Work plan. erp 00167. 2003-04-00.
RA work plan

MALCOLM PIRNIE

# REMEDIAL ACTION WORK PLAN

## Former Gillette Properties
## City of Schenectady, New York
## Site Number B-00167-4

**Schenectady County**
**Schenectady, New York**

Prepared by:

**Malcolm Pirnie, Inc.**
15 Cornell Road
Latham, New York 12110



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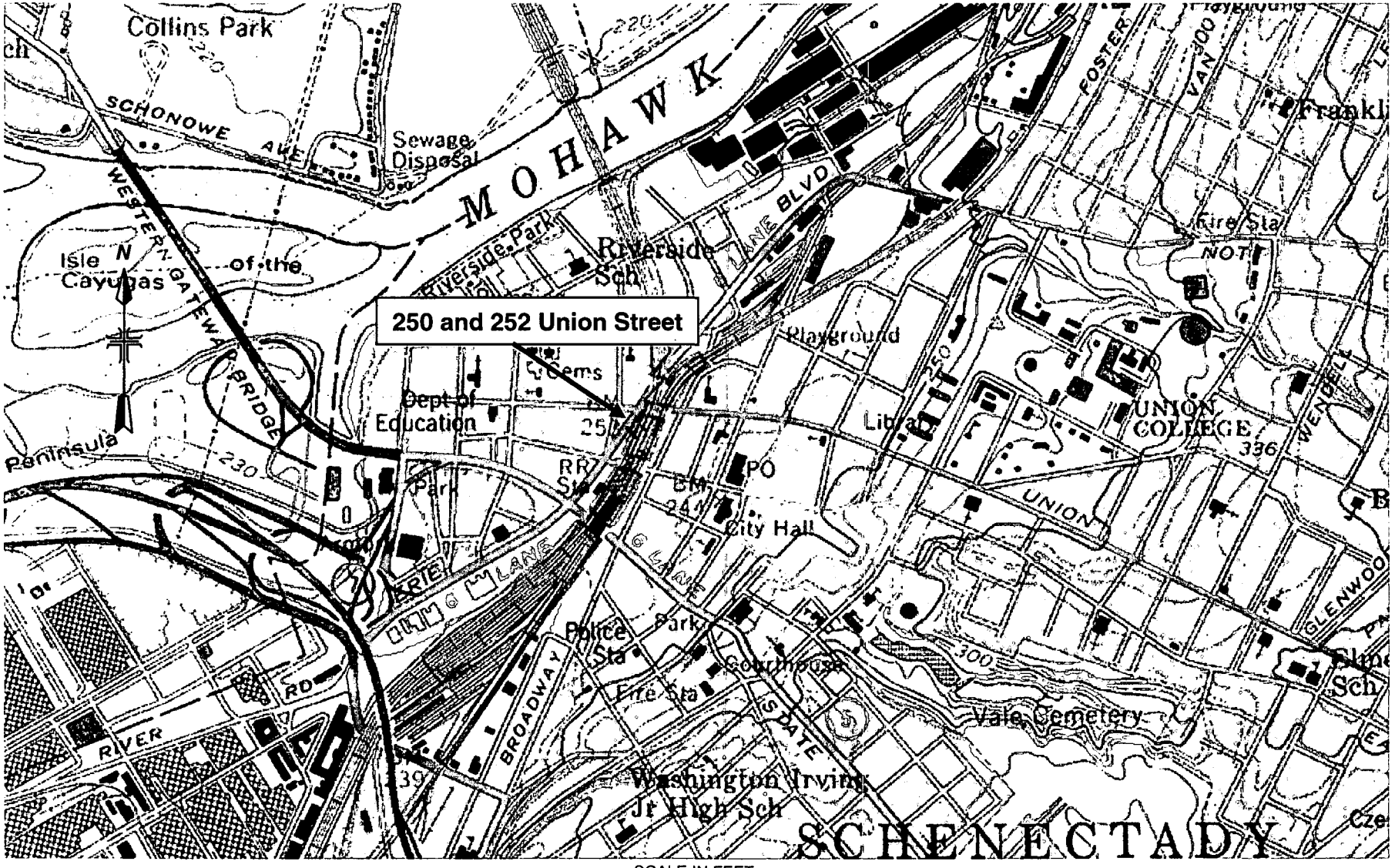
# 1.0 INTRODUCTION

Schenectady County, New York, with funding from the 1996 New York State Clean Air/Clean Water Bond Act, is planning to conduct a remedial action at the Former Gillette Properties in the City of Schenectady. This Remedial Action Work Plan for the Former Gillette Properties has been developed to summarize the basis for a design of the remedy set forth in the New York State Department of Environmental Conservation's (NYSDEC) 2002 Record of Decision (ROD) for the site, NYSDEC Site Number B-00167-4. The Remedial Action Work Plan describes the manner in which the requirements of the ROD will be achieved. The work to be conducted, as outlined in this Remedial Action Work Plan, will be implemented in accordance with the ROD for the site.

## 1.1 SITE DESCRIPTION

The Former Gillette Properties are located at 250 and 252 Union Street, approximately 2,000 feet to the southeast of the Mohawk River, in the City of Schenectady, Schenectady County, New York (Figure 1-1). As shown on Figure 1-2, the properties are to the south of Union Street and 252 Union is bordered to the west by South College Street. The two properties each contain a two-story wood-framed building built in the 19$^{th}$ century. Surrounding land use is commercial and residential. Overburden soil is predominantly alluvial silty sand with occasional clay lenses. The former Ladd's Gas Station is located across South College Street to the east of the Former Gillette Properties. Petroleum compounds released from the Ladd's site extend beneath the Former Gillette Properties and are present in the soil and groundwater. The NYSDEC is addressing the remediation of these petroleum compounds in a separate action.




SOURCE: U.S.G.S 7.5 MIN. SCHENECTADY QUAD, 1980

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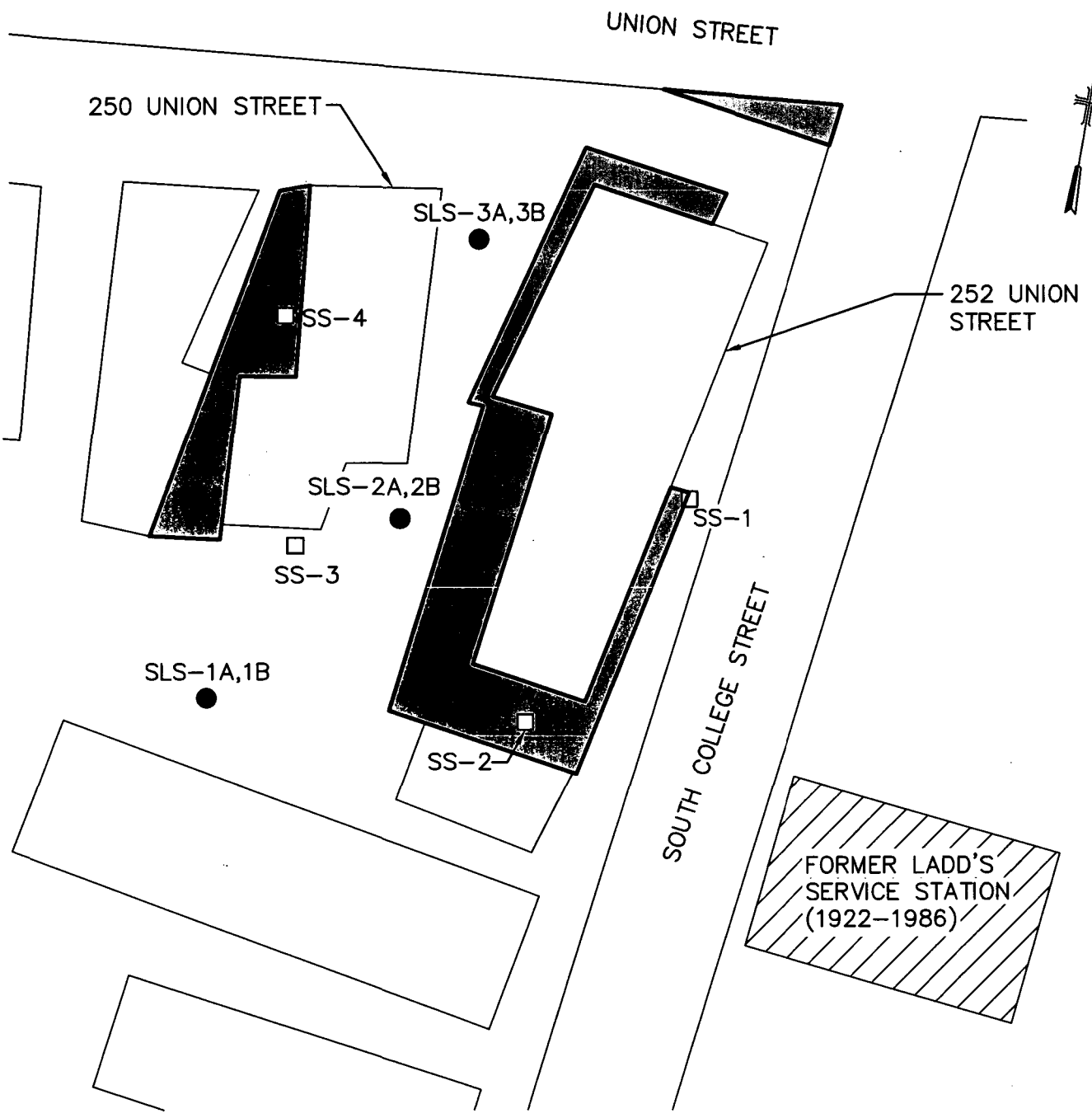
Former Gillette Properties
SCHENECTADY, NEW YORK

**LOCATION MAP**

**FIGURE 1-1**




## LEGEND

- ● SOIL BORING
- □ SURFACE SOIL SAMPLE
- FORMER SERVICE STATION
- APPROXIMATE EXTENT OF SOIL EXCAVATION

10 0 10 20

1"=20'-0"

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FORMER GILLETTE PROPERTIES
SCHENECTADY, NEW YORK

# EXTENT OF SOIL EXTRACTION



FIGURE 1-2

## 1.2 SITE HISTORY

The buildings at the Former Gillette Properties were previously used principally as residential dwellings. The buildings have been largely unoccupied for an extensive period of time and are in a deteriorated condition. Painting activities and weathering of lead-based paint from the buildings have caused lead contamination in the surrounding exposed soil. Soil sampling conducted in 2001 showed that NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046 soil cleanup objectives for lead were exceeded in areas of exposed soil. Lead concentrations in soil samples collected from under the asphalt driveway and parking area averaged less than the NYSDEC TAGM 4046 soil cleanup objective.

Asbestos-containing material has been identified in roofing, siding, and flooring at 250 Union Street. Asbestos-containing material has been identified in pipe insulation at 252 Union Street. To date, no environmental remedial actions have been implemented for the Former Gillette Properties.

## 1.3 WORK PLAN ORGANIZATION

The remainder of the Remedial Action Work Plan is organized as follows:

- ***Section 2.0 -- Remedial Action Objectives and Selected Remedy*** – Section 2.0 describes the objectives of the remedial activities and summarizes how the remedial alternative will meet the Remedial Action Objectives.
- ***Section 3.0 -- Schedule*** – Section 3.0 presents the remedial action schedule.
- ***Appendix A -- Remedial Action Project Specifications*** – Appendix A contains a table of contents for the design specifications for the selected remedy, procedures for physical security and postings of the site, quality assurance and control, and health and safety.
- ***Appendix B – Field Sampling Procedures*** – Appendix B contains information on the sampling procedures, equipment needed, field quality control samples, sample designation and handling, and field documentation for collecting the confirmatory soil samples.

# 2.0 REMEDIAL ACTION OBJECTIVES AND SELECTED REMEDY

## 2.1 REMEDIAL ACTION OBJECTIVES

The Remedial Action Objectives (RAOs) for the site have been established through the remedy selection process outlined in 6 NYCRR Part 375-1.10. The overall goal of the RAOs is to meet the applicable standards, criteria, and guidance (SCGs) and the protection of human health and the environment. The RAOs for the site, as described in the ROD, are as follows:

- Reduce, control, or eliminate the contamination present within the surface soil at the site.
- Eliminate the potential for direct human or animal contact with the contaminated soil on the site.

## 2.2 SELECTED REMEDY

The selected remedy for the site will include the development of plans and specifications to include the elements outlined below. Appendix A provides a draft Table of Contents for these plans and specifications.

- Develop appropriate health and safety plans. Prepare, in accordance with the requirements of OSHA 1910.120, a site-specific Health and Safety Plan. Subcontractors will prepare their own site-specific Health and Safety Plan for their employees. In accordance with the requirements of the New York State Department of Health (NYSDOH) Generic Air Monitoring Plan (June, 2000) monitor for dust during any intrusive activities. If the dust concentration exceeds trigger concentrations, cease operations until dust generation is suppressed.
- Remove and dispose of off-site the lead-paint containing siding on 250 and 252 Union Street that is a potential on-going source of lead to exposed soil.
- Excavate soil to a depth of two feet below ground surface and dispose of this soil off-site to achieve the NYSDEC soil cleanup objective of 500 mg/kg (parts per million) of lead. Approximately 70 cubic yards of soil will be excavated.
- Collect confirmatory soil samples to be analyzed for lead from the bottoms of the excavated areas.

- Backfill excavated areas with certified clean fill and restore excavated areas with topsoil, seed, and mulch.

- Remove and dispose of off-site asbestos-containing materials from the site including exterior transite siding, roofing material, interior linoleum at 250 Union Street and pipe insulation in the basement crawl space at 252 Union Street. Asbestos abatement will be conducted by a New York State Department of Labor (NYSDOL) licensed asbestos abatement contractor. As required, monitor air quality during asbestos abatement activities by a NYSDOL licensed air sampling technician.

Confirmatory soil samples will be collected from the bottom of the excavations during remedial activities to ensure removal of soil with lead concentrations in excess of the Corrective Action Objectives. Sampling locations are shown on Figure 2-1. All samples will be collected in accordance with the Field Sampling Procedures contained in Appendix B.

Following completion of the remedial action a Remedial Action Summary Report will be submitted to the NYSDEC. The report will summarize the remedial action and include:

- A summary of the remedial actions completed.

- A site survey by a New York State Licensed Surveyor that shows the horizontal and vertical limits of the soil excavation as well as pertinent physical features of the site.

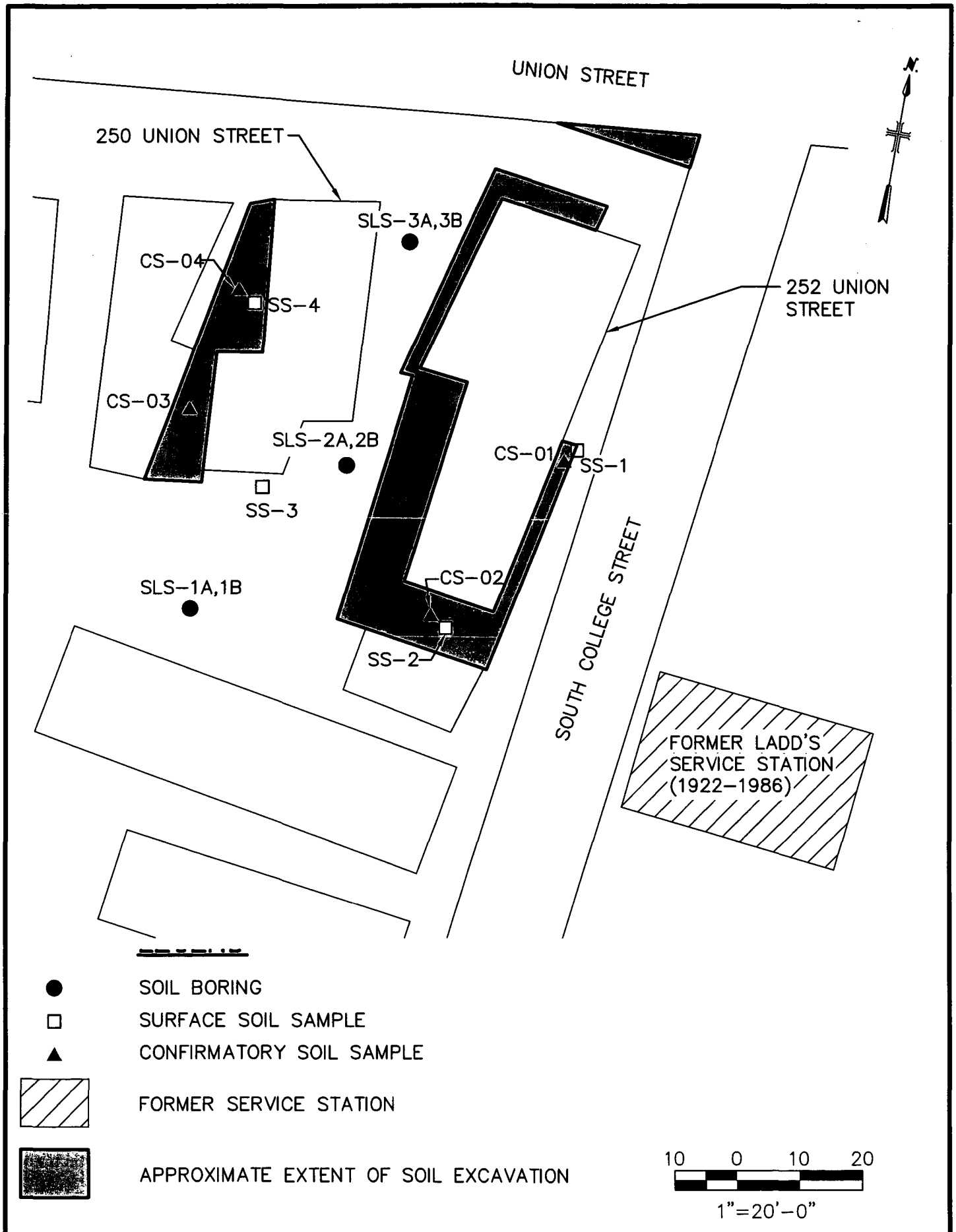
- Bills of lading or manifests for wastes shipped from the site for off-site disposal.

- Analytical data sheets for any analytical sampling conducted.

- Results for air monitoring conducted as part of the NYSDOH Community Air Monitoring Plan and as part of the asbestos abatement.

The Remedial Action Summary Report will be signed and stamped by a New York State Professional Engineer.

As required by the ROD, the County will implement a deed restriction to prevent the use of on-site groundwater. The County will also develop a procedure for annual certification of, and compliance with, the deed restriction. This language for the deed restriction and the procedure for annual certification will be submitted to the NYSDEC for review and approval. After the NYSDEC has approved of the language for the deed

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FORMER GILLETTE PROPERTIES
SCHENECTADY, NEW YORK

**CONFIRMATORY SOIL SAMPLE LOCATIONS**



FIGURE 2-1

restriction, the restriction will be entered in the properties' deeds and a certified copy of the deeds will be provided to the NYSDEC.

Due to the nature of the remedial action and the implementation of a deed restriction for the site, no on-going operation, monitoring, or maintenance activities are anticipated. Because of this, an Operation, Monitoring and Maintenance Plan will not be prepared for the site. As noted above, provisions will be made for the required annual certification of, and compliance with, the deed restriction.

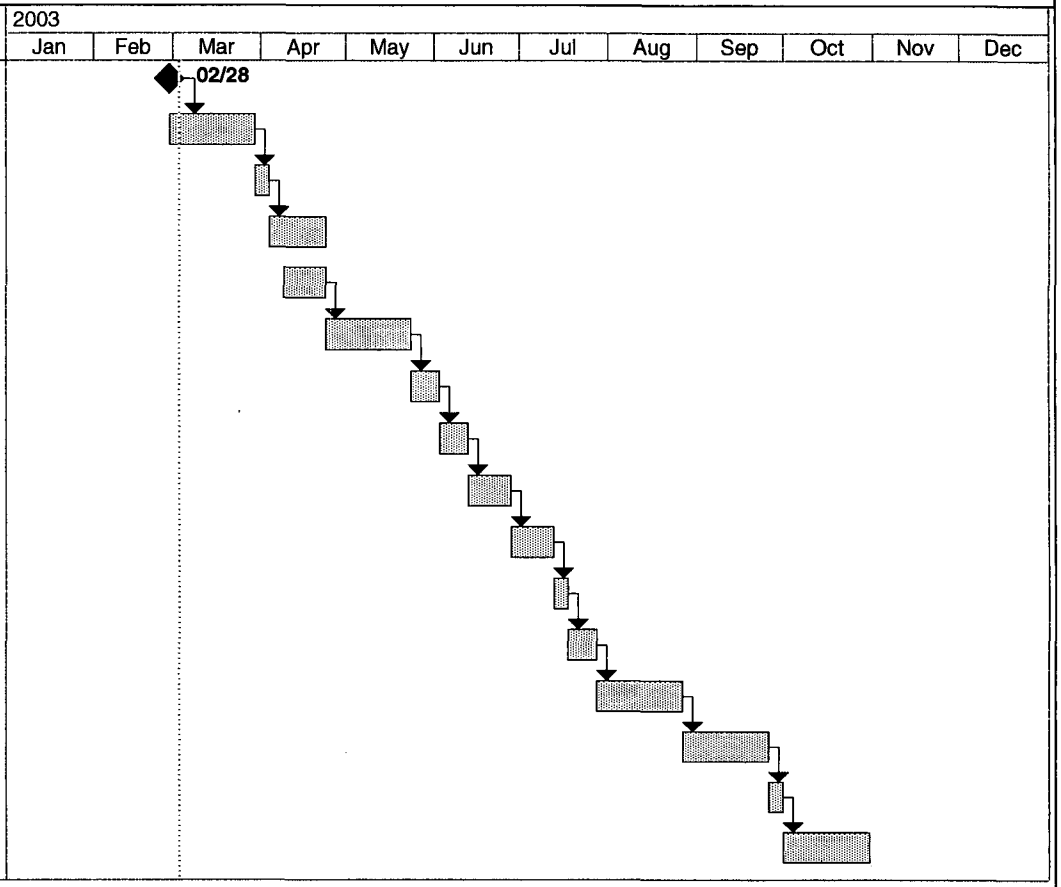
The selected remedy will achieve the RAOs by reducing the lead contamination at the site through the excavation and off-site disposal at a permitted facility of exposed soil that contains the highest total lead concentrations. In addition, the selected remedy provides for the overall protection of human health and the environment by limiting exposure to soil that contains total lead concentrations in excess of the NYSDEC soil cleanup objective. The extent of the soil to be excavated is shown on Figure 1-2.

# 3.0 SCHEDULE

The proposed remedial action schedule is presented on Figure 3-1.

# Former Gillette Properties
# City of Schenectady, New York

| ID | Task Name | Duration | Start | Finish |
|---|---|---|---|---|
| 1 | Submit Work Plan | 0 days | Fri 02/28/03 | Fri 02/28/03 |
| 2 | NYSDEC Review | 30 days | Fri 02/28/03 | Sat 03/29/03 |
| 3 | Revise Work Plan | 5 days | Sun 03/30/03 | Thu 04/03/03 |
| 4 | NYSDEC Review/Approval | 20 days | Fri 04/04/03 | Wed 04/23/03 |
| 5 | Prepare Plans and Specs | 15 days | Wed 04/09/03 | Wed 04/23/03 |
| 6 | NYSDEC Review | 30 days | Thu 04/24/03 | Fri 05/23/03 |
| 7 | Revise Plans and Specs | 10 days | Sat 05/24/03 | Mon 06/02/03 |
| 8 | NYSDEC Review/Approval | 10 days | Tue 06/03/03 | Thu 06/12/03 |
| 9 | Solicit Bids | 15 days | Fri 06/13/03 | Fri 06/27/03 |
| 10 | Execute Contract/Insurance | 15 days | Sat 06/28/03 | Sat 07/12/03 |
| 11 | Mobilization | 5 days | Sun 07/13/03 | Thu 07/17/03 |
| 12 | Implement Remedy | 10 days | Fri 07/18/03 | Sun 07/27/03 |
| 13 | Prepare Remedial Report | 30 days | Mon 07/28/03 | Tue 08/26/03 |
| 14 | NYSDEC Review | 30 days | Wed 08/27/03 | Thu 09/25/03 |
| 15 | Revise Remedial Report | 5 days | Fri 09/26/03 | Tue 09/30/03 |
| 16 | NYSDEC Approval/Site Closure | 30 days | Wed 10/01/03 | Thu 10/30/03 |




Project: Former Gillette Weekends
Date: Mon 03/03/03

Task
Split
Progress
Milestone
Summary
Project Summary
External Tasks
External Milestone
Deadline

# APPENDIX A

Remedial Action Project Specifications,
Table of Contents

# APPENDIX A

The following Remedial Action Project Specifications will be included:

- NOTICE TO BIDDERS
- INSTRUCTIONS TO BIDDERS
- BID PACKAGE
  - BID FORM
  - BID BOND
  - BIDDER'S QUALIFICATION STATEMENT
- AGREEMENT
- GENERAL CONDITIONS
- SUPPLEMENTARY CONDITIONS
- DETAILED SPECIFICATIONS

  GENERAL REQUIREMENTS
  - Summary of Work
  - Measurement and Payment
  - Schedule of Values
  - Coordination
  - Field Engineering and Survey Data
  - Reference Standards
  - Abbreviations and Symbols
  - Pre-construction Conference
  - Construction Schedule
  - Shop Drawing Procedures
  - Samples
  - QA/QC
  - Testing Laboratory Services Furnished by Contractor
  - Health and Safety Procedures
  - Temporary Construction Facilities
  - Security
  - Protection of the Work and Property
  - Access Roads and Parking Areas
  - Environmental Controls
  - Substitutions
  - Record Documents

SITE WORK

- Excavation and Backfill
- Select Fill
- Topsoil
- Turf
- Asbestos Abatement and Disposal
- Siding Removal and Disposal
- Survey

# APPENDIX B

Field Sampling Procedures

# 1.0 FIELD SAMPLING PROCEDURES

## 1.1 SAMPLING PROCEDURES AND EQUIPMENT

The field investigation procedures that will be followed during the remedial program are summarized below.

### 1.1.1 Decontamination of Sampling Equipment

Cross contamination of samples from any source is to be avoided. All sampling equipment must be clean and free from the residue of any previous samples. To accomplish this, the following procedures will be followed:

- All non-dedicated sampling equipment must be cleaned initially and prior to being reused. The following is the procedure for decontamination.
- Wash and scrub with low phosphate detergent,
- Rinse with tap water,
- Rinse with 10 percent nitric acid solution;
- Rinse thoroughly with deionized water,
- Air dry, and
- Wrap in aluminum foil for transport.

### 1.1.2 Confirmatory Soil Sampling

#### 1.1.2.1 Soil Sampling Objectives

Confirmatory soil samples will be collected from the bottoms of the excavations to document removal of soil with lead concentrations in excess of the Corrective Action Objectives. Soil samples to be collected during the Remedial Action at the former Gillette Properties site are summarized in Table B-1.

## TABLE B-1

FORMER GILLETTE PROPERTIES
REMEDIAL ACTION
SCHENECTADY, NEW YORK
CONFIRMATORY SOIL SAMPLES

| LOCATION | TOTAL NUMBER OF SAMPLES |
|---|---|
| CONFIRMATORY SAMPLES | |
| On-site (excavation samples) | 4 |
| QA/QC SAMPLES | |
| Field Duplicates | 1 |
| TOTALS | 5 |

#### 1.1.2.2 Soil Sampling Equipment

The following equipment will be used to collect soil samples:

- Stainless steel spatula or spoon
- Stainless steel bowl
- Latex gloves (disposable)
- Certified, precleaned sample containers
- Aluminum foil
- Field logbook and pen
- Decontamination equipment.

#### 1.1.2.3 Soil Sampling Procedures

Confirmatory soil samples will be collected using the following procedure. Aliquots of soil will be collected from the bottom of the excavation at the designated locations using a decontaminated stainless steel spoon or trowel, then placed in a decontaminated stainless steel bowl. The soil in the bowl will be homogenized and then transferred to a laboratory supplied, precleaned sample container for off-site analysis by a New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) - certified analytical laboratory. The soil samples once collected will be placed securely in a cooler packed with ice and kept at a constant temperature of 4°C.

#### 1.1.2.4 Analytical

The confirmatory soil samples will be sent to a NYSDOH ELAP-certified analytical laboratory to analyze for lead by the USEPA Method SW-846 6010B.

## 1.2 FIELD QUALITY CONTROL SAMPLES

#### 1.2.1 Field Duplicate

One field duplicate sample will be collected during the project. The duplicate sample will be collected at the same location as an environmental sample. The analytical results of the environmental sample will be compared to the field duplicate sample to evaluate field sampling precision.

## 1.3 SAMPLE DESIGNATION

A sample numbering system will be used to identify each sample. This system will provide a tracking procedure to allow retrieval of information about a particular sample, and will assure that each sample is uniquely numbered. The sample identification will consist of at least three components as described below. Identification numbers for soil boring samples will also have a fourth component.

- ***Project Identification:*** The first component consists of a two letter designation which identifies the project site. For this project, the two letter designation will be GP for Gillette Properties.

- ***Sample type:*** The second component, which identifies the sample type, will consist of a two letter code as follows:

  CS - Confirmatory Sample

- ***Sample Location:*** The third component identifies the sample location using a one digit number.

- ***Sample Identification:*** The fourth component will only be used for soil samples, to indicate the interval from which the sample was collected.

Duplicate samples will be numbered uniquely as if they were samples. A record of identification for duplicate samples will be maintained.

Examples of identification numbers are given below:

| | |
|---|---|
| GP-CS-02-(0.0-0.5): | Confirmatory soil sample, sample location number 2, interval from 0.0-0.5 feet below ground surface. |

## 1.4 FIELD DOCUMENTATION

### 1.4.1 Introduction

Field documentation must provide sufficient information and data to enable reconstruction of field activities. Field logbooks provide the basic means for documenting field activities. The following information must be provided on the inside front cover of each field logbook:

- Project Name (Site Name)
- Site Location
- Site Manager
- Date of Issue

### 1.4.2 Documentation of Field Activities

Field logbook entries must be legibly written and provide an unbiased, concise, detailed picture of all field activities. Use of preformatted data reporting forms must be identifiable and referenced to field notebook entries.

Instructions and procedures for documenting field activities are provided below:

- Leave the first two pages blank. They will provide space for a table of contents to be added when the field logbook is complete.

- The first written page for each day identifies the date, time, site name, location, MPI personnel and their responsibilities, other non-personnel and observed weather conditions.

- Entries are made on a new page at the start of each day's field activities.

- All photos taken must be traceable to field logbook entries.

- All entries must be made in ink.

- All entries must be accompanied by the appropriate military time (such as 1530 instead of 3:30).

- Errors must be lined through and initiated. No erroneous notes are to be made illegible.

- The person documenting must sign and date each page as it is completed.

- Isolated logbook entries made by a team member other than the team member designated responsible for field documentation, must be signed and dated by the person making the entry.

- Additions, clarifications, or corrections made after completion of field activities must be dated and signed.

### 1.4.3 General Site Information

General site characteristics must be recorded. Information may include:

- Type of access into facility (locked gates, etc.).
- Anything that is unexpected on-site.
- Information obtained from interview with access or responsible party personnel (if applicable), or other interested party contact on-site.
- A site map or sketch may be provided. It can be sketched into the logbook or attached to the book.

### 1.4.4 Sample Activities

A chronological record of each sampling activity must be kept.

- Explanation of sampling at the location identified in the sampling plan (e.g., discolored soil, stressed vegetation).
- Exact sample location, using permanent recognizable landmarks and reproducible measurements.
- Sample matrix.
- Sample descriptions.
- Decontamination procedures used.

As part of chain-of-custody procedures, recorded on-site sampling information must include sample number, date, time, sampling personnel, sample type, designation of sample as a grab or composite, and any preservative used. Sample locations should be referenced by sample number on the site sketch or map.

### 1.4.5 Sample Dispatch Information

When sampling is complete, all sample documentation such as chain-of-custody forms shall be copied and copies placed in the project files. A notation of numbers of coolers shipped, carrier and time delivered to pick-up point should be made in the field notebook.

# 2.0 SAMPLE AND DOCUMENT CUSTODY PROCEDURES

## 2.1 SAMPLE HANDLING

The analytical laboratory will provide the sample containers necessary for all soil, and groundwater. Container closures will be screw-on type, made of inert materials. Sample containers will be cleaned and prepared by the laboratory prior to being sent to the site.

All samples collected will be identified with a sample label. A label will be attached to each bottle and each sample will be identified with a unique sample number.

Immediately following sample collection, each sample container will be marked with the following information:

- Sample Code
- Project Number
- Date/Time
- Sample Type
- Preservative, if used
- Sampler's Initials

The sample code will indicate the site location, media sampled and the sample station.

After all sample identification information has been recorded, each sample label will be covered with waterproof clear plastic tape to preserve its integrity. All samples will be recorded and tracked under strict chain-of-custody protocols. In the field, each sample will be checked for proper labeling. The samples will then be packed into coolers with ice and shipped to the laboratory. A chain-of-custody form will be completed for each cooler. The form will be signed and dated by the person who collected the samples, the person the samples were relinquished to for transport to the laboratory, and the laboratory sample controller/custodian who receives the samples.

## 2.2 COMPLETION OF CHAIN-OF-CUSTODY RECORD

A chain-of-custody record is a printed form that accompanies a sample or group of samples as custody is transferred from person to person. It documents custody transfer from person to person and sample information recorded on bottle labels. A chain-of-custody record is a controlled document.

As soon as practicable after sample collection, preferably after decontamination, the following information must be entered on the chain-of-custody form. All information is to be recorded in black ink.

1. ***Malcolm Pirnie project number.*** Enter the seven-digit alphanumeric designation assigned by Malcolm Pirnie that uniquely identifies the project site.

2. ***Project name.*** Enter site name.

3. ***Samplers.*** Sign the name(s) of the sampler(s).

4. ***Station number.*** Enter the sample number for each sample in the shipment. This number appears on the Malcolm Pirnie, Inc. sample identification label.

5. ***Date.*** Enter a six-digit number, indicating the year, month, and day of sample collection; for example, 981201.

6. ***Time.*** Enter a four-digit number indicating the military time of collection; for example, 1354.

7. ***Composite or grab.*** Indicate the type of sample.

8. ***Station location.*** Describe the location where the sample was collected.

9. ***Number of containers.*** For each sample number, enter the number of sample bottles that are contained in the shipment.

10. ***Remarks.*** Enter any appropriate remarks.

### 2.2.1 Transferring Custody From Malcolm Pirnie, Inc. Shipper to Common Carrier

Instructions for Malcolm Pirnie, Inc. shipper transferring custody of samples to a common carrier are given below.

1. Sign, date, and enter time under "Relinquished by" entry.

2. Enter name of carrier (e.g., UPS, Federal Express) under "Received by."

3. Enter bill-of-lading of Federal Express airbill number under "Remarks."

4. Place the original of the chain-of-custody form in the appropriate sample shipping package. Retain a copy with field records.

5. Sign and date the custody seal. The custody seal is part of the chain-of-custody process and is used to prevent tampering with samples after they have been collected in the field.

6. Wrap the seal across filament tape that has been wrapped around the package at least twice.

7. Fold the custody seal over on itself so that it sticks together.

8. Complete other carrier-required shipping papers.

Common carriers will usually not accept responsibility for handling chain-of-custody forms; this necessitates packing the record in the sample package.

### 2.2.2 Transferring Custody From Malcolm Pirnie, Inc. Sampler Directly to Carrier

To transfer custody of samples from the Malcolm Pirnie, Inc. sampler directly to a carrier, proceed as above, except eliminate the Malcolm Pirnie, Inc. shipper's signature.

MALCOLM PIRNIE

RECYCLED PAPER