



October 2, 2014

Mr. Mostafa Mehran
Chief, Hazardous Waste Divisions
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

SENT VIA ELECTRONIC MAIL

**Re: Addendum to the Soil Vapor Monitoring Plan
Whirlpool Corporation
Fort Smith, Arkansas
AFIN 66-00048
EPA ID No. ARD042755389**

Dear Mr. Mehran:

ENVIRON International Corporation (ENVIRON), on behalf of Whirlpool Corporation (Whirlpool), is submitting this Addendum to the Soil Vapor Monitoring Plan (Addendum) (Section 2.5 of the Final Remedial Work Plan, February 24, 2014¹) in response to Arkansas Department of Environmental Quality's (ADEQ's) September 22, 2014, letter. This addendum describes additional data collection approaches that will be employed to ensure that we meet the objectives of the Soil Vapor Monitoring Plan and to provide additional lines of evidence for assessment of vapor intrusion from groundwater. These supplemental actions are designed to address the lack of access to collect soil vapor samples at previously proposed locations due to underground utilities in the public right-of-way and the fact that some previous and recent attempts to collect soil vapor data at existing soil vapor monitoring locations have been unsuccessful due to saturated soil vapor monitoring points encountered during the past two quarterly sampling events.

In addition, this addendum describes supplemental data collection approaches for subslab vapor, crawl space air and indoor and outdoor air sampling to assess residential properties as requested by ADEQ and certain residents with properties over the groundwater plume emanating north from the former Whirlpool property. The subslab vapor, crawl space air and indoor and outdoor air data will be evaluated in conjunction with the soil vapor and groundwater data as additional lines of evidence in determining if a vapor intrusion pathway from groundwater exists at a respective property and where a pathway may exist, the health significance of vapor intrusion exposures will be assessed.

The proposed combined soil vapor, subslab vapor or crawl space air (as appropriate), and indoor and outdoor air data collection efforts are consistent with United States Environmental

¹ ENVIRON International Corporation (ENVIRON). 2014. Final Remedy Work Plan, Ft. Smith, Arkansas. February 24.

Protection Agency (USEPA)² draft guidance documents regarding the multiple lines of evidence approach for data collection to investigate vapor intrusion. Furthermore, under the ADEQ approved RADD, Whirlpool is obligated to conduct soil vapor testing. Combining soil vapor testing with subslab or crawl space vapor testing satisfies the obligations of the RADD, addresses concerns of some residents, and ensures adequate data is collected to eliminate concerns for false positives. False positives are a valid concern given the outcome of indoor air sampling performed for the Parker Solvents site where contaminants detected in indoor air at and near the site were determined not to be associated with the groundwater plume being investigated³.

Section 1 provides background information regarding the soil vapor sampling previously performed and Section 2 provides discussion of the proposed work consisting of soil vapor sampling and including subslab vapor or crawl space air, as appropriate, if requested by the respective residential property owners.

1. BACKGROUND

Whirlpool installed soil vapor monitoring points in May 2012 and collected soil vapor data from them as an additional line of evidence to complement a vapor intrusion modeling analysis of the potential for vapor intrusion from groundwater. These soil vapor data and the vapor intrusion modeling results were presented in ENVIRON's Revised Risk Management Plan (RRMP) and ADEQ's Remedial Action Decision Document (RADD)⁴.

The soil vapor data collected over the offsite groundwater plume to date⁵ show that trichloroethene (TCE) volatilizes from the groundwater and these TCE vapor concentrations at a depth of at least seven feet below the ground surface at the locations monitored to date are not indicative of a public health concern associated with soil vapor intrusion. These data show the vapor intrusion pathway from groundwater through the overlying soil terminates at a soil depth well below the ground surface and therefore, well below any offsite residence. These findings corroborate the vapor intrusion modeling results which indicate vapor intrusion is not occurring at levels that would present a public health concern.

At the request of the community, a soil vapor monitoring plan was included in the Final Remedial Work Plan to provide area residents with additional assurance that the offsite groundwater plume north of the Site is not a vapor intrusion concern. The Final Remedial Work

² OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance), November 2002; and, OSWER Final Guidance for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Sources to Indoor Air (External Review Draft), April 2013 (these draft guidance documents are not to be cited or referenced and are currently being revised by USEPA; therefore, these documents are not referenced further within this soil vapor monitoring plan).

³ USEPA Region 6 Soil Vapor Intrusion Study
http://www.epa.gov/superfund/remedytech/tsp/download/2009_jan_meeting/gary_miller.pdf

⁴ Included in Appendix A of the April 2013 RRMP (ENVIRON 2013) and Section 3.A of the December 2013 Remedial Action Decision Document (ADEQ 2013).

⁵ Included in: Table 4 of Appendix A in the April 2013 Revised Risk Management Plan (ENVIRON 2013); Attachment B of the 1st Quarter 2014 Progress Report (ENVIRON May 2014); and Attachment B of the 2nd Quarter 2014 Progress Report (ENVIRON August 2014).

Plan included five locations for soil vapor monitoring, as shown in Figure 1. Two of the locations were previously monitored for soil vapor in 2012 (SV-01S/SV-02D and SV-03S/SV-04D). In May 2012 soil vapor samples were successfully collected at the respective shallow and deep ports for SV-01S/SV-02D and SV-03S/SV-04D. Soil vapor concentrations from May 2012 indicate that the model used to evaluate the potential for vapor intrusion from groundwater is conservative (i.e. the measured soil vapor concentrations were lower than those predicted by the model).

The screens for soil vapor monitoring points SV-01S/SV-02D and SV-03S/SV-04D became filled with water during the 4th Quarter 2013 monitoring event; Whirlpool replaced them with VP-1S/D and VP-2S/D during the 1st Quarter 2014 monitoring event, as described in the 1st Quarter 2014 Soil Vapor Monitoring/Vapor Intrusion Report⁶. During the 1st Quarter of 2014 soil vapor samples were successfully collected at the shallow and deep ports of VP-1; and at the deep port of VP-2 (the shallow port of VP-2 was saturated). Measured soil vapor concentrations from the 1st Quarter of 2014 indicated that risks based upon the measured soil vapor concentrations were nearly ten time less than the potential vapor intrusion exposure risks predicted by the previous modeling, and even the modeling did not predict risks that would give rise to a health concern (1st Quarter 2014 Soil Vapor Monitoring/Vapor Intrusion Report).

The Final Remedial Work Plan included another soil vapor monitoring point at 1410 Jacobs Avenue. At this location, Whirlpool attempted to install a monitoring point during the 1st Quarter 2014 monitoring event at VP-3 and VP-4 (as shown on Figure 2). As explained in the 1st Quarter 2014 Soil Vapor Monitoring/Vapor Intrusion Report, the attempt at VP-3 encountered very moist soil at 3 feet below ground surface (bgs) and water entered the borehole at 4 feet bgs. At VP-4, very moist to wet soil was encountered starting at 2.5 feet bgs. Because of the wet shallow soil, no vapor monitoring point was installed at either VP-3 or VP-4.

The Final Remedial Work Plan also included vapor monitoring at VP-5 and VP-6, as shown on Figure 1. VP-5 could not be installed at the planned location because multiple underground utilities were encountered in the road right-of-way. In trying to avoid underground utilities along the road right-of-way, Whirlpool requested permission from owners of nearby properties to install VP-5 and VP-6. Whirlpool has been denied access to these properties. Whirlpool is currently working with legal counsel for the private property owners north and south of Jacobs Avenue to gain access to perform additional investigation. This additional investigation will be performed to obtain data as additional lines of evidence in determining if a vapor intrusion pathway from groundwater exists at respective properties. The proposed work in this Addendum can only be performed after access is granted by the residential property owners (through legal counsel).

2. PROPOSED WORK

Once granted access by the private property owners, Whirlpool will be able to continue its effort to monitor soil vapors over the offsite groundwater plume as described in the Final Remedial Work Plan and to make improvements to address field conditions encountered in past sampling

⁶ Attachment B of the 1st Quarter 2014 Progress Report (ENVIRON May 2014).

events. The proposed adjustments to the Final Remedial Work Plan are described below in Section 2.1.

In addition to collection of soil vapor data, Whirlpool plans to perform subslab soil vapor or crawl space air sampling, as appropriate and indoor and outdoor air sampling at the respective properties, if requested by the property owners. This work is discussed below in Section 2.2.

2.1 ADDENDUM TO FINAL REMEDY WORK PLAN

Whirlpool will attempt to install the remaining soil vapor monitoring points described in the Final Remedial Work Plan on the highlighted parcels on Figure 3 depending upon where access is ultimately obtained⁷. Whirlpool has access to the Scroggins and Keith properties which are the eastern most highlighted properties on Figure 3. The vapor monitoring points will be installed as described in the Final Remedial Work Plan (as shown on Figure 4) and will be used for the purposes described in the Final Remedial Work Plan. They will be sampled in accordance with the new protocol described in Section 2.4 of Appendix B to the 2nd Quarter Progress Report (referenced protocol is provided below), to minimize the potential for water in the vapor monitoring points and to provide for water sampling if water is present in these monitoring points. Soil vapor collected from these points will be analyzed for chlorinated volatile organic compounds (cVOCs) using EPA Method TO-15 by an accredited analytical laboratory.

Proposed Modifications to Soil Vapor Sampling (Section 2.4 of Appendix B to the 2nd Quarter Progress Report)

To reduce the likelihood of soil saturation interfering with future sampling events, the vapor sampling plan is proposed to be modified as described below. These modifications should enable Whirlpool to continue to collect data to verify vapor intrusion is not a significant pathway at offsite locations.

- Soil vapor sample collection will be attempted only after five (5) consecutive preceding days where the precipitation measured each day does not exceed 0.1 inches.*
- The field documentation will include the number of days since the last precipitation greater than 0.1 inches and the amount of that precipitation, the amount of precipitation on each of the five preceding days and the source of the precipitation data.*
- Prior to attempting collection of the soil vapor samples, groundwater levels will be measured at adjacent monitoring wells and documented. The water level measurements will be used as one line of evidence when determining whether water, if any, observed in the soil vapor probes is due to perched water or an elevated water table.*
- Each soil vapor sampling port will be inspected to identify potential leaks into the port through the surface seal along the annular space and checked for the presence of water prior to sampling. If the port is free of water it will be sampled for soil vapor consistent*

⁷ We have prioritized properties with legal counsel for the private property owners consisting of the desire to obtain access to the Smith property at 1701 Jacobs Avenue and the northern most Reith property at 1600 Jacobs Avenue due to location of the properties within the groundwater plume and location of nearby groundwater monitoring wells.

with the July 2013 Work Plan. If the port contains water then the water in the port will be sampled and analyzed for VOCs via SW-846 Method 8260.

To address the inability to sample vapors at VP-1 and VP-2 during the 3rd Quarter 2014, Whirlpool will install a set of temporary vapor monitoring points near each of these locations (as shown on Figure 3 and Figure 5 depicts a temporary soil vapor monitoring point). At each of the temporary vapor monitoring points, sampling points will be installed at depths consistent with those at VP-1 and VP-2. These points will be sampled in accordance with the protocol described in Section 2.4 of Appendix B to the 2nd Quarter Progress Report (referenced protocol is provided above) and analyzed for cVOCs using EPA Method TO-15 by an accredited analytical laboratory.

If field conditions prevent Whirlpool from installing or sampling any of the soil vapor monitoring points described above, Whirlpool will confer with ADEQ to determine an appropriate course of action.

2.2 ADDITIONAL WORK

Whirlpool plans to perform subslab soil vapor or crawl space air sampling, as appropriate and indoor and outdoor air sampling at properties where soil vapor data is collected, if requested by the respective property owners. This sampling, as well as the pre-sampling preparation, will be conducted in accordance with industry best practices, as defined by the most recent guidance from the Interstate Technology Regulatory Council (ITRC). The specific plans are discussed below. These samples will be analyzed for cVOCs using EPA Method TO-15 by an accredited analytical laboratory.

Pre-Sampling Preparation

In order to reduce risks for false positives during indoor air sampling, residents will be asked to remove potential sources of cVOCs 24 hours prior to ENVIRON selecting the sampling locations and performing a pre-sampling building inspection. The pre-sampling inspection will include completion of an Indoor Air Sampling Questionnaire from ITRC 2007⁸ (Appendix A).

Subslab Soil Vapor Sampling

For slab-on-grade residences, a soil vapor sampling probe will be installed through the floor slab as close to the center of the habitable portion of the residence as possible, immediately after indoor air sampling (described below), which is consistent with the approach discussed by ITRC 2007⁵. Carpeting will be removed, if present, by cutting a small approximately ½ inch square flap that will be glued back down when sampling is completed. The vapor probe will be installed by drilling a small diameter hole through the floor (e.g. 3/8 inch outside diameter) using an electric hand-held hammer-drill. Plastic tubing will be inserted through the hole and temporarily sealed at the surface, as shown on Figure 6. Integrity of the surface seal will be checked by

⁸ Interstate Technology Regulatory Council (ITRC). 2007. Technical and Regulatory Guidance. Vapor Intrusion Pathway: A Practical Guideline. January.

using a helium tracer (i.e. leak test). A subslab vapor sample will be collected through the probe via tubing connected to a certified clean stainless steel Summa canister provided by an accredited laboratory. The sample will be collected over a 24 hour period using a regulator with a flow rate pre-set by the laboratory for the sampling time. Upon completion of the sampling, the temporary subslab probe will be removed and the floor will be sealed using quick-drying cement.

Crawl Space Air Sampling

For residences built over a crawl space, if the crawl space is free of standing water, a crawl space air sample will be collected consistent with the approach discussed by ITRC 2007⁵ in a certified clean stainless steel Summa canister provided by an accredited laboratory. For a crawl space that is accessible via a hatch, the Summa canister will be placed in the crawl space near the center of the residence. For a crawl space that is not accessible from inside the residence, a Summa canister will be set-up outside the residence and connected to tubing that will be inserted through a crawl space vent to approximately the center of the residence. The air sample will be collected over a 24 hour period using a regulator with a flow rate pre-set by the laboratory for the sampling time.

Indoor Air Sampling

An indoor air sample will be collected from the first floor of the residence consistent with the approach discussed by ITRC 2007⁵ using a certified clean stainless steel Summa canister provided by an accredited laboratory. The air sample will be collected over a 24 hour period using a regulator with a flow rate pre-set by the laboratory for the sampling time. For a slab-on-grade residence or a residence with a crawl space that is accessible from inside, indoor air sampling will be performed before collecting the subslab soil vapor sample or the crawl space air sample, to minimize the potential for cross-contamination into/out of the building. For a residence with a crawl space that is accessed from outside, indoor air sampling will be performed concurrently with the crawl space air sampling.

Outdoor Air Reference

An outdoor air sample will be collected from a location upwind of each residence where an indoor air sample is collected, concurrent with the indoor air sampling, consistent with the approach discussed by ITRC 2007⁵. The air sample will be collected using a certified clean stainless steel Summa canister provided by an accredited laboratory. The air sample will be collected over a 24 hour period using a regulator with a flow rate pre-set by the laboratory for the sampling time.

2.3 DATA EVALUATION

The soil vapor and groundwater data that are collected as part of the updated soil vapor monitoring plan will be evaluated as described in the Final Remedial Work Plan and consistent with industry best practices. The indoor air, subslab vapor, crawl space air and outdoor air data will be evaluated in conjunction with the soil vapor and groundwater data as additional lines of

evidence in determining if a vapor intrusion pathway from groundwater exists at a property and where a pathway exists, the health significance of vapor intrusion exposures.

Whirlpool intends to commence implementation of the above plan within 30 days of receiving ADEQ's approval assuming timely access is granted by the respective residential property owners.

-oo0oo-

We look forward to discussing this addendum in greater detail and to addressing any questions you may have.

Sincerely,

ENVIRON International Corporation



Michael F. Ellis, PE
Principal

LIST OF ATTACHMENTS

- Figure 1: Proposed Additional Soil Gas Locations from Final Remedy Work Plan
- Figure 2: Vapor Monitoring Point Locations through the 3rd Quarter 2014
- Figure 3: Updated Proposed Soil Vapor Monitoring Locations
- Figure 4: Permanent Soil Gas Sample Construction
- Figure 5: Temporary Soil Gas Sample Construction
- Figure 6: Temporary Subslab Soil Vapor Point Construction
- Appendix A: ITRC 2007 Vapor Intrusion Pathway: A Practical Guideline

FIGURES



PROPOSED ADDITIONAL SOIL GAS LOCATIONS FROM FINAL REMEDY WORK PLAN

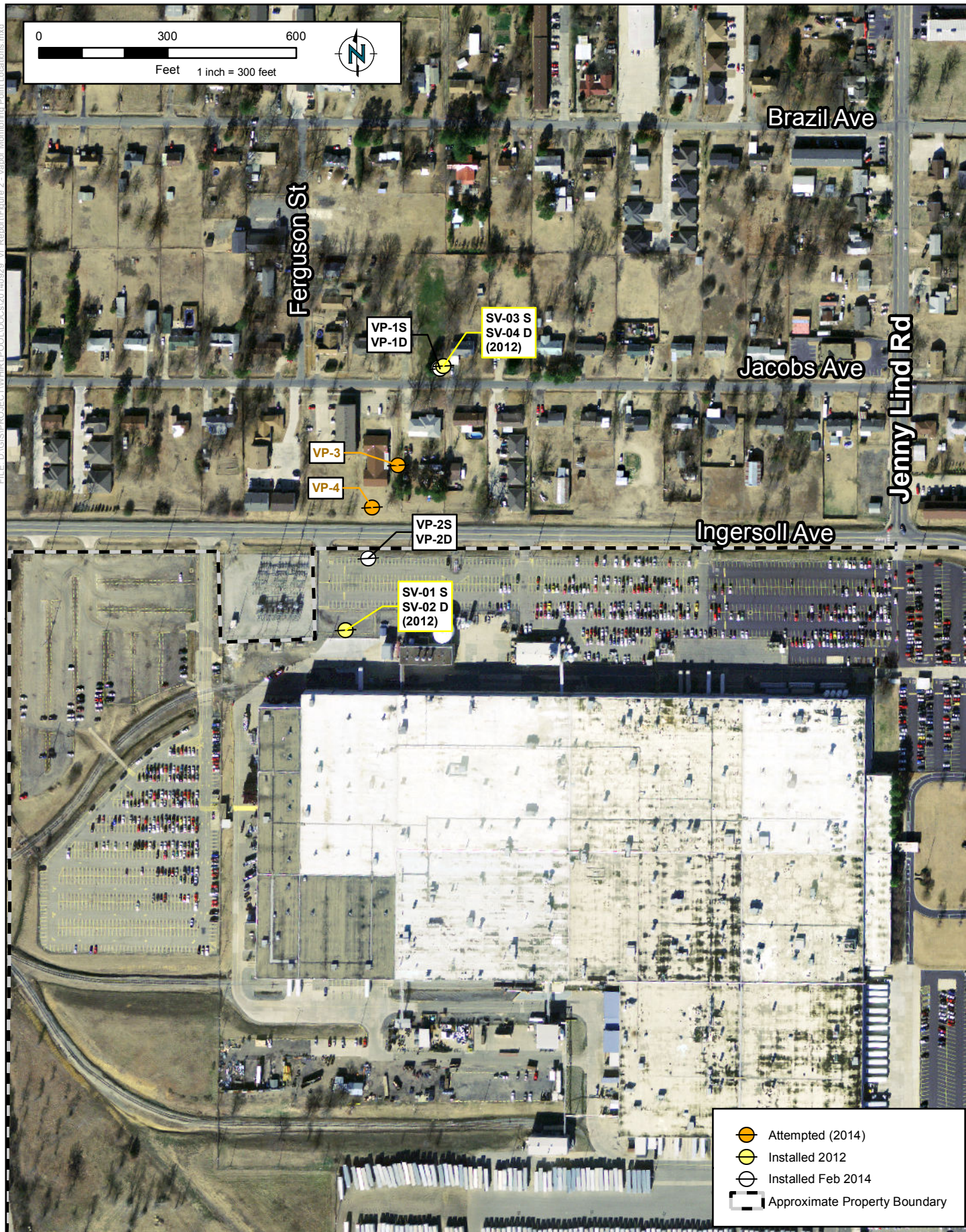
Whirlpool Facility - Fort Smith, Arkansas

Figure
1

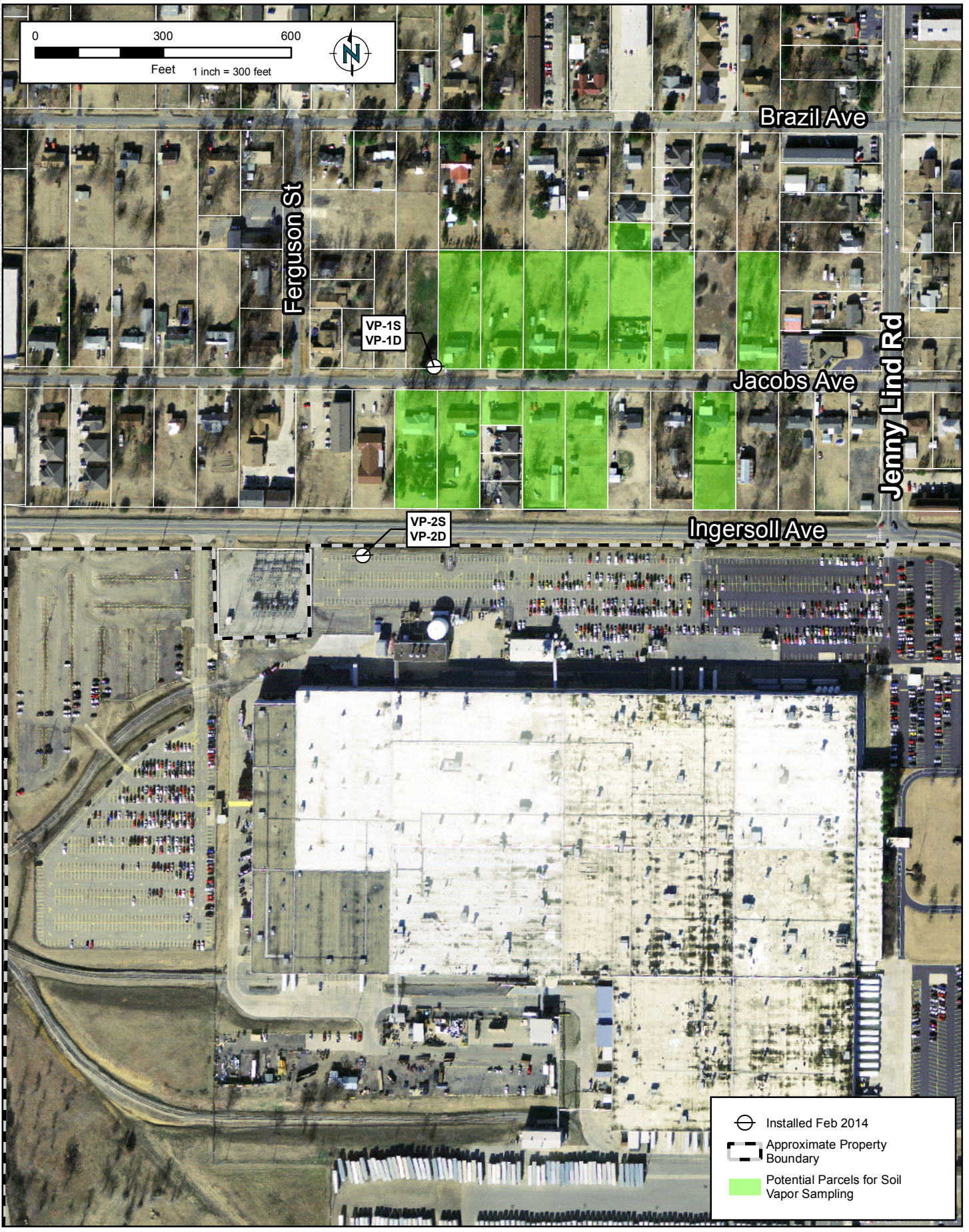
DRAFTED BY: KTS

DATE: 09/29/2014

PROJECT: 2131344B

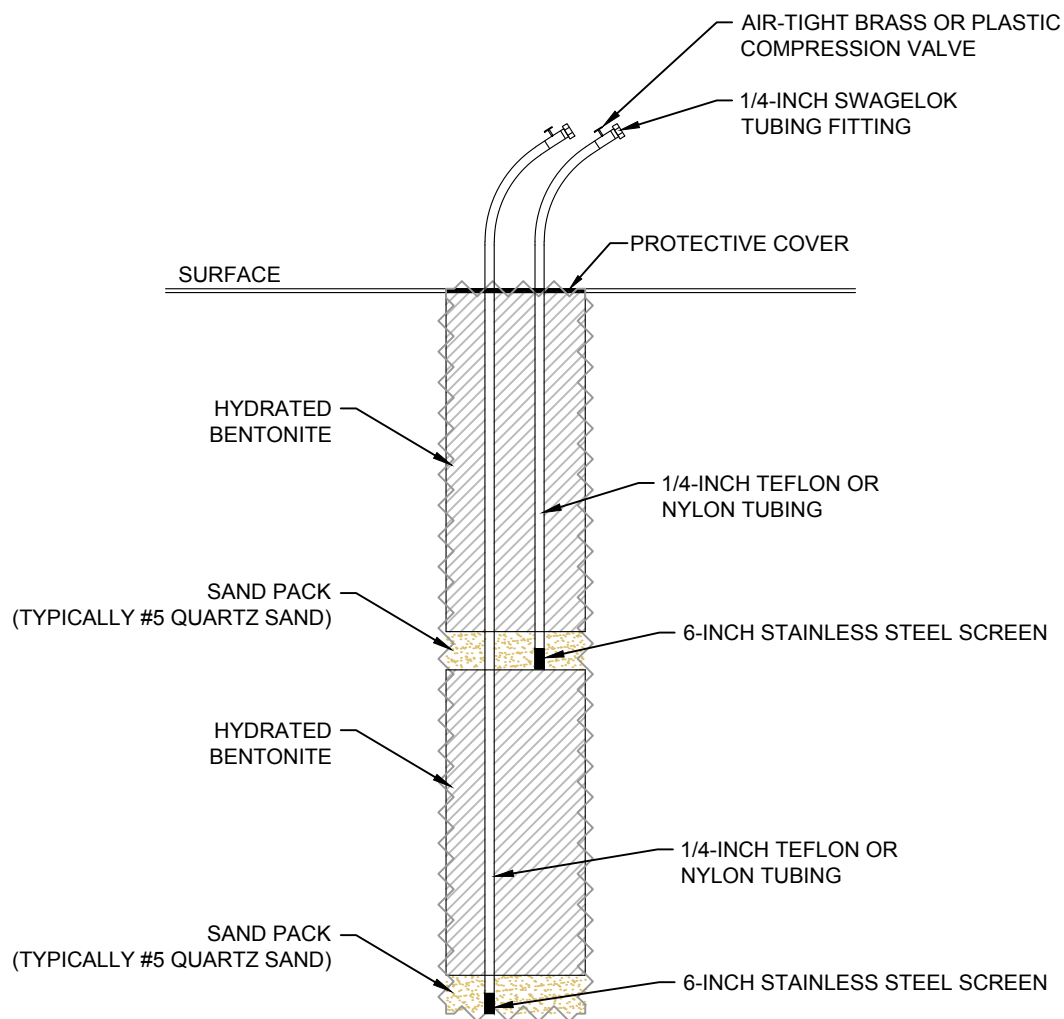


FILE: D:\GIS\PROJECT\WHIRLPOOL\DOCs\20140928_VI_Report\Figure 3 - Updated Vapor Monitoring Point Locations.mxd



UPDATED PROPOSED SOIL VAPOR MONITORING LOCATIONS

Figure
3



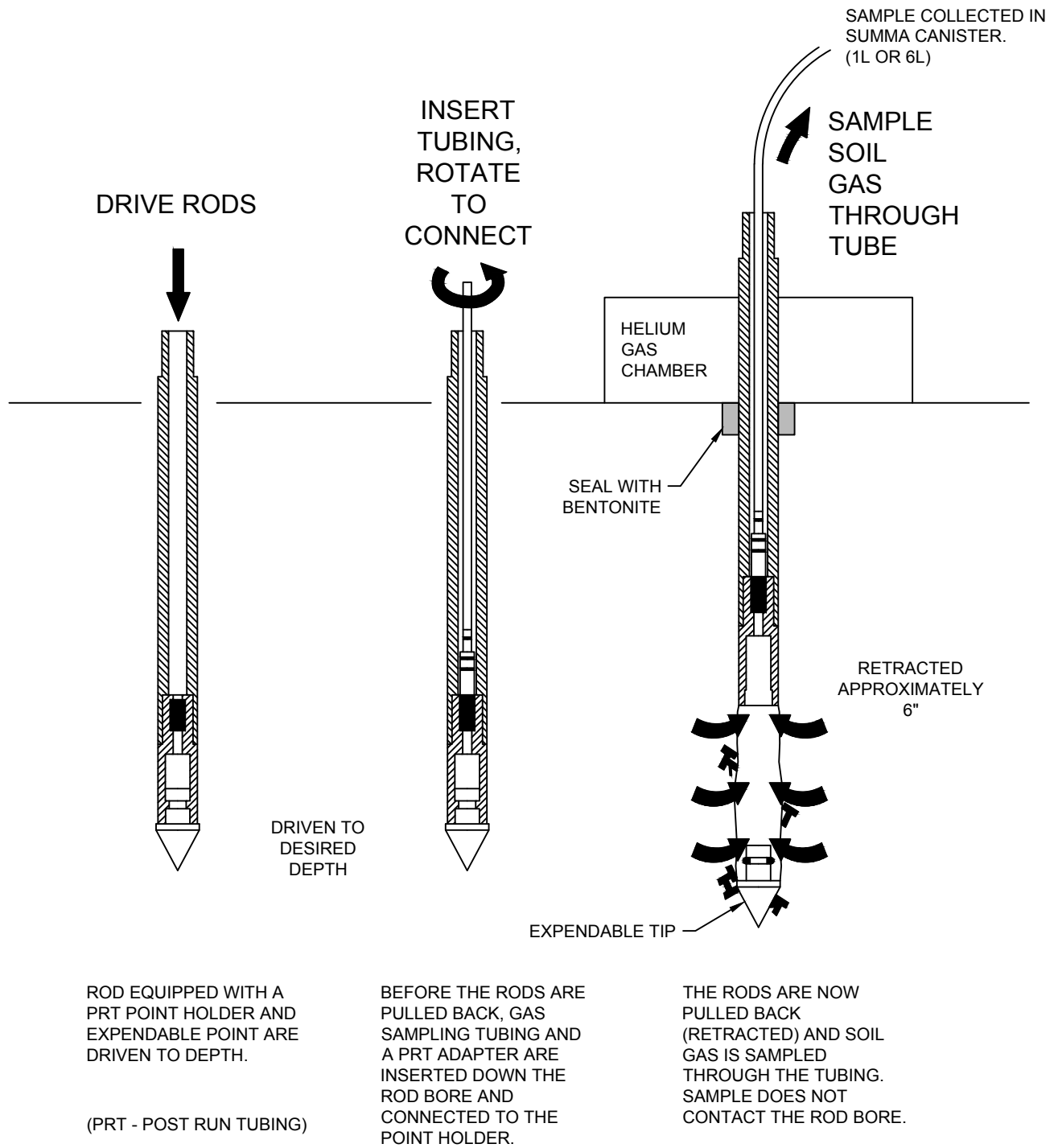
**TYPICAL NESTED SOIL VAPOR
MONITORING POINT CONSTRUCTION DETAILS**
WHIRLPOOL CORPORATION
6400 JENNY LIND ROAD
FORT SMITH, ARKANSAS

**FIGURE
4**

DRAFTED BY: BJK

DATE: 4/18/2013

2129753C

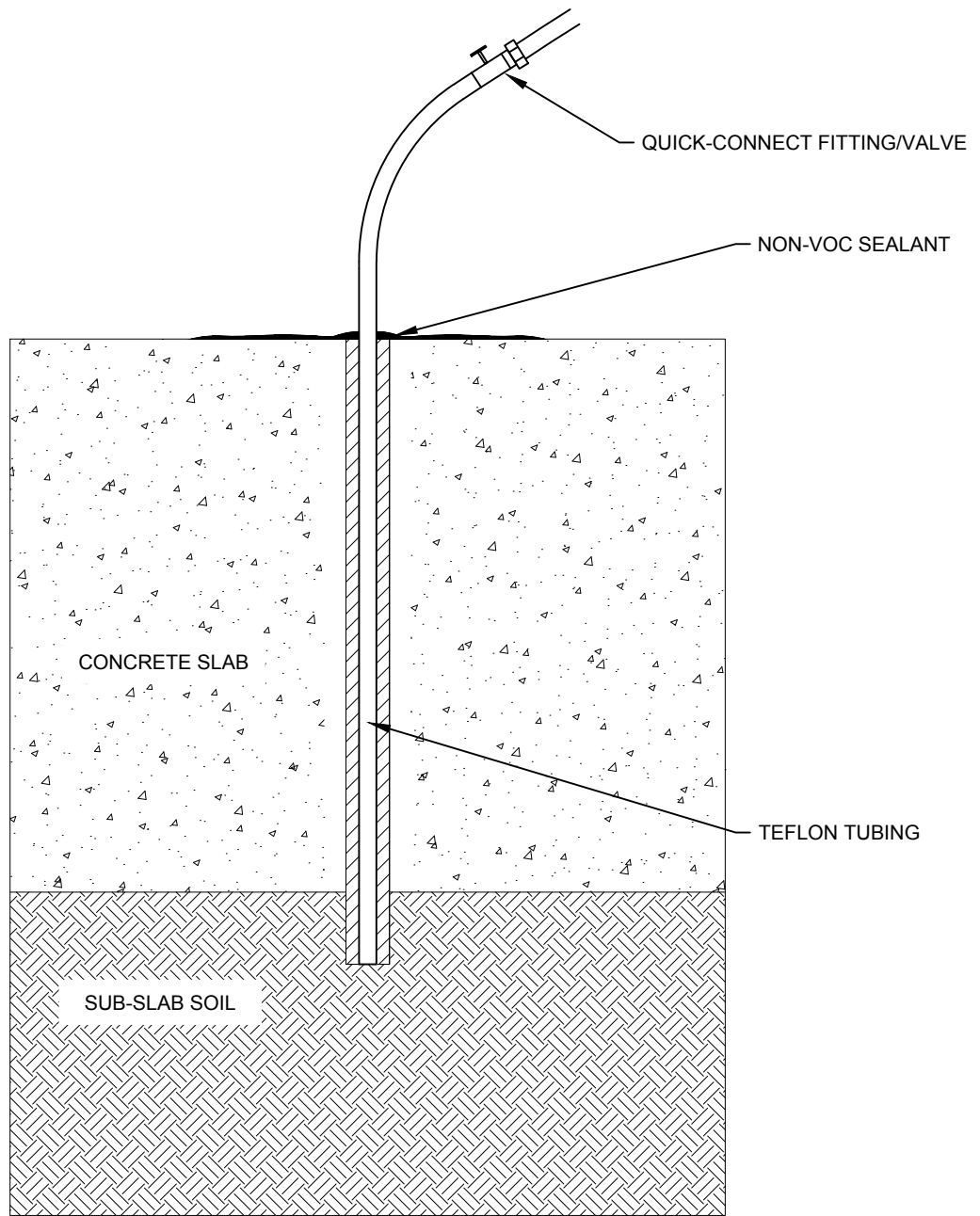


SOURCE:
2006. GEOPROBE SYSTEMS DIRECT PUSH INSTALLATION OF DEVICES FOR ACTIVES
SOIL GAS SAMPLING AND MONITORING. TECHNICAL BULLETIN NO. MK3098.



SOIL GAS SAMPLING PROCEDURES INSTALLATION USING GEOPROBE

FIGURE
5



KMAUGHAN 9/30/14 [DET_SUB SLAB POINT_343323] F:\343323



DRAFTED BY: KPM

DATE: 09/29/2014

TYPICAL TEMPORARY SUBSLAB SOIL GAS MONITORING POINT

FIGURE
6

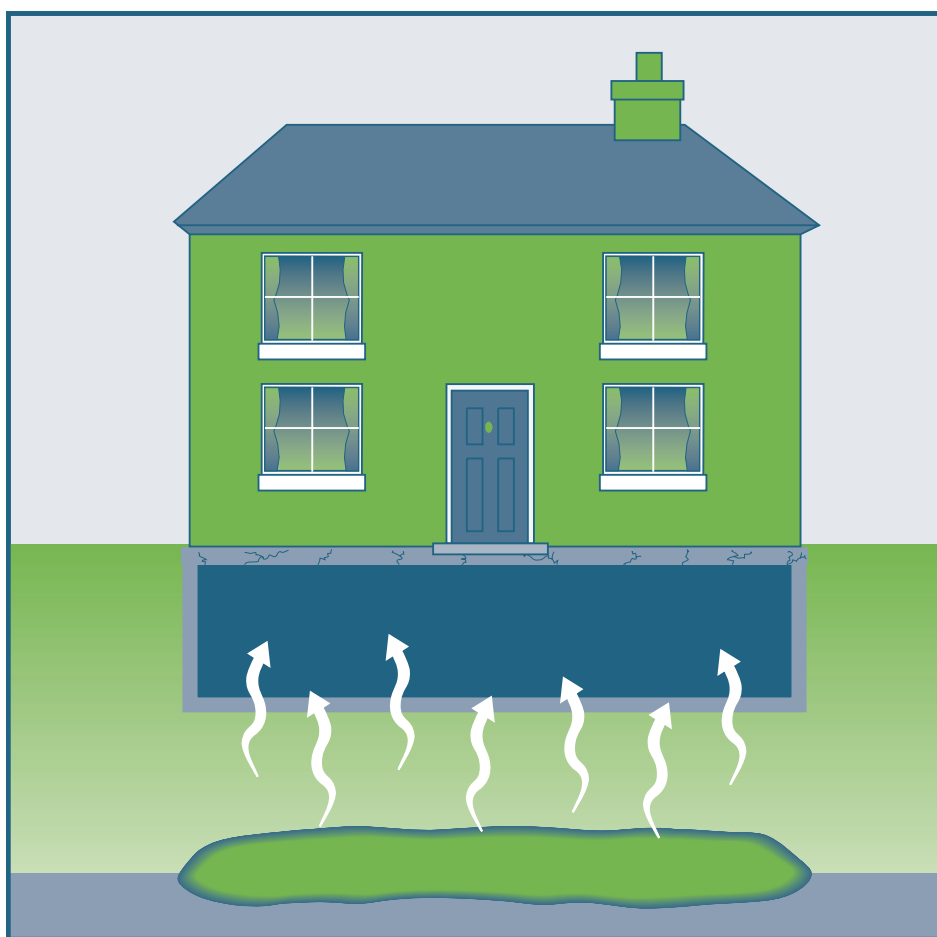
3433233A

APPENDIX A: ITRC 2007 Vapor Intrusion Pathway: A Practical Guideline



Technical and Regulatory Guidance

Vapor Intrusion Pathway: A Practical Guideline



January 2007

Prepared by
The Interstate Technology & Regulatory Council
Vapor Intrusion Team

ABOUT ITRC

Established in 1995, the Interstate Technology & Regulatory Council (ITRC) is a state-led, national coalition of personnel from the environmental regulatory agencies of some 46 states and the District of Columbia, three federal agencies, tribes, and public and industry stakeholders. The organization is devoted to reducing barriers to, and speeding interstate deployment of better, more cost-effective, innovative environmental techniques. ITRC operates as a committee of the Environmental Research Institute of the States (ERIS), a Section 501(c)(3) public charity that supports the Environmental Council of the States (ECOS) through its educational and research activities aimed at improving the environment in the United States and providing a forum for state environmental policy makers. More information about ITRC and its available products and services can be found on the Internet at www.itrcweb.org.

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Vapor Intrusion Pathway: A Practical Guideline

January 2007

**Prepared by
The Interstate Technology & Regulatory Council
Vapor Intrusion Team**

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444 North Capitol Street, NW, Suite 445, Washington, DC 20001**

Permission is granted to refer to or quote from this publication with the customary acknowledgment of the source. The suggested citation for this document is as follows:

ITRC (Interstate Technology & Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline*. VI-1. Washington, D.C.: Interstate Technology & Regulatory Council, Vapor Intrusion Team. www.itcreweb.org.

APPENDIX G

Indoor Air Sampling Questionnaire

**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
Industrial

School
Church

Commercial/Multi-use
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	<hr/>
1 st Floor	<hr/>
2 nd Floor	<hr/>
3 rd Floor	<hr/>
4 th Floor	<hr/>

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 <hr/> |
| d. Has the building ever had a fire? | Y / N When? <hr/> |
| e. Is a kerosene or unvented gas space heater present? | Y / N Where? <hr/> |
| f. Is there a workshop or hobby/craft area? | Y / N Where & Type? <hr/> |
| g. Is there smoking in the building? | Y / N How frequently? <hr/> |
| h. Have cleaning products been used recently? | Y / N When & Type? <hr/> |
| i. Have cosmetic products been used recently? | Y / N When & Type? <hr/> |

- 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

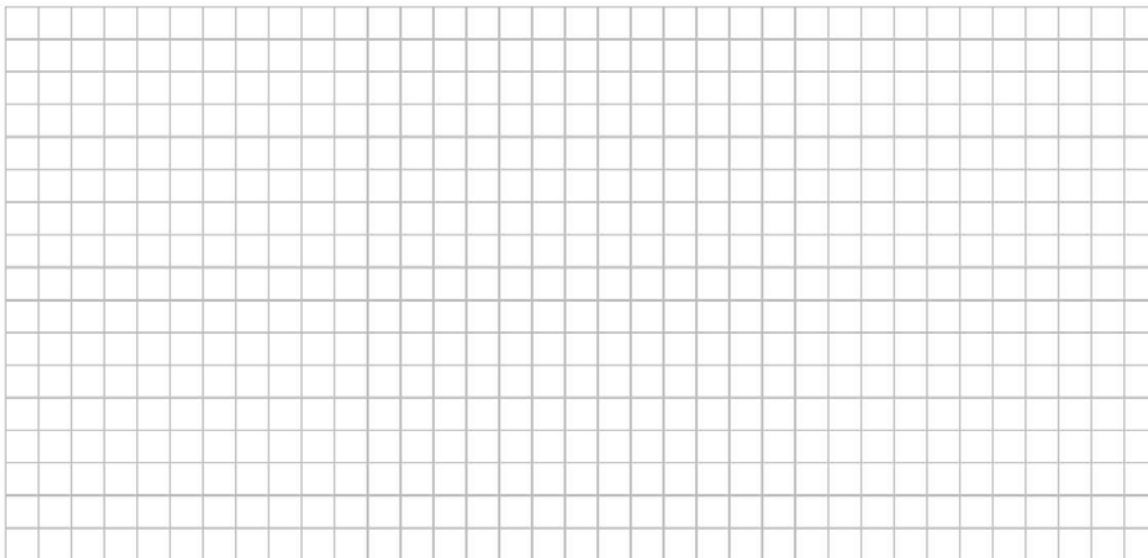
c. Responsibility for costs associated with reimbursement explained? Y / N

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

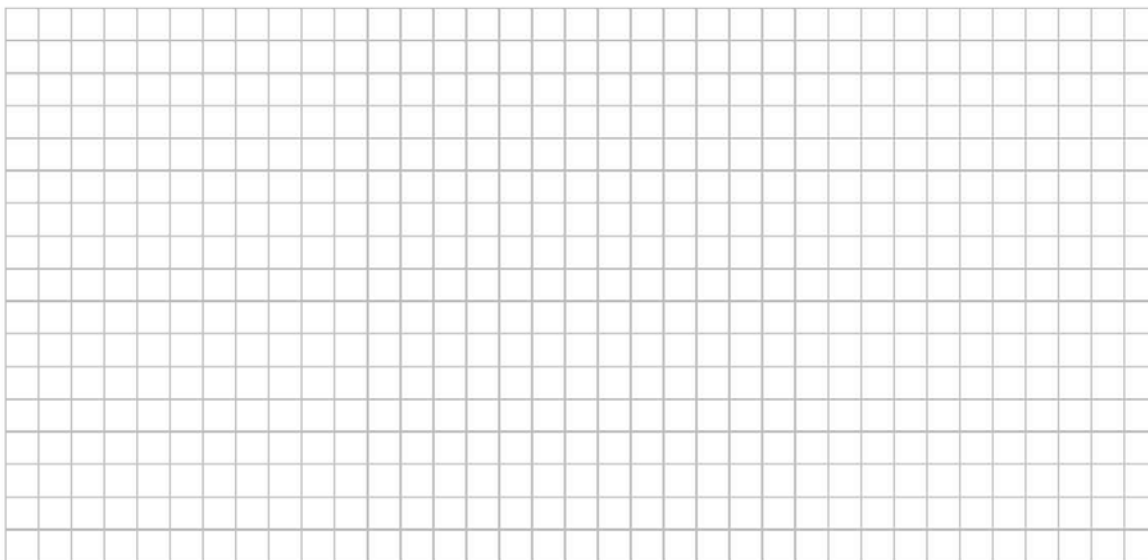
11. FLOOR PLANS

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:



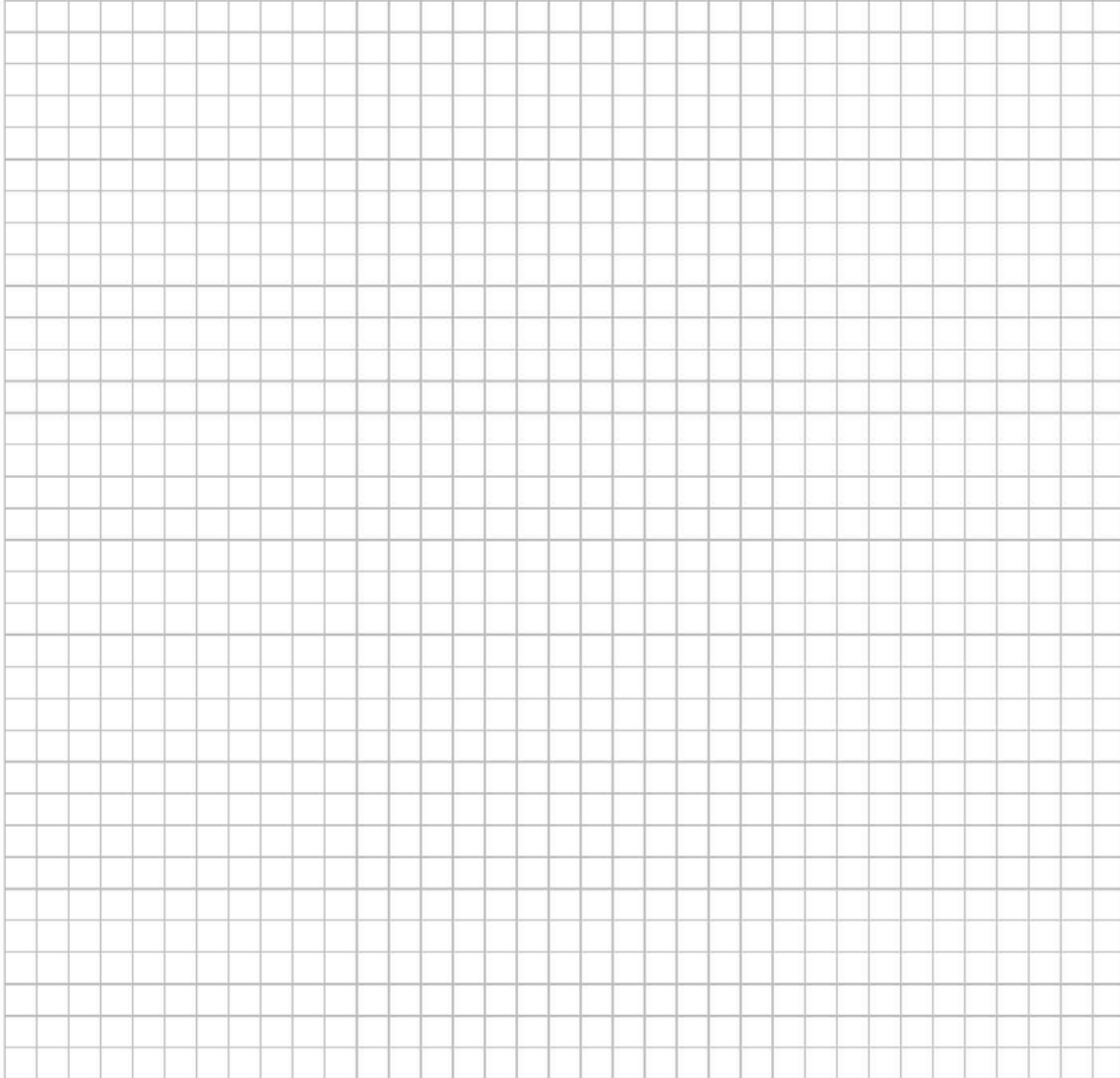
First Floor:



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 ** <u>Y / N</u>

* 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.