FIELD SAMPLING PLAN

INDOOR AIR SAMPLING

WORK ASSIGNMENT D003825-09.3

NORTH FRANKLIN STREET SITE **SCHULYER (C), NY**
WATKINS GLEN (V)

Prepared for:
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 Broadway, Albany, New York

Denise M. Sheehan, Acting Commissioner

DIVISION OF ENVIRONMENTAL REMEDIATION

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G4045

March 2005

FIELD SAMPLING PLAN
FOR THE
NORTH FRANKLIN STREET SITE
INDOOR AIR SAMPLING
VILLAGE OF WATKINS GLEN
SCHULYER COUNTY, NEW YORK

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DIVISION OF ENVIRONMENTAL REMEDIATION
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Prepared By

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77 GOODELL STREET
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MARCH 2005

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1.0 INTRODUCTION

This Field Sampling Plan (FSP) is designed to provide detailed step-by-step procedures for the field activities proposed for the property located adjacent to the North Franklin Street site (Seneca Market Building). It will serve as the field procedures manual to be strictly followed by all URS Corporation (URS) personnel. Adherence to these procedures will ensure the quality and defensibility of the field data collected. In addition to the field procedures outlined in this document, all personnel performing field activities must do so in compliance with the appropriate guidelines presented in the existing Health and Safety Plan (HASP).

The objective of the current investigation is to assess the potential presence of indoor air contamination resulting from vapor intrusion from contaminated groundwater. The contaminated groundwater is the result of historic activities at the North Franklin Street site, which currently is being remediated.

1.1 Site Description

The North Franklin Street Class 2 inactive hazardous waste site is an approximately 0.3-acre parcel of land situated in the Village of Watkins Glen, Schuyler County, New York. The site is located in an urban area approximately 400 feet south of Seneca Lake, as shown on Figure 1. Two structures currently exist on site (shown on Figure 2). The building referred to as the "Former Auto Museum" is a single-story metal building on a concrete slab. The second structure is referred to as the "Former Dry Cleaning Building." This is a two-story brick building that also includes two unoccupied single-story brick sheds to the east. Both of these buildings have housed a variety of businesses in the past, including a machine shop and dry cleaning operations. The Seneca Market Building (2 North Franklin Street) is located approximately 100 feet north of the North Franklin Street site.

1.2 Site History

URS completed a state funded Remedial Investigation (RI) in April 1993, concluding that both groundwater and soil in the vicinity of the site had been contaminated by volatile organic compounds associated with the former dry cleaning operations. Dumping of tetrachloroethylene (PCE) contaminated water in an alley between the auto museum and the dry cleaners was identified as the major source of contamination.

After URS completed a Feasibility Study (FS) in November 1993, the NYSDEC prepared and signed a Record of Decision (ROD) on January 18, 1994. In accordance with the requirements of the ROD, URS designed a Soil Vapor Extraction (SVE) system to treat shallow soil (above the clay layer) and a groundwater treatment system (GWET) to extract and treat groundwater. The ROD called for the SVE system to operate until soil cleanup objectives were achieved, and for the GWET system to operate for five years or until asymptotic contaminant concentrations were detected in monitoring wells.

URS completed the remedial design and preparation of contract documents for the site in June 1995. The remediation contract (Contract No. D03363) for construction and operation of the SVE and groundwater treatment systems was subsequently awarded to Terra Vac, Inc. Terra Vac completed construction of the treatment systems and began operations by September 1996, and by August 25, 1998, Terra Vac, Inc. turned over the operation of the two systems to the NYSDEC.

Confirmatory soil samples collected during the remediation indicated that the SVE system had effectively remediated soils near the extraction wells, beneath the "Former Auto Museum" and to the rear of the "Former Dry Cleaning Building". Soil samples collected in the vicinity of the "Former Dry Cleaning Building" indicated that soil contamination still was present and that concentrations were at higher levels and extended deeper than previously estimated. The SVE system and the GWET system were shut down in March 1998 and April 1998, respectively, pending the results of further investigations. URS performed additional investigations to delineate the soil contamination and performed a chemical oxidation pilot study from 1999 through May 2000. The NYSDEC final report on the additional investigation and pilot study (November 2001) concluded that the chemical oxidation pilot study significantly reduced contamination in the vicinity of the "Former Dry Cleaning

Building". However, localized areas of soil contamination exceeding remedial action objectives for soil remained within the deeper clay, primarily for four to six feet below ground surface (bgs).

In March 2003 the NYSDEC issued an Explanation of Significant Differences (ESD) for the site, which described how residual soil and groundwater contamination would be addressed. This included the placement of deed restriction to prevent contact with residual groundwater and soil contamination and the installation of an active venting system within the "Former Dry Clean Building" to control the potential indoor migration of vapors. The venting system was constructed in March 2004 by EQ-EWMI of New Jersey. Operations of the venting system begin in April of 2004. Bimonthly indoor air samples are collected from within the "Former Dry Cleaning Building" to determine the efficiency of the venting system.

3.0 AIR INVESTIGATION

The indoor air study (the study) will focus on determining the potential presence of indoor air contamination resulting from vapor intrusion and determine to the extent practical, the nature and degree of soil gas contamination in the vicinity of the Seneca Market Building. The study will include sampling of indoor air, outdoor air and soil vapor to evaluate the potential exposure to site related contaminants. The NYSDEC and the NYSDOH will review the results of the proposed study. The NYSDOH will make recommendations at that time as to whether or not the building needs further indoor air investigation or mitigation systems.

The indoor air investigation program will generally include the following: (1) conducting interviews with the buildings' owner and tenants using air quality questionnaires developed by the NYSDOH (Appendix A), (2) conducting a survey of household chemicals present and evaluating their potential to affect air sample results, (3) collect one air sample each from the breathing zones of the first floor in each tenants' space (up to three samples), (4) collect one vapor sample from beneath the concrete slab of each buildings' foundation(s) (up to two samples) and (5) collect one outdoor ambient air sample from an upwind location.

All samples will be collected using six liter Summa® canisters equipped with flow regulators that have been batch certified clean by the laboratory prior to re-use. The sample canisters will be deployed after completion of the pre-sampling survey and will be retrieved approximately 24-hours later. The proposed indoor air and sub-slab sampling locations are shown on Figure 3.

The samples will be analyzed for VOCs using the EPA Method TO-15. Analyses will be performed by STL Knoxville, a laboratory with current Environmental Laboratory Approval Program (ELAP) certification. The laboratory will achieve a detection limit of 3 microgram per meter cubed ($\mu g/m^3$) for all chlorinated constituents.

The samples will be labeled and shipped following procedures outlined in Sections 4.0 and 5.0 and analyzed for the parameters indicated in Tables 3-1. A Summa Canister Sampling Field Data Sheet shall be completed for each sample collection location (Appendix A).

3.1 Indoor Air Quality Survey and Questionnaire

Once the buildings' owner and the tenants have been contacted by the NYSDEC and/or NYSDOH, appointments will be made to conduct tenant interviews and building inventory of household chemicals. Questionnaire and Building Inventory forms developed by the NYSDOH (Appendix A) will be used. Once the questionnaires have been completed, perform the building inventory (first floor in each of the tenants' areas) for household chemicals. Areas that may be inspected include kitchen and bathroom cabinets, storage rooms, and any other area commonly used for storage of household chemicals. The general procedures to be followed are summarized below:

- Identify all areas on the first floor that may be used for storage of chemical containers.
- Identify, record, and scan with field instrumentation, each container likely to contain chemicals that may affect air quality. These may include any of the following: cleaning products, cosmetic products, aerosol cans, paint or stain products, deodorants/air fresheners, solvents, glue or epoxy containers, caulks, sealants, fuel containers, scented natural products (e.g., Christmas trees, wreaths, potpourri, scented wood), and pesticide products.
- Other potential sources that may influence air quality testing that should be noted and scanned with field instrumentation include: new construction/remodeling/painting, new carpeting, freshly dry-cleaned clothing, and the presence of tobacco smokers.
- On the product inventory form provided in the Questionnaire/Building Inventory, (Appendix A) record each container/potential source on the product inventory form. For each container note the product description, container size, the condition of the container, and the chemical ingredients.
- For each container, check the areas around the lids for the presence of VOCs using a parts per billion (ppb) range PID (e.g., ppbRAE). Move the tip of the PID around the entire area and record the highest reading measured.

3.2 Indoor Air and Outdoor Ambient Air Sampling Procedure

During the collection of indoor air samples, the intake will be placed at breathing zone heights of approximately 3 to 5 feet above the floor. As practical, based on the buildings features, the sample will typically be collected in a central location away from outside windows or doors. At the time of retrieval any noticeable changes in the condition of the sampling area, such as open windows or doors, operation of the heating/ventilation system, or condition or location of items in proximity to the canister will be noted on the sampling form.

The outdoor ambient air samples will be collected starting after completion of the building survey and in conjunction with the start of indoor air sampling. The collection of the outdoor ambient air sample will be attempted to be collected from an area upwind of the building. It is estimated that one outdoor ambient air sample will be collected daily. The intake of the sample will be placed at breathing heights of approximately 3 to 5 feet above grade.

The indoor air for the first floor and outdoor ambient air sampling procedures are summarized below.

1) Place summa canister at breathing height in a high traffic location. Breathing height is considered 3 to 5 feet above grade.
2) Record the canister's serial number on the Summa Canister Sampling Field Data Sheet (Appendix A).
3) Assign sample identification on canister identification tag and record on COC and the Summa Canister Sampling Field Data Sheet (Appendix A).
4) Remove brass plug from canister fitting.
5) Attach a pre-calibrated/certified 24-hour flow controller, and particulate filter to the Summa canister.
6) Open canister valve to initiate sample collection and record start time on the Summa Canister Sampling Field Data Sheet (Appendix A). Record pressure at beginning of sampling period. If no vacuum, don't use canister.
7) Take a digital photograph of canister setup and surrounding area.

8) After 24 hours, record end time on COC and the Summa Canister Sampling Field Data Sheet (Appendix A), and close valve.
9) Disconnect flow controller/particulate filter assembly from canister.
10) Upon removing the flow controller/particulate filter assembly, record gauge pressure and seal canister with brass plug.
11) Ship canister overnight, with COC, to STL Knoxville for TO-15 analysis.

3.2.1 Quality Control

1. Field duplicates for indoor air samples are collected by simply placing a second summa canister adjacent to the primary sample canister with the sample intake point at approximately the same height. The flow controllers should be set at the same flow rate. Both summa canister valves are opened and closed simultaneously.
2. Outdoor ambient air samples are collected by simply opening the summa canister valve for the designated sample time frame upwind from the sample locations.
3. Care should be taken so that no samples are collected during or near an area where vehicle or other equipment exhaust is being discharged.

3.3 Sub-Slab Air Sampling Procedure

The sub-slab air sampling procedures are summarized below.

1) Drill a one-inch (1") diameter hole about one-inch (1") into the concrete using an electric hammer drill. Extend the hole through the remaining thickness of the slab using a 3/8-inch drill bit. Lengthen the hole about three inches (3") beyond the sub-slab using either a drill bit of a steel probe rod.
2) Insert one end of a 3/8-inch outside diameter, ¼-inch inside diameter Teflon-lined tube into the hole.
3) Seal the annular space between the one-inch (1") hole and the 3/8-inch tubing with hydrated bentonite.
4) Connect the tubing to air-sampling pump with polyethylene discharge tubing attached to a one liter (1L) Tedlar bag. Purge approximately 1L of gas from the subsurface probe into the Tedlar bag, using the air-sampling pump. Analyze the 1 L

Tedlar bag containing the sub-slab purged air with the PID when **outside** the building.

5) Record the canister's serial number on the Summa Canister Sampling Field Data Sheet (Appendix A).
6) Assign sample identification on canister identification tag and record on chain of custody (COC), and the Summa Canister Sampling Field Data Sheet (Appendix A).
7) Remove brass plug from canister fitting.
8) Open canister valve to initiate sample collection and record start time on the Summa Canister Sampling Field Data Sheet (Appendix A).
9) Attach a pre-calibrated/certified 24-hour flow controller, and particulate filter to the Summa canister.
10) After purging the hole, remove the sampling pump from the Teflon-lined probe tube and attach tube to the Summa canister, via the flow controller/particulate filter assembly.
11) Open canister valve to initiate sample collection and record start time on the Summa Canister Sampling Field Data Sheet (Appendix A).
12) Take a digital photograph of canister setup and surrounding area.
13) Clean up any dust/debris with a brush and dustpan. **Do not** use a vacuum.
14) After 24 hours, record end time on COC and the Summa Canister Sampling Field Data Sheet (Appendix A), and close valve.
15) Disconnect polyethylene tubing and remove flow controller/particulate filter assembly from canister.
16) Upon removing the flow controller/particulate filter assembly, record gauge pressure and seal canister with brass plug.
17) Seal the hole in the basement slab with vinyl concrete patch.
18) These samples will be shipped, with COCs, overnight to STL Knoxville (laboratory) for TO-15 analysis.

3.3.1 Quality Control

1) Field duplicates are collected by attaching the stainless steel t-fitting to the end of the tubing from the sub-slab sample location. A summa canister with a flow controller is attached to

each end of the t-fitting. For sampling, both summa canister valves are opened and closed simultaneously.

2) Outdoor ambient air samples are collected by simply opening the summa canister valve for the designated sample time frame upwind from the sample locations.
3) Care should be taken so that no samples are collected during or near an area where vehicle or other equipment exhaust is being discharged.

4.0 SAMPLE LABELING

Summary: In order to prevent misidentification and to aid in the handling of environmental samples collected during the field investigation, the following procedures will be used:

Procedure:

1) An identification tag will be attached to each summa canister. The following information will be written on each tag with permanent marker:

- Site name
- Sample identification
- Canister serial number
- Location
- Date/time
- Sampler's initials
- Analysis required
- Canister pressure after sample collection period

2) Each sample location (i.e., house identification, first floor, basement, sub-slab, ambient) will be assigned a unique identification alpha-numeric code. An example of this code and a description of its components is presented below:

Examples

1. H-001-1A-1
   H-001 = House #1
   -1A = indoor air
   -1 = first floor air sample

2. H-001-1A-B

   H-001 = House #1

   -1A = indoor air

   -B = basement air sample

3. H-001-SS-1

   H-001 = House #1

   -SS = sub-slab air sample

   -1 = First floor (use if slab on grade)

4. H-001-SS-B

   H-001 = House #1

   -SS = subslab air sample

   -B = basement

5. YYYYMMDD-0A-1

   YYYYMMDD = date (e.g., 20050120 for January 20, 2005)

   -0A = outdoor ambient air sample

   -1 = first ambient air sample of the day

6. YYYYMMDD-FD-2

   YYYYMMDD = date (e.g., 20050120 for January 20, 2005)

   -FD = field duplicate blank

   -2 = second field duplicate sample of the day

List of Abbreviations

Primary Sample Type

H-001 = house identification number

-1 = first floor indoor air sample

-B = basement indoor air sample

IA = indoor air sample

-SS = sub-slab vapor sample

-OA = outdoor air sample

Blank Sample Type

-FD = field duplicate

-1 = indicates sequential number of particular blank (e.g., -1 indicates the sample is the first of this type of blank collected for that day).

5.0 SAMPLE SHIPPING

Summary: Proper documentation of sample collection and the methods used to control these documents are referred to as chain-of-custody procedures. Chain-of-custody procedures are essential for presentation of sample analytical chemistry results as evidence in litigation or at administrative hearings held by regulatory agencies. Chain-of-custody procedures also serve to minimize loss or misidentification of samples and to ensure that unauthorized persons do not tamper with collected samples.

The procedures used in this Remedial Design follow the chain-of-custody guidelines outlined in NEIC Policies and Procedures, prepared by the National Enforcement Investigations Center (NEIC) of the U.S. Environmental Protection Agency Office of Enforcement.

Procedure:

1) The chain-of-custody (COC) record (Appendix A) should be completely filled out, with all relevant information.
2) The original COC goes with the samples. It should be placed in a Ziplock bag and placed inside the box containing a summa canister. The sampler should retain a copy of the COC.
3) Summa canisters are shipped in the same boxes the laboratory used for shipping.
4) Place the lab address on top of sample box. Affix numbered custody seals across box lid flaps. Cover seals with wide, clear tape.
5) Ship samples via overnight carrier the same day that they are collected.

6.0 FIELD SAMPLING INSTRUMENTATION

URS and rented field sampling equipment will require no maintenance beyond decontamination between sampling locations. Calibration procedures for electronic instruments can be found in the equipment operating manuals.

Maintenance procedures for the common instrumentation that will be used during field investigations are discussed in the equipment operating manuals. A copy of the manufacturer's operating manual for each instrument will be kept with the instrument or the operator. All field sampling equipment will be calibrated as recommended by the manufacturer. The calibration procedures and results will be recorded in the field notebook.

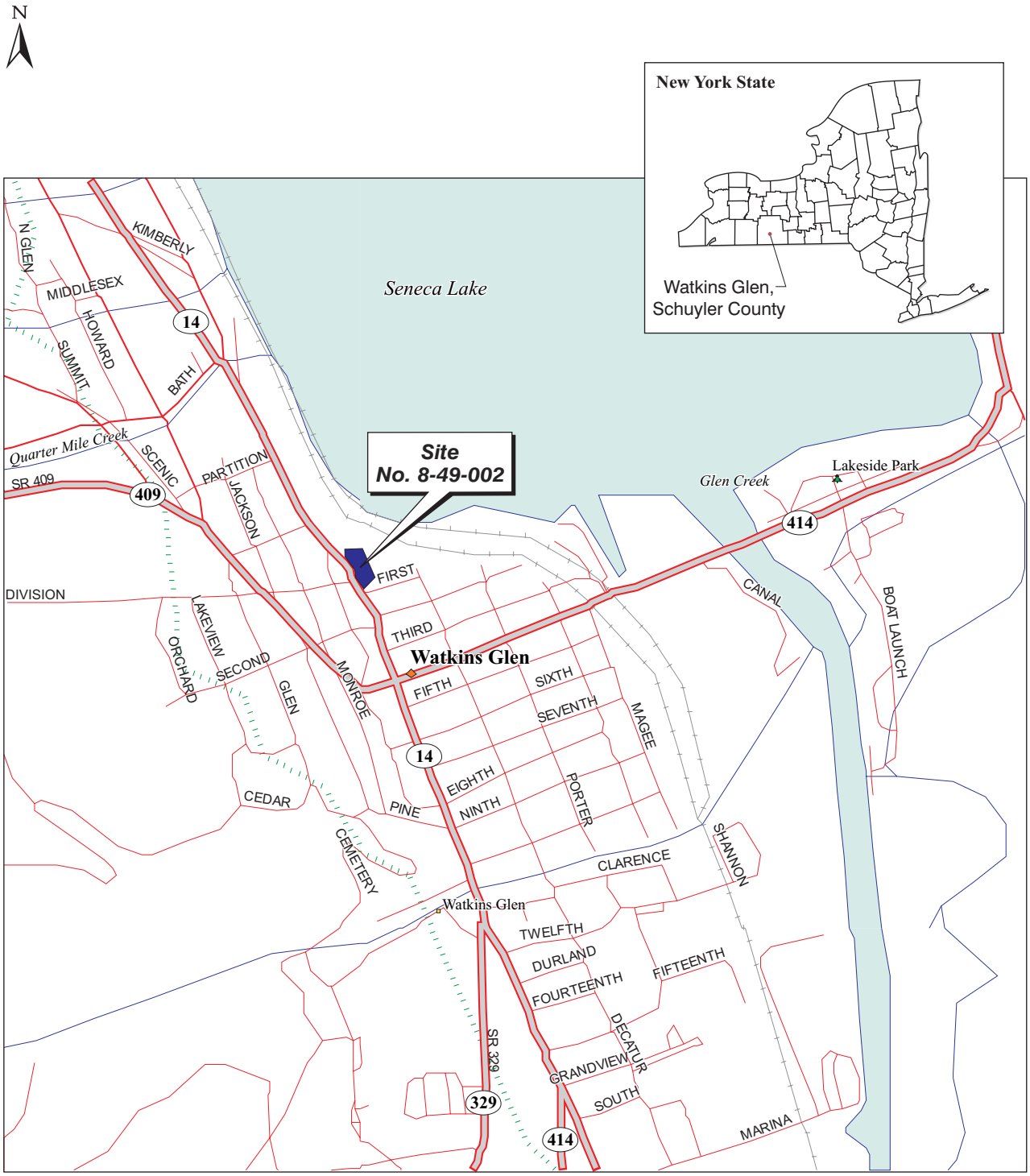
6.1 Preventive Maintenance

Table 6-1 presents the URS field instrumentation preventive maintenance summary. In case of an emergency, the equipment rental vendor, other URS offices, and/or the instrument manufacturer will be contacted. Instrumentation rental vendors, which provide overnight UPS/Federal Express service, are listed below.

Vendors

Ashtead Technology Rentals : Rochester, NY: 1-800-242-3910
Pine Environmental Services, Inc.: Mattydale, NY: 1-877-903-7463

FIGURES



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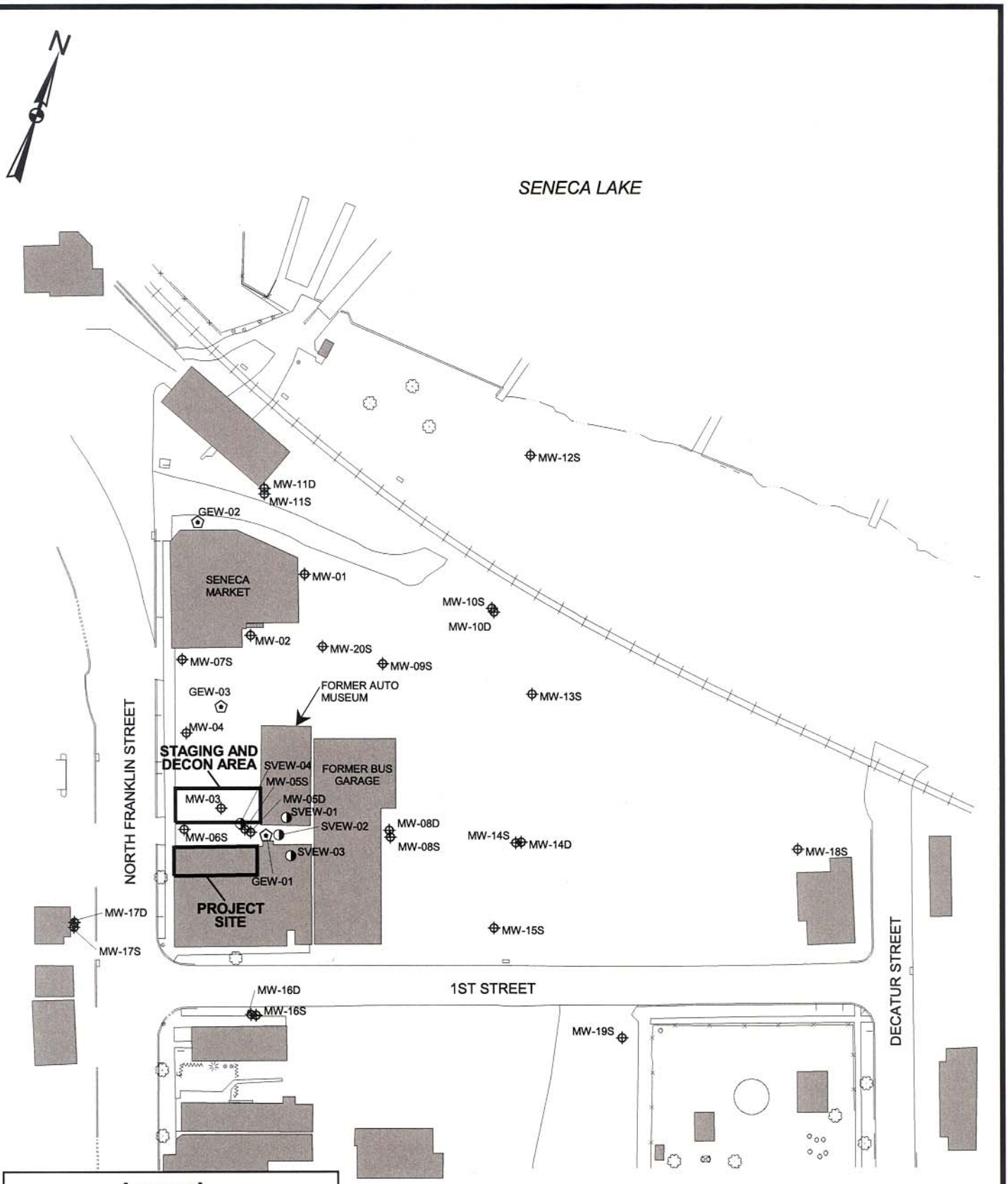
URS

NORTH FRANKLIN STREET
SITE LOCATION MAP

FIGURE 1



J:\35388\GIS\DEC2000\n_franklin.apr PROJECT SITE
3/7/2005

URS	NORTH FRANKLIN STREET PROJECT SITE	FIGURE 2

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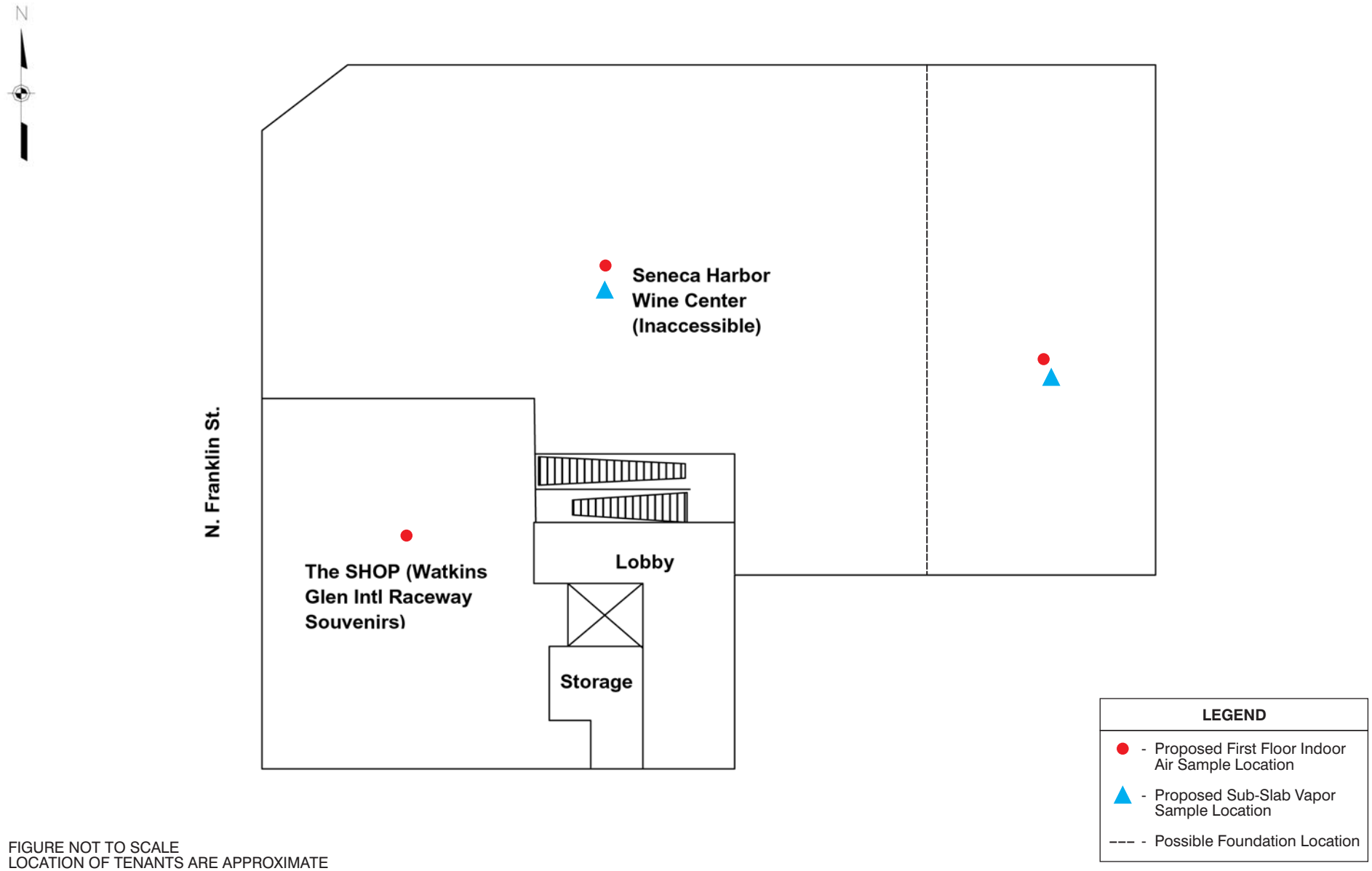


FIGURE NOT TO SCALE
LOCATION OF TENANTS ARE APPROXIMATE

URS

SENECA MARKET BUILDING, 2 NORTH FRANKLIN STREET
PROPOSED INDOOR AIR/SUB-SLAB SAMPLING LOCATIONS - FIRST FLOOR

FIGURE 3

TABLES

TABLE 3-1
SUMMARY OF ANALYTICAL ANALYSIS
INDOOR AIR SAMPLING
North Franklin Street
Work Assignment No. D003825-09.3

Parameter	Method Number [1]	Estimated Number of Samples	Field QA/QC Field Duplicates*	Total Number of Samples
Indoor Air				
TCL Volatiles	TO-15	3	1	4
Sub-Slab Vapor				
TCL Volatiles	TO-15	2	1	3
Outdoor Ambient Air				
TCL Volatiles	TO-15	1	0	1

NOTES:

1. Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition, January 1999.
2. Field duplicates are taken at a rate of 1 per 20 for each zone (i.e., the zones are subslab and first floor).
3. Outdoor ambient samples are taken at a minimum of one per day, at a location central to the homes sampled that day.

TABLE 6-1

FIELD INSTRUMENTATION PREVENTIVE MAINTENANCE SUMMARY

Instrument	Maintenance Details
Photoionization Detector (ppb-RAE)	Initiate factory checkout and calibration, yearly or when malfunctioning or after changing UV light source. Wipe down readout unit after each use. Clean UV light source window every month or as use and site conditions dictate. Clean the ionization chamber monthly. Recharge battery after each use.

APPENDIX A

FIELD ACTIVITY FORMS

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name _____ Date/Time Prepared _____

Preparer's Affiliation _____ Phone No._____

Purpose of Investigation_____

1. OCCUPANT:

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location _____ Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y / N

Last Name: _____First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) _____

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors_____ Building age_____

Is the building insulated? Y / N How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	brick
b. Basement type:	full	crawlspace	slab	other _____
c. Basement floor:	concrete	dirt	stone	other _____
d. Basement floor:	uncovered	covered	covered with _____	
e. Concrete floor:	unsealed	sealed	sealed with _____	
f. Foundation walls:	poured	block	stone	other _____
g. Foundation walls:	unsealed	sealed	sealed with _____	
h. The basement is:	wet	damp	dry	moldy
i. The basement is:	finished	unfinished	partially finished	
j. Sump present?	Y / N			
k. Water in sump?	Y / N / not applicable			

Basement/Lowest level depth below grade: _____(feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

_____

_____

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in: Basement Outdoors Main Floor Other_____

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

_____

_____

_____

_____

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	_____
1st Floor	_____
2nd Floor	_____
3rd Floor	_____
4th Floor	_____

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA
Please specify_____

d. Has the building ever had a fire? Y / N When?_____

e. Is a kerosene or unvented gas space heater present? Y / N Where? _____

f. Is there a workshop or hobby/craft area? Y / N Where & Type? _____

g. Is there smoking in the building? Y / N How frequently? _____

h. Have cleaning products been used recently? Y / N When & Type? _____

i. Have cosmetic products been used recently? Y / N When & Type? _____

j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____

l. Have air fresheners been used recently? Y / N When & Type? _____

m. Is there a kitchen exhaust fan? Y / N If yes, where vented?_____

n. Is there a bathroom exhaust fan? Y / N If yes, where vented?_____

o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / N When & Type?_____

Are there odors in the building? Y / N
If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

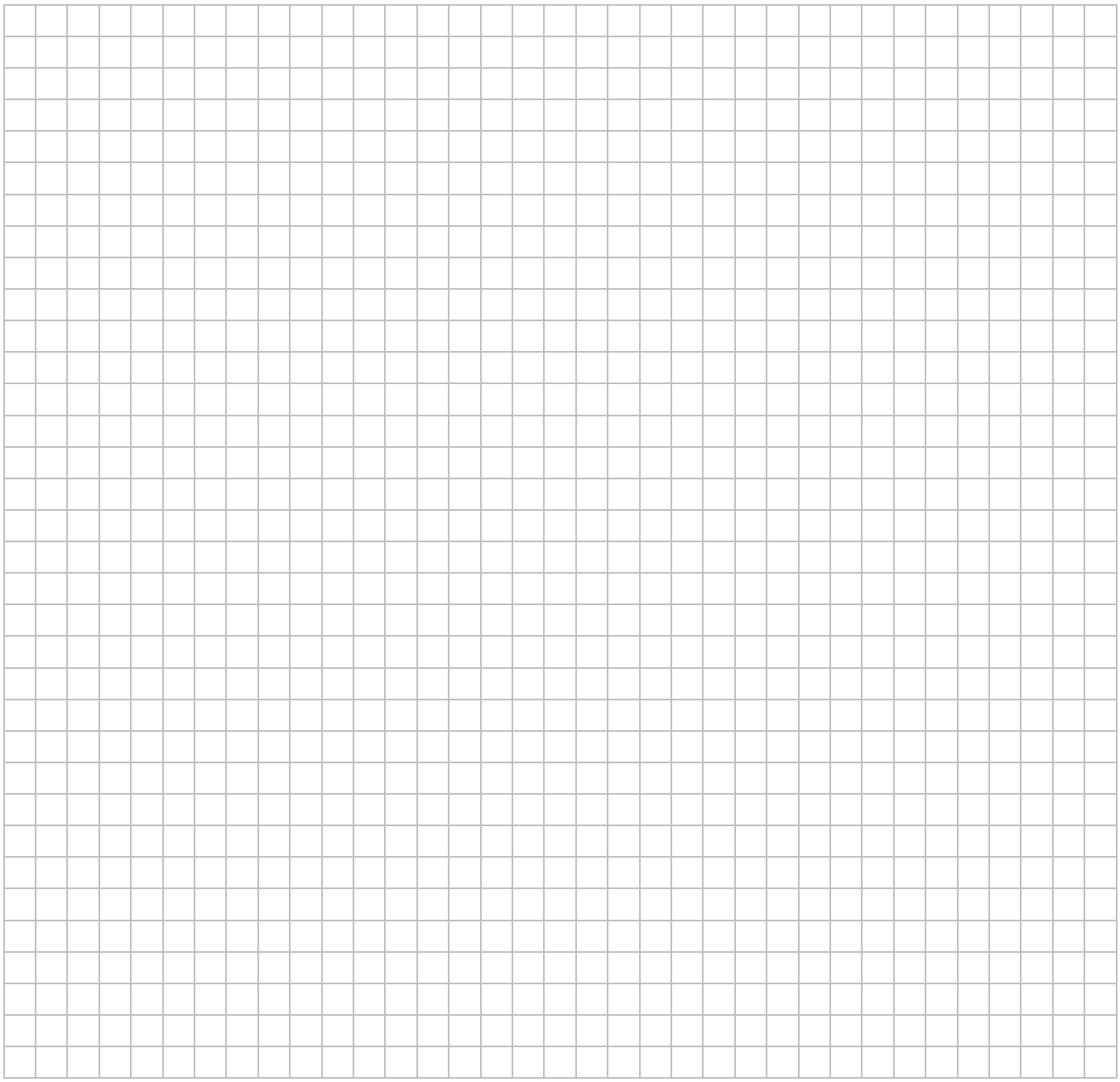
Basement:

First Floor:

12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

INDOOR AIR QUALITY INVESTIGATION

Instructions for Residents

(To be followed starting at least 24 hours prior to and during the sampling event)

- Do not open windows, fireplace openings or vents.
- Do not keep doors open.
- Do not operate ventilation fans or air conditioners.
- Do not smoke in the house.
- Do not use wood stoves, fireplace or auxiliary heating equipment (e.g., kerosene heaters).
- Do not paint or varnish.
- Do not use cleaning products (e.g.., bathroom cleaners, furniture polish, appliance cleaners, all-purpose cleaners, floor cleaners).
- Do not use cosmetics, including hair spray, nail polish, nail polish remover, perfume, etc.
- Do not partake in indoor hobbies that use solvents.
- Do not apply pesticides.
- Do not store containers of gasoline, oil or petroleum-based or other solvents within the house or attached garage (except for fuel oil).
- Do not operate or store automobiles in an attached garage.
- Do not bring home items that have been dry-cleaned.

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. | SITE NAME

SAMPLERS (PRINT/SIGNATURE)

LAB _____

COOLER _____ of _____

PAGE _____ of _____

DELIVERY SERVICE: _____ AIRBILL NO.: _____

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO.# OF CONTAINERS	TESTS	BOTTLE TYPE AND PRESERVATIVE	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO.# (IRPIMS ONLY)

MATRIX CODES

AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES

TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE

(# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME

SPECIAL INSTRUCTIONS

Distribution: Original accompanies shipment, copy to coordinator field files

URSF-075C/1 OF 1/CofCR/GCM

URS

DAILY INSTRUMENT CALIBRATION CHECK SHEET

DATE	INSTRUMENT	BATTERY CHECK OK?	ZERO ADJUST OK?	CALIBRATION GAS (PPM)	READING (PPM)	CALIBRATED BY