

LAB CHRONICLE

OrderID:	Q1225	OrderDate:	1/30/2025 10:30:00 AM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	N31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1225-01	RW5-SP100-2025012 9	Water			01/29/25			01/30/25
			SVOC-SIMGroup1	8270-Modified		01/31/25	02/05/25	
Q1225-01DL	RW5-SP100-2025012 9DL	Water			01/29/25			01/30/25
			SVOC-SIMGroup1	8270-Modified		01/31/25	02/06/25	
Q1225-02	RW5-SP201-2025012 9	Water			01/29/25			01/30/25
			SVOC-SIMGroup1	8270-Modified		01/31/25	02/05/25	
Q1225-03	RW5-SP303-2025012 9	Water			01/29/25			01/30/25
			SVOC-SIMGroup1	8270-Modified		01/31/25	02/05/25	



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

Hit Summary Sheet SW-846

SDG No.: Q1225

Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : RW5-SP100-20250129								
Q1225-01	RW5-SP100-20250129	WATER	1,4-Dioxane	7.200	E	0.07	0.2	0.2 ug/L
			Total Svoc :	7.20				
			Total Concentration:	7.20				
Client ID : RW5-SP100-20250129DL								
Q1225-01DL	RW5-SP100-20250129DI	WATER	1,4-Dioxane	7.500	D	0.34	1	1 ug/L
			Total Svoc :	7.50				
			Total Concentration:	7.50				



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/29/25
Project:	CTO WE13		Date Received:	01/30/25
Client Sample ID:	RW5-SP100-20250129		SDG No.:	Q1225
Lab Sample ID:	Q1225-01		Matrix:	Water
Analytical Method:	SW8270ESIM		% 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 :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN036307.D	1	01/31/25 08:30	02/05/25 21:11	PB166419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	7.20	E	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.41		30 - 150		103%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.44		30 - 150		109%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.40		55 - 111		100%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		53 - 106		88%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.65	*	58 - 132		163%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2190	7.775				
1146-65-2	Naphthalene-d8	4990	10.573				
15067-26-2	Acenaphthene-d10	2700	14.409				
1517-22-2	Phenanthrene-d10	5160	17.161				
1719-03-5	Chrysene-d12	3750	21.349				
1520-96-3	Perylene-d12	3850	23.628				

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:	01/29/25
Project:	CTO WE13	Date Received:	01/30/25
Client Sample ID:	RW5-SP100-20250129DL	SDG No.:	Q1225
Lab Sample ID:	Q1225-01DL	Matrix:	Water
Analytical Method:	SW8270ESIM	% 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 :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN036330.D	5	01/31/25 08:30	02/06/25 11:39	PB166419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	7.50	D	0.34	1.00	1.00	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.34		30 - 150		85%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.45		30 - 150		113%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		75%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.36		53 - 106		89%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.55	*	58 - 132		136%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2060	7.775				
1146-65-2	Naphthalene-d8	4360	10.573				
15067-26-2	Acenaphthene-d10	2240	14.42				
1517-22-2	Phenanthrene-d10	4220	17.161				
1719-03-5	Chrysene-d12	3770	21.348				
1520-96-3	Perylene-d12	4020	23.63				

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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:	01/29/25
Project:	CTO WE13	Date Received:	01/30/25
Client Sample ID:	RW5-SP201-20250129	SDG No.:	Q1225
Lab Sample ID:	Q1225-02	Matrix:	Water
Analytical Method:	SW8270ESIM	% 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 :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN036308.D	1	01/31/25 08:30	02/05/25 21:47	PB166419

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	0.46		30 - 150		116%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.41		55 - 111		103%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.37		53 - 106		92%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.56	*	58 - 132		140%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1970	7.775				
1146-65-2	Naphthalene-d8	4240	10.573				
15067-26-2	Acenaphthene-d10	2210	14.42				
1517-22-2	Phenanthrene-d10	4220	17.161				
1719-03-5	Chrysene-d12	3730	21.348				
1520-96-3	Perylene-d12	3990	23.627				

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LOD = Limit of Detection

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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:	01/29/25
Project:	CTO WE13		Date Received:	01/30/25
Client Sample ID:	RW5-SP303-20250129		SDG No.:	Q1225
Lab Sample ID:	Q1225-03		Matrix:	Water
Analytical Method:	SW8270ESIM		% 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 :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN036309.D	1	01/31/25 08:30	02/05/25 22:22	PB166419

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		106%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.45		30 - 150		113%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		55 - 111		104%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.40		53 - 106		100%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.68	*	58 - 132		170%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2190	7.775				
1146-65-2	Naphthalene-d8	4850	10.573				
15067-26-2	Acenaphthene-d10	2690	14.409				
1517-22-2	Phenanthrene-d10	5490	17.161				
1719-03-5	Chrysene-d12	4830	21.34				
1520-96-3	Perylene-d12	4950	23.627				

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

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* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



QC SUMMARY

Surrogate Summary

SW-846

SDG No.: Q1225

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
PB166419BL	PB166419BL	2-Methylnaphthalene-d10	0.4	0.41	103		30	150
		Fluoranthene-d10	0.4	0.41	101		30	150
		Nitrobenzene-d5	0.4	0.43	107		55	111
		2-Fluorobiphenyl	0.4	0.35	88		53	106
		Terphenyl-d14	0.4	0.47	117		58	132
PB166419BS	PB166419BS	2-Methylnaphthalene-d10	0.4	0.55	137		30	150
		Fluoranthene-d10	0.4	0.42	106		30	150
		Nitrobenzene-d5	0.4	0.42	104		55	111
		2-Fluorobiphenyl	0.4	0.35	87		53	106
		Terphenyl-d14	0.4	0.46	114		58	132
PB166419BSD	PB166419BSD	2-Methylnaphthalene-d10	0.4	0.55	137		30	150
		Fluoranthene-d10	0.4	0.42	104		30	150
		Nitrobenzene-d5	0.4	0.43	108		55	111
		2-Fluorobiphenyl	0.4	0.38	96		53	106
		Terphenyl-d14	0.4	0.45	112		58	132
Q1225-01	RW5-SP100-20250129	2-Methylnaphthalene-d10	0.4	0.41	103		30	150
		Fluoranthene-d10	0.4	0.44	109		30	150
		Nitrobenzene-d5	0.4	0.40	100		55	111
		2-Fluorobiphenyl	0.4	0.35	88		53	106
		Terphenyl-d14	0.4	0.65	163	*	58	132
Q1225-01DL	RW5-SP100-20250129DL	2-Methylnaphthalene-d10	0.4	0.34	85		30	150
		Fluoranthene-d10	0.4	0.45	113		30	150
		Nitrobenzene-d5	0.4	0.30	75		55	111
		2-Fluorobiphenyl	0.4	0.36	89		53	106
		Terphenyl-d14	0.4	0.55	136	*	58	132
Q1225-02	RW5-SP201-20250129	2-Methylnaphthalene-d10	0.4	0.42	104		30	150
		Fluoranthene-d10	0.4	0.46	116		30	150
		Nitrobenzene-d5	0.4	0.41	103		55	111
		2-Fluorobiphenyl	0.4	0.37	92		53	106
		Terphenyl-d14	0.4	0.56	140	*	58	132
Q1225-03	RW5-SP303-20250129	2-Methylnaphthalene-d10	0.4	0.42	106		30	150
		Fluoranthene-d10	0.4	0.45	113		30	150
		Nitrobenzene-d5	0.4	0.42	104		55	111
		2-Fluorobiphenyl	0.4	0.40	100		53	106
		Terphenyl-d14	0.4	0.68	170	*	58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1225

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN036324.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB166419BS	1,4-Dioxane	0.4	0.39	ug/L	98				70	130	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1225

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN036328.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB166419BSD	1,4-Dioxane	0.4	0.38	ug/L	95	3			70	130	20

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166419BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: Q1225

SAS No.: Q1225 SDG NO.: Q1225

Lab File ID: BN036304.D

Lab Sample ID: PB166419BL

Instrument ID: BNA_N

Date Extracted: 01/31/2025

Matrix: (soil/water) Water

Date Analyzed: 02/05/2025

Level: (low/med) LOW

Time Analyzed: 19:23

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166419BS	PB166419BS	BN036324.D	02/06/2025
RW5-SP100-20250129	Q1225-01	BN036307.D	02/05/2025
RW5-SP201-20250129	Q1225-02	BN036308.D	02/05/2025
RW5-SP303-20250129	Q1225-03	BN036309.D	02/05/2025
PB166419BSD	PB166419BSD	BN036328.D	02/06/2025

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1225

SDG NO.: Q1225

Lab File ID: BN036009.D

DFTPP Injection Date: 01/22/2025

Instrument ID: BNA_N

DFTPP Injection Time: 09:44

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	48.9
68	Less than 2.0% of mass 69	0.5 (1.1) 1
69	Mass 69 relative abundance	45.7
70	Less than 2.0% of mass 69	0.3 (0.6) 1
127	10.0 - 80.0% of mass 198	47.7
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	6.5
275	10.0 - 60.0% of mass 198	24.1
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	9.4
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	11.5 (20.4) 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	BN036010.D	01/22/2025	11:02
SSTDICC0.2	SSTDICC0.2	BN036011.D	01/22/2025	11:38
SSTDICCC0.4	SSTDICCC0.4	BN036012.D	01/22/2025	12:13
SSTDICC0.8	SSTDICC0.8	BN036013.D	01/22/2025	12:49
SSTDICC1.6	SSTDICC1.6	BN036014.D	01/22/2025	13:25
SSTDICC3.2	SSTDICC3.2	BN036015.D	01/22/2025	14:01
SSTDICC5.0	SSTDICC5.0	BN036016.D	01/22/2025	14:36

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1225 SDG NO.: Q1225

Lab File ID: BN036302.D

DFTPP Injection Date: 02/05/2025

Instrument ID: BNA_N

DFTPP Injection Time: 18:08

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	49.1
68	Less than 2.0% of mass 69	0.1 (0.3) 1
69	Mass 69 relative abundance	45.4
70	Less than 2.0% of mass 69	0.3 (0.6) 1
127	10.0 - 80.0% of mass 198	47.2
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	6.9
275	10.0 - 60.0% of mass 198	26.2
365	Greater than 1% of mass 198	3.9
441	Present, but less than mass 443	9.9
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	11.5 (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
SSTDCCC0.4	SSTDCCC0.4	BN036303.D	02/05/2025	18:47
PB166419BL	PB166419BL	BN036304.D	02/05/2025	19:23
RW5-SP100-20250129	Q1225-01	BN036307.D	02/05/2025	21:11
RW5-SP201-20250129	Q1225-02	BN036308.D	02/05/2025	21:47
RW5-SP303-20250129	Q1225-03	BN036309.D	02/05/2025	22:22
SSTDCCC0.4EC	SSTDCCC0.4	BN036318.D	02/06/2025	03:45

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1225 SDG NO.: Q1225

Lab File ID: BN036319.D

DFTPP Injection Date: 02/06/2025

Instrument ID: BNA_N

DFTPP Injection Time: 05:01

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	50.8
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	47
70	Less than 2.0% of mass 69	0.2 (0.4) 1
127	10.0 - 80.0% of mass 198	48
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	6.6
275	10.0 - 60.0% of mass 198	23.8
365	Greater than 1% of mass 198	3.6
441	Present, but less than mass 443	8.7
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	9.5 (18.3) 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	BN036320.D	02/06/2025	05:40
PB166419BS	PB166419BS	BN036324.D	02/06/2025	08:03
PB166419BSD	PB166419BSD	BN036328.D	02/06/2025	10:27
RW5-SP100-20250129DL	Q1225-01DL	BN036330.D	02/06/2025	11:39
SSTDCCC0.4EC	SSTDCCC0.4	BN036332.D	02/06/2025	12:54

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1225 SAS No.: Q1225 SDG NO.: Q1225

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/05/2025

Lab File ID: BN036303.D Time Analyzed: 18:47

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	2214	7.775	4864	10.56	2378	14.41
UPPER LIMIT	4428	8.275	9728	11.062	4756	14.909
LOWER LIMIT	1107	7.275	2432	10.062	1189	13.909
EPA SAMPLE NO.						
01 PB166419BL	2281	7.78	4739	10.57	2373	14.42
02 RW5-SP100-20250129	2193	7.78	4986	10.57	2696	14.41
03 RW5-SP201-20250129	1967	7.78	4239	10.57	2214	14.42
04 RW5-SP303-20250129	2187	7.78	4848	10.57	2688	14.41

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.: Q1225 SAS No.: Q1225 SDG NO.: Q1225

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/05/2025

Lab File ID: BN036303.D Time Analyzed: 18:47

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	4362	17.161	3774	21.34	4195	23.628
UPPER LIMIT	8724	17.661	7548	21.84	8390	24.128
LOWER LIMIT	2181	16.661	1887	20.84	2097.5	23.128
EPA SAMPLE NO.						
01 PB166419BL	4104	17.16	3515	21.35	3933	23.63
02 RW5-SP100-20250129	5157	17.16	3747	21.35	3848	23.63
03 RW5-SP201-20250129	4215	17.16	3734	21.35	3986	23.63
04 RW5-SP303-20250129	5486	17.16	4831	21.34	4945	23.63

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.: Q1225 SAS No.: Q1225 SDG NO.: Q1225

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/06/2025

Lab File ID: BN036320.D Time Analyzed: 05:40

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	2017	7.775	4328	10.56	2158	14.41
UPPER LIMIT	4034	8.275	8656	11.062	4316	14.909
LOWER LIMIT	1008.5	7.275	2164	10.062	1079	13.909
EPA SAMPLE NO.						
01 PB166419BS	2239	7.78	4945	10.56	2445	14.41
02 PB166419BSD	2144	7.77	4537	10.56	2141	14.41
03 RW5-SP100-20250129DL	2064	7.78	4355	10.57	2243	14.42

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.: Q1225 SAS No.: Q1225 SDG NO.: Q1225

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/06/2025

Lab File ID: BN036320.D Time Analyzed: 05:40

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	4298	17.149	3803	21.34	4157	23.627
UPPER LIMIT	8596	17.649	7606	21.84	8314	24.127
LOWER LIMIT	2149	16.649	1901.5	20.84	2078.5	23.127
EPA SAMPLE NO.						
01 PB166419BS	4757	17.16	4475	21.34	4637	23.63
02 PB166419BSD	3969	17.16	3671	21.34	3973	23.63
03 RW5-SP100-20250129DL	4222	17.16	3765	21.35	4020	23.63

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:	PB166419BL		SDG No.:	Q1225	
Lab Sample ID:	PB166419BL		Matrix:	Water	
Analytical Method:	SW8270ESIM		% 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 :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN036304.D	1	01/31/25 08:30	02/05/25 19:23	PB166419

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	0.41		30 - 150		103%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 - 150		101%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.43		55 - 111		107%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		53 - 106		88%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.47		58 - 132		117%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2280	7.775				
1146-65-2	Naphthalene-d8	4740	10.573				
15067-26-2	Acenaphthene-d10	2370	14.42				
1517-22-2	Phenanthrene-d10	4100	17.161				
1719-03-5	Chrysene-d12	3520	21.349				
1520-96-3	Perylene-d12	3930	23.633				

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:	PB166419BS		SDG No.:	Q1225
Lab Sample ID:	PB166419BS		Matrix:	Water
Analytical Method:	SW8270ESIM		% 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 :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN036324.D	1	01/31/25 08:30	02/06/25 08:03	PB166419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.39		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.55		30 - 150		137%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.42		30 - 150		106%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		55 - 111		104%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		53 - 106		87%	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	2240	7.775				
1146-65-2	Naphthalene-d8	4950	10.562				
15067-26-2	Acenaphthene-d10	2450	14.409				
1517-22-2	Phenanthrene-d10	4760	17.161				
1719-03-5	Chrysene-d12	4480	21.34				
1520-96-3	Perylene-d12	4640	23.63				

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:	PB166419BSD		SDG No.:	Q1225
Lab Sample ID:	PB166419BSD		Matrix:	Water
Analytical Method:	SW8270ESIM		% 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 :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN036328.D	1	01/31/25 08:30	02/06/25 10:27	PB166419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.38		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.55		30 - 150		137%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.42		30 - 150		104%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.43		55 - 111		108%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		96%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.45		58 - 132		112%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2140	7.768				
1146-65-2	Naphthalene-d8	4540	10.562				
15067-26-2	Acenaphthene-d10	2140	14.409				
1517-22-2	Phenanthrene-d10	3970	17.161				
1719-03-5	Chrysene-d12	3670	21.34				
1520-96-3	Perylene-d12	3970	23.63				

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-BN012225.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Thu Jan 23 00:34:56 2025
 Response Via : Initial Calibration

Calibration Files

0.1 =BN036010.D 0.2 =BN036011.D 0.4 =BN036012.D 0.8 =BN036013.D 1.6 =BN036014.D 3.2 =BN036015.D 5.0 =BN036016.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	0.452	0.460	0.469	0.477	0.447	0.408	0.417	0.447	5.81
3)	n-Nitrosodimet...	0.798	0.749	0.877	0.883	0.829	0.781	0.759	0.811	6.65
4) S	2-Fluorophenol	1.032	1.012	1.092	1.099	1.042	0.997	1.010	1.040	3.88
5) S	Phenol-d6	1.284	1.195	1.270	1.155	1.230	1.210	1.209	1.222	3.61
6)	bis(2-Chloroet...	1.024	0.979	1.056	0.929	0.993	0.952	0.952	0.984	4.53
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.377	0.356	0.399	0.333	0.397	0.388	0.394	0.378	6.55
9)	Naphthalene	1.149	1.141	1.250	1.137	1.184	1.141	1.131	1.162	3.68
10)	Hexachlorobuta...	0.383	0.369	0.404	0.371	0.388	0.359	0.353	0.375	4.74
11) SURR	2-Methylnaphth...	0.522	0.527	0.578	0.528	0.556	0.550	0.545	0.544	3.66
12)	2-Methylnaphth...	0.702	0.688	0.760	0.700	0.741	0.735	0.721	0.721	3.58
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.240	0.238	0.256	0.238	0.268	0.275	0.282	0.257	7.32
15) S	2-Fluorobiphenyl	1.806	1.736	1.934	1.787	1.819	1.693	1.724	1.786	4.47
16)	Acenaphthylene	1.835	1.826	2.011	1.840	1.940	1.889	1.936	1.897	3.65
17)	Acenaphthene	1.248	1.236	1.365	1.266	1.338	1.310	1.327	1.299	3.78
18)	Fluorene	1.583	1.482	1.633	1.550	1.739	1.703	1.700	1.627	5.76
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.071	0.081	0.095	0.089	0.101	0.107	0.108	0.093	14.73
21)	4-Bromophenyl-...	0.285	0.269	0.307	0.287	0.293	0.273	0.281	0.285	4.42
22)	Hexachlorobenzene	0.391	0.358	0.407	0.374	0.380	0.355	0.361	0.375	5.08
23)	Atrazine	0.185	0.194	0.218	0.204	0.216	0.209	0.215	0.206	6.05
24)	Pentachlorophenol	0.131	0.131	0.164	0.155	0.179	0.185	0.192	0.162	15.18
25)	Phenanthrene	1.154	1.158	1.302	1.172	1.226	1.182	1.219	1.202	4.33
26)	Anthracene	1.019	1.016	1.151	1.064	1.128	1.123	1.151	1.093	5.42
27) SURR	Fluoranthene-d10	1.005	1.006	1.111	0.994	0.959	1.078	1.101	1.036	5.75
28)	Fluoranthene	1.312	1.350	1.507	1.357	1.317	1.506	1.533	1.412	6.99
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.657	1.588	1.693	1.636	1.646	1.552	1.575	1.621	3.12
31) S	Terphenyl-d14	0.821	0.807	0.871	0.831	0.860	0.804	0.822	0.831	3.09
32)	Benzo(a)anthra...	1.445	1.403	1.503	1.411	1.513	1.448	1.433	1.451	2.93
33)	Chrysene	1.501	1.476	1.545	1.448	1.515	1.435	1.463	1.483	2.63
34)	Bis(2-ethylhex...	0.919	0.793	0.798	0.748	0.791	0.748	0.768	0.795	7.36
35) I	Perylene-d12	-----ISTD-----								

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

Method File : 8270-SIM-BN012225.M

36)	Indeno(1,2,3-c...	1.525	1.477	1.621	1.585	1.669	1.668	1.692	1.605	5.03
37)	Benzo(b)fluora...	1.443	1.380	1.497	1.429	1.475	1.444	1.510	1.454	3.03
38)	Benzo(k)fluora...	1.427	1.378	1.486	1.427	1.519	1.496	1.524	1.465	3.76
39) C	Benzo(a)pyrene	1.237	1.164	1.263	1.203	1.264	1.265	1.296	1.242	3.61
40)	Dibenzo(a,h)an...	1.187	1.169	1.290	1.279	1.337	1.338	1.356	1.279	5.86
41)	Benzo(g,h,i)pe...	1.338	1.308	1.426	1.387	1.438	1.428	1.436	1.394	3.75

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1225 SAS No.: Q1225 SDG No.: Q1225

Instrument ID: BNA_N Calibration Date/Time: 02/05/2025 18:47

Lab File ID: BN036303.D Init. Calib. Date(s): 01/22/2025 01/22/2025

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 11:02 14:36

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.544	0.565		3.9	20.0
Fluoranthene-d10	1.036	1.052		1.5	20.0
2-Fluorophenol	1.040	1.145		10.1	20.0
Phenol-d6	1.222	1.324		8.3	20.0
Nitrobenzene-d5	0.378	0.409		8.2	20.0
2-Fluorobiphenyl	1.786	1.693		-5.2	20.0
2,4,6-Tribromophenol	0.257	0.198		-23.0	20.0
Terphenyl-d14	0.831	0.860		3.5	20.0
1,4-Dioxane	0.447	0.491		9.8	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.: Q1225 SAS No.: Q1225 SDG No.: Q1225

Instrument ID: BNA_N Calibration Date/Time: 02/06/2025 03:45

Lab File ID: BN036318.D Init. Calib. Date(s): 01/22/2025 01/22/2025

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 11:02 14:36

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.544	0.576		5.9	50.0
Fluoranthene-d10	1.036	1.061		2.4	50.0
2-Fluorophenol	1.040	1.175		13.0	50.0
Phenol-d6	1.222	1.328		8.7	50.0
Nitrobenzene-d5	0.378	0.397		5.0	50.0
2-Fluorobiphenyl	1.786	1.502		-15.9	50.0
2,4,6-Tribromophenol	0.257	0.194		-24.5	50.0
Terphenyl-d14	0.831	0.907		9.1	50.0
1,4-Dioxane	0.447	0.478		6.9	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.: Q1225 SAS No.: Q1225 SDG No.: Q1225

Instrument ID: BNA_N Calibration Date/Time: 02/06/2025 05:40

Lab File ID: BN036320.D Init. Calib. Date(s): 01/22/2025 01/22/2025

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 11:02 14:36

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.544	0.575		5.7	20.0
Fluoranthene-d10	1.036	1.072		3.5	20.0
2-Fluorophenol	1.040	1.170		12.5	20.0
Phenol-d6	1.222	1.367		11.9	20.0
Nitrobenzene-d5	0.378	0.417		10.3	20.0
2-Fluorobiphenyl	1.786	1.611		-9.8	20.0
2,4,6-Tribromophenol	0.257	0.200		-22.2	20.0
Terphenyl-d14	0.831	0.874		5.2	20.0
1,4-Dioxane	0.447	0.518		15.9	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.: Q1225 SAS No.: Q1225 SDG No.: Q1225

Instrument ID: BNA_N Calibration Date/Time: 02/06/2025 12:54

Lab File ID: BN036332.D Init. Calib. Date(s): 01/22/2025 01/22/2025

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 11:02 14:36

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.544	0.570		4.8	50.0
Fluoranthene-d10	1.036	1.077		4.0	50.0
2-Fluorophenol	1.040	1.162		11.7	50.0
Phenol-d6	1.222	1.293		5.8	50.0
Nitrobenzene-d5	0.378	0.409		8.2	50.0
2-Fluorobiphenyl	1.786	1.549		-13.3	50.0
2,4,6-Tribromophenol	0.257	0.188		-26.8	50.0
Terphenyl-d14	0.831	0.868		4.5	50.0
1,4-Dioxane	0.447	0.486		8.7	50.0

All other compounds must meet a minimum RRF of 0.010.