



September 13, 2013

Mr. Stephen Nightingale, P.E.
Manager, Permit Section
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62794

**Subject: Work Plan - Soil Vapor Delineation Near VMP-47
Roxana, Illinois
119115002 – Madison County
Equilon Enterprises LLC d/b/a Shell Oil Products US
Log No. B-43R**

Dear Mr. Nightingale:

On behalf of Shell Oil Products US, URS Corporation is submitting the enclosed work plan for your review and comment. The plan proposes installation and sampling of additional vapor monitoring ports (VMPs) based on observations made at VMP-47, in the area of East 1st Street and Chaffer Street in Roxana. This work was recently discussed with Jim Moore. As this work necessitates an addendum to the access agreement between SOPUS and Roxana before the work can be performed, we appreciate expedited review of the plan.

If you have any questions during your review, please contact Kevin Dyer, SOPUS Sr. Principal Program Manager, at kevin.dyer@shell.com (618/288-7237), or me at bob.billman@urs.com (314/743-4108).

Sincerely,

URS Corporation, on behalf of Shell Oil Products US

Robert B. Billman
Senior Project Manager

Enclosures: RCRA Corrective Action Certification and Work Plan (original plus 2 copies)

cc: Kevin Dyer, SOPUS
Shannon Haney, Greensfelder, Hemker & Gale
Jim Moore, IEPA Springfield
Bill Sinnott, IEPA Springfield
Gina Search, IEPA Collinsville
Roxana Public Library
Marty Reynolds, Village of Roxana

1001 Highland Plaza Drive West, Suite 300
St. Louis, MO 63110
Phone: 314.429.0100
Fax: 314.429.0462



Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

ILLINOIS EPA RCRA CORRECTIVE ACTION CERTIFICATION

This certification must accompany any document submitted to Illinois EPA in accordance with the corrective action requirements set forth in a facility's RCRA permit. The original and two copies of all documents submitted must be provided.

1.0 Facility Identification

Name Equilon Enterprises LLC d/b/a Shell Oil Products US County Madison
 Street Address 900 South Central Ave. Site No. (IEPA) 1191150002
 City Roxana, Illinois 62084 Site No. (USEPA) ILD 080 012 305

2.0 Owner Information

Name Not Applicable
 Mail Address _____
 City _____
 State _____ Zip Code _____
 Contact Name _____
 Contact Title _____
 Phone _____

3.0 Operator Information

Name Equilon Enterprises LLC d/b/a Shell Oil Products US
 Mail Address 17 Junction Drive, PMB #399
 City Glen Carbon
 State IL Zip Code 62034
 Contact Name Kevin Dyer
 Contact Title Principal Program Manager
 Phone 618-288-7237

4.0 Type of Submission (check applicable item and provide requested information, as applicable)

RFI Phase I Workplan/Report IEPA Permit Log No. B-43R
 RFI Phase II Workplan/Report Date of Last IEPA Letter on Project July 22, 2013
 CMP Report; Log No. of Last IEPA Letter on Project B-43R-CA-57
 Other (describe): Work Plan for Soil Vapor Delineation near VMP-47 Does this submittal include groundwater information: Yes No
 Date of Submittal September 13, 2013

5.0 Description of Submittal: (briefly describe what is being submitted and its purpose)

Work Plan for Soil Vapor Delineation near VMP-47

6.0 Documents Submitted (identify all documents in submittal, including cover letter; give dates of all documents)

Letter, Work Plan for Soil Vapor Delineation near VMP-47, RCRA Corrective Action Certificate

7.0 Certification Statement

(This statement is part of the overall certification being provided by the owner/operator, professional and laboratory in Items 7.1, 7.2 and 7.3 below). The activities described in the subject submittals have been carried out in accordance with procedures approved by Illinois EPA. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

IEPA RCRA Corrective Action Certification

For: Equilon Enterprises LLC d/b/a Shell Oil Products US

Date of Submission: 9-13-13

7.1 Owner/Operator Certification

(Must be completed for all submittals. Certification and signature requirements are set forth in 35 IAC 702.126.) All submittals pertaining to the corrective action requirements set forth in a RCRA Permit must be signed by the person designated below (or by a duly authorized representative of that person):

- 1. For a Corporation, by a principal executive officer of at least the level of vice president.
2. For a Partnership or Sole Proprietorship, by a general partner or the proprietor, respectively.
3. For a Governmental Entity, by either a principal executive officer or a ranking elected official.

A person is a duly authorized representative only if:

- 1. the authorization is made in writing by a person described above; and
2. the written authorization is provided with this submittal (a copy of a previously submitted authorization can be used).

Owner Signature: _____ Date: _____

Title: _____

Operator Signature: Kevin Edger Date: 9/19/13

Title: Principal Program Manager

7.2 Professional Certification (if necessary)

Work carried out in this submittal or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. No one is relieved from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44 (h))

Professional's Signature: Robert Billman

Date: 9/13/13

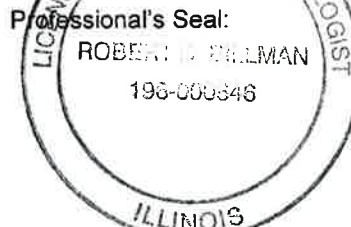
Professional's Name Robert B. Billman

Address URS Corporation, 1001 Highlands Plaza Drive West

City St. Louis

State MO Zip Code 63110

Phone 314-743-4108



7.3 Laboratory Certification (if necessary)

The sample collection, handling, preservation, preparation and analysis efforts for which this laboratory was responsible were carried out in accordance with procedures approved by Illinois EPA.

Name of Laboratory _____

Date: _____

Signature of Laboratory Responsible Officer

Mailing Address of Laboratory

Address _____

City _____

State _____ Zip Code _____

Name and Title of Laboratory Responsible Officer



Work Plan for Soil Vapor Delineation near VMP-47

Objective

To provide delineation of petroleum constituents observed in soil vapor at vapor monitoring point (VMP) location VMP-47.

Approach and Scope of Work

Petroleum constituents, most notably butane, isopentane, 2,2,4-trimethylpentane and methane, have been observed in soil vapor at various depths in VMP-47. Most recent information is contained in the 2nd quarter soil vapor report (July 30, 2013). Illinois Environmental Protection Agency (IEPA) has requested delineation of these constituents to the north or west of VMP-47. An iterative approach will be used to delineate to residential soil vapor screening criteria, using primary and secondary VMP locations (**Figure 1**). The primary proposed VMP locations are north and west of VMP-47 (three locations shown in green on **Figure 1**). Possible secondary locations further north and west of the primary locations are shown in orange on **Figure 1**. Vapor sampling ports will be installed at depths of approximately 5 feet, 10 feet, 20 feet, and 30 feet bgs (consistent with those at VMP-47). The primary VMP locations will be installed and sampled first. VMPs at one or more of the secondary locations may be installed based on the results of field screening alone, or field screening and laboratory analysis.

VMPs will be installed and sampled using IEPA-approved procedures. The scope of work for delineation of petroleum constituents near VMP-47 includes the following tasks:

Underground Utility Locate

- In conjunction with the Illinois One-Call System, perform a geophysical survey using ground penetrating radar (GPR) and electromagnetic (EM) techniques at the proposed primary and secondary boring locations.
- Perform air knife excavation at the three primary boring locations to a depth of 10 feet below ground surface (bgs). The diameter of each air knife excavation shall be a minimum of 3 inches greater than the largest diameter drill tooling to be used.

Soil Borings and VMP Installation and Sampling

- Advance soil borings at the proposed primary locations using auger drilling methods to a depth of approximately 55 feet bgs. The ports associated with each VMP depth will be installed in separate boreholes located in close proximity to each other (e.g., there will be four separate boreholes associated with each VMP location). Soil will be continuously sampled and logged from one boring at each location.

- Collect three soil samples for laboratory testing from each boring sampled, selected to represent conditions throughout the boring (typically one in upper 10 feet, one between 10 and 30 feet bgs, and one between 30 feet and the bottom of the boring. Sample locations will be biased to more impacted intervals based on discoloration, odor, field screening, etc. Samples will be analyzed for Volatile and Semivolatile Organic Compounds (VOCs and SVOCs), consistent with IEPA-approved sampling efforts. Tentatively-identified compounds (TICs) will also be reported by the laboratory, to help identify other compounds of interest that may be present, e.g., butane, isopentane, 2,2,4-trimethylpentane, etc.
- Install vapor monitoring ports upon completion of soil borings.
- The VMP construction details are as follows:
 - Each VMP port shall consist of a 3/8 inch diameter, stainless steel screen.
 - A sand pack consisting of 20/40 sieve size silica sand shall be extended from 0.5 feet below to 0.5 feet above each port screen.
 - 1/8" diameter stainless steel tubing will be extended from each well screen to the ground surface.
 - A bentonite chip seal, minimum 1 foot thick, will be placed above the sand pack and hydrated with potable water. The remaining annular space will be filled with cement-bentonite grout.
 - The VMP shall be completed as a flush-mount surface completion. The VMP wellhead shall be completed within a flush mount surface protector at least 8-inches in diameter installed into the concrete. A 2-foot by 2-foot concrete pad shall be placed around the flush mount surface protector.
- The VMPs will be developed upon completion, using IEPA-approved procedures, and sampled using the current soil vapor sampling procedures. Samples will consist of canister samples (e.g., summa) for analysis of ASTM-1946D constituents and USEPA Method TO-15 constituents, and TICs. Tedlar bag samples will also be collected for field screening.

Surveying

- VMP locations will be surveyed to obtain location and ground surface elevations.



Investigation Derived Waste (IDW)

- A rolloff box will be staged at the Roxana Public Works Yard for the containerization of soils generated during the air knifing and drilling activities.
- URS shall coordinate the disposal of this material.

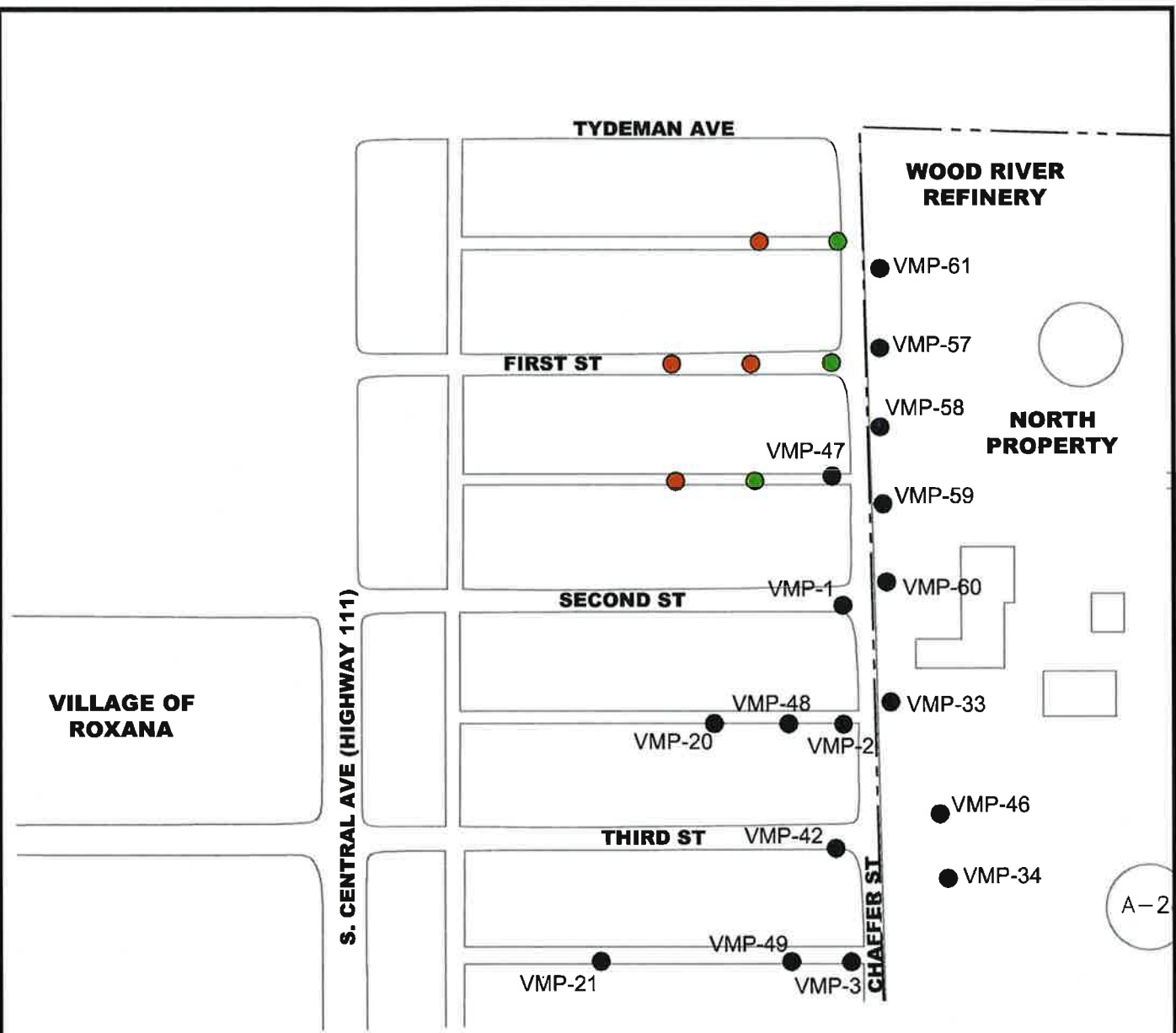
Reporting

Field and laboratory data from the VMPs will be reviewed and evaluated, consistent with prior efforts. The information developed from this work (e.g., description of work, soil boring logs, VMP construction logs, field screening data, laboratory data, etc.) will be submitted to IEPA with the next planned quarterly soil vapor report.

Schedule

The work will be scheduled and performed after receipt of an addendum to the access agreement between SOPUS and Roxana is obtained. The utility locate, drilling, VMP installation and sampling work is estimated to take approximately two or three weeks, depending on the number of locations installed. To the extent possible, the work will be structured so that the work can be performed during one mobilization (e.g., drilling contractor performs other work in the area while waiting for results from primary locations, laboratory testing is expedited, etc.).

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- LEGEND**
- PROPOSED PRIMARY VAPOR MONITORING POINT LOCATION
 - PROPOSED SECONDARY (IF NEEDED) VAPOR MONITORING POINT LOCATION
 - EXISTING VAPOR MONITORING POINT LOCATION



SHELL OIL PRODUCTS US ROXANA, ILLINOIS		PROJECT NO. 21562850
URS		
DRN. BY:djd September 2013 DSGN. BY:b3/djd CHKD. BY:b3	Proposed Additional VMPs	FIG. NO. 1

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