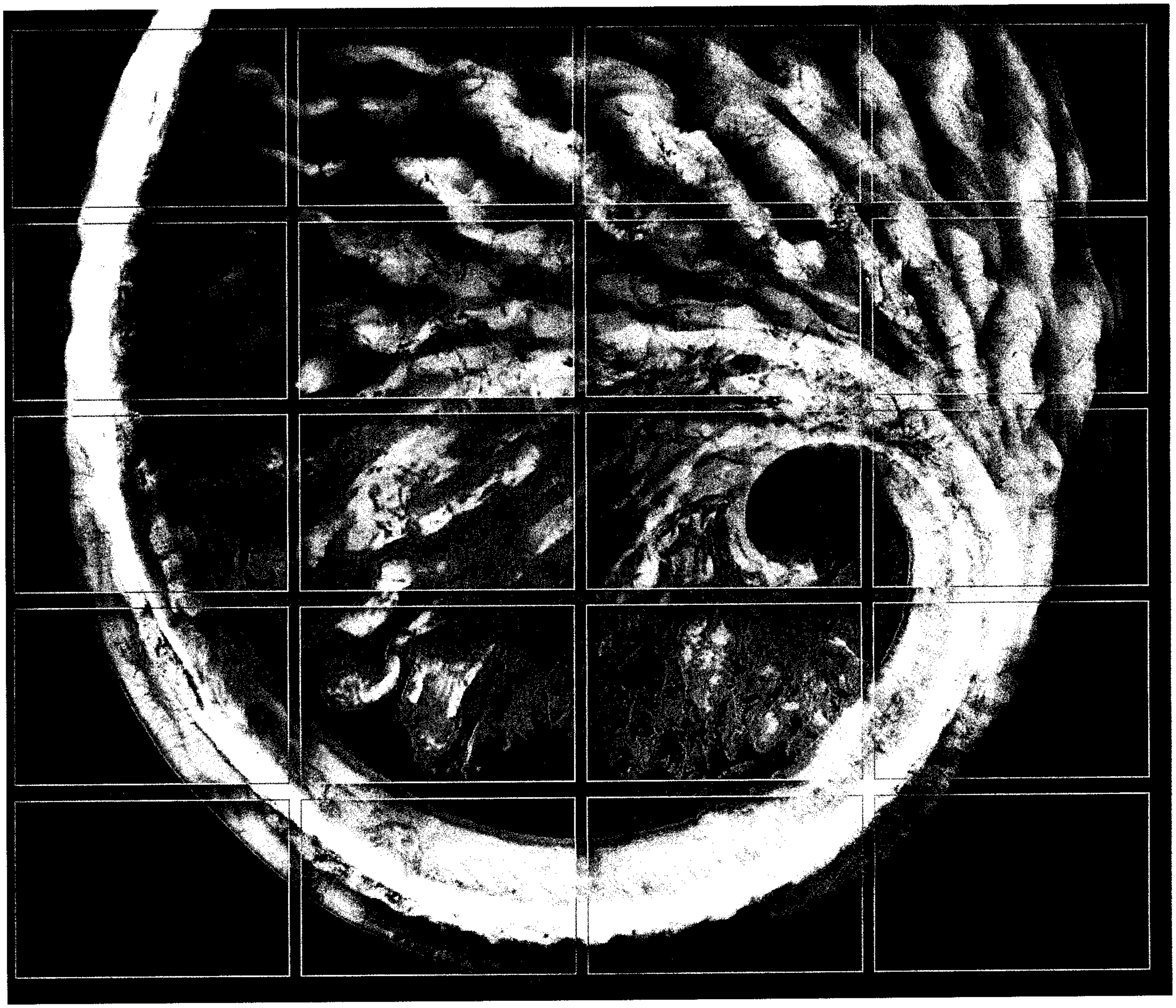

Stewart EFI Facility

Addendum to Voluntary Investigation Work Plan

60 Central Park Avenue
Yonkers, New York

April, 2007

Environmental Resources Management
520 Broad Hollow Road, Suite 210
Melville, New York 11747

ADDENDUM TO VOLUNTARY INVESTIGATION WORK PLAN

60 Central Park Avenue
Yonkers, New York

April, 2007

0052630.3812

Prepared for:

STEWART EFI FACILITY
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1.0 *INTRODUCTION*

The purpose of this document is to provide an Addendum to the "Voluntary Investigation Work Plan" (ERM, February 2006) regarding the Stewart EFI facility located at 630 Central Park Avenue in Yonkers, NY (the Site). The scope of work described in the February 2006 Work Plan has been completed and the results have prompted a request from New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) for additional investigation at the Site.

The scope of work presented in this Addendum is designed to complete full characterization of the Site. It is based on the following:

- ERM's letter to NYSDEC dated 19 December 2006, which provided proposals for additional sampling at the Site.
- NYSDEC responded in a letter dated 22 February 2007. In this letter, NYSDEC indicated that further work over and above that presented in ERM's letter of 19 December 2006 would be required.
- A conference call between Stewart, ERM, NYSDEC and NYSDOH took place on 23 March 2007. On this call, the scope of work necessary to complete the Site characterization was discussed and clarified.

The additional scope of work presented in this Addendum includes the following:

- Nine additional soil vapor points around the Stewart EFI facility perimeter;
- Three sub-slab vapor points inside the Stewart EFI facility; and
- Seven soil borings installed through the building slab inside the Stewart EFI facility.

Once these tasks have been completed, the Voluntary Investigation will be completed if it is determined by the NYSDEC that no further data collection is necessary.

The performance of all work described in this Addendum will be governed by the Voluntary Investigation Agreement (Index No. W3-1005-04-06) executed by Stewart EFI New York, LLC and NYSDEC.

2.0 SCOPE OF WORK

The Voluntary Investigation Work Plan Addendum, presented herein, includes the tasks described in detail below.

2.1 SOIL VAPOR SAMPLING

A total of nine soil vapor points will be installed around the perimeter of the Stewart EFI facility at the locations indicated below:

- Three points located in the alleys on the eastern end of the plant building;
- Two points along Kettel Avenue;
- One point between the residential dwelling on the Stewart property and the plant building; and
- Three points along Whittier Avenue.

Sample locations are presented in Figure 2-1. A helium tracer test will be performed at each location to ensure the boreholes are properly sealed and no ambient air is being drawn into the sampling containers. All samples will be collected using a Summa Canister equipped with an airflow controller set for a 2-hour sampling period. Detailed soil vapor sampling procedures are provided in the Standard Operating Procedures (SOPs) in Appendix A. All samples will be analyzed for VOCs using USEPA Method TO-15.

2.2 SUB-SLAB SOIL VAPOR SAMPLING

Three sub-slab samples will be collected from inside the Stewart EFI facility at the locations indicated below:

- one sample in the vicinity of Warehouse D;
- one sample in the South Press Room; and
- one sample in the Multi-Slide Room.

Approximate sample locations are presented in Figure 2-1; due to the presence of large machinery throughout the building the exact locations of the sub-slab samples will be determined in the field. All samples will be collected using a Summa Canister equipped with an airflow controller set for a 2-hour sampling period. Detailed soil gas sampling procedures are located in the SOPs in Appendix A. Samples will be analyzed for VOCs using USEPA Method TO-15.

2.3 *SUB-SLAB SOIL SAMPLING*

Seven soil borings will be collected from below the building slab inside the Stewart EFI facility at the locations indicated below:

- two borings in the vicinity of soil gas location SV-01;
- one boring in the vicinity of Warehouse D;
- one boring in the South Press Room;
- one boring in the Multi-Slide Room;
- one boring in the vicinity of SV-02; and
- one boring in the vicinity of SV-04. This boring will be installed at the low point in the former degreaser sump.

Approximate sample locations are presented in Figure 2-1; due to the presence of large machinery throughout the building the exact locations of the sub-slab soil samples will be determined in the field. A core drill will be used to penetrate the building slab. In order to minimize potential sample volatilization associated with hand augering, a mobile Geoprobe rig will advance a core sampler two feet into the underlying soil to collect the sample. Up to two samples will be collected at each location depending on the volume of soil recovered in the core. Detailed soil boring and sampling procedures are located in the SOPs in Appendix A. All samples will be analyzed for Volatile Organic Compounds (VOCs) using USEPA method 8260B.

3.0 SCHEDULING AND REPORTING

Stewart can commence the additional sampling proposed above within two weeks of NYSDEC approval. The results will be provided to NYSDEC upon receipt. Full evaluation and presentation of the results will be provided in the Voluntary Investigation Report, to be completed at the conclusion of all field activities.

4.0 *QUALITY ASSURANCE PROJECT PLAN (QAPP) UPDATE*

A QAPP was prepared for the original investigation activities and included in the Voluntary Investigation Work Plan dated February 2006. All the quality assurance protocols for the analytical methods proposed in this addendum were discussed in detail in the original QAPP only the sample totals have changed. Updated QAPP tables listing these additional samples are provided in Appendix B.

5.0 HEALTH AND SAFETY PLAN (HASP) UPDATE

There are no additional hazards associated with the scope of work in this Voluntary Investigation Work Plan Addendum Work Plan that were not addressed in the HASP provided as part of the original Voluntary Investigation Work Plan dated February 2006. As such, the original HASP will be adequate for the field activities discussed herein.

FIGURES

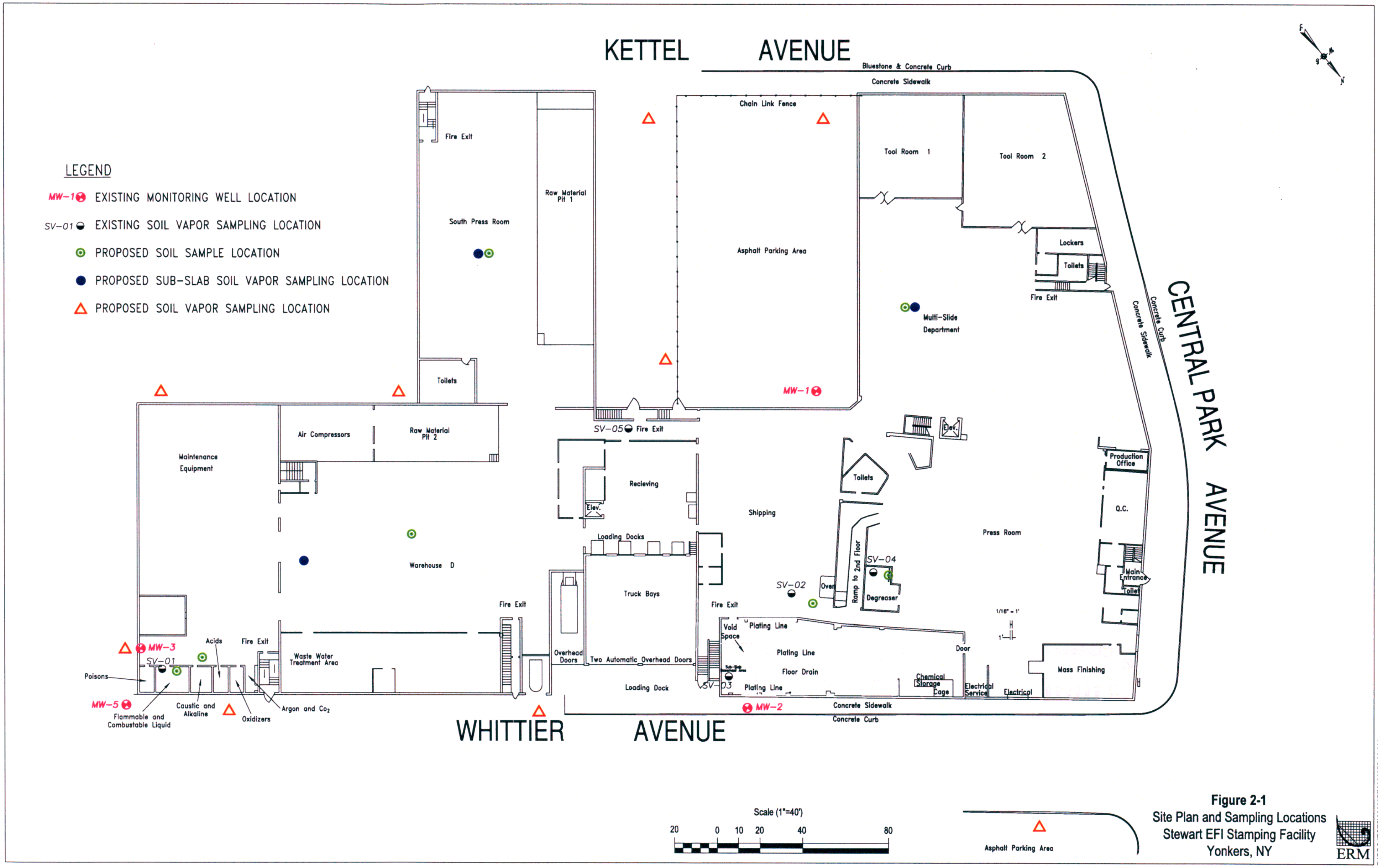

Figure 2-1
Site Plan and Sampling Locations
Stewart EFI Stamping Facility
Yonkers, NY

ERM

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Appendix A

Additional Standard Operating Procedures (SOP's)

STANDARD OPERATING PROCEDURES (SOPs)

1.0 *SOP 1: SOIL VAPOR SAMPLING USING SUMMA® CANISTERS*

Soil vapor samples will be collected from the locations described in the Work Plan Addendum. The soil vapor samples will be collected at each location concurrently with the other sub-slab air samples inside the building. An SOP for sub-slab vapor sampling has already been provided in the original work plan. The soil vapor samples will be collected through a temporary sampling port using SUMMA® canisters equipped with timed sample acquisition regulators. The canisters and regulators will be certified clean by the laboratory prior to onsite use. A NYSDOH ELAP-certified laboratory will analyze each sample for the specified VOCs using United States Environmental Protection Agency (USEPA) Method TO-15. Specific details are presented below.

Temporary Subsurface Probe Installation:

- Insert a 1/2-inch diameter steel rod equipped with a disposable point and screen attached to ¼-inch O.D. Teflon ™ tubing 4 feet into the ground using an electric hammer drill.
- Seal the annular space between the steel rod and the soil or slab by applying melted beeswax or dough between the two.
- Tracer gas (helium) will be utilized when collecting soil vapor samples to verify the integrity of the soil vapor probe seal. The tracer gas will be pumped into a sealed enclosure around the sampling point prior to the initial purging to enrich the atmosphere in the immediate vicinity of the area where the probe intersects the ground surface with the tracer gas. A helium detector will then be utilized to measure a vapor sample from the probe for the presence of high concentrations (> 20%) of the tracer. If a high concentration of helium is not observed it is assumed we have obtained an adequate seal.
- Purge the probe tubing for 1 minute using a photoionization detector (PID) and record the reading. Connect the 1/4 -inch Teflon™ tubing to a SUMMA® canister. For duplicate sample locations connect a second canister before purging by installing a ¼ -inch stainless steel "tee" fitting between the probe discharge tubing and the stainless steel valve.

Preparation of SUMMA® Canister and Collection of Sample:

- Place SUMMA® canister adjacent to temporary or permanent subsurface probe.

- Record SUMMA® canister serial number on sampling summary form and COC.
- Assign sample identification on canister ID tag, and record on sampling summary form and COC.
- Remove brass plug from canister fitting.
- Install pressure gage / metering valve on canister valve fitting and tighten. If pressure gage has additional (2nd) fitting, install brass plug from canister fitting into gage fitting and tighten.
- Open and close canister valve.
- Record gage pressure on sample summary form and COC. Gage pressure must read >25 inches Hg. Replace SUMMA® canister if gage pressure reads <25 inches Hg.
- Remove brass plug from gage fitting and store for later use.
- Install particulate filter onto metering valve input fitting and tighten.
- Connect subsurface probe to end of in-line particular filter via 1/4-inch O.D. Teflon™ tubing, or Teflon™ lined tubing, and "swagelok® -type" fittings.
- Open canister valve and in-line stainless steel valve to initiate sample collection.
- Take digital photograph of SUMMA® canister set up and surrounding area.
- Record date and local time (24-hour basis) of valve opening on sampling summary form and COC.

Termination of Sample Collection

- Revisit SUMMA® canister at the end of each sampling day and approximately after 80% of sample collection time has elapsed to verify sufficient amount of vacuum pressure remains for sample collection and shipment. If vacuum pressure no longer exists, or if vacuum pressure is <5 inches Hg, close the canister valve and document conditions. At end of sample collection record gage pressure on sampling form and COC.
- Record date and local time (24-hour basis) of valve closing on sampling summary form and COC.
- Close canister valve.
- Disconnect Teflon™ tubing and remove particulate filter and pressure gage / metering valve from canister.
- Reinstall brass plug on canister fitting and tighten.
- Remove SUMMA® canister from sample collection area.

- Remove temporary subsurface probe and plug the slab probe hole with concrete.

Preparation and Shipment of Sample to Analytical Laboratory:

- Pack SUMMA® canister in shipping container, note presence of brass plug installed in tank fitting.
- Complete COC and place requisite copies in shipping container.
- Close shipping container and affix custody seal to container closure. Zone A-1: Air sample obtained from crawl space or basement without an apparent vapor barrier.

2.0 *SOP 2: SUB-SLAB SOIL GAS SAMPLING USING SUMMA CANISTERS*

The soil gas samples will be collected at the locations specified in the Work Plan using SUMMA® canisters equipped with timed sample acquisition regulators. The canisters and regulators will be certified clean by the laboratory prior to on-site use. A NYSDOH ELAP-certified laboratory will analyze each sample for VOCs using USEPA Method TO-15.

Selection And Preparation Of Sample Collection Point

Observe the condition of the building floor slab for apparent penetrations such as concrete floor cracks, floor drains, or sump holes. Note the floor conditions on the sampling form and select a potential location or locations for a temporary or permanent subsurface probe. The location or locations should be away from foundation walls and apparent penetrations.

Review the proposed location or locations with the occupant/owner describing how the sampling port or ports will be installed. After receiving permission from the occupant or owner, mark the proposed location(s) and describe the location(s) on the sampling form.

Using the PID, screen indoor air in the area of floor penetrations such as concrete floor cracks, floor drains, or sump holes (note that the detection limits for the laboratory analyses to be performed on the samples collected are considerably lower than the detection limits of the PID). Record the indoor air PID readings on the sampling form.

Temporary Subsurface Probe Installation

1. Drill a 1-inch diameter hole about 1 to 2 inches into the concrete slab using an electric hammer drill.

2. Extend the hole through the remaining thickness of the slab using a 3/8-inch drill bit. Extend the hole about three inches into the sub-slab material using either the drill bit or a steel probe rod.

3. Insert a section of ¼ -inch O.D. Teflon ™ or brass tubing to the bottom of the floor slab. Seal the annular space between the 1-inch hole and ¼ -inch tubing by applying hot beeswax into the 1-inch hole.

4. Connect the ¼ -inch Teflon™ tubing (or brass tubing using a length of ¼-inch I.D. Teflon™ tubing) to a stainless steel valve using compression fittings or hose clamps. Open the in-line valve and purge the probe tubing using a polyethylene 60-cubic centimeter (cc) syringe. Close the valve, remove and cap the syringe, and connect the ¼ -inch

Teflon™ tubing and in-line valve to a SUMMA® canister. DO NOT DISCHARGE THE AIR/SOIL GAS SYRINGE INTO INDOOR AIR. For duplicate sample locations connect a second canister before purging by installing a ¼ -inch stainless steel "tee" fitting between the probe discharge tubing and the stainless steel valve.

Preparation Of SUMMA® Canister And Collection Of Sample

1. Place SUMMA® canister adjacent to temporary subsurface probe.
2. Record SUMMA® canister serial number on sampling summary form and COC.
3. Assign sample identification on canister ID tag, and record on sampling summary form and COC.
4. Remove brass plug from canister fitting.
5. Install pressure gauge / metering valve on canister valve fitting and tighten. If pressure gage has additional (2nd) fitting, install brass plug from canister fitting into gage fitting and tighten.
6. Open and close canister valve.
7. Record gage pressure on sample summary form and COC. Gage pressure must read >25 psi. Replace SUMMA® canister if gage pressure reads <25 psi.
8. Remove brass plug from gauge fitting and store for later use.
9. Install particulate filter onto metering valve input fitting and tighten.
10. Connect subsurface probe to end of in-line particular filter via ¼ -inch O.D. Teflon™ tubing and Swagelok® fittings.
11. Open canister valve and in-line stainless steel valve to initiate sample collection.
12. Take digital photograph of SUMMA® canister set up and surrounding area.
13. Record date and local time of valve opening on sampling summary form and COC.

Termination Of Sample Collection

1. Revisit SUMMA® canister after 80% of sample collection time has elapsed to verify sufficient amount of vacuum pressure remains for sample collection and shipment. At end of sample collection period (e.g., 2 hours after initiation of sample collection) record gauge

pressure on sampling form and COC.

2. Record date and local time of valve closing on sampling summary form and COC.

3. Close canister valve.

4. Disconnect Teflon™ tubing and remove particulate filter and pressure gage / metering valve from canister.

5. Reinstall brass plug on canister fitting and tighten.

6. Remove SUMMA® canister from sample collection area.

7. Remove temporary subsurface probe and plug the slab probe hole with solid laboratory grade rubber plug. Set plug slightly below the finished floor level cover flush with the floor surface using quick drying hydraulic cement.

Preparation And Shipment Of Sample To Analytical Laboratory

1. Pack SUMMA® canister in shipping container, note presence of brass plug installed in tank fitting.

2. Complete COC and place requisite copies in shipping container.

3. Close shipping container and affix custody seal to container closure.

3.0 *SOP 3: SOIL BORING INSTALLATIONS*

Soil borings with collection of soil samples for lithologic characterization and laboratory analysis will be installed to characterize on-site soil quality.
A NYSDOH ELAP-certified laboratory will analyze the soil samples using the methods specified in the Work Plan.

Drilling Methods

All boreholes for soil sampling will be advanced by direct push technologies.

Drilling Equipment Decontamination

All downhole drilling equipment shall be decontaminated prior to performance of the first boring installation and between all subsequent borings installations. This shall include all hand tools, casing, drill rods and bits, and other related tools and equipment. The equipment shall be cleaned to the satisfaction of the ERM's Hydrogeologist.

Soil Sample Collection for Lithology

All soil sampling shall be performed using a properly decontaminated Geoprobe core sampler. An ERM Hydrogeologist will examine and describe the lithology immediately upon collection. The sample will also be screened for VOCs using a hand-held photoionization detector (PID) total organic vapor analyzer. This information will be recorded in the project field book.

A standard "Geologic Log" will be maintained for each boring that will include all of the geological information gathered in the field, including the following:

- The structure of the soils sampled, including layering stratification features, and the dominant soil types;
- The color of soils, using Munsell Soil Color Charts;
- The moisture content of soils;
- Soil grain features, including grain sizes, degree of sorting or grading, angularity, and mineralogy. The soils will be classified using the ASTM Method D2488-84, a visual manual procedure;

- Identification of any rock fragments, organic material or other components; and

- The consistency of clay-dominated soils.

All of the soil information collected will be recorded as a designation under the USCS along with additional observations for each distinctive soil type within each sample. The ERM Hydrogeologist shall record recovery and sample description for each core sample in soil boring logs.

Soil Sample Collection for Laboratory Analysis

Soil samples will be collected for laboratory analysis as specified in the Work Plan.

It is anticipated that direct push technologies will be used with either a Macro Core (MC) sampler or a Large Bore (LB) drive point sampler. The MC samplers are an open tube design and measure approximately 2" in diameter by 46" long. The samplers will be fitted with a removable cutting shoe and clear acetate liner. Samples will be collected from the prescribed depths below land surface.

If probe hole "cave-in" is significant, it may be necessary switch to the LB drive point sampler. The LB samplers use twenty-two inch by one-inch acetate liners and can be driven closed to a desired sampling depth, then opened and driven two feet further.

Each of samplers will be fitted with a new acetate liner prior to use. The acetate liner assists in the removal of the soil sample from the tube and helps insure sample integrity.

Work Site Restoration

Upon completion of the work, the drilling subcontractor shall restore all work areas/drilling locations to a pre-drilling condition. The drilling subcontractor shall remove and dispose of all debris, remove all equipment and materials from the each work site promptly and leave the location in a neat and orderly fashion to the satisfaction of ERM's Hydrogeologist. The restoration shall include repair of any holes, trenches, tire ruts, damage to pavement, etc. caused by the movement or operation of the drilling subcontractor's equipment.

4.0 SOP 4: EQUIPMENT DECONTAMINATION

In order to minimize the potential for cross-contamination, non-dedicated drilling and sampling equipment shall be properly decontaminated prior to and after each use.

General Procedures

Heavy equipment will be decontaminated in a designated area. Sampling equipment and probes will be decontaminated in an area covered by plastic near the sampling location. Disposable sampling equipment will be properly disposed of in dry containers.

Acetate liners shall either be delivered to the Site, pre-cleaned and sealed in plastic, or be steam cleaned on-Site, wrapped in clean polyethylene sheeting and stored until used.

Extraneous contamination and cross-contamination shall be controlled by wrapping the sampling equipment with aluminum foil when not in use and changing and disposing of the sampler's gloves between samples.

Decontamination of sampling equipment shall be kept to a minimum in the field, and wherever possible, dedicated sampling equipment shall be used. Personnel directly involved in equipment decontamination shall wear appropriate protective equipment.

Non-Aqueous Sampling Equipment (trowels, knives, split-spoons, bowls, etc.)

All non-aqueous sampling equipment will be decontaminated before each use as follows:

- Laboratory-grade glassware detergent and tap water scrub to remove visual contamination;
- Generous tap water rinse; and
- Distilled water rinse
- Air Dry.

Appendix B

Quality Assurance Project Plan (QAPP) Updated Tables

TABLE 4-1
SAMPLE TOTAL SUMMARY

Activity	Analytical Parameters	Matrix	Number of Samples	Blind field Duplicates [1]	MS/MSD Pairs [2]	Field Blanks [3]	Trip Blanks [4]	Sample Totals
AOC 1 Soil Sampling	TAL Metals - USEPA SW-846 Methods 6010B & 7471A	Soil	8 [5]	1	1	1	0	12
	Total Cyanide - USEPA SW-846 Method 9012B	Soil	8 [5]	1	1	1	0	12
AOC 2 Soil Gas Sampling	TO-15A (Summa Canisters)	Air	6	1	0	0	0	7
AOC 4 Groundwater Sampling	Volatile Organic Compounds - USEPA Method 624	Aqueous	5	1	1	2	2	12
	Polyaromatic Hydrocarbons - USEPA Method 625	Aqueous	5	1	1	2	0	10
	TAL Metals – USEPA Methods 200.7 & 245.1	Aqueous	5	1	1	2	0	10
	Total Cyanide – USEPA Method 335.2	Aqueous	5	1	1	2	0	10
	Weak and Dissociable Cyanide - SM 18th Method 4500-CN I.	Aqueous	5	1	1	2	0	10
Additional Investigation [6]	Volatile Organic Compounds - USEPA SW-846 Method 8260B	Soil	14 [7]	1	1	3	3	23
	TO-15A (Summa Canisters)	Air	12	0	0	0	0	12

TABLE 4-1 (continued)
SAMPLE TOTAL SUMMARY

<u>Notes:</u>

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.
2. MS/MSD Pairs (two samples) will be 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. No MS/MSD will be collected for air samples.
3. Field Blanks will be collected at a minimum frequency of one per day for aqueous samples. More frequent collection may be warranted based on field conditions/observations and/or at the discretion of the Field Team Leader. It is assumed the sampling might take 2 days. No field blank will be collected for air samples.
4. Trip Blanks will be collected at the rate of one per aqueous sample shipment when VOCs are collected. No trip blank will be collected for air samples.
5. The actual number of soil samples collected at each soil boring location will be determined in the field.
6. See the Voluntary Investigation Work Plan Addendum, April, 2007 for additional information.
7. Seven soil borings will be installed. A maximum of two soil samples will be collected at each location depending on the volume of soil recovered.

TABLE 4-2
DETAILED SUMMARY OF SAMPLING PROGRAM
ANALYTICAL METHODS, PRESERVATIVES, HOLDING TIMES AND CONTAINERS

Matrix	Analytical Parameters	Analytical Method Reference	Sample Preservation	Holding Time [1,2]	Container [3,4,5]
Soil	TAL Metals	USEPA SW-846 Methods 6010B & 7471A	Cool, 4°C	180 days (all metals except Mercury) 26 days (Mercury only)	1 – 8 oz glass jar
	Total Cyanide	USEPA SW-846 Method 9012B	Cool, 4°C	14 days	1 – 8 oz glass jar
	TCL VOCs	USEPA SW-846 Method 8260B	Cool, 4°C	10 days	1 – 4 oz glass jar
Air	Volatiles in Air	TO-15A	NA	14 days (method HT is 30 days)	1 – 6 Liter Summa Canister
Aqueous	TCL VOCs	USEPA Method 624	Cool 4°C, pH<2 (HCl)	10 days	3 – 40 ml glass Teflon-lined cap
	PAHs	USEPA Method 625	Cool, 4°C	5 days / 40 days	2 – 1 liter amber glass bottles
	TAL Metals	USEPA Methods 200.7 & 245.1	Cool, 4°C, pH<2 (HNO_3)	180 days (all metals except Mercury) 26 days (Mercury only)	1 - 500 ml poly bottle
	Total Cyanide	USEPA Method 335.2	Cool, 4°C, pH>12 (NaOH)	As Soon As Possible	1 - 500 ml poly bottle
	Weak and Dissociable Cyanide	SM 18th Edition Method 4500-CN I	Cool, 4°C	None Regulated	1 - 500 ml poly bottle

Notes:
1. VOCs and Metals holding times are days from the Validated Time of Sample Receipt (VTSR) until analysis.
2. PAH holding times are days from VTSR until extraction / days from extraction to analysis.
3. As specified by Mitkem, Warwick, RI.
4. Soil TAL Metals and Total Cyanide can be collected into the sample jar.
5. Aqueous Total Cyanide and Weak and Dissociable Cyanide can be collected into the sample jar.

TABLE 4-5
VOLATILE TARGET COMPOUND LIST (TCL) AND REPORTING LIMITS

Target Compound List	*CAS Number*[1]	*Reporting Limits (μg/l)*[2]	*Reporting Limits (μg/kg)*[2,3]
Dichlorodifluoromethane	75-71-8	5	5
Chloromethane	74-87-3	5	5
Vinyl Chloride	75-01-4	5	5
Bromomethane	74-83-9	5	5
Chloroethane	75-00-3	5	5
Trichlorofluoromethane	75-69-4	5	5
1,1-Dichloroethene	75-35-4	5	5
Acetone	67-64-1	5	5
Iodomethane	74-88-4	5	5
Carbon Disulfide	75-15-0	5	5
Methylene Chloride	75-09-2	5	5
trans-1,2-Dichloroethene	156-60-5	5	5
Methyl tert-butyl ether	1634-04-4	5	5
1,1-Dichloroethane	75-34-3	5	5
Vinyl acetate	108-05-4	5	5
2-Butanone	78-93-3	5	5
cis-1,2-Dichloroethene	156-59-2	5	5
2,2-Dichloropropane	594-20-7	5	5
Bromochloromethane	74-97-5	5	5
Chloroform	67-66-3	5	5
1,1,1-Trichloroethane	71-55-6	5	5
1,1-Dichloropropene	563-58-6	5	5
Carbon Tetrachloride	56-23-5	5	5
1,2-Dichloroethane	107-06-2	5	5
Benzene	71-43-2	5	5
Trichloroethene	79-01-6	5	5
1,2-Dichloropropane	78-87-5	5	5
Dibromomethane	74-95-3	5	5
Bromodichloromethane	75-27-4	5	5
cis-1,3-Dichloropropene	10061-01-5	5	5
4-Methyl-2-pentanone	108-10-1	5	5
Toluene	108-88-3	5	5
trans-1,3-Dichloropropene	10061-02-6	5	5
1,1,2-Trichloroethane	79-00-5	5	5
1,3-Dichloropropane	142-28-9	5	5
Tetrachloroethene	127-18-4	5	5

TABLE 4-5 (continued)
VOLATILE TARGET COMPOUND LIST (TCL) AND REPORTING LIMITS

Target Compound List	*CAS Number* [1]	*Reporting Limits (µg/l)* [2]	*Reporting Limits (µg/kg)* [2,3]
2-Hexanone	591-78-6	5	5
Dibromochloromethane	124-48-1	5	5
1,2-Dibromoethane	106-93-4	5	5
Chlorobenzene	108-90-7	5	5
1,1,1,2-Tetrachloroethane	630-20-6	5	5
Ethylbenzene	100-41-4	5	5
Xylene (Total)	1330-20-7	5	5
Styrene	100-42-5	5	5
Bromoform	75-25-2	5	5
Isopropylbenzene	98-82-8	5	5
1,1,2,2-Tetrachloroethane	79-34-5	5	5
Bromobenzene	108-86-1	5	5
1,2,3-Trichloropropane	96-18-4	5	5
n-Propylbenzene	103-65-1	5	5
2-Chlorotoluene	95-49-8	5	5
1,3,5-Trimethylbenzene	108-67-8	5	5
4-Chlorotoluene	106-43-4	5	5
tert-Butylbenzene	98-06-6	5	5
1,2,4-Trimethylbenzene	95-63-6	5	5
sec-Butylbenzene	135-98-8	5	5
4-Isopropyltoluene	99-87-6	5	5
1,3-Dichlorobenzene	541-73-1	5	5
1,4-Dichlorobenzene	106-46-7	5	5
n-Butylbenzene	104-51-8	5	5
1,2-Dichlorobenzene	95-50-1	5	5
1,2-Dibromo-3-chloropropane	96-12-8	5	5
1,2,4-Trichlorobenzene	120-82-1	5	5
Hexachlorobutadiene	87-68-3	5	5
Naphthalene	91-20-3	5	5
1,2,3-Trichlorobenzene	87-61-6	5	5

__Notes:__

1. Chemical Abstracts Service (CAS) Registry Number.
2. As per Mitkem, Warwick, RI. May change during investigation pending NYSDEC approval.
3. Soil reporting limits may vary depending on the percent moisture of each sample.

TABLE 4-10 (continued)
SOIL
ANALYTICAL LABORATORY DATA QUALITY OBJECTIVES (DQOs) FOR PRECISION AND ACCURACY
VOLATILE ANALYSES

Matrix	QC Compounds	Surrogate Accuracy (% Rec.) [1]	Blind Field Duplicate Precision (% RPD)	Method Blanks	MS/MSD Accuracy (% Rec.) [1]	MS/MSD Precision (% RPD) [1]	Blank Spike Accuracy (% Rec.) [1]
Soil	all compounds		< 100	≤ 5 x RL			
	Dichlorodifluoromethane			for	58-131	50	58-131
	Chloromethane			methylene	63-120	50	63-120
	Vinyl Chloride			chloride,	61-134	50	61-134
	Bromomethane			acetone,	10-215	50	10-215
	Chloroethane			2-butanone,	55-146	50	55-146
	Trichlorofluoromethane			toluene	63-126	50	63-126
	1,1-Dichloroethene				67-127	50	67-127
	Acetone			≤ RL	0-154	50	0-154
	Iodomethane			for	20-163	50	20-163
	Carbon Disulfide			other	63-126	50	63-126
	Methylene Chloride			compounds	62-128	50	62-128
	trans-1,2-Dichloroethene				76-120	50	76-120
	Methyl tert-butyl ether				52-130	50	52-130
	1,1-Dichloroethane				74-118	50	74-118
	Vinyl acetate				31-137	50	31-137
	2-Butanone				14-154	50	14-154
	cis-1,2-Dichloroethene				83-115	50	83-115
	2,2-Dichloropropane				64-125	50	64-125
	Bromochloromethane				70-119	50	70-119
	Chloroform				77-120	50	77-120
	1,1,1-Trichloroethane				72-126	50	72-126
	1,1-Dichloropropene				71-132	50	71-132
	Carbon Tetrachloride				69-135	50	69-135
	1,2-Dichloroethane				65-126	50	65-126
	Benzene				78-121	50	78-121
	Trichloroethene				75-125	50	75-125
	1,2-Dichloropropane				78-117	50	78-117
	Dibromomethane				65-125	50	65-125
	Bromodichloromethane				75-118	50	75-118
	cis-1,3-Dichloropropene				78-120	50	78-120
	4-Methyl-2-pentanone				45-141	50	45-141
	Toluene				80-126	50	80-126
	trans-1,3-Dichloropropene				73-123	50	73-123
	1,1,2-Trichloroethane				66-125	50	66-125
	1,3-Dichloropropane				76-119	50	76-119
	Tetrachloroethene				65-134	50	65-134
	2-Hexanone				37-136	50	37-136
	Dibromochloromethane				76-115	50	76-115
	1,2-Dibromoethane				72-117	50	72-117
	Chlorobenzene				78-117	50	78-117

TABLE 4-10 (continued)
SOIL
ANALYTICAL LABORATORY DATA QUALITY OBJECTIVES (DQOs) FOR PRECISION AND ACCURACY
VOLATILE ANALYSES

Matrix	QC Compounds	Surrogate Accuracy (% Rec.) [1]	Blind Field Duplicate Precision (% RPD)	Method Blanks	MS/MSD Accuracy (% Rec.) [1]	MS/MSD Precision (% RPD) [1]	Blank Spike Accuracy (% Rec.) [1]
	1,1,1,2-Tetrachloroethane				80-115	50	80-115
	Ethylbenzene				79-129	50	79-129
	Xylene (Total)				83-125	150	83-125
	Styrene				83-122	50	83-122
	Bromoform				67-126	50	67-126
	Isopropylbenzene				80-135	50	80-135
	1,1,2,2-Tetrachloroethane				70-117	50	70-117
	Bromobenzene				79-119	50	79-119
	1,2,3-Trichloropropane				0-154	50	0-154
	n-Propylbenzene				64-141	50	64-141
	2-Chlorotoluene				70-132	50	70-132
	1,3,5-Trimethylbenzene				72-133	50	72-133
	4-Chlorotoluene				77-122	50	77-122
	tert-Butylbenzene				31-159	50	31-159
	1,2,4-Trimethylbenzene				73-126	50	73-126
	sec-Butylbenzene				68-137	50	68-137
	4-Isopropyltoluene				66-131	50	66-131
	1,3-Dichlorobenzene				75-115	50	75-115
	1,4-Dichlorobenzene				72-110	50	72-110
	n-Butylbenzene				66-130	50	66-130
	1,2-Dichlorobenzene				78-113	50	78-113
	1,2-Dibromo-3-chloropropane				52-128	50	52-128
	1,2,4-Trichlorobenzene				49-126	50	49-126
	Hexachlorobutadiene				58-115	50	58-115
	Naphthalene				45-130	50	45-130
	1,2,3-Trichlorobenzene				44-131	50	44-131
	Dibromofluoromethane	52-130					
	1,2-Dichloroethane-d4	50-126					
	Toluene-d8	25-156					
	Bromofluorobenzene	49-146					

Notes:

1. In-house QC limits established by Mitkem. Subject to change. QC=Quality Control, % Rec.=Percent Recovery, RPD=Relative Percent Difference, MS=Matrix Spike, MSD=Matrix Spike Duplicate, RL=Reporting Limit.