TAMS 50th year

Quality Assurance Project Plan
Addendum No. 1

New York State Superfund Standby Program
Mahopac Business District Wells RD/CM
Task 2 Site Investigation
Work Assignment Number: D002520-16
Site I.D. 3-40-013

Prepared by

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July 10, 1992

1.0 INTRODUCTION

1.3 Project Management and Organization

Make the following change:

Field Team Leader - James Kaczor will be responsible for execution of the field program at the site and for proper implementation of field procedures.

2.0 SITE INVESTIGATION PROCEDURES

2.1 Soil Gas Survey

Make the following changes:

c. Sample Type, Number, and Analyses: Analysis will be conducted at a permanent laboratory using SW-846 method 8021, modified as detailed in Section 4.2.

d. Methodology: Tedlar bags with polypropylene seals will be used in place of glass gas sampling bulbs. A passive vacuum system will be used to inflate the bags.

Make the following changes to the procedure starting at p. 2-3, step 7:

- Remove the parafilm and connect the tubing to the entry port of the passive vacuum device; place the tedlar bag inside and connect to the entry port with the stopcock open; then seal the vacuum device.
- Connect a vacuum pump or personal air sampling pump to the exit port of the vacuum device.
- Turn on the pump, and run at 2 to 3 liters per minute.
- Allow the pump to run until sufficient vacuum is established and the tedlar bag fully inflates.
- Disconnect the tedlar bag, remove from the vacuum device and label the sample.
- Store the sample in an iced, dark cooler and ship to the laboratory on the day of collection by overnight express.
- Analyze the sample within 30 hours of receipt by the laboratory.
- Remove the teflon tubing from the hole and discard.

- Backfill the hole as necessary with clean sand and repair the road surface using cold asphalt patch.

The analytical system for the soil gas survey will consist of a temperature programmable gas chromatograph (GC) suitable for on-column injections. Methods of analysis are described more fully below.

Delete the remainder of Section 2.1.

3.0 SAMPLE HANDLING

3.1 Sample Identification/Labeling

Delete the last paragraph of this section. Due to the change in approach, it is no longer applicable.

3.2 Containers, Preservation, and Holding Times

Add to the second paragraph: Sample containers for soil gas samples will be one-liter tedlar bags with polypropylene seals.

Add to the third paragraph: Soil gas samples will be shipped overnight to the laboratory on the day of collection. The holding time for soil gas samples is 30 hours after receipt by the laboratory.

Delete the fourth (last) paragraph of this Section.

4.0 DATA QUALITY REQUIREMENTS

4.1 Laboratory Analytical Methods

Revise this section as follows:

Analytical methods from the December 1991 revision of the September 1989 NYSDEC Analytical Services Protocol (ASP) Contract Laboratory Program (CLP) will be used to analyze soil and sediment samples collected for the Mahopac Business District Wells RD/CM project. The only analytical fraction for these samples is volatile organics.

Analysis of soil and sediment samples for volatile organic compounds will be by NYSDEC ASP Method 91-1, as specified in the 12/91 revision of the ASP. The target compound list (TCL) and the Contract-Required Quantitation Limits (CRQL) for this method are shown on Table 4-1.

Soil gas samples will also be analyzed at a permanent laboratory for selected chlorinated volatile organic compounds as described in Section 4.2 below.

4.2 Field Analytical Methods

Laboratory analysis of soil gas samples has been substituted for field analysis. Therefore, this Section is retitled and paragraphs one through three are replaced by the following:

4.2 Soil Gas Analytical Methods

Tedlar bags containing soil gas samples will be allowed to stand at room temperature for 30 minutes before subsampling. From each sample, 5 milliliters (ml) of vapor will be withdrawn using a gas-tight syringe. The syringe will then be emptied into a purging vessel. The purging vessel will contain 1 ml of water to which the surrogate and internal standard solution have been added. The remaining procedure will follow SW-846 method 8021.

The gas chromatograph will be calibrated for a limited number of volatile chlorinated aliphatics; specifically, tetrachloroethene (also known as perchloroethene, or PCE), 1,1,1-trichloroethane, trans-1-2dichloroethene, and trichloroethene (TCE). The selection of these target analytes is based on the results of previous remedial investigations at the site. Section 6.2 details the procedures involved in the calibration of the GC system.

Delete the fourth (last) paragraph.

4.3.5 Completeness

Modify the last sentence to read: Since the soil gas survey is a screening tool, no specific completeness goal has been established.

4.4.4 Field Duplicate Samples

Modify the third paragraph to read: For soil gas samples, a total of two field duplicates will be collected (approximately four percent).

4.5 Data Validation

Add the following sentence: For soil gas samples, reporting will consist of surrogate recovery, blank results and sample concentrations. Supporting documentation (e.g., chromatograms, calibration information) will be available at the laboratory.

6.0 EQUIPMENT CALIBRATION AND MAINTENANCE

6.2 Soil Gas Survey Equipment

The following paragraphs supersede any conflicting specifications of this Section.

Sample concentrations will be reported by the laboratory in ug/L (weight/volume) or ul/L (volume/volume). A gaseous calibration curve will not be constructed for this project nor will gaseous continuing calibration standards be analyzed. The initial curve construction and continuing calibrations will be performed using water standards. A gaseous QC sample (prepared using a glass bulb or Tedlar bag) containing the four analytes will be analyzed daily. The purging efficiencies of the water standards may differ from that of the gaseous samples; therefore, the QC results should be used to qualify the sample results.

Four VOCs will be analyzed. These are trans-1,2-dichloroethene (DCE), trichloroethene (TCE), perchloroethene (PCE), and 1,1,1-trichloroethane (TCEA).

Expected limits of quantitation are 5 ug/L (weight/volume). The following formula will be used to convert to ppm (volume/volume):

$$ug/L(v) \times 24.45/MW = ppm\ (v/v)$$

where:

	ug	=	mass of analyte detected in 5 mL of gaseous sample
	L(v)	=	0.005 (for 5 mL of gaseous sample)
	24.45	=	conversion factor derived from PV = nRT
	MW	=	molecular weight of analyte

8.0 DATA REDUCTION, VALIDATION, AND REPORTING

8.1 Laboratory Data

Add the following to this Section: For soil gas samples, reporting will consist of surrogate recovery, blank results and sample concentrations. Supporting documentation (e.g., chromatograms, calibration information) will be available at the laboratory.

8.4 Soil Gas Field Analytical Gas Chromatography Documentation

Delete this Section.

C. V.

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010

Thomas C. Jorling
Commissioner

July 21, 1992

Mr. Vincent L. Soukup, P.E.
Town Engineer, Town of Carmel
Town Hall
McAlpin Avenue
Mahopac, NY 10541

Re: Mahopac Site ID No. 340013
Water Main Extension

Dear Mr. Soukup:

I have reviewed the Final Draft Contract Documents for the water main extension and offer the following preliminary comments:

1. The final plans and specifications must be stamped and signed by a Professional Engineer licensed in the State of New York.

2. Soil boring logs and other subsurface information should be referenced and made available to all bidders.

3. Page SC-1 is missing from the Special Condition Section.

4. The specifications should outline procedures for change orders; and charges for delays or liquidated damages.

5. The Information to Bidders Section should describe existing site conditions.

6. The responsibility for measurement of quantities should be clearly stated in the specifications.

7. Dust control should be addressed.

Before making final comments on the package, the following information is needed:

A. An engineers pre-bid estimate, that is dated, stamped and signed by the engineer.

B. The information requested in my May 26, 1992 letter to you.

If you would like to discuss these comments or if you have any other questions, do not hesitate to call me at (518) 457-1708.

Sincerely,

John L. Henkes, P.E.
Bureau of Eastern Remedial Action
Div. of Hazardous Waste Remediation

bcc: C. Vasudevan
S. Ervolina
A. Klauss, Region 3
R. Pergadia, Region 3
R. Knizek