

Submittal No. 4 – A document entitled, “Groundwater Pumping Well W-85”, dated August 23, 2013 and received by the Illinois EPA August 26, 2013. The submittal provides well details for W-85 to update Condition IV.D.2 of the Permit. This request was assigned Log No. B-43R-M-12.

Submittal No. 5 - A document entitled, “Groundwater Monitoring Well Construction”, dated August 23, 2013 and received by the Illinois EPA August 26, 2013. The submittal presents information collected during an October 2009 comprehensive well survey and requests the data provided be incorporated into Conditions IV.D.1.a and IV.D.1.b. This request was assigned Log No. B-43R-M-13.

Submittal No. 6 – A document entitled, “Groundwater Pumping Well”, dated December 19, 2013 and received by the Illinois EPA December 23, 2013. The submittal requests to remove well W-73 as a gradient control well and add a new groundwater production well to be named W-89. This request was assigned Log No. B-43R-M-15.

Submittal No. 7 – A document entitled, “Additional Information to Supplement Class 1* Permit Modification Request; Groundwater Pumping Well”, dated February 28, 2014 and received by the Illinois EPA March 3, 2014. The submittal presents information to address the additional information request emailed to the facility February 7, 2014. This request was submitted as additional information for Log No. B-43R-M-15.

Submittal No. 8 – A document entitled, “Class 1* Permit Modification; New Groundwater Pumping Well W-89”, dated April 17, 2014 and received by the Illinois EPA April 18, 2014. The submittal requests that the Illinois EPA issue a response by the end of April 2014 or a meeting be held. This request was submitted as additional information for Log No. B-43R-M-15.

Submittal No. 9 - A document entitled, “Further Information to Supplement Class 1* Permit Modification Request; Groundwater Pumping Well W-89”, dated May 8, 2014 and received by the Illinois EPA May 13, 2014. The submittal presents information to address the additional information request discussed during the April 30, 2014 phone call. This request was submitted as additional information for Log No. B-43R-M-15.

Based on a review of the above submittals, the Illinois EPA can approve the requests to add a new water production well to modify the flow of contaminated groundwater associated with the benzene plume, and the update multiple well details within Condition IV.D.1 and 2. The following conditions and modifications also apply:

1. A total of four (4) additional groundwater monitoring wells must be installed as part of the Interim Groundwater Monitoring Program for the Village of Roxana, Illinois, last approved in the Illinois EPA letter dated July 22, 2013 (Log No. B-43R-CA-51). These wells are necessary to monitor the extent and effectiveness of corrective action efforts within the residential area, in accordance with the following:

- a. Within sixty (60) days of the date of this letter, a well must be installed on Second Street (aligned approximately with ROST -4-PZ(C)), and at the approximate midpoint of Seventh Street, Eighth Street, and the alleyway south of Second Street, respectively.
- b. Screened intervals must be positioned to intercept the current groundwater elevations.
- c. These wells must be installed in accordance with procedures previously approved for the Interim Groundwater Monitoring Network.
- d. Submit boring logs, construction diagrams and datasheets from installation and development of a new well to the Illinois EPA at the address below within thirty (30) days of the date that installation of the well is completed. All pertinent information should be submitted to the appropriate State agencies.

Illinois Environmental Protection Agency
Bureau of Land -- #33
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

2. In accordance with Condition IV.K.2 of the Permit, within ninety (90) days of installation of the new pumping well, associated details for W-89 must be submitted as a Class 1* modification request for incorporation into Condition IV.D.2 of the Permit.

As a result of the approval of these permit modification requests, the modifications identified in Attachment A of this letter were made to Condition IV.D of the attached RCRA Permit. Please note that Section II of the permit has also been modified such that the approved permit application is now identified in Attachments A and B of the revised permit. Finally, the second paragraph of Condition I.B. has been revised to reflect the current refinery owner and operator.

Attached is a revised Permit. The Permit has been updated to reflect the approved modifications discussed in this letter. This letter and the revised Permit should replace the Permit previously issued by the Illinois EPA on April 2, 2013 (Log Nos. B-43R-M-1, M-4, M-6, M-7 and M-8).

Pursuant to 35 Ill. Adm. Code 703.281(a)(2), a notice of the Class 1* modifications shall be sent to all persons on the facility mailing list, maintained by the Illinois EPA in accordance with 35 Ill. Adm. Code 705.163(a)(4), and the appropriate units of state and local government as specified in 35 Ill. Adm. Code 705.163(a)(5). The notification shall be made within ninety (90) calendar days of the date of this letter.

Work required by this permit, your application 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. This permit does not relieve anyone from compliance with

Mr. Dyer and Mr. Wulf

1191150002 -- Madison County
Log No. B-43R-M-9, M-10,
M-11, M-12, M-13 & M-15

Page 4

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.

Should you have any questions regarding this permit, please contact Amy Boley at 217/558-4716 for specific questions related to groundwater issues and William T. Sinnott, II at 217/524-3310 for specific questions related to corrective action issues. All other questions regarding this permit should be referred to John Riekstins of my staff at 217/524-3309.

Sincerely,



Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

SFN:JR:1191150002-RCRA-B43RM9-B43RM10-B43RM11-B43RM12-B43RM13-B43RM15-Approval.doc

JR JKM AMB/BM
Attachments: Attachment A - Summary of Revisions to the RCRA Permit
Modified RCRA Post-Closure Permit

cc: Gary Victorine, USEPA Region V (w/attachments)
Eric Peterson, Phillips 66
Robert Billman, URS

bcc: Bureau File -- RCRA Permit File
Collinsville Region
Steve Nightingale
Terri Myers
Jim Moore Bill Sinnott
Amy Boley John Riekstins

ATTACHMENT A

Summary of Revisions to the RCRA Permit

1. The following modifications were made to Condition IV.D.1 of the attached RCRA Permit:
 - a. The highlighted information provided in the tables identified as Table IV.D.1.a and Table IV.D.1.b has been incorporated into Section IV.D.1.a and IV.D.1.b of the Permit. The symbol “#” has been removed from those wells with construction details provided which were previously unavailable.
 - b. In Condition IV.D.1.a, the details for well P-55 have been removed and replaced with information for the replacement well, which is designated as Illinois EPA Well No. R155 and Facility Well No. P-55R.
 - c. In Condition IV.D.1.b, the Illinois EPA Well Nos. for wells T-43, T-44, T-46, T-51, T-62, and T-63 have been renamed to P179 through P184, respectively, and listed in numerical order within the section.
 - d. In Condition IV.D.2, the available construction details for W85 and W89 have been added:
2. The following modifications were made to Condition IV.D.2 of the attached RCRA Permit:
 - a. Regarding well W-85, the “#” symbol has been removed from the Illinois EPA Well No. and construction details listed below have been added.

IEPA Well No	W85
Facility Well No	W-85
Well Depth (ft bgs)	101.90
Well Depth Elevation (ft MSL)	342.10
Well Screen Interval (ft MSL)	367.00-342.00

- b. A note has been added: “+ W73 remains for possible oil recovery”; and
- c. Details for well W89 listed below have been added:

IEPA Well No	W89#
Facility Well No	W-89
Well Depth (ft bgs)	-construction
Well Depth Elevation (ft MSL)	details not yet
Well Screen Interval (ft MSL)	available-



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829

PAT QUINN, GOVERNOR

LISA BONNETT, DIRECTOR

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE MANAGEMENT RCRA POST-CLOSURE PERMIT

1191150002 -- Madison County
Equilon DBA Shell Oil Products
ILD080012305
Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15
RCRA Administrative Record

Issue Date: September 23, 2010
Effective Date: October 28, 2010
Expiration Date: October 28, 2020
Modification Date: June 13, 2014

OPERATOR:
Equilon d/b/a Shell Oil Products, US
Attn: Mr. Kevin Dyer
17 Junction Drive
Glen Carbon, Illinois 62034

OWNER:
WRB Refining, LP
Attn: Mr. Brian Wulf
900 South Central Avenue
P.O. Box 76
Roxana, Illinois 62084

A RCRA post-closure permit modification is hereby granted pursuant to the Resource Conservation and Recovery Act, Illinois Environmental Protection Act, and Title 35 Illinois Administrative Code (IAC) 702, 703, 705, and 720 through 729 to Equilon Enterprises, Inc. to provide post-closure care, including implementation of a groundwater monitoring/remediation program, for a former hazardous waste surface impoundment closed as a landfill at the WRB Refinery located at 900 South Central Avenue in Roxana, Illinois. Equilon Enterprises is contractually bound to conduct this work as it once owned this facility. This permit also requires Equilon to conduct corrective action, as necessary, at twenty solid waste management units at the facility.

This permit consists of the conditions contained in the eight sections and Attachments A and B which follow and the applicable regulations contained in the Illinois Environmental Protection Act and 35 IAC 702, 703, 705 and 720 through 729 in effect on the effective date of this permit. The Environmental Protection Act (Ill. Rev. Stat., Chapter 111 1/2, Section 1039) grants the Illinois Environmental Protection Agency the authority to impose conditions on permits which are issued.

This permit is issued based on the information contained in the approved permit application as described in Section II and Attachments A and B of this permit and any subsequent amendments. Any inaccuracies found in this information may be grounds for the termination or modification of this permit (see 35 Ill. Adm. Code 702.186 and 702.187) and potential enforcement action.

Should you have any questions regarding this permit, please contact Amy Boley at 217/558-4716 for specific questions related to groundwater issues and William T. Sinnott, II at 217/524-3310 for specific questions related to corrective action issues. All other questions regarding this permit should be referred to John Riektstins of my staff at 217/524-3309.

Sincerely,

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

SFN:JR:1191150002-RCRA-B43RM9-B43RM10-B43RM11-B43RM12-B43RM13-B43RM15-Approval.doc

Handwritten initials: JR, JKM, AMB

4302 N. Main St., Rockford, IL 61103 (815) 987-7760
595 S. State, Elgin, IL 60123 (847) 608-3131
2125 S. First St., Champaign, IL 61820 (217) 278-5800
2009 Mall St., Collinsville, IL 62234 (618) 346-5120

9511 Harrison St., Des Plaines, IL 60016 (847) 294-4000
5407 N. University St., Arbor 113, Peoria, IL 61614 (309) 693-5462
2309 W. Main St., Suite 116, Marion, IL 62959 (618) 993-7200
100 W. Randolph, Suite 10-300, Chicago, IL 60601 (312) 814-6026

HAZARDOUS WASTE MANAGEMENT
RCRA POST-CLOSURE PERMIT

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Equilon Enterprises

LPC No. 1191150002

USEPA ID No. ILD080012305

TABLE OF CONTENTS

<u>ITEM</u>	<u>PAGE</u>
I. General Facility Description	I-1 to I-4
II. Approved Permit Application	II-1 to II-1
III. Post-Closure Care Attachment III-A – Site Layout Map (one page)	III-1 to III-6
IV. Groundwater Corrective Action Program Attachment IV-A -- Monitor Well Diagram (one page) Attachment IV-B -- Illinois EPA Boring Log (one page) Attachment IV-C -- Electronic Reporting Requirements (three pages)	IV-1 to IV-20
V. Corrective Action	V-1 to V-21
VI. Standard Conditions	VI-1 to VI-8
VII. Special Conditions	VII-1 to VII-3
VIII. Reporting and Notification Requirements	VIII-1 to VIII-6
Attachment A – Approved Permit Application for the Renewed Permit Issued September 23, 2010	A-1 to A-3
Attachment B – Approved Permit Modification Requests	B-1 to B-3

SECTION I: GENERAL FACILITY DESCRIPTION

A. INTRODUCTION

Equilon Enterprises is contractually bound to, among other things, address certain environmental liabilities at the WRB Refining LP Wood River facility located at 900 South Central Avenue in Roxana, Illinois. This permit contains all the requirements for Equilon Enterprises to carry out the following activities at the WRB Refining LP Wood River facility: (1) provide post-closure care of a hazardous waste surface impoundment closed as a landfill; (2) conduct a groundwater monitoring/remediation program; and (3) conduct corrective action, as necessary, at several solid waste management units.

B. DESCRIPTION OF FACILITY

The WRB Refining Wood River Refinery is a petroleum refinery approximately 1800 acres in size located at 900 South Central Avenue, Roxana, Illinois. The refinery covers portions of Section 33, 34, 35 and 36 of Township 5N, Range 9W (Wood River Township) and Sections 2 and 3 of Township 4N, Range 9W (Couteau Township) in Madison County, Illinois.

Shell Oil Company, a predecessor of Equilon Enterprises, operated this refinery for many years and transferred ownership of the refinery to Equilon Enterprises on July 1, 1998. Equilon then sold the refinery to Toscopetro in June 2000 but contractually retained responsibility for certain environmental liabilities at the facility. Operation and ownership has changed several times since 2000. The current operator of the refinery is Phillips 66 while it is owned by WRB Refining, LP.

The responsibilities for certain environmental liabilities at this facility have remained with Equilon since the facility was first sold to Toscopetro in June 2000.

The WRB Refining Wood River Refinery is composed of five areas.

- North Property – This area contains storage tanks and most of the current and past waste management areas. The northern, undeveloped acreage of this property is leased out as farmland. A process water well field, called the “North Property Wells,” is also located in this area.

- Main Property – This area contains the main refinery process units, maintenance shops and administration buildings.
- Southwest Property – This area contains the crude oil storage tanks and a stormwater pond. A small portion of this property is leased out as farmland.
- West Property – This area contains the Wastewater Treatment Plant (WWTP), sulfur recovery units and storage tanks.
- Riverfront Property – This area contains the effluent polishing lagoons and barge loading facilities. A process water well field, called the “River Wells,” is also located on this property.

Crude oil is supplied from fields in various states, as well as from Canada, Middle Eastern and other foreign countries. Refined oil products are principally propane, motor gasolines, aviation fuels, diesel and heating oils, asphalt, petroleum coke, and heavy fuel oil. The refinery, as a consequence of its operations, produces both hazardous and nonhazardous wastes; these wastes are managed by Conoco Phillips under Illinois EPA Identification Number 1190905013 and USEPA Identification Number ILR000077115.

C. RCRA PERMITTING HISTORY OF FACILITY

A RCRA permit was issued to Shell Oil Company for this facility on September 29, 1989 (Log No. B-43) allowing for operation of a container storage area (the CATCO Building) and required post-closure care, including a groundwater remediation program, for a surface impoundment (the Solid Waste Disposal Basin). This permit also contained requirements that Shell conduct corrective action at twenty-two solid waste management units under the oversight of USEPA.

1. Illinois EPA approved certification of clean closure of the CATCO building on July 3, 2007 (IEPA Log No. B-43-CA-3 and 4).
2. Illinois EPA approved certification of closure of the SWDB as a landfill on August 24, 2005 (IEPA Log No. C-426 and associated modifications); the 30-year post-closure care period for the unit began at that time.

In addition to the permitted RCRA units described above, the units listed below became RCRA regulated interim status storage/treatment units since the permit was issued, due to the fact that the definition of hazardous waste was expanded in 1990 to include, among other things, benzene under the toxicity characteristic (It must be noted that none of these units have been formally incorporated into the facility’s RCRA permit, rather they remain

interim status hazardous waste management units being closed or have been closed in accordance with plans approved by Illinois EPA.

1. Tank CH-290—IEPA approved certification of clean closure of this unit on July 3, 2007.
2. Tanks D-27, D-30, B-58 and L-143. Illinois EPA approved certification of closure of these units on May 19, 2010. An ELUC has been established restricting future use of the area where the tanks are located to industrial/commercial activities.
3. Pond 1— a surface impoundment associated with the facility's wastewater treatment system. Illinois EPA approved certification of closure of this unit on August 19, 2010. An ELUC has been established which restricts: (1) further usage of the facility to industrial/commercial activities; (2) exposure to and management of the soils remaining at the units; and (3) groundwater usage at the facility.
4. Pond 2—a surface impoundment associated with the facility's wastewater treatment system. A plan to complete closure of this unit was approved by Illinois EPA on December 2, 2009; a modification request was approved on April 26, 2010.

D. OVERVIEW OF RENEWED RCRA PERMIT

The renewed RCRA permit for this facility focuses on three areas: (1) post-closure care of the Solid Waste Disposal Basin; (2) conducting a groundwater corrective action program to address contaminated groundwater at the facility; and (3) providing corrective action as appropriate on several solid waste management units at this facility. Each of these areas is discussed below.

D.1 POST-CLOSURE CARE OF THE SOLID WASTE DISPOSAL BASIN

Illinois EPA approved certification of closure of the Solid Waste Disposal Basin (a former hazardous waste surface impoundment) as a landfill on August 24, 2005 (IEPA Log No. C-426 and associated modifications); the 30-year post-closure care period for the unit began at this time. This permit contains requirements for post-closure care of the closed Solid Waste Disposal Basin; the main focus of the physical post-closure care of the SWDB is to maintain the final cover present over it.

D.2 GROUNDWATER CORRECTIVE ACTION

Contaminants have been detected above the applicable standards in the groundwater downgradient of the Solid Waste Disposal Basin. Therefore, this permit includes a groundwater corrective program which requires:

1. Control of the horizontal and vertical flow in the uppermost aquifer such that the groundwater flow is towards the interior of these portions of the facility beneath the combined boundaries of the North and Main Properties. This control of groundwater flow will be accomplished by withdrawing sufficient quantities of groundwater and contaminants from the uppermost aquifer.
2. Verification that the flow of groundwater is adequately controlled as required by Item 1 above.
3. Treatment of the groundwater withdrawn from the uppermost aquifer to control groundwater flow as required by Item 1 above.
4. Removal of a hydrocarbon layer present on the top of the water table beneath portions of the North and Main Properties.
5. Monitoring the quality of the groundwater in the uppermost aquifer beneath the north and main properties of the facility on a semi-annual basis to determine the effectiveness of the corrective action program.

D.3 CORRECTIVE ACTION PROVISIONS OF PERMIT

When the original RCRA permit was issued to this facility, Illinois EPA did not have the authority to implement the corrective action requirements of RCRA. As such, the original RCRA permit contained two portions, one issued by Illinois EPA and one issued by USEPA. Among other things, the USEPA portion of the original RCRA permit for this facility contained the corrective action requirements for this facility. The permit required that corrective action be conducted at twenty-two solid waste management units. During the course of operations of the facility under the RCRA permit, six additional solid waste management units were discovered and addressed in some fashion.

Corrective action efforts have been completed at eight solid waste management units; this permit identifies the corrective action efforts which must still be completed at the remaining twenty solid waste management units required to be addressed by USEPA. In addition, this permit contains requirements for addressing contamination associated with a 1986 benzene release near the corner of Rand Avenue and Route 111 in Roxana, Illinois.

Section II: APPROVED PERMIT APPLICATION

The approved application associated with this RCRA permit issued for the Equilon Enterprises facility in Roxana Illinois (Log No. B-43R and associated modifications) consists to two components: (1) the permit application approved on September 23, 2010 when a renewed RCRA permit was issued for this facility; and (2) applications to modify the facility's RCRA permit which were approved by Illinois EPA.

1. The approved permit application associated with the renewed RCRA permit for this facility issued on September 23, 2010 is identified in Attachment A.
2. The applications to modify the facility's RCRA permit which have been approved by Illinois EPA are identified in Attachment B.

SECTION III: POST-CLOSURE

A. SUMMARY

The Solid Waste Disposal Basin (SWDB), a former surface impoundment at the subject facility, received hazardous waste until 1988; from 1988 to 2001 the unit only received non-hazardous waste. The unit has been closed as a landfill in accordance with an Agency approved interim status closure plan. Since hazardous waste was left in place at the SWDB, the unit must receive at least thirty (30) years of post-closure care after the date the closure certification was approved by the Agency (this certification was approved on August 24, 2006). The requirements for post-closure care of the SWDB include, but are not limited to:

1. Inspecting and maintaining the final cover, berms and drainage structures associated with the SWDB;
2. Complying with the terms and conditions of Section IV (Groundwater Corrective Action Program) of this permit.
3. Providing financial assurance for the post-closure activities described herein, including any associated operation and maintenance costs, as required by 35 Ill. Adm. Code 724, Subpart H.

B. UNIT IDENTIFICATION

SWDB was an above-ground surface impoundment with thirty-foot dikes and covered an area of approximately 20 acres located in the eastern portion of the facility (a drawing showing the location of the SWDB is provided in Attachment III-A of this permit). This unit was closed as a landfill in accordance with a plan approved by Illinois EPA on December 20, 1999. Illinois EPA approved certification of closure of this unit as a landfill on August 24, 2006 (which includes listed hazardous wastes).

From 1973 to 1988, the wastewater treatment sludge from refinery operations and water treatment sludge from a lime-softening process at the facility was discharged to the SWDB during this time period. From 1988 until 2001, the SWDB only received the lime sludge. Closure of the SWDB as a landfill began in 2001 and was completed in 2006. The final cover system over this unit includes (from bottom to top): (1) a one foot (minimum compacted soil layer); (2) a 0.04 inch polythylene geomembrane; (3) a one

foot thick granular layer, with a geotextile above and below the layer; (4) a six inch protective soil cover; and (5) six inch topsoil layer.

C. MAINTENANCE AND RECORDKEEPING

1. Upon the effective date of this permit, the post-closure care procedures set forth in this permit shall supersede those post-closure care procedures established in the Agency's interim status closure/post-closure care plans approval letter dated December 30, 1988 (Log No. C-426) and associated modifications.
2. The Permittee began providing post-closure care of the SWDB on August 24, 2006 (the date Illinois EPA approved certification of closure of the SWDB). Post-closure care for the SWDB must continue for at least thirty (30) years after this date.
3. Any time during the post-closure care period for these units, the Board may, in accordance with the permit modification procedures of 35 Ill. Adm. Code 702, 703, and 705, do either of the following:
 - a. Shorten the post-closure care period applicable to the hazardous waste management unit or facility if all disposal units have been closed and the Board has found by an adjusted standard issued pursuant to Section 28.1 of the Act [415 ILCS 5.28.1] and 35 Ill. Adm. Code 101 and 104 that the reduced period is sufficient to protect human health and the environment (e.g., leachate or groundwater monitoring results, characteristics of the waste, application of advanced technology or alternative disposal, treatment, or re-use techniques indicate that the hazardous waste management unit or facility is secure); or
 - b. Extend the post-closure care period applicable to the hazardous waste management unit or facility if the Board has found by an adjusted standard issue pursuant to Section 28.1 of the Act [415 ILCS 5/28.1] and 35 Ill. Adm. Code 101 and 104 that the extended period is necessary to protect human health and the environment (e.g., leachate or groundwater monitoring results indicate a potential for migration of hazardous wastes at levels that may be harmful to human health and the environment).
 - c. At a minimum, it will be necessary to complete the groundwater corrective action program set forth in Section IV of this permit before the required post-closure care efforts for these units can be terminated.

4. The Agency may restrict the future use of the SWDB if it is necessary to protect human health and the environment. This includes permanent prohibition of the use of the site for purposes which create an unreasonable risk to human health or the environment. The Agency shall file such restrictions of record in the Office of the Madison County Recorder.
5. Post-closure use of the SWDB must never be allowed to disturb the integrity of the final cover, berms or any other components associated with the SWDB or the function of the facility's monitoring system, unless the Agency determines, by way of a permit modification, that the disturbance:
 - a. Is necessary for the proposed use of the property and will not increase the potential hazard to human health or the environment, or
 - b. Is necessary to reduce a threat to human health or the environment.
6. The Permittee must submit a request for permit modification to change any aspect of the approved post-closure care plan, as modified by the conditions of this permit. This request must be in accordance with the applicable requirements of 35 Ill. Adm. Code 702, 703, 705 and 724 and must include a copy of the amended post-closure plan. The request must be submitted at least 180 days prior to the date that the change is needed. Post-closure care of the impoundment must be in accordance with the conditions of this permit until such time as the proposed modification is properly incorporated into the facility's RCRA permit.
7. The Permittee shall maintain the integrity and effectiveness of the final cover, berms and drainage structures. This includes making repairs as necessary to correct the effects of settling, subsidence, erosion, etc. Corrective action shall be taken if any problem listed below is encountered when inspecting the final cover, berms and drainage structures at the SWDB.
 - a. Rills, gullies and crevices greater than six inches wide in the final cover or berms,
 - b. Depressions (ponds) and holes in the final cover;
 - c. Erosion problems;
 - d. Areas with failed or eroded vegetation in excess of 100 square feet, cumulatively;

- e. Gas and/or odor problems;
 - f. Growth of vegetation with taproots;
 - g. Vectors;
 - h. Leachate popouts or seeps.
8. The Permittee shall protect and maintain the surveyed benchmarks present at or near the SWDB.
9. All active portions of the Wood River Refinery; including the SWDB, are surrounded by a fence. The Permittee shall maintain warning signs (DANGER - UNAUTHORIZED PERSONNEL KEEP OUT) at the two roadway entrances to the SWDB.

D. INSPECTIONS

The Permittee shall inspect the components, structures and equipment associated with post-closure care in accordance with Sections D and E of the approved permit application, except as modified below:

- 1. The final cover, berms and drainage structures shall be inspected on a quarterly basis for the problems identified in Condition III.C.10 above. Appropriate corrective action shall be taken if any problem is discovered.
- 2. Documentation must be placed in the operating record for this facility of the (1) inspection date, (2) observations made during each inspection and (3) any corrective action taken as a result of the inspection.

E. FINANCIAL ASSURANCE FOR POST-CLOSURE CARE

- 1. The estimated annual cost of providing post-closure of the Solid Waste Disposal Basin is \$1,403,622 (in 2008 dollars). As the post-closure care period for this unit began on August 24, 2006, twenty-seven years of post-closure care must still be provided. Thus, the total post-closure care estimate for the SWDB is \$37,897,794 (in 2008 dollars).

2. Financial assurance meeting the requirements of 35 Ill. Adm. Code 724, Subpart H must be maintained for post-closure care of the SWDB.

F. CONTACT INFORMATION/REQUIREMENTS

1. This permit sets forth requirements which Equilon Enterprises must conduct at the facility whose address is:

WRB Refining LP
900 South Central Avenue
Roxana, Illinois 62084

2. The contact person for Equilon Enterprises is:

Kevin Dyer
17 Junction Drive
PMB #399
Glen Carbon, Illinois 62034
Telephone No.: 618/288-7237
e-mail address: kevin-dyer@shell.com

3. The contact person for WRB Refining LP is:

Eric Petersen
WRB Refining LP
900 South Central Avenue
P.O. Box 76
Roxana, Illinois 62084
Telephone No.: 618/255-3190
e-mail address: Eric.S.Petersen@P66.com

4. A copy of this permit and associated approved permit application must be maintained: (1) at the WRB Refining LP Facility; and (2) by Mr. Dyer.
5. Requests to change the contact person identified in Condition III.E.2 above shall be submitted as Class 1* permit modification requests.

1191150002

Equilon Enterprises

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Page III-6 of III-6

G. NOTICES AND CERTIFICATION

1. A Restrictive Covenant and associated survey plat identifying the SWDB as a unit where hazardous waste has been disposed at this facility was filed with the Madison County Recorder on January 28, 2005 as Document No. 2005R05087. This filing was made in accordance with 35 Ill. Adm. Code 725.216.
2. If the Permittee or any subsequent owner or operator of the land upon which a hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, he must request first a modification to this post closure permit in accordance with the applicable requirements in 35 Ill. Adm. Code Parts 703, 705 and 724. The owner or operator must, at a minimum, demonstrate that the removal of hazardous wastes will satisfy the criteria of 35 Ill. Adm. Code 724.217(c).
3. No later than sixty (60) days after completion of the established post closure care period for SWDB the Permittee shall submit to the Agency, by registered mail, a certification that the post-closure care for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and a qualified registered professional engineer. Documentation supporting the engineer's certification must be furnished to the Agency of the completion of the post-closure care activities required to be carried out during the post-closure period must accompany this certification.

**HAZARDOUS WASTE MANAGEMENT
RCRA POST-CLOSURE PERMIT**

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Equilon Enterprises

Attachment III-A

Site Layout Map

SECTION IV: GROUNDWATER CORRECTIVE ACTION PROGRAM

A. SUMMARY

Hazardous constituents released from the Solid Waste Disposal Basin (SWDB) have been detected in the groundwater at the point of compliance at concentrations above background values, as well as, groundwater quality standards established by 35 Ill. Adm. Code 724.192. Therefore, a Corrective Action Program meeting the requirements of 35 Ill. Adm. Code 724.200 must be implemented at the facility.

The Corrective Action Program required by this permit includes:

1. Control of horizontal and vertical groundwater flow in the uppermost aquifer such that groundwater flow is towards the interior of the facility along the combined boundaries of the North and Main properties. This control of groundwater flow will be accomplished by withdrawing sufficient quantities of groundwater from the uppermost aquifer. Such flow control is necessary as a corrective action to prevent contaminant migration of on-site releases of product or waste.
2. Verification that the flow of groundwater is adequately controlled as required by Condition IV.A.1 above.
3. Treatment of the groundwater withdrawn from the uppermost aquifer to control groundwater flow as required by Condition IV.A.1 above.
4. Removal of a hydrocarbon layer present on top of the water table beneath portions of the North and Main Properties.
5. Monitoring the quality and movement of the groundwater in the uppermost aquifer beneath the facility to determine the effectiveness of the Corrective Action Program.

B. DEFINITIONS

As used herein, the words or phrases set forth below have the following definitions:

1. "Uppermost Aquifer" refers to the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically

connected with this aquifer in the vicinity of the facility. The uppermost aquifer in the vicinity of the facility has been identified as a sand and gravel aquifer.

2. "GMZ" refers to the three (3) dimensional region containing groundwater being managed to mitigate impairment caused by the release of contaminants from a site.
3. "Point of Compliance" refers to the vertical surface located at the hydraulically downgradient limits of the waste management area (SWDB) extending down into the uppermost aquifer underlying the regulated units.
4. "Ft – bgs" refers to the number of feet below the ground surface.
5. "Ft-MSL" refers to the number of feet below the ground surface referenced to mean sea level.
6. "Detected" shall mean a concentration equal to or above the PQL listed in USEPA's SW-846 (Third Edition) or as approved by the Illinois EPA for the applicable analytical methods specified in the approved Sampling and Analysis Procedures, which are incorporated by reference in Condition IV.H of the Permit.
7. "Stick-up" refers to the height of the reference survey datum. This point is determined with ± 0.01 foot in relation to mean sea level, which in turn is established by reference to an established National Geodetic Vertical Datum.
8. The compliance period is the number of years equal to the active life of the waste management area, including any waste management activity prior to permitting, and the closure period.
9. "COC" refers to any constituent of concern detected during groundwater analytical testing.

C. IMPLEMENTATION

1. The Permittee shall implement the Corrective Action Program established in this Permit upon the effective date of this Permit. On that date, the corrective action and groundwater monitoring requirements set forth in this Permit shall supersede those previously established.

2. The Permittee shall carry out the corrective actions specified in this Permit on the groundwater beneath the facility. The uppermost aquifer at this facility is a sand and gravel aquifer located approximately 30 feet below the ground surface and extending to a depth of about 120 to 180 feet below ground surface to the top of the bedrock surface. This aquifer is commonly referred to as the "American Bottoms."
3. For the purposes of this Permit and in accordance with 35 Ill. Adm. Code Part 620 regulations, the sand and gravel aquifer has been designated Class I: Potable Resource Groundwater. The analytical results obtained from these groundwater monitoring wells shall be compared to the appropriate Class I concentration limits that comprise the groundwater protection standard found in Condition IV.E.1 or to established background values as appropriate.
4. In accordance with Condition IV.F.7, the Permittee must submit an application for a GMZ. Upon approval of the GMZ, the point of compliance will be postponed until such time that the monitoring wells at the facility have attained the applicable concentration limits that comprise the groundwater protection standard found in Condition IV.E.1 and the GMZ expires. At that time, facility must submit a proposal for the establishment of a point of compliance which satisfies the regulatory requirements found in 35 Ill. Adm. Code 724, Subpart F and reflects the current conditions at the facility.

D. WELL LOCATIONS AND CONSTRUCTION

1. The Permittee shall maintain the groundwater monitoring wells identified in the tables below to allow for the collection of groundwater samples from the uppermost aquifer. The location of these wells is specified in Figure C-21 of the approved Permit Renewal Application.

a.	IEPA Well No.	Facility Well No.	Well Depth (Ft-bgs)	Well Depth Elevation (Ft MSL)	Well Screen Interval (Ft MSL)
<u>Observation Monitoring Wells (sampled semi-annually)</u>					
	G04S	P-4U	81.43	359.35	361.35 - 359.35
	G06S	P-6U	79.93	360.85	362.85 - 360.85
	G07S	P-7U	60.7	380.72	382.72 - 380.72
	G08D	P-8U	59.33	381.6	381.77 - 379.77
	G09S	P-01	63.96	375.61	380.61 - 375.61

1191150002

Equilon Enterprises

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Page IV-4 of IV-20

IEPA Well No.	Facility Well No.	Well Depth (Ft-bgs)	Well Depth Elevation (Ft MSL)	Well Screen Interval (Ft MSL)
<u>Observation Monitoring Wells (sampled semi-annually)</u>				
G14S	P-014	54.22	385.43	395.68 - 385.68
G115	P-15	53.05	387.90	397.90 - 387.90
G116	P-16	54.0	386.86	396.86 - 386.86
G117	P-17	39.01	393.04	413.00 - 393.04
G119	P-43	70.0	371.60	381.60 - 371.60

Perimeter Monitoring Wells (sampled semi-annually)

R155	P-55R	51.1	393.1	402.93 - 392.93
G156	P-56	64.14	380.2	405.20 - 380.2
G159	P-59	70.00	373.87	398.87 - 373.87
G160	P-60	60.48	383.12	403.12 - 383.12
G182	P-93A	61.0	383.41	398.41 - 383.41
G183	P-93B	74.57	369.86	371.86 - 369.86
G184	P-93C	94.0	350.26	352.26 - 350.71
G185	P-93D	125.51	318.89	321.14 - 319.14
G194	P-83A	59.38	383.58	398.58 - 383.58
G195	P-83B	69.42	373.82	375.82 - 373.82
G196	P-83C	91.8	351.25	353.25 - 351.25
G197	P-83D	133.38	309.84	311.84 - 309.84
G202	P-86A	34.6	395.78	410.78 - 395.78
G203	P-86B	60.04	370.18	372.18 - 370.18
G204	P-86C	80.03	349.64	351.64 - 349.64
G205	P-86D	99.55	330.02	332.02 - 330.02
G210	P-88A	51.64	389.72	404.72 - 389.72
G211	P-88B	72.77	368.62	370.62 - 368.62
G212	P-88C	92.59	348.86	350.86 - 348.86
G213	P-88D	113.80	327.53	329.53 - 327.53
G222	P-82A	46.45	386.48	401.48 - 386.48
G223	P-82B	63.85	368.84	370.84 - 368.84
G224	P-82C	83.02	349.39	351.39 - 349.39
G225	P-82D	111.68	321.43	323.43 - 321.43
G226	P-84A	66.65	377.57	392.57 - 377.57
G227	P-84B	73.23	370.60	372.60 - 370.60
G228	P-84C	93.72	350.08	352.08 - 350.08

1191150002

Equilon Enterprises

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Page IV-5 of IV-20

IEPA Well No.	Facility Well No.	Well Depth (Ft-bgs)	Well Depth Elevation (Ft MSL)	Well Screen Interval (Ft MSL)
Perimeter Monitoring Wells (sampled semi-annually)				
G229	P-84D	120.72	322.99	324.99 - 322.99
G230	P-81A	37.33	395.96	410.96 - 395.96
G231	P-81B	62.53	370.46	372.46 - 370.49
G232	P-81C	83.15	349.60	351.60 - 349.60
G233	P-81D	90.81	341.92	343.92 - 341.92
G234	P-94	58.0	383.80	398.80 - 383.80
G235	P-95	49.0	391.92	406.92 - 391.92
G236	T-1*	54.24	388.07	398.40 - 388.40
G237	T-12*	70.26	372.54	398.23 - 372.23
G238	T-13*	72.18	370.46	396.46 - 370.46

Note: * The boring log for this monitoring well is not available.

b.

IEPA Well No.	Facility Well No.	Well Depth (Ft-bgs)	Well Depth Elevation (Ft MSL)	Well Screen Interval (Ft MSL)
Observation Monitoring Wells (gauged only)				
P05D	P-5L	140.00	301.39	301.89 - 299.89
P05S	P-5U	129.87	311.52	313.52 - 311.52
P09U	P-9U	98.84	342.32	344.32 - 342.32
P11L	P-11L	110.08	330.59	332.59 - 330.59
P11U	P-11U	99.50	341.17	343.17 - 341.17
P12L	P-12L	82.16	349.55	351.55 - 349.55
P11U	P-12U	68.38	363.33	365.33 - 363.33
P113	P-13	37.22	394.04	414.18 - 394.18
P85S	T-41	36.85	391.39	411.39 - 391.39
P85U	P-85B	58.0	370.41	372.41 - 370.41
P85L	P-85C	78.0	350.17	352.17 - 350.17
P85D	P-85D	99.0	329.20	331.20 - 329.20
P87U	P-87B	59.5	369.71	371.71 - 369.71
P87L	P-87C	79.5	349.59	351.59 - 349.59
P87D	P-87D	92.5	336.39	338.39 - 336.39
P89S	T-37	67.59	378.30	398.30 - 378.30
P89U	P-89B	77.5	367.99	369.99 - 367.99
P89L	P-89C	97.5	348.05	350.05 - 348.05

1191150002

Equilon Enterprises

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Page IV-6 of IV-20

IEPA Well No.	Facility Well No.	Well Depth (Ft-bgs)	Well Depth Elevation (Ft MSL)	Well Screen Interval (Ft MSL)
Observation Monitoring Wells (gauged only)				
P89D	P-89D	140.5	305.20	307.20 - 305.20
P91S	P-91A	64.01	380.68	395.68 - 380.68
P91U	P-91B	74.5	370.57	372.57 - 370.57
P91L	P-91C	94.5	350.29	352.29 - 350.29
P91D	P-91D	168.0	276.70	278.70 - 276.70
P92S	P-92A	60.5	383.55	398.55 - 383.55
P92U	P-92B	73.5	370.42	372.42 - 370.42
P92L	P-92C	93.5	350.54	352.54 - 350.54
P92D	P-92D	141.0	302.9	304.90 - 302.90
P102	P-102	60.00	382.16	402.16 - 382.16
P103	P-103	70.00	355.33	375.33 - 355.33
P108	P-108	42.00	384.83	399.83 - 384.83
P109	P-109	40.00	386.56	401.56 - 386.56
P114	P-114	50.00	379.73	399.73 - 379.73
P115	P-115	49.38	381.01	401.01 - 381.01
P116	P-116	54.00	379.01	399.01 - 379.01
P117	P-117	50.17	379.74	399.74 - 379.74
P118	P-118	45.00	384.27	400.20 - 384.27
P119	P-119	44.94	385.32	401.25 - 385.32
P120	P-120	45.10	385.47	401.40 - 385.47
P121	P-121	38.00	389.15	405.08 - 389.15
P122	P-122	41.03	386.50	402.43 - 386.50
P123	P-123	38.00	387.81	403.74 - 387.81
P124	P-124	40.66	385.32	401.25 - 385.32
P125	P-125	41.50	385.29	401.22 - 385.29
P126	P-126	40.15	387.47	403.40 - 387.47
P127	P-127	41.01	385.53	401.46 - 385.53
P128	P-128	37.23	387.48	403.41 - 387.48
P129	P-129	46.35	384.56	400.49 - 384.56
P130	S-1*+	56.20	385.49	
P131	T-2*	68.34	372.48	392.63 - 372.48
P132	T-3*	57.18	388.65	403.65 - 388.65
P133	T-4*	60.55	383.24	398.24 - 383.24
P134	T-5*	62.76	378.58	395.13 - 378.58
P135	T-6*	64.08	380.54	394.79 - 380.54
P136	T-7*	62.03	380.29	395.29 - 380.29

IEPA Well No.	Facility Well No.	Well Depth (Ft-bgs)	Well Depth Elevation (Ft MSL)	Well Screen Interval (Ft MSL)
Observation Monitoring Wells (gauged only)				
P137	T-8*	42.24	385.67	402.70 - 385.67
P138	T-15*	72.32	370.99	396.99 - 370.99
P139	T-17*	67.18	375.80	401.80 - 375.80
P140	T-19*	74.76	369.94	395.94 - 369.94
P142	T-21*	56.09	386.04	412.04 - 386.04
P143	T-22*	56.30	384.96	410.66 - 384.96
P144	T-23*	52.80	379.41	405.41 - 379.41
P145	T-24*	64.74	376.57	402.22 - 376.57
P146	T-27+	120.2	321.90	
P147	P-47+			
P148	T-38	68.24	376.48	396.48 - 376.48
P150	T-42	38.14	393.60	413.60 - 393.60
P151	P-51+			
P152	P-52	58.04	384.25	409.25 - 384.25
P153	P-53	61.52	382.73	407.73 - 382.73
P154	P-54	63.23	379.18	404.18 - 379.18
P155	T-52*+	37.72	394.65	
P156	T-58	36.00	389.89	419.89 - 389.89
P157	P-57	63.50	381.07	406.07 - 381.07
P158	P-58	63.50	379.70	404.70 - 379.70
P159	T-64	47.00	378.99	408.99 - 378.99
P161	P-61	68.00	373.59	398.56 - 373.59
P162	P-62	65.00	375.85	400.85 - 375.85
P163	P-63	70.00	373.16	398.46 - 373.46
P164	P-64	70.00	374.29	399.29 - 374.29
P165	P-65	70.00	371.91	396.91 - 371.91
P166	P-66	60.00	376.98	401.98 - 376.98
P167	P-67	65.00	377.16	402.16 - 377.16
P168	P-68	67.00	374.81	399.81 - 374.81

IEPA Well No.	Facility Well No.	Well Depth (Ft-bgs)	Well Depth Elevation (Ft MSL)	Well Screen Interval (Ft MSL)
Observation Monitoring Wells (gauged only)				
P169	P-69	63.50	377.36	402.36 - 377.36
P170	P-70	68.00	373.16	398.16 - 373.16
P171	P-71	65.00	377.22	402.22 - 377.22
P172	P-72	68.00	373.66	398.66 - 373.66
P173	P-73	65.01	377.17	402.17 - 377.17
P174	P-74	68.00	373.20	398.20 - 373.20
P175	P-75	66.00	378.19	403.19 - 378.19
P176	P-18*	37.01	393.92	413.92 - 393.92
P177	P-98	45.00	388.08	408.08 - 388.08
P178	P-99	45.00	387.40	407.40 - 387.40
P179	T-43	41.30	391.11	411.11 - 391.11
P180	T-44	39.47	393.42	413.42 - 393.42
P181	T-46	36.40	390.27	410.27 - 390.27
P182	T-51*+	39.56	393.08	
P183	T-62	47.81	382.02	412.02 - 382.02
P184	T-63	48.00	381.26	411.26 - 381.26

Note: * The boring log for this monitoring well is not available.

+ Construction details unavailable.

- The Permittee shall maintain the Water Production Wells identified in the table below to allow for the withdrawal of contaminated groundwater, in order to adequately control the flow of groundwater, as required by Condition IV.A.1 above.

IEPA Well No.	Facility Well No.	Well Depth (Ft-bgs)	Well Depth Elevation** (Ft-MSL)	Well Screen Interval (Ft-MSL)
Water Production Wells**				
W39	W-39	137.00	444.00	377.00-307.00
W42	W-42	138.00	445.00	377.00-307.00
W68*	W-68	130.00	441.00	351.00-311.00
W69	W-69	140.00	445.00	355.00-305.00
W70*	W-70	136.50	445.00	349.00-309.00
W72	W-72	137.00	445.00	348.00-308.00
W73+	W-73	135.00	445.00	349.00-309.00

1191150002

Equilon Enterprises

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Page IV-9 of IV-20

IEPA Well No.	Facility Well No.	Well Depth (Ft-bgs)	Well Depth Interval** (Ft-MSL)	Well Screen Interval (Ft-MSL)
Water Production Wells**				
W76*	W-76	140.00	443.00	333.00-303.00
W77	W-77	142.00	444.00	332.00-302.00
W78	W-78	138.33	443.00	335.00-305.00
W79	W-79	134.92	443.00	338.00-308.00
W80	W-80	135.83	443.00	337.00-307.00
W81	W-81	129.00	444.00	345.00-315.00
W84	W-84	137.00	445.00	339.00-309.00
W85	W-85	101.90	342.10	367.00-342.00
W86	W-86	108.5	336.5	369.5-336.5
W88	W-88	100.0	345.0	370.0-345.0
W89#	W-89 – construction details not yet available –			

Note: * The boring log for this monitoring well is not available.

** Ground surface elevations for water production wells are estimated from site topographic map dated 12/8/1990.

Construction details must be submitted as a Class 1 Modification request as soon as they are available.

+ W73 remains for possible oil recovery.

3. Construction of each monitor well/piezometer must be in accordance with the diagram contained in Attachment IV-A to this Permit, unless otherwise approved in writing by the Illinois EPA. All new monitoring wells/piezometers to be installed must be continuously sampled and logged on Illinois EPA boring logs as provided in Attachment IV-B unless otherwise approved by the Illinois EPA.
4. The Permittee shall notify the Illinois EPA within thirty (30) days in writing if any of the wells identified in Conditions IV.D.1 and IV.D.2 are damaged or the structural integrity has been compromised causing the well not to serve its function or to act as a contaminant pathway. A proposal for the replacement of the subject well shall accompany this notification. The well shall not be plugged until the new well is on-line and monitoring data has been obtained and verified, unless the well is extremely damaged or would create a potential route for groundwater contamination. Prior to replacing the subject well, the Permittee shall obtain written approval from the Illinois EPA regarding the proposed installation procedures and construction.

5. Should any well become consistently dry or unserviceable, a replacement well shall be provided within ten (10) feet of the existing well. This well shall monitor the same zone as the existing well and be constructed in accordance with the current Illinois EPA groundwater monitor well construction standards at the time that the wells are replaced. A replacement well which is more than ten (10) feet from the existing well or which does not monitor the same geologic zone must be approved by the Illinois EPA and designated as a new well.
6. The Permittee shall submit boring logs, construction diagrams and datasheets from installation and development of a new or replacement well to the Illinois EPA at the address below within thirty (30) days of the date that installation of the well is completed. In addition, the Permittee shall submit certification that plugging and abandonment of a well was carried out in accordance with the approved procedures to the Illinois EPA at the address below within thirty (30) days of the date that the well is plugged and abandoned. All pertinent information should be submitted to the appropriate State agencies.

Illinois Environmental Protection Agency
Bureau of Land -- #33
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

7. All wells/piezometers shall be clearly identified and shall be equipped with protective caps and locks. Monitoring wells or piezometers located in high traffic areas must be protected with bumper guards.
8. All groundwater monitoring wells and piezometers not utilized in the approved groundwater monitoring system, but retained by the facility, must be constructed and maintained in accordance with 77 Ill. Adm. Code 920 regulations. Monitoring wells and piezometers that are improperly constructed must be abandoned in accordance with Condition IV.D.4.

E. GROUNDWATER PROTECTION STANDARD

1. The following hazardous constituents and their concentration limits (35 Ill. Adm. Code 620, Class I, Groundwater Quality Standards) comprise the groundwater

protection standard for the groundwater monitoring wells found in Conditions IV.D.1. Total (unfiltered) values will be used for the comparison with the 35 Ill. Adm. Code 620, Class I, Groundwater Quality Standards. Dissolved values shall be used for statistical evaluations required in Condition IV.I unless otherwise noted):

<u>Field Parameters</u>	<u>Storet</u>	<u>Units</u>
pH	00400	
Specific Conductance	00094	micromhos/cm
Temperature of Water Sample	00011	(°F)
Turbidity	45626	Ntus
Depth to Water (below land surface)	72019	Feet
Depth to Water (below measuring point)	72109	Ft bgs
Elevation of Groundwater Surface	71993	Ft MSL
Elevation of Bottom of Well #	72020	Ft MSL
Elevation of Measuring Point (Top of casing)##	72110	Ft MSL

Shall be determined during the first semi-annual sampling event each year.
 ## Shall be surveyed once every five (5) years, or at the request of the Illinois EPA, or whenever the elevation changes as required by Condition IV.J.9.a.

<u>Hazardous Constituents</u>	<u>Storet No. (Total)</u>	<u>Storet No. (Dissolved)</u>	<u>Concentration Limits (mg/L)</u>
<u>Inorganics</u>			
Antimony	01097	01095	0.006*
Arsenic	01002	01000	0.05*
Barium	01007	01005	2.0*
Beryllium	01012	01010	0.004*
Cadmium	01027	01025	0.005*
Chromium	01034	01030	0.1*
Cobalt	01037	01035	1.0*
Cyanide	00720	00723	0.2*
Lead	01051	01049	0.0075*
Mercury	71900	71890	0.002*
Nickel	01067	01065	0.1*
Selenium	01147	01145	0.05*
Silver	01077	01075	0.05*
Vanadium	01087	01085	0.049#
Zinc	01092	01090	5.0*

<u>Hazardous</u> <u>Constituents</u>	<u>Storet No.</u> <u>(Total)</u>	<u>Storet No.</u> <u>(Dissolved)</u>	<u>Concentration</u> <u>Limits (mg/L)</u>
<u>Organics</u>			
Acenaphthene	34205		0.42 [#]
Anthracene	34220		2.1 [#]
Benzene	34030		0.005*
Benzenethiol	73518		--
Benzo(a)anthracene	34526		0.00013 [#]
Benzo(b)fluoranthene	34230		0.00018 [#]
Benzo(k)fluoranthene	34242		0.00017 [#]
Benzo(a)pyrene	34247		0.0002*
Bis(2-ethylhexyl)phthalate	39100		0.006 [#]
Carbon Disulfide	81309		0.7 [#]
Chlorobenzene	34301		0.100 [#]
Chloroform	32106		0.0002 [#]
Chrysene	34320		0.0015 [#]
o-Cresol (2-methylphenol)	77152		0.35 [#]
m-Cresol (3-methylphenol)	77151		0.35 ^{&}
p-Cresol (4-methylphenol)	77146		0.35 ^{&}
Dibenz(a,h)acridine	73541		--
Dibenzo(a,h)anthracene	34556		0.0003 [#]
Di-n-butyl phthalate	39110		0.7 [#]
1,2-Dichlorobenzene	34536		0.6 [#]
1,3-Dichlorobenzene	34566		--
1,4-Dichlorobenzene	34571		0.075 [#]
1,1-Dichloroethane	34496		0.7 [#]
1,2-Dichloroethane	34501		0.007*
Diethyl phthalate	34336		5.6 [#]
2,4-Dimethylphenol	34606		0.14 [#]
Dimethyl phthalate	34341		--
2, 4-Dinitrophenol	34616		0.014 [#]
1,4-Dioxane	82388		0.005 ⁺
Ethylbenzene	78113		0.7*
Ethylene dibromide (EDB)	34721		0.00005 ⁺
Fluoranthene	34376		0.28 [#]
Fluorene	34381		0.28 [#]
Indene	77202		--
Indeno(1,2,3-cd)pyrene	34403		0.00043 [#]

1191150002

Equilon Enterprises

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Page IV-13 of IV-20

Hazardous Constituents	Storet No. (Total)	Storet No. (Dissolved)	Concentration Limits (mg/L)
1-Methylnaphthalene	77418		0.49 ^{&}
2-Methylnaphthalene	77416		0.0028 ⁺
Methyl tert-butyl ether	46491		0.070 [*]
Naphthalene	34696		0.14 [#]
4-Nitrophenol	34646		--
Phenanthrene	34661		0.21 ^{&}
Phenol	32730		0.1 [*]
Pyrene	34469		0.28 [#]
Pyridine	77045		0.007 ^{&}
Quinoline	77299		--
Styrene	77128		0.100 [*]
Tetrachloroethene	34475		0.005 [*]
Toluene	34010		1.0 [*]
1,1,1-Trichloroethane	34506		0.2 [*]
Trichloroethene	39180		0.005 [*]
Xylenes (total)	34020		10.0 [*]

* Source – 35 Ill. Adm. Code 620, Subpart D

Source – 35 Ill. Adm. Code 742 (TACO), Appendix B, Table E

& Source – Illinois EPA Toxicity Assessment Unit (Chemicals not in TACO, Tier 1 Tables)

+ Source - R2008-018, Proposed Revisions to Groundwater Quality Standards, 35 Ill. Adm. Code 620

-- Not available

2. Alternate concentration limits may be established where the Permittee can determine a constituent will not pose a substantial hazard to human health or the environment.
 - a. Where a hazardous constituent has a standard in 35 Ill. Adm. Code 620, the facility must apply for an adjusted standard as outlined in Section 28.1 of the Environmental Protection Act or reapply once corrective measures have been implemented pursuant to 35 Ill. Adm. Code 620.450.
 - b. For those hazardous constituents without a 35 Ill. Adm. Code 620 standard, the alternative concentration limits proposed by the facility must be approved by the Illinois EPA.

3. The compliance period (post-closure period) during which the groundwater protection standard applies shall be extended until the Permittee demonstrates that the groundwater protection standard has not been exceeded at the point of compliance for three (3) consecutive years.
4. The approved sampling parameter list in Condition IV.E.1 will be considered appropriate until such time that the ongoing investigations in the vicinity of the western fenceline of the North Property, with Illinois EPA review and approval, have been deemed complete. At that time, the facility must request to modify the Permit, as described in Condition IV.K, to reduce or add any additional COCs to the sampling parameter list.

F. GROUNDWATER CORRECTIVE ACTION PROGRAM

The Permittee shall conduct the Corrective Action Program and perform groundwater monitoring detailed in this section, in accordance with the following:

1. The Permittee shall monitor the wells designated in Condition IV.D.1.a during the Second Quarter for all hazardous constituents listed in Condition IV.E.1 above. The Permittee shall monitor the wells designated in Condition IV.D.1.a during the Fourth Quarter for the following hazardous constituents listed in Condition IV.E.1 above: dissolved arsenic, barium, cobalt, lead, nickel, and vanadium; and 2-methylnaphthalene, naphthalene, phenol, benzene, ethylbenzene, toluene and xylenes (BETX).
2. The Corrective Action Program shall control the horizontal and vertical flow in the vertical column of water present in the uppermost aquifer beneath the North and Main Properties and monitor the position and rate of migration of the Hydrocarbon Pool as follows:
 - a. The pumping from the Water Production Wells, at a minimum rate of 3,000 gpm, shall maintain the cone of depression to ensure groundwater flow is adequately controlled in the uppermost aquifer. This minimum pumping rate is based on the modeling approved to date.
 - b. The pumping rate from the Water Production Wells system shall be recorded daily. This data shall be used to calculate monthly average withdrawal rates.

1191150002

Equilon Enterprises

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Page IV-15 of IV-20

- c. The Permittee shall treat the water withdrawn from the aquifer to maintain the necessary control of flow, and recover hydrocarbon material which is present on the top of the water table beneath portions of the North and Main Properties.
3. The Permittee shall monitor the groundwater horizontal and vertical gradients in the uppermost aquifer beneath the facility.
4. The Permittee shall record the following measurements and submit to the Illinois EPA semi-annually as required by Condition IV.J.2.
 - a. A record of the amount of groundwater withdrawn each day by the Water Production Wells system.
 - b. Quarterly monitoring of the piezometric head at wells in the uppermost aquifer identified in Conditions IV.D.1 and IV.D.2 above to demonstrate that groundwater flow is properly controlled throughout the contaminated area requiring corrective action in the uppermost aquifer is being contained.
5. The Permittee shall determine the groundwater flow rate and direction in the uppermost aquifer at least annually from the monitoring wells listed in Condition IV.D.1.
6. The groundwater quality in the uppermost aquifer beneath the facility shall be monitored on a semi-annual basis at each of the monitoring wells identified in Condition IV.D.1.a.
7. Pursuant to 35 Ill. Adm. Code 620.250 and Section C.11 of the approved Permit Renewal Application, the facility must propose the establishment of a GMZ within ninety (90) days of the Illinois EPA approval that the source and extent of contamination along the western fenceline of the North Property and within the Village of Roxana has been defined. The GMZ proposal must include: (1) modifications to the groundwater corrective action determined necessary by the Route 111/Rand Avenue West Fenceline and Well P-60 Investigation, as approved in the Illinois EPA letter dated May 14, 2009, and any subsequent letters; (2) a proposed well network adequate to monitor the GMZ; and (3) a set of statistical procedures that are adequate to evaluate the effectiveness of the corrective action.

G. GROUNDWATER ELEVATIONS

1. The Permittee shall determine the groundwater surface elevation referenced to MSL at each well each time groundwater is sampled in accordance with Condition IV.J.3.
2. The Permittee shall report the surveyed elevation of stick-up and ground surface referenced to MSL once every five (5) years or at the request of the Illinois EPA, or whenever the elevation changes in accordance with Condition IV.J.9.
3. Elevation, as referenced to MSL, of the bottom of each monitoring well (STORET 72020), is to be reported at least annually. The mandatory measurement shall be taken during the first semi-annual sampling event each year.

H. SAMPLING AND ANALYSIS PROCEDURES

The Permittee shall follow the techniques and procedures described in Section C.7.5 of the approved Permit Renewal Application, except as modified below, when obtaining and analyzing samples from the groundwater monitoring wells described in Condition IV.D.1:

1. Samples shall be collected by the techniques described in Section C.7.5 of the approved Permit Renewal Application.
2. Samples shall be preserved, shipped and handled in accordance with the procedures specified in Section C.7.5 of the approved Permit Renewal Application.
3. Samples shall be analyzed according to the procedures specified in Section Section C.7.5, and identified on Table C-15, of the approved Permit Renewal Application.
4. Samples shall be tracked and controlled using the chain-of-custody procedures specified in Section C.7.5 of the approved Permit Renewal Application.

I. STATISTICAL METHODS

Upon establishment of a GMZ, as required by Condition IV.F.7, the Permittee shall statistically evaluate the quality of groundwater samples collected during semi-annual sampling events identified in Condition IV.F.

J. REPORTING AND RECORDKEEPING

1. The Permittee shall enter all monitoring, testing and analytical data obtained in accordance with Conditions IV.E, IV.F, IV.G and IV.I into the operating record.
2. Samples collected to meet the requirements of the groundwater monitoring program described in Conditions IV.E, IV.F, IV.G and IV.I shall be collected and reported as identified in the table below. All additional data required by the groundwater monitoring program (as specified in Conditions IV.E, IV.F, IV.G and IV.I) shall also be submitted to the Illinois EPA at the address listed in Condition IV.D.6 in accordance with this schedule.

<u>Sampling Event of Calendar Year</u>	<u>Samples to be Collected During the Months of</u>	<u>Results Submitted to the Agency by the Following</u>
First Quarter	January - February	July 15
Second Quarter	April - May	July 15
Third Quarter	July - August	January 15
Fourth Quarter	October - November	January 15

3. Groundwater surface elevation data, measured pursuant to Condition IV.G.1, shall be collected at least quarterly and submitted to the Illinois EPA as identified in Condition IV.J.2 above.
4. Groundwater withdrawal rates, calculated pursuant to Condition IV.F.2.b shall be submitted quarterly as identified in Condition IV.J.2.
5. Gradient control measurements collected pursuant to Condition IV.F.4 shall be submitted to the Illinois EPA as part of the second and fourth quarter reports as identified in Condition IV.J.2.
6. Statistical evaluations, as required by Condition IV.I, shall be submitted to the Illinois EPA as a part of the semi-annual reports as identified in Condition IV.J.2.
7. The Permittee shall report the groundwater flow rate and direction, as required by Condition IV.F.5, during the second semi-annual sampling event each year.

1191150002

Equilon Enterprises

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Page IV-18 of IV-20

8. Groundwater quality samples collected to meet the requirements of Condition IV.F.6 shall be collected during the second and fourth quarters and submitted to the Illinois EPA as identified in Condition IV.J.2.
9. The Permittee shall report the surveyed elevation, as required by Condition IV.G.2, of the top of the well casing ("stick-up"), referenced to MSL, in accordance with the following schedule:
 - a. For wells identified in Condition IV.D.1 above, every five (5) years (during the second semi-annual sampling event), or at the request of the Illinois EPA, or whenever the elevation changes.
 - b. For any new wells, at the time of installation and reported in the as-built diagrams. Subsequent measurements shall be made every five (5) years (during the second quarter sampling event) or whenever the elevation changes.
10. Elevation of the bottom of each monitoring well identified in Condition IV.D.1, referenced to MSL, is to be reported annually. This measurement shall be taken during the second semi-annual sampling event (Storet 72020).
11. Information required by Conditions IV.J.2, IV.J.3, IV.J.9 and IV.J.10 must be submitted in an electronic format. The information is to be submitted as fixed-width text files formatted as found in Attachment IV-C of this permit, in accordance with the schedule found in Condition IV.J.2. Additional guidance regarding the submittal of the information in an electronic format can be found at www.epa.state.il.us/land/regulatory-programs/permits-and-management/index.html.
12. The Permittee shall submit a completed "RCRA Facility Groundwater, Leachate and Gas Reporting Form" (LPC 592) as a cover sheet for any notices or reports required by the facility's permit for identification purposes. Only one (1) copy of the LPC 592 must accompany your submittal. However, the Permittee must submit one (1) original and (excluding the groundwater and leachate monitoring results submitted in an electronic format) a minimum of two (2) copies of each notice or report you submit to the Illinois EPA. The form is not to be used for permit modification requests.
13. The Permittee shall report all information to the Illinois EPA in a form which can be easily reviewed. All submittals must contain tables of data, drawings, and text (as necessary) to accurately describe the information contained in the submittal.

14. The Permittee shall submit a written report, annually to the Illinois EPA by July 15 of each year, which discusses the effectiveness of the corrective action program. At a minimum, the report must include, but not be restricted to, the following:
 - a. Address the information requirements in Conditions IV.D, IV.E, IV.F and IV.G.
 - b. Evaluate the effectiveness of the hydraulic control and contaminant removal, including the information required by Condition IV.E.
 - c. Provide a discussion of any change in the quality of groundwater beneath the facility which has resulted from the corrective action.

15. If the Permittee determines that groundwater flow is not being adequately controlled, the Permittee shall:
 - a. Notify the Agency in writing within seven (7) days of the date that this determination is made;
 - b. Take actions as necessary to regain the control of groundwater flow as required by Condition IV.F.2.
 - c. Submit a written report to the Illinois EPA within thirty (30) days describing the actions taken to regain control of groundwater flow. In addition, the report must contain information which demonstrates that groundwater flow is being adequately controlled.
 - d. Submit a request for permit modification to the Illinois EPA within sixty (60) days describing any changes which must be made to the corrective action program to ensure that the groundwater flow is adequately controlled.

K. REQUEST FOR PERMIT MODIFICATION

1. If the Permittee determines that the corrective action program required by this permit no longer satisfies the requirements of 35 Ill. Adm. Code 724, Subpart F, the Permittee must, within 90 days, submit an application for permit modification to the Bureau of Land of the Illinois EPA to make any appropriate changes to the program which will satisfy the regulations.

1191150002

Equilon Enterprises

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Page IV-20 of IV-20

2. Conditions in this section of the permit may be modified by the Illinois EPA in accordance with 35 Ill. Adm. Code 702.183 and 705.128 if there is cause for such modification, as defined in 35 Ill. Adm. Code 702.184. Causes for modification in this section of the regulations include, but are not limited to, alterations to the permitted facility, additional information which would have justified the application of different permit conditions at the time of permit issuance, and new regulations.

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Attachment IV-A

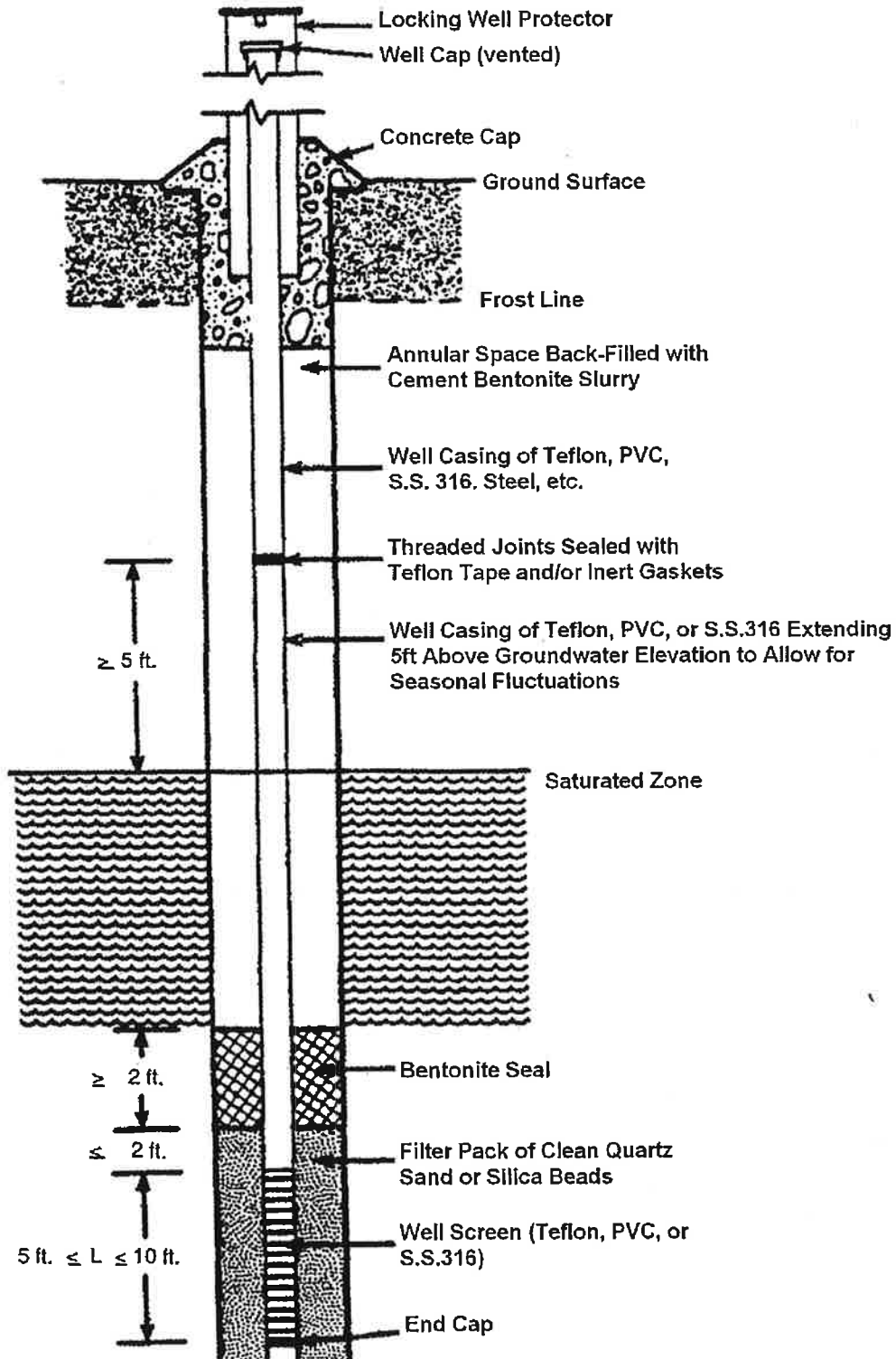
Monitoring Well Diagram

Equilon Enterprises

LPC No. 1191150002

ILD080012305

Monitoring Well Diagram



Permit Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Attachment IV-B

Illinois EPA Boring Log

Equilon Enterprises

LPC No. 1191150002

ILD080012305

Permit Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Attachment IV-C

Electronic Reporting Procedures

Equilon Enterprises

LPC No. 1191150002

ILD080012305

Formatting Requirements for the 01 Record of the Electronically Submitted
 Groundwater and Leachate Data (the 01 Record portion of the LPC-160 is included
 for example purposes)

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
 DIVISION OF LAND POLLUTION CONTROL Page 1 of _____
 CHEMICAL ANALYSIS FORM

RECORD CODE							TRANS CODE
L	P	C	S	M	0	1	A
1						7	8
REPORT DUE DATE ____/____/____							

FEDERAL ID NUMBER _____

SITE INVENTORY NUMBER _____ 9 _____ 18	MONITOR POINT NUMBER _____ (see Instructions) 19 ____ 22
REGION _____ CO. _____	DATE COLLECTED ____/____/____ 23 M / D / Y 28
FACILITY NAME _____	

FOR IEPA USE ONLY

LAB _____
29

DATE RECEIVED ____/____/____
42 M / D / Y 47

BACKGROUND SAMPLE (X) _____ 54 TIME COLLECTED ____:____:____
 (24 Hr. Clock) 55 11 M 58

UNABLE TO COLLECT SAMPLE _____
 (see Instructions) 59

MONITOR POINT SAMPLED BY _____
 (see Instructions) 60 OTHER (SPECIFY) _____

SAMPLE FIELD FILTERED - INORGANICS (X) _____ 61 ORGANICS (X) _____ 62

SAMPLE APPEARANCE _____
63 _____ 102

COLLECTOR COMMENTS _____
103 _____ 142

LAB COMMENTS _____
150 _____ 199

II 532 1213
 LPC 160 12/2011

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 ½, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

All analytical procedures must be performed in accordance with the methods contained in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," SW-846, 3rd Edition, September 1986 or equivalent methods approved by the Agency. Proper sample chain of custody control and quality assurance/quality control procedures must be maintained in accordance with the facility sampling and analysis plan.

*Only Key punch with Data in Column 35 or Columns 38-47

KEY:

<u>Spaces Numbered</u>	<u>Description</u>	<u>Format</u>
Spaces 1-7	Record Code	LPCSM01
Space 8	Trans Code	A
Spaces 9-18	Site ID	0000000000
Spaces 19-22	Mon Pt ID	G000
Spaces 23-28	Date Collected	000000
Space 29	Lab	
Spaces 30-35	Filler	
Spaces 36-41	Report Due Date	000000
Spaces 42-47	Date Received	000000
Spaces 48-53	Filler 2	
Space 54	Background Sample	
Spaces 55-58	Time Collected	0000
Space 59	Unable to Collect Sample	
Space 60	Monitoring Point Sampled By	
Space 61	Field Filtered – Inorganic	
Space 62	Field Filtered – Organic	
Spaces 63-102	Sample Appearance	
Spaces 103-142	Collector Comments	
Spaces 143-149	Filler 3	
Spaces 150-159	Lab Comments	

**Formatting Requirements for the 02 Record of the Electronically Submitted
 Groundwater and Leachate Data (the 02 Record portion of the LPC-160 is included
 for example purposes)**

RECORD CODE L | P | C | S | M | 0 | 2 TRANS CODE A (COLUMNS 9-29 FROM ABOVE)
 1 7 8

	<u>FIELD MEASUREMENTS</u>	<u>STORET</u>	<u>Remarks</u>	<u>Replicate</u>	<u><</u>	<u>or</u>	<u>></u>	<u>Value</u>
	<u>CONSTITUENT DESCRIPTION AND</u>	<u>NUMBER</u>	<u>See Insf.</u>					
	<u>REQUIRED UNIT OF MEASURE</u>							
Q	TEMP OF WATER (unfiltered ° F)	0 0 0 1 1 30 34	35	36	37	38	47	
Q	SPEC COND (unfiltered umhos)	0 0 0 9 4						
Q	pH (unfiltered units)	0 0 4 0 0						
Q	ELEV OF GW SURF (ft ref MSL)	7 1 9 9 3						
Q	DEPTH OF WATER (ft below LS)	7 2 0 1 9						
A	BTM WELL ELEV (ft ref MSL)	7 2 0 2 0						
Q	DEPTH TO WATER FR MEA PT (ft)	7 2 1 0 9						

IL 532 1213
 LPC 160 12/2011

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 ½, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000 for each day the failure continues a fine up to \$1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

All analytical procedures must be performed in accordance with the methods contained in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," SW-846, 3rd Edition, September 1986 or equivalent methods approved by the Agency. Proper sample chain of custody control and quality assurance/quality control procedures must be maintained in accordance with the facility sampling and analysis plan.

*Only Keypunch with Data in Column 35 or Columns 38-47

KEY:

<u>Spaces Numbered</u>	<u>Description</u>	<u>Format</u>
Spaces 1-7	Record Code	LPCSM02
Space 8	Trans Code	A
Spaces 9-18	Site ID	0000000000
Spaces 19-22	Mon Pt ID	
Spaces 23-28	Date Collected	
Space 29	Lab	
Spaces 30-34	STORET Number	
Space 35	Remarks	
Space 36	Replicate	
Space 37	< or >	
Space 38-47	Value	

SECTION V
CLOSURE AND CORRECTIVE ACTION

A. INTRODUCTION

1. In accordance with Section 3004(u) of RCRA and 35 Ill. Adm. Code 724.201, the Permittee shall institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents, listed in 35 Ill. Adm. Code 721, Appendix H from any solid waste management unit (SWMU) at the WRB Refining facility in Roxana, Illinois.
2. Eight former hazardous waste management units were once in operation at this facility. As these units are a subset of solid waste management units, it is necessary to ensure that all of these units have been closed in accordance with 35 Ill. Adm. 724 and 725. Two of the units have been properly closed and additional efforts must be completed to complete closure of the other six units. This permit sets forth general requirements which must be met in closing these six units.
3. This facility was initially issued a RCRA permit by USEPA and Illinois EPA on September 29, 1989. The USEPA portion of the permit (also known as "Hazardous and Solid Waste Amendments (HSWA) Permit," contained, among other things, corrective action requirements for twenty-two solid waste management units (SWMUs)).
4. The facility has completed a substantial amount of investigation and, as necessary, remediation of these SWMUs under USEPA's oversight. Six additional SWMUs were discovered during the course of these efforts and have been or are being addressed under the facility's RCRA corrective action program.
5. Illinois EPA now has authority for imposing corrective action requirements at RCRA permitted facilities and thus will now be responsible for overseeing future corrective action activities at this facility as part of the requirements in this renewed RCRA permit.
6. Unless there is a desire to modify specific requirements set forth in this Section, information submitted to Illinois EPA regarding the corrective action requirements set forth in this Section is not a request to modify this permit nor subject to the requirements of 35 Ill. Adm. Code 703, Subpart G.

- a. A completed Illinois EPA RCRA Corrective Action Certification form (available on Illinois EPA's internet site (www.epa.state.il)) must accompany all corrective action-related information submitted to Illinois EPA.
 - b. To allow for proper review of all corrective action-related information submitted to Illinois EPA, the original and two copies of the information must be submitted.
7. The Permittee must provide corrective action, as appropriate, for any future releases from SWMUs present at the facility.
 8. The requirements of 35 Ill. Adm. Code 742 must be met, as appropriate, in determining remediation objectives for corrective action activities. In addition, the requirements of 35 Ill. Adm. Code 620 and 724.201 must be met during implementation of the RCRA corrective program at this facility.
 9. Illinois EPA's final action on all corrective action-related submittals made by the Permittee are subject to the appeal provisions of Section 39 and 40 of the Illinois Environmental Protection Act.

B. STATUS OF FORMER HAZARDOUS WASTE MANAGEMENT UNITS

1. Several hazardous waste management units were once in operation at this facility which have either been closed or are in the process of being closed. As hazardous waste management units are a subset of solid waste management units, the status of these various units and, as necessary, requirements to complete closure of these units are set forth in this subsection.
2. The former hazardous waste management units once in operation at this facility include:

CATCO Building

Ponds 1 and 2

Tank CH-290

Tanks B-58, D-30, B-58 and L-143

The status of these units is discussed in Items 3 thru 7 below.

3. The CATCO Building was a permitted hazardous waste container storage area. Illinois EPA approved a closure plan for this unit on August 16, 2006 (Log No. B-43-CA-2) and accepted certification of closure of the unit on July 30, 2007 (Log No. B-43-CA-3).
4. Tank CH-290 was an interim status hazardous waste storage tank which became regulated with the definition of hazardous waste was expanded to include, among other things, the TCLP characteristic for benzene. Illinois EPA approved a closure plan for this unit on August 16, 2006 (Log No. B-43-CA-1) and accepted certification of closure of the unit on July 30, 2007 (Log No. B-43-CA-4).
5. Pond 1 was an interim status hazardous waste surface impoundment which became regulated with the definition of hazardous waste was expanded to include, among other things, the TCLP characteristic for benzene. This unit was associated with the facility's wastewater treatment plant. From 1990 until March 1994, this unit occasionally received hazardous waste. From April 1994 to the time closure of the unit began, it received non-hazardous waste under a delay of closure adjusted standard issued by the Illinois Pollution Control Board (Docket No. AS-97-3).
 - a. A closure plan for this unit was approved by Illinois EPA on October 4, 2006 (C-851).
 - b. Modifications to the approved closure plan were approved by Illinois EPA on July 20, 2007 (Log No. C-851-M-1 and 2). The documents comprising the modification request were entitled "Closure Sampling Report and Conceptual Closure Design" and "Addendum to Pond 1 Closure."
 - (1) Illinois EPA determined closure of soil will be complete once an ELUC is established which ensures: (1) the property will only be used for industrial and commercial purposes; (2) a site safety plan to address possible work exposure to the soil will be developed and implemented during any future excavation/construction in these areas; and (3) any soil removed from Pond 1 during any future activities will be managed in accordance with 35 IAC, Subtitle G: Waste Disposal
 - (2) Illinois EPA also determined that closure relative to groundwater will be achieved if the ELUC required above prohibits the use of

- tanks. Illinois EPA determined an ELUC must be established restricting future use of the facility to industrial/commercial activities. (Log No. B-43-CA-11).
- c. February 16, 2010, a certified copy of the ELUC filed for this tank was submitted to Illinois EPA. This ELUC (filed with the Madison County Recorder on December 14, 2009 as Document No. 2009R60789) placed the following restrictions on this area: (1) future activities in the area of tanks are restricted to commercial/industrial activities; and (2) any soil removed from the area where the tanks were located must be characterized and disposed in accordance with all applicable rules and regulations.
 - d. Illinois EPA approved certification of closure of these four tanks on May 19, 2010. This letter indicated that closure of the tanks was complete and that the requirements of the aforementioned ELUC must continue to be met in the future.
8. Given all of the above, the only former hazardous waste management unit at this facility which must be closed in accordance with 35 Ill. Admin. Code 725 and 742 is Pond 2.
9. If Pond 2 cannot be closed in accordance with 35 Ill. Admin. Code 742, it will be necessary to close it as a landfill and provide thirty years of post-closure care of the unit in accordance with 35 Ill. Admin. Code 724 and 725. If it is necessary to close Pond 2 as a landfill, this permit will need to be modified incorporating such a unit and its post-closure care into the permit.

C. OVERVIEW OF THE SWMUS ADDRESSED UNDER THE ORIGINAL RCRA PERMIT

- 1. The original RCRA permit issued by USEPA required that corrective action be completed at 22 SWMUs at this facility (these SWMUs are referred to as SWMUs A thru N and S thru Z). During the course of carrying out corrective action efforts, an additional six SWMUs at the facility (referred to as SWMUs AA through AF) were discovered. From 1989 until 2009, corrective action at these units was overseen by USEPA.

1191150002

Equilon Enterprises

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Page V-6 of V-21

2. Section F-1.b of the approved application to renew the facility's RCRA permit contains detailed information about each of the 28 SWMUs of concern at this facility and information regarding the corrective action completed at each unit.
3. The 28 SWMUs of concern at this facility, as well as the current status of the corrective action program for each SWMU is presented in the following table.

ID	Name	Status
A	Inactive Solids Landfill	Final Report for Phase III RFI approved by USEPA on October 23, 2002. No further action needed, provided it remains undisturbed in present condition.
B	Inactive Concrete Waste Pile	USEPA letter of April 25, 2001 indicates no further action necessary at unit.
C	Inactive Asphalt Disposal	Final RFI report for this SWMU approved by USEPA with no further action needed for soils on July 7, 1998; groundwater still a concern and must still be addressed under IEPA's groundwater corrective action program.
D	Inactive Oily Impoundment Area	USEPA's January 29, 2001 letter indicates RFI for unit has been completed and unit does not pose a threat to human health, provided area used for industrial purposes. Ecological risks must still be evaluated.
E	Inactive Surface Impoundment	USEPA approved the Phase III RFI report for this unit on July 27, 2002. No further action required provided: (1) area only used for industrial activities; and (2) facility ecological assessment indicates no impact of area.
F	Inactive Oil Tank Bottoms	The RFI report was approved July 7, 1998 by USEPA. No further action needed for soils; groundwater still a concern and must still be addressed under IEPA groundwater corrective action program.
G	Inactive Oil Contaminated Waste Piles	The RFI report was approved July 7, 1998 by USEPA. No further action needed for soils; groundwater still a concern and must still be addressed under IEPA groundwater corrective action program.

ID	Name	Status
H	Inactive Acid/Caustic Impoundment Area	USEPA approved the Phase III RFI report for this unit on July 27, 2002. No further action provided: (1) area only used for industrial activities; and (2) facility ecological assessment indicates no impact of area.
I	Inactive Crude Tank Bottoms Impound Area	Per April 25, 2001 letter, no further action needed, provided: (1) institutional controls in place to restrict human exposure, and to soils remaining in the unit; and (2) site-wide ecological investigation is conducted.
J	Inactive Sludge Impoundment Area	USEPA's January 29, 2001 letter indicates RFI for unit has been completed and unit does not pose a threat to human health. provided, area used for industrial purposes. Ecological risks must still be evaluated.
K	Inactive Lead Tank Bottoms Impoundment Area	No further action determination made by USEPA on April 25, 2001.
L	Inactive Boiler House for Incinerator	USEPA letter of April 25, 2001 indicated no further action necessary at this unit.
M	Inactive Cooling Tower Sludge Impoundment Area	USEPA approved the Phase III RFI report for this unit on July 27, 2002. No further action provided: (1) area only used for industrial activities; and (2) facility ecological assessment indicates no impact of area.
N	Inactive Solids Burial Area	Final Report for Phase III RFI approved by USEPA October 23, 2002. No further action needed, provided it remains undisturbed in present condition.
O - R		These letter were skipped in the labeling of Shell's SWMUs.
S	Inactive White Star Refinery Area	No further action needed, based on the USEPA's July 11, 2000 approval of the RFI for this unit.

1191150002

Equilon Enterprises

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Page V-8 of V-21

ID	Name	Status
T	Inactive International Shoe Tannery Area	No further action needed, based on the USEPA's July 11, 2000 approval of the RFI for this unit.
U	Inactive Buried Chemicals Area	Corrective action report approved by USEPA on August 2, 2002; no further action needed provided appropriate land use restrictions established.
V	Active Wastewater Treatment Ponds and Lagoons (includes an area where dredged material was placed)	USEPA approved the RFI on April 6, 2001; need for corrective measures dependent on further human and ecological risk assessment. Ponds 1 and 2 associated with the wastewater treatment facility were removed from the RFI, as they are interim status hazardous waste management units. Facility now pursuing interim status closure of Ponds 1 and 2.
W	Inactive Roxana City Dump	Final Report for Phase III RFI approved on October 23, 2002. No further action needed, provided it remains undisturbed in present condition.
X	Inactive Tank for Spent Sulfide/Caustic	On November 20, 1995, USEPA approved the RFI report for the facility. The RFI report indicated no action was necessary at this unit.
Y	Active Solid Waste Disposal Basin	RCRA Interim status unit. Closed as a landfill in accordance with a plan approved by IEPA (log No. C-426). Post-closure care of unit addressed in RCRA permit for facility.
Z	Active Drum Storage Facility	Permitted hazardous waste container storage area. Unit closed in accordance with plan approved by Illinois EPA; certification of closure of unit has been accepted by Illinois EPA.
AA	Active Smith Lake	USEPA approved the Phase III RFI report for this unit on July 27, 2002. No further action provided: (1) area only used for industrial activities; and (2) facility ecological assessment indicates no impact of area.

ID	Name	Status
AB	Inactive Impoundment Area	A corrective measures and a report documenting remedial efforts at SWMU was approved by USEPA August 2, 2002; a no further action determination was made, provided appropriate land use restrictions are established.
ID	Name	Status
AC	Active Crude Oil Sump	No further action needed based on USEPA's October 23, 2000 approval of an investigation report.
AD	Inactive Solids Landfill	On April 14, 2004 USEPA approved a Corrective Measures Report for this facility and determined remedial activities adequately completed at this unit.
AE	Tank Bottom Sludge and Lime Material Disposal Area	RFI Phase I workplan approved July 19, 2007. RFI report submitted to USEPA November 30, 2007.
AF	Potential Radioactive Waste Disposal Area	Notification of and background information for unit submitted December 2, 2008. As this was a site where radioactive waste may have been present, the Illinois Emergency Management Agency/Division of Nuclear Safety (IEMA/DNS) oversaw work at this SWMU. IEMA/DNS approved an investigation workplan for this unit on April 8, 2009. A report documenting the results of the approved investigation was submitted on August 31, 2009. IEMA/DNS approved this report on August 31, 2009. IEMA/DNS oversaw and reviewed the approved investigation activities and on August 31, 2009, determined that no further action was necessary at this unit as the radioactivity of the material disposed at this unit had decayed to background values.

4. As indicated above, USEPA oversaw corrective action efforts at this facility from 1989 to 2009. During that time, Equilon completed a substantial amount of investigative and, as necessary, remedial work to address the twenty-eight SWMUs mentioned above. The work conducted during this time was carried out in accordance with plans approved by USEPA and then documented in reports approved by USEPA.

A summary of the workplans/reports mentioned above as well as the date of the USEPA letter responding to such documents is presented in the following table. The table presents this information in the chronological order of the date of USEPA's letters responding to the various corrective action submittals; the actual document that USEPA responded to is also presented in the table, as well as the conclusions/final action set forth in USEPA's letter. Copies of the USEPA's letters and the plans/reports submitted by Equilon identified in the table are present in Illinois EPA's files.

<i>Date of Letter</i>	<i>Subject of Letter</i>
November 3, 1989	RCRA permit issued to facility; USEPA portion contains corrective action requirements. This permit required that corrective action be conducted at 22 solid waste management units (referred to as SWMUs A-N and S-Z)
August 29, 1990	NOD for revised RFI workplan.
May 3, 1990	Notice of Deficiency (NOD) for RFI Work Plan submitted by Shell
June 18, 1991	Approved RFI Phase I Data Submittal for SWMUs B, I, M, S, T, U and V. This information was specifically required to be submitted for these SWMUs by Condition III.B.1.a of the USEPA portion of the facility's RCRA permit. Phase II Sampling Plan required only for SWMUs I, S, T, U, and V; no Phase II required for SWMUs B and M
April 21, 1995	NOD for the following documents: (1) RFI Draft Report (September 27, 1991); (2) RFI Draft Report – SWMUs I, S, T, U, V (September 16, 1991), and (3) RFI Work Plan – SWMU AB (November 16, 1991)
August 14, 1995	Approved "RFI Report of Additional Characterization – Southwest Tank Farm". No further action required for soil; quarterly groundwater monitoring required to continue
November 20, 1995	Approved "Response to USEPA Comments – RFI Reports Dated September 27, 1991 and September 12, 1992" (September 1995) and "Proposed Approach for Screening Risk Assessment RFI" (September 1, 1991)
January 9, 1997	Request for RFI Work Plan for SWMUs C, F, and G

<i>Date of Letter</i>	<i>Subject of Letter</i>
May 14, 1997	NOD for RFI Phase III Work Plan - SWMU CFG, (dated March 1997)
June 6, 1997	NOD for Phase III RFI Draft Report – SWMU U/AB, (dated May 1997)
July 30, 1997	Approved RFI Phase III Work Plan for SWMU CFG, (dated July 1997)
August 12, 1997	Approved: (1) Groundwater Monitoring Schedule proposed July 17, 1997 for the Southwest Tank Farm and Ponds 1 and 2; and (2) Phase III RFI Final Report, SWMU U/AB (revised July 1997)
September 17, 1997	CMS needed for SWMU U/AB as well as need for additional investigations for pesticides/herbicides contamination at unit
February 6, 1998	Request for CMS for SWMU U/AB; remediation of groundwater associated with units to be addressed by the groundwater corrective action program required by IEPA
July 7, 1998	No further action needed for soils at SWMUs C, F, and G based on review of RFI report for these units; groundwater is still a concern and must continue to be addressed under the groundwater corrective action program required by IEPA. Requested RFI work plan for SWMUs A, E, N, W, and D
October 16, 1998	Approved RFI Phase III Work Plan – SWMUs D and J, dated September 1998
May 17, 1999	Request for Work Plan for further investigation at SWMUs S, T, and V
August 5, 1999	NOD for “RCRA Corrective Measures Study for SWMU U/AB”, dated March 1999
October 6, 1999	Additional Response to “Draft Report – RCRA Corrective Measures Study – SWMU U/AB”, dated March 1999; additional work required
January 6, 2000	Additional evaluation of corrective measures for SWMU U/AB must be conducted
March 3, 2000	Approved RFI Phase III Draft Report – SWMUs D and J (dated September 1999); additional investigation required

<i>Date of Letter</i>	<i>Subject of Letter</i>
March 29, 2000	Approved Phase III RFI SWMUs D and J Supplemental Work Plan
July 11, 2000	Approved "RFI Phase III RFI Draft Report – SWMUs S, T, and V," (dated May 2000). No further action needed for SMWUs S and T, additional investigation needed for SWMU V
September 6, 2000	Approved "Phase III Supplemental Work Plan for Additional Characterization SWMU V", dated August 24, 2000
October 2000	Approved supplemental Phase III report for SWMUs D and J. Determined no further action necessary at these units, provided only industrial land use activities occur at unit
January 29, 2001	Summarizes current status of corrective action efforts at facility
March 20, 2001	Approved "RCRA Corrective Measures Study Supplemental Investigation SWMU U/AB", dated March 2001
April 6, 2001	Approved "RFI Phase III Supplemental Investigation – SWMU V", (dated February 22, 2001); additional assessment needed for human and ecological effects at Riverfront ponds
April 25, 2001	Additional sampling requested for SWMUs A, N, E, W; no further action needed at SWMU B, I, K, and L; and additional investigation needed at SWMUs H, M and AA
May 24, 2001	Approved Phase III work plan for SWMUs A, E, N and W, dated May, 2001
July 10, 2001	Approved Phase III RFI work plan for SWMUs H, M, and AA (dated June, 2001)
August 14, 2001	Acknowledged discovery of previously unknown SWMU referred to as SWMU AC
October 10, 2001	Approved Implementation Work Plan – SWMU U, (dated September 13, 2001). This plan proposes removal of soil at this unit

<i>Date of Letter</i>	<i>Subject of Letter</i>
July 27, 2002	Approved Draft Report Phase III RFI SWMUs H, M & AA, and Draft Report Phase III RFI – SWMU E: No further action required for any of these units provided: (1) the areas are used for industrial purposes; and (2) the site-wide ecological risk assessment indicates these areas do not adversely impact environment
August 2, 2002	Approved SWMU U Corrective Action Report (July 2002). (removal of contaminated soil, collection of verification samples). No further action needed at this unit
August 8, 2002	Conditional approval of Phase I workplan for SWMU AD
October 23, 2002	Approved Final Report – Phase III RFI SWMUs A, N, and W, (dated August 2002). No further action needed at these SWMUs, provided land restrictions are placed on property. Also indicated that no further action needed at SWMU AC, based on review of report for this unit, (dated February 28, 2002). Finally, letter indicates only remaining issues are RFI report for SWMU AD and site-wide ecological risk assessment
March 13, 2003	Approved change in schedule for progress reports from monthly submissions to quarterly submissions and “Final Report – Phase I RFI SWMU AD.” Further investigation is necessary at this SWMU, as well as possibly some remediation
April 25, 2003	Approved RFI SWMU AD Supplemental Information Work Plan
January 21, 2004	Provided comments on the CMS report for SWMU AD, dated October 17, 2003
April 14, 2004	Approved Revised SWMU AD Corrective Measures Report; no further action needed at this unit. Required submittal of site-wide ecological risk assessment
July 19, 2007	Approved Phase I RFI Work Plan for SWMU AE
March 19, 2009	Comments on Ecological Risk Assessment submitted October 2005
	RFI Report for SWMU AE, submitted November 30, 2007 (currently under review by USEPA)

<i>Date of Letter</i>	<i>Subject of Letter</i>
	Ecological Risk Assessment, submitted August 13, 2009 (currently under review by USEPA)
	Investigation and Remediation Report for SWMU AF, submitted August 13, 2009 (currently under review by USEPA)

5. As indicated above, SWMU AF was a located potential radioactive waste had been disposed in the distant past. Due to the potential radioactive issues at this SWMU, Illinois Environmental Management Agency/Division of Nuclear Safety (IEMA/DNS) oversaw evaluation of this SWMU rather than USEPA. IEMA/DNS approved a workplan for investigating this area on April 8, 2009, oversaw the investigative efforts and determined in an August 31, 2009 letter that any radioactive material present in the area had decayed to background values and no further action was necessary at this unit. Copies of the two IEMA/DNS letters as well as the workplan mentioned above are in Illinois EPA's files.

D. CORRECTIVE ACTION EFFORTS STILL TO BE COMPLETED

1. USEPA determined no further action was necessary at the following SWMUs provided the units are not disturbed and humans are sufficiently protected from the soils remaining at the units: SWMUs A, E, I, N, U/AB (southeast corner only of area excavated during the corrective measures at this unit) and W. An institutional control meeting the requirements of 35 Ill. Adm. Code 742 must be established to ensure the soil cover at these SWMUs remains in place in the future and restricts future exposure to the soil remaining at these units.
2. USEPA determined that no further action was necessary at the following units provided that the area where the units are located are only used for industrial activities: H, J, M and AA. An institutional control meeting the requirements of 35 Ill. Adm. Code 742 must be established restricting future use of the areas where these SWMUs are located to industrial activities.
3. USEPA determined that groundwater is still a concern at SWMUs C, F and G. However, USEPA pointed out the groundwater corrective action program for the facility should adequately address groundwater at these units.

4. The Permittee must still pursue appropriate corrective action at SWMU AE; Illinois EPA is reviewing an investigation report for this unit.
5. The Permittee must obtain USEPA's approval of the ecological risk assessment submitted to USEPA.
6. The Permittee must properly address the benzene contamination detected in the groundwater near the corner of Route 111 and Rand Avenue. A plan to investigate this contamination was approved by Illinois EPA on May 12, 2009; a report documenting the results of this investigation was approved by Illinois EPA on August 5, 2010. Illinois EPA's August 5, 2010 letter required that additional investigation efforts be conducted and the contamination be adequately remediated.
7. The Ecological Risk Assessment submitted to USEPA on August 13, 2009 excluded certain SWMUs (or portions of a SWMU) for detailed assessment due to the fact that the SWMUs (or portions thereof) were covered; these SWMUs were:

C (portion)	L	Z
D	M	AB
I	T (portion)	AC
G	U	AE
J	X	

An institutional control must be established for these units which requires that: (1) the existing soil cover present over the units be maintained; and (2) no construction or excavation activities can be conducted in the area without an appropriate site safety program being developed and implemented.

- 8 The institutional control required by Conditions IV.D.1, 2 and 7 above must be developed in accordance with 35 Ill. Adm. Code 742, Subpart J and must also clearly include the following information and restrictions:
 - a. A statement that contaminated soil is present at the SWMUs identified in Conditions IV.D.1 and 7 above, but does not pose a threat to human health or the environment, provided the existing cover over it remains intact and the restrictions set forth in the institutional control are met;

- b. A scaled drawing showing the boundaries of the required existing cover at the SWMUs identified in Condition IV.D.1 and 7 above, relative to the property boundaries at the site;
 - c. A description of the construction details of the existing cover at the SWMUs identified in Condition IV.D.1 and 7 above over the contaminated soil;
 - d. A requirement that the existing cover at the SWMUs identified in Condition IV.D.1 and 7 above be properly maintained in a future;
 - e. A requirement that the future use of the SWMUs identified in Condition IV.D.2 be restricted to industrial/commercial activities;
 - f. A requirement that a site safety plan meeting the requirements of 29 CFR be developed and implemented any time construction/excavation work takes place in the soil remaining at any of the SWMUs of concern. Among other things, this plan must properly restrict worker exposure and any other person's exposure to the contaminated soil;
 - f. A requirement that any soil removed from any of the SWMUs of concern be properly managed in accordance with 35 Ill. Adm. Code, Subtitle G: Waste Disposal.
9. 35 Ill. Adm. Code 742.1010(d)(8) requires that an ELUC contain scaled maps which show information about the facility, any remaining contamination at the facility and any physical features at the facility to which the ELUC applies.
- a. The required scaled site maps must specifically show:
 - (1) the legal boundary of the property to which the ELUC applies;
 - (2) The horizontal and vertical extent of contaminants of concern above applicable remediation objectives for soil and groundwater to which the ELUC applies;
 - (3) Any physical features to which an ELUC applies (e.g., engineered barriers, monitoring wells, caps); and

1191150002

Equilon Enterprises

Log No. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

Page V-17 of V-21

- (4) The nature, location of the source, and direction of movement of the contaminants of concern.
 - b. Exhibit B of the model ELUC developed by Illinois EPA is comprised of the maps necessary to meet the requirements of 35 Ill. Adm. Code 742.1010(d)(8). In developing such an exhibit for an ELUC associated with an engineered barrier or industrial/commercial land use restrictions:
 - (1) If only one drawing is used to present all the required information, then it must be clearly labeled as Exhibit B to the ELUC in question. Many times however, it will be necessary to include more than one drawing in Exhibit B to meet the requirements of the requirements of 35 Ill. Adm. Code 742.1010(d)(8). In such cases, each map shall be given a unique Exhibit number (i.e., Exhibit B-1, B-2, B-3, etc.) and labeled as such.
 - (2) A cover sheet must be provided for the exhibit which: (a) lists the types of scaled maps that must be provided in the ELUC as required in 35 Ill. Adm. Code 1010(d)(8); (b) identifies the map within the exhibit which addresses the individual requirements of 35 Ill. Adm. Code 742.1010(d)(8)(A), (B), (C) and (D); and (c) lists the maps which comprise the exhibit by name and number.
 - (3) The Real Estate Tax Index/Parcel Index Number (PIN) of the property in question must be contained on each map in Exhibit B.
10. The Permittee must submit a draft ELUC meeting the requirements of Conditions IV.D.1, 2, 7, 8 and 9 above to Illinois EPA for review and approval. This draft ELUC must be submitted within 120 days of the effective date of this permit.
11. The requirements of 35 Ill. Adm. Code 620, 724 and, as appropriate, 742 must be met in completing corrective action at this facility, as well as Illinois EPA's letters regarding such activities. Development and implementation of plans/reports associated with these efforts must be carried out in accordance with guidance for such activities developed by Illinois EPA and USEPA.

E INTERIM MEASURES

At any time during the course of this permit, the Permittee may, subject to Illinois EPA review and approval, initiate interim measures for the purpose of preventing continuing

releases and/or mitigating the results of releases and/or mitigating the migration of hazardous wastes or hazardous constituents. It shall not be necessary to conduct all phases of an investigation prior to implementing an interim measure if the Illinois EPA and the Permittee agree that a problem can be corrected, or a release cleaned up, without additional study and/or without a formal corrective measures study (CMS).

1. Prior to implementing any interim measures, the Permittee must submit detailed information regarding the proposed interim measure to the Illinois EPA for approval. This information shall include, at a minimum:
 - a. Objectives of the interim measures (how the proposed measure will mitigate the potential threat to human health and the environment and/or will be consistent with and integrated into any long-term solution at the facility);
 - b. Design, construction, and maintenance requirements;
 - c. Schedules for design and construction; and
 - d. Schedules for progress reports.
2. If the Illinois EPA determines that a release cannot be addressed without additional study and/or a formal CMS, then the Illinois EPA will notify the Permittee that these must be performed. Any proposal made under this provision or any other activity resulting from such proposal shall not affect the schedule for implementation of any other portion of the permit.
3. If the Illinois EPA determines that interim measures are necessary to protect human health or the environment, then the Permittee will be allowed to proceed under plans, procedures and schedules approved by Illinois EPA.

F. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION

1. The Permittee shall prepare a detailed cost estimate for the completion of any investigation or corrective measure required under this permit, in order to provide financial assurance for completion of corrective action, as required under 35 IAC 724.201(b). Such a cost estimate will be based upon the cost of contamination investigations and assessments for the SWMU(s), and design, construction, operation, inspection, monitoring, and maintenance of the corrective measure(s) to meet the requirements of 35 IAC 724.201 and this permit. All calculations and unit costs made in developing this estimate must be provided, as well as justification for all values used. These estimates must be based on third party costs. A detailed cost estimate must be included in each workplan or report submitted to Illinois EPA for review and approval.
2. A detailed estimate of the cost of completing corrective action efforts at this facility must be submitted to Illinois EPA for review and approval as a Class 1* permit modification request within ninety days of the effective date of this permit. This estimate must be developed in accordance with Condition V.F.1 above. Updates to these eventually approved cost estimates must be submitted by January 1 of each year.
3. The Permittee shall demonstrate continuous compliance with 35 IAC 724.201 by providing documentation of financial assurance using a mechanism specified in 35 IAC 724.243, in at least the amount of the cost estimate required under Condition III.F.1. The words "completion of corrective action" shall be substituted for "closure and/or post-closure", as appropriate in the financial instrument specified in 35 IAC 724.251. The documentation shall be submitted to the Agency's Division of Land Pollution Control (DLPC) within 60 days after the approval of the initial or revised cost estimates required under Condition III.F.1. The Agency's DLPC may accept financial assurance for completion of corrective action in combination with another financial mechanism that is acceptable under 35 IAC 724.246 at its discretion.

G. NOTIFICATION REQUIREMENTS FOR AN ASSESSMENT OF IDENTIFIED
SOLID WASTE MANAGEMENT UNIT(S)

1. The Permittee shall notify the Agency's DLPC in writing of any newly-identified SWMU(s) discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, no later than sixty (60) calendar days after discovery. Such a notification must also be submitted if the Permittee discovered that a possible release has occurred from one of the SWMUs identified in this permit. The notification shall provide the following information, as available:
 - a. A scaled map showing the location of the newly-identified SWMU within the facility;
 - b. The past and present function of the unit;
 - c. The general dimensions, capacities, and structural properties of the unit;
 - d. The period during which the unit was operated;
 - e. The specifics on all materials, including but not limited to, wastes and hazardous constituents, that have been or are being managed at the SWMU, to the extent available; and
 - f. The results of any relevant available sampling and analysis which may aid in determining whether releases of hazardous wastes or hazardous constituents have occurred or are occurring from the unit.
2. If the submitted information demonstrates a potential for a release of hazardous waste or hazardous waste constituents from the newly identified SWMU, the Agency's DLPC may request in writing, that the Permittee prepare a Solid Waste Management Unit (SWMU) Assessment Plan and a proposed schedule of implementation and completion of the Plan for any additional SWMU(s) discovered subsequent to the issuance of this Permit.
3. Within 60 calendar days after receipt of the Agency's DLPC request for a SWMU Assessment Plan, the Permittee shall prepare a SWMU Assessment Plan. This SWMU Assessment plan must propose investigations, including field investigations if necessary, to determine the release potential to specific

environmental media for the newly-identified SWMU. The SWMU Assessment Plan must demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste and hazardous constituents from the newly-discovered SWMU(s) to the environment.

4. After the Permittee submits the SWMU Assessment Plan, the Agency's DLPC shall either approve, approve with conditions or disapprove the Plan in writing. If the plan is approved, the Permittee shall begin to implement the Plan within forty-five (45) calendar days of receiving such written notification. If the Plan is disapproved, the Agency's DLPC shall notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised plan.
5. The Permittee shall submit a report documenting the results of the approved SWMU Assessment Plan to the Agency's DLPC in accordance with the schedule in the approved SWMU Assessment Plan. The SWMU Assessment Report shall describe all results obtained from the implementation of the approved SWMU Assessment Plan. Additional investigation and remediation must then be conducted to ensure the requirements of 35 Ill. Adm. Code 724.200 and 742 are met.
6. Development of remediation objectives and execution of corrective measures must meet the requirements of Subsection D above.

SECTION VI: STANDARD CONDITIONS

A. INTRODUCTION

This section contains standard conditions applicable to the facility being permitted herein. These standard conditions pertain to: (1) general requirements; and (2) post-closure care of the closed surface impoundment at the facility.

B. GENERAL REQUIREMENTS

1. **EFFECT OF PERMIT (35 IAC 702.181)** The existence of a RCRA permit shall not constitute a defense to a violation of the Environmental Protection Act or Subtitle G, except for development, modification or operation without a permit. Issuance of this permit does not convey property rights or any exclusive privilege. Issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or infringement of state or local law or regulations.
2. **PERMIT ACTIONS (35 IAC 702.146)** This permit may be modified, reissued or revoked for cause as specified in 35 IAC 703.270 through 703.273 and Section 702.186. The filing of a request by the Permittee for a permit modification or revocation, or a notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition.
3. **SEVERABILITY (35 IAC 700.107)** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.
4. **PERMIT CONDITION CONFLICT (35 IAC 702.160)** In case of conflict between a special permit condition and a standard condition, the special condition will prevail.
5. **DUTY TO COMPLY (35 IAC 702.141 and 703.242)** The Permittee shall comply with all conditions of this permit except for the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance constitutes a violation of the Environmental Protection Act and is

grounds for enforcement action; permit revocation or modification; or for denial of a permit renewal application.

6. **DUTY TO REAPPLY** (35 IAC 702.142 and 703.125) If the Permittee wishes to continue an activity allowed by this permit after the expiration date of this permit, the Permittee must apply for a new permit at least 180 days before this permit expires, unless permission for a later date has been granted by the Agency.
7. **PERMIT EXPIRATION** This permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application (see 35 IAC 703.181-703.209) and, through no fault of the Permittee, the Agency has not issued a new permit as set forth in 35 IAC 702.125.
8. **NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE** (35 IAC 702.143) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
9. **DUTY TO MITIGATE** (35 IAC 702.144) In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.
10. **PROPER OPERATION AND MAINTENANCE** (35 IAC 702.145) The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory, and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.
11. **DUTY TO PROVIDE INFORMATION** (35 IAC 702.148) The Permittee shall furnish to the Agency, within a reasonable time, any relevant information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Agency, upon request, copies of records required to be kept by this permit.

12. INSPECTION AND ENTRY (35 IAC 702.149) The Permittee shall allow an authorized representative of the Agency, upon the presentation of credentials and other documents as may be required by law, to:
- a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate Act, any substances or parameters at any location.
13. MONITORING AND RECORDS. (35 IAC 702.150)
- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste must be the appropriate method from Appendix A of 35 IAC 721. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, latest versions; Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, latest versions; or an equivalent method as specified in the approved Waste Analysis Plan.
 - b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report or application. These periods may be extended by request of the Agency at any time. The permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

- c. Records of monitoring information shall include:
- i. The date(s), exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical technique(s) or method(s) used; and
 - vi. The result(s) of such analyses.
14. **REPORTING PLANNED CHANGES** (35 IAC 703.244 and 702.152(a)) The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility. For a new HWM facility, the permittee may not commence treatment, storage or disposal of hazardous waste; and for a facility being modified the permittee may not treat, store or dispose of hazardous waste in the modified portion of the facility, until:
- a. The permittee has submitted to the Agency by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and
 - b. The Agency has inspected the modified or newly constructed facility and finds it is in compliance with the condition of the permit; or if, within 15 days of the date of submission of the letter in paragraph (a), the permittee has not received notice from the Agency of its intent to inspect, prior inspection is waived and the permittee may commence treatment, storage or disposal of hazardous waste.
15. **ANTICIPATED NONCOMPLIANCE** (35 IAC 702.152(b) and 703.247) The Permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. For a new facility, the permittee shall not treat, store or dispose of hazardous waste; and for a facility being modified, the permittee shall not treat, store or dispose of hazardous waste in the modified portion of the facility, except as provided in Section 703.280, until:

- a. The permittee has submitted to the Agency by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and
 - b. Either:
 - (1) The Agency has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or
 - (2) Within 15 days after the date of submission of the letter in paragraph i. above, the permittee has not received notice from the Agency of its intent to inspect, the permittee may commence treatment, storage or disposal of hazardous waste.
16. TRANSFER OF PERMITS (35 IAC 702.152(c)) This permit is not transferable to any person except after notice to the Agency. The Agency may require modification of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the appropriate Act. (See Sections 703.260 and 703.270, in some cases modification is mandatory.)
17. MONITORING REPORTS (35 IAC 702.152(d)) Monitoring results shall be reported at the intervals specified in the permit.
18. COMPLIANCE SCHEDULES (35 IAC 702.152(e)) Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than specified in 35 IAC 702.162.
19. TWENTY-FOUR HOUR REPORTING (35 IAC 702.152(f) and 703.245(b))
- a. The Permittee shall report to the Agency any noncompliance with the permit which may endanger health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the following circumstances. This report shall include the following:
 - (1) Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies.

- (2) Information concerning the release or discharge of any hazardous waste or of a fire or explosion at the HWM facility, which could threaten the environment or human health outside the facility.
 - b. The description of the occurrence and its cause shall include:
 - (1) Name, address, and telephone number of the owner or operator;
 - (2) Name, address, and telephone number of the facility;
 - (3) Date, time, and type of incident;
 - (4) Name and quantity of material(s) involved;
 - (5) The extent of injuries, if any;
 - (6) An assessment of actual or potential hazards to the environment and human health outside the facility, where applicable; and
 - (7) Estimated quantity and disposition of recovered material that resulted from the incident.
 - c. A written submission shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Agency may waive the five day written notice requirement in favor of a written report within fifteen days.
20. OTHER NONCOMPLIANCE (35 IAC 702.152(g)) The Permittee shall report all instances of noncompliance not otherwise required to be reported under Standard Conditions 17, 18, and 19, at the time monitoring reports, as required by this permit, are submitted. The reports shall contain the information listed in Standard Condition 19.
21. OTHER INFORMATION (35 IAC 702.152(h)) Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Agency, the Permittee shall promptly submit such facts or information.

22. REPORTING REQUIREMENTS (35 IAC 724.175) The report required by 35 Ill. Adm. Code 724.175 shall be submitted in addition to those required by 35 Ill. Adm. Code 702.152 (reporting requirements).
23. SUBMITTAL OF REPORTS OR OTHER INFORMATION All written reports or other written information required to be submitted by the terms of this permit shall be sent to:
- Illinois Environmental Protection Agency
Division of Land Pollution Control #24
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
24. SIGNATORY REQUIREMENT (35 IAC 702.151) All permit applications, reports or information submitted to the Agency shall be signed and certified as required by 35 IAC 702.126.
25. CONFIDENTIAL INFORMATION Any claim of confidentiality must be asserted in accordance with 35 IAC 702.103 and 35 IAC 161.
26. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE The Permittee shall maintain the following documents and amendments, revisions and modifications to these documents:
- a. The post-closure care plan as required by 35 IAC 724.212(a) and this permit.
 - b. Cost estimate for facility post-closure care as required by 35 IAC 724.242(d) and this permit.
 - c. Operating record as required by 35 IAC 724.173 and this permit.
 - d. Inspection schedules as required by 35 IAC 724.115(b) and this permit.

These documents shall be maintained by the contact identified in Condition III.f.2 of this permit.

C. POST-CLOSURE

1. **CARE AND USE OF PROPERTY** The Permittee shall provide post-closure care for the facility as required by 35 IAC 724.217 and in accordance with the approved post-closure plan.
2. **AMENDMENT TO POST-CLOSURE PLAN** The Permittee must amend the post-closure plan whenever a change in the facility operation plans or facility design affects the post-closure plan or when an unexpected event has occurred which has affected the post-closure plan pursuant to 35 IAC 724.218(d).
3. **COST ESTIMATE FOR FACILITY POST-CLOSURE** The Permittee's original post-closure cost estimate, prepared in accordance with 35 IAC 724.244, must be:
 - a. Adjusted for inflation either 60 days prior to each anniversary of the date on which the first closure cost estimate was prepared or if using the financial test or corporate guarantee, within 30 days after close of the firm's fiscal year.
 - b. Revised whenever there is a change in the facility's post-closure plan increasing the cost of closure.
 - c. Kept on record at the facility and updated.
4. **FINANCIAL ASSURANCE FOR POST-CLOSURE CARE** The Permittee shall demonstrate compliance with 35 IAC 724.245 by providing documentation of financial assurance, as required by 35 IAC 724.251, in at least the amount of the cost estimates required by the previous Permit Condition. Changes in financial assurance mechanisms must be approved by the Agency pursuant to 35 IAC 724.245.
5. **LIABILITY REQUIREMENTS** The Permittee shall demonstrate continuous compliance with the requirements of 35 IAC 724.247 and the documentation requirements of 35 IAC 724.251.
6. **INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS** The Permittee shall comply with 35 IAC 724.248 whenever necessary.

SECTION VII
SPECIAL CONDITIONS

A. HAZARDOUS WASTE MANAGEMENT ACTIVITIES

1. In addition to the terms and conditions of this permit, the requirements of 35 Ill. Admin. Code 722 must be met in regards to the management of hazardous waste generated in carrying out the requirements of this permit.
2. Documentation of compliance with the requirements of 35 Ill. Admin. Code 722 must be maintained by Equilon Enterprises.

B. PUBLIC NOTIFICATION AND PARTICIPATION

1. A repository of all information submitted to Illinois EPA as part of the requirements of this permit must be established and maintained at the Roxana Public Library. This repository must be well organized and kept up to date. A comprehensive list of all documents in the repository must be provided, as well as a brief description of each document in the repository. The Permittee must visit the repository on a regular basis to ensure its organization and integrity is maintained.
2. The public participation and public notification requirements of 35 Ill. Admin. Code 703 and 705 must be met any time requests to modify this facility are submitted to Illinois EPA for review and approval.
3. An appropriate facility mailing list as required by 35 Ill. Admin. Code 705 must be maintained and updated on a regular basis.

C. REQUIRED FORMS

1. The Permittee shall provide a completed Illinois EPA permit application form LPC-PA23 with all additional information, permit modifications, and permit applications that are submitted to the Illinois EPA Bureau of Land. A copy of this form is available on Illinois EPA's internet site.

2. To ensure the requirements of Section 39, Paragraph (i) of the Illinois Environmental Protection are met, the Permittee is required to complete and provide the following 39i Certification forms to the Illinois EPA Bureau of Land:
 - a. A 39i certification form for legal entities must be filled out for the legal entity (i.e. company) identified as the applicant in the approved permit application, and
 - b. A 39i form for individuals must be filled out for the individual that signs the 39i certification form for legal entities mentioned above, and
 - c. A 39i form for individuals must be filled out for each individual who signs the permit application.
3. Copies of the 39i certification forms identified in Condition VII.C.2 above are available on Illinois EPA's internet site.
4. If the applicant desires additional staff to be able to sign future modifications, certifications, etc., then 39i certification forms for individuals must be submitted for each such individual.
5. The 39i certification forms will be treated as confidential by the Illinois EPA. The applicant may also request the information on the 39i certification form be maintained confidential in accordance with 2 Ill. Adm. Code 1828.
6. The Permittee shall submit the necessary 39i certification form(s) and supporting documentation within 30 days of any of the following events:
 - a. The owner or operator, or officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has violated federal, State, or local laws, regulations, standards, or ordinances in the operation of waste management facilities or sites; or
 - b. The owner or operator, or officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has been convicted in this or another State of any crime which is a felony under the laws of this State, or conviction of a felony in a federal court; or

- c. The owner or operator, or officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has committed an act of gross carelessness or incompetence in handling, storing, processing, transporting, or disposing of waste.
- d. A new person is associated with the owner or operator who can sign the permit application or who has control over operating decisions regarding the facility, such as a corporate officer or a delegated employee.

The 39i certification submitted in accordance with a, b, or c above must describe the violation(s), convictions, carelessness, or incompetence which necessitated the need for submitting an updated certification form. The 39i certification submitted in accordance with d above must include the date that the new person above began employment with the applicant.

- 7. The 39i certification forms and supporting documentation shall be submitted to the address specified below:

Illinois Environmental Protection Agency
Bureau of Land #33 – 39i Certification
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

SECTION VIII: REPORTING AND NOTIFICATION REQUIREMENTS

SECTION III: POST-CLOSURE

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
F.5	Submit notification that post-closure contact person has changed.	Within 5 days after change is made.
E.1	Submit revised cost estimates for post-closure care of the SWDB.	Within 30 days of the effective date of this permit.
G.2	Submit application for permit modification, if the Permittee wishes to remove any materials from the closed SWDB.	At least 180 days prior to the date that wish to remove the materials.
G.3	Submit certification for completion of post-closure care.	Within 60 days after post-closure care has been completed.

SECTION IV: GROUNDWATER CORRECTIVE ACTION PROGRAM

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
D.4	Notification that well has been damaged or its structural integrity compromised.	Within 30 days of identification.
D.6	Boring logs, construction diagrams and datasheets from installation and development of new/replaced well.	Within 30 days after well installed.
F.7	Proposed groundwater management zone to address groundwater contamination along the western boundary of the Northern Boundary and within the Village of Roxana.	Within 90 days of Illinois EPA's approval that the source and extent of contamination along the western fenceline of the North Property and within

the Village of Roxana has
 been defined.

J.2 General schedule for collection and reporting of groundwater data:

<u>Sampling Event of Calendar year</u>	<u>Samples to be Collected During the Months of</u>	<u>Results Submitted to the Agency by the Following</u>
First Quarter	January-February	July 15
Second Quarter	April-May	July 15
Third Quarter	July-August	January 15
Fourth Quarter	October-November	January 15

- | | | |
|------|---|--|
| J.3 | Groundwater surface elevation data | Quarterly as set forth in Condition J.2 |
| J.4 | Groundwater withdrawal rates | Quarterly as set forth in Condition J.2 |
| J.5 | Gradient control measurements | Second and fourth quarter as set forth in Condition J.2 |
| J.6 | Statistical evaluations | Submitted as part of the semi-annual reports as set forth in Condition J.2 |
| J.7 | Groundwater flow rate and direction | During the second semi-annual event of each year. |
| J.8 | Groundwater quality results | Second and fourth quarter as set forth in Condition J.2 |
| J.9 | Top of well casing | Every 5 years (during the second semi-annual event) |
| J.10 | Elevation of bottom of each well | Second semi-annual event as set forth in Condition J.2 |
| J.14 | Report to Agency on effectiveness of corrective action program. | By July 15 of each year. |

J.15.a	Notify the Agency in writing that groundwater flow is not being adequately controlled.	Within 7 days
J.16.c	Submit a report to the Agency describing the actions taken to regain control of groundwater flow.	Within 30 days.
J.16.d	Submit a request for permit modification to the Agency describing any changes to the corrective action program to regain control of groundwater flow.	Within 60 days.
K.1	Modification of groundwater corrective action program.	Within 90 days of determination existing program not meet the requirements of 35 Ill. Adm. Code 724, Subpart F.

SECTION V: CORRECTIVE ACTION

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
D.10	Draft ELUC for several SWMUs	Within 120 days of effective date of Permit.
F.2	Cost estimate for completing Corrective Action	Within 90 days of effective date of permit.
F.3	Updated financial assurance for corrective action.	As necessary.
G.1	Notification of Newly Identified SWMUs.	Within 30 days of discovery.
G.3	Submittal of Assessment Plan	Within 60 days of request for

	For Newly Identified SWMU.	plan from Illinois EPA.
G.5	Submittal of SWMU Assessment Report for Newly Identified SWMU.	In accordance with schedule in assessment plan.

SECTION VI: STANDARD CONDITIONS

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
B.6	Complete application for new permit.	At least 180 days prior to permit expiration.
B.11	Information requested by Agency and copies of records required to be kept by this permit.	Submittal date to be determined by the Agency.
B.14	Notify Agency of planned physical alterations or additions.	At least 15 days prior to planned change.
B.15	Notify Agency of changes which may result in permit noncompliance.	Within 15 days of change.
B.16	Application for permit modification indicating permit is to be transferred.	At least 90 days prior to transfer date.
B.18	Submission of any information required in a compliance schedule.	Within 14 days after each schedule date.
B.19.	Report to Agency any non-compliance which may endanger health or environment. by telephone in writing	Within 24 hours after discovery, and 5 days after discovery.

B.20	Report of all other instances of non-compliance.	March 1 of each year along with Annual Report.
B.22	Annual Report	March 1 of each year (for previous calendar year)
40	Notify Agency and appropriate state and local authorities, in writing that facility is in compliance with 35 IAC 264.156(h).	Prior to resuming operation in affected areas.
C.2	Application for permit modification amending post closure plan.	Within 90 days of discovery of need for modification.
C.3.a.	Adjust post closure cost estimate for inflation.	Within 30 days after anniversary date.
C.3.b	Revision of post closure cost estimate.	As needed, within 90 days of discovery of revision.
C.4	Change in financial assurance mechanism for post closure care.	As needed.
C.5	Change in coverage for sudden and non-sudden accidental occurrences.	As needed.
C.6	Notify Agency of commencement of voluntary or involuntary bankruptcy proceedings.	Within 10 days after commencement of proceeding.

SECTION VII: SPECIAL CONDITIONS

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
C.6	Submittal of updated 39(i) Certification Forms	Within thirty days after an event occurs which impacts the 39(i) certifications for the facility on file with Illinois EPA

ATTACHMENT A

Approved Permit Application for the Renewed Permit Issued September 23, 2010

Equilon Enterprises

LPC No. 1191150002

USEPA ID No. ILD080012305

Log Nos. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

ATTACHMENT A

Approved Permit Application for the Renewed Permit Issued September 23, 2010

Equilon Enterprises initially submitted an application to renew the RCRA permit for the subject facility on May 6, 1999; additional information regarding this application was submitted by Equilon on October 29, 1999. However, these submittals were superseded by a submittal which contained a completely revised application as requested by Illinois EPA on November 14, 2007.

Given the above, the approved permit application to renew the RCRA permit for the subject facility consists of the following documents:

1. A May 30, 2008 submittal from Kevin E. Dyer, Shell Oil Products US. This submittal included a two page cover letter, a completed LPC-PA23 form, and a document entitled "RCRA Post Closure Permit Application, EPA No. ILD080012305," dated June 2008. Illinois EPA received this submittal on June 2, 2008. All pages in the application associated with this submittal have a footer containing the date "May 2008."
2. A two page letter dated December 5, 2008 and associated attachments submitted by Eric S. Petersen, ConocoPhillips. This submittal was received by Illinois EPA on December 8, 2008. The submittal proposed to abandon certain wells and replace others. The information in this submittal was subsequently incorporated into Section E of the overall application.
3. A December 11, 2008 submittal from Kevin E. Dyer, Shell Oil Products US. This submittal includes a two page cover letter and revisions to the application identified in Item 1 above. The footer of the revised pages includes the following statement: "Revised December 2008"
4. A one page letter dated June 18, 2009 and associated revisions to the application to renew Equilon's RCRA permit submitted by Robert B. Billman, URS Corporation. This submittal was received by Illinois EPA on June 19, 2009. The footer of the revised pages contains the following statement: "Revised June 2009."
5. A one page letter dated August 12, 2009 and associated revisions to the subject application submitted by Robert B. Billman, URS Corporation. This submittal was received by Illinois EPA on August 17, 2009. The footer of the revised pages contains the date "August 2009."

As indicated above, revised pages to the application submitted May 30, 2008 have been submitted to the Illinois EPA three times. A summary of the version of each section, attachment, table or figures which comprise the approved permit application is as follows:

Sections of the Application:

Section of Application	Title	Date of Creation or Revision
A	Forms, Certifications, Confidentiality and Public Involvement	December 2008
B	Facility Description	December 2008
C	Groundwater Monitoring	June 2009
D	Procedures to Prevent Hazards	December 2008
E	Closure and Post-Closure Requirements	December 2008
F	Corrective Action	December 2008

Attachments to the Application:

<u>Attachment No.</u>	<u>Creation/Revision Date</u>
A-1 thru A-4	December 2008
A-5	May 2008
C-1	June 2009 (Table C-1 within attachment revised August 2009)
C-2 and C-3	June 2009
E-1 and E-2	May 2008
F-1	December 2008

Tables Associated with the Application

<u>Table No.</u>	<u>Creation/Revision Date</u>
A-1	December 2008
C-1 thru C-12	May 2008
C-13-C-17	June 2009
C-18	July 2009
D-1 and F-1	May 2008

Figures Associated with the Application

<u>Figure No.</u>	<u>Creation/Revision Date</u>
B-1	December 2008
B-2	May 2008
B-3 and B-4	December 2008
B-5	May 2008
B-6a and 6b	December 2008
C-1 thru C-20	May 2008
C-21 thru C-26	June 2009
D-1 and 2	May 2008
E-1 thru E-8	May 2008
F-1 thru F-17	May 2008

ATTACHMENT B

Approved Permit Modification Requests

Equilon Enterprises

LPC No. 1191150002

USEPA ID No. ILD080012305

Log Nos. B-43R-M-9, M-10, M-11, M-12, M-13 & M-15

ATTACHMENT B

Approved Permit Modification Requests

1. Modification Log No. B-43R-M-1, dated December 17, 2010, and received by the Illinois EPA on January 25, 2011, was submitted by Robert B. Billman of URS Corporation. This modification was submitted to satisfy Condition IV.D.9 of the Permit. The document was reviewed as a modification request to the Groundwater Corrective Action Program of the Permit. As a result of this approval, Condition IV.D.9 was removed from the permit.
2. Modification B-43R-M-4, dated August 19, 2011 and received on August 29, 2011, was submitted by Robert B. Billman of URS Corporation. This submittal notified the Agency that the property owner WRB Refining LLC was converted to a limited partnership named WRB Refining LP, effective 11:59 pm CST on December 31, 2010. This notification also requested that future correspondence to the property owner be directed to:

WRB Refining, LP
Wood River Refinery
Attn: Mr. Mike Bechtol, Environmental Director
900 South Central Avenue
P.O. Box 76
Roxana, Illinois 62084
3. Modification B-43R-M-6 entitled, "Groundwater Pumping System", dated July 29, 2011 and received by the Illinois EPA August 29, 2011, was prepared by Robert B. Billman of URS Corporation. This modification request to reestablish a minimum pumping rate of 3,000 gallons per minute from all groundwater pumping wells at the Main and North Property of WRR was approved.
4. Modification B-43R-M-7 entitled, "New Groundwater Pumping Well W-86", dated October 13, 2011 and received by the Illinois EPA on October 18, 2011, was prepared by Robert B. Billman of URS Corporation. This modification provided the required well construction details for pumping well W-86 which was installed to replace pumping well W-82. The Water Production Wells portion of Condition IV.D.2 were modified to reflect the removal of pumping well W-82 and the addition of pumping well W-86 and

corresponding well construction details. The construction details for well W-86 were provided in a February 14, 2013 email from Mr. Billman.

5. Modification B-43R-M-8 entitled, "Groundwater Pumping Well, dated March 12, 2012 and received by the Illinois EPA on March 21, 2012, was prepared by Robert B. Billman of URS Corporation. This modification provided the required well construction details for pumping well W-88, which was installed to replace pumping well W-75. The construction details for well W-88 were provided in a February 14, 2013 email from Mr. Billman.
6. Modification B-43R-M-9 entitled, "IEPA Well Numbers and WRR Facility Well Numbers", dated February 19, 2013 and received by the Illinois EPA February 22, 2013. The submittal requests to correct a typographical error for six (6) well identification numbers.
7. Modification B-43R-M-10 entitled, "New Groundwater Monitoring Well Installation", dated February 22, 2013 and received by the Illinois EPA February 25, 2013. The submittal provides boring logs, construction diagrams and monitoring well development forms for a replacement well for P-55.
8. Modification B-43R-M-11 entitled, "IEPA Well Numbers and WRR Facility Well Numbers", dated February 19, 2013 and received by the Illinois EPA March 4, 2013. The submittal requests to correct a typographical error for six (6) well identification numbers. Besides different received dates, the submittal appears to be identical to information submitted in Modification B-43R-M-9 above.
9. Modification B-43R-M-12 entitled, "Groundwater Pumping Well W-85", dated August 23, 2013 and received by the Illinois EPA August 26, 2013. The submittal provides well details for W-85 to update Condition IV.D.2 of the Permit.
10. Modification B-43R-M-13 entitled, "Groundwater Monitoring Well Construction", dated August 23, 2013 and received by the Illinois EPA August 26, 2013. The submittal presents information collected during an October 2009 comprehensive well survey and requests the data provided be incorporated into Conditions IV.D.1.a and IV.D.1.b.

11. Modification B-43R-M-15 entitled, "Groundwater Pumping Well", dated December 19, 2013 and received by the Illinois EPA December 23, 2013. The submittal requests to remove well W-73 as a gradient control well and add a new groundwater production well to be named W-89.
 - Additional information for Modification B-43R-M-15 entitled, "Additional Information to Supplement Class 1* Permit Modification Request; Groundwater Pumping Well", dated February 28, 2014 and received by the Illinois EPA March 3, 2014. The submittal presents information to address the additional information request emailed to the facility February 7, 2014.
 - Additional information for Modification B-43R-M-15 entitled, "Class 1* Permit Modification; New Groundwater Pumping Well W-89", dated April 17, 2014 and received by the Illinois EPA April 18, 2014. The submittal requests that the Illinois EPA issue a response by the end of April 2014 or a meeting be held.
 - Additional information for Modification B-43R-M-15 entitled, "Further Information to Supplement Class 1* Permit Modification Request; Groundwater Pumping Well W-89", dated May 8, 2014 and received by the Illinois EPA May 13, 2014. The submittal presents information to address the additional information request discussed during the April 30, 2014 phone call.