284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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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 : P4959

ATTENTION : Ernie Wu

Laboratory Certification ID # 20012

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Cover Page

Order ID : P4959

Project ID : CTO WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number	Client Sample Number
P4959-01	RW5-SP100-20241121
P4959-02	RW5-SP201-20241121
P4959-03	RW5-SP303-20241121

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: 12/3/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: CTO WE13
Project Manager : Ernie Wu
Chemtech Project # P4959
Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:
3 Water samples were received on 11/22/2024.

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 except for
RW5-SP100-20241121 [2-Fluorobiphenyl - 110%, Terphenyl-d14 - 165%],
RW5-SP201-20241121 [2-Fluorobiphenyl - 22%, Terphenyl-d14 - 229%],
RW5-SP303-20241121 [Terphenyl-d14 - 182%],
PB165198BS [2-Fluorobiphenyl - 119% and Nitrobenzene-d5 - 117%], failing surrogates were not associated with client parameter list, therefore no corrective action taken

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 met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.

The % RSD is greater than 20% in the Initial Calibration (8270Sim-BN112524.M) for 2-Fluorobiphenyl and Terphenyl-d14 but not associated with client parameter list therefore this calibration is used for analysis.

The Continuous Calibration File ID BN035293.D met the requirements except for 1,4-Dioxane is failing high but no positive hit in associate sample therefore no corrective

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action taken while 2-Fluorobiphenyl,2-Fluorophenol and Nitrobenzene-d5 which is not our target compound, therefore no corrective action taken.

The Tuning criteria met requirements.

Samples RW5-SP100-20241121 was diluted at 5X. This sample initially analyzed straight in sequence BN112524 but CCAL is failing therefore based on that result lab analyzed this sample directly with 5X while Straight analysis given as screening data in Miscellaneous section.

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_____

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908-789-8900 Fax: 908-789-8922

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 is 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

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4959

	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:** 12/03/2024

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LAB CHRONICLE

OrderID:	P4959	**OrderDate:**	11/22/2024 10:42:00 AM
Client:	Tetra Tech NUS, Inc.	**Project:**	CTO WE13
Contact:	Ernie Wu	**Location:**	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4959-01	**RW5-SP100-20241121**	**Water**			**11/21/24**			**11/22/24**
			SVOC-SIMGroup1	8270-Modified		11/22/24	11/28/24	
P4959-02	**RW5-SP201-20241121**	**Water**			**11/21/24**			**11/22/24**
			SVOC-SIMGroup1	8270-Modified		11/22/24	11/26/24	
P4959-03	**RW5-SP303-20241121**	**Water**			**11/21/24**			**11/22/24**
			SVOC-SIMGroup1	8270-Modified		11/22/24	11/26/24	

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Hit Summary Sheet
SW-846

SDG No.: P4959

Client: Tetra Tech NUS, Inc.

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	**RW5-SP100-20241121**								
P4959-01	RW5-SP100-20241121	WATER	1,4-Dioxane	10.400		0.34	1	1	ug/L
			Total Svoc :		**10.40**				
			Total Concentration:		**10.40**				

SAMPLE DATA

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/21/24
Project:	CTO WE13	Date Received:	11/22/24
Client Sample ID:	RW5-SP100-20241121	SDG No.:	P4959
Lab Sample ID:	P4959-01	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	990 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
BN035374.D	5	11/22/24 12:25	11/28/24 08:26	PB165198

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	10.4		0.34	1.00	1.00	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.49		30 - 150		123%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.58		30 - 150		145%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.43		55 - 111		106%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.44	*	53 - 106		110%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.66	*	58 - 132		165%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1750	7.308				
1146-65-2	Naphthalene-d8	4240	10.052				
15067-26-2	Acenaphthene-d10	3220	13.967				
1517-22-2	Phenanthrene-d10	8380	16.736				
1719-03-5	Chrysene-d12	7890	20.974				
1520-96-3	Perylene-d12	7950	23.067				

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/21/24
Project:	CTO WE13	Date Received:	11/22/24
Client Sample ID:	RW5-SP201-20241121	SDG No.:	P4959
Lab Sample ID:	P4959-02	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
BN035298.D	1	11/22/24 12:25	11/26/24 02:02	PB165198

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	0.55		30 - 150		136%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.53		30 - 150		132%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.25		55 - 111		61%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.086	*	53 - 106		22%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.92	*	58 - 132		229%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3350	7.315				
1146-65-2	Naphthalene-d8	8970	10.062				
15067-26-2	Acenaphthene-d10	7830	13.965				
1517-22-2	Phenanthrene-d10	13000	16.734				
1719-03-5	Chrysene-d12	823	21.008				
1520-96-3	Perylene-d12	7690	23.075				

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/21/24
Project:	CTO WE13	Date Received:	11/22/24
Client Sample ID:	RW5-SP303-20241121	SDG No.:	P4959
Lab Sample ID:	P4959-03	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
BN035299.D	1	11/22/24 12:25	11/26/24 02:38	PB165198

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	0.45		30 - 150		113%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 - 150		102%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.23		55 - 111		57%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.24		53 - 106		60%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.73	*	58 - 132		182%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	4030	7.315				
1146-65-2	Naphthalene-d8	10600	10.063				
15067-26-2	Acenaphthene-d10	6680	13.966				
1517-22-2	Phenanthrene-d10	14000	16.734				
1719-03-5	Chrysene-d12	880	21.008				
1520-96-3	Perylene-d12	7740	23.078				

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

QC SUMMARY

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Surrogate Summary

SW-846

SDG No.: P4959

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
P4959-01	RW5-SP100-20241121	2-Methylnaphthalene-d10	0.4	0.49	123		30	150
		Fluoranthene-d10	0.4	0.58	145		30	150
		Nitrobenzene-d5	0.4	0.43	106		55	111
		2-Fluorobiphenyl	0.4	0.44	110	*	53	106
		Terphenyl-d14	0.4	0.66	165	*	58	132
P4959-02	RW5-SP201-20241121	2-Methylnaphthalene-d10	0.4	0.55	136		30	150
		Fluoranthene-d10	0.4	0.53	132		30	150
		Nitrobenzene-d5	0.4	0.25	61		55	111
		2-Fluorobiphenyl	0.4	0.086	22	*	53	106
		Terphenyl-d14	0.4	0.92	229	*	58	132
P4959-03	RW5-SP303-20241121	2-Methylnaphthalene-d10	0.4	0.45	113		30	150
		Fluoranthene-d10	0.4	0.41	102		30	150
		Nitrobenzene-d5	0.4	0.23	57		55	111
		2-Fluorobiphenyl	0.4	0.24	60		53	106
		Terphenyl-d14	0.4	0.73	182	*	58	132
PB165198BL	PB165198BL	2-Methylnaphthalene-d10	0.4	0.42	104		30	150
		Fluoranthene-d10	0.4	0.41	101		30	150
		Nitrobenzene-d5	0.4	0.37	93		55	111
		2-Fluorobiphenyl	0.4	0.39	98		53	106
		Terphenyl-d14	0.4	0.49	122		58	132
PB165198BS	PB165198BS	2-Methylnaphthalene-d10	0.4	0.58	145		30	150
		Fluoranthene-d10	0.4	0.46	115		30	150
		Nitrobenzene-d5	0.4	0.47	117	*	55	111
		2-Fluorobiphenyl	0.4	0.48	119	*	53	106
		Terphenyl-d14	0.4	0.52	130		58	132
PB165198BSD	PB165198BSD	2-Methylnaphthalene-d10	0.4	0.51	127		30	150
		Fluoranthene-d10	0.4	0.40	99		30	150
		Nitrobenzene-d5	0.4	0.41	103		55	111
		2-Fluorobiphenyl	0.4	0.42	104		53	106
		Terphenyl-d14	0.4	0.45	113		58	132

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4959

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified **DataFile:** BN035370.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB165198BS	1,4-Dioxane	0.4	0.41	ug/L	103				70	130	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4959

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified **DataFile:** BN035371.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB165198BSD	1,4-Dioxane	0.4	0.35	ug/L	88	16			70	130	20

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165198BL

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4959 SAS No.: P4959 SDG NO.: P4959

Lab File ID: BN035369.D Lab Sample ID: PB165198BL

Instrument ID: BNA_N Date Extracted: 11/22/2024

Matrix: (soil/water) Water Date Analyzed: 11/28/2024

Level: (low/med) LOW Time Analyzed: 05:27

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB165198BS	PB165198BS	BN035370.D	11/28/2024
PB165198BSD	PB165198BSD	BN035371.D	11/28/2024
RW5-SP100-20241121	P4959-01	BN035374.D	11/28/2024
RW5-SP201-20241121	P4959-02	BN035298.D	11/26/2024
RW5-SP303-20241121	P4959-03	BN035299.D	11/26/2024

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: P4959 SDG NO.: P4959

Lab File ID: BN035276.D DFTPP Injection Date: 11/25/2024

Instrument ID: BNA_N DFTPP Injection Time: 09:37

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	22.2
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	30.5
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	40.9
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	6.7
275	10.0 - 60.0% of mass 198	28.2
365	Greater than 1% of mass 198	4.2
441	Present, but less than mass 443	10.4
442	Greater than 50% of mass 198	65.2
443	15.0 - 24.0% of mass 442	12.3 (18.9) 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
SSTDICC0.1	SSTDICC0.1	BN035277.D	11/25/2024	10:16
SSTDICC0.2	SSTDICC0.2	BN035278.D	11/25/2024	10:52
SSTDICCC0.4	SSTDICCC0.4	BN035279.D	11/25/2024	11:28
SSTDICC0.8	SSTDICC0.8	BN035280.D	11/25/2024	12:04
SSTDICC1.6	SSTDICC1.6	BN035281.D	11/25/2024	12:40
SSTDICC3.2	SSTDICC3.2	BN035282.D	11/25/2024	13:16
SSTDICC5.0	SSTDICC5.0	BN035283.D	11/25/2024	13:52
SSTDCCC0.4EC	SSTDCCC0.4	BN035291.D	11/25/2024	19:20

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: P4959 SDG NO.: P4959

Lab File ID: BN035292.D DFTPP Injection Date: 11/25/2024

Instrument ID: BNA_N DFTPP Injection Time: 20:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	21.5
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	28.6
70	Less than 2.0% of mass 69	0.1 (0.5) 1
127	10.0 - 80.0% of mass 198	40.4
197	Less than 2.0% of mass 198	0.0
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
365	Greater than 1% of mass 198	4.6
441	Present, but less than mass 443	11.9
442	Greater than 50% of mass 198	71
443	15.0 - 24.0% of mass 442	13.4 (18.8) 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	BN035293.D	11/25/2024	23:02
RW5-SP201-20241121	P4959-02	BN035298.D	11/26/2024	02:02
RW5-SP303-20241121	P4959-03	BN035299.D	11/26/2024	02:38
SSTDCCC0.4EC	SSTDCCC0.4	BN035300.D	11/26/2024	03:14

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: P4959 SDG NO.: P4959

Lab File ID: BN035349.D DFTPP Injection Date: 11/27/2024

Instrument ID: BNA_N DFTPP Injection Time: 14:55

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	21.6
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	28.9
70	Less than 2.0% of mass 69	0.1 (0.4) 1
127	10.0 - 80.0% of mass 198	39.4
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	27.9
365	Greater than 1% of mass 198	4.6
441	Present, but less than mass 443	11.5
442	Greater than 50% of mass 198	70.8
443	15.0 - 24.0% of mass 442	14 (19.7) 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	BN035350.D	11/27/2024	15:34
SSTDICC0.2	SSTDICC0.2	BN035351.D	11/27/2024	16:10
SSTDICCC0.4	SSTDICCC0.4	BN035352.D	11/27/2024	16:46
SSTDICC0.8	SSTDICC0.8	BN035353.D	11/27/2024	17:21
SSTDICC1.6	SSTDICC1.6	BN035354.D	11/27/2024	17:57
SSTDICC3.2	SSTDICC3.2	BN035355.D	11/27/2024	18:33
SSTDICC5.0	SSTDICC5.0	BN035356.D	11/27/2024	19:09
SSTDCCC0.4EC	SSTDCCC0.4	BN035366.D	11/28/2024	02:20

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: P4959 SDG NO.: P4959

Lab File ID: BN035367.D DFTPP Injection Date: 11/28/2024

Instrument ID: BNA_N DFTPP Injection Time: 03:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	22.7
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	29.8
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	40.4
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7
275	10.0 - 60.0% of mass 198	29.7
365	Greater than 1% of mass 198	4.8
441	Present, but less than mass 443	12.8
442	Greater than 50% of mass 198	76.8
443	15.0 - 24.0% of mass 442	15 (19.5) 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	BN035368.D	11/28/2024	04:51
PB165198BL	PB165198BL	BN035369.D	11/28/2024	05:27
PB165198BS	PB165198BS	BN035370.D	11/28/2024	06:03
PB165198BSD	PB165198BSD	BN035371.D	11/28/2024	06:39
RW5-SP100-20241121	P4959-01	BN035374.D	11/28/2024	08:26
SSTDCCC0.4EC	SSTDCCC0.4	BN035375.D	11/28/2024	09:02

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4959 SAS No.: P4959 SDG NO.: P4959

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/25/2024

Lab File ID: BN035293.D Time Analyzed: 23:02

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	3724	7.315	9273	10.06	5865	13.97
	UPPER LIMIT	7448	7.815	18546	10.563	11730	14.473
	LOWER LIMIT	1862	6.815	4636.5	9.563	2932.5	13.473
	EPA SAMPLE NO.						
01	RW5-SP201-20241121	3353	7.32	8974	10.06	7827	13.97
02	RW5-SP303-20241121	4025	7.32	10571	10.06	6682	13.97

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.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4959 SAS No.: P4959 SDG NO.: P4959

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/25/2024

Lab File ID: BN035293.D Time Analyzed: 23:02

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	12563	16.741	932	21.006	7119	23.078
	UPPER LIMIT	25126	17.241	1864	21.506	14238	23.578
	LOWER LIMIT	6281.5	16.241	466	20.506	3559.5	22.578
	EPA SAMPLE NO.						
01	RW5-SP201-20241121	12956	16.73	823	21.01	7685	23.08
02	RW5-SP303-20241121	14026	16.73	880	21.01	7740	23.08

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.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4959 SAS No.: P4959 SDG NO.: P4959

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/28/2024

Lab File ID: BN035368.D Time Analyzed: 04:51

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	2051	7.308	5360	10.05	3908	13.97
	UPPER LIMIT	4102	7.808	10720	10.552	7816	14.467
	LOWER LIMIT	1025.5	6.808	2680	9.552	1954	13.467
	EPA SAMPLE NO.						
01	RW5-SP100-20241121	1752	7.31	4244	10.05	3218	13.97
02	PB165198BL	2540	7.31	6378	10.06	4630	13.97
03	PB165198BS	2262	7.31	5496	10.05	3686	13.97
04	PB165198BSD	2376	7.31	5724	10.05	3806	13.97

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.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4959 SAS No.: P4959 SDG NO.: P4959

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/28/2024

Lab File ID: BN035368.D Time Analyzed: 04:51

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	9758	16.723	9496	20.974	10416	23.067
	UPPER LIMIT	19516	17.223	18992	21.474	20832	23.567
	LOWER LIMIT	4879	16.223	4748	20.474	5208	22.567
	EPA SAMPLE NO.						
01	RW5-SP100-20241121	8380	16.74	7890	20.97	7953	23.07
02	PB165198BL	11721	16.74	10667	20.97	11480	23.07
03	PB165198BS	9203	16.72	8666	20.97	8924	23.07
04	PB165198BSD	9566	16.74	8948	20.97	9280	23.07

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	PB165198BL	SDG No.:	P4959
Lab Sample ID:	PB165198BL	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
BN035369.D	1	11/22/24 12:25	11/28/24 05:27	PB165198

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	0.42		30 - 150		104%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 - 150		101%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.37		55 - 111		93%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.39		53 - 106		98%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.49		58 - 132		122%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2540	7.308				
1146-65-2	Naphthalene-d8	6380	10.063				
15067-26-2	Acenaphthene-d10	4630	13.967				
1517-22-2	Phenanthrene-d10	11700	16.735				
1719-03-5	Chrysene-d12	10700	20.974				
1520-96-3	Perylene-d12	11500	23.07				

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	
Project:	CTO WE13			Date Received:	
Client Sample ID:	PB165198BS			SDG No.:	P4959
Lab Sample ID:	PB165198BS			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
BN035370.D	1	11/22/24 12:25	11/28/24 06:03	PB165198

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.41		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.58		30 - 150		145%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.46		30 - 150		115%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.47	*	55 - 111		117%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.48	*	53 - 106		119%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.52		58 - 132		130%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2260	7.308				
1146-65-2	Naphthalene-d8	5500	10.052				
15067-26-2	Acenaphthene-d10	3690	13.967				
1517-22-2	Phenanthrene-d10	9200	16.723				
1719-03-5	Chrysene-d12	8670	20.974				
1520-96-3	Perylene-d12	8920	23.067				

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	
Project:	CTO WE13			Date Received:	
Client Sample ID:	PB165198BSD			SDG No.:	P4959
Lab Sample ID:	PB165198BSD			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
BN035371.D	1	11/22/24 12:25	11/28/24 06:39	PB165198

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.35		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.51		30 - 150		127%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.40		30 - 150		99%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.41		55 - 111		103%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.42		53 - 106		104%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.45		58 - 132		113%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2380	7.308				
1146-65-2	Naphthalene-d8	5720	10.052				
15067-26-2	Acenaphthene-d10	3810	13.967				
1517-22-2	Phenanthrene-d10	9570	16.735				
1719-03-5	Chrysene-d12	8950	20.974				
1520-96-3	Perylene-d12	9280	23.07				

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

Response Factor Report BNA_N

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
Method File : 8270-SIM-BN112524.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Tue Nov 26 02:36:08 2024
Response Via : Initial Calibration

Calibration Files
0.1 =BN035277.D 0.2 =BN035278.D 0.4 =BN035279.D 0.8 =BN035280.D 1.6 =BN035281.D 3.2 =BN035282.D 5.0 =BN035283.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	0.375	0.276	0.287	0.263	0.284	0.262	0.267	0.288	13.80
3)		n-Nitrosodimet...		0.279	0.284	0.306	0.313	0.299	0.306	0.298	4.56
4)	S	2-Fluorophenol	0.858	0.793	0.789	0.725	0.730	0.678	0.718	0.756	8.00
5)	S	Phenol-d6	1.194	1.125	1.105	1.022	1.025	0.963	0.955	1.056	8.40
6)		bis(2-Chloroet...	0.910	0.870	0.896	0.887	0.914	0.874	0.869	0.889	2.11
7)	I	Naphthalene-d8	----------ISTD----------								
8)	S	Nitrobenzene-d5	0.267	0.272	0.347	0.327	0.356	0.348	0.354	0.324	11.95
9)		Naphthalene	1.085	1.055	1.091	1.075	1.150	1.140	1.174	1.110	4.01
10)		Hexachlorobuta...	0.281	0.289	0.312	0.311	0.339	0.330	0.322	0.312	6.74
11)	SURR	2-Methylnaphth...	0.561	0.531	0.539	0.527	0.566	0.580	0.616	0.560	5.61
12)		2-Methylnaphth...	0.690	0.680	0.680	0.675	0.748	0.782	0.829	0.726	8.37
13)	I	Acenaphthene-d10	----------ISTD----------								
14)	S	2,4,6-Tribromo...	0.174	0.174	0.180	0.186	0.213	0.230	0.272	0.204	17.97
15)	S	2-Fluorobiphenyl	0.595	0.424	0.245	0.118	0.082	0.049	0.033	0.221	97.20
16)		Acenaphthylene	1.859	1.869	1.885	1.919	2.117	2.147	2.294	2.013	8.53
17)		Acenaphthene	1.144	1.158	1.176	1.194	1.341	1.386	1.473	1.267	10.33
18)		Fluorene	1.538	1.617	1.634	1.688	1.907	1.985	2.068	1.777	11.63
19)	I	Phenanthrene-d10	----------ISTD----------								
20)		4,6-Dinitro-2-...		0.027	0.034	0.039	0.048	0.056		0.041	27.63
21)		4-Bromophenyl-...	0.248	0.236	0.235	0.233	0.252	0.271	0.300	0.254	9.59
22)		Hexachlorobenzene	0.326	0.336	0.352	0.363	0.391	0.381	0.394	0.363	7.33
23)		Atrazine	0.091	0.095	0.100	0.100	0.114	0.117	0.133	0.107	13.85
24)		Pentachlorophenol		0.067	0.079	0.082	0.097	0.112		0.087	19.82
25)		Phenanthrene	1.121	1.103	1.131	1.162	1.271	1.364	1.448	1.229	11.00
26)		Anthracene	0.904	0.899	0.911	0.953	1.100	1.252	1.367	1.055	18.01
27)	SURR	Fluoranthene-d10	0.953	0.963	0.967	0.998	1.120	1.224	1.269	1.070	12.46
28)		Fluoranthene	1.248	1.282	1.340	1.453	1.732	1.890	1.907	1.550	18.48
29)	I	Chrysene-d12	----------ISTD----------								
30)		Pyrene	1.357	1.179	1.528	1.271	1.779	1.615		1.455 E1	15.55
31)	S	Terphenyl-d14	0.628	0.551	0.726	0.608	0.862	0.764	1.035	0.739 E1	22.66
32)		Benzo(a)anthra...	1.299	1.119	1.382	1.150	1.641	1.439	1.714	1.392 E1	16.32
33)		Chrysene	1.299	1.119	1.382	1.150	1.641	1.439	1.714	1.392 E1	16.32
34)		Bis(2-ethylhex...		1.747	0.910	0.506	0.436	0.229		0.765	78.59
35)	I	Perylene-d12	----------ISTD----------								

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
Method File : 8270-SIM-BN112524.M

36)		Indeno(1,2,3-c...	1.377	1.410	1.523	1.574	1.744	1.787	2.049	1.638	14.53
37)		Benzo(b)fluora...	1.505	1.552	1.452	1.714	1.877	2.005	2.064	1.738	14.25
38)		Benzo(k)fluora...	1.567	1.585	1.632	1.796	2.049	2.079	2.165	1.839	13.87
39)	C	Benzo(a)pyrene	1.191	1.181	1.143	1.297	1.428	1.476	1.586	1.329	12.80
40)		Dibenzo(a,h)an...	0.961	1.028	1.107	1.202	1.353	1.402	1.612	1.238	18.62
41)		Benzo(g,h,i)pe...	1.296	1.311	1.241	1.412	1.508	1.517	1.737	1.432	11.97

(#) = Out of Range

Response Factor Report BNA_N

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
Method File : 8270-SIM-BN112724.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Nov 27 23:03:24 2024
Response Via : Initial Calibration

Calibration Files
0.1 =BN035350.D 0.2 =BN035351.D 0.4 =BN035352.D 0.8 =BN035353.D 1.6 =BN035354.D 3.2 =BN035355.D 5.0 =BN035356.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	0.406	0.417	0.376	0.380	0.392	0.357	0.348	0.382	6.52
3)		n-Nitrosodimet...	0.334	0.302	0.326	0.315	0.332	0.310	0.309	0.319	3.92
4)	S	2-Fluorophenol	1.025	1.112	1.018	0.958	0.998	0.954	0.942	1.001	5.88
5)	S	Phenol-d6	1.227	1.186	1.193	1.143	1.235	1.215	1.229	1.204	2.69
6)		bis(2-Chloroet...	1.035	1.021	0.992	0.993	1.051	0.997	0.991	1.012	2.39
7)	I	Naphthalene-d8	----------	ISTD	----------						
8)	S	Nitrobenzene-d5	0.227	0.232	0.235	0.248	0.257	0.251	0.261	0.244	5.31
9)		Naphthalene	1.062	1.029	1.047	1.032	1.096	1.049	1.070	1.055	2.22
10)		Hexachlorobuta...	0.245	0.242	0.247	0.241	0.255	0.236	0.238	0.243	2.60
11)	SURR	2-Methylnaphth...	0.591	0.603	0.619	0.615	0.659	0.639	0.656	0.626	4.16
12)		2-Methylnaphth...	0.724	0.716	0.740	0.747	0.795	0.771	0.795	0.755	4.25
13)	I	Acenaphthene-d10	----------	ISTD	----------						
14)	S	2,4,6-Tribromo...	0.273	0.258	0.257	0.268	0.293	0.311	0.328	0.284	9.67
15)	S	2-Fluorobiphenyl	1.489	1.491	1.510	1.508	1.566	1.511	1.511	1.512	1.68
16)		Acenaphthylene	1.643	1.600	1.595	1.638	1.737	1.763	1.781	1.680	4.68
17)		Acenaphthene	1.121	1.084	1.086	1.108	1.145	1.122	1.140	1.115	2.17
18)		Fluorene	1.589	1.549	1.543	1.600	1.652	1.614	1.625	1.596	2.47
19)	I	Phenanthrene-d10	----------	ISTD	----------						
20)		4,6-Dinitro-2-...	0.038	0.031	0.036	0.041	0.051			0.039	19.30
21)		4-Bromophenyl-...	0.226	0.218	0.226	0.233	0.249	0.242	0.244	0.234	4.85
22)		Hexachlorobenzene	0.265	0.266	0.273	0.276	0.288	0.278	0.277	0.275	2.82
23)		Atrazine	0.155	0.155	0.154	0.156	0.175	0.179	0.191	0.167	8.98
24)		Pentachlorophenol	0.140	0.090	0.095	0.103	0.121	0.136	0.150	0.120	19.86
25)		Phenanthrene	1.092	1.046	1.067	1.092	1.148	1.121	1.125	1.099	3.20
26)		Anthracene	0.964	0.923	0.940	0.973	1.050	1.042	1.064	0.994	5.76
27)	SURR	Fluoranthene-d10	1.203	1.086	1.077	1.105	1.165	1.138	1.164	1.134	4.10
28)		Fluoranthene	1.538	1.396	1.416	1.456	1.539	1.497	1.526	1.481	3.99
29)	I	Chrysene-d12	----------	ISTD	----------						
30)		Pyrene	1.583	1.445	1.475	1.443	1.519	1.440	1.431	1.477	3.79
31)	S	Terphenyl-d14	0.832	0.777	0.791	0.771	0.812	0.772	0.769	0.789	3.08
32)		Benzo(a)anthra...	1.431	1.343	1.355	1.375	1.451	1.411	1.429	1.399	2.98
33)		Chrysene	1.463	1.452	1.441	1.415	1.487	1.422	1.420	1.443	1.84
34)		Bis(2-ethylhex...	0.710	0.558	0.516	0.505	0.520	0.516	0.544	0.553	12.96
35)	I	Perylene-d12	----------	ISTD	----------						

Response Factor Report BNA_N

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
Method File : 8270-SIM-BN112724.M

36)		Indeno(1,2,3-c...	1.411	1.489	1.532	1.554	1.660	1.615	1.685	1.564	6.22
37)		Benzo(b)fluora...	1.305	1.348	1.313	1.378	1.827	1.463	1.608	1.463	13.12
38)		Benzo(k)fluora...	1.444	1.376	1.402	1.419	1.527	1.447	1.468	1.440	3.39
39)	C	Benzo(a)pyrene	1.204	1.156	1.146	1.171	1.256	1.232	1.271	1.205	4.11
40)		Dibenzo(a,h)an...	1.104	1.187	1.194	1.226	1.315	1.280	1.332	1.234	6.55
41)		Benzo(g,h,i)pe...	1.188	1.238	1.248	1.269	1.360	1.330	1.394	1.289	5.71

(#) = Out of Range

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4959 SAS No.: P4959 SDG No.: P4959

Instrument ID: BNA_N Calibration Date/Time: 11/25/2024 23:02

Lab File ID: BN035293.D Init. Calib. Date(s): 11/25/2024 11/25/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 10:16 13:52

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.560	0.590		5.4	20.0
Fluoranthene-d10	1.070	0.923		-13.7	20.0
2-Fluorophenol	0.756	0.976		29.1	20.0
Phenol-d6	1.056	1.259		19.2	20.0
Nitrobenzene-d5	0.324	0.198		-38.9	20.0
2-Fluorobiphenyl	0.221	0.145		-34.4	20.0
2,4,6-Tribromophenol	0.204	0.212		3.9	20.0
Terphenyl-d14	7.392	8.364		13.1	20.0
1,4-Dioxane	0.288	0.361		25.3	20.0

All other compounds must meet a minimum RRF of 0.010.

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4959 SAS No.: P4959 SDG No.: P4959

Instrument ID: BNA_N Calibration Date/Time: 11/26/2024 03:14

Lab File ID: BN035300.D Init. Calib. Date(s): 11/25/2024 11/25/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 10:16 13:52

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.560	0.555		-0.9	50.0
Fluoranthene-d10	1.070	0.944		-11.8	50.0
2-Fluorophenol	0.756	1.011		33.7	50.0
Phenol-d6	1.056	1.202		13.8	50.0
Nitrobenzene-d5	0.324	0.212		-34.6	50.0
2-Fluorobiphenyl	0.221	0.171		-22.6	50.0
2,4,6-Tribromophenol	0.204	0.208		2.0	50.0
Terphenyl-d14	7.392	6.672		-9.7	50.0
1,4-Dioxane	0.288	0.391		35.8	50.0

All other compounds must meet a minimum RRF of 0.010.

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4959 SAS No.: P4959 SDG No.: P4959

Instrument ID: BNA_N Calibration Date/Time: 11/28/2024 04:51

Lab File ID: BN035368.D Init. Calib. Date(s): 11/27/2024 11/27/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 15:34 19:09

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.626	0.617		-1.4	20.0
Fluoranthene-d10	1.134	1.065		-6.1	20.0
2-Fluorophenol	1.001	1.030		2.9	20.0
Phenol-d6	1.204	1.273		5.7	20.0
Nitrobenzene-d5	0.244	0.241		-1.2	20.0
2-Fluorobiphenyl	1.512	1.520		0.5	20.0
2,4,6-Tribromophenol	0.284	0.280		-1.4	20.0
Terphenyl-d14	0.789	0.788		-0.1	20.0
1,4-Dioxane	0.382	0.375		-1.8	20.0

All other compounds must meet a minimum RRF of 0.010.

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4959 SAS No.: P4959 SDG No.: P4959

Instrument ID: BNA_N Calibration Date/Time: 11/28/2024 09:02

Lab File ID: BN035375.D Init. Calib. Date(s): 11/27/2024 11/27/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 15:34 19:09

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.626	0.614		-1.9	50.0
Fluoranthene-d10	1.134	1.056		-6.9	50.0
2-Fluorophenol	1.001	1.006		0.5	50.0
Phenol-d6	1.204	1.212		0.7	50.0
Nitrobenzene-d5	0.244	0.244		0.0	50.0
2-Fluorobiphenyl	1.512	1.517		0.3	50.0
2,4,6-Tribromophenol	0.284	0.266		-6.3	50.0
Terphenyl-d14	0.789	0.787		-0.3	50.0
1,4-Dioxane	0.382	0.378		-1.0	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: P4959

COC Number:

CLIENT INFORMATION	PROJECT INFORMATION	BILLING INFORMATION
COMPANY: Tetra Tech	PROJECT NAME: NWIRP Bethpage	BILL TO: PO#
ADDRESS: 4433 Corporation Ln, Suite 300	PROJECT #: 112G08005-WE13 LOCATION: RW5B	ADDRESS:
CITY: Virginia Beach STATE: VA ZIP: 23462	PROJECT MANAGER: Ernie Wu	CITY: STATE: ZIP:
ATTENTION: Ernie Wu	E-MAIL: ernie,wu@tetratech.com	ATTENTION: PHONE:
PHONE: 757-466-4901 FAX: 757-461-4148	PHONE: 757-466-4901 FAX: 757-461-4148	

DATA TURNAROUND INFORMATION

FAX: 10 DAYS*
HARD COPY: 10 DAYS*
EDD 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ 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

ANALYSIS

	1	2	3	4	5	6	7	8	9
1,4-Dioxane SW846 8270 SIM									

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
									B								<-- Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-Other
1.	RW5-SP100-20241121	GW		x	11/21/24	12:45	1	x									
2.	RW5-SP201-20241121	GW		x	11/21/24	12:47	1	x									
3.	RW5-SP303-20241121	GW		x	11/21/24	12:53	1	x									
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	11/21/24 1600	1.
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2. FEDEX	11-22-24 1005	2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3.		3.

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 1.5°C
MeOH extraction requires an additional 4oz. Jar for percent solid ☐ Ice in Cooler?: Y
Comments:

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