

October 7, 2025

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section
2520 West Iles Avenue
Springfield, Illinois 62704

Illinois Environmental Protection Agency
Collinsville FOS
1101 Eastport Plaza Dr, Suite 100
Collinsville, Illinois 62234

**Shell Oil Products US Steam Enhanced Extraction Pretreatment System - Treated Water Analytical Data
Village of Roxana Wastewater Treatment Plant
Water Pollution Control Permit No. 2023-EE-68012
September 2025 Analytical**

To Whom It May Concern:

AECOM Technical Services, Inc. (AECOM), on behalf of Shell Oil Products US (Shell), is submitting this letter as required by Water Pollution Control Permit No. 2023-EE-68012, Special Condition 8(B). This Permit is for the pre-treatment and discharge of the steam enhanced extraction (SEE) wastewater to the Village of Roxana Wastewater Treatment Plant (WWTP). Special Condition 8(B) of the Permit requires monitoring of the system discharges and submittal of analytical results to the Illinois Environmental Protection Agency (IEPA). Wastewater treated through the pretreatment system is sampled on a weekly basis in accordance with Condition 13 of the August 22, 2022, letter from Illinois EPA, Permit Section, Division of Land Pollution Control (Log N. B-43R-CA-107).

The SEE system was winterized and sat idle during the winter months. System startup activities began in March 2025. During system operation activities in September 2025, eight (8) samples of treated wastewater discharge was analyzed. The table below summarizes the samples and corresponding results.

Sample ID	Sample Date	Benzene (mg/L)
PWYSEE-WaterEff-090425	9/4/2025	Not detected
PWYSEE-WaterEff-090925	9/9/2025	Not detected
PWYSEE-WaterEff-091225	9/12/2025	0.0002 J
PWYSEE-WaterEff-091725	9/17/2025	Not detected
PWYSEE-WaterEff-091925	9/19/2025	Not detected
PWYSEE-WaterEff-092325	9/23/2025	Not detected
PWYSEE-WaterEff-092625	9/26/2025	Not detected
PWYSEE-WaterEff-093025	9/30/2025	Not detected

“J” qualifier indicates that benzene detection was estimated between the reporting limit and method detection limit

Please contact Ms. Wendy Pennington (wendy.pennington@aecom.com; 314-452-8929) with any questions.

Sincerely,



Wendy Pennington, P.E.
Compliance Manager
AECOM



Samuel Fisher, CHMM
Task Manager
AECOM

encl: Applicable results pages from Teklab Work Orders 25090381, 25090735, 25091098, 25091498, 25091681, 25091906, 25092255, 25092533

cc: Buddy Bealer (Shell)
Scott Schmidt (Village of Roxana)
Jason Woody (Village of Roxana)
Project File

Client: AECOM Technical Services Inc.

Work Order: 25090381

Client Project: PWY SEE 2025 Water & Waste / 60738191-7.2.2

Report Date: 05-Sep-25

Lab ID: 25090381-001

Client Sample ID: PWYSEE-WaterEff-090425

Matrix: AQUEOUS

Collection Date: 09/04/2025 10:10

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		ND	µg/L	1	09/05/2025 07:56	244402
Surr: 1,2-Dichloroethane-d4	*	0	80-120		110.8	%REC	1	09/05/2025 07:56	244402
Surr: 4-Bromofluorobenzene	*	0	80-120		101.1	%REC	1	09/05/2025 07:56	244402
Surr: Dibromofluoromethane	*	0	80-120		99.6	%REC	1	09/05/2025 07:56	244402
Surr: Toluene-d8	*	0	80-120		107.1	%REC	1	09/05/2025 07:56	244402

Client: AECOM Technical Services Inc.

Work Order: 25090735

Client Project: PWY SEE 2025 Water & Waste / 60738191-7.2.2

Report Date: 10-Sep-25

Lab ID: 25090735-001

Client Sample ID: PWYSEE-WaterEff-090925

Matrix: AQUEOUS

Collection Date: 09/09/2025 09:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		ND	µg/L	1	09/10/2025 08:30	244587
Surr: 1,2-Dichloroethane-d4	*	0	80-120		99.1	%REC	1	09/10/2025 08:30	244587
Surr: 4-Bromofluorobenzene	*	0	80-120		96.4	%REC	1	09/10/2025 08:30	244587
Surr: Dibromofluoromethane	*	0	80-120		106.3	%REC	1	09/10/2025 08:30	244587
Surr: Toluene-d8	*	0	80-120		96.1	%REC	1	09/10/2025 08:30	244587

Client: AECOM Technical Services Inc.

Work Order: 25091098

Client Project: PWY SEE 2025 Water & Waste / 60738191-7.2.2

Report Date: 15-Sep-25

Lab ID: 25091098-001

Client Sample ID: PWYSEE-WaterEff-091225

Matrix: AQUEOUS

Collection Date: 09/12/2025 10:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5	J	0.2	µg/L	1	09/15/2025 10:13	244828
Surr: 1,2-Dichloroethane-d4	*	0	80-120		95.6	%REC	1	09/15/2025 10:13	244828
Surr: 4-Bromofluorobenzene	*	0	80-120		94.9	%REC	1	09/15/2025 10:13	244828
Surr: Dibromofluoromethane	*	0	80-120		99.8	%REC	1	09/15/2025 10:13	244828
Surr: Toluene-d8	*	0	80-120		99.4	%REC	1	09/15/2025 10:13	244828

Client: AECOM Technical Services Inc.

Work Order: 25091498

Client Project: PWY SEE 2025 Water & Waste / 60738191-7.2.2

Report Date: 18-Sep-25

Lab ID: 25091498-001

Client Sample ID: PWYSEE-WaterEff-091725

Matrix: AQUEOUS

Collection Date: 09/17/2025 13:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		ND	µg/L	1	09/18/2025 08:26	245031
Surr: 1,2-Dichloroethane-d4	*	0	80-120		101.0	%REC	1	09/18/2025 08:26	245031
Surr: 4-Bromofluorobenzene	*	0	80-120		110.5	%REC	1	09/18/2025 08:26	245031
Surr: Dibromofluoromethane	*	0	80-120		97.8	%REC	1	09/18/2025 08:26	245031
Surr: Toluene-d8	*	0	80-120		103.6	%REC	1	09/18/2025 08:26	245031

Client: AECOM Technical Services Inc.

Work Order: 25091681

Client Project: PWY SEE 2025 Water & Waste / 60738191-7.2.2

Report Date: 22-Sep-25

Lab ID: 25091681-001

Client Sample ID: PWYSEE-WaterEff-091925

Matrix: AQUEOUS

Collection Date: 09/19/2025 11:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		ND	µg/L	1	09/19/2025 19:24	245164
Surr: 1,2-Dichloroethane-d4	*	0	80-120		109.6	%REC	1	09/19/2025 19:24	245164
Surr: 4-Bromofluorobenzene	*	0	80-120		102.8	%REC	1	09/19/2025 19:24	245164
Surr: Dibromofluoromethane	*	0	80-120		102.1	%REC	1	09/19/2025 19:24	245164
Surr: Toluene-d8	*	0	80-120		102.2	%REC	1	09/19/2025 19:24	245164

Client: AECOM Technical Services Inc.

Work Order: 25091906

Client Project: PWY SEE 2025 Water & Waste / 60738191-7.2.2

Report Date: 24-Sep-25

Lab ID: 25091906-001

Client Sample ID: PWYSEE-WaterEff-092325

Matrix: AQUEOUS

Collection Date: 09/23/2025 11:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		ND	µg/L	1	09/24/2025 10:01	245312
Surr: 1,2-Dichloroethane-d4	*	0	80-120		100.0	%REC	1	09/24/2025 10:01	245312
Surr: 4-Bromofluorobenzene	*	0	80-120		95.8	%REC	1	09/24/2025 10:01	245312
Surr: Dibromofluoromethane	*	0	80-120		104.4	%REC	1	09/24/2025 10:01	245312
Surr: Toluene-d8	*	0	80-120		100.0	%REC	1	09/24/2025 10:01	245312

Client: AECOM Technical Services Inc.

Work Order: 25092255

Client Project: PWY SEE 2025 Water & Waste / 60738191-7.2.2

Report Date: 29-Sep-25

Lab ID: 25092255-001

Client Sample ID: PWYSEE-WaterEff-092625

Matrix: AQUEOUS

Collection Date: 09/26/2025 11:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		ND	µg/L	1	09/26/2025 17:16	245504
Surr: 1,2-Dichloroethane-d4	*	0	80-120		101.3	%REC	1	09/26/2025 17:16	245504
Surr: 4-Bromofluorobenzene	*	0	80-120		97.1	%REC	1	09/26/2025 17:16	245504
Surr: Dibromofluoromethane	*	0	80-120		100.2	%REC	1	09/26/2025 17:16	245504
Surr: Toluene-d8	*	0	80-120		99.7	%REC	1	09/26/2025 17:16	245504

Client: AECOM Technical Services Inc.

Work Order: 25092533

Client Project: PWY SEE 2025 Water & Waste / 60738191-7.2.2

Report Date: 01-Oct-25

Lab ID: 25092533-001

Client Sample ID: PWYSEE-WaterEff-093025

Matrix: AQUEOUS

Collection Date: 09/30/2025 12:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		ND	µg/L	1	10/01/2025 09:08	245649
Surr: 1,2-Dichloroethane-d4	*	0	80-120		98.2	%REC	1	10/01/2025 09:08	245649
Surr: 4-Bromofluorobenzene	*	0	80-120		90.6	%REC	1	10/01/2025 09:08	245649
Surr: Dibromofluoromethane	*	0	80-120		108.3	%REC	1	10/01/2025 09:08	245649
Surr: Toluene-d8	*	0	80-120		97.5	%REC	1	10/01/2025 09:08	245649