



AECOM  
1001 Highlands Plaza Drive West  
Suite 300  
St. Louis, MO 63110-1337  
www.aecom.com

314 429 0100 tel  
314 429 0462 fax

October 2, 2015

Illinois Department of Public Health  
Division of Environmental Health  
525 West Jefferson Street  
Springfield, Illinois 62761

**Subject: Groundwater Monitoring Well Construction Report  
Roxana, IL**

To Whom it May Concern:

AECOM (formerly URS Corporation), on behalf of Shell Oil Products US (SOPUS), is submitting the boring log and well construction diagram for a replacement groundwater well, designated P-114R, installed on the West Property of the Wood River Refinery in Roxana, Illinois.

If you have any questions, please contact Bob Billman at [bob.billman@aecom.com](mailto:bob.billman@aecom.com) or (314) 743-4108.

Sincerely,  
AECOM, on behalf of Shell Oil Products US

Wendy Pennington, P.E.  
Project Engineer

Robert B. Billman  
Senior Project Manager

Attachments: P-114R Boring Log  
P-114R Well Construction Diagram

cc: Kevin Dyer, SOPUS  
Eric Petersen, Phillips 66  
Project File  
Repository (Roxana Village Hall, Website, Roxana Public Library)

## LOG OF BORING AND WELL CONSTRUCTION DETAIL

**P-114R**

Page 1 Of 2

Starting Date: 9/14/15 Completion Date: 9/15/15 Casing Elevation: 429.26 Ground Elevation: 429.58	Quadrangle Sec: 34 T: 5N R: 9W UTM (or State Plane) Coord N: (X): 791384.5 E: (Y): 2321181.1
--	---

**DESCRIPTION**

**NOTES**

Depth In feet	Well Construction	Inches Driven	Inches Recovered	PID/FID (ppm)	Sampler Graphic	Symbol	USCS	DESCRIPTION	NOTES		
5	[Symbol]	12	12	4.9	[Symbol]	[Symbol]	FILL	Brown, silt and clay mixed with coarse gravel and sand, dry (FILL)	Air knifed to 10 feet below ground surface to clean for utilities and other underground obstructions.		
		12	12	69.0	[Symbol]	[Symbol]		Black, silt and clay with fine - coarse gravel and sand, wet (FILL)			
		12	12	9.2	[Symbol]	[Symbol]	CL	Soft, moist, dark gray, medium plastic, CLAY (CL), trace fine black sand			
		12	12	70.8	[Symbol]	[Symbol]					
		12	12	350	[Symbol]	[Symbol]	CH	Medium stiff, dark gray and brown, high plastic, CLAY (CH), with silt			
		12	12	586	[Symbol]	[Symbol]					
		12	12	489.3	[Symbol]	[Symbol]					
		10	[Symbol]	12	12	380	[Symbol]	[Symbol]		CL	Stiff, gray, medium plastic, Silty CLAY (CL), trace brown and orange mottles
				12	12	392	[Symbol]	[Symbol]			
				12	12	167.1	[Symbol]	[Symbol]			
36	36			67.5	[Symbol]	[Symbol]					
15	[Symbol]			11.4	[Symbol]	[Symbol]	SP	Becomes soft			
		60	60	8.8	[Symbol]	[Symbol]					
				5.5	[Symbol]	[Symbol]					
		60	48	9.0	[Symbol]	[Symbol]					
20	[Symbol]			3.3	[Symbol]	[Symbol]	SP	1" medium stiff, moist, gray, low plastic, silt and clay seam 2" medium stiff, moist, gray, low plastic, silt and clay seam Trace coarse sand and fine gravel			
				22.2	[Symbol]	[Symbol]					
					[Symbol]	[Symbol]					

Completion Depth: <u>34.0 Ft bgs</u> Project No.: <u>60400249</u> Project Name: <u>WRR - Monitoring Well Installation</u> Drilling Contractor: <u>Roberts Enviromental Drilling, Inc.</u> Driller Name: <u>Pat Seymour</u> Drilling Method: <u>Geoprobe (direct push)</u> Drill Rig Type: <u>8040 DT</u> Logged by: <u>Brian Smith, Sam Fisher</u> County: <u>Madison</u> Site ID No.: <u>1191150002</u> Federal ID No.: <u>ILD080012305</u>	Water Depth: <u>25.5</u> ft., After <u>ATD</u> hrs. Water Depth: _____ ft., After _____ hrs. <input type="checkbox"/> Water level at time of drilling <input checked="" type="checkbox"/> Water level after drilling ATD - At time of drilling NE - None Encountered NA - Not Applicable
--	--

AECOM

USC based on field visual observations

- Air Knife/Hand Auger
- Splitspoon Sampler
- HSA- No Soil Sample
- Geoprobe
- Concrete
- Cement/Bentonite Grout
- Bentonite Seal
- Filter Sand
- Screen

**LOG OF BORING AND WELL CONSTRUCTION DETAIL**

**P-114R**

Depth In feet	Well Construction	Inches Driven	Inches Recovered	PID/FID (ppm)	Sampler Graphic	Symbol	USCS	LOG OF BORING AND WELL CONSTRUCTION DETAIL	
								DESCRIPTION	NOTES
								Starting Date: 9/14/15 Completion Date: 9/15/15 Casing Elevation: 429.26 Ground Elevation: 429.58 Quadrangle Sec:34 T:5N R:9W UTM (or State Plane) Coord N: (X):791384.5 E: (Y):2321181.1	
30		60	60	8.3 9.8 8.8 9.6 8.2			SP	Loose, wet, light brown and orange, fine to medium grained, poorly graded SAND (SP), trace black	▽
35								Bottom of boring at 34' bgs	
40									
45									

Completion Depth: 34.0 Ft bgs  
 Project No.: 60400249  
 Project Name: WRR - Monitoring Well Installation  
 Drilling Contractor: Roberts Environmental Drilling, Inc.  
 Driller Name: Pat Seymour  
 Drilling Method: Geoprobe (direct push)  
 Drill Rig Type: 8040 DT  
 Logged by: Brian Smith, Sam Fisher  
 County: Madison  
 Site ID No.: 1191150002  
 Federal ID No.: ILD080012305

Water Depth: 25.5 ft., After ATD hrs.  
 Water Depth: \_\_\_\_\_ ft., After \_\_\_\_\_ hrs.  
 Water level at time of drilling  
 Water level after drilling  
 ATD - At time of drilling  
 NE - None Encountered  
 NA - Not Applicable

- Air Knife/Hand Auger
- Splitspoon Sampler
- HSA- No Soil Sample
- Geoprobe
- Concrete
- Cement/Bentonite Grout
- Bentonite Seal
- Filter Sand
- Screen



USC based on field visual observations

**Monitoring Well Installation Details**  
Flush Mount Monitoring Well Construction Diagram



Project:	WRR - Monitoring Well Installation	Date Started:	9/14/2015	Well ID:	P-114R
Project Location:	Wood River Refinery - Roxana, IL	Date Completed:	9/15/2015		
Well Location:	West Property (east end of Pond 2)	Time Grout Set:	1445 (9/15/15)	Boring ID:	P-114R
Drilling Contractor:	Roberts Environmental Drilling, Inc.	Time Seal Set:	1325 (9/15/15)	Northing:	791384.53
Driller:	Pat Seymour	Type of Rig:	8040 DT	Easting:	2321181.07
Consulting Firm:	AECOM	Drilling Method:	Geoprobe (direct push)	Elevation Datum:	429.58
Geologist:	Brian Smith Sam Fisher	Owner:	Shell Oil Products US	Township:	5N
				Range:	9W
				Section:	34

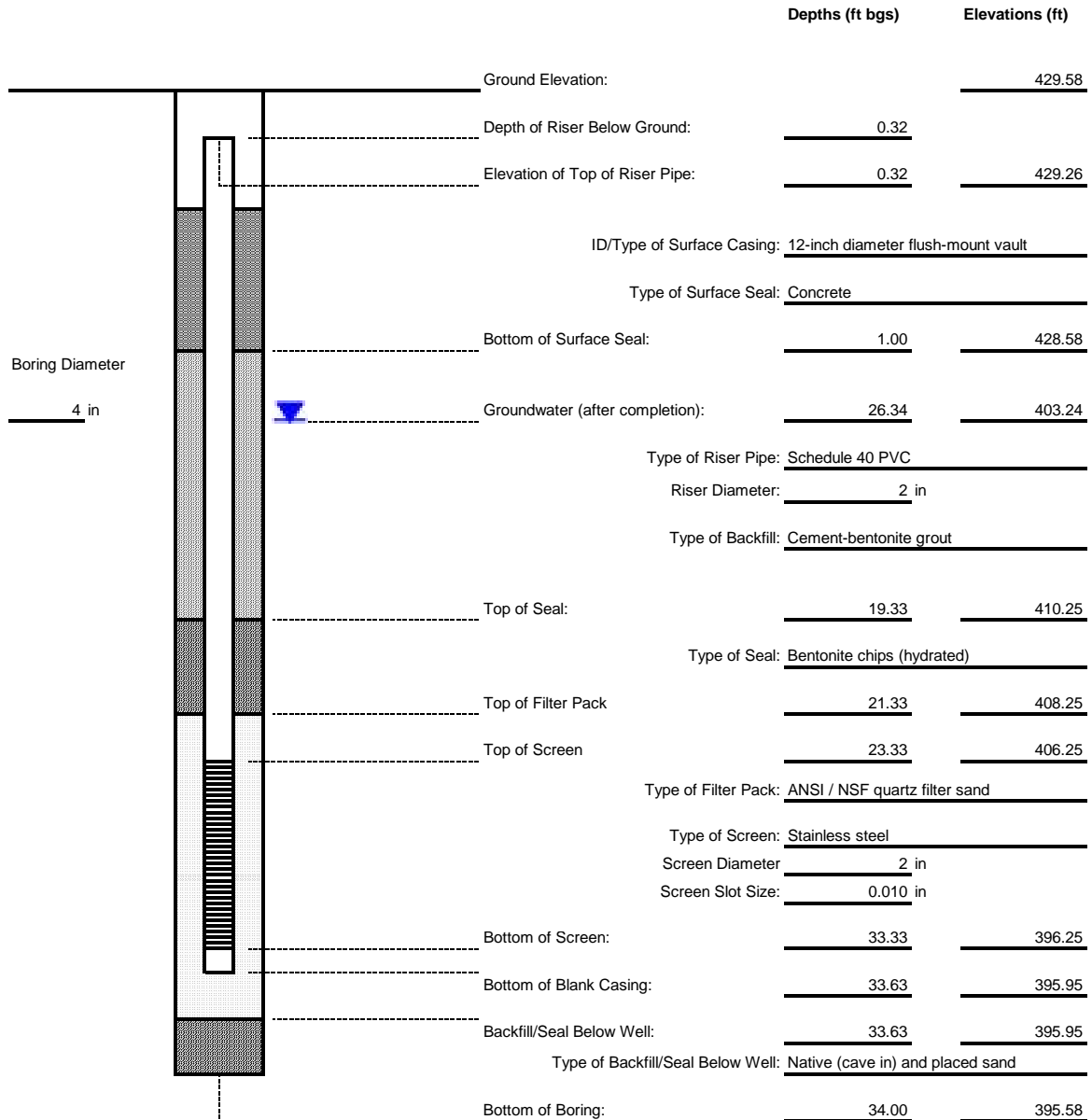


DIAGRAM IS NOT TO SCALE