons	3,250	BMDL	NA	NA	NA	18,900	18,400	NA	41.6	19,500	32.4	116/75	NA	

Notes:

Results in parts per billion, except total petroleum hydrocarbons which are in parts per million.

ND - Not Detected

MDL - Below Method Detection Limit

NA - Not Analyzed

PA003778.W51

PA003788.W51/9-1-93/6.16pm

ENVIRON

TABLE 3
Summarized Soil Sampling Results
Bulova Technologies, Inc., Valley Stream, New York

SOIL AREA	SAMPLE LOCATION	Ethyl- benzene	m-Xylene	o,p-Xylene	Toluene	OTHERS
SA1	1961-B001-SB01	760	2,300	2,200	ND	860 Methylene Chloride
SA1	1961-B002-SB01	ND	ND	ND	ND	230JB Methylene Chloride
SA1	1961-B003-SB01	ND	ND	ND	ND	250JB Methylene Chloride
SA1	1961-B004-SB01	960	2,700	2,700	ND	
SA1	1961-B025-SB01	ND	ND	4.9J	2.1J	9.4 Methylene Chloride
SA1	1961-B025-SB02	ND	ND	ND	ND	17.0B Methylene Chloride
SA1	1961-B026-SB01	ND	2.1J	ND	3.4J	18.0B Methylene Chloride
SA1	1961-B026-SB02	ND	5.2J	ND	ND	18.0B Methylene Chloride
SA1	1961-B027-SB01	ND	ND	ND	ND	8.1 Methylene Chloride
SA1	1961-B027-SB02	ND	ND	ND	ND	
SA1	1961-B028-SB01	ND	ND	ND	3.5J	29 PCE
SA1	1961-B028-SB02	ND	ND	ND	ND	
SA1	1961-MW05-SB01	ND	5.6J	6.8	3.5J	
SA1	1961-MW05-SB02	ND	ND	ND	ND	
SA2	1961-B008-SB01	ND	340	300	ND	300J Methylene Chloride
SA2	1961-B009-SB01	ND	ND	ND	ND	
SA2	1961-B010-SB01	ND	ND	ND	ND	460 Methylene Chloride
SA2	1961-B012-SB01	ND	ND	ND	ND	

TABLE 3 Summarized Soil Sampling Results Bulova Technologies, Inc., Valley Stream, New York						
SOIL AREA	SAMPLE LOCATION	Ethyl- benzene	m-Xylene	o,p-Xylene	Toluene	OTHERS
SA2	1961-B013-SB01	ND	ND	ND	ND	
SA2	1961-B022-SB01	ND	ND	ND	ND	
SA2	1961-B022-SB02	ND	ND	ND	ND	
SA2	1961-B023-SB01	ND	ND	ND	9.4	13 TCA, 8.2 Methylene Chloride
SA2	1961-B023-SB02	ND	ND	ND	ND	9.5 TCA
SA2	1961-MW07-SB01	ND	ND	ND	ND	
SA2	1961-MW07-SB02	ND	ND	ND	ND	
SA3	1961-B014-SB01	ND	ND	ND	ND	14.0J Methylene Chloride
SA3	1961-B015-SB01	1,100	2,900	2,700	ND	1,900 Methylene Chloride, 4,900 MEK, 11,000 Acetone
SA3	1961-B019-SB01	ND	ND	ND	ND	18.0B Methylene Chloride
SA3	1961-B019-SB02	ND	ND	ND	ND	
SA3	1961-B019-SB22	ND	ND	ND	ND	14.0B Methylene Chloride
SA3	1961-B020-SB01	ND	ND	ND	ND	
SA3	1961-B020-SB02	ND	ND	ND	ND	
SA3	1961-B021-SB01	ND	ND	ND	ND	9.9 Methylene Chloride
SA3	1961-B021-SB02	ND	ND	ND	ND	27.0B Methylene Chloride
SA3	1961-MW06-SB01	ND	ND	ND	ND	
SA3	1961-MW06-SB02	ND	ND	ND	ND	

TABLE 3
Summarized Soil Sampling Results
Bulova Technologies, Inc., Valley Stream, New York

SOIL AREA	SAMPLE LOCATION	Ethyl- benzene	m-Xylene	o,p-Xylene	Toluene	OTHERS
SA4	1961-B016-SB01	ND	ND	ND	ND	160J Methylene Chloride
SA4	1961-B016-SB02	ND	ND	ND	ND	400 Methylene Chloride
SA5	1961-B017-SB01	ND	ND	ND	ND	360 Methylene Chloride
SA5	1961-B018-SB01	ND	ND	ND	ND	1,500 Methylene Chloride, 660 TCE, 130J PCE
SA5	1961-B018-SB02	ND	ND	ND	ND	240JB Methylene Chloride
SA5	1961-B024-SB01	ND	ND	ND	ND	
SA5	1961-B024-SB02	ND	ND	ND	49	11.0B Methylene Chloride, 9.1 1,1-DCA, 13 TCA

Notes: All concentrations in ug/kg (ppb).
 ND - Not detected.
 J - Estimated concentration below method detection limit.
 B - Compound detected in corresponding method blanks.
 PCE - Tetrachloroethylene
 TCE - Trichloroethylene
 TCA - 1,1,1-Trichloroethane
 1,1-DCA - 1,1-Dichloroethane

1961A:PAA01685.W51

TABLE 2
Summary of Sampling Results

Compound	Soil Sample Location												Ground Water Sample Location
	PD01	PD02	PD03	PD04	PD05	PD06	PD07	PD08	PD09	PD10	PD11	PD12	
Ethylbenzene	ND	ND	ND	ND	ND	941	322	ND	ND	1,170	ND	ND/ND	ND
	ND	ND	ND	ND	ND	ND	88.6	ND	ND	ND	ND	ND/ND	ND
1,1,2-Trichloroethene	104	ND	ND	ND	ND	327	ND	ND	21.5	ND	ND	ND/ND	7.2
	ND	ND	ND	ND	ND	337	ND	ND	ND	505	ND	ND/ND	ND
1,2-Dichloroethene	ND	ND	ND	ND	ND	940	ND	ND	ND	ND	ND	ND/ND	ND
	ND	ND	ND	ND	ND	4,670	ND	ND	ND	ND	ND	ND/ND	ND
1,1,1-Trichloroethane	ND	80.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	3,250	BMDL	NA	NA	NA	18,900	18,400	NA	41.6	19,500	32.4	116/75	NA

Notes:

Results in parts per billion, except total petroleum hydrocarbons which are in parts per million.

ND - Not Detected
MDL - Below Method Detection Limit
NA - Not Analyzed

PAA03F78.W31

PAA03F78.W31/9-1-93/6:16pm

ENVIRON



FIGURE 2-1 PREVIOUS INVESTIGATION AREAS AND SAMPLING LOCATIONS HOME DEPOT U.S.A., INC. VALLEY STREAM, NEW YORK

06P-1392-04

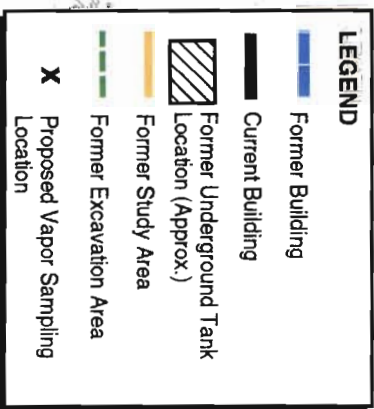


FIGURE 3-1 VAPOR SAMPLING LOCATIONS HOME DEPOT U.S.A., INC. VALLEY STREAM, NEW YORK

TABLE 2
Summary of April 1999 Soil Gas Sampling Results
Former Bulova Corporation Facility - Valley Stream, New York

Location Sample ID Sample Date Collection Method Comments	NA FB01-990419 4/19/99 Geoprobe Ambient Air	GP-01 GP01-SG01 4/19/99 Geoprobe	GP-02 GP02-SG01 4/19/99 Geoprobe	GP-05 GP05-SG01 4/19/99 Geoprobe	GP-08 GP08-SG01 4/19/99 Geoprobe	GP-09 GP09-SG01 4/19/99 Geoprobe	GP-13 GP13-SG01 4/19/99 Geoprobe	GP-15 GP15-SG01 4/19/99 Geoprobe	GP-15 GP15-SG11 4/19/99 Geoprobe Duplicate	Connecticut Residential Soil Vapor Volatilization Criteria (RCSA 22a-133k)
Volatile Organic Compounds										
Acetone	7.4 (b)	13 (b)	19.5 (b)	14.2 (b)	31.1 (b)	11.1 (b)	125 (b)	8.6 (b)	9.1 (b)	2,400,000
Benzene	2.3	1.2	1.6	ND	2.5	1.5	4.6	2.8	4.3	1,000
Carbon disulfide	ND	1.9	1.4	2.2	2.8	1.2	3.1	ND	ND	NA
Chloroethane	ND	ND	ND	ND	ND	ND	ND	3.4	3.5	NA
Chloroform	13.5	3.8	1.5	1.5	55.4	2.8	1.6	1.8	0.85	4,500
1,1-Dichloroethane	ND	14.8	ND	ND	73.9	2	6.5	103	100	850,000
1,1-Dichloroethene	ND	ND	ND	ND	21.8	ND	ND	5.9	5.5	1,000
1,2-Dichloroethane	ND	ND	ND	ND	0.87	ND	4.3	ND	ND	1,000
cis-1,2-Dichloroethene	ND	2.7	ND	ND	ND	ND	ND	1.2	1.3	NA
Ethylbenzene	1.9	2.8	2.8	1.6	2.6	2.8	3.3	1	2.7	1,650,000
2-Hexanone	ND	ND	ND	ND	ND	ND	2.1	ND	ND	NA
Methyl ethyl ketone	1	15.8	20.9	6.7	16.6	9	45.3	3.4	3.8	2,400,000
Methyl isobutyl ketone	ND	ND	ND	ND	ND	ND	0.81	ND	ND	140,000
Methylene chloride	9.9	5	4.6	4.8	17.7	5.3	5.5	1.5	1.3	1,200,000
Tetrachloroethane	ND	134	3.2	2.7	2.3	2.6	ND	10	9.2	11,000
Toluene	15.6	15.9	14.4	8.5	17.2	15.9	17.3	10	18.8	760,000
1,1,1-Trichloroethane	ND	88.2	ND	1.8	483	16.5	7.6	169	157	1,310,000
Trichloroethene	ND	13.1	4.8	12	1.4	4.3	1.4	27.9	26.3	7,000
1,1,2-Trichloro-1,2,2-Trifluoroethane	31 (b)	37.9 (b)	4.9 (b)	8.5 (b)	186 (b)	65.2 (b)	5.8 (b)	4340 (b, j)	5140 (b, j)	NA
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	3	5.1	1,000
Xylenes (total)	10.8	14.3	14.3	8.7	13.9	14.4	14.5	6	15.6	500,000
Total Volatile TICs	34.3	535	527	370	502	570	748	1301	1263	NA

Notes:

- All concentrations are reported in ppbv.
- Only compounds detected in one or more samples are listed in the table.
- Abbreviations:
NA: Not Applicable.
b: Compound detected in associated method blank.
i: Estimated concentration.

Notes:

- All concentrations are reported in ppbv.
- Only compounds detected in one or more samples are listed in the table.
- Abbreviations:
 - NA: Not Applicable.
 - b: Compound detected in associated method blank.
 - j: Estimated concentration.

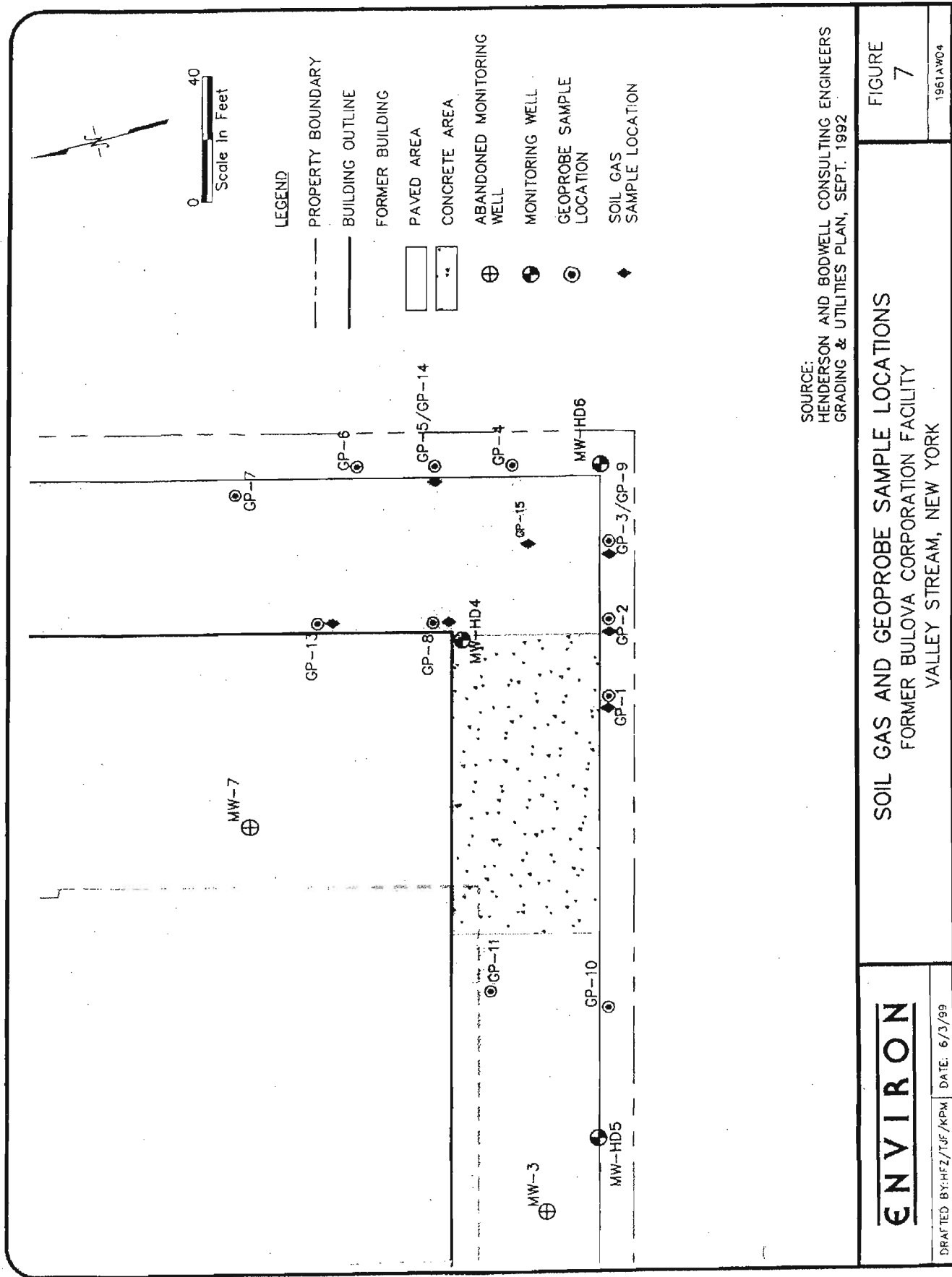


TABLE 1 Ground Water Elevation Data Former Bulova Corporation Facility – Valley Stream, New York			
Monitoring Well	Top of Casing Elevation (ft AMSL)	December 18, 2002	
		Depth to Water (ft TOC)	Elevation (ft AMSL)
MW-HD1	9.93	5.29	4.64
MW-HD2	9.45	4.62	4.83
MW-HD3	9.93	5.28	4.65
MW-HD4	10.09	5.62	4.47
MW-HD5	9.45	4.98	4.47
MW-HD6	9.97	5.55	4.42
MW-HD7	9.33	4.57	4.76
Notes:			
1. Abbreviations: TOC: Top of casing AMSL: Above mean sea level			

TABLE 2
Summary of December 2002 Ground Water Sampling Results
Former Bulova Corporation Facility - Valley Stream, New York

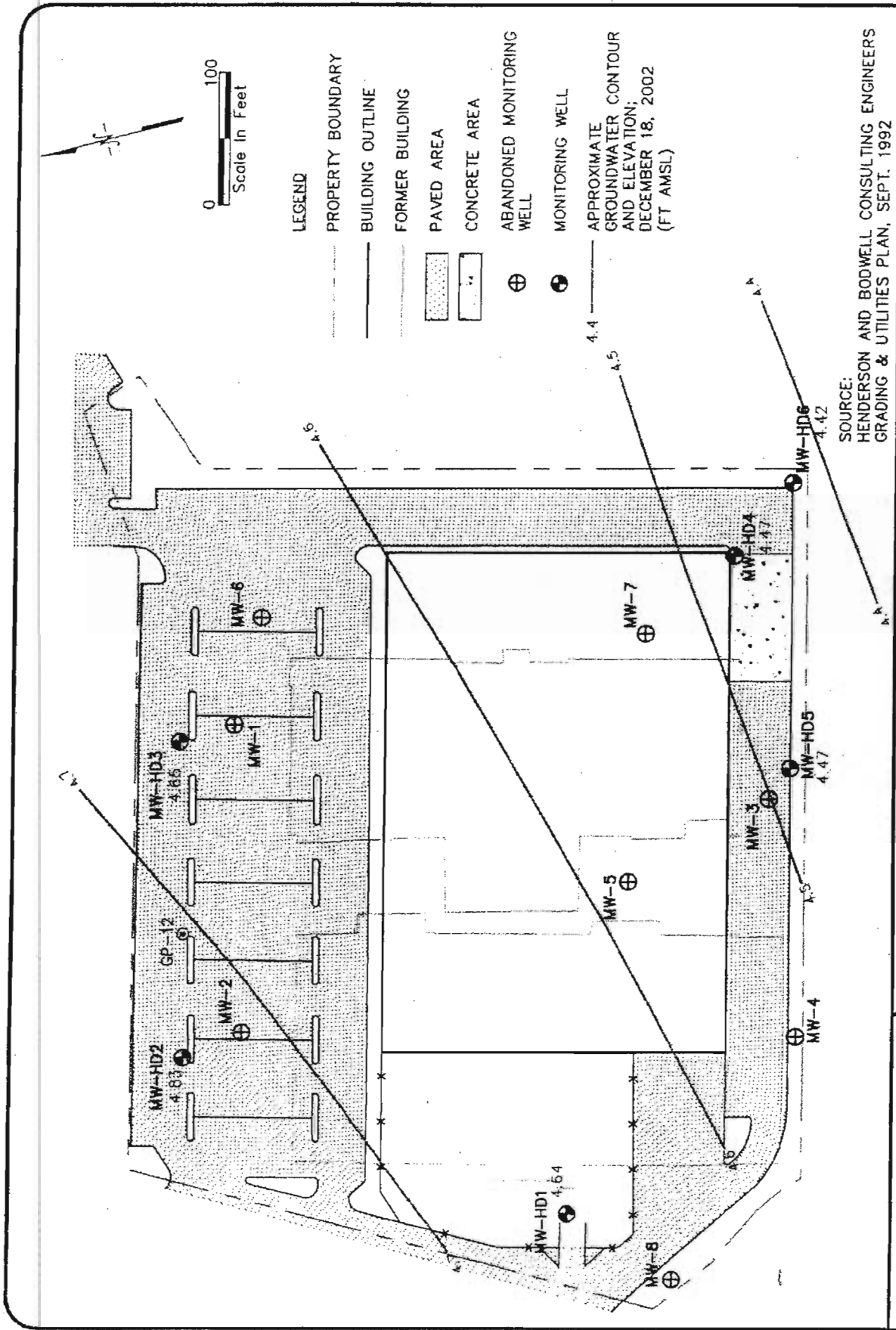
Location	MW-HD4	MW-HD5	MW-HD5	MW-HD6	MW-HD7	New York
Sample Collection Date	12/18/02	12/18/02	12/18/02	12/18/02	12/18/02	Ambient Water
Sample Method	Bailer	Bailer	Bailer	Bailer	Bailer	Quality Criteria
Comments			Duplicate			
Volatile Organic Compounds						
1,2-Dichlorobenzene	1.0 (j)	ND	ND	ND	ND	3
1,4-Dichlorobenzene	3.2 (j)	ND	ND	ND	ND	3
1,1-Dichloroethane	24.3	ND	ND	ND	0.7 (j)	5
1,1-Dichloroethene	60.9	ND	ND	ND	ND	5
cis-1,2-Dichloroethene	2.6 (j)	7.1	7.0	ND	ND	5
Freon 113	309	ND	ND	2.0 (j)	2.8 (j)	5
Tetrachloroethene	7.3	1.1	1.1	0.58 (j)	ND	5
1,1,1-Trichloroethane	30	ND	ND	ND	ND	5
Trichloroethene	16.5	2.6	2.7	1.2	3.4	5
Vinyl Chloride	ND	1.9	2.1	ND	ND	2

Notes:

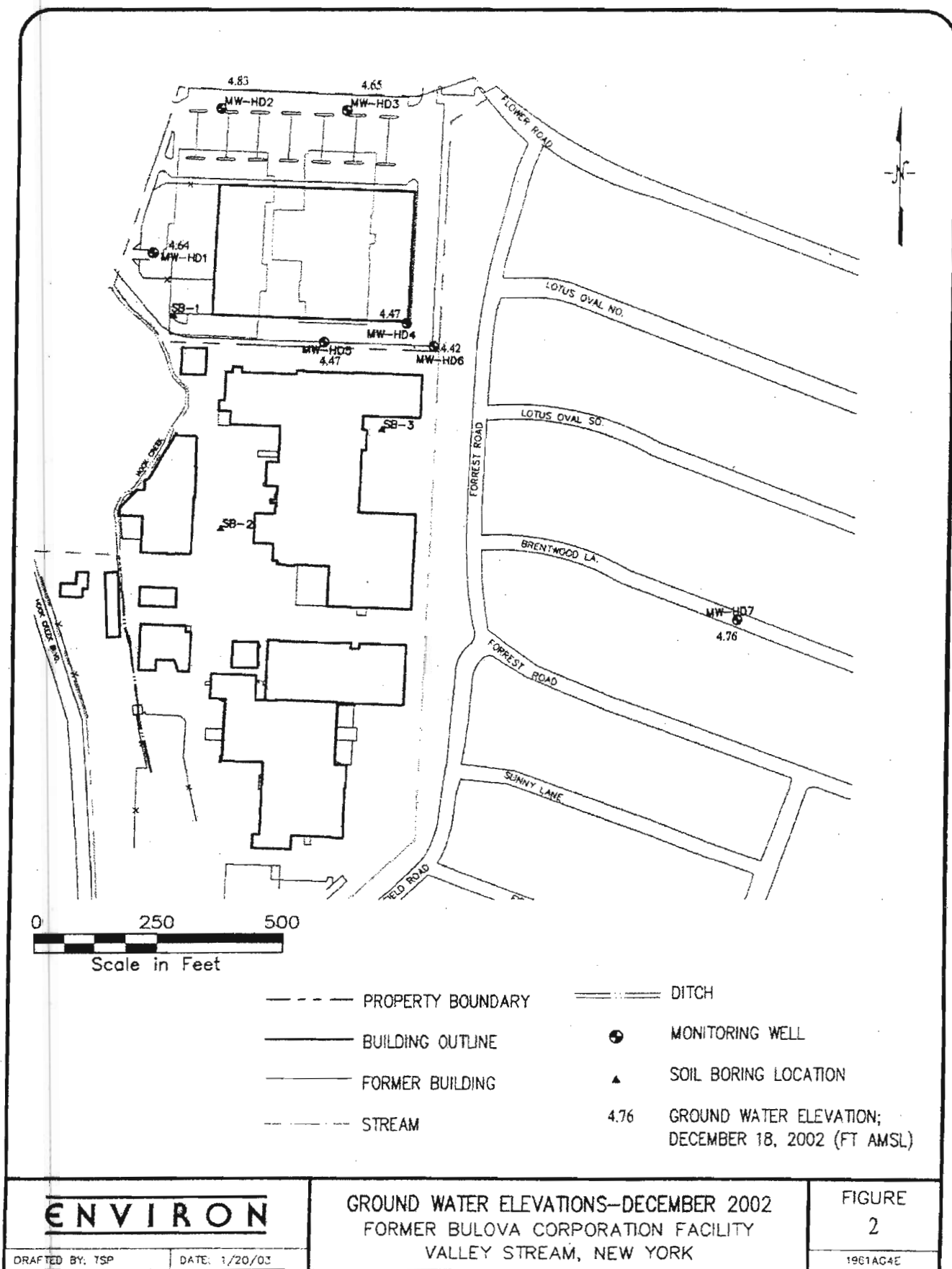
1. All concentrations are reported in micrograms per liter (µg/L) (parts per billion [ppb]).
2. Only targeted compounds detected in one or more samples are listed in this table.
3. Bold values meet or exceed the New York Ambient Water Quality Criteria.
4. Abbreviations:

ND = Not Detected
(j) = Estimated Concentration

02-1961AIPRUN_WP\17793v1.DOC



ENVIRON		GROUND WATER POTENTIOMETRIC SURFACE - DECEMBER 2002 FORMER BULOVA CORPORATION FACILITY VALLEY STREAM, NEW YORK		FIGURE 1
DRAFTED BY: TSP	DATE: 1/20/03	19614W24		



HEALTH AND SAFETY EVALUATION

2.1.3 Biological Hazards of Concern

☒ Poisonous Plants (FLD 43)

Location/Task No(s).:

Source: ☐ Known ☒ Suspect
Route of Exposure: ☐ Inhalation ☐ Ingestion
☒ Contact ☐ Direct Penetration

Team Member(s) Allergic: ☒ Yes ☐ No
Immunization required: ☐ Yes ☒ No

☒ Insects (FLD 43)

Location/Task No(s).:

Source: ☐ Known ☒ Suspect
Route of Exposure: ☐ Inhalation ☐ Ingestion
☐ Contact ☒ Direct Penetration

Team Member(s) Allergic: ☐ Yes ☐ No
Immunization required: ☐ Yes ☒ No

☒ Snakes, Reptiles (FLD 43)

Location/Task No(s).:

Source: ☐ Known ☒ Suspect
Route of Exposure: ☐ Inhalation ☐ Ingestion
☐ Contact ☒ Direct Penetration

Team Member(s) Allergic: ☐ Yes ☐ No
Immunization required: ☐ Yes ☒ No

☒ Animals (FLD 43)

Location/Task No(s).:

Source: ☐ Known ☒ Suspect
Route of Exposure: ☐ Inhalation ☐ Ingestion
☒ Contact ☒ Direct Penetration

Team Member(s) Allergic: ☐ Yes ☐ No
Immunization required: ☐ Yes ☒ No

FLD 43 — WESTON Biohazard Field Operating Procedures: Att. OP ☐

☐ Sewage

Location/Task No(s).:

Source: ☐ Known ☐ Suspect
Route of Exposure: ☐ Inhalation ☐ Ingestion
☐ Contact ☐ Direct Penetration

Team Member(s) Allergic: ☐ Yes ☐ No
Immunization required: ☐ Yes ☐ No

Tetanus Vaccination within Past 10 yrs: ☐ Yes ☐ No

☐ Etiologic Agents (List)

Location/Task No(s).:

Source: ☐ Known ☐ Suspect
Route of Exposure: ☐ Inhalation ☐ Ingestion
☐ Contact ☐ Direct Penetration

Team Member(s) Allergic: ☐ Yes ☐ No
Immunization required: ☐ Yes ☐ No

FLD 44 — WESTON Bloodborne Pathogens Exposure Control Plan – First Aid Procedures: Att. OP ☒

FLD 45 — WESTON Bloodborne Pathogens Exposure Control Plan – Working with Infectious Waste: Att. OP ☐

HEALTH AND SAFETY EVALUATION

2.1.4 Radiation Hazards of Concern

NONIONIZING RADIATION

Task No.	Type of Nonionizing Radiation	Source On-Site	TLV/PEL	Wavelength Range	Control Measures	Monitoring Instrument
1	Ultraviolet	Solar	N/A	N/A	Appropriate clothing/sunscreen	None
	Infrared	N/A				
	Radio Frequency	N/A				
	Microwave	N/A				
	Laser	N/A				

IONIZING RADIATION

Task No.	Radionuclide	Major Radiations	Radioactive Half-Life (Years)	DAC ($\mu\text{Ci}/\text{mL}$)			Surface Contamination Limit	Monitoring Instrument
				D	W	Y		

HEALTH AND SAFETY EVALUATION

2.1.5 Physical Hazards of Concern

Phy. Haz. Cond.	Physical Hazard	Attach OP	WESTON OP Titles
Loud noise	Hearing loss/disruption of communication	<input checked="" type="checkbox"/>	FLD01 - Noise Protection
Inclement weather	Rain/humidity/cold/ice/snow/lightning	<input type="checkbox"/>	FLD02 - Inclement Weather
Steam heat stress	Burns/displaced oxygen/wet working surfaces	<input type="checkbox"/>	FLD03 - Hot Process - Steam
Heat stress	Burns/hot surfaces/low pressure steam	<input type="checkbox"/>	FLD04 - Hot Process - LT3
Ambient heat stress	Heat rash/cramps/exhaustion/heat stroke	<input type="checkbox"/>	FLD05 - Heat Stress Prevention/Monitoring
Cold stress	Hypothermia/frostbite	<input checked="" type="checkbox"/>	FLD06 - Cold Stress
Cold/wet	Trench/paddy/immersion foot/edema	<input type="checkbox"/>	FLD07 - Wet Feet
Confined spaces	Falls/burns/drowning/engulfment/electrocution	<input type="checkbox"/>	FLD08 - Confined Space Entry
Explosive vapors	Thermal burns/impaction/dismemberment	<input type="checkbox"/>	FLD09 - Hot Work
Improper lifting	Back strain/abdomen/arm/leg muscle/joint injury	<input checked="" type="checkbox"/>	FLD10 - Manual Lifting/Handling Heavy Objects
Uneven surfaces	Vehicle accidents/slips/trips/falls	<input type="checkbox"/>	FLD11 - Rough Terrain
Poor housekeeping	Slips/trips/falls/punctures/cuts/fires	<input checked="" type="checkbox"/>	FLD12 - Housekeeping
Structural integrity	Crushing/overhead hazards/compromised floors	<input type="checkbox"/>	FLD13 - Structural Integrity
Hostile persons	Bodily injury	<input type="checkbox"/>	FLD14 - Site Security
Remote area	Slips/trips/falls/back strain/communication	<input type="checkbox"/>	FLD15 - Remote Area
Improper cyl. handling	Mechanical injury/fire/explosion/suffocation	<input type="checkbox"/>	FLD16 - Pressure Systems - Compressed Gases
Water hazards	Poor visibility/entanglement/drowning/cold stress	<input type="checkbox"/>	FLD17 - Diving
Water hazards	Drowning/heat/cold stress/hypothermia/falls	<input type="checkbox"/>	FLD18 - Operation and Use of Boats
Water hazards	Drowning/frostbite/hypothermia/falls/electrocution	<input type="checkbox"/>	FLD19 - Working Over Water
Vehicle hazards	Struck by vehicle/collision	<input type="checkbox"/>	FLD20 - Traffic
Explosions	Explosion/fire/thermal burns	<input type="checkbox"/>	FLD21 - Explosives
Moving mechanical parts	Crushing/pinch points/overhead hazards/electrocution	<input type="checkbox"/>	FLD22 - Heavy Equipment Operation
Moving mech. parts	Overhead hazards/electrocution	<input type="checkbox"/>	FLD23 - Cranes/Lifting Equipment Operation
Working at elevation	Overhead hazards/falls/electrocution	<input type="checkbox"/>	FLD24 - Aerial Lifts/Man lifts
Working at elevation	Overhead hazards/falls/electrocution	<input type="checkbox"/>	FLD25 - Working at Elevation
Working at elevation	Overhead hazards/falls/electrocution/slips	<input type="checkbox"/>	FLD26 - Ladders
Working at elevation	Slips/trips/falls/overhead hazards	<input type="checkbox"/>	FLD27 - Scaffolding
Trench cave-in	Crushing/falling/overhead hazards/suffocation	<input type="checkbox"/>	FLD28 - Excavating/Trenching
Improper material handling	Back injury/crushing from load shifts	<input checked="" type="checkbox"/>	FLD29 - Materials Handling
Physiochemical	Explosions/fires from oxidizing, flam./corr. material	<input type="checkbox"/>	FLD30 - Hazardous Materials Use/Storage
Physiochemical	Fire and explosion	<input type="checkbox"/>	FLD31 - Fire Prevention/Response Plan Required
Physiochemical	Fire	<input checked="" type="checkbox"/>	FLD32 - Fire Extinguishers Required
Structural integrity	Overhead/electrocution/slips/trips/falls/fire	<input type="checkbox"/>	FLD33 - Demolition
Electrical	Electrocution/shock/thermal burns	<input checked="" type="checkbox"/>	FLD34 - Utilities
Electrical	Electrocution/shock/thermal burns	<input type="checkbox"/>	FLD35 - Electrical Safety
Burns/fires	Heat stress/fires/burns	<input type="checkbox"/>	FLD36 - Welding/Cutting/Burning
Impact/thermal	Thermal burns/high pressure impaction/heat stress	<input type="checkbox"/>	FLD37 - High Pressure Washers
Impaction/electrical	Smashing body parts/pinching/cuts/electrocution	<input checked="" type="checkbox"/>	FLD38 - Hand and Power Tools
Poor visibility	Slips/trips/falls	<input checked="" type="checkbox"/>	FLD39 - Illumination
Fire/explosion	Burns/impaction	<input type="checkbox"/>	FLD40 - Storage Tank Removal/Decommissioning
Communications	Disruption of communications	<input type="checkbox"/>	FLD41 - Std. Hand/Emergency Signals
Energy/release	Unexpected release of energy	<input type="checkbox"/>	FLD42 - Lockout/Tag-out
Drilling hazards	Electrocution/overhead hazards/pinch points	<input type="checkbox"/>	2.5 - Drilling Safety Guide

3. TASK BY TASK ASSESMENT

3.1 TASK-BY-TASK RISK ASSESSMENT

3.1.1 Task 1 Description

TASK 1: Installation and sampling of soil and subslab vapor probes. Underground utility clearance to be provided by Client prior to installation of shallow probes.

EQUIPMENT REQUIRED/USED

Concrete core drill Power cords
Asphalt saw generator
Hand auger
Gas powered auger
Hand tools

POTENTIAL HAZARDS/RISKS

Chemical

☒ Hazard Present Risk Level: ☐ H ☐ M ☒ L

What justifies risk level?

VOCs in groundwater and/or soils. Due to nature of investigation, non-intrusive activities will be conducted and air sampling activities will be monitored with a PID and probe locations sealed.

Physical

☒ Hazard Present Risk Level: ☐ H ☒ M ☐ L

What justifies risk level?

Installation of probes with small equipment, lifting/bending. Appropriate use of tools will be adhered to and protective gear will be worn.

Biological

☒ Hazard Present Risk Level: ☐ H ☐ M ☒ L

What justifies risk level?

Working around back of the building. Many activities will be performed indoors and/or in the evening hours.

RADIOLOGICAL

☒ Hazard Present Risk Level: ☐ H ☐ M ☒ L

What justifies risk level?

Sunlight poses low risk – use of proper clothing and sunscreen. Many activities will be performed indoors and/or in the evening hours.

LEVELS OF PROTECTION/JUSTIFICATION

Level D – Limited intrusive work to be conducted to install shallow probes. Use of Photoionization Detectors (PID) to evaluate the ambient air and probe hole locations. Low concentrations of VOCs observed in shallow groundwater. Previous soil gas sampling results from 1991, 1993, and 1999 and groundwater results from 2002 can be used for reference, although site was regraded in 1993 and some materials removed during remediation activities in the early 1990s. See Table 2-1 in the Work Plan and the historic sample results tables and figures provided as part of Section 2.1.2 of this HASP.

SAFETY PROCEDURES REQUIRED AND/OR FIELD OPS UTILIZED

All work will be performed in accordance with the provisions of this HASP, OSHA guidelines, and WESTON Standard Operating Procedures.

FLDs: 01, 06, 10, 12, 29, 32, 34, 38, 39

3.1 TASK-BY-TASK RISK ASSESSMENT	
3.1.2 Task 2 Description	
TASK 2:	
EQUIPMENT REQUIRED/USED	
POTENTIAL HAZARDS/RISKS	
Chemical	
<input type="checkbox"/> Hazard Present What justifies risk level?	Risk Level: <input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L
Physical	
<input type="checkbox"/> Hazard Present What justifies risk level?	Risk Level: <input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L
Biological	
<input type="checkbox"/> Hazard Present What justifies risk level?	Risk Level: <input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L
RADIOLOGICAL	
<input type="checkbox"/> Hazard Present What justifies risk level?	Risk Level: <input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L
LEVELS OF PROTECTION/JUSTIFICATION	
SAFETY PROCEDURES REQUIRED AND/OR FIELD OPS UTILIZED	
All work will be performed in accordance with the provisions of this HASP, OSHA guidelines, and WESTON Standard Operating Procedures.	

3.1 TASK-BY-TASK RISK ASSESSMENT

3.1.3 Task 3 Description

TASK 3:

EQUIPMENT REQUIRED/USED

POTENTIAL HAZARDS/RISKS

Chemical

☐ Hazard Present
What justifies risk level?

Risk Level: ☐ H ☐ M ☐ L

Physical

☐ Hazard Present
What justifies risk level?

Risk Level: ☐ H ☐ M ☐ L

Biological

☐ Hazard Present
What justifies risk level?

Risk Level: ☐ H ☐ M ☐ L

RADIOLOGICAL

☐ Hazard Present
What justifies risk level?

Risk Level: ☐ H ☐ M ☐ L

LEVELS OF PROTECTION/JUSTIFICATION

SAFETY PROCEDURES REQUIRED AND/OR FIELD OPS UTILIZED

All work will be performed in accordance with the provisions of this HASP, OSHA guidelines, and WESTON Standard Operating Procedures.

3.1 TASK-BY-TASK RISK ASSESSMENT

3.1.4 Task 4 Description

TASK _____:

EQUIPMENT REQUIRED/USED

POTENTIAL HAZARDS/RISKS

Chemical

☐ Hazard Present
What justifies risk level?

Risk Level: ☐ H ☐ M ☐ L

Physical

☐ Hazard Present
What justifies risk level?

Risk Level: ☐ H ☐ M ☐ L

Biological

☐ Hazard Present
What justifies risk level?

Risk Level: ☐ H ☐ M ☐ L

RADIOLOGICAL

☐ Hazard Present
What justifies risk level?

Risk Level: ☐ H ☐ M ☐ L

LEVELS OF PROTECTION/JUSTIFICATION

SAFETY PROCEDURES REQUIRED AND/OR FIELD OPS UTILIZED

All work will be performed in accordance with the provisions of this HASP, OSHA guidelines, and WESTON Standard Operating Procedures.

3.2 PERSONNEL PROTECTION PLAN

Engineering Controls

Describe Engineering Controls used as part of Personnel Protection Plan:

Task(s) 1	Proper ventilation, concrete and soil dust control via water.
--------------	---

Administrative Controls

Describe Administrative Controls used as part of Personnel Protection Plan:

Task(s) 1	Previous sampling data review
--------------	-------------------------------

Personal Protective Equipment

Action Levels for Changing Levels of Protection. Refer to HASP Form 13, Site Air Monitoring Program—Action Levels. Define Action Levels for up or down grade for each task:

Task(s) 1	Continuous PID readings of 10 ppm over background – stop activities and contact IH.
--------------	---

Description of Levels of Protection

Level D	Level D Modified
Task(s): 1 <input checked="" type="checkbox"/> Head Hard hat as warranted <input checked="" type="checkbox"/> Eye and Face Safety glasses as warranted <input checked="" type="checkbox"/> Hearing Ear plugs as warranted <input checked="" type="checkbox"/> Arms and Legs Only Long pants, shirts at least 1/3 sleeve. <input type="checkbox"/> Appropriate Work Uniform <input checked="" type="checkbox"/> Hand – Gloves Nitrile and/or leather work gloves <input checked="" type="checkbox"/> Foot - Safety Boots Steel toe boots <input type="checkbox"/> Fall Protection <input type="checkbox"/> Flotation <input type="checkbox"/> Other	Task(s): <input type="checkbox"/> Head <input type="checkbox"/> Eye and Face <input type="checkbox"/> Hearing <input type="checkbox"/> Arms and Legs Only <input type="checkbox"/> Whole Body <input type="checkbox"/> Apron <input type="checkbox"/> Hand - Gloves <input type="checkbox"/> Gloves <input type="checkbox"/> Foot - Safety Boots <input type="checkbox"/> Over Boots

3.3 DESCRIPTION OF LEVELS OF PROTECTION

Level C	Level B
Task(s): <input type="checkbox"/> Head <input type="checkbox"/> Eye and Face <input type="checkbox"/> Hearing <input type="checkbox"/> Arms and Legs Only <input type="checkbox"/> Whole Body <input type="checkbox"/> Apron <input type="checkbox"/> Hand - Gloves <input type="checkbox"/> Gloves <input type="checkbox"/> Gloves <input type="checkbox"/> Foot - Safety Boots <input type="checkbox"/> Outer Boots <input type="checkbox"/> Boots (Other) <hr/> <input type="checkbox"/> Half Face <input type="checkbox"/> Cart./Canister <input type="checkbox"/> Full Face <input type="checkbox"/> Cart./Canister <input type="checkbox"/> PAPR <input type="checkbox"/> Cart./Canister <input type="checkbox"/> Type C <input type="checkbox"/> Fall Protection <input type="checkbox"/> Flotation <input type="checkbox"/> Other	Task(s): <input type="checkbox"/> Head <input type="checkbox"/> Eye and Face <input type="checkbox"/> Hearing <input type="checkbox"/> Arms and Legs Only <input type="checkbox"/> Whole Body <input type="checkbox"/> Apron <input type="checkbox"/> Hand - Gloves <input type="checkbox"/> Gloves <input type="checkbox"/> Gloves <input type="checkbox"/> Foot - Safety Boots <input type="checkbox"/> Outer Boots <input type="checkbox"/> Boots (Other) <hr/> <input type="checkbox"/> SAR - Airline <input type="checkbox"/> SCBA <input type="checkbox"/> Comb. Airline/SCBA <input type="checkbox"/> Cascade System <input type="checkbox"/> Compressor <input type="checkbox"/> Fall Protection <input type="checkbox"/> Flotation <input type="checkbox"/> Other

4. MONITORING PROGRAM

4.1 SITE OR PROJECT HAZARD MONITORING PROGRAM

4.1.1 Air Monitoring Instruments

Instrument Selection and Initial Check Record

Reporting Format: ☒ Field Notebook ☐ Field Data Sheets* ☐ Air Monitoring Log ☐ Trip Report ☐ Other

Instrument	Task No.(s)	Number Required	Number Received	Checked Upon Receipt	Comment	Initials
<input type="checkbox"/> CGI				<input type="checkbox"/>		
<input type="checkbox"/> O ₂				<input type="checkbox"/>		
<input type="checkbox"/> CGI/O ₂				<input type="checkbox"/>		
<input type="checkbox"/> CGI/O ₂ /tox-PPM, H ₂ S, H ₂ S/CO				<input type="checkbox"/>		
<input type="checkbox"/> RAD				<input type="checkbox"/>		
<input type="checkbox"/> GM (Pancake)				<input type="checkbox"/>		
<input type="checkbox"/> NaI (Micro R)				<input type="checkbox"/>		
<input type="checkbox"/> ZnS (Alpha Scintillator)				<input type="checkbox"/>		
<input type="checkbox"/> Other _____				<input type="checkbox"/>		
<input checked="" type="checkbox"/> PID				<input type="checkbox"/>		
<input type="checkbox"/> HNu 10.2				<input type="checkbox"/>		
<input type="checkbox"/> HNu 11.7				<input type="checkbox"/>		
<input type="checkbox"/> Photovac, TMA				<input type="checkbox"/>		
<input type="checkbox"/> OVM				<input type="checkbox"/>		
<input checked="" type="checkbox"/> Other <u>MiniRae</u>	1	2		<input type="checkbox"/>		
<input type="checkbox"/> FID				<input type="checkbox"/>		
<input type="checkbox"/> Fox 128				<input type="checkbox"/>		
<input type="checkbox"/> Heath, AID, Other				<input type="checkbox"/>		
<input type="checkbox"/> RAM, Mini-RAM, Other _____				<input type="checkbox"/>		
<input type="checkbox"/> Monitox				<input type="checkbox"/>		
Specify: _____				<input type="checkbox"/>		
<input type="checkbox"/> Personal Sampling				<input type="checkbox"/>		
Specify: _____				<input type="checkbox"/>		
<input type="checkbox"/> Bio-Aerosol Monitor				<input type="checkbox"/>		
<input type="checkbox"/> Pump - MSA, Dräger, Sensidyne				<input type="checkbox"/>		
<input type="checkbox"/> Tubes/type: _____				<input type="checkbox"/>		
<input type="checkbox"/> Tubes/type: _____				<input type="checkbox"/>		
<input type="checkbox"/> Other _____				<input type="checkbox"/>		

4.1 SITE OR PROJECT HAZARD MONITORING PROGRAM

4.1.2 Air Monitoring Instruments Calibration Record

[illegible]

[illegible]

4.3 ACTION LEVELS

(attach calculations, benzene protocol, or modified benzene protocol as necessary)

5. HOSPITAL INFORMATION

5.1 CONTINGENCIES

5.1.1 Emergency Contacts and Phone Numbers

Agency	Contact	Phone Number
Local Medical Emergency Facility (LMF)	Franklin Hospital	911
WESTON Medical Emergency Contact	Qualisys: Dr. Averett Walker After Hours: Steffani Mykins, Greg Stannard	800.874.4676 410.507.3325 770.826.6517
WESTON Health and Safety	Corporate Health and Safety	610.701.3000
WESTON Health and Safety		
Fire Department		
Police Department		
On-Site Coordinator- SHSC		
Client Site Contact		
Site Telephone		
Nearest Telephone		

Local Medical Emergency Facility(s)		
Name of Hospital: Franklin Hospital and Medical Center		
Address: 900 Franklin Ave, Hempstead, NY		Phone No.: 516-256-6000
Name of Contact:		Phone No.:
Type of Service: <input type="checkbox"/> Physical trauma only <input type="checkbox"/> Chemical exposure only <input type="checkbox"/> Physical trauma and chemical exposure <input type="checkbox"/> Available 24 hours	Route to Hospital: (See Attached)	Travel time from site: 9 mins Distance to hospital: 3.4 miles Name/no. of 24-hr ambulance service: 911

Secondary or Specialty Service Provider		
Name of Hospital: Mary Immaculate Hospital		
Address: 152-11 89th Ave, New York, NY		Phone No.: 718-558-6900
Name of Contact:		Phone No.:
Type of Service: <input type="checkbox"/> Physical trauma only <input type="checkbox"/> Chemical exposure only <input type="checkbox"/> Physical trauma and chemical exposure <input type="checkbox"/> Available 24 hours	Route to Hospital (see attached):	Travel time from site: 17 mins Distance to hospital: 9.1 miles Name/no. of 24-hr ambulance service: 911

See reporting an incident in Attachment F.

YAHOO! LOCAL
Maps[Sign In](#)
New User? [Sign Up](#)[Maps Home](#) - [Help](#)**IF BLING IS
YOUR THING****Cool Cars are
more fun and can
be reserved online.**

Yahoo! Driving Directions

Starting from: **A** 101 Green Acres Rd, Valley Stream, NY 11581-1502Arriving at: **B** FRANKLIN HOSPITAL MEDICAL CENTER 900 Franklin Ave, Hempstead Town Of, NY

Distance: 3.4 miles Approximate Travel Time: 9 mins

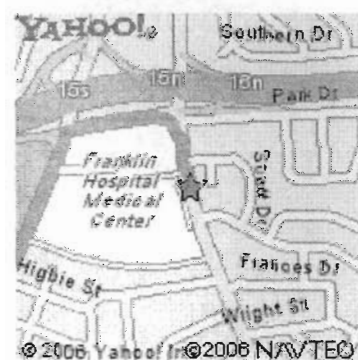
Your Directions

1.	Start at 101 GREEN ACRES RD, VALLEY STREAM - go 0.8 mi
2.	Turn R on POW[RT-27] - go 0.7 mi
3.	Turn L on ROCKAWAY AVE - go 0.4 mi
4.	Continue on ROCKAWAY PKY - go 1.0 mi
5.	Continue on N CORONA AVE - go 0.3 mi
6.	Turn R on BLAKEMAN DR - go 0.2 mi
7.	Continue on FRANKLIN AVE - go 0.1 mi
8.	Arrive at FRANKLIN HOSPITAL MEDICAL CENTER

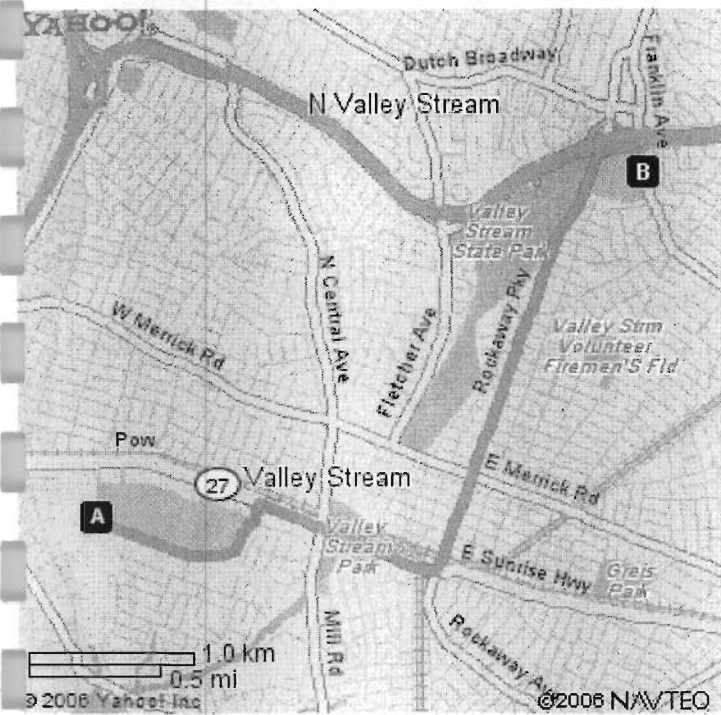
When using any driving directions or map, it's a good idea to do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning.

Your Full Route

Your Destination



Address:
FRANKLIN HOSPITAL MEDICAL CENTER
900 Franklin Ave
Hempstead Town Of, NY



YAHOO! LOCAL

92466 it!

Need Local information on the go?
Simply text a business name and location to 92466 (Yahoo)
Try "coffee 94111" or "Starbucks Hempstead Town Of, NY"

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New User? [Sign Up](#)[Maps Home](#) - [Help](#)**YAHOO! TOOLBAR**

Good friends share.

Good friends share.

Good friends share.

Good friends share.

Good friends share.

Good friends share.

Good friends share.

Good friends share.

Good friends share.

Yahoo! Driving Directions

Starting from: **A** 101 Green Acres Rd, Valley Stream, NY 11581-1502Arriving at: **B** MARY IMMACULATE HOSPITAL 152-11 89th Ave, New York, NY

Distance: 9.1 miles Approximate Travel Time: 17 mins

Your Directions

1. Start at **101 GREEN ACRES RD, VALLEY STREAM** - go 0.8 mi
2. Turn **L** on **POW** - go 1.7 mi
3. Take **L** ramp onto **BELT PKY WEST** toward **VERRAZANO BR** - go 2.4 mi
4. Take exit **#19** onto **I-678 NORTH** - go 3.0 mi
5. Take exit **#6** onto **VAN WYCK EXPY** toward **HILLSIDE AVE/JAMAICA AVE** - go 0.2 mi
6. Turn **R** on **HILLSIDE AVE** - go 0.8 mi
7. Turn **R** on **PARSONS BLVD** - go 0.1 mi
8. Turn **R** on **89TH AVE** - go 0.1 mi
9. Arrive at **MARY IMMACULATE HOSPITAL**

When using any driving directions or map, it's a good idea to do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning.

Your Full Route

Your Destination



Address:
MARY IMMACULATE HOSPITAL 152-11
89th Ave
New York, NY

5.1 CONTINGENCIES

5.1.3 Response Plans

Medical - General Provide first aid, if trained; assess and determine need for further medical assistance. Transport or arrange for transport after appropriate decontamination.		First Aid Kit: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Blood Borne Pathogens Kit: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Type Standard 20-man and infection control kit	Location In Vehicle	Special First-Aid Procedures: Cyanides on-site <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, contact LMF. Do they have antidote kit? <input type="checkbox"/> Yes <input type="checkbox"/> No
		Eyewash required <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Type	Location	HF on-site <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, need neutralizing ointment for first-aid kit. Contact LMF.
		Shower required <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Type	Location	
Plan for Response to Spill/Release In the event of a spill or release, ensure safety, assess situation, and perform containment and control measures, as appropriate.		Plan for Response to Fire/Explosion In the event of a fire or explosion, ensure personal safety, assess situation, and perform containment and control measures, as appropriate:		Fire Extinguishers Type/Location <u>ABC/Vehicle</u> / / / / / /	
a. Cleanup per MSDSs if small; or sound alarm, call for assistance, notify Emergency Coordinator b. Evacuate to pre-determined safe place c. Account for personnel d. Determine if team can respond safely e. Mobilize per Site Spill Response Plan	a. Sound alarm and call for assistance, notify Emergency Coordinator b. Evacuate to predetermined safe place c. Account for personnel d. Use fire extinguisher <u>only if safe and trained</u> in its use e. Stand by to inform emergency responders of materials and conditions				
Description of Spill Response Gear _____ _____ _____	Location _____ _____ _____	Description (Other Fire Response Equipment) _____ _____ _____		Location _____ _____ _____	
Plan to Respond to Security Problems Contact Client facility contact _____ _____ _____ _____ _____					

6. DECONTAMINATION PLAN

6.1 GENERAL DECONTAMINATION PLAN

Personnel Decontamination

Consistent with the levels of protection required, step-by-step procedures for personnel decontamination for each level of protection are attached.

Levels of Protection Required for Decontamination Personnel

The levels of protection required for personnel assisting with decontamination will be:

☐

Level B

☐

Level C

☒

Level D

Modifications include:

Disposition of Decontamination Wastes

Provide a description of waste disposition including identification of storage area, hauler, and final disposal site, if applicable

Soil cuttings will be containerized for determination of final disposition.

Equipment Decontamination

A procedure for decontamination steps required for non-sampling equipment and heavy machinery follows:

Augers will be washed with liquinox solution at each location. Minimal rinse water will be deposited into a container until final disposition is determined.

Sampling Equipment Decontamination

Sampling equipment will be decontaminated in accordance with the following procedure:

None required.

6.2 LEVEL D DECONTAMINATION PLAN

Check indicated functions or add steps, as necessary:

Function	Description of Process, Solution, and Container
<input type="checkbox"/> Segregated equipment drop	
<input type="checkbox"/> Boot cover and glove wash	
<input type="checkbox"/> Boot cover and glove rinse	
<input type="checkbox"/> Tape removal - outer glove and boot	
<input type="checkbox"/> Boot cover removal	
<input type="checkbox"/> Outer glove removal	
HOTLINE	
<input type="checkbox"/> Suit/safety boot wash	
<input type="checkbox"/> Suit/boot/glove rinse	
<input type="checkbox"/> Safety boot removal	
<input type="checkbox"/> Suit removal	
<input type="checkbox"/> Inner glove wash	
<input type="checkbox"/> Inner glove rinse	
<input type="checkbox"/> Inner glove removal	
<input type="checkbox"/> Inner clothing removal	
CONTAMINATION REDUCTION ZONE (CRZ)/SAFE ZONE BOUNDARY	
<input type="checkbox"/> Field wash	
<input type="checkbox"/> Redress	
Disposal Plan, End of Day:	
Disposal Plan, End of Week:	
Disposal Plan, End of Project:	

6.3 LEVEL C DECONTAMINATION PLAN

Check indicated functions or add steps, as necessary:

Function	Description of Process, Solution, and Container
<input type="checkbox"/> Segregated equipment drop	
<input type="checkbox"/> Boot cover and glove wash	
<input type="checkbox"/> Boot cover and glove rinse	
<input type="checkbox"/> Tape removal - outer glove and boot	
<input type="checkbox"/> Boot cover removal	
<input type="checkbox"/> Outer glove removal	
HOTLINE	
<input type="checkbox"/> Suit/safety boot wash	
<input type="checkbox"/> Suit/boot/glove rinse	
<input type="checkbox"/> Safety boot removal	
<input type="checkbox"/> Suit removal	
<input type="checkbox"/> Inner glove wash	
<input type="checkbox"/> Inner glove rinse	
<input type="checkbox"/> Facepiece removal	
<input type="checkbox"/> Inner glove removal	
<input type="checkbox"/> Inner clothing removal	
CONTAMINATION REDUCTION ZONE (CRZ)/SAFE ZONE BOUNDARY	
<input type="checkbox"/> Field wash	
<input type="checkbox"/> Redress	
Disposal Plan, End of Day:	
Disposal Plan, End of Week:	
Disposal Plan, End of Project:	

6.4 LEVEL B DECONTAMINATION PLAN

Check indicated functions or add steps, as necessary:

Function

Description of Process, Solution, and Container

- ☐ Segregated equipment drop
- ☐ Boot cover and glove wash
- ☐ Boot cover and glove rinse
- ☐ Tape removal - outer glove and boot
- ☐ Boot cover removal
- ☐ Outer glove removal

HOTLINE

- ☐ Suit/safety boot wash
- ☐ Suit/SCBA/boot/glove rinse
- ☐ Safety boot removal
- ☐ Remove SCBA backpack without disconnecting
- ☐ Splash suit removal
- ☐ Inner glove wash
- ☐ Inner glove rinse
- ☐ SCBA disconnect and facepiece removal
- ☐ Inner glove removal
- ☐ Inner clothing removal

CONTAMINATION REDUCTION ZONE (CRZ)/SAFE ZONE BOUNDARY

- ☐ Field wash
- ☐ Redress

Disposal Plan, End of Day:

Disposal Plan, End of Week:

Disposal Plan, End of Project:

7. TRAINING AND BRIEFING TOPICS/SIGN OFF SHEET

7.1 TRAINING AND BRIEFING TOPICS

The following items will be covered at the site-specific training meeting, daily or periodically.

<input checked="" type="checkbox"/> Site characterization and analysis, Sec. 3.0, 29 CFR 1910.120 I	<input type="checkbox"/> Level A
<input checked="" type="checkbox"/> Physical hazards, HASP Form 07	<input type="checkbox"/> Level B
<input checked="" type="checkbox"/> Chemical hazards, HASP Form 04	<input type="checkbox"/> Level C
<input type="checkbox"/> Animal bites, stings, and poisonous plants	<input checked="" type="checkbox"/> Level D
<input type="checkbox"/> Etiologic (infectious) agents	<input checked="" type="checkbox"/> Monitoring, 29 CFR 1910.120 (h)
<input type="checkbox"/> Site control, 29 CFR 1910.120 d	<input type="checkbox"/> Decontamination, 29 CFR 1910.120 (k)
<input checked="" type="checkbox"/> Engineering controls and work practices, 29 CFR 1910.120 (g)	<input type="checkbox"/> Emergency response, 29 CFR 1910.120 (l)
<input type="checkbox"/> Heavy machinery	<input type="checkbox"/> Elements of an emergency response, 29 CFR 1910.120 (l)
<input type="checkbox"/> Forklift	<input type="checkbox"/> Procedures for handling site emergency incidents, 29 CFR 1910.120 (l)
<input type="checkbox"/> Backhoe	<input type="checkbox"/> Off-site emergency response, 29 CFR 1910.120 (l)
<input checked="" type="checkbox"/> Equipment	<input type="checkbox"/> Handling drums and containers, 29 CFR 1910.120 (j)
<input checked="" type="checkbox"/> Tools	<input type="checkbox"/> Opening drums and containers
<input type="checkbox"/> Ladder, 29 CFR 1910.27 (d)/29 CFR 1926	<input type="checkbox"/> Electrical material handling equipment
<input type="checkbox"/> Overhead and underground utilities	<input type="checkbox"/> Radioactive waste
<input type="checkbox"/> Scaffolds	<input type="checkbox"/> Shock-sensitive waste
<input type="checkbox"/> Structural integrity	<input type="checkbox"/> Laboratory waste packs
<input type="checkbox"/> Unguarded openings - wall, floor, ceilings	<input type="checkbox"/> Sampling drums and containers
<input type="checkbox"/> Pressurized air cylinders	<input type="checkbox"/> Shipping and transport, 49 CFR 172.101, IATA
<input type="checkbox"/> Personal protective equipment, 29 CFR 1910.120 (g); 29 CFR 1910.134	<input type="checkbox"/> Tank and vault procedures
<input type="checkbox"/> Respiratory protection, 29 CFR 1910.120 (g); ANSI Z88.2	<input type="checkbox"/> Illumination, 29 CFR 1910.120 (m)
<input type="checkbox"/> Working over water FLD-19	<input type="checkbox"/> Sanitation, 29 CFR 1910.120 (n)
<input type="checkbox"/> Boating safety FLD-18	<input type="checkbox"/>
<input checked="" type="checkbox"/> Active facility with vehicle traffic and forklift operations	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

7.2 HEALTH AND SAFETY PLAN APPROVAL/SIGNOFF FORM	
Site Name:	WO#:
Address:	
<p>I understand, agree to, and will conform with the information set forth in this Health and Safety Plan (and attachments) and discussed in the personnel health and safety briefing(s).</p>	

WO#:

I understand, agree to, and will conform with the information set forth in this Health and Safety Plan (and attachments) and discussed in the personnel health and safety briefing(s).

Date _____

[illegible]

ATTACHMENT A
CHEMICAL CONTAMINANTS DATA SHEETS

(Attach NIOSH)

ATTACHMENT B
MATERIAL SAFETY DATA SHEETS

(Attach MSDSs)

**ATTACHMENT C
(FLD OPS)**

SAFETY PROCEDURES/FIELD OPERATING PROCEDURES

ATTACHMENT D
HAZARD COMMUNICATION PROGRAM

SITE-SPECIFIC HAZARD COMMUNICATION PROGRAM

Location-Specific Hazard Communication Program/Checklist

To ensure an understanding of and compliance with the Hazard Communication Standard, WESTON will use this checklist/document (or similar document) in conjunction with the WESTON Written Hazard Communication Program as a means of meeting site- or location-specific requirements.

While responsibility for activities within this document reference the WESTON Safety Officer (SO), it is the responsibility of all personnel to effect compliance. Responsibilities under various conditions can be found within the WESTON Written Hazard Communication Program.

To ensure that information about the dangers of all hazardous chemicals used by WESTON are known by all affected employees, the following Hazard Communication Program has been established. All affected personnel will participate in the Hazard Communication Program. This written program, as well as WESTON's Corporate Hazard Communication Program, will be available for review by any employee, employee representative, representative of OSHA, NIOSH, or any affected employer/employee on a multi-employer site.

- ☐ Site or other location name/address: _____
- ☐ Site/Project/Location Manager: _____
- ☐ Site/Location Safety Officer: _____
- ☐ List of chemicals compiled, format: ☐ HASP ☐ Other: _____
- ☐ Location of MSDS files: _____
- ☐ Training conducted by: Name: _____ Date: _____
- ☐ Indicate format of training documentation: ☐ Field Log: ☐ Other: _____
- ☐ Client briefing conducted regarding hazard communication: _____
- ☐ If multi-employer site (client, subcontractor, agency, etc.), indicate name of affected companies: _____
- ☐ Other employer(s) notified of chemicals, labeling, and MSDS information: _____
- ☐ Has WESTON been notified of other employer's or client's hazard communication program(s), as necessary? ☐ Yes ☐ No

List of Hazardous Chemicals

A list of known hazardous chemicals used by WESTON personnel must be prepared and attached to this document or placed in a centrally identified location with the MSDSs. Further information on each chemical may be obtained by reviewing the appropriate MSDS. The list will be arranged to enable cross-reference with the MSDS file and the label on the container. The SO or Location Manager is responsible for ensuring the chemical listing remains up-to-date.

Container Labeling

The WESTON SO will verify that all containers received from the chemical manufacturer, importer, or distributor for use on-site are clearly labeled.

The SO is responsible for ensuring that labels are placed where required and for comparing MSDSs and other information with label information to ensure correctness.

Material Safety Data Sheets (MSDSs)

The SO is responsible for establishing and monitoring WESTON's MSDS program for the location. The SO will ensure that procedures are developed to obtain the necessary MSDSs and will review incoming MSDSs for new or significant health and safety information. He/she will see that any new information is passed on to the affected employees. If an MSDS is not received at the time of initial shipment, the SO will call the manufacturer and have an MSDS delivered for that product in accordance with the requirements of WESTON's Written Hazard Communication Program.

A log for, and copies of, MSDSs for all hazardous chemicals in use will be kept in the MSDS folder at a location known to all site workers. MSDSs will be readily available to all employees during each work shift. If an MSDS is not available, immediately contact the WESTON SO or the designated alternate. When a revised MSDS is received, the SO will immediately replace the old MSDS.

Employee Training and Information

The SO is responsible for the WESTON site-specific personnel training program. The SO will ensure that all program elements specified below are supplied to all affected employees.

At the time of initial assignment for employees to the work site, or whenever a new hazard is introduced into the work area, employees will attend a health and safety meeting or briefing that includes the information indicated below.

- Hazardous chemicals present at the work site.
- Physical and health risks of the hazardous chemicals.
- The signs and symptoms of overexposure.
- Procedures to follow if employees are overexposed to hazardous chemicals.
- Location of the MSDS file and Written Hazard Communication Program.
- How to determine the presence or release of hazardous chemicals in the employee's work area.
- How to read labels and review MSDSs to obtain hazard information.
- Steps WESTON has taken to reduce or prevent exposure to hazardous chemicals.
- How to reduce or prevent exposure to hazardous chemicals through the use of controls procedures, work practices, and personal protective equipment.
- Hazardous, nonroutine tasks to be performed (if any).
- Chemicals within unlabeled piping (if any).

Hazardous Nonroutine Tasks

When employees are required to perform hazardous nonroutine tasks, the affected employee(s) will be given information by the SO about the hazardous chemicals he or she may use during such activity. This information will include specific chemical hazards, protective and safety measures the employee can use, and steps WESTON is using to reduce the hazards. These steps include, but are not limited to, ventilation, respirators, presence of another employee, and emergency procedures.

Chemicals in Unlabeled Pipes

Work activities may be performed by employees in areas where chemicals are transferred through unlabeled pipes. Prior to starting work in these areas, the employee will contact the SO, at which time information as to the chemical(s) in the pipes, potential hazards of the chemicals or the process involved, and the safety precautions that should be taken will be determined and presented.

Multi-Employer Work Sites

It is the responsibility of the SO to provide other employers with information about hazardous chemicals imported by WESTON to which their employees may be exposed, along with suggested safety precautions. It is also the responsibility of the SO and the Site Manager to obtain information about hazardous chemicals used by other employers to which WESTON employees may be exposed. WESTON's chemical listing will be made available to other employers, as requested. MSDSs will be available for viewing, as necessary.

The location, format, and/or procedures for accessing MSDS information must be relayed to affected employees.

ATTACHMENT E
AIR SAMPLING DATA SHEETS

SITE AIR MONITORING PROGRAM

Field Data Sheets

Location:

[illegible]

Monitox (ppm)	Detector Tube(s)
---------------	------------------

Monitox (ppm)	Detector Tube(s)
---------------	------------------

[illegible]

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Location:

[illegible]

Monitox (ppm)	Detector Tube(s)
---------------	------------------

Monitox (ppm)	Detector Tube(s)
---------------	------------------

[illegible]

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

Sound Levels (dBA)	Illumination	pH	Other	Other	Other	Other	Other
--------------------	--------------	----	-------	-------	-------	-------	-------

[illegible]

[illegible]

Date:

**ATTACHMENT F
INCIDENT REPORTING**

CLICK [HERE](#) FOR LATEST NOI FORM

Questions can be directed to:

Susan Hipp-Ludwick, 610.701.3046

Matt Dillon, 610.701.7413

ATTACHMENT G
AHA CHECKLIST AND ENV. COMPLIANCE

HAZARD CHECKLIST Site Manager/EHS Officer:

Date:

Location:

Address:

Task Team (name or reference via daily sign-in sheet)

HAZARDS IDENTIFIED (check those applicable)

	Chemical	Biological	Physical	Aerial lifts	Remote Areas
<input type="checkbox"/>	Flammable/combustible	<input type="checkbox"/> Insects	<input type="checkbox"/> Noise	<input type="checkbox"/> Man. Material Handling	<input type="checkbox"/> Materials handling
<input type="checkbox"/>	Corrosive	<input type="checkbox"/> Animals	<input type="checkbox"/> Heat	<input type="checkbox"/> Demolition	<input type="checkbox"/> High Pressure Washers
<input type="checkbox"/>	Oxidizer	<input type="checkbox"/> Plants	<input type="checkbox"/> Cold	<input type="checkbox"/> Excavation	<input type="checkbox"/> Hand and Power Tools
<input type="checkbox"/>	Reactive	<input type="checkbox"/> Mold/Fungus	<input type="checkbox"/> Inclement Weather	<input type="checkbox"/> Pile Driving	<input type="checkbox"/> Low Illumination
<input type="checkbox"/>	Toxic	<input type="checkbox"/> Viral/Bacterial	<input type="checkbox"/> Hot Work	<input type="checkbox"/> Welding/Cutting/Burn	<input type="checkbox"/> Drilling & Boring
<input type="checkbox"/>	Inhalation	<input type="checkbox"/> Density Gauges	<input type="checkbox"/> Confined Spaces	<input type="checkbox"/> Hot Surfaces	<input type="checkbox"/> Striking against/Struck-by
<input type="checkbox"/>	Eyes/Skin	<input type="checkbox"/> Radiological	<input type="checkbox"/> Stored hazardous Energy	<input type="checkbox"/> Hot Materials	<input type="checkbox"/> Caught-in/Caught between
<input type="checkbox"/>	Pesticides	<input type="checkbox"/> Ultra-Violet	<input type="checkbox"/> Elevation	<input type="checkbox"/> Rough Terrain	<input type="checkbox"/> Pushing/pulling
<input type="checkbox"/>	Carcinogen	<input type="checkbox"/> Sunlight	<input type="checkbox"/> Utilities	<input type="checkbox"/> Compressed Gases	<input type="checkbox"/> Falls at same level
<input type="checkbox"/>	Asbestos	<input type="checkbox"/> Infrared	<input type="checkbox"/> Machinery	<input type="checkbox"/> Hazardous Mat. Storage	<input type="checkbox"/> Falls from elevation
<input type="checkbox"/>	Lead	<input type="checkbox"/> Lasers	<input type="checkbox"/> Mobile equipment	<input type="checkbox"/> Diving	<input type="checkbox"/> Repetitive motion
<input type="checkbox"/>	UXO/OE/CWM	<input type="checkbox"/> XRF	<input type="checkbox"/> Cranes	<input type="checkbox"/> Operation of Boats	<input type="checkbox"/> High (>110v) Electricity
<input type="checkbox"/>	Process Safety	<input type="checkbox"/> Isotopes	<input type="checkbox"/> Manual Material Handling	<input type="checkbox"/> Working Over Water	<input type="checkbox"/> Slippery surface Ice/Snow
<input type="checkbox"/>	Applying Paint/Coatings	<input type="checkbox"/>	<input type="checkbox"/> Ladders	<input type="checkbox"/> Traffic	<input type="checkbox"/>
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/> Scaffolding	<input type="checkbox"/> Site Security	<input type="checkbox"/>

REQUIRED PROTECTION (check those applicable)

	Engineering Controls	Administrative Control	PPE	Contingency
<input type="checkbox"/>	Guard Rails	<input type="checkbox"/> Qualified for task	<input type="checkbox"/> Air Supplying Respirator	<input type="checkbox"/> Tyvek coveralls
<input type="checkbox"/>	Machine Guards	<input type="checkbox"/> Trained/Certified	<input type="checkbox"/> Air Purifying Respirator	<input type="checkbox"/> Coated Coveralls
<input type="checkbox"/>	Sound Barriers	<input type="checkbox"/> Hot Work Permit	<input type="checkbox"/> SCBA	<input type="checkbox"/> Welding leathers
<input type="checkbox"/>	Enclosure	<input type="checkbox"/> CSE Permit	<input type="checkbox"/> Hard Hat	<input type="checkbox"/> CWM
<input type="checkbox"/>	Elevation	<input type="checkbox"/> Lockout/Tag Out	<input type="checkbox"/> Ear Plugs	<input type="checkbox"/> Safety Shoes/Boots
<input type="checkbox"/>	Isolation	<input type="checkbox"/> Work Permit	<input type="checkbox"/> Ear Muffs	<input type="checkbox"/> Rubber Boots
<input type="checkbox"/>	GFCI	<input type="checkbox"/> Dig Safe Permit	<input type="checkbox"/> Safety Glasses	<input type="checkbox"/> Gloves
<input type="checkbox"/>	Assured Ground Program	<input type="checkbox"/> Contingency Plan	<input type="checkbox"/> Goggles	<input type="checkbox"/> Cooling Suits
<input type="checkbox"/>	Apply Anti-slip/skid Mat	<input type="checkbox"/> Critical Lift Plans	<input type="checkbox"/> Chemical Goggles	<input type="checkbox"/> Ice Vests
		<input type="checkbox"/> Equip. Inspection Sheets	<input type="checkbox"/> Face Shield	<input type="checkbox"/> Radiant heat Suits
			<input type="checkbox"/> Thermal Shield	<input type="checkbox"/> Fall Arrest
			<input type="checkbox"/> Welding Mask	<input type="checkbox"/> PFD
			<input type="checkbox"/> Cutting Glasses	<input type="checkbox"/> Electrical insulation

Any Modification to Tasks (list)

Other tasks or activities that may affect my activity

Reasons for any changes indicated above

Environmental Compliance Considerations:

<input type="checkbox"/>	Generation of Hazardous Waste*	<input type="checkbox"/>	→Waste Identification & Manifesting - Marking, Placarding, Labeling
<input type="checkbox"/>	Generation of Investigation Derived Waste*	<input type="checkbox"/>	→Training & Licensing for Use of Radioactive Materials/Sources
<input type="checkbox"/>	Treatment, Storage, or Disposal of Hazardous Waste*	<input type="checkbox"/>	→ Containers: dated, labeled, closed, full, stored less than 90 days
<input type="checkbox"/>	Contingency to prevent or contain hazardous materials or oil spills or discharges to drains, body of water, soil*	<input type="checkbox"/>	→ Risk of explosion or catastrophic release due to chemical storage or processing involving reactivity, flammables, solvents or explosives
<input type="checkbox"/>	Disturbing of Asbestos Containing Materials (ACM)*	<input type="checkbox"/>	→Training & Licensing for Asbestos Remediation Activities
<input type="checkbox"/>	Application of Pesticides or Herbicides*	<input type="checkbox"/>	
<input type="checkbox"/>	Work on Above or Under-ground Storage Tanks*	<input type="checkbox"/>	
<input type="checkbox"/>	Transportation, Storage or Disposal of Radioactive Material*	<input type="checkbox"/>	
<input type="checkbox"/>	Activities producing or generating Air Emissions (or fugitive "fence-line" emissions) requiring either monitoring and/or permit*	<input type="checkbox"/>	
<input type="checkbox"/>	Excavations, Drilling, Probing or other activities that could impact underground utilities, pipelines, sewer or treatment systems.	<input type="checkbox"/>	
<input type="checkbox"/>	Shipment of Hazardous Waste off-site*	<input type="checkbox"/>	
<input type="checkbox"/>	Shipment of Samples in accordance with DOT/IATA	<input type="checkbox"/>	

* Indicates need for an environmental compliance plan.

ATTACHMENT H
TRAFFIC CONTROL PLAN

ATTACHMENT I
AUDIT FORMS

MANAGER'S FIELD SITE HEALTH AND SAFETY AUDIT FORM

PM name: _____ Date: _____

Client name: _____ W.O. No.: _____

Site location: _____ Site phone no.: _____

Inspection conducted by:

___ PM in person ___ PM via phone (Contact Name: _____)

___ PM's designee (Designee's Name: _____)

1. Is the HASP available at the site? ___yes ___no Signed by all personnel? ___yes ___no
(Have the cover page and site worker sign-off page faxed and attached to this form.)

2. What tasks are active? _____.

3. What special H&S considerations are necessary? (e.g., confined spaces, fall protection, construction safety, excavation evaluations, radiation, etc.) _____.

4A. List the name of the SHSC/FSO on Line (a) and any other employees working at the site on lines (b) through (i). Verify and check (✓) if field certifications are current:

Name	Weston or Sub?	Training	Medical	Fit Test
a.				
(For above, circle: SHSC or FSO)				
b.				
c.				
d.				
e.				
f.				
g.				
h.				
i.				

4B. For large projects, is documentation on-site for employee certifications? ___yes ___no ___NA

5. Is emergency contact information available on-site? ___yes ___no
(Have a copy faxed from the site and attached to this report.)

6. Describe the ambient temperatures during recent work shifts: _____.

HEALTH AND SAFETY FIELD AUDIT

Legend X = Yes, O = No

SITE NAME: _____

WO #: _____

LOCATION: _____

INSPECTOR: _____

DATE: _____

CERTIFICATION OF PERSONNEL:

1. _____ All WESTON personnel on site are currently active on certification list?
2. _____ Site Safety Officer and Site Supervisor are qualified?

MEDICAL AND FIRST AID:

1. _____ First Aid Kits accessible and identified?
2. _____ Emergency eye/safety washes available?
3. _____ Daily First Aid logs up to date?
4. _____ First Aid Kits inspected weekly?
5. _____ At least two First Aid trained persons on site at all times when working?

SITE SAFETY/EMERGENCY PLANS:

1. _____ Safety plan posted on site and given to each person?
2. _____ Initial site safety plan meeting held and documented before work begins?
3. _____ Hazardous materials information available for all hazards?
4. _____ Designated, qualified site health and safety coordinator on site?
5. _____ Employees trained in toxicology/exposure risks?
6. _____ Emergency telephone numbers posted?
7. _____ Emergency routes designated?
8. _____ Emergency plan and signal reviewed with all persons?

TRAINING:

1. _____ Daily safety meetings documented?
2. _____ Question and answer time available to all site personnel?
3. _____ All employees instructed in hazardous materials handling practices?
4. _____ New personnel to site receive: copy of safety plan_____, site orientation_____, Review of:
LOP_____, DECON_____, ZONES_____, Site specific safety and health hazards?_____

HEALTH AND SAFETY FIELD AUDIT - Continued

Legend X = Yes, O = No

PERSONAL PROTECTION:

1. ☐ All equipment meets ANSI/OSHA/EPA criteria?
2. ☐ Levels of protection (LOP) established?
3. ☐ Site control zones (Exclusion, CRZ, Support) clearly designated?
4. ☐ All employees know their LOP scheme?
5. ☐ OSHA respirator program in place?
6. ☐ Employees fit tested for respirators?

☐ On site?
☐ Fit tests current?
7. ☐ Defective equipment tagged out?
8. ☐ Breathing air grade "D" certified?
9. ☐ Sufficient quantities of equipment?
10. ☐ Safety instrumentation maintained and calibrated?

☐ Maint. & Cal. logs up to date?

DECONTAMINATION:

1. ☐ Decon system set up on site?

☐ Used?
☐ According to safety plan?
2. ☐ Contamination reduction corridor clearly delineated within the CRZ?
3. ☐ Appropriate waste recepticals available for all waste?
4. ☐ Recepticals properly closed at end of day?
5. ☐ All Decon liquids properly contained and disposed of?
6. ☐ All wastes disposed of according to approved plan?
7. ☐ All personnel received Decon training?
8. ☐ All reusable personal protective gear deconned and disinfected at least daily?

FIRE PREVENTION/PROTECTION:

1. ☐ Hot work permits required?
2. ☐ Smoking restricted to designated area?
3. ☐ Fire lanes established, clearly designated & maintained?
4. ☐ Flammable/combustible liquid dispensing transfer systems grounded & bonded?
5. ☐ Proper flammable materials storage?
6. ☐ Fire alarm established, workers aware?
7. ☐ Location and use of fire extinguisher known by all personnel?
8. ☐ Fire extinguishers checked before each shift?

☐ Inspected monthly?
9. ☐ Fire extinguisher appropriate for fire hazard potential?
10. ☐ Combustible materials segregated from ignition sources?

HEALTH AND SAFETY FIELD AUDIT - Continued

Legend X = Yes, O = No

WALKING AND WORKING SURFACES:

1. ☐ Accessways, stairs, ramps and ladders free of ice, mud, snow or debris?
2. ☐ Ladders exceed max length?
3. ☐ Ladders used in passageways, doors or driveways?
4. ☐ Broken or damaged ladders tagged out?
5. ☐ Metal ladders prohibited in electrical service?
6. ☐ Safety feet on straight and extension ladders?
7. ☐ Stairways, floor and wall openings guarded?
8. ☐ Elevated work areas guardrailed or safety chained?
9. ☐ Flotation devices worn when working on or over water?
10. ☐ Toe boards on overhead work surfaces?
11. ☐ Mobile offices/labs have fixed stairs and handrails?
12. ☐ Work areas kept free of debris and equipment?

EXCAVATIONS, CONFINED SPACES, TUNNELS:

1. ☐ Excavations sloped, shored or benched to prevent cave-ins?
2. ☐ Shoring approved by engineer?
3. ☐ Guardrails or fences placed around excavations near walkways or roads?
4. ☐ Excavation locations lighted/or otherwise made visible at night?
5. ☐ Utility check performed and documented before excavation or drilling?
6. ☐ Ladders available in trenches more than 4 feet deep and at a minimum, 25' intervals along a fence?
7. ☐ All excavated material, personnel, heavy equipment is at least 24" from the edge of all trenches?
8. ☐ Confined space entry permit procedure in place and communicated to all?
9. ☐ Employee training includes CSE hazards?
10. ☐ Tunnels are adequately ventilated?
11. ☐ There is proper lighting?
12. ☐ Tunnel tested for: % O₂?
☐ LEL, flammable gases, vapors?
☐ TOX?
13. ☐ Communication available inside to out?
14. ☐ No flammables or combustibles in tunnel?
15. ☐ CSE procedures used for Tunnels?
16. ☐ CSE procedure checklist:
 - ☐ Safety watch?
 - ☐ Safety watch protected same as enterers?
 - ☐ Safety line?
 - ☐ Appropriate harness?
 - ☐ Continuous monitoring for % O₂, % LEL & TOX?

HEALTH AND SAFETY FIELD AUDIT - Continued

Legend X = Yes, O = No

EXCAVATIONS, CONFINED SPACES, TUNNELS (continued):

- ☐ Level B or constant ventilation and monitoring?
- ☐ Instruments calibrated?
- ☐ Maintain and inspect log for all equipment?

17. ☐ Confined space isolated from electrical/mechanical activation by following lock out/tag out proceedings?
☐ Confined space isolated from any raw materials/chemical lines by disconnecting or blanking these lines?

MOTOR VEHICLES/HEAVY EQUIPMENT:

- 1. ☐ Inspected before each use?
- 2. ☐ Operators licensed for equipment used?
- 3. ☐ Unsafe equipment tagged out and reported?
- 4. ☐ All safety appliances/guards in place?
- 5. ☐ Shut down for fueling?
- 6. ☐ Equipped with back-up alarms or spotter used if 360° visibility restricted?
- 7. ☐ Loads are secure before transport?
- 8. ☐ Roads and structures inspected for load capacity per vehicle weights?
- 9. ☐ Riders prohibited on heavy equipment?

SLINGS AND CHAINS:

- 1. ☐ Slings, chains and rigging rated for intended use and inspected per OSHA. Documentation of inspection in daily log?
- 2. ☐ Damaged slings, chains or rigging tagged out and reported?
- 3. ☐ Employees are instructed and keep clear of suspended loads?

ELECTRICAL:

- 1. ☐ Warning signs indicate the presence and location of high voltage equipment, 250 V or greater present and location?
- 2. ☐ Electrical equipment and wiring properly guarded?
- 3. ☐ Electrical lines, extension cords and cables guarded and properly maintained?
- 4. ☐ Extension cords kept dry out of puddles and rain?
- 5. ☐ Damaged equipment tagged out?
- 6. ☐ Underground electrical lines located and indicated?
- 7. ☐ Overhead electrical lines de-energized or elevated work platforms, work areas, booms or ladders erected so no contact can occur with electrical lines?
- 8. ☐ A positive electrical lock-out system is used whenever work is done on or in electric equipment or electrically activated equipment?

HEALTH AND SAFETY FIELD AUDIT - Continued

Legend X = Yes, O = No

HAND AND POWER TOOLS:

1. _____ Guards and safety devices in place and used?
2. _____ Inspected before each use?
3. _____ Tagged out if defective?
4. _____ Eye protection areas identified and protection worn?
5. _____ Non sparking tools available?

WELDING AND CUTTING:

1. _____ Fire extinguishers present at all welding and cutting operations?
2. _____ Confined spaces, tanks, pipelines tested before welding or cutting?
3. _____ Hot work permitting system in use?
4. _____ Proper helmets and shields (including proper tint for UV protection) used?
5. _____ Properly grounded?
6. _____ Fuel gas and O₂ gas cylinders stored at least 20' apart?
_____ Stored upright and secured?
7. _____ Only trained welders permitted?

COMPRESSED GAS CYLINDERS/PRESSURIZED LINES:

1. _____ Breathing air cylinders charged only to prescribed pressure?
2. _____ No other gas system can be mistaken for breathing air?
_____ Fittings prohibit cross connection?
3. _____ Cylinders segregated appropriately in controlled, protected but well ventilated areas?
4. _____ Smoking prohibited in storage areas?
5. _____ Cylinders stored upright and secured?
6. _____ Cylinder caps in place when stored (not in use) or when cylinders moved?
7. _____ Fuel gas and O₂ minimum 20' apart when stored?
8. _____ Pressurized air or waterlines are securely connected?
9. _____ All site personnel know never to step across a pressurized line?
10. _____ Gas or other hazardous lines are labelled appropriately?

MISCELLANEOUS:

1. _____ Tools and other equipment (portable) are stored away from walkways, roads or driveways where they cannot fall on or be fallen over by site personnel?
2. _____ Overhead hazards are noted, communicated to all and labeled as needed?
3. _____ Hard hat, eye hearing and protection areas are defined and signs in place?
4. _____ Hard hats, eye and head protection used where appropriate?
5. _____ Signs or labels are in place or appropriate training received?

HEALTH AND SAFETY FIELD AUDIT - Continued

Legend X = Yes, O = No

6. _____ Copies of contracts with client and sub-contractors are on-site, WESTON's role regarding site health and safety responsibilities clear in these and in the minds of the site manager(s)?
7. _____ Sub-contractors have received approved copies of their safety plan or have signified their intent to conform with Weston's safety plan?
8. _____ Site managers understand their responsibilities for sub-contractors' conformance with all OSHA and other health and safety requirements?
9. _____ Site managers know what to do in the event of an OSHA inspection?

COMMENTS:

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.