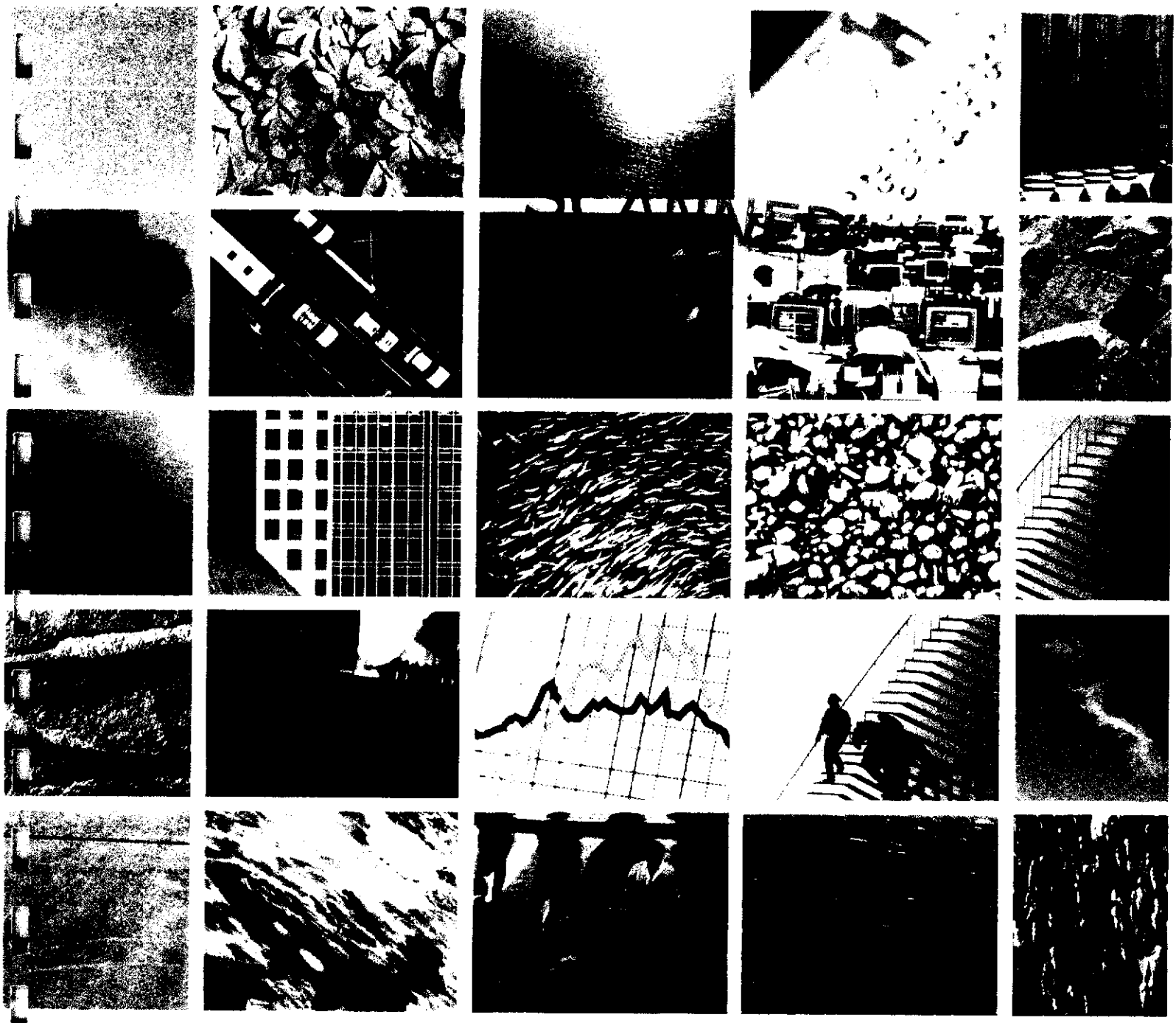

Johnson & Hoffman Manufacturing

Supplemental Off-Site Vapor Instrusion Investigation Work Plan

J&H Manufacturing Facility
Carle Place, NY NYSDEC Site No. V-00684-1

Project No. 0040770

24 October 2007

Environmental Resources Management (ERM)
520 Broad Hollow Road, Suite 210
Melville, NY 11747
www.erm.com

ERM

sustainable solutions in a more competitive world

Johnson & Hoffman Manufacturing

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profile borings both on-Site and off-Site. Five off-site borings (designated OS-01 through OS-05) and two on-site borings (designated GP-01 and GP-02) were installed. In each boring, three groundwater samples were collected at selected depth intervals. This sampling was conducted in accordance with the January 2006 Site Investigation Work Plan.

The results of this work were previously reported in the 3 May 2006 project progress report. A map summarizing the VOC profile sampling results is provided as Figure 1-4.

1.3.4 *Soil Vapor Investigation*

A total of eight shallow soil vapor samples were collected around the Site perimeter in March 2006 (see Figure 1-5 for sample locations). The purpose of this work was to perform an initial evaluation of the potential for off-Site vapor intrusion issues. See Table 1-1 for a summary of all soil gas sampling analytical data (Method TO-15). Based on the initial perimeter results, additional investigation was conducted off-Site to the east (see Section 1.3.5) and on-Site along the southern property boundary, as discussed below.

Additional soil gas samples were collected in March 2007 on the southern Site property boundary at locations SV-07 and SV-08. A total of four (4) soil gas samples were collected at depths of 5.0 and 25.0 feet below grade for each location. The purpose of this work was to determine if prior detections at these locations were due to a local soil source or volatilization from the underlying ground water plume. The result showed higher soil gas concentrations at depth, which indicate that the detected vapors were emanating from the water table.

1.3.5 *Previous Off-Site Sub-Slab Soil Vapor & Indoor Air Assessment*

The initial soil gas samples on the eastern site boundary (samples SV-01 and SV-02) indicated elevated VOC levels. As a result, an off-Site vapor intrusion investigation was conducted at the building adjacent to the east (referred to as the Fun World building). One indoor air and one sub-slab soil vapor sample were collected in May 2006, and again in March 2007. All samples were analyzed for VOCs using EPA Method TO-15. The results are provided in Table 1-2 and summarized below:

- Both rounds of indoor air samples were well below the indoor air guidance criteria provided in the final "Guidance for

Evaluating Soil Vapor Intrusion in the State of New York" (New York State Department of Health (NYSDOH), October 2006).

- The analytical results for the second round of sub-slab soil vapor sampling were significantly lower than the initial May 2006 sampling event, but still remained slightly above the NYSDOH guidance criteria.

- The decision matrices in the NYSDOH guidance document indicate that these results do not require mitigation, but continued monitoring is warranted.

1.4 *SUMMARY OF FINDINGS*

The investigation work completed to date has made a number of important findings regarding potential vapor intrusion issues at the J&H Site. These findings are summarized as follows:

- Tetrachloroethene (PCE) was released at the Site and impacted soil at levels in excess of the RSCO value of 1,400 µg/kg. These soil impacts have been defined and are currently undergoing remediation via soil vapor extraction.

- Leaching of PCE from soil has impacted the underlying ground water at levels in excess of New York State Ambient Ground Water standards.

- Perimeter soil vapor sampling was conducted to determine if soil and ground water impacts at the Site have the potential to represent a potential vapor intrusion risk to neighboring properties.

  - Soil vapor samples collected on the north and west property boundaries did not exceed the guidance values established by the NYSDOH. From these data it may be concluded that there is no risk of vapor intrusion in these directions.
  - Soil vapor samples from the eastern property boundary exceeded the NYSDOH guidance. A follow-up vapor intrusion investigation in the adjacent Fun World building found that indoor air quality meets the NYSDOH guidance. This situation continues to be monitored.
  - Soil vapor samples from the southern property boundary exceeded the NYSDOH guidance. Deep samples at this location indicate that the source of the vapors are due to volatilization from the underlying water table.

Based on these findings, NYSDEC is recommending further study to evaluate if there is a risk of vapor intrusion south of the site. The remainder of this document presents a scope of work to fill this data gap.

1.0 INTRODUCTION

On behalf of Volunteer CAWSL Enterprises, Inc., Environmental Resources Management (ERM) has prepared this Work Plan to investigate potential vapor intrusion to off-site buildings located south of the Johnson & Hoffman (J&H) Manufacturing facility located on Voice Road in Carle Place, Nassau County, NY (the "Site"). A Site Location map is provided as Figure 1-1. This site is being investigated and remediated under the New York Voluntary Cleanup Program (Site No. V-00684-1).

1.1 PURPOSE

The J&H facility is located on Voice Road in Carle Place, Nassau County, New York and has occupied the Site since 1962. J&H produces small metal parts at the Site using processes that include metal stamping, deburring, and washing.

The Site has been the subject of several rounds of environmental investigation between 1996 and the present. Environmental medias investigated include soil, groundwater and soil vapor. This Work Plan provides a scope of work to continue the investigation of the soil vapor media.

Site investigation conducted to date has established the presence of low levels of Volatile Organic Compounds (VOCs) in ground water. These VOCs have been detected beneath the Site and extend off-Site to the south. This Work Plan presents a proposed approach to evaluate potential vapor intrusion (VI) to occupied buildings that overlie the off-Site ground water plume.

This Work Plan provides all historic environmental data relevant to the off-Site VI issue. It presents the technical elements of the proposed additional studies to continue this investigation and describes the quality assurance and health and safety protocols to be used during the implementation of the investigative activities described herein.

1.2 HYDROGEOLOGY

There are four distinct geologic units that exist in the study area and consist of unconsolidated deposits of clay, silt, sand, and gravel that overlie southeast-sloping consolidated bedrock. The geologic units are, in descending order relative to the land surface: the Upper Pleistocene deposits, the Magothy Formation, the Raritan Clay Member of the Raritan Formation, and the Lloyd Sand Member of the Raritan Formation. The

Upper Pleistocene deposits represent the natural surficial soils across the Site.

The water table occurs approximately 50 feet below grade within the Upper Pleistocene deposits, which is hydrologically known as the Upper Glacial Aquifer. The Upper Glacial is an unconfined aquifer approximately 100 feet thick in the area of the Site (50 feet are saturated). Underlying the Upper Glacial Aquifer is the semi-confined Magothy Aquifer, which is several hundred feet thick and widely used for water supply throughout Long Island. The direction of ground water flow at the Site has been investigated as part of this project and has been established to be toward the southeast.

1.3 *PREVIOUS SITE INVESTIGATION AND REMEDIATION*

1.3.1 *Delineation of VOCs in Soil*

The presence of VOCs in soil was investigated in a series of studies conducted between 1996 and 2003. The results of this work were documented in the "Site Investigation Work Plan" (ERM, January 2006) and established full delineation of tetrachloroethene (PCE) in soil where it exceeded the New York Recommended Soil Cleanup Objective (RSCO) of 1,400 µg/kg. A map showing the aerial extent of soil above the RSCO for PCE is provided as Figure 1-2.

1.3.2 *Interim Remedial Measure*

ERM installed a Soil Vapor Extraction (SVE) system at the Site as an Interim Remedial Measure (IRM) to address the PCE-impacted soil. This work was done in accordance with the "Interim Remedial Measure Work Plan" (ERM, February 2006). The IRM was developed to address two areas of impacted soils referred to as "Area A" and "Area B". In addition, a third location, "Area C", contains soil where concentrations do not exceed RSCO levels, however elevated soil gas concentrations were present. The layout of the SVE IRM system is shown on Figure 1-3.

The SVE IRM system began operation on 16 March 2006, and through 25 June 2007, approximately 284 pounds of Volatile Organic Compounds (VOCs) have been removed. Approximately 266 pounds of this mass was PCE, the remainder was TCE and cis-1,2-dichlorethene.

1.3.3 *Investigation of VOCs in Ground Water*

Off-site characterization of VOCs in ground water was conducted in the fall of 2005. This included installation of groundwater quality vertical

2.0 PROPOSED SCOPE OF WORK

2.1 BACKGROUND INFORMATION

The purpose of this Work Plan is to further evaluate the potential for vapor intrusion in occupied buildings south of the site. As previously found on the J&H property, a potential source of vapors south of the site is volatilization from the water table. Therefore, the potential for vapor intrusion in the occupied buildings south of the site could be from VOC contamination either 1.) migrating in groundwater from the J&H site, or 2.) from soil and/or groundwater contaminated by a separate off-site VOC source.

Section 1.3.5 provided a summary of the existing ground water quality data. These data show that there are three buildings south of and proximal to the Site that may overlie impacted ground water. These buildings are identified on Figure 2-1 and described below:

- Building 1 - This structure is an unoccupied two-story parking garage. There are no side walls in the building (i.e., it is open to the ambient air).

- Building 2 - This is a five-story building occupied by offices. Based on a site reconnaissance, it was determined that this building has one basement level.

- Building 3 - This is a one-story building occupied by retail stores. The site owner reports that this building is a slab-on-grade structure.

Based on the above information, a scope of work has been developed to further evaluate the risk of vapor intrusion in Buildings 2 and 3. There is no risk of exposure via vapor intrusion in Building 1.

2.2 OFF-SITE SOIL GAS SAMPLING PROCEDURES

Three soil gas samples will be collected at the location indicated on Figure 2-1. This boring location was chosen because it is situated: (a) on the center line of the known area of impacted ground water; and (b) immediately upgradient of both the One Old Country Road office building (Building 2) and the western retail building at the Country Glen Center (Building 3).

Prior to the implementation of this scope of work, ERM will contact a third party geophysical surveyor to assess the proposed sampling location

for any underground utilities or structures. In addition, ERM will evaluate the potential for chemical usage in Buildings 2 and 3.

ERM will collect a total of three (3) soil gas samples at depths of 5, 15 and 25 feet below grade at the proposed location. To ensure sample integrity, each sample will be collected from a separate borehole. The soil gas samples will be collected using temporary soil gas implants installed via Geoprobe. Glass beads will be installed in the annular space around the implants to a depth of six (6) inches above the implant screens. Hydrated bentonite will be applied above the probes to create discrete sampling zones. Washed sand will be added to backfill the borehole between the desired sampling depths and within one foot of the ground surface. Tamped, and hydrated bentonite pellets will be used to seal the borehole around the Teflon tubing at the surface.

As per the NYSDOH guidance, ERM will perform a Helium Tracer Gas Test on each vapor point to verify that no infiltration of atmospheric air occurs during sampling. This consists of applying a shroud that covers the top of the bentonite seal. The Teflon tubing that is attached to the soil vapor implant will be pulled out and connected to a portable helium detector. Helium gas is then applied underneath the shroud to enrich the atmosphere in the immediate vicinity of the area where the probe intersects the ground surface. A vapor sample is then measured from the probe for the presence of high concentrations (>10%) of the tracer. One duplicate sample will also be collected for QA/QC purposes.

Once the vapor probe passes the tracer test, a certified clean 6-liter Summa® canister under a vacuum of approximately 30 inches water column (WC) (no less than 25 inches WC) shall be properly connected to the exposed teflon tubing attached to the soil vapor implants. The canister will be equipped with a laboratory supplied and calibrated flow control valve set for a sample collection time of two (2) hours. The sampling flow rate shall not exceed 0.2 L/minute in accordance with the NYSDOH Guidance. Each sample will be analyzed by an ELAP-certified laboratory for Volatile Organic Compounds using Method TO-15.

Upon sample completion the probes will be removed and each borehole will be restored to its previous condition via sand fill and asphalt patch.

2.3 *DATA VALIDATION*

All laboratory data will be reviewed, validated and qualified as necessary to assess data usability by direct comparison to the specified data quality objectives. The data validation will be conducted by an independent third party validator. ERM's Quality Assurance Officer will review the reports

of the validator and will compile all of the analytical data in a relational data base using GISKey Software.

2.4 *DATA EVALUATION AND REPORTING*

A letter report will be provided following the completion of the data validation. This report will provide the collected data and findings, including a map of the sample location and sample results. The results will be carefully evaluated and, if necessary, appropriate follow-up measures will be proposed for NYSDEC approval.

2.5 *QUALITY ASSURANCE PROJECT PLAN (QAPP)*

A QAPP was prepared for the original investigation activities and included in the January 2006 Site Investigation Work Plan. All the quality assurance protocols for the analytical methods proposed in this Work Plan were discussed in detail in the original QAPP. An addendum has been prepared and is attached as Appendix A in regards to the collection and analysis of soil gas samples.

2.6 *HEALTH AND SAFETY PLAN (HASP)*

A HASP was prepared as part of the original January 2006 Site Investigation Work Plan dated February 2006. This plan identifies all of the associated hazards and as such, the original HASP will be adequate for the field activities discussed herein with the exception of personnel changes as follows:

ERM Project Manager:	Nicole Zorskas
ERM Project Health & Safety Coordinator:	Paulina Gravier
ERM Site Safety Officer:	To be Determined

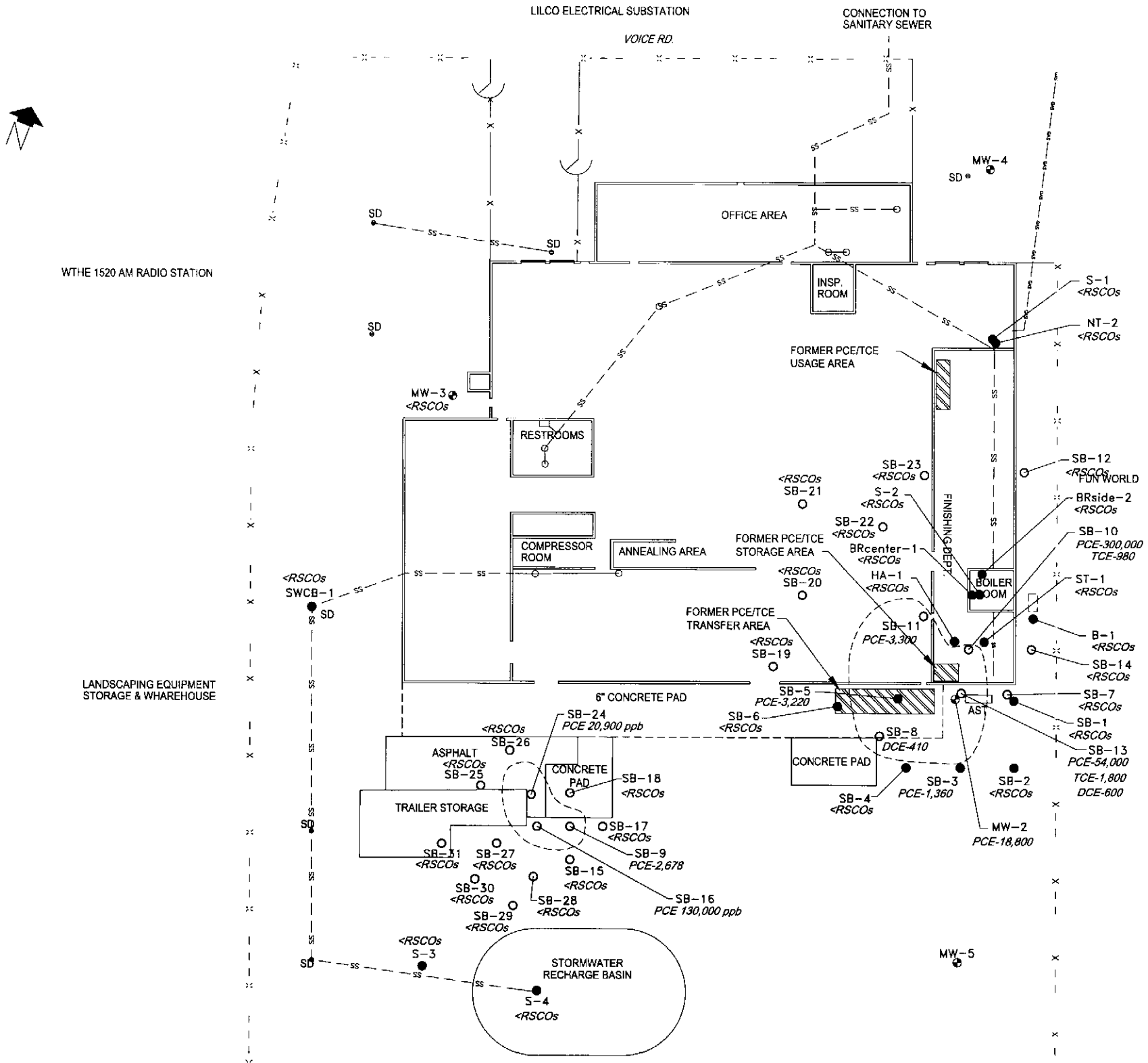
2.7 *SCHEDULE*

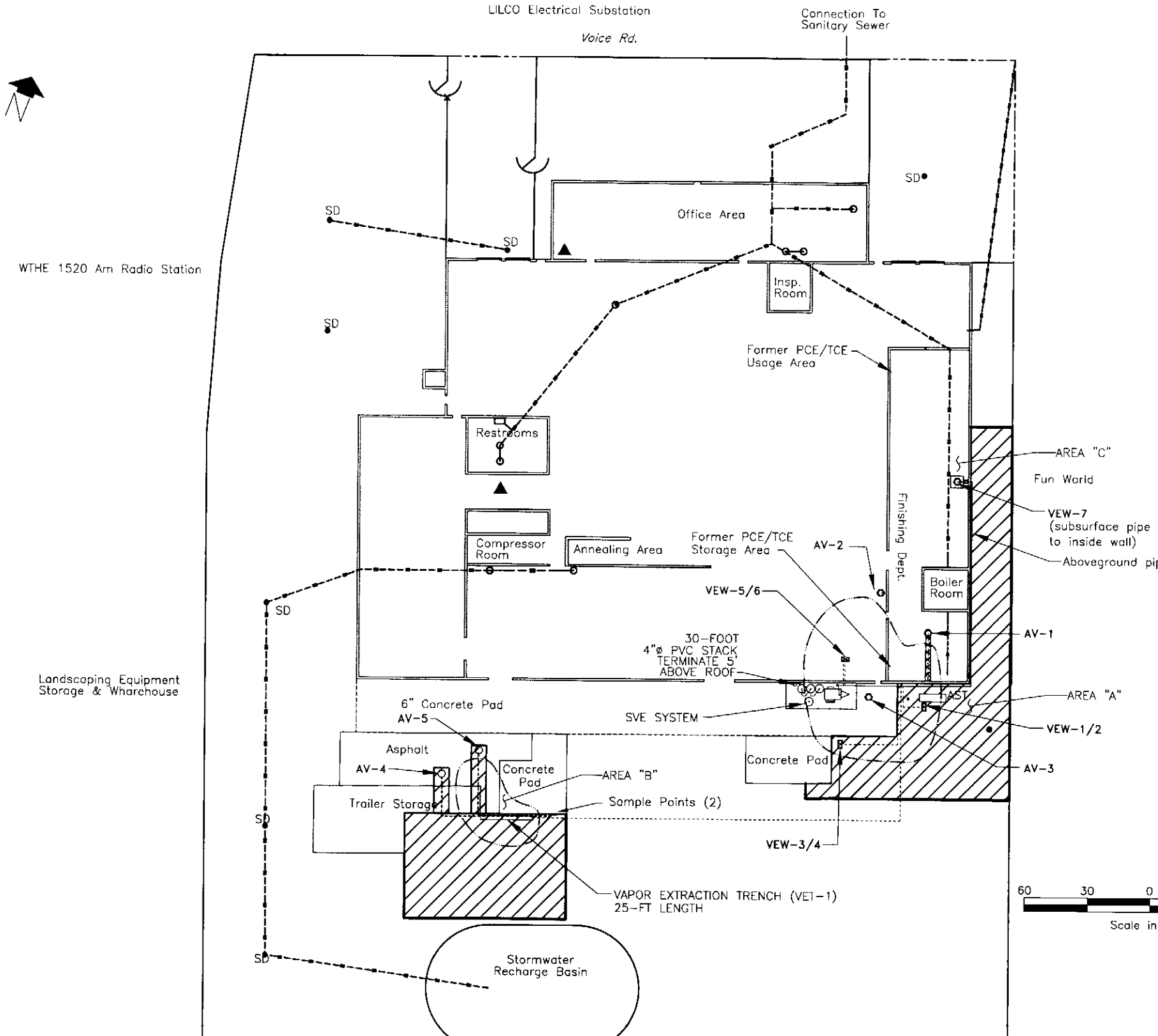
ERM is prepared to commence this scope of work within two weeks of NYSDEC approval of this Work Plan.

Figure 1-1
Site Location Map
Johnson & Hoffman Manufacturing Corporation
Carle Place, New York

ERM, INC.

R4904.00.01/12.13.00-SCH/12.22.00-SCH/A101-1A


LILCO ELECTRICAL SUBSTATION
CONNECTION TO SANITARY SEWER
VOICE RD.
WTHE 1520 AM RADIO STATION
LANDSCAPING EQUIPMENT STORAGE & WHAREHOUSE
OFFICE AREA
INSP. ROOM
MW-4
SD
S-1 <RSCOs
NT-2 <RSCOs
FORMER PCE/TCE USAGE AREA
MW-3 <RSCOs
RESTROOMS
SB-12 <RSCOs
FUN WORLD
SB-23 <RSCOs
<RSCOs SB-21
S-2 <RSCOs
BRside-2 <RSCOs
SB-22 <RSCOs
SB-10 PCE-300,000 TCE-980
COMPRESSOR ROOM
ANNEALING AREA
FORMER PCE/TCE STORAGE AREA
BRcenter-1 <RSCOs
FINISHING DEPT.
<RSCOs SB-20
HA-1 <RSCOs
BOILER ROOM
ST-1 <RSCOs
<RSCOs SWCB-1
FORMER PCE/TCE TRANSFER AREA
SB-11 PCE-3,300
B-1 <RSCOs
<RSCOs SB-19
SB-14 <RSCOs
6" CONCRETE PAD
SB-5 PCE-3,220
SB-7 <RSCOs
SB-6 <RSCOs
AST
SB-1 <RSCOs
SB-24 PCE 20,900 ppb
<RSCOs SB-26
SB-8 DCE-410
SB-13 PCE-54,000 TCE-1,800 DCE-600
ASPHALT <RSCOs SB-25
CONCRETE PAD
SB-18 <RSCOs
CONCRETE PAD
SB-3 PCE-1,360
SB-2 <RSCOs
TRAILER STORAGE
SB-4 <RSCOs
MW-2 PCE-18,800
SB-17 <RSCOs
SB-31 <RSCOs
SB-27 <RSCOs
SB-9 PCE-2,678
SB-15 <RSCOs
SB-30 <RSCOs
SB-28 <RSCOs
SB-16 PCE 130,000 ppb
SB-29 <RSCOs
<RSCOs S-3
STORMWATER RECHARGE BASIN
MW-5
S-4 <RSCOs


LILCO Electrical Substation
Voice Rd.
Connection To Sanitary Sewer
WTHE 1520 Am Radio Station
Landscaping Equipment Storage & Wharehouse
SD
Office Area
Insp. Room
Former PCE/TCE Usage Area
Restrooms
Compressor Room
Annealing Area
Former PCE/TCE Storage Area
AV-2
Finishing Dept.
Boiler Room
AREA "C"
Fun World
VEW-7
(subsurface pipe to inside wall)
Aboveground pi
VEW-5/6
AV-1
30-FOOT 4"ø PVC STACK TERMINATE 5' ABOVE ROOF
AST
AREA "A"
6" Concrete Pad
AV-5
SVE SYSTEM
VEW-1/2
Asphalt
AV-4
Concrete Pad
AREA "B"
Trailer Storage
Sample Points (2)
Concrete Pad
AV-3
VEW-3/4
VAPOR EXTRACTION TRENCH (VET-1)
25-FT LENGTH
Stormwater Recharge Basin
60
30
0
Scale in

GP-02 Constituent	NYSDEC TOGS	10/26/05 55.00 - 59.00	10/26/05 75.00 - 79.00	10/26/05 96.00 - 100.00
Tetrachloroethene	5	[51]	5 U	5 U
Trichloroethene	5	2 J	5 U	5 U
cis-1,2-Dichloroethene	5	5 U	5 U	5 U

GP-01 Constituent	NYSDEC TOGS	10/25/05 52.00 - 56.00	10/25/05 75.00 - 79.00	10/25/05 92.00 - 96.00
Tetrachloroethene	5	5 U	5 U	5 U
Trichloroethene	5	5 U	5 U	5 U
cis-1,2-Dichloroethene	5	5 U	5 U	5 U

OS-04 Constituent	NYSDEC TOGS	10/21/05 60.00 - 64.00	10/21/05 75.00 - 79.00	10/21/05 96.00 - 100.00
Tetrachloroethene	5	4 J	[25]	5 U
Trichloroethene	5	5 U	3 J	5 U
cis-1,2-Dichloroethene	5	5 U	[5]	5 U

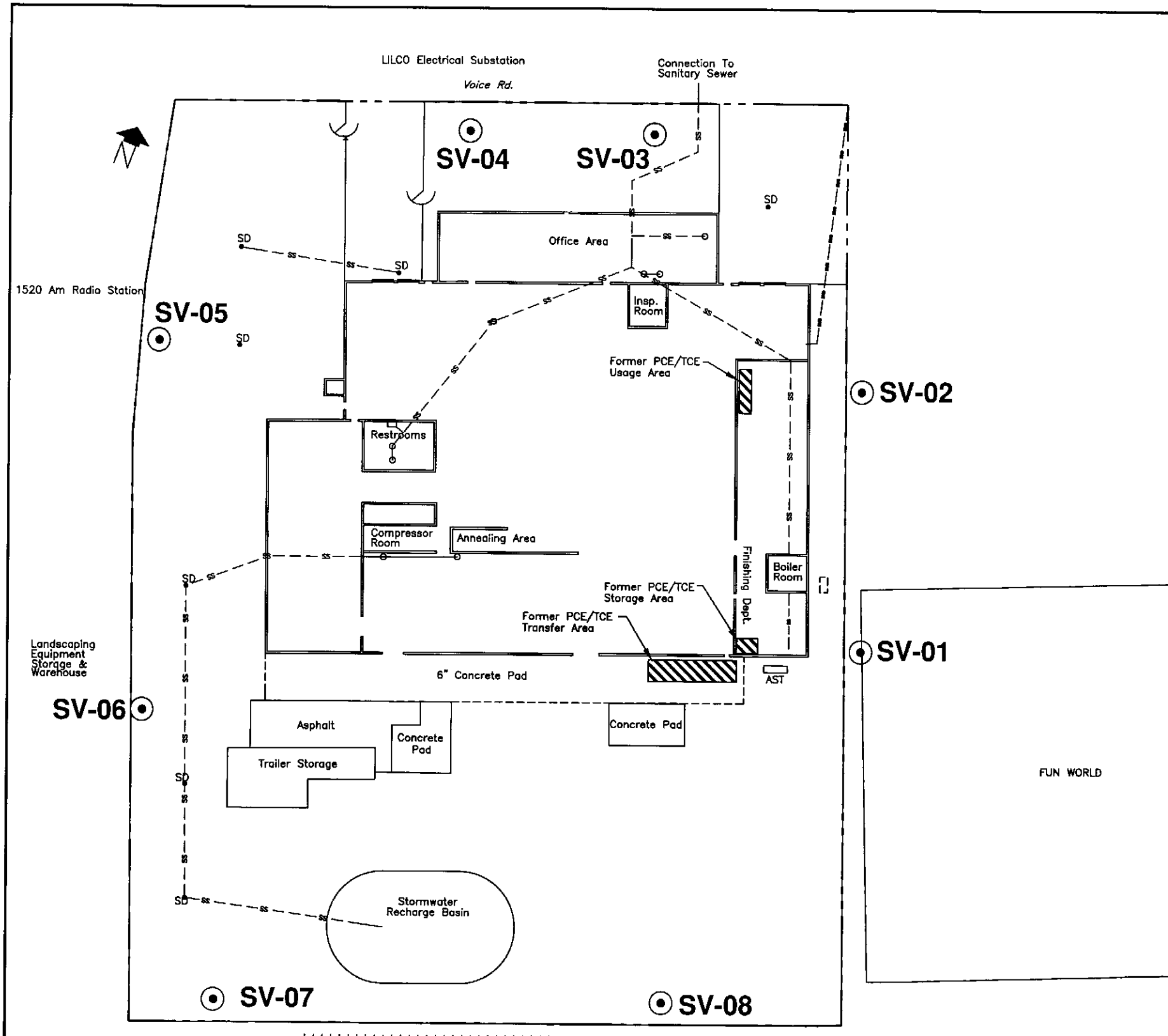
OS-05 Constituent	NYSDEC TOGS	10/24/05 64.00 - 68.00	10/24/05 75.00 - 79.00	10/24/05 96.00 - 100.00
Tetrachloroethene	5	5 U	5 U	5 U
Trichloroethene	5	5 U	5 U	5 U
cis-1,2-Dichloroethene	5	5 U	5 U	5 U

OS-03 Constituent	NYSDEC TOGS	10/20/05 60.00 - 64.00	10/20/05 75.00 - 79.00	10 96
Tetrachloroethene	5	[15]	[52]	[8
Trichloroethene	5	2 J	[14]	1.
cis-1,2-Dichloroethene	5	5 U	[15]	2.

OS-02 Constituent	NYSDEC TOGS	10/19/05 56.00 - 60.00	10/19/05 75.00 - 79.00
Tetrachloroethene	5	5 U	5 U
Trichloroethene	5	5 U	5 U
cis-1,2-Dichloroethene	5	5 U	5 U

OS-01 Constituent	NYSDEC TOGS	10/18/05 55.00 - 59.00	1 7
Tetrachloroethene	5	1 J	4
Trichloroethene	5	5 U	5
cis-1,2-Dichloroethene	5	5 U	5

OR GROUP/J&H, CARLE PLACE NY/0016791-020A


LILCO Electrical Substation
Voice Rd.
Connection To Sanitary Sewer
SV-04
SV-03
SD
Office Area
SS
1520 Am Radio Station
SV-05
Insp. Room
Former PCE/TCE Usage Area
SV-02
Restrooms
Compressor Room
Annealing Area
Finishing Dept.
Boiler Room
Former PCE/TCE Storage Area
Former PCE/TCE Transfer Area
Landscaping Equipment Storage & Warehouse
SV-01
6" Concrete Pad
AST
SV-06
Asphalt
Concrete Pad
Trailer Storage
FUN WORLD
Stormwater Recharge Basin
SV-07
SV-08


VOICE ROAD
LONG ISLAND RAILROAD
BUILDING 1
STOP-N-SHOP
PARKING AREA
RETAIL STORE
BUILDING 3
OLD COUNTRY ROAD

Tables

Table 1-1
Soil Vapor Sample Results
Volatile Organic Compounds (VOCs)
Hits Only
J&H Manufacturing Facility
40 Voice Road, Carle Place, NY

PERIOD: From 03/02/2006 thru 03/29/2007 - Inclusive
SAMPLE TYPE: Air

CONSTITUENT	SITE LAB SAMPLE ID DATE DEPTH (ft) RESULT TYPE	NYSDOH Guidance	SV-01 0603102-01 03/02/2006 0.00 Primary	SV-02 0603102-02 03/02/2006 0.00 Primary	SV-03 0603102-03 03/02/2006 0.00 Primary
1,2,4-Trimethylbenzene	(ug/m3)		38 J		
1,3,5-Trimethylbenzene	(ug/m3)		16		
1,3-Butadiene	(ug/m3)				
2-Butanone	(ug/m3)				
4-Ethyltoluene	(ug/m3)		29 J		
4-Methyl-2-Pentanone	(ug/m3)				
Acetone	(ug/m3)		16	7.2	32
Benzene	(ug/m3)			0.90	
Bromomethane	(ug/m3)				
Carbon Disulfide	(ug/m3)				
Chloromethane	(ug/m3)				
cis-1,2-Dichloroethene	(ug/m3)				
Dichlorodifluoromethane	(ug/m3)			2.7	
Ethanol	(ug/m3)			3.0	5.4
Ethylbenzene	(ug/m3)		4.8		
Heptane	(ug/m3)				
Hexane	(ug/m3)				
Isopropyl Alcohol	(ug/m3)				
m+p-Xylene	(ug/m3)		24	3.2	
o-Xylene	(ug/m3)		22		
Tetrachloroethene	(ug/m3)	100	[1400]	[170]	14
Toluene	(ug/m3)		2.8	3.8	
Trichloroethene	(ug/m3)	5.0	[40]	[16]	
Trichlorofluoromethane	(ug/m3)			1.6	

[x]=Greater than Action Level

Table 1-1
Soil Vapor Sample Results
Volatile Organic Compounds (VOCs)
Hits Only
J&H Manufacturing Facility
40 Voice Road, Carle Place, NY

PERIOD: From 03/02/2006 thru 03/29/2007 - Inclusive
SAMPLE TYPE: Air

CONSTITUENT	SITE LAB SAMPLE ID DATE DEPTH (ft) RESULT TYPE	NYSDOH Guidance	SV-04 0603102-04 03/02/2006 0.00 Primary	SV-05 0603102-05 03/02/2006 0.00 Primary	SV-06 0603102-06 03/02/2006 0.00 Primary
1,2,4-Trimethylbenzene	(ug/m3)				0.99 J
1,3,5-Trimethylbenzene	(ug/m3)				
1,3-Butadiene	(ug/m3)				
2-Butanone	(ug/m3)			4.3	6.2
4-Ethyltoluene	(ug/m3)				
4-Methyl-2-Pentanone	(ug/m3)				
Acetone	(ug/m3)		8.8	30	9.6
Benzene	(ug/m3)				2.5
Bromomethane	(ug/m3)				1.1
Carbon Disulfide	(ug/m3)				2.6
Chloromethane	(ug/m3)				1.5
cis-1,2-Dichloroethene	(ug/m3)				
Dichlorodifluoromethane	(ug/m3)		2.3	2.8	2.9
Ethanol	(ug/m3)			3.8	9.3
Ethylbenzene	(ug/m3)				0.80
Heptane	(ug/m3)				
Hexane	(ug/m3)				
Isopropyl Alcohol	(ug/m3)				2.4
m+p-Xylene	(ug/m3)				2.5
o-Xylene	(ug/m3)				1.2
Tetrachloroethene	(ug/m3)	100	0.31	0.39	1.5
Toluene	(ug/m3)				5.9
Trichloroethene	(ug/m3)	5.0			
Trichlorofluoromethane	(ug/m3)		1.7	1.7	1.6

Table 1-1
Soil Vapor Sample Results
Volatile Organic Compounds (VOCs)
Hits Only
J&H Manufacturing Facility
40 Voice Road, Carle Place, NY

PERIOD: From 03/02/2006 thru 03/29/2007 - Inclusive
SAMPLE TYPE: Air

CONSTITUENT	SITE LAB SAMPLE ID DATE DEPTH (ft) RESULT TYPE	NYSDOH Guidance	SV-07 0603102-07 03/02/2006 0.00 Primary	SV-07 0703517-03 03/21/2007 25.00 Primary	SV-07 0703517-04 03/21/2007 5.00 Primary
1,2,4-Trimethylbenzene	(ug/m3)				7.7
1,3,5-Trimethylbenzene	(ug/m3)				4.0
1,3-Butadiene	(ug/m3)				
2-Butanone	(ug/m3)			56	
4-Ethyltoluene	(ug/m3)				5.8
4-Methyl-2-Pentanone	(ug/m3)				
Acetone	(ug/m3)			390	13
Benzene	(ug/m3)				6.1
Bromomethane	(ug/m3)				
Carbon Disulfide	(ug/m3)				
Chloromethane	(ug/m3)				
cis-1,2-Dichloroethene	(ug/m3)				
Dichlorodifluoromethane	(ug/m3)				
Ethanol	(ug/m3)			270	
Ethylbenzene	(ug/m3)				2.9 J
Heptane	(ug/m3)				
Hexane	(ug/m3)				
Isopropyl Alcohol	(ug/m3)				
m+p-Xylene	(ug/m3)				7.6
o-Xylene	(ug/m3)				
Tetrachloroethene	(ug/m3)	100	[140000]	[19000]	[1600]
Toluene	(ug/m3)				14
Trichloroethene	(ug/m3)	5.0	[3300]	[710]	[24]
Trichlorofluoromethane	(ug/m3)				5.6

[x]=Greater than Action Level

Table 1-1
Soil Vapor Sample Results
Volatile Organic Compounds (VOCs)
Hits Only
J&H Manufacturing Facility
40 Voice Road, Carle Place, NY

PERIOD: From 03/02/2006 thru 03/29/2007 - Inclusive
SAMPLE TYPE: Air

CONSTITUENT	SITE LAB SAMPLE ID DATE DEPTH (ft) RESULT TYPE	NYSDOH Guidance	SV-08 0603102-08 03/02/2006 0.00 Primary	SV-08 0703517-02 03/21/2007 5.00 Primary	SV-08 0703517-01 03/21/2007 25.00 Primary
1,2,4-Trimethylbenzene	(ug/m3)				1.6
1,3,5-Trimethylbenzene	(ug/m3)				
1,3-Butadiene	(ug/m3)				3.2
2-Butanone	(ug/m3)				44
4-Ethyltoluene	(ug/m3)				1.2
4-Methyl-2-Pentanone	(ug/m3)				1.5
Acetone	(ug/m3)			13	260 J
Benzene	(ug/m3)				2.1
Bromomethane	(ug/m3)				
Carbon Disulfide	(ug/m3)				5.7
Chloromethane	(ug/m3)				
cis-1,2-Dichloroethene	(ug/m3)		8.7		3.7
Dichlorodifluoromethane	(ug/m3)		2.9	2.8	2.3
Ethanol	(ug/m3)			7.0	48
Ethylbenzene	(ug/m3)				1.1
Heptane	(ug/m3)				1.7
Hexane	(ug/m3)				2.3
Isopropyl Alcohol	(ug/m3)				
m+p-Xylene	(ug/m3)				1.9
o-Xylene	(ug/m3)				
Tetrachloroethene	(ug/m3)	100	[1100]	2.0	[440]
Toluene	(ug/m3)				3.9
Trichloroethene	(ug/m3)	5.0	[77]		[15]
Trichlorofluoromethane	(ug/m3)				2.7

[x]=Greater than Action Level

TABLE 1-2
Summary of Sub-Slab Soil Gas and Indoor Air Sample Results
Fun World Site - 80 Voice Road, Carle Place, NY

SAMPLING LOCATION				01-IA-FW	02-IA-FW	01-SS-FW	02-SS-FW
DATE COLLECTED				05/13/06	3/9/2007	05/13/06	3/9/2007
MEDIA				Indoor Air	Indoor Air	Soil Gas	Soil Gas
CONSTITUENTS DETECTED	Units	OSHA PEL	NYSDOH GUIDANCE				
1,2,4-Trimethylbenzene	ug/m3	NS	NS	3.3	2.9	3.3	<7.9
1,3,5-Trimethylbenzene	ug/m3	NS	NS	1.0	0.93 J	1.1	<7.9
1,3-Butadiene	ug/m3	1,000	NS	3.2	<0.44	<2.1	<3.5
1,4-Dioxane	ug/m3	360,000	NS	<3.3	<0.72	8.6	<5.8
4-Ethyltoluene	ug/m3	NS	NS	<4.5	0.69 J	<4.6	<7.9
Acetone	ug/m3	2,400,000	NS	34	23.8	170	31.1
Benzene	ug/m3	NS	NS	2.5	3.5	3.2	<5.1
	ppmv	10	NS	0.00079	0.0011	0.001	<0.0016
Carbon Disulfide	ug/m3	20,000	NS	<2.8	0.47 J	24	<5.0
Chloroform	ug/m3	240,000	NS	<0.89	<0.98	1.5	<7.8
Chloromethane	ug/m3	100,000	NS	1.7	1.4	<0.39	<3.3
Freon 12 (Dichlorodifluoromethane)	ug/m3	4,950,000	NS	3.0	3.6 J	4.5	7.9
Ethanol	ug/m3	1,900,000	NS	87	92.6	450	144
Ethyl Acetate	ug/m3	NS	NS	NA	28	NA	<5.8
Ethyl Benzene	ug/m3	435,000	NS	2.1	4.3	2.0	<6.9
Freon 113	ug/m3	NS	NS	<1.4	0.84 J	<1.4	<12
Heptane	ug/m3	NS	NS	<3.7	4.5	<3.8	<6.6
Hexane	ug/m3	1,800,000	NS	3.4	4.2	14	<5.6
2-Propanol (Isopropyl Alcohol)	ug/m3	980,000	NS	41	12	24	11
2-Butanone (Methyl Ethyl Ketone)	ug/m3	590,000	NS	5.7	2.1	9.4	<4.7
2-pentanone (Methyl Isobutyl Ketone)	ug/m3	NS	NS	<3.7	0.98	<3.8	<6.6
1,4-Dichlorobenzene	ug/m3	450,000	NS	<1.1	<1.2	120	<9.6
Styrene	ug/m3	NS	NS	3.0	0.94	2.8	<6.8
	ppmv	100	NS	0.00071	0.00022	0.00065	<0.0016
Tetrachloroethene	ug/m3	NS	100	0.39	1.1 J	**230**	<56 J
	ppmv	100	NS	0.000057	0.00016 J	0.034	0.0082 J
Toluene	ug/m3	NS	NS	39	45.6	14	2.7 J
	ppmv	200	NS	0.01	0.0002	0.0037	<0.00071 J
Trichloroethene	ug/m3	NS	5.0	<0.20	<1.1	**98**	**7.5** J
	ppmv	100	NS	<0.000037	<0.0002	0.018	0.0014 J
Freon 11 (Trichlorofluoromethane)	ug/m3	NS	NS	2.7	2.3	5.6	<9.0
m,p-Xylene	ug/m3	435,000	NS	5.4	7.4	6.4	<6.9
o-Xylene	ug/m3	435,000	NS	2.6	3.3	2.3	<6.9
Xylenes (total)	ug/m3	NS	NS	8.0	10	8.7	<6.9
Propylbenzene	ug/m3	NS	NS	<4.5	258.35	<4.6	252.3

Notes:
NS = No Standard
NA = Compound Not Analyzed
J = Estimated Value
7.5 = Concentration Exceeds NYSDOH Guidance
NYSDOH = New York State Department of Health
OSHA PEL = OSHA Permissible Exposure Limit; 8-hour Time Weighted Average
ug/m3 = micrograms per cubic meter
ppmv = parts per million by volume

APPENDIX A

QUALITY ASSURANCE PROJECT PLAN (QAPP)
ADDENDUM

1.0 Air Sampling Equipment

A laboratory certified clean Summa canister and certified clean regulator will be used for each sampling location. Since dedicated new lengths of teflon tubing will be used for soil gas/vapor sampling, the tubing will not be decontaminated. New swag-lock fittings will also be utilized with each Summa canister.

2.0 *Sample Preparation and Custody*

2.1 *Sample Identification*

In order to provide for proper identification in the field and proper tracking in the laboratory, all samples must be labeled in a clear and consistent fashion using the procedures and protocols described below and within the following subsections.

- Sample labels will be waterproof and have a pre-assigned, unique number that is indelible.
- Field personnel must maintain a field notebook. This notebook must be water resistant with sequentially numbered pages. Field activities will be sequentially recorded in the notebook.
- The notebook, along with the COC form, must contain sufficient information to allow reconstruction of the sample collection and handling procedure at a later time.
- Each sample will have a corresponding notebook entry which includes:
  - Sample ID number;
  - Sample location and number;
  - Date and time (Start/End);
  - Analysis for which sample was collected;
  - Additional comments as necessary (Start/End Pressure); and
  - Samplers' name.
- Each sample must have a corresponding entry on a COC manifest.
- The manifest entry for sampling at any one location is to be completed before sampling is initiated at any other location by the same sampling team.
- In cases where the samples leave the immediate control of the sampling team (i.e., shipment via common carrier) the shipping container must be sealed.

2.2 *Sample Containers*

- The analytical laboratory will provide all Summa canisters.
- The canisters will be inspected and the regulator certified clean by the laboratory prior to shipping and again by the on-Site representative. All sample canisters will be handled carefully so that regulators or canisters are not inadvertently compromised.

2.3 *Sample Preservation*

No preservation is required for Summa canister sampling.

Sample Holding Time

- All samples will be shipped the same day they are obtained to the analytical laboratory. Any exceptions will be documented in the field logbook and proper preservation techniques followed.
- The samples must be analyzed within specified holding times.
- The analytical laboratory will be a New York State Department of Health (NYSDOH) ELAP-certified laboratory, and conform to meeting specifications for documentation, data reduction and reporting. The laboratory will follow all method specifications pertaining to sample holding times contained in the NYSDEC ASP (revised 2000) and/or as prescribed by the specific analytical method.

Sample Custody

COC - The primary objective of the sample custody procedures is to create an accurate written record that can be used to trace the possession and handling of all samples from the moment of their collection, through analysis, until their final disposition. All field-sampling personnel will adhere to proper sample custody procedures because samples collected during an investigation could be used as evidence in litigation. Therefore, possession of the samples must be traceable from the time each sample is collected until it is analyzed at the laboratory.

Custody Transfer to Field Personnel - The on-Site Hydrogeologist or the field personnel will maintain custody of samples collected during this investigation. All field personnel are responsible for documenting each sample transfer and maintaining custody of all samples until they are shipped to the laboratory. COC records will be completed at the time of sample collection and will accompany the samples inside the cooler for shipment to the selected laboratory.

Each individual who has the samples in their possession will sign the COC record. Preparation of the COC record is as follows:

- For every sample, the person collecting the sample will initiate the COC record in the field. Every sample will be assigned a unique identification number that is entered on the COC Record.
- The record will be completed in the field to indicate project, sampling team, etc.
- If the person collecting the sample does not transport the samples to the laboratory or deliver the sample containers for shipment, the first block for Relinquished By _____, Received By _____ will be completed in the field.

- The person transporting the samples to the laboratory or delivering them for shipment will sign the record form as Relinquished By _____.
- If commercial carrier ships the samples to the laboratory, the original COC record will be sealed in a watertight container and placed in the shipping container, which will be sealed prior to being given to the carrier. The carbonless copy of the COC record will be maintained in the field file.
- If the samples are directly transported to the laboratory, the COC will be kept in possession of the person delivering the samples.
- For samples shipped by commercial carrier, the waybill will serve as an extension of the COC record between the final field custodian and the laboratory.
- Upon receipt in the laboratory, the Sample Custodian or designated representative, will open the shipping containers, compare the contents with the COC record, and sign and date the record. Any discrepancies will be noted on the COC record.
- If discrepancies occur, the samples in question will be segregated from normal sample storage and the field personnel immediately notified.
- COC records will be maintained with the records for a specific project, becoming part of the data package.

Custody Transfer to Laboratory - All samples collected during the Work Plan will be submitted to a NYSDOH ELAP-certified laboratory meeting specifications for documentation, sample login, internal chain of custody procedures, sample/analysis tracking, data reduction and reporting. The laboratory will follow all specifications pertaining to laboratory sample custody procedures contained in the NYSDEC ASP (revised 2000).

In general, the following procedures will be followed upon sample receipt. The laboratory will not accept samples collected by project personnel for analysis without a correctly prepared COC record.

The first steps in the laboratory receipt of samples are completing the COC records and project sample login form. The laboratory Sample Custodian, or designee, will note that the shipment is accepted and notify the Laboratory Manager or the designated representative of the incoming samples.

Upon sample receipt, the laboratory Sample Custodian, or designee, will:

- Examine all samples and determine if samples have been compromised during shipment. If samples have been damaged during shipment, the remaining samples will be carefully examined to determine whether they were affected. Any samples affected will also be considered damaged. It will be noted on the COC record that specific samples were damaged and that the samples were removed from the sampling program. Field personnel will be notified as soon as possible that samples were damaged and that

they must be resampled, or the testing program changed, and provide an explanation of the cause of damage.

- Compare samples received against those listed on the COC record.
- Verify that sample holding times have not been exceeded.
- Sign and date the COC record and attach the waybill to the COC record.
- Denote the samples in the laboratory sample log-in book which contains the following information:
  - Project identification number
  - Sample numbers
  - Type of samples
  - Date received in laboratory
  - Record of the verified time of sample receipt (VTSR)
  - Date put into storage after analysis is completed
  - Date of disposal.

The last two items will be added to the log when the action is taken.

- Notify the Laboratory Manager of sample arrival.
- Place the completed COC records in the project file.

The VTSR is the time of sample receipt at the laboratory. The date and time the Sample Custodian or designee logs in the samples will agree with the date and time recorded by the person relinquishing the samples.

2.4 *Sampling Packaging and Shipping*

Sample canisters will either be delivered/picked up at the site daily by the analytical laboratory, or delivered/shipped via overnight courier. Once the samples have been collected, proper procedures for packaging and shipping will be followed as described below.

Packaging

Prior to shipment, samples must be packaged in accordance with current United States Department of Transportation (USDOT) regulations. All necessary government and commercial carrier shipping papers must be filled out. The procedure below should be followed regardless of transport method:

- Air samples will be transported in their original cardboard packing, if applicable, or similar materials.
- Remove previously used labels, tape and postage from cooler.
- Affix a return address label to the package.
- Check that all Summa canister labels are complete.
- Be sure COC forms are complete.
- Wrap Summa canister in bubble pack, or other suitable materials, and place in cooler.
- Separate and retain the sampler's copy of COC and keep with field notes.
- Tape paperwork (COC, manifest, return address) in zipper bag to the inside of sample package.
- Close package and apply signed and dated custody seal in such a way that the seal must be broken to open cooler.
- Securely close package with packing or duct tape.

Shipping

Samples should arrive at the laboratory as soon as possible following sample collection to ensure that holding times are not exceeded. All samples must be hand delivered on the same day as sampling or sent via overnight courier. When using a commercial carrier, follow the steps below.

- Securely package samples and complete paperwork.
- Weigh package for air transport.
- Complete air bill for commercial carrier (air bills can be partially completed in office prior to sampling to avoid omissions in field). If necessary, insure packages.
- Keep customer copy of air bill with field notes and COC form.
- When packages have been released to transporter, call receiving laboratory and give information regarding samplers' names, method of arrival.
- Call the lab on day following shipment to be sure all samples arrived intact. If samples have been compromised, locations can be determined from COC and resampled.

2.4 *Analytical Laboratory*

The data collected during the course of the Work Plan will be used to determine the presence and concentration of certain analytes in soil vapor.

All samples collected during the Work Plan will be submitted to Air Toxics LTD (ATL) located at 180-B Blue Ravine Road Folsom, CA 95630. ATL is a NYSDOH ELAP-

certified laboratory (Lab I.D. # 11291) approved to analyze air samples and meeting specifications for documentation, data reduction and reporting.

3.0 *Data Management and Reporting Plan*

3.1 *Data Use and Management Objectives*

Data Use Objectives

The typical data use objectives for this Work Plan are:

- Ascertaining if there is a threat to public health or the environment.
- Locating and identifying potential sources of impacts to soil and ambient and indoor air.
- Formulating further investigation measures, if necessary.

Tables

TABLE 1
DEFINITIONS OF DATA QUALITY PARAMETERS

- **Precision** - a measure of the reproducibility of measurements under a given set of conditions.
- **Accuracy** - a measure of the bias that exists in a measurement system.
- **Representativeness** - the degree to which sample data accurately and precisely represent selected characteristics.
- **Completeness** - a measure of the amount of the valid data obtained from the measurement system compared to the amount that is required.
- **Comparability** - a measure of confidence with which one data set can be compared with another.

TABLE 2
QUALITY CONTROL (QC) CHECK SUMMARY

[illegible]	[illegible]
Blind Field Duplicate (DUP)	1 per method per parameter per 20 samples
Laboratory Control Sample (LCS) or Blank Spike Sample (BS)	1 per analytical batch not to exceed 20 samples
Surrogate Compound Spike	Every analytical run (organics only)
Method (Preparation) Blank (MB)	1 per 20 samples or prep/analysis batch per SDG
Initial Calibration Blank (ICB)	1 per analytical run immediately following the ICV (inorganics only)

TABLE 3
SAMPLE TOTAL SUMMARY

TO-15 Volatile Organic Compounds (VOCs) Modified Compound List[2]	Soil Gas	3	1

Notes:

1. Duplicates are generally collected at a minimum frequency of five percent (1 per 20 field samples). More frequent collection may be warranted based on field conditions/observations and/or at the discretion of the Field Team Leader. In this instance at least 1 duplicate will be collected for every 20 samples per method (i.e. indoor air, outdoor air and soil vapor).
2. The target analyte list is included in table in Table 5

TABLE 4
SUMMARY OF SAMPLE NUMBER AND DEPTH

[redacted]	[redacted]
SV-09	4.5-5.0
	14.5-15.0
	24.5-25.0

In the case of QC samples such as blind field duplicate samples, six digits will follow DUP to represent the date (e.g., DUP080107 would represent a duplicate collected on 1 August 2007).

TABLE 5
DETAILED SUMMARY OF AIR SAMPLING PROGRAM
SAMPLE TOTALS, ANALYTICAL METHODS, PRESERVATIVES, HOLDING TIMES AND CONTAINERS

Analytical Parameters	***Number of Samples*** [1]	***Analytical Method Reference***	***Sample Preservation***	***Holding Time*** [2]	***Container*** [3]
VOCs	3+1	USEPA TO-15 [4]	Cool, 4°C	14 days	6-liter Summa cannister

Notes:

1. Total analytical samples + QA/QC samples (Blind Field Duplicate).
2. Holding times are days after collection until analysis.
3. As specified by Air Toxics LTD, Folsom, California.
4. All samples will be analyzed via Method TO-15.

TABLE 6
AIR
TARGET COMPOUND LIST (TCL) AND QUANTITATION LIMITS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Acetone (2-propanone)	67-64-1	58.08	5.0	12
Benzene	71-43-2	78.11	0.20	0.64
Bromodichloromethane	75-27-4	163.83	0.20	1.3
Bromoethene	593-60-2	106.96	0.20	0.87
Bromoform	75-25-2	252.75	0.20	2.1
Bromomethane (Methyl bromide)	74-83-9	94.95	0.20	0.78
1,3-Butadiene	106-99-0	60.14	0.20	0.49
2-Butanone (Methyl ethyl ketone)	78-93-3	72.11	0.50	1.5
Carbon disulfide	75-15-0	76.14	0.50	1.6
Carbon tetrachloride	56-23-5	153.84	0.20	1.3
Chlorobenzene	108-90-7	112.56	0.20	0.92
Chloroethane	75-00-3	64.52	0.20	0.53
Chloroform	67-66-3	119.39	0.20	0.98
Chloromethane (Methyl chloride)	74-87-3	50.49	0.20	0.41
3-Chloropropene (allyl chloride)	107-05-1	76.53	0.20	0.63
2-Chlorotoluene (o-Chlorotoluene)	95-49-8	126.59	0.20	1.04
Cyclohexane	110-82-7	84.16	0.20	0.69
Dibromochloromethane	124-48-1	242.74	0.20	2.0
1,2-Dibromoethane	106-93-4	187.88	0.20	1.5
1,2-Dichlorobenzene	95-50-1	147.01	0.20	1.2
1,3-Dichlorobenzene	541-73-1	147.01	0.20	1.2
1,4-Dichlorobenzene	106-46-7	147.01	0.20	1.2
Dichlorodifluoromethane (Freon 12)	75-71-8	120.92	0.20	0.99
1,1-Dichloroethane	75-34-3	98.97	0.20	0.81
1,2-Dichloroethane	107-06-2	98.96	0.20	0.81
1,1-Dichloroethene	75-35-4	96.95	0.20	0.79
cis-1,2-Dichloroethene	156-59-2	96.95	0.20	0.79
trans-1,2-Dichloroethene	156-60-5	96.95	0.20	0.79
1,2-Dichloropropane	78-87-5	112.99	0.20	0.92
cis-1,3-Dichloropropene	10061-01-5	110.98	0.20	0.91
trans-1,3-Dichloropropene	10061-02-6	110.98	0.20	0.91
1,2-Dichlorotetrafluoroethane (Freon 114)	76-14-2	170.93	0.20	1.4
Ethylbenzene	100-41-4	106.16	0.20	0.87
4-Ethyltoluene (p-Ethyltoluene)	622-96-8	120.2	0.20	0.98
n-Heptane	142-82-5	101.2	0.20	0.83
Hexachlorobutadiene	87-68-3	260.76	0.20	2.1

TABLE 6(continued)
AIR
TARGET COMPOUND LIST (TCL) AND QUANTITATION LIMITS

n-Hexane	110-54-3	86.18	0.20	0.70
Methylene chloride	75-09-2	84.94	0.50	1.7
4-Methyl-2-pentanone (MIBK)	108-10-1	100.16	0.50	2.05
MTBE (Methyl tert-butyl ether)	1634-04-4	88.15	0.50	1.8
Styrene	100-42-5	104.14	0.20	0.85
Tertiary butyl alcohol (TBA)	75-65-0	74.12	5.0	15
1,1,2,2-Tetrachloroethane	79-34-5	167.86	0.20	1.4
Tetrachloroethene	127-18-4	165.85	0.20	1.4
Toluene	108-88-3	92.13	0.20	0.75
1,2,4-Trichlorobenzene	120-82-1	181.46	0.50	3.7
1,1,1-Trichloroethane	71-55-6	133.42	0.20	1.1
1,1,2-Trichloroethane	79-00-5	133.42	0.20	1.1
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	187.38	0.20	1.5
Trichloroethene	79-01-6	131.4	0.20	1.07
Trichlorofluoromethane (Freon 11)	75-69-4	137.38	0.20	1.1
1,2,4-Trimethylbenzene	95-63-6	120.19	0.20	0.98
1,3,5-Trimethylbenzene	108-67-8	120.19	0.20	0.98
2,2,4-Trimethylpentane	540-84-1	132.38	0.20	1.08
Vinyl chloride	75-01-4	62.5	0.20	0.51
m+p-Xylene	179601-23-1	106.16	0.20	0.87
o-Xylene	95-47-6	106.16	0.20	0.87
1,2-Dichloroethene (total)	540-59-0	96.95	0.20	0.79
1,4-Dioxane	123-91-1	88.11	5.0	18
Isopropyl Alcohol	67-63-0	61.09	5.0	12.5
Methyl Butyl Ketone	591-78-6	100.16	0.50	2.05
Methyl methacrylate	80-62-6	100.1	0.50	2.05
Naphthalene	91-20-3	142.2	0.50	2.9
Tetrahydrofuran	109-99-9	72.11	5.0	15

Notes:
1. Chemical Abstracts Service (CAS) Registry Number.

TABLE 7
AIR
ANALYTICAL LABORATORY DATA QUALITY OBJECTIVES (DQOs)
FOR PRECISION AND ACCURACY

QC Compounds	Surrogate Compound Accuracy (% Rec.)[2]	Blind Field Duplicate Precision (RPD)	Method Blanks	MS/MSD Accuracy (% Rec.)[2]	MS/MSD Precision (RPD)[2]
All compounds	NA [1]	< 50	≤ RL	70 – 130	30

Notes:
1. Air samples are not spiked with surrogates and an MS/MSD is not performed.
2. In-house QC limits established by selected laboratory.

QC = Quality Control
% Rec. = Percent Recovery
RPD = Relative Percent Difference
RL = Reporting Limit
MS = Matrix Spike
MSD = Matrix Spike Duplicate

RL = Reporting Limit

FIGURES

FIGURE 1
EXAMPLE CHAIN OF CUSTODY

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager _____

Collected by: (Print and Sign) _____

Company _____ Email _____

Address _____ City _____ State ____ Zip _____

Phone _____ Fax _____

Project Info:

P.O. # _____

Project # _____

Project Name _____

Turn Around Time:

❑ Normal

❑ Rush

_____ *specify*

Lab Use Only
Pressurized by: ____
Date: _____
Pressurization Gas:
N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)

Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time	**Notes:**
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time	
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact? Yes No None	Work Order #

Form 1293 rev.11

FIGURE 2
EXAMPLE CUSTODY SEAL