

ANALYTICAL RESULTS SUMMARY

SEMI-VOLATILE ORGANICS

PROJECT NAME : CTO WE13

TETRA TECH NUS, INC.

661 Andersen Drive

Suite 200

Pittsburgh, PA - 15220-2745

Phone No: 412-921-7090

ORDER ID : P4773

ATTENTION : Ernie Wu



Laboratory Certification ID # 20012



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Cover Page

Order ID : P4773

Project ID : CTO WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

P4773-01
P4773-02
P4773-03
P4773-04

Client Sample Number

RW7-SP100-20241107
RW7-SP201-20241107
RW7-SP302-20241107
RW7-SP303-20241107

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 11/20/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: CTO WE13

Project Manager : Ernie Wu

Chemtech Project # P4773

Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:

4 Water samples were received on 11/07/2024.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1. This data package contains results for SVOC-SIMGroup1.

C. Analytical Techniques:

The samples were analyzed on instrument BNA_N using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGAThe analysis of SVOC-SIMGroup1 was based on method 8270-Modified and extraction was done based on method 3510.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate for {PB164785BSD} with File ID: BN035072.D met requirements for all samples except for 1,4-Dioxane[68%] failing marginally low therefore no corrective action taken.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration File ID BN035082.D met the requirements except for 2,4,6-Tribromophenol is not associated with client parameter list therefore no corrective action taken.

The Tuning criteria met requirements.

Sample RW7-SP100-20241107 was diluted due to high concentration.

E. Additional Comments:

The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is).”

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

The not QT review data is reported in the Miscellaneous.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following “ Results Qualifiers” are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. “10 U”. This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as “12 B”.
E	Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a “P”.
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4773

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 11/20/2024

LAB CHRONICLE

OrderID:	P4773	OrderDate:	11/7/2024 3:45:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	L31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4773-01	RW7-SP100-20241107	Water			11/07/24			11/07/24
			SVOC-SIMGroup1	8270-Modified		11/08/24	11/13/24	
P4773-01DL	RW7-SP100-20241107DL	Water			11/07/24			11/07/24
			SVOC-SIMGroup1	8270-Modified		11/08/24	11/14/24	
P4773-02	RW7-SP201-20241107	Water			11/07/24			11/07/24
			SVOC-SIMGroup1	8270-Modified		11/08/24	11/13/24	
P4773-03	RW7-SP302-20241107	Water			11/07/24			11/07/24
			SVOC-SIMGroup1	8270-Modified		11/08/24	11/14/24	
P4773-04	RW7-SP303-20241107	Water			11/07/24			11/07/24
			SVOC-SIMGroup1	8270-Modified		11/08/24	11/14/24	

Hit Summary Sheet SW-846

SDG No.: P4773
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	RW7-SP100-20241107							
P4773-01	RW7-SP100-20241107	WATER	1,4-Dioxane	5.800	EQ	0.07	0.2	0.2 ug/L
			Total Svoc :	5.80				
			Total Concentration:	5.80				
Client ID :	RW7-SP100-20241107DL							
P4773-01DL	RW7-SP100-20241107DI	WATER	1,4-Dioxane	5.400	DQ	0.14	0.4	0.4 ug/L
			Total Svoc :	5.40				
			Total Concentration:	5.40				
Client ID :	RW7-SP302-20241107							
P4773-03	RW7-SP302-20241107	WATER	1,4-Dioxane	0.080	JQ	0.07	0.2	0.2 ug/L
			Total Svoc :	0.08				
			Total Concentration:	0.08				
Client ID :	RW7-SP303-20241107							
P4773-04	RW7-SP303-20241107	WATER	1,4-Dioxane	0.070	JQ	0.07	0.2	0.2 ug/L
			Total Svoc :	0.07				
			Total Concentration:	0.07				



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/07/24
Project:	CTO WE13	Date Received:	11/07/24
Client Sample ID:	RW7-SP100-20241107	SDG No.:	P4773
Lab Sample ID:	P4773-01	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035076.D	1	11/08/24 11:30	11/13/24 21:01	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	5.80	EQ	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.39		30 - 150		97%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.42		30 - 150		105%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.40		55 - 111		101%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		95%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		58 - 132		115%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2300	7.553				
1146-65-2	Naphthalene-d8	5820	10.319				
15067-26-2	Acenaphthene-d10	4550	14.19				
1517-22-2	Phenanthrene-d10	12100	16.932				
1719-03-5	Chrysene-d12	13400	21.133				
1520-96-3	Perylene-d12	14900	23.3				

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/07/24
Project:	CTO WE13	Date Received:	11/07/24
Client Sample ID:	RW7-SP100-20241107DL	SDG No.:	P4773
Lab Sample ID:	P4773-01DL	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035093.D	2	11/08/24 11:30	11/14/24 18:23	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	5.40	DQ	0.14	0.40	0.40	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.36		30 - 150		90%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.37		30 - 150		92%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		55 - 111		90%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.36		53 - 106		91%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.44		58 - 132		110%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2840	7.553				
1146-65-2	Naphthalene-d8	7380	10.319				
15067-26-2	Acenaphthene-d10	5670	14.19				
1517-22-2	Phenanthrene-d10	13800	16.932				
1719-03-5	Chrysene-d12	13500	21.133				
1520-96-3	Perylene-d12	13300	23.303				

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J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

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() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/07/24
Project:	CTO WE13	Date Received:	11/07/24
Client Sample ID:	RW7-SP201-20241107	SDG No.:	P4773
Lab Sample ID:	P4773-02	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035077.D	1	11/08/24 11:30	11/13/24 21:37	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20	UQ	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.39		30 - 150		98%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 - 150		102%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.41		55 - 111		103%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.39		53 - 106		97%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		58 - 132		115%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2280	7.553				
1146-65-2	Naphthalene-d8	5710	10.319				
15067-26-2	Acenaphthene-d10	4450	14.186				
1517-22-2	Phenanthrene-d10	11800	16.939				
1719-03-5	Chrysene-d12	12600	21.131				
1520-96-3	Perylene-d12	13300	23.298				

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() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/07/24
Project:	CTO WE13	Date Received:	11/07/24
Client Sample ID:	RW7-SP302-20241107	SDG No.:	P4773
Lab Sample ID:	P4773-03	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035092.D	1	11/08/24 11:30	11/14/24 17:47	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.080	JQ	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.42		30 - 150		106%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.43		30 - 150		106%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		55 - 111		105%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.42		53 - 106		105%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.51		58 - 132		127%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2450	7.553				
1146-65-2	Naphthalene-d8	6340	10.319				
15067-26-2	Acenaphthene-d10	4840	14.19				
1517-22-2	Phenanthrene-d10	11900	16.932				
1719-03-5	Chrysene-d12	11700	21.134				
1520-96-3	Perylene-d12	11200	23.303				

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A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/07/24
Project:	CTO WE13	Date Received:	11/07/24
Client Sample ID:	RW7-SP303-20241107	SDG No.:	P4773
Lab Sample ID:	P4773-04	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035091.D	1	11/08/24 11:30	11/14/24 17:11	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.070	JQ	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.36		30 - 150		90%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		97%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		55 - 111		91%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		53 - 106		88%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		58 - 132		114%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2620	7.553				
1146-65-2	Naphthalene-d8	6820	10.319				
15067-26-2	Acenaphthene-d10	5370	14.19				
1517-22-2	Phenanthrene-d10	12800	16.932				
1719-03-5	Chrysene-d12	12800	21.133				
1520-96-3	Perylene-d12	13000	23.3				

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() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



QC SUMMARY

Surrogate Summary

SW-846

SDG No.: P4773

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
P4773-01	RW7-SP100-20241107	2-Methylnaphthalene-d10	0.4	0.39	97		30	150
		Fluoranthene-d10	0.4	0.42	105		30	150
		Nitrobenzene-d5	0.4	0.40	101		55	111
		2-Fluorobiphenyl	0.4	0.38	95		53	106
		Terphenyl-d14	0.4	0.46	115		58	132
P4773-01DL	RW7-SP100-20241107DL	2-Methylnaphthalene-d10	0.4	0.36	90		30	150
		Fluoranthene-d10	0.4	0.37	92		30	150
		Nitrobenzene-d5	0.4	0.36	90		55	111
		2-Fluorobiphenyl	0.4	0.36	91		53	106
		Terphenyl-d14	0.4	0.44	110		58	132
P4773-02	RW7-SP201-20241107	2-Methylnaphthalene-d10	0.4	0.39	98		30	150
		Fluoranthene-d10	0.4	0.41	102		30	150
		Nitrobenzene-d5	0.4	0.41	103		55	111
		2-Fluorobiphenyl	0.4	0.39	97		53	106
		Terphenyl-d14	0.4	0.46	115		58	132
P4773-03	RW7-SP302-20241107	2-Methylnaphthalene-d10	0.4	0.42	106		30	150
		Fluoranthene-d10	0.4	0.43	106		30	150
		Nitrobenzene-d5	0.4	0.42	105		55	111
		2-Fluorobiphenyl	0.4	0.42	105		53	106
		Terphenyl-d14	0.4	0.51	127		58	132
P4773-04	RW7-SP303-20241107	2-Methylnaphthalene-d10	0.4	0.36	90		30	150
		Fluoranthene-d10	0.4	0.39	97		30	150
		Nitrobenzene-d5	0.4	0.36	91		55	111
		2-Fluorobiphenyl	0.4	0.35	88		53	106
		Terphenyl-d14	0.4	0.46	114		58	132
PB164785BL	PB164785BL	2-Methylnaphthalene-d10	0.4	0.35	87		30	150
		Fluoranthene-d10	0.4	0.39	97		30	150
		Nitrobenzene-d5	0.4	0.38	95		55	111
		2-Fluorobiphenyl	0.4	0.37	91		53	106
		Terphenyl-d14	0.4	0.42	104		58	132
PB164785BS	PB164785BS	2-Methylnaphthalene-d10	0.4	0.44	110		30	150
		Fluoranthene-d10	0.4	0.36	90		30	150
		Nitrobenzene-d5	0.4	0.36	90		55	111
		2-Fluorobiphenyl	0.4	0.37	93		53	106
		Terphenyl-d14	0.4	0.41	101		58	132
PB164785BSD	PB164785BSD	2-Methylnaphthalene-d10	0.4	0.37	93		30	150
		Fluoranthene-d10	0.4	0.29	72		30	150
		Nitrobenzene-d5	0.4	0.30	75		55	111
		2-Fluorobiphenyl	0.4	0.30	75		53	106
		Terphenyl-d14	0.4	0.32	79		58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4773

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035071.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB164785BS	1,4-Dioxane	0.4	0.33	ug/L	83				70	130	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4773

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035072.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB164785BSD	1,4-Dioxane	0.4	0.27	ug/L	68	20	*		70	130	20

A
B
C
D
E
F
G

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB164785BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P4773

SAS No.: P4773 SDG NO.: P4773

Lab File ID: BN035070.D

Lab Sample ID: PB164785BL

Instrument ID: BNA_N

Date Extracted: 11/08/2024

Matrix: (soil/water) Water

Date Analyzed: 11/13/2024

Level: (low/med) LOW

Time Analyzed: 17:27

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB164785BS	PB164785BS	BN035071.D	11/13/2024
PB164785BSD	PB164785BSD	BN035072.D	11/13/2024
RW7-SP302-20241107	P4773-03	BN035092.D	11/14/2024
RW7-SP303-20241107	P4773-04	BN035091.D	11/14/2024
RW7-SP100-20241107	P4773-01	BN035076.D	11/13/2024
RW7-SP201-20241107	P4773-02	BN035077.D	11/13/2024

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4773 SDG NO.: P4773

Lab File ID: BN035061.D

DFTPP Injection Date: 11/13/2024

Instrument ID: BNA_N

DFTPP Injection Time: 12:01

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	19.6
68	Less than 2.0% of mass 69	0.4 (1.4) 1
69	Mass 69 relative abundance	29.1
70	Less than 2.0% of mass 69	0.2 (0.7) 1
127	10.0 - 80.0% of mass 198	35.9
197	Less than 2.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	27.6
365	Greater than 1% of mass 198	4.4
441	Present, but less than mass 443	9.3
442	Greater than 50% of mass 198	59.1
443	15.0 - 24.0% of mass 442	11.2 (19) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC0.1	SSTDICC0.1	BN035062.D	11/13/2024	12:40
SSTDICC0.2	SSTDICC0.2	BN035063.D	11/13/2024	13:16
SSTDICCC0.4	SSTDICCC0.4	BN035064.D	11/13/2024	13:52
SSTDICC0.8	SSTDICC0.8	BN035065.D	11/13/2024	14:28
SSTDICC1.6	SSTDICC1.6	BN035066.D	11/13/2024	15:04
SSTDICC3.2	SSTDICC3.2	BN035067.D	11/13/2024	15:39
SSTDICC5.0	SSTDICC5.0	BN035068.D	11/13/2024	16:15
PB164785BL	PB164785BL	BN035070.D	11/13/2024	17:27
PB164785BS	PB164785BS	BN035071.D	11/13/2024	18:03
PB164785BSD	PB164785BSD	BN035072.D	11/13/2024	18:38
RW7-SP100-20241107	P4773-01	BN035076.D	11/13/2024	21:01
RW7-SP201-20241107	P4773-02	BN035077.D	11/13/2024	21:37
SSTDCCC0.4EC	SSTDCCC0.4	BN035080.D	11/13/2024	23:24

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4773 SDG NO.: P4773

Lab File ID: BN035081.D

DFTPP Injection Date: 11/14/2024

Instrument ID: BNA_N

DFTPP Injection Time: 08:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	19.9
68	Less than 2.0% of mass 69	0.6 (1.9) 1
69	Mass 69 relative abundance	30.1
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	37.5
197	Less than 2.0% of mass 198	0.4
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	29.4
365	Greater than 1% of mass 198	4.8
441	Present, but less than mass 443	9.9
442	Greater than 50% of mass 198	63.6
443	15.0 - 24.0% of mass 442	10.8 (16.9) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC0.4	SSTDCCC0.4	BN035082.D	11/14/2024	10:12
RW7-SP303-20241107	P4773-04	BN035091.D	11/14/2024	17:11
RW7-SP302-20241107	P4773-03	BN035092.D	11/14/2024	17:47
RW7-SP100-20241107DL	P4773-01DL	BN035093.D	11/14/2024	18:23
SSTDCCC0.4EC	SSTDCCC0.4	BN035095.D	11/14/2024	19:35

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4773 SAS No.: P4773 SDG NO.: P4773

EPA Sample No.: SSTDICCC0.4 Date Analyzed: 11/13/2024

Lab File ID: BN035064.D Time Analyzed: 13:52

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	2804	7.553	6865	10.32	5401	14.19
UPPER LIMIT	5608	8.053	13730	10.819	10802	14.686
LOWER LIMIT	1402	7.053	3432.5	9.819	2700.5	13.686
EPA SAMPLE NO.						
01 RW7-SP100-20241107	2300	7.55	5817	10.32	4551	14.19
02 RW7-SP201-20241107	2283	7.55	5712	10.32	4446	14.19
03 PB164785BL	2165	7.55	5024	10.32	3542	14.19
04 PB164785BS	2135	7.55	5031	10.32	3550	14.19
05 PB164785BSD	2529	7.55	5952	10.32	4350	14.19

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4773 SAS No.: P4773 SDG NO.: P4773

EPA Sample No.: SSTDICCC0.4 Date Analyzed: 11/13/2024

Lab File ID: BN035064.D Time Analyzed: 13:52

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	13499	16.939	14946	21.14	17077	23.304
UPPER LIMIT	26998	17.439	29892	21.64	34154	23.804
LOWER LIMIT	6749.5	16.439	7473	20.64	8538.5	22.804
EPA SAMPLE NO.						
01 RW7-SP100-20241107	12064	16.93	13393	21.13	14946	23.30
02 RW7-SP201-20241107	11812	16.94	12589	21.13	13332	23.30
03 PB164785BL	9470	16.93	10363	21.13	11874	23.31
04 PB164785BS	9574	16.94	9856	21.14	10124	23.30
05 PB164785BSD	12047	16.94	12506	21.13	13065	23.30

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4773 SAS No.: P4773 SDG NO.: P4773

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/14/2024

Lab File ID: BN035082.D Time Analyzed: 10:12

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	2551	7.553	6362	10.32	5037	14.19
UPPER LIMIT	5102	8.053	12724	10.819	10074	14.69
LOWER LIMIT	1275.5	7.053	3181	9.819	2518.5	13.69
EPA SAMPLE NO.						
01 RW7-SP100-20241107DL	2839	7.55	7379	10.32	5672	14.19
02 RW7-SP302-20241107	2453	7.55	6339	10.32	4841	14.19
03 RW7-SP303-20241107	2624	7.55	6821	10.32	5370	14.19

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4773 SAS No.: P4773 SDG NO.: P4773

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/14/2024

Lab File ID: BN035082.D Time Analyzed: 10:12

Instrument ID: BNA_N GC Column: ZB-GR ID: 0.25 (mm)

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	12802	16.933	13485	21.134	14730	23.3
UPPER LIMIT	25604	17.433	26970	21.634	29460	23.8
LOWER LIMIT	6401	16.433	6742.5	20.634	7365	22.8
EPA SAMPLE NO.						
01 RW7-SP100-20241107DL	13767	16.93	13450	21.13	13263	23.30
02 RW7-SP302-20241107	11862	16.93	11655	21.13	11245	23.30
03 RW7-SP303-20241107	12809	16.93	12812	21.13	13035	23.30

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.



QC SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	PB164785BL		SDG No.:	P4773	
Lab Sample ID:	PB164785BL		Matrix:	Water	
Analytical Method:	SW8270SIM		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035070.D	1	11/08/24 11:30	11/13/24 17:27	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.35		30 - 150		87%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		97%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.38		55 - 111		95%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.37		53 - 106		91%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.42		58 - 132		104%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2170	7.553				
1146-65-2	Naphthalene-d8	5020	10.319				
15067-26-2	Acenaphthene-d10	3540	14.19				
1517-22-2	Phenanthrene-d10	9470	16.932				
1719-03-5	Chrysene-d12	10400	21.133				
1520-96-3	Perylene-d12	11900	23.306				

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	PB164785BS		SDG No.:	P4773	
Lab Sample ID:	PB164785BS		Matrix:	Water	
Analytical Method:	SW8270SIM		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035071.D	1	11/08/24 11:30	11/13/24 18:03	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.33		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.44		30 - 150		110%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.36		30 - 150		90%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		55 - 111		90%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.37		53 - 106		93%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.41		58 - 132		101%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2140	7.553				
1146-65-2	Naphthalene-d8	5030	10.319				
15067-26-2	Acenaphthene-d10	3550	14.186				
1517-22-2	Phenanthrene-d10	9570	16.939				
1719-03-5	Chrysene-d12	9860	21.14				
1520-96-3	Perylene-d12	10100	23.304				

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	PB164785BSD		SDG No.:	P4773	
Lab Sample ID:	PB164785BSD		Matrix:	Water	
Analytical Method:	SW8270SIM		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035072.D	1	11/08/24 11:30	11/13/24 18:38	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.27		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.37		30 - 150		93%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.29		30 - 150		72%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		75%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.30		53 - 106		75%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.32		58 - 132		79%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2530	7.553				
1146-65-2	Naphthalene-d8	5950	10.319				
15067-26-2	Acenaphthene-d10	4350	14.186				
1517-22-2	Phenanthrene-d10	12000	16.939				
1719-03-5	Chrysene-d12	12500	21.131				
1520-96-3	Perylene-d12	13100	23.301				

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



CALIBRATION SUMMARY

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
 Method File : 8270-SIM-BN111324.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Wed Nov 13 17:18:14 2024
 Response Via : Initial Calibration

Calibration Files

0.1 =BN035062.D 0.2 =BN035063.D 0.4 =BN035064.D 0.8 =BN035065.D 1.6 =BN035066.D 3.2 =BN035067.D 5.0 =BN035068.D

	Compound	0.1	0.2	0.4	0.8	1.6	3.2	5.0	Avg	%RSD
1) I	1,4-Dichlorobenzen...	-----ISTD-----								
2)	1,4-Dioxane	0.410	0.382	0.335	0.371	0.367	0.348	0.329	0.363	7.76
3)	n-Nitrosodimet...	0.366	0.328	0.326	0.360	0.347	0.321	0.322	0.339	5.51
4) S	2-Fluorophenol	1.073	1.039	0.949	1.086	1.034	0.966	0.961	1.015	5.54
5) S	Phenol-d6	1.264	1.279	1.159	1.355	1.318	1.255	1.282	1.273	4.79
6)	bis(2-Chloroet...	0.972	0.949	0.893	1.027	0.995	0.925	0.929	0.956	4.77
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.358	0.338	0.320	0.368	0.356	0.344	0.353	0.348	4.53
9)	Naphthalene	1.088	1.009	0.977	1.116	1.085	1.010	1.027	1.044	4.96
10)	Hexachlorobuta...	0.324	0.305	0.293	0.326	0.315	0.289	0.291	0.306	5.12
11) SURR2	Methylnaphth...	0.694	0.683	0.664	0.762	0.753	0.703	0.731	0.713	5.13
12)	2-Methylnaphth...	0.742	0.748	0.711	0.823	0.815	0.765	0.789	0.770	5.29
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.281	0.262	0.240	0.300	0.299	0.308	0.331	0.289	10.57
15) S	2-Fluorobiphenyl	1.701	1.576	1.460	1.735	1.687	1.599	1.614	1.624	5.73
16)	Acenaphthylene	1.715	1.616	1.488	1.822	1.775	1.756	1.795	1.709	6.93
17)	Acenaphthene	1.129	1.079	1.000	1.202	1.157	1.130	1.146	1.120	5.76
18)	Fluorene	1.704	1.591	1.463	1.755	1.708	1.656	1.659	1.648	5.86
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.068	0.067	0.073	0.087	0.088	0.095	0.105	0.083	17.50
21)	4-Bromophenyl-...	0.256	0.240	0.246	0.272	0.267	0.252	0.252	0.255	4.41
22)	Hexachlorobenzene	0.275	0.259	0.253	0.277	0.273	0.258	0.258	0.264	3.79
23)	Atrazine	0.227	0.227	0.217	0.244	0.238	0.223	0.225	0.229	3.95
24)	Pentachlorophenol	0.106	0.101	0.104	0.130	0.130	0.141	0.154	0.124	16.69
25)	Phenanthrene	1.069	1.013	1.004	1.115	1.096	1.034	1.036	1.053	3.97
26)	Anthracene	0.917	0.904	0.920	1.024	1.016	0.986	1.001	0.967	5.32
27) SURR	Fluoranthene-d10	1.196	1.178	1.169	1.288	1.284	1.222	1.240	1.225	3.91
28)	Fluoranthene	1.396	1.376	1.386	1.543	1.527	1.453	1.453	1.448	4.63
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.339	1.290	1.288	1.424	1.367	1.301	1.317	1.332	3.70
31) S	Terphenyl-d14	0.838	0.819	0.810	0.894	0.867	0.817	0.831	0.839	3.63
32)	Benzo(a)anthra...	1.421	1.368	1.328	1.464	1.416	1.355	1.396	1.393	3.31
33)	Chrysene	1.409	1.366	1.332	1.479	1.420	1.331	1.321	1.380	4.27
34)	Bis(2-ethylhex...	0.809	0.753	0.647	0.768	0.702	0.693	0.742	0.731	7.38
35) I	Perylene-d12	-----ISTD-----								

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\

Method File : 8270-SIM-BN111324.M

36)	Indeno(1,2,3-c...	1.609	1.515	1.522	1.730	1.659	1.550	1.585	1.596	4.88
37)	Benzo(b)fluora...	1.326	1.272	1.279	1.439	1.418	1.327	1.359	1.346	4.77
38)	Benzo(k)fluora...	1.342	1.288	1.287	1.418	1.410	1.323	1.358	1.347	3.94
39) C	Benzo(a)pyrene	1.172	1.134	1.123	1.247	1.240	1.167	1.207	1.184	4.12
40)	Dibenzo(a,h)an...	1.248	1.195	1.210	1.375	1.322	1.235	1.265	1.264	5.06
41)	Benzo(g,h,i)pe...	1.380	1.288	1.286	1.452	1.386	1.294	1.328	1.345	4.71

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4773 SAS No.: P4773 SDG No.: P4773

Instrument ID: BNA_N Calibration Date/Time: 11/13/2024 23:24

Lab File ID: BN035080.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 12:40 16:15

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.713	0.667		-6.5	50.0
Fluoranthene-d10	1.225	1.141		-6.9	50.0
2-Fluorophenol	1.015	0.932		-8.2	50.0
Phenol-d6	1.273	1.205		-5.3	50.0
Nitrobenzene-d5	0.348	0.315		-9.5	50.0
2-Fluorobiphenyl	1.624	1.467		-9.7	50.0
2,4,6-Tribromophenol	0.289	0.245		-15.2	50.0
Terphenyl-d14	0.839	0.813		-3.1	50.0
1,4-Dioxane	0.363	0.342		-5.8	50.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4773 SAS No.: P4773 SDG No.: P4773

Instrument ID: BNA_N Calibration Date/Time: 11/14/2024 10:12

Lab File ID: BN035082.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 12:40 16:15

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.713	0.656		-8.0	20.0
Fluoranthene-d10	1.225	1.132		-7.6	20.0
2-Fluorophenol	1.015	0.916		-9.8	20.0
Phenol-d6	1.273	1.184		-7.0	20.0
Nitrobenzene-d5	0.348	0.308		-11.5	20.0
2-Fluorobiphenyl	1.624	1.452		-10.6	20.0
2,4,6-Tribromophenol	0.289	0.230		-20.4	20.0
Terphenyl-d14	0.839	0.812		-3.2	20.0
1,4-Dioxane	0.363	0.354		-2.5	20.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4773 SAS No.: P4773 SDG No.: P4773

Instrument ID: BNA_N Calibration Date/Time: 11/14/2024 19:35

Lab File ID: BN035095.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 12:40 16:15

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.713	0.673		-5.6	50.0
Fluoranthene-d10	1.225	1.085		-11.4	50.0
2-Fluorophenol	1.015	0.911		-10.2	50.0
Phenol-d6	1.273	1.198		-5.9	50.0
Nitrobenzene-d5	0.348	0.309		-11.2	50.0
2-Fluorobiphenyl	1.624	1.474		-9.2	50.0
2,4,6-Tribromophenol	0.289	0.227		-21.5	50.0
Terphenyl-d14	0.839	0.833		-0.7	50.0
1,4-Dioxane	0.363	0.321		-11.6	50.0

All other compounds must meet a minimum RRF of 0.010.



SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092

(908) 789-8900 Fax: (908) 78-8922

www.chemtech.net

Chemtech Project Number:

PJ772

CLIENT INFORMATION																			
COMPANY: Tetra Tech ADDRESS: 4433 Corporation Ln, Suite 300 CITY: Virginia Beach STATE: VA ZIP: 23462 ATTENTION: Ernie Wu PHONE: 757-468-4901 FAX: 757-461-4148																			
PROJECT INFORMATION																			
PROJECT NAME: NWIRP Bethpage PROJECT #: 112G08005-WE13 LOCATION: RW7B PROJECT MANAGER: Ernie Wu E-MAIL: ernie.wu@tetratech.com PHONE: 757-466-4901 FAX: 757-461-4148																			
BILLING INFORMATION																			
BILL TO: PO# ADDRESS: CITY: STATE: ZIP: ATTENTION: PHONE:																			
DATA TURNOURND INFORMATION																			
FAX: _____ 10 DAYS*	HARD COPY: _____ 10 DAYS*	EDD _____ 10 DAYS*	*TO BE APPROVED BY CHEMTECH STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS																
☐ RESEULTS ONLY ☐ RESULTS + QC ☐ New Jersey REDUCED ☐ New Jersey CLP ☐ EDD Format _____				☐ USEPA CLP ☐ New York State ASP "B" ☐ New York State ASP "A" ☐ Other_____															
CHEMTech SAMPLE ID	PROJECt SAMPLe IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles	A	B	PRESERVATIVES									COMMENTS
			Comp	GRAB	DATE	TIME				1	2	3	4	5	6	7	8	9	<-- Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other
1.	RW7-SP100-20241107	GW	X		11/7/24	10:15	1	X											
2.	RW7-SP201-20241107	GW	X		11/7/24	10:17	1	X											
3.	RW7-SP302-20241107	GW	X		11/7/24	10:27	1	X											
4.	RW7-SP303-20241107	GW	X		11/7/24	10:29	1	X											
5.																			
6.																			
7.																			
8.																			
9.																			
10.																			
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSESSION INCLUDING COURIER DELIVERY																			
RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY	Conditions of bottles or coolers at receipt: ☐ Compliant ☒ Non Compliant ☐ Cooler Temp. _____ ☐ Ice in Cooler? _____																
RELINQUISHED BY	DATE/TIME	RECEIVED BY	Comments:																
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY	Page ____ of ____ SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight CHEMTech: ☐ Picked Up ☐ Overnight Shipment Complete YES NO																
WHITE - CHEMTECH COPYFOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY																			

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488