AECOM
100 North Broadway
20th Floor
St. Louis, MO 63102
aecom.com

October 4, 2024

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

Illinois Environmental Protection Agency
Collinsville FOS
2009 Mall Street
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 2024 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).

During system activities in September 2024, five (5) treated wastewater analytical samples of discharged water were analyzed. Due to system downtime for maintenance, water was not continuously generated or discharged in September 2024. Samples were collected during periods of water generation. The table below summarizes the samples and corresponding results.

Sample ID	Sample Date	Benzene (mg/L)
PWYSEE-WaterEff-083024	8/30/2024	<0.0005 (not detected)
PWYSEE-WaterEff-090524	9/5/2024	0.0029
PWYSEE-WaterEffluent-091124	9/11/2024	<0.0005 (not detected)
PWYSEE-WaterEffluent-091624	9/16/2024	<0.0005 (not detected)
PWYSEE-WaterEffluent-092424	9/24/2024	<0.0005 (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: Teklab Work Orders 24082546, 24090388, 24090717, 24091070, 24091782

cc: Buddy Bealer (Shell)
Scott Schmidt (Village of Roxana)

Jason Woody (Village of Roxana)
Project File

September 03, 2024

Samuel Fisher
AECOM
100 N. Broadway, 20th Floor
St. Louis, MO 63102
TEL: (314) 802-1152
FAX: (314) 296-1969

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **WorkOrder:** 24082546

Dear Samuel Fisher:

TEKLAB, INC received 1 sample on 8/30/2024 14:11:00 for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Aaron Renner
Project Manager
(630)324-6855
arenner@teklabinc.com

Client: AECOM **Work Order:** 24082546

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 03-Sep-24

This reporting package includes the following:

Client: AECOM **Work Order:** 24082546

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 03-Sep-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing cal bration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly l ke a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the cal bration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the cal bration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: AECOM **Work Order:** 24082546

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 03-Sep-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Sp ke Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Client: AECOM

Work Order: 24082546

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 03-Sep-24

Cooler Receipt Temp: 14.7 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: AECOM **Work Order:** 24082546

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 03-Sep-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: AECOM **Work Order:** 24082546

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 03-Sep-24

Lab ID: 24082546-001 **Client Sample ID:** PWYSEE-WaterEff-083024

Matrix: AQUEOUS **Collection Date:** 08/30/2024 13:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		**ND**	µg/L	1	08/30/2024 21:25	227872
Surr: 1,2-Dichloroethane-d4	*	0	80-120		**96.1**	%REC	1	08/30/2024 21:25	227872
Surr: 4-Bromofluorobenzene	*	0	80-120		**98.1**	%REC	1	08/30/2024 21:25	227872
Surr: Dibromofluoromethane	*	0	80-120		**98.8**	%REC	1	08/30/2024 21:25	227872
Surr: Toluene-d8	*	0	80-120		**102.1**	%REC	1	08/30/2024 21:25	227872

Client: AECOM **Work Order:** 24082546

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 03-Sep-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 227872 **SampType:** MBLK Units µg/L
SampID: MBLK-AE240830A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**ND**						08/30/2024
Surr: 1,2-Dichloroethane-d4	*			**50.5**	50.00		100.9	80	120	08/30/2024
Surr: 4-Bromofluorobenzene	*			**49.3**	50.00		98.7	80	120	08/30/2024
Surr: D bromofluoromethane	*			**50.1**	50.00		100.2	80	120	08/30/2024
Surr: Toluene-d8	*			**51.1**	50.00		102.2	80	120	08/30/2024

Batch 227872 **SampType:** LCS Units µg/L
SampID: LCS-AE240830A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**45.9**	50.00	0	91.8	81.6	120	08/30/2024
Surr: 1,2-Dichloroethane-d4	*			**50.2**	50.00		100.5	80	120	08/30/2024
Surr: 4-Bromofluorobenzene	*			**49.1**	50.00		98.2	80	120	08/30/2024
Surr: D bromofluoromethane	*			**50.1**	50.00		100.2	80	120	08/30/2024
Surr: Toluene-d8	*			**51.3**	50.00		102.6	80	120	08/30/2024

Batch 227872 **SampType:** LCSD Units µg/L RPD Limit: **20**
SampID: LCSD-AE240830A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		0.5		**44.9**	50.00	0	89.7	45.88	2.25	08/30/2024
Surr: 1,2-Dichloroethane-d4	*			**50.1**	50.00		100.2			08/30/2024
Surr: 4-Bromofluorobenzene	*			**49.5**	50.00		98.9			08/30/2024
Surr: D bromofluoromethane	*			**50.4**	50.00		100.8			08/30/2024
Surr: Toluene-d8	*			**50.8**	50.00		101.7			08/30/2024

Batch 227872 **SampType:** MS Units µg/L
SampID: 24082437-003eMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**47.0**	50.00	0	94.1	74.1	118	08/30/2024
Surr: 1,2-Dichloroethane-d4	*			**49.1**	50.00		98.3	80	120	08/30/2024
Surr: 4-Bromofluorobenzene	*			**48.3**	50.00		96.6	80	120	08/30/2024
Surr: D bromofluoromethane	*			**50.5**	50.00		101.0	80	120	08/30/2024
Surr: Toluene-d8	*			**51.3**	50.00		102.5	80	120	08/30/2024

Client: AECOM

Work Order: 24082546

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 03-Sep-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 227872 **SampType:** MSD Units **µg/L** RPD Limit: **20**

SampID: 24082437-003eMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		0.5		**46.7**	50.00	0	93.3	47.03	0.77	08/30/2024
Surr: 1,2-Dichloroethane-d4	*			**48.8**	50.00		97.6			08/30/2024
Surr: 4-Bromofluorobenzene	*			**48.4**	50.00		96.7			08/30/2024
Surr: D bromofluoromethane	*			**50.2**	50.00		100.3			08/30/2024
Surr: Toluene-d8	*			**51.6**	50.00		103.2			08/30/2024

Receiving Check List

Teklab, Inc. Environmental Laboratory

http://www.teklabinc.com/

Client: AECOM

Work Order: 24082546

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 03-Sep-24

Carrier: Employee

Received By: PRS

Completed by: Amber Dilallo
On: 30-Aug-24

Reviewed by: Marvin L. Darling
On: 30-Aug-24

Pages to follow: Chain of custody 1 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	14.7
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐			
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑		
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐			

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☑	No ☐	No VOA vials ☐
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

24082546

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)
☐ ACCUTEST (______)
☐ CALSCIENCE (______)
☐ TESTAMERICA (Pensacola______)
☑ Other (Teklab; 5445 Horseshoe Lake Rd; Collinsville, IL)
Lab Vendor # Dropdown

Please Check Appropriate Box:
☐ SGW FDG ☐ PIPELINE ☐ RETAIL
☐ CHEMICALS ☐ CONSULTANT ☐ LUBES
☐ TRANSPORTATION ☐ OTHER ______

Print Bill To Contact Name:	PlaNet Site or Project ID
Samuel Fisher	25278
PO #	**GSAP Project ID**
1638912	USPC/0014/R/02/08

☐ CHECK IF NO INCIDENT # APPLIES
DATE: 8/30/24
PAGE: 1 of 1

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City
State: IL
AECOM Project / Task Number: PWY SEE 2024 Water Effluent / 60721927-7.2.2
ADDRESS: 100 N. Broadway - 20th Floor; ST. LOUIS, MO 63102
EDF DELIVERABLE TO (Name, Company, Office Location): Samuel Fisher, AECOM, St. Louis
PHONE NO.: 314-296-1969
E-MAIL: samuel.fisher@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Samuel Fisher
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: samuel.fisher@aecom.com
Sampler Name(s): B. Howell
LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
☐ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☑ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☐ OTHER (SPECIFY) ______

TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :
Email reports to: samuel.fisher@aecom.com; wendy.pennington@aecom.com; brett.howell@aecom.com

☐ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS — UNIT COST / NON-UNIT COST

FIELD NOTES:
TEMPERATURE ON RECEIPT C°: ICE LTC-3 14.7°C
Container PID Readings or Laboratory Notes
*** 24-HOUR TURNAROUND

LAB USE ONLY	Field Sample Identification	DATE	TIME	MATRIX	HCL	HNO3	H2SO4	NONE	H2SO4	NO. OF CONT.	Benzene 8260	Field Notes
	PWYSEE-WaterEff-083024	8/30/24	1320	Aqueous	2					2	X	24082546-001

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	[signature]	8/30/2024	1330
[signature]	Paul [signature]	8/30/24	1411

ONE DAY TAT

Version: 14Dec15

OHS PS 8130

September 06, 2024

Samuel Fisher
AECOM
100 N. Broadway, 20th Floor
St. Louis, MO 63102
TEL: (314) 802-1152
FAX: (314) 296-1969

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **WorkOrder:** 24090388

Dear Samuel Fisher:

TEKLAB, INC received 1 sample on 9/5/2024 15:21:00 for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Aaron Renner
Project Manager
(630)324-6855
arenner@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: AECOM

Work Order: 24090388

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 06-Sep-24

This reporting package includes the following:

Client: AECOM **Work Order:** 24090388

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 06-Sep-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing cal bration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly l ke a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the cal bration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the cal bration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: AECOM **Work Order:** 24090388

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 06-Sep-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Sp ke Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Client: AECOM

Work Order: 24090388

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 06-Sep-24

Cooler Receipt Temp: 8.1 °C

Locations

Collinsville

Address	5445 Horseshoe Lake Road Collinsville, IL 62234-7425
Phone	(618) 344-1004
Fax	(618) 344-1005
Email	jhriley@teklabinc.com

Springfield

Address	3920 Pintail Dr Springfield, IL 62711-9415
Phone	(217) 698-1004
Fax	(217) 698-1005
Email	KKlostermann@teklabinc.com

Kansas City

Address	8421 Nieman Road Lenexa, KS 66214
Phone	(913) 541-1998
Fax	(913) 541-1998
Email	jhriley@teklabinc.com

Collinsville Air

Address	5445 Horseshoe Lake Road Collinsville, IL 62234-7425
Phone	(618) 344-1004
Fax	(618) 344-1005
Email	EHurley@teklabinc.com

Chicago

Address	1319 Butterfield Rd. Downers Grove, IL 60515
Phone	(630) 324-6855
Fax	
Email	arenner@teklabinc.com

Client: AECOM **Work Order:** 24090388

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 06-Sep-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: AECOM **Work Order:** 24090388

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 06-Sep-24

Lab ID: 24090388-001 **Client Sample ID:** PWYSEE-WaterEff-090524

Matrix: AQUEOUS **Collection Date:** 09/05/2024 10:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		**2.9**	µg/L	1	09/06/2024 09:22	228091
Surr: 1,2-Dichloroethane-d4	*	0	80-120		**91.7**	%REC	1	09/06/2024 09:22	228091
Surr: 4-Bromofluorobenzene	*	0	80-120		**99.3**	%REC	1	09/06/2024 09:22	228091
Surr: Dibromofluoromethane	*	0	80-120		**97.3**	%REC	1	09/06/2024 09:22	228091
Surr: Toluene-d8	*	0	80-120		**102.3**	%REC	1	09/06/2024 09:22	228091

Client: AECOM **Work Order:** 24090388

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 06-Sep-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 228091 **SampType:** MBLK Units µg/L
SampID: MBLK-AE240906A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**ND**						09/06/2024
Surr: 1,2-Dichloroethane-d4	*			**46.6**	50.00		93.2	80	120	09/06/2024
Surr: 4-Bromofluorobenzene	*			**48.8**	50.00		97.6	80	120	09/06/2024
Surr: D bromofluoromethane	*			**49.0**	50.00		98.0	80	120	09/06/2024
Surr: Toluene-d8	*			**51.1**	50.00		102.2	80	120	09/06/2024

Batch 228091 **SampType:** LCS Units µg/L
SampID: LCS-AE240906A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**46.8**	50.00	0	93.6	81.6	120	09/06/2024
Surr: 1,2-Dichloroethane-d4	*			**45.8**	50.00		91.6	80	120	09/06/2024
Surr: 4-Bromofluorobenzene	*			**50.3**	50.00		100.5	80	120	09/06/2024
Surr: D bromofluoromethane	*			**48.6**	50.00		97.3	80	120	09/06/2024
Surr: Toluene-d8	*			**50.0**	50.00		100.0	80	120	09/06/2024

Batch 228091 **SampType:** LCSD Units µg/L RPD Limit: **20**
SampID: LCSD-AE240906A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		0.5		**47.3**	50.00	0	94.6	46.81	1.00	09/06/2024
Surr: 1,2-Dichloroethane-d4	*			**45.8**	50.00		91.6			09/06/2024
Surr: 4-Bromofluorobenzene	*			**49.4**	50.00		98.8			09/06/2024
Surr: D bromofluoromethane	*			**49.2**	50.00		98.3			09/06/2024
Surr: Toluene-d8	*			**49.7**	50.00		99.3			09/06/2024

Batch 228091 **SampType:** LCS Units µg/L
SampID: QCS-AE240906A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**46.8**	50.00	0	93.6	65	135	09/06/2024
Surr: 1,2-Dichloroethane-d4	*			**45.8**	50.00		91.6	80	120	09/06/2024
Surr: 4-Bromofluorobenzene	*			**50.3**	50.00		100.5	80	120	09/06/2024
Surr: D bromofluoromethane	*			**48.6**	50.00		97.3	80	120	09/06/2024
Surr: Toluene-d8	*			**50.0**	50.00		100.0	80	120	09/06/2024

Client: AECOM **Work Order:** 24090388

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 06-Sep-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 228091 **SampType:** LCSD Units **µg/L** RPD Limit: **40**

SampID: QCSD-AE240906A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		0.5		**47.3**	50.00	0	94.6	46.81	1.00	09/06/2024
Surr: 1,2-Dichloroethane-d4	*			**45.8**	50.00		91.6			09/06/2024
Surr: 4-Bromofluorobenzene	*			**49.4**	50.00		98.8			09/06/2024
Surr: D bromofluoromethane	*			**49.2**	50.00		98.3			09/06/2024
Surr: Toluene-d8	*			**49.7**	50.00		99.3			09/06/2024

Receiving Check List

http://www.teklabinc.com/

Client: AECOM

Work Order: 24090388

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 06-Sep-24

Carrier: Samuel Fisher

Received By: PRS

Completed by: Laura E Henson
On: 05-Sep-24

Reviewed by: Elizabeth A. Hurley
On: 05-Sep-24

Pages to follow: Chain of custody 1 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	8.1	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☑	No ☐	No VOA vials ☐
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

24090388

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

- ☐ ACCUTEST (_____)
- ☐ CALSCIENCE (_____)
- ☐ TESTAMERICA (__Pensacola_____)
- ☑ Other (Teklab; 5445 Horseshoe Lake Rd; Collinsville, IL)

Lab Vendor # Dropdown

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☐ OTHER _____	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Samuel Fisher	25278	DATE: 9/5/24
PO #	GSAP Project ID	PAGE: 1 of 1
1638912	USPC/0014/R/02/08	

SAMPLING COMPANY: AECOM

LOG CODE:

SITE ADDRESS: Street and City

State: IL

AECOM Project / Task Number: PWY SEE 2024 Water Effluent / 60721927-7.2.2

ADDRESS: 100 N. Broadway - 20th Floor; ST. LOUIS, MO 63102

EDF DELIVERABLE TO (Name, Company, Office Location): Samuel Fisher, AECOM, St. Louis

PHONE NO.: 314-296-1969

E-MAIL: samuel.fisher@aecom.com

AECOM Other ID

PROJECT CONTACT (Hardcopy or PDF Report to): Samuel Fisher

TELEPHONE: 314-429-0100

FAX: 314-429-0462

Bill To Contact E-MAIL: samuel.fisher@aecom.com

Sampler Name(s): Brett Howell

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
☐ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☑ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☐ OTHER (SPECIFY) _____

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :
Email reports to: samuel.fisher@aecom.com; wendy.pennington@aecom.com; brett.howell@aecom.com

- ☐ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS

UNIT COST | NON-UNIT COST

Benzene 8260

ONE DAY TAT

FIELD NOTES:

TEMPERATURE ON RECEIPT C°
8.1 LC-3 ICE

Container PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	H2SO4	NO. OF CONT.	Benzene 8260	*** 24-HOUR TURNAROUND
	PWYSEE-WaterEff-090524	9/5/24	1040	Aqueous	2					2	X	24090388-001

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	Samuel Fisher	9-5-24	1300
Samuel Fisher	[signature]	915124	1521

Version: 14Dec15

OHS PS 915

September 12, 2024

Samuel Fisher
AECOM
100 N. Broadway, 20th Floor
St. Louis, MO 63102
TEL: (314) 802-1152
FAX: (314) 296-1969

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **WorkOrder:** 24090717

Dear Samuel Fisher:

TEKLAB, INC received 1 sample on 9/11/2024 08:43:00 for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Aaron Renner
Project Manager
(630)324-6855
arenner@teklabinc.com

Report Contents

http://www.teklabinc.com/

Client: AECOM

Work Order: 24090717

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 12-Sep-24

This reporting package includes the following:

Client: AECOM **Work Order:** 24090717

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 12-Sep-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing cal bration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of cal bration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a l brary search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: AECOM **Work Order:** 24090717

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 12-Sep-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Client: AECOM

Work Order: 24090717

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 12-Sep-24

Cooler Receipt Temp: 9.7 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: AECOM **Work Order:** 24090717

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 12-Sep-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: AECOM **Work Order:** 24090717

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 12-Sep-24

Lab ID: 24090717-001 **Client Sample ID:** PWYSEE-WaterEffluent-091124

Matrix: AQUEOUS **Collection Date:** 09/11/2024 08:10

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		**ND**	µg/L	1	09/11/2024 14:46	228262
Surr: 1,2-Dichloroethane-d4	*	0	80-120		**102.4**	%REC	1	09/11/2024 14:46	228262
Surr: 4-Bromofluorobenzene	*	0	80-120		**103.5**	%REC	1	09/11/2024 14:46	228262
Surr: Dibromofluoromethane	*	0	80-120		**99.4**	%REC	1	09/11/2024 14:46	228262
Surr: Toluene-d8	*	0	80-120		**101.1**	%REC	1	09/11/2024 14:46	228262

Client: AECOM **Work Order:** 24090717

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 12-Sep-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 228262 **SampType:** MBLK Units **µg/L**
SampID: MBLK-AK240911A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**ND**						09/11/2024
Surr: 1,2-Dichloroethane-d4	*			**50.7**	50.00		101.3	80	120	09/11/2024
Surr: 4-Bromofluorobenzene	*			**50.2**	50.00		100.3	80	120	09/11/2024
Surr: Dibromofluoromethane	*			**49.7**	50.00		99.5	80	120	09/11/2024
Surr: Toluene-d8	*			**50.6**	50.00		101.2	80	120	09/11/2024

Batch 228262 **SampType:** LCS Units **µg/L**
SampID: LCS-AK240911A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**52.5**	50.00	0	104.9	81.6	120	09/11/2024
Surr: 1,2-Dichloroethane-d4	*			**50.0**	50.00		99.9	80	120	09/11/2024
Surr: 4-Bromofluorobenzene	*			**49.2**	50.00		98.3	80	120	09/11/2024
Surr: Dibromofluoromethane	*			**50.1**	50.00		100.2	80	120	09/11/2024
Surr: Toluene-d8	*			**50.0**	50.00		100.0	80	120	09/11/2024

Batch 228262 **SampType:** LCSD Units **µg/L** RPD Limit: **20**
SampID: LCSD-AK240911A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		0.5		**50.0**	50.00	0	100.0	52.47	4.86	09/11/2024
Surr: 1,2-Dichloroethane-d4	*			**49.7**	50.00		99.3			09/11/2024
Surr: 4-Bromofluorobenzene	*			**50.3**	50.00		100.5			09/11/2024
Surr: Dibromofluoromethane	*			**49.3**	50.00		98.7			09/11/2024
Surr: Toluene-d8	*			**49.8**	50.00		99.6			09/11/2024

Batch 228262 **SampType:** LCS Units **µg/L**
SampID: QCS-AK240911A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**52.5**	50.00	0	104.9	65	135	09/11/2024
Surr: 1,2-Dichloroethane-d4	*			**50.0**	50.00		99.9	80	120	09/11/2024
Surr: 4-Bromofluorobenzene	*			**49.2**	50.00		98.3	80	120	09/11/2024
Surr: Dibromofluoromethane	*			**50.1**	50.00		100.2	80	120	09/11/2024
Surr: Toluene-d8	*			**50.0**	50.00		100.0	80	120	09/11/2024

Client: AECOM **Work Order:** 24090717

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 12-Sep-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 228262 **SampType:** LCSD Units **µg/L** RPD Limit: **40**

SampID: QCSD-AK240911A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		0.5		**50.0**	50.00	0	100.0	52.47	4.86	09/11/2024
Surr: 1,2-Dichloroethane-d4	*			**49.7**	50.00		99.3			09/11/2024
Surr: 4-Bromofluorobenzene	*			**50.3**	50.00		100.5			09/11/2024
Surr: Dibromofluoromethane	*			**49.3**	50.00		98.7			09/11/2024
Surr: Toluene-d8	*			**49.8**	50.00		99.6			09/11/2024

Batch 228262 **SampType:** LCSG Units **%REC**

SampID: LCSG-AK240911A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: 1,2-Dichloroethane-d4	*			**50.3**	50.00		100.6	80	120	09/11/2024
Surr: 4-Bromofluorobenzene	*			**50.0**	50.00		100.1	80	120	09/11/2024
Surr: Dibromofluoromethane	*			**49.1**	50.00		98.2	80	120	09/11/2024
Surr: Toluene-d8	*			**50.9**	50.00		101.7	80	120	09/11/2024

Batch 228262 **SampType:** LCSGD Units **%REC** RPD Limit: **0**

SampID: LCSGD-AK240911A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: 1,2-Dichloroethane-d4	*			**50.2**	50.00		100.4			09/11/2024
Surr: 4-Bromofluorobenzene	*			**50.5**	50.00		100.9			09/11/2024
Surr: Dibromofluoromethane	*			**49.8**	50.00		99.5			09/11/2024
Surr: Toluene-d8	*			**50.4**	50.00		100.7			09/11/2024

Batch 228262 **SampType:** MS Units **µg/L**

SampID: 24090593-003AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		5.0		**489**	500.0	0	97.8	74.1	118	09/11/2024
Surr: 1,2-Dichloroethane-d4	*			**501**	500.0		100.2	80	120	09/11/2024
Surr: 4-Bromofluorobenzene	*			**512**	500.0		102.4	80	120	09/11/2024
Surr: Dibromofluoromethane	*			**493**	500.0		98.6	80	120	09/11/2024
Surr: Toluene-d8	*			**501**	500.0		100.2	80	120	09/11/2024

Client: AECOM **Work Order:** 24090717

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 12-Sep-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 228262 **SampType:** MSD Units µg/L RPD Limit: 20

SampID: 24090593-003AMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		5.0		**487**	500.0	0	97.5	488.9	0.31	09/11/2024
Surr: 1,2-Dichloroethane-d4	*			**504**	500.0		100.8			09/11/2024
Surr: 4-Bromofluorobenzene	*			**506**	500.0		101.2			09/11/2024
Surr: Dibromofluoromethane	*			**489**	500.0		97.7			09/11/2024
Surr: Toluene-d8	*			**506**	500.0		101.2			09/11/2024

Batch 228262 **SampType:** MS Units µg/L

SampID: 24090647-001HMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**50.4**	50.00	0	100.9	37	151	09/11/2024
Surr: 1,2-Dichloroethane-d4	*			**50.1**	50.00		100.3	80	120	09/11/2024
Surr: 4-Bromofluorobenzene	*			**51.1**	50.00		102.1	80	120	09/11/2024
Surr: Dibromofluoromethane	*			**49.4**	50.00		98.7	80	120	09/11/2024
Surr: Toluene-d8	*			**50.0**	50.00		99.9	80	120	09/11/2024

Receiving Check List

http://www.teklabinc.com/

Client: AECOM

Work Order: 24090717

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 12-Sep-24

Carrier: Employee

Received By: LEH

Completed by: Laura E Henson
On: 11-Sep-24

Reviewed by: Elizabeth A. Hurley
On: 11-Sep-24

Pages to follow: Chain of custody 1 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C 9.7
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice ☐
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐		

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☑	No ☐	No VOA vials ☐
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

24090717

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

[ ] ACCUTEST (_____)
[ ] CALSCIENCE (_____)
[ ] TESTAMERICA (__Pensacola_____)
[ ] Other (Teklab; 5445 Horseshoe Lake Rd; Collinsville, IL)
Lab Vendor # Dropdown

Please Check Appropriate Box:

[ ] SGW FDG	[ ] PIPELINE	[ ] RETAIL
[ ] CHEMICALS	[ ] CONSULTANT	[ ] LUBES
[ ] TRANSPORTATION	[ ] OTHER _____	

Print Bill To Contact Name:	PlaNet Site or Project ID	[ ] CHECK IF NO INCIDENT # APPLIES
Samuel Fisher	25278	DATE: 9/11/24
PO #	GSAP Project ID	PAGE: 1 of 1
1638912	USPC/0014/R/02/08	

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State	AECOM Project / Task Number:
AECOM			IL	PWY SEE 2024 Water Effluent / 60721927-7.2.2

ADDRESS: 100 N. Broadway - 20th Floor; ST. LOUIS, MO 63102

EDF DELIVERABLE TO (Name, Company, Office Location): Samuel Fisher, AECOM, St. Louis | PHONE NO.: 314-296-1969 | E-MAIL: samuel.fisher@aecom.com | AECOM Other ID:

PROJECT CONTACT (Hardcopy or PDF Report to): Samuel Fisher

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	samuel.fisher@aecom.com

Sampler Name(s): RICHARD HART

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS): [ ] STANDARD (14 DAY) [ ] 5 DAYS [ ] 3 DAYS [ ] 2 DAYS [X] 24 HOURS [ ] RESULTS NEEDED ON WEEKEND

[ ] LA - RWQCB REPORT FORMAT [ ] UST AGENCY:

DELIVERABLES: [ ] LEVEL 1 [x] LEVEL 2 [ ] LEVEL 3 [ ] LEVEL 4 [ ] OTHER (SPECIFY) _____

TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :
Email reports to: samuel.fisher@aecom.com; wendy.pennington@aecom.com; brett.howell@aecom.com

[ ] SHELL CONTRACT RATE APPLIES
[ ] STATE REIMBURSEMENT RATE APPLIES
[ ] EDD NOT NEEDED
[x] RECEIPT VERIFICATION REQUESTED
[ ] PROVIDE LEDD DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	H2S04	NO. OF CONT.	UNIT COST: Benzene 8260	NON-UNIT COST	FIELD NOTES: Container PID Readings or Laboratory Notes
01	PWYSEE-WaterEffluent-091124	9/11/24	0810	Aqueous	2					2	X		24090717-001

TEMPERATURE ON RECEIPT C°: 9.7 UG3 ONIce

*** 24-HOUR TURNAROUND

ONE DAY TAT

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		9/11/24	843
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 14Dec15

pH 5 LH 9/11/24

September 17, 2024

Samuel Fisher
AECOM
100 N. Broadway, 20th Floor
St. Louis, MO 63102
TEL: (314) 802-1152
FAX: (314) 296-1969

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **WorkOrder:** 24091070

Dear Samuel Fisher:

TEKLAB, INC received 4 samples on 9/16/2024 08:54:00 for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Aaron Renner
Project Manager
(630)324-6855
arenner@teklabinc.com

Client: AECOM **Work Order:** 24091070

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 17-Sep-24

This reporting package includes the following:

Client: AECOM **Work Order:** 24091070

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 17-Sep-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing cal bration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of cal bration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a l brary search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: AECOM **Work Order:** 24091070

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 17-Sep-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Case Narrative

http://www.teklabinc.com/

Client: AECOM

Work Order: 24091070

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 17-Sep-24

Cooler Receipt Temp: 17.5 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: AECOM **Work Order:** 24091070

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 17-Sep-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: AECOM **Work Order:** 24091070

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 17-Sep-24

Lab ID: 24091070-001 **Client Sample ID:** PWYSEE-WaterEffluent-091624

Matrix: AQUEOUS **Collection Date:** 09/16/2024 07:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		**ND**	µg/L	1	09/17/2024 08:25	228519
Surr: 1,2-Dichloroethane-d4	*	0	80-120		**93.4**	%REC	1	09/17/2024 08:25	228519
Surr: 4-Bromofluorobenzene	*	0	80-120		**103.1**	%REC	1	09/17/2024 08:25	228519
Surr: Dibromofluoromethane	*	0	80-120		**97.7**	%REC	1	09/17/2024 08:25	228519
Surr: Toluene-d8	*	0	80-120		**103.7**	%REC	1	09/17/2024 08:25	228519

Client: AECOM **Work Order:** 24091070

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 17-Sep-24

Lab ID: 24091070-002 **Client Sample ID:** PWYSEE-Untreated-091624

Matrix: AQUEOUS **Collection Date:** 09/16/2024 07:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	25.0	250		**23700**	µg/L	500	09/17/2024 10:03	228519
Surr: 1,2-Dichloroethane-d4	*	0	80-120		**94.0**	%REC	500	09/17/2024 10:03	228519
Surr: 4-Bromofluorobenzene	*	0	80-120		**103.7**	%REC	500	09/17/2024 10:03	228519
Surr: Dibromofluoromethane	*	0	80-120		**97.9**	%REC	500	09/17/2024 10:03	228519
Surr: Toluene-d8	*	0	80-120		**102.8**	%REC	500	09/17/2024 10:03	228519

Client: AECOM
Work Order: 24091070
Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2
Report Date: 17-Sep-24
Lab ID: 24091070-003
Client Sample ID: PWYSEE-POSTLGAC500-091624
Matrix: AQUEOUS
Collection Date: 09/16/2024 07:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		**2.7**	µg/L	1	09/17/2024 12:27	228520
Surr: 1,2-Dichloroethane-d4	*	0	80-120		**99.1**	%REC	1	09/17/2024 12:27	228520
Surr: 4-Bromofluorobenzene	*	0	80-120		**99.6**	%REC	1	09/17/2024 12:27	228520
Surr: Dibromofluoromethane	*	0	80-120		**99.8**	%REC	1	09/17/2024 12:27	228520
Surr: Toluene-d8	*	0	80-120		**99.6**	%REC	1	09/17/2024 12:27	228520

Client: AECOM **Work Order:** 24091070

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 17-Sep-24

Lab ID: 24091070-004 **Client Sample ID:** PWYSEE-PostAS-091624

Matrix: AQUEOUS **Collection Date:** 09/16/2024 07:55

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.5	5.0		**294**	µg/L	10	09/17/2024 10:27	228519
Surr: 1,2-Dichloroethane-d4	*	0	80-120		**93.5**	%REC	10	09/17/2024 10:27	228519
Surr: 4-Bromofluorobenzene	*	0	80-120		**102.4**	%REC	10	09/17/2024 10:27	228519
Surr: Dibromofluoromethane	*	0	80-120		**98.2**	%REC	10	09/17/2024 10:27	228519
Surr: Toluene-d8	*	0	80-120		**103.0**	%REC	10	09/17/2024 10:27	228519

Client: AECOM **Work Order:** 24091070

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 17-Sep-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 228519 **SampType:** MBLK Units **µg/L**
SampID: MBLK-AE240916A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**ND**						09/17/2024
Surr: 1,2-Dichloroethane-d4	*			**47.0**	50.00		94.1	80	120	09/17/2024
Surr: 4-Bromofluorobenzene	*			**50.6**	50.00		101.2	80	120	09/17/2024
Surr: Dibromofluoromethane	*			**49.0**	50.00		98.1	80	120	09/17/2024
Surr: Toluene-d8	*			**51.5**	50.00		103.0	80	120	09/17/2024

Batch 228519 **SampType:** LCS Units **µg/L**
SampID: LCS-AE240916A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**48.2**	50.00	0	96.4	81.6	120	09/16/2024
Surr: 1,2-Dichloroethane-d4	*			**46.0**	50.00		92.0	80	120	09/16/2024
Surr: 4-Bromofluorobenzene	*			**50.8**	50.00		101.5	80	120	09/16/2024
Surr: Dibromofluoromethane	*			**50.1**	50.00		100.3	80	120	09/16/2024
Surr: Toluene-d8	*			**50.5**	50.00		101.0	80	120	09/16/2024

Batch 228519 **SampType:** LCSD Units **µg/L** RPD Limit: **20**
SampID: LCSD-AE240916A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		0.5		**48.4**	50.00	0	96.8	48.18	0.50	09/16/2024
Surr: 1,2-Dichloroethane-d4	*			**46.1**	50.00		92.3			09/16/2024
Surr: 4-Bromofluorobenzene	*			**50.7**	50.00		101.3			09/16/2024
Surr: Dibromofluoromethane	*			**49.6**	50.00		99.1			09/16/2024
Surr: Toluene-d8	*			**49.9**	50.00		99.8			09/16/2024

Batch 228519 **SampType:** LCSG Units **%REC**
SampID: LCSG-AE240916A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: 1,2-Dichloroethane-d4	*			**46.7**	50.00		93.3	80	120	09/17/2024
Surr: 4-Bromofluorobenzene	*			**50.3**	50.00		100.6	80	120	09/17/2024
Surr: Dibromofluoromethane	*			**49.7**	50.00		99.4	80	120	09/17/2024
Surr: Toluene-d8	*			**51.4**	50.00		102.8	80	120	09/17/2024

Client: AECOM **Work Order:** 24091070

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 17-Sep-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 228519 **SampType:** LCSGD Units %REC RPD Limit: 0

SampID: LCSGD-AE240916A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: 1,2-Dichloroethane-d4	*			**47.0**	50.00		94.1			09/17/2024
Surr: 4-Bromofluorobenzene	*			**50.8**	50.00		101.5			09/17/2024
Surr: Dibromofluoromethane	*			**49.3**	50.00		98.6			09/17/2024
Surr: Toluene-d8	*			**51.6**	50.00		103.1			09/17/2024

Batch 228520 **SampType:** MBLK Units µg/L

SampID: MBLK-AK240917A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**ND**						09/17/2024
Surr: 1,2-Dichloroethane-d4	*			**49.8**	50.00		99.5	80	120	09/17/2024
Surr: 4-Bromofluorobenzene	*			**49.5**	50.00		99.1	80	120	09/17/2024
Surr: Dibromofluoromethane	*			**49.3**	50.00		98.6	80	120	09/17/2024
Surr: Toluene-d8	*			**49.4**	50.00		98.9	80	120	09/17/2024

Batch 228520 **SampType:** LCS Units µg/L

SampID: LCS-AK240917A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**50.9**	50.00	0	101.8	81.6	120	09/17/2024
Surr: 1,2-Dichloroethane-d4	*			**48.5**	50.00		97.1	80	120	09/17/2024
Surr: 4-Bromofluorobenzene	*			**49.2**	50.00		98.4	80	120	09/17/2024
Surr: Dibromofluoromethane	*			**49.0**	50.00		98.1	80	120	09/17/2024
Surr: Toluene-d8	*			**49.2**	50.00		98.3	80	120	09/17/2024

Batch 228520 **SampType:** LCSD Units µg/L RPD Limit: 20

SampID: LCSD-AK240917A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		0.5		**52.5**	50.00	0	104.9	50.90	3.02	09/17/2024
Surr: 1,2-Dichloroethane-d4	*			**48.9**	50.00		97.9			09/17/2024
Surr: 4-Bromofluorobenzene	*			**48.9**	50.00		97.7			09/17/2024
Surr: Dibromofluoromethane	*			**50.1**	50.00		100.1			09/17/2024
Surr: Toluene-d8	*			**49.1**	50.00		98.3			09/17/2024

Client: AECOM **Work Order:** 24091070

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 17-Sep-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 228520 **SampType:** LCS Units µg/L
SampID: QCS-AK240917A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**50.9**	50.00	0	101.8	65	135	09/17/2024
Surr: 1,2-Dichloroethane-d4	*			**48.5**	50.00		97.1	80	120	09/17/2024
Surr: 4-Bromofluorobenzene	*			**49.2**	50.00		98.4	80	120	09/17/2024
Surr: Dibromofluoromethane	*			**49.0**	50.00		98.1	80	120	09/17/2024
Surr: Toluene-d8	*			**49.2**	50.00		98.3	80	120	09/17/2024

Batch 228520 **SampType:** LCSD Units µg/L RPD Limit: **40**
SampID: QCSD-AK240917A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		0.5		**52.5**	50.00	0	104.9	50.90	3.02	09/17/2024
Surr: 1,2-Dichloroethane-d4	*			**48.9**	50.00		97.9			09/17/2024
Surr: 4-Bromofluorobenzene	*			**48.9**	50.00		97.7			09/17/2024
Surr: Dibromofluoromethane	*			**50.1**	50.00		100.1			09/17/2024
Surr: Toluene-d8	*			**49.1**	50.00		98.3			09/17/2024

Batch 228520 **SampType:** MS Units µg/L
SampID: 24091091-001aMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		50.0		**7640**	5000	2858	95.7	74.1	118	09/17/2024
Surr: 1,2-Dichloroethane-d4	*			**4960**	5000		99.1	80	120	09/17/2024
Surr: 4-Bromofluorobenzene	*			**4940**	5000		98.8	80	120	09/17/2024
Surr: Dibromofluoromethane	*			**5040**	5000		100.7	80	120	09/17/2024
Surr: Toluene-d8	*			**4940**	5000		98.8	80	120	09/17/2024

Batch 228520 **SampType:** MSD Units µg/L RPD Limit: **20**
SampID: 24091091-001aMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		50.0		**7350**	5000	2858	89.9	7641	3.83	09/17/2024
Surr: 1,2-Dichloroethane-d4	*			**4880**	5000		97.6			09/17/2024
Surr: 4-Bromofluorobenzene	*			**4920**	5000		98.4			09/17/2024
Surr: Dibromofluoromethane	*			**4960**	5000		99.2			09/17/2024
Surr: Toluene-d8	*			**4970**	5000		99.4			09/17/2024

Receiving Check List

Teklab, Inc. Environmental Laboratory

http://www.teklabinc.com/

Client: AECOM

Work Order: 24091070

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 17-Sep-24

Carrier: Employee

Received By: JMD

Completed by: Laura E Henson
On: 16-Sep-24

Reviewed by: Ellie Hopkins
On: 16-Sep-24

Pages to follow: Chain of custody [1] Extra pages included [0]

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	17.5	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☑	No ☐	No VOA vials ☐
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

UN TI~ 240911070 JD 9/16/24 17.5 #3

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)
- ☐ ACCUTEST (______)
- ☐ CALSCIENCE (______)
- ☐ TESTAMERICA (Pensacola______)
- ☑ Other (Teklab; 5445 Horseshoe Lake Rd; Collinsville, IL)

Lab Vendor # Dropdown

Please Check Appropriate Box:
☐ SGW FDG ☐ PIPELINE ☐ RETAIL ☐ CHEMICALS ☐ CONSULTANT ☐ LUBES ☐ TRANSPORTATION ☐ OTHER ______

Print Bill To Contact Name: Samuel Fisher
PO # 1638912
PlaNet Site or Project ID 25278
GSAP Project ID USPC/0014/R/02/08
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 9/16/24
PAGE: 1 of 1

SAMPLING COMPANY: AECOM	LOG CODE:
ADDRESS: 100 N. Broadway - 20th Floor; ST. LOUIS, MO 63102	
PROJECT CONTACT (Hardcopy or PDF Report to): Samuel Fisher	
TELEPHONE: 314-429-0100	FAX: 314-429-0462
Bill To Contact E-MAIL: samuel.fisher@aecom.com	

SITE ADDRESS: Street and City | State: IL | AECOM Project / Task Number: PWY SEE 2024 Water Effluent / 60721927-7.2.2

EDF DELIVERABLE TO (Name, Company, Office Location): Samuel Fisher, AECOM, St. Louis | PHONE NO.: 314-296-1969 | E-MAIL: samuel.fisher@aecom.com | AECOM Other ID:

Sampler Name(s): B. Howell | LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS): ☐ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☑ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☐ OTHER (SPECIFY) ______

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :
Email reports to: samuel.fisher@aecom.com; wendy.pennington@aecom.com; brett.howell@aecom.com

- ☐ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS — UNIT COST / NON-UNIT COST: Benzene 8260

ONE DAY TAT

FIELD NOTES: TEMPERATURE ON RECEIPT C° — Container PID Readings or Laboratory Notes — *** 24-HOUR TURNAROUND

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	HCL	HNO3	H2SO4	NONE	H2SO4	NO. OF CONT.	Benzene 8260	Field Notes
	PWYSEE-WaterEffluent-091624	9/16/24	0740	Aqueous	2					2	X	240911070-001
	PWYSEE-Untreated-091624	↓	0745	↓	2					2	X	002
	PWYSEE-1GACS10-091624	↓	0750	↓	2					2	X	003
	PWYSEE-PostAS-091624	↓	0755	↓	2					2	X	004
	PWYSEE-POSTLGAC500-091624											
	revised by Samuel Fisher 9/16/2024											

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
B. Howell	Jack Davis	9/16/24	8:54
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

September 25, 2024

Samuel Fisher
AECOM
100 N. Broadway, 20th Floor
St. Louis, MO 63102
TEL: (314) 802-1152
FAX: (314) 296-1969

Illinois	100226
Illinois	1004652024-2
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **WorkOrder:** 24091782

Dear Samuel Fisher:

TEKLAB, INC received 1 sample on 9/24/2024 08:52:00 for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Aaron Renner
Project Manager
(630)324-6855
arenner@teklabinc.com

Report Contents

Client: AECOM
Work Order: 24091782
Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2
Report Date: 25-Sep-24

This reporting package includes the following:

Client: AECOM **Work Order:** 24091782

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 25-Sep-24

Abbr Definition

*	Analytes on report marked with an asterisk are not NELAP accredited
CCV	Continuing cal bration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
CRQL	A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
DNI	Did not ignite
DUP	Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
ICV	Initial calibration verification is a check of a standard to determine the state of cal bration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample is a sample matrix, free from the analytes of interest,spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MBLK	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	"The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
NC	Data is not acceptable for compliance purposes
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TIC	Tentatively identified compound: Analytes tentatively identified in the sample by using a l brary search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
TNTC	Too numerous to count (> 200 CFU)

Client: AECOM **Work Order:** 24091782

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 25-Sep-24

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- C - RL shown is a Client Requested Quantitation Limit
- E - Value above quantitation range
- H - Holding times exceeded
- I - Associated internal standard was outside method criteria
- J - Analyte detected below quantitation limits
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- T - TIC(Tentatively identified compound)
- X - Value exceeds Maximum Contaminant Level

Client: AECOM

Work Order: 24091782

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 25-Sep-24

Cooler Receipt Temp: 13.9 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Client: AECOM **Work Order:** 24091782

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 25-Sep-24

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2025	Collinsville
Illinois	IEPA	1004652024-2	NELAP	4/30/2025	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2025	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2025	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2025	Collinsville
Oklahoma	ODEQ	9978	NELAP	12/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2025	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2026	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Mississippi	MSDH			4/30/2025	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville

Client: AECOM **Work Order:** 24091782

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 25-Sep-24

Lab ID: 24091782-001 **Client Sample ID:** PWYSEE-WaterEffluent-092424

Matrix: AQUEOUS **Collection Date:** 09/24/2024 08:21

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		**ND**	µg/L	1	09/24/2024 12:42	228826
Surr: 1,2-Dichloroethane-d4	*	0	80-120		**100.2**	%REC	1	09/24/2024 12:42	228826
Surr: 4-Bromofluorobenzene	*	0	80-120		**100.2**	%REC	1	09/24/2024 12:42	228826
Surr: Dibromofluoromethane	*	0	80-120		**99.1**	%REC	1	09/24/2024 12:42	228826
Surr: Toluene-d8	*	0	80-120		**97.9**	%REC	1	09/24/2024 12:42	228826

Client: AECOM **Work Order:** 24091782

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 25-Sep-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 228826 **SampType:** MBLK Units µg/L
SampID: MBLK-AK240924A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**ND**						09/24/2024
Surr: 1,2-Dichloroethane-d4	*			**49.7**	50.00		99.4	80	120	09/24/2024
Surr: 4-Bromofluorobenzene	*			**49.7**	50.00		99.5	80	120	09/24/2024
Surr: Dibromofluoromethane	*			**49.8**	50.00		99.7	80	120	09/24/2024
Surr: Toluene-d8	*			**49.3**	50.00		98.5	80	120	09/24/2024

Batch 228826 **SampType:** LCS Units µg/L
SampID: LCS-AK240924A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**50.8**	50.00	0	101.7	81.6	120	09/24/2024
Surr: 1,2-Dichloroethane-d4	*			**48.4**	50.00		96.8	80	120	09/24/2024
Surr: 4-Bromofluorobenzene	*			**49.4**	50.00		98.8	80	120	09/24/2024
Surr: Dibromofluoromethane	*			**50.3**	50.00		100.5	80	120	09/24/2024
Surr: Toluene-d8	*			**49.0**	50.00		98.0	80	120	09/24/2024

Batch 228826 **SampType:** LCSD Units µg/L RPD Limit: **20**
SampID: LCSD-AK240924A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		0.5		**48.4**	50.00	0	96.7	50.84	4.98	09/24/2024
Surr: 1,2-Dichloroethane-d4	*			**49.5**	50.00		99.0			09/24/2024
Surr: 4-Bromofluorobenzene	*			**49.5**	50.00		99.0			09/24/2024
Surr: Dibromofluoromethane	*			**50.5**	50.00		101.0			09/24/2024
Surr: Toluene-d8	*			**49.4**	50.00		98.7			09/24/2024

Batch 228826 **SampType:** LCS Units µg/L
SampID: QCS-AK240924A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		**50.8**	50.00	0	101.7	65	135	09/24/2024
Surr: 1,2-Dichloroethane-d4	*			**48.4**	50.00		96.8	80	120	09/24/2024
Surr: 4-Bromofluorobenzene	*			**49.4**	50.00		98.8	80	120	09/24/2024
Surr: Dibromofluoromethane	*			**50.3**	50.00		100.5	80	120	09/24/2024
Surr: Toluene-d8	*			**49.0**	50.00		98.0	80	120	09/24/2024

Client: AECOM **Work Order:** 24091782

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2 **Report Date:** 25-Sep-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 228826 **SampType:** LCSD Units **µg/L** RPD Limit: **40**

SampID: QCSD-AK240924A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Benzene		0.5		**48.4**	50.00	0	96.7	50.84	4.98	09/24/2024
Surr: 1,2-Dichloroethane-d4	*			**49.5**	50.00		99.0			09/24/2024
Surr: 4-Bromofluorobenzene	*			**49.5**	50.00		99.0			09/24/2024
Surr: Dibromofluoromethane	*			**50.5**	50.00		101.0			09/24/2024
Surr: Toluene-d8	*			**49.4**	50.00		98.7			09/24/2024

Batch 228826 **SampType:** LCSG Units **%REC**

SampID: LCSG-AK240924A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Surr: 1,2-Dichloroethane-d4	*			**49.1**	50.00		98.2	80	120	09/24/2024
Surr: 4-Bromofluorobenzene	*			**49.2**	50.00		98.3	80	120	09/24/2024
Surr: Dibromofluoromethane	*			**49.8**	50.00		99.5	80	120	09/24/2024
Surr: Toluene-d8	*			**49.9**	50.00		99.8	80	120	09/24/2024

Batch 228826 **SampType:** LCSGD Units **%REC** RPD Limit: **0**

SampID: LCSGD-AK240924A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Surr: 1,2-Dichloroethane-d4	*			**49.4**	50.00		98.7			09/24/2024
Surr: 4-Bromofluorobenzene	*			**49.6**	50.00		99.2			09/24/2024
Surr: Dibromofluoromethane	*			**50.2**	50.00		100.4			09/24/2024
Surr: Toluene-d8	*			**49.9**	50.00		99.8			09/24/2024

Batch 228826 **SampType:** MS Units **µg/L**

SampID: 24091709-008AMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		125	S	**16800**	12500	8065	69.8	74.1	118	09/24/2024
Surr: 1,2-Dichloroethane-d4	*			**12300**	12500		98.2	80	120	09/24/2024
Surr: 4-Bromofluorobenzene	*			**12100**	12500		97.2	80	120	09/24/2024
Surr: Dibromofluoromethane	*			**12300**	12500		98.5	80	120	09/24/2024
Surr: Toluene-d8	*			**12300**	12500		98.7	80	120	09/24/2024

Receiving Check List

http://www.teklabinc.com/

Client: AECOM

Work Order: 24091782

Client Project: PWY SEE 2024 Water Effluent / 60721927-7.2.2

Report Date: 25-Sep-24

Carrier: Brooks Pfeiffer

Received By: JMD

Completed by: Laura E Henson
On: 24-Sep-24

Reviewed by: Elizabeth A. Hurley
On: 24-Sep-24

Pages to follow: Chain of custody 1 Extra pages included 0

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	13.9
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐			
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑		
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐			

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☑	No ☐	No VOA vials ☐
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	NA ☐
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA ☑

Any No responses must be detailed below or on the COC.

13.9 #3 ØHS d4091782
LH 9/24

LAB (LOCATION)
☐ ACCUTEST (______________)
☐ CALSCIENCE (______________)
☐ TESTAMERICA (Pensacola______________)
☑ Other (Teklab; 5445 Horseshoe Lake Rd; Collinsville, IL)
Lab Vendor # Dropdown

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:
☐ SGW FDG ☐ PIPELINE ☐ RETAIL
☐ CHEMICALS ☐ CONSULTANT ☐ LUBES
☐ TRANSPORTATION ☐ OTHER ______________

Print Bill To Contact Name: Samuel Fisher
PO #: 1638912
PlaNet Site or Project ID: 25278
GSAP Project ID: USPC/0014/R/02/08
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 9/24/24
PAGE: 1 of 1

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City
State: IL
AECOM Project / Task Number: PWY SEE 2024 Water Effluent / 60721927-7.2.2
ADDRESS: 100 N. Broadway - 20th Floor; ST. LOUIS, MO 63102
EDF DELIVERABLE TO (Name, Company, Office Location): Samuel Fisher, AECOM, St. Louis
PHONE NO.: 314-296-1969
E-MAIL: samuel.fisher@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Samuel Fisher
Sampler Name(s):
LAB USE ONLY
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: samuel.fisher@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☐ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☑ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☐ OTHER (SPECIFY) ______________
TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
Email reports to: samuel.fisher@aecom.com; wendy.pennington@aecom.com; brett.howell@aecom.com

☐ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS: UNIT COST — Benzene 8260; NON-UNIT COST

FIELD NOTES:
TEMPERATURE ON RECEIPT C°: 13.9 UG3 On ice
Container PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	HCL	HNO3	H2SO4	NONE	H2SO4	NO. OF CONT.	Benzene 8260	*** 24-HOUR TURNAROUND
	PWYSEE-WaterEffluent-092424	9/24/24	0821	Aqueous	2					2	X	24091782-001

ONE DAY TAT

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Brooks [signature]	Jasti Davis 9/24/24 8:52	9/24/24	0852
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 14Dec15