

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

July 3, 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 Initial and June 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 pretreatment and discharge of the steam enhanced extraction (SEE) wastewater to the Village of Roxana Wastewater Treatment Plant (WWTP). Special Condition 8(B) of the Permit requires monitoring of the system discharges and submittal of analytical results to the Illinois Environmental Protection Agency (IEPA). Wastewater treated through the pretreatment system is sampled on a weekly basis in accordance with Condition 13 of the August 22, 2022 letter from Illinois EPA, Permit Section, Division of Land Pollution Control (Log N. B-43R-CA-107).

The SEE remediation system underwent limited startup testing in April 2024 and began full-scale startup testing in June 2024. During the April 2024 limited startup testing and June 2024 full-scale startup testing, three (3) treated wastewater analytical samples were collected. The table below summarizes the samples and corresponding results.

Sample ID	Sample Date	Benzene (mg/L)
PWYSEE-WaterEff-040124	4/1/2024	<0.0005 (not detected)
PWYSEE-WaterEff-061824	6/18/2024	<0.0005 (not detected)
PWYSEE-WaterEff-062524	6/25/2024	<0.0005 (not detected)

Please contact Ms. Wendy Pennington (wendy.pennington@aecom.com; 314-452-2353) with any questions.

Sincerely,

Wedy Por

Wendy Pennington, P.E. Compliance Manager AECOM

encl: Teklab Work Orders 24040051, 24061493, 24061977

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

Samueltisher

Samuel Fisher, CHMM Task Manager AECOM



April 02, 2024

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



http://www.teklabinc.com/

RE: PWY SEE 2024 Water Effluent / 60721927-7.2.2

WorkOrder: 24040051

Dear Samuel Fisher:

TEKLAB, INC received 1 sample on 4/1/2024 11:36:00 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,

lung

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



Report Contents

http://www.teklabinc.com/

Client: AECOM

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

Work Order: 24040051 Report Date: 02-Apr-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Quality Control Results	8
Receiving Check List	10
Chain of Custody	Appended

eklab, Inc.

Definitions

http://www.teklabinc.com/

Client: AECOM

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

Work Order: 24040051

Report Date: 02-Apr-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)

Environmental Laboratory

Definitions

http://www.teklabinc.com/

Work Order: 24040051

Report Date: 02-Apr-24

Client: AECOM

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

- # Unknown hydrocarbon
- C RL shown is a Client Requested Quantitation Limit
- H Holding times exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside recovery limits
- X Value exceeds Maximum Contaminant Level

Qualifiers

- B Analyte detected in associated Method Blank
- E Value above quantitation range
- I Associated internal standard was outside method criteria
- M Manual Integration used to determine area response
- R RPD outside accepted recovery limits
- T TIC(Tentatively identified compound)



Case Narrative

http://www.teklabinc.com/

Client: AECOM

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

Cooler Receipt Temp: 16.1 °C

Work Order: 24040051 Report Date: 02-Apr-24

			Locations					
	Collinsville		Springfield	Kansas City				
Address 5445 Horseshoe Lake Road		Address	3920 Pintail Dr	Address	8421 Nieman Road			
	Collinsville, IL 62234-7425		Springfield, IL 62711-9415		Lenexa, KS 66214			
Phone	(618) 344-1004	Phone	(217) 698-1004	Phone	(913) 541-1998			
Fax	(618) 344-1005	Fax	(217) 698-1005	Fax	(913) 541-1998			
Email	jhriley@teklabinc.com	Email	KKlostermann@teklabinc.com	Email	jhriley@teklabinc.com			
	Collinsville Air		Chicago					
Address	5445 Horseshoe Lake Road	Address	1319 Butterfield Rd.					
	Collinsville, IL 62234-7425		Downers Grove, IL 60515					
Phone	(618) 344-1004	Phone	(630) 324-6855					
Fax	(618) 344-1005	Fax						
Email	EHurley@teklabinc.com	Email	arenner@teklabinc.com					



Accreditations

http://www.teklabinc.com/

Client: AECOM

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

Work Order: 24040051 Report Date: 02-Apr-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	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2025	Collinsville
Missouri	MDNR	00930		10/31/2026	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Client: AECOM

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

Lab ID: 24040051-001

Matrix: AQUEOUS

Work Order: 24040051

Report Date: 02-Apr-24

Client Sample ID: PWYSEE-WaterEff-040124

Collection Date: 04/01/2024 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed Ba	ntch				
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS													
Benzene	NELAP	0.1	0.5		ND	µg/L	1	04/01/2024 14:25 22	20639				
Surr: 1,2-Dichloroethane-d4	*	0	80-120		108.3	%REC	1	04/01/2024 14:25 22	20639				
Surr: 4-Bromofluorobenzene	*	0	80-120		102.5	%REC	1	04/01/2024 14:25 22	20639				
Surr: Dibromofluoromethane	*	0	80-120		105.3	%REC	1	04/01/2024 14:25 22	20639				
Surr: Toluene-d8	*	0	80-120		98.6	%REC	1	04/01/2024 14:25 22	20639				



http://www.teklabinc.com/

Client: AECOM

Work Order: 24040051

Report Date: 02-Apr-24

RPD Limit: 20

Date

2.2

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS											
Date	9										
esult Spike SPK Ref Val %REC Low Limit High Limit Anal	yzed										
04/0	1/2024										
2 50.00 110.3 80 120 04/0	1/2024										
7 50.00 105.5 80 120 04/0	1/2024										
4 50.00 106.9 80 120 04/0	1/2024										
6 50.00 99.3 80 120 04/0	1/2024										
2.7 .4 .6	GC/MS ult Spike SPK Ref Val %REC Low Limit High Limit Date Anal 50.00 110.3 80 120 04/0 50.00 105.5 80 120 04/0 50.00 106.9 80 120 04/0 50.00 99.3 80 120 04/0										

Batch 220639 SampType: LCS

SampID: LCS-AE240401A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Benzene	*	0.5		54.9	50.00	0	109.7	81.6	120	04/01/2024
Surr: 1,2-Dichloroethane-d4	*			55.8	50.00		111.7	80	120	04/01/2024
Surr: 4-Bromofluorobenzene	*			51.4	50.00		102.7	80	120	04/01/2024
Surr: Dibromofluoromethane	*			54.8	50.00		109.5	80	120	04/01/2024
Surr: Toluene-d8	*			48.6	50.00		97.3	80	120	04/01/2024

Units µg/L

Units µg/L

Units µg/L

Batch 220639 SampType: LCSD

SampID: LCSD-AE240401A-1					
Analyses	Cert	RL	Qual	Result	Spil
Benzene	*	0.5		59.1	50.0

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
Benzene	*	0.5		59.1	50.00	0	118.3	54.87	7.47	04/01/2024
Surr: 1,2-Dichloroethane-d4	*			55.8	50.00		111.5			04/01/2024
Surr: 4-Bromofluorobenzene	*			50.9	50.00		101.9			04/01/2024
Surr: Dibromofluoromethane	*			53.8	50.00		107.7			04/01/2024
Surr: Toluene-d8	*			48.8	50.00		97.5			04/01/2024

Batch 220639 SampType: MS

SampID: 24040025-006AMS Date										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Benzene		50.0		7750	5000	2984	95.4	74.1	118	04/01/2024
Surr: 1,2-Dichloroethane-d4	*			5600	5000		112.0	80	120	04/01/2024
Surr: 4-Bromofluorobenzene	*			5120	5000		102.5	80	120	04/01/2024
Surr: Dibromofluoromethane	*			5300	5000		106.0	80	120	04/01/2024
Surr: Toluene-d8	*			4880	5000		97.7	80	120	04/01/2024



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

Quality Control Results

http://www.teklabinc.com/

Client: AECOM

Work Order: 24040051

Report Date: 02-Apr-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS												
Batch 220639 SampType:	MSD		Units µg/L					RPD Lir	mit: 20			
SampID: 24040025-006AMSD										Date		
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed		
Benzene		50.0		7830	5000	2984	96.9	7754	0.95	04/01/2024		
Surr: 1,2-Dichloroethane-d4	*			5470	5000		109.4			04/01/2024		
Surr: 4-Bromofluorobenzene	*			5050	5000		101.1			04/01/2024		
Surr: Dibromofluoromethane	*			5240	5000		104.8			04/01/2024		
Surr: Toluene-d8	*			4940	5000		98.9			04/01/2024		



Receiving Check List

http://www.teklabinc.com/

Client: AECOM

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

Work Order: 24040051 Report Date: 02-Apr-24

Carrier: Employee	1	Received By: NR						
Completed by: On: 01-Apr-24 Paul Schultz		Reviewed by: On: 01-Apr-24	Marin L. Darling	Marin L. Darling II				
Pages to follow: Chain of custody 1	Extra pages inc	luded 0]					
Shipping container/cooler in good condition?	Yes 🗹	No 🗌	Not Present	Temp °C 16.1				
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	\checkmark				
Container/Temp Blank temperature in compliance?	Yes 🗸	No 🗌						
When thermal preservation is required, samples are complia 0.1°C - 6.0°C, or when samples are received on ice the sam	ant with a tempera ne day as collecte	ature between d.						
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	\checkmark				
Water - pH acceptable upon receipt?	Yes 🗹	No	NA					
NPDES/CWA TCN interferences checked/treated in the field?	Yes	No 🗌	NA	\checkmark				
Any No responses	must be detailed	l below or on th	e COC.					

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June 19, 2024

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



http://www.teklabinc.com/

RE: PWY SEE 2024 Water Effluent / 60721927-7.2.2

WorkOrder: 24061493

Dear Samuel Fisher:

TEKLAB, INC received 1 sample on 6/18/2024 1:22:00 PM 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,

Marin J. Darling I

Marvin L. Darling Project Manager (618)344-1004 ex 41 mdarling@teklabinc.com



Report Contents

http://www.teklabinc.com/

Client: AECOM

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

Work Order: 24061493 Report Date: 19-Jun-24

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

Work Order: 24061493

Report Date: 19-Jun-24

Abbr Definition

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- 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 I 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)

eklab, Inc.

Definitions

Qualifiers

http://www.teklabinc.com/

Work Order: 24061493

Report Date: 19-Jun-24

Client: AECOM

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

- # Unknown hydrocarbon
- C RL shown is a Client Requested Quantitation Limit
- H Holding times exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
 - S Sp ke Recovery outside recovery limits
 - X Value exceeds Maximum Contaminant Level

- B Analyte detected in associated Method Blank
- E Value above quantitation range
- I Associated internal standard was outside method criteria
- M Manual Integration used to determine area response
- R RPD outside accepted recovery limits
- T TIC(Tentatively identified compound)



Case Narrative

http://www.teklabinc.com/

Client: AECOM

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

Cooler Receipt Temp: 17.1 °C

Work Order: 24061493 Report Date: 19-Jun-24

		Locations		
Collinsville		Springfield		Kansas City
5445 Horseshoe Lake Road	Address	3920 Pintail Dr	Address	8421 Nieman Road
Collinsville, IL 62234-7425		Springfield, IL 62711-9415		Lenexa, KS 66214
(618) 344-1004	Phone	(217) 698-1004	Phone	(913) 541-1998
(618) 344-1005	Fax	(217) 698-1005	Fax	(913) 541-1998
jhriley@teklabinc.com	Email	KKlostermann@teklabinc.com	Email	jhriley@teklabinc.com
Collinsville Air		Chicago		
5445 Horseshoe Lake Road	Address	1319 Butterfield Rd.		
Collinsville, IL 62234-7425		Downers Grove, IL 60515		
(618) 344-1004	Phone	(630) 324-6855		
(618) 344-1005	Fax			
EHurley@teklabinc.com	Email	arenner@teklabinc.com		
	Collinsville 5445 Horseshoe Lake Road Collinsville, IL 62234-7425 (618) 344-1004 (618) 344-1005 jhriley@teklabinc.com Collinsville Air 5445 Horseshoe Lake Road Collinsville, IL 62234-7425 (618) 344-1004 (618) 344-1004 (618) 344-1005 EHurley@teklabinc.com	Collinsville Address 5445 Horseshoe Lake Road Address Collinsville, IL 62234-7425 Phone (618) 344-1004 Phone (618) 344-1005 Fax jhriley@teklabinc.com Email Collinsville Air Address S445 Horseshoe Lake Road Address Collinsville, IL 62234-7425 Address Collinsville, IL 62234-7425 Phone (618) 344-1004 Phone (618) 344-1005 Fax EHurley@teklabinc.com Email	Collinsville Springfield 5445 Horseshoe Lake Road Address 3920 Pintail Dr Collinsville, IL 62234-7425 Springfield, IL 62711-9415 (618) 344-1004 Phone (217) 698-1004 (618) 344-1005 Fax (217) 698-1005 jhriley@teklabinc.com Email KKlostermann@teklabinc.com 5445 Horseshoe Lake Road Address 1319 Butterfield Rd. Collinsville, IL 62234-7425 Downers Grove, IL 60515 (618) 344-1004 Phone (630) 324-6855 (618) 344-1005 Fax Email EHurley@teklabinc.com Email arenner@teklabinc.com	Collinsville Springfield Address 5445 Horseshoe Lake Road Address 3920 Pintail Dr Address Collinsville, L 62234-7425 Springfield, L 62711-9415 Address (618) 344-1004 Phone (217) 698-1004 Phone (618) 344-1005 Fax (217) 698-1005 Fax jhriley@teklabinc.com Email KKlostermann@teklabinc.com Email 5445 Horseshoe Lake Road Address 1319 Butterfield Rd. Email Collinsville, L 62234-7425 Downers Grove, L 60515 Imail 6483 344-1004 Phone (630) 324-6855 Imail 6183 344-1004 Phone (630) 324-6855 Imail 6183 344-1005 Fax Imail Imail 6183 344-1005 Fax Imail Imail



Accreditations

http://www.teklabinc.com/

Client: AECOM

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

Work Order: 24061493 Report Date: 19-Jun-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	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	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

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

Lab ID: 24061493-001

Matrix: AQUEOUS

Work Order: 24061493

Report Date: 19-Jun-24

Client Sample ID: PWYSEE-WaterEff-061824

Collection Date: 06/18/2024 12:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch						
SW-846 5030, 8260B, VOLATII	SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS														
Benzene	NELAP	0.1	0.5		ND	µg/L	1	06/19/2024 8:41	224628						
Surr: 1,2-Dichloroethane-d4	*	0	80-120		101.2	%REC	1	06/19/2024 8:41	224628						
Surr: 4-Bromofluorobenzene	*	0	80-120		97.2	%REC	1	06/19/2024 8:41	224628						
Surr: Dibromofluoromethane	*	0	80-120		98.4	%REC	1	06/19/2024 8:41	224628						
Surr: Toluene-d8	*	0	80-120		102.0	%REC	1	06/19/2024 8:41	224628						



http://www.teklabinc.com/

Client: AECOM

Work Order: 24061493

Report Date: 19-Jun-24

RPD Limit: 20

Client Project: PWY SEE 2024 Water Effluent / 6072192	7-7.2	.2
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SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS Batch 224628 SampType: MBLK Units µg/L . . .

Units µg/L

Units µg/L

Units µg/L

1	Sampid. MBLK-AM240618A-2										Date
	Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
	Benzene		0.5		ND						06/19/2024
	Surr: 1,2-Dichloroethane-d4	*			49.1	50.00		98.2	80	120	06/19/2024
	Surr: 4-Bromofluorobenzene	*			47.5	50.00		95.1	80	120	06/19/2024
	Surr: D bromofluoromethane	*			49.0	50.00		98.1	80	120	06/19/2024
	Surr: Toluene-d8	*			51.3	50.00		102.7	80	120	06/19/2024

Batch 224628 SampType: LCS

SampID: LCS-AM240618A-2

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		49.4	50.00	0	98.9	81.6	120	06/18/2024
Surr: 1,2-Dichloroethane-d4	*			49.0	50.00		98.0	80	120	06/18/2024
Surr: 4-Bromofluorobenzene	*			48.8	50.00		97.7	80	120	06/18/2024
Surr: D bromofluoromethane	*			49.7	50.00		99.5	80	120	06/18/2024
Surr: Toluene-d8	*			51.6	50.00		103.3	80	120	06/18/2024

Batch 224628 SampType: LCSD

SampID:	LCSD-AM240618A-2		
			 _

SampiD: LCSD-AM240618A-2 Da													
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	I %RPD	Analyzed			
Benzene		0.5		51.2	50.00	0	102.4	49.45	3.44	06/18/2024			
Surr: 1,2-Dichloroethane-d4	*			47.8	50.00		95.6			06/18/2024			
Surr: 4-Bromofluorobenzene	*			49.7	50.00		99.4			06/18/2024			
Surr: D bromofluoromethane	*			48.8	50.00		97.5			06/18/2024			
Surr: Toluene-d8	*			52.0	50.00		103.9			06/18/2024			

Batch 224628 SampType: MS

SamplD: 24061509-019AMS

21001000 010/000										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Benzene		5.0		411	500.0	0	82.2	74.1	118	06/19/2024
Surr: 1,2-Dichloroethane-d4	*			512	500.0		102.3	80	120	06/19/2024
Surr: 4-Bromofluorobenzene	*			480	500.0		96.0	80	120	06/19/2024
Surr: D bromofluoromethane	*			492	500.0		98.5	80	120	06/19/2024
Surr: Toluene-d8	*			510	500.0		102.1	80	120	06/19/2024



Quality Control Results

http://www.teklabinc.com/

Client: AECOM

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

Work Order: 24061493

Report Date: 19-Jun-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS													
Batch 224628 SampType:	MSD		Units µg/L				RPD Limit: 20						
SampID: 24061509-019AMSD										Date			
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref \	√al %RPD	Analyzed			
Benzene		5.0		420	500.0	0	84.0	410.8	2.17	06/19/2024			
Surr: 1,2-Dichloroethane-d4	*			506	500.0		101.2			06/19/2024			
Surr: 4-Bromofluorobenzene	*			488	500.0		97.6			06/19/2024			
Surr: D bromofluoromethane	*			498	500.0		99.6			06/19/2024			
Surr: Toluene-d8	*			500	500.0		99.9			06/19/2024			



Receiving Check List

http://www.teklabinc.com/

Client: AECOM

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

Work Order: 24061493 Report Date: 19-Jun-24

Carrier: Employee	Rece	Received By: NR											
On: 18-Jun-24 Correct Claut Amber Dilallo	C Rev (18-J	iewed by:)n: un-24]	Ellee Hopke	nd									
Pages to follow: Chain of custody 1	Extra pages include	d 0											
Shipping container/cooler in good condition?	Yes 🗸	No	Not Present	Temp °C	17 1								
Type of thermal preservation?	None			Dry Ice									
Chain of custody present?	Yes 🔽	No 🗌		Dry 100									
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 complia 0.1°C - 6.0°C, or when samples are received on ice the sam	ant with a temperature ne day as collected.	between											
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	Any No responses must be detailed below or on the COC.												

LAB (LOCATION)

Shell Oil Products US Chain Of Custody Record 7406/493 AECOM

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June 26, 2024

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



http://www.teklabinc.com/

RE: PWY SEE 2024 Water Effluent / 60721927-7.2.2

WorkOrder: 24061977

Dear Samuel Fisher:

TEKLAB, INC received 1 sample on 6/25/2024 09:18:00 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,

luni

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



Report Contents

http://www.teklabinc.com/

Client: AECOM

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

Work Order: 24061977 Report Date: 26-Jun-24

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Quality Control Results	8
Receiving Check List	10
Chain of Custody	Appended



Definitions

http://www.teklabinc.com/

Client: AECOM

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

Work Order: 24061977

Report Date: 26-Jun-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 I 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)

o, Inc.

Definitions

http://www.teklabinc.com/

Work Order: 24061977

Report Date: 26-Jun-24

Client: AECOM

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

- # Unknown hydrocarbon
- C RL shown is a Client Requested Quantitation Limit
- H Holding times exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
 - S Sp ke Recovery outside recovery limits
 - X Value exceeds Maximum Contaminant Level

Qualifiers

- B Analyte detected in associated Method Blank
- E Value above quantitation range
- I Associated internal standard was outside method criteria
- M Manual Integration used to determine area response
- R RPD outside accepted recovery limits
- T TIC(Tentatively identified compound)



Case Narrative

http://www.teklabinc.com/

Client: AECOM

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

Cooler Receipt Temp: 18.9 °C

Work Order: 24061977 Report Date: 26-Jun-24

		Locations		
Collinsville		Springfield		Kansas City
5445 Horseshoe Lake Road	Address	3920 Pintail Dr	Address	8421 Nieman Road
Collinsville, IL 62234-7425		Springfield, IL 62711-9415		Lenexa, KS 66214
(618) 344-1004	Phone	(217) 698-1004	Phone	(913) 541-1998
(618) 344-1005	Fax	(217) 698-1005	Fax	(913) 541-1998
jhriley@teklabinc.com	Email	KKlostermann@teklabinc.com	Email	jhriley@teklabinc.com
Collinsville Air		Chicago		
5445 Horseshoe Lake Road	Address	1319 Butterfield Rd.		
Collinsville, IL 62234-7425		Downers Grove, IL 60515		
(618) 344-1004	Phone	(630) 324-6855		
(618) 344-1005	Fax			
EHurley@teklabinc.com	Email	arenner@teklabinc.com		
	Collinsville 5445 Horseshoe Lake Road Collinsville, IL 62234-7425 (618) 344-1004 (618) 344-1005 jhriley@teklabinc.com Collinsville Air 5445 Horseshoe Lake Road Collinsville, IL 62234-7425 (618) 344-1004 (618) 344-1005 EHurley@teklabinc.com	Collinsville Address 5445 Horseshoe Lake Road Address Collinsville, IL 62234-7425 Phone (618) 344-1004 Phone (618) 344-1005 Fax jhriley@teklabinc.com Email Collinsville Air	CollinsvilleSpringfield5445 Horseshoe Lake RoadAddress3920 Pintail DrCollinsville, IL 62234-7425Springfield, IL 62711-9415(618) 344-1004Phone(217) 698-1004(618) 344-1005Fax(217) 698-1005jhriley@teklabinc.comEmailKKlostermann@teklabinc.comCollinsville AirChicago5445 Horseshoe Lake RoadAddress1319 Butterfield Rd.Collinsville, IL 62234-7425Downers Grove, IL 60515(618) 344-1004Phone(630) 324-6855(618) 344-1005FaxEmailEHurley@teklabinc.comEmailarenner@teklabinc.com	CollinsvilleSpringfield5445 Horseshoe Lake RoadAddress3920 Pintail DrAddressCollinsville, IL 62234-7425Springfield, IL 62711-9415Address(618) 344-1004Phone(217) 698-1004Phone(618) 344-1005Fax(217) 698-1005Faxjhriley@teklabinc.comEmailKKlostermann@teklabinc.comEmailCollinsville AirChicago5445 Horseshoe Lake RoadAddress5445 Horseshoe Lake RoadAddress1319 Butterfield Rd.Collinsville, IL 62234-7425Downers Grove, IL 60515(618) 344-1004Phone(630) 324-6855(618) 344-1005FaxEHurley@teklabinc.comEmail



Accreditations

http://www.teklabinc.com/

Client: AECOM

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

Work Order: 24061977 Report Date: 26-Jun-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	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	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

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

Lab ID: 24061977-001

Matrix: AQUEOUS

Work Order: 24061977

Report Date: 26-Jun-24

Client Sample ID: PWYSEE-WaterEff-062524

Collection Date: 06/25/2024 08:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed Batch							
SW-846 5030, 8260B, VOLATII	W-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS														
Benzene	NELAP	0.1	0.5		ND	µg/L	1	06/25/2024 11:15 224904							
Surr: 1,2-Dichloroethane-d4	*	0	80-120		112.2	%REC	1	06/25/2024 11:15 224904							
Surr: 4-Bromofluorobenzene	*	0	80-120		102.2	%REC	1	06/25/2024 11:15 224904							
Surr: Dibromofluoromethane	*	0	80-120		103.1	%REC	1	06/25/2024 11:15 224904							
Surr: Toluene-d8	*	0	80-120		102.0	%REC	1	06/25/2024 11:15 224904							



http://www.teklabinc.com/

Client: AECOM

Work Order: 24061977

Report Date: 26-Jun-24

RPD Limit: 20

Data

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

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS													
Batch 224904 SampType: SampID: MBLK-AK240625A-1	MBLK		Units µg/L							Date			
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed			
Benzene		0.5		ND						06/25/2024			
Surr: 1,2-Dichloroethane-d4	*			55.6	50.00		111.3	80	120	06/25/2024			
Surr: 4-Bromofluorobenzene	*			50.8	50.00		101.6	80	120	06/25/2024			
Surr: D bromofluoromethane	*			51.0	50.00		101.9	80	120	06/25/2024			
Surr: Toluene-d8	*			50.5	50.00		101.0	80	120	06/25/2024			

Units µg/L

Units µg/L

Batch 224904 SampType: LCS

SampID: LCS-AK240625A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Benzene		0.5		52.4	50.00	0	104.7	81.6	120	06/25/2024
Surr: 1,2-Dichloroethane-d4	*			55.0	50.00		110.0	80	120	06/25/2024
Surr: 4-Bromofluorobenzene	*			52.0	50.00		104.1	80	120	06/25/2024
Surr: D bromofluoromethane	*			51.0	50.00		102.0	80	120	06/25/2024
Surr: Toluene-d8	*			51.3	50.00		102.6	80	120	06/25/2024

Batch 224904 SampType: LCSD

SampID: LCSD-AK240625A-1	

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	I %RPD	Analyzed
Benzene		0.5		53.1	50.00	0	106.1	52.35	1.37	06/25/2024
Surr: 1,2-Dichloroethane-d4	*			55.1	50.00		110.2			06/25/2024
Surr: 4-Bromofluorobenzene	*			51.7	50.00		103.5			06/25/2024
Surr: D bromofluoromethane	*			50.9	50.00		101.8			06/25/2024
Surr: Toluene-d8	*			51.7	50.00		103.3			06/25/2024

Batch 224904 SampType: LCS Units µg/L

SampID: QCS-AK240625A-1

										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Andiyzeu
Benzene		0.5		52.4	50.00	0	104.7	65	135	06/25/2024
Surr: 1,2-Dichloroethane-d4	*			55.0	50.00		110.0	80	120	06/25/2024
Surr: 4-Bromofluorobenzene	*			52.0	50.00		104.1	80	120	06/25/2024
Surr: D bromofluoromethane	*			51.0	50.00		102.0	80	120	06/25/2024
Surr: Toluene-d8	*			51.3	50.00		102.6	80	120	06/25/2024



Quality Control Results

http://www.teklabinc.com/

Client: AECOM

Work Order: 24061977

Report Date: 26-Jun-24

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS																	
Batch 224904 SampType:	LCSD		Units µg/L			RPD Limit: 40											
SampID: QCSD-AK240625A-1										Date							
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed							
Benzene		0.5		53.1	50.00	0	106.1	52.35	1.37	06/25/2024							
Surr: 1,2-Dichloroethane-d4	*			55.1	50.00		110.2			06/25/2024							
Surr: 4-Bromofluorobenzene	*			51.7	50.00		103.5			06/25/2024							
Surr: D bromofluoromethane	*			50.9	50.00		101.8			06/25/2024							
Surr: Toluene-d8	*			51.7	50.00		103.3			06/25/2024							

Batch 224904 SampType: MS

SampID: 24061883-005BMS

A	Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
E	Benzene		5.0		691	500.0	214.0	95.4	74.1	118	06/25/2024
	Surr: 1,2-Dichloroethane-d4	*			565	500.0		113.0	80	120	06/25/2024
	Surr: 4-Bromofluorobenzene	*			506	500.0		101.2	80	120	06/25/2024
	Surr: Toluene-d8	*			509	500.0		101.7	80	120	06/25/2024

Units µg/L

RPD Limit: 20 Batch 224904 SampType: MSD Units µg/L SampID: 24061883-005BMSD Date Analyzed SPK Ref Val %REC RPD Ref Val %RPD RL Spike Analyses Cert Qual Result Benzene **5.0** 707 500.0 214.0 98.6 690.9 2.30 06/25/2024 Surr: 1,2-Dichloroethane-d4 * 561 500.0 112.2 06/25/2024 Surr: 4-Bromofluorobenzene * 510 500.0 101.9 06/25/2024 Surr: Toluene-d8 500.0 102.8 06/25/2024 514

Batch 224904 SampType: MS Units µg/L

SampID: 24061986-001FMS

SampID: 24061986-001FMS										Date		
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed		
Benzene		5.0		492	500.0	0	98.5	37	151	06/25/2024		
Surr: 1,2-Dichloroethane-d4	*			547	500.0		109.4	80	120	06/25/2024		
Surr: 4-Bromofluorobenzene	*			512	500.0		102.3	80	120	06/25/2024		
Surr: D bromofluoromethane	*			507	500.0		101.4	80	120	06/25/2024		
Surr: Toluene-d8	*			518	500.0		103.5	80	120	06/25/2024		



Receiving Check List

http://www.teklabinc.com/

Client: AECOM

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

Work Order: 24061977 Report Date: 26-Jun-24

Carrier: Employee	Recei	Received By: NR										
Completed by: On: 25-Jun-24 Othor Ollou Amber Dilallo	C Rev. O 25-Ju	iewed by: on: un-24 F	Elled Hopkens									
Pages to follow: Chain of custody 1	Extra pages included	0										
Shipping container/cooler in good condition?	Yes 🗸	No	Not Present	Temp °C	18.9							
Type of thermal preservation?	None			Dry Ice								
Chain of custody present?	Yes 🗸	No 🗌		Dry loc								
Chain of custody signed when relinguished 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 r	nust be detailed bel	ow or on the	coc.									

Shell Oil Products US Chain Of Custody Record 2466/977 AECOM

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LAB (LOCATION)

QHS M6/25