

August 6, 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
July 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 July 2025, seven (7) 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-070125	7/1/2025	Not detected
PWYSEE-WaterEff-071125	7/11/2025	Not detected
PWYSEE-WaterEff-071525	7/15/2025	Not detected
PWYSEE-WaterEff-071725	7/17/2025	Not detected
PWYSEE-WaterEff-072225	7/22/2025	Not detected
PWYSEE-WaterEff-072425	7/24/2025	Not detected
PWYSEE-WaterEff-072925	7/29/2025	Not detected

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 25070133, 25070981, 25071226, 25071524, 25071861, 25072189, 25072495

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

Client: AECOM Technical Services Inc.

Work Order: 25070133

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

Report Date: 02-Jul-25

Lab ID: 25070133-001

Client Sample ID: PWYSEE-WaterEff-070125

Matrix: AQUEOUS

Collection Date: 07/01/2025 07:50

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	07/02/2025 10:29	241406
Surr: 1,2-Dichloroethane-d4	*	0	80-120		94.2	%REC	1	07/02/2025 10:29	241406
Surr: 4-Bromofluorobenzene	*	0	80-120		94.6	%REC	1	07/02/2025 10:29	241406
Surr: Dibromofluoromethane	*	0	80-120		100.1	%REC	1	07/02/2025 10:29	241406
Surr: Toluene-d8	*	0	80-120		98.9	%REC	1	07/02/2025 10:29	241406

Client: AECOM Technical Services Inc.**Work Order:** 25070981**Client Project:** PWY SEE 2025 Water & Waste / 60738191-7.2.2**Report Date:** 14-Jul-25**Lab ID:** 25070981-001**Client Sample ID:** PWYSEE-WaterEff-071125**Matrix:** AQUEOUS**Collection Date:** 07/11/2025 14:25

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	07/12/2025 19:18	241866
Surr: 1,2-Dichloroethane-d4	*	0	80-120		93.2	%REC	1	07/12/2025 19:18	241866
Surr: 4-Bromofluorobenzene	*	0	80-120		96.9	%REC	1	07/12/2025 19:18	241866
Surr: Dibromofluoromethane	*	0	80-120		98.1	%REC	1	07/12/2025 19:18	241866
Surr: Toluene-d8	*	0	80-120		97.5	%REC	1	07/12/2025 19:18	241866

Client: AECOM Technical Services Inc.**Work Order:** 25071226**Client Project:** PWY SEE 2025 Water & Waste / 60738191-7.2.2**Report Date:** 16-Jul-25**Lab ID:** 25071226-001**Client Sample ID:** PWYSEE-WaterEff-071525**Matrix:** AQUEOUS**Collection Date:** 07/15/2025 11:35

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	07/16/2025 08:52	242009
Surr: 1,2-Dichloroethane-d4	*	0	80-120		91.9	%REC	1	07/16/2025 08:52	242009
Surr: 4-Bromofluorobenzene	*	0	80-120		97.4	%REC	1	07/16/2025 08:52	242009
Surr: Dibromofluoromethane	*	0	80-120		99.1	%REC	1	07/16/2025 08:52	242009
Surr: Toluene-d8	*	0	80-120		96.4	%REC	1	07/16/2025 08:52	242009

Client: AECOM Technical Services Inc.**Work Order:** 25071524**Client Project:** PWY SEE 2025 Water & Waste/ 60738191-7.2.2**Report Date:** 18-Jul-25**Lab ID:** 25071524-001**Client Sample ID:** PWYSEE-WaterEff-071725**Matrix:** AQUEOUS**Collection Date:** 07/17/2025 12:00

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	07/18/2025 09:57	242131
Surr: 1,2-Dichloroethane-d4	*	0	80-120		98.2	%REC	1	07/18/2025 09:57	242131
Surr: 4-Bromofluorobenzene	*	0	80-120		98.4	%REC	1	07/18/2025 09:57	242131
Surr: Dibromofluoromethane	*	0	80-120		99.9	%REC	1	07/18/2025 09:57	242131
Surr: Toluene-d8	*	0	80-120		100.6	%REC	1	07/18/2025 09:57	242131

Client: AECOM Technical Services Inc.

Work Order: 25071861

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

Report Date: 23-Jul-25

Lab ID: 25071861-001

Client Sample ID: PWYSEE-WaterEff-072225

Matrix: AQUEOUS

Collection Date: 07/22/2025 08:55

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	07/23/2025 08:13	242343
Surr: 1,2-Dichloroethane-d4	*	0	80-120		96.4	%REC	1	07/23/2025 08:13	242343
Surr: 4-Bromofluorobenzene	*	0	80-120		101.6	%REC	1	07/23/2025 08:13	242343
Surr: Dibromofluoromethane	*	0	80-120		99.7	%REC	1	07/23/2025 08:13	242343
Surr: Toluene-d8	*	0	80-120		102.5	%REC	1	07/23/2025 08:13	242343

Client: AECOM Technical Services Inc.**Work Order:** 25072189**Client Project:** PWY SEE 2025 Water & Waste/ 60738191-7.2.2**Report Date:** 25-Jul-25**Lab ID:** 25072189-001**Client Sample ID:** PWYSEE-WaterEff-072425**Matrix:** AQUEOUS**Collection Date:** 07/24/2025 10:00

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	07/25/2025 09:18	242489
Surr: 1,2-Dichloroethane-d4	*	0	80-120		95.9	%REC	1	07/25/2025 09:18	242489
Surr: 4-Bromofluorobenzene	*	0	80-120		99.1	%REC	1	07/25/2025 09:18	242489
Surr: Dibromofluoromethane	*	0	80-120		99.5	%REC	1	07/25/2025 09:18	242489
Surr: Toluene-d8	*	0	80-120		102.9	%REC	1	07/25/2025 09:18	242489

Client: AECOM Technical Services Inc.**Work Order:** 25072495**Client Project:** PWY SEE 2025 Water & Waste/ 60738191-7.2.2**Report Date:** 30-Jul-25**Lab ID:** 25072495-001**Client Sample ID:** PWYSEE-WaterEff-072925**Matrix:** AQUEOUS**Collection Date:** 07/29/2025 09:30

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		ND	µg/L	1	07/30/2025 11:38	242705
Surr: 1,2-Dichloroethane-d4	*	0	80-120		99.6	%REC	1	07/30/2025 11:38	242705
Surr: 4-Bromofluorobenzene	*	0	80-120		100.3	%REC	1	07/30/2025 11:38	242705
Surr: Dibromofluoromethane	*	0	80-120		95.9	%REC	1	07/30/2025 11:38	242705
Surr: Toluene-d8	*	0	80-120		107.2	%REC	1	07/30/2025 11:38	242705