

LAB CHRONICLE

OrderID:	Q1401	OrderDate:	2/20/2025 3:49:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	H31,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1401-02	BP-VPB-192-GW-825-827	Water			02/17/25			02/20/25
			SVOC-SIMGroup1	8270-Modified		02/21/25	02/24/25	
Q1401-04	BP-VPB-192-GW-860-862	Water			02/18/25			02/20/25
			SVOC-SIMGroup1	8270-Modified		02/21/25	02/24/25	
Q1401-04RE	BP-VPB-192-GW-860-862RE	Water			02/18/25			02/20/25
			SVOC-SIMGroup1	8270-Modified		02/21/25	02/24/25	
Q1401-06	BP-VPB-192-GW-900-902	Water			02/19/25			02/20/25
			SVOC-SIMGroup1	8270-Modified		02/21/25	02/24/25	



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Hit Summary Sheet
SW-846

SDG No.: Q1401
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :				0.000					
Total Svoc :					0.00				
Total Concentration:					0.00				



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	02/17/25
Project:	CTO WE13	Date Received:	02/20/25
Client Sample ID:	BP-VPB-192-GW-825-827	SDG No.:	Q1401
Lab Sample ID:	Q1401-02	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	100 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
BN036494.D	1	02/21/25 13:55	02/24/25 12:01	PB166832

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	2.00	U	0.68	2.00	2.00	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.19		30 - 150		49%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.15		30 - 150		37%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.25		55 - 111		62%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.30		53 - 106		76%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.22	*	58 - 132		56%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3780	7.746				
1146-65-2	Naphthalene-d8	10000	10.53				
15067-26-2	Acenaphthene-d10	5710	14.377				
1517-22-2	Phenanthrene-d10	12400	17.124				
1719-03-5	Chrysene-d12	9000	21.313				
1520-96-3	Perylene-d12	8850	23.584				

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:	02/18/25
Project:	CTO WE13		Date Received:	02/20/25
Client Sample ID:	BP-VPB-192-GW-860-862		SDG No.:	Q1401
Lab Sample ID:	Q1401-04		Matrix:	Water
Analytical Method:	SW8270ESIM		% Solid:	0
Sample Wt/Vol:	100	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
BN036495.D	1	02/21/25 13:55	02/24/25 12:37	PB166832

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	2.00	U	0.68	2.00	2.00	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.26		30 - 150		66%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.17		30 - 150		43%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.29		55 - 111		72%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.47	*	53 - 106		118%	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	5630	7.746				
1146-65-2	Naphthalene-d8	16100	10.53				
15067-26-2	Acenaphthene-d10	8960	14.377				
1517-22-2	Phenanthrene-d10	16000	17.124				
1719-03-5	Chrysene-d12	9520	21.313				
1520-96-3	Perylene-d12	10000	23.581				

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:	02/18/25
Project:	CTO WE13	Date Received:	02/20/25
Client Sample ID:	BP-VPB-192-GW-860-862RE	SDG No.:	Q1401
Lab Sample ID:	Q1401-04RE	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	100 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
BN036500.D	1	02/21/25 13:55	02/24/25 15:37	PB166832

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	2.00	U	0.68	2.00	2.00	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.27		30 - 150		66%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.19		30 - 150		47%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		75%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.46	*	53 - 106		115%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.42		58 - 132		106%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	4760	7.746				
1146-65-2	Naphthalene-d8	13000	10.53				
15067-26-2	Acenaphthene-d10	7380	14.377				
1517-22-2	Phenanthrene-d10	14100	17.124				
1719-03-5	Chrysene-d12	9830	21.313				
1520-96-3	Perylene-d12	10300	23.584				

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:	02/19/25	
Project:	CTO WE13		Date Received:	02/20/25	
Client Sample ID:	BP-VPB-192-GW-900-902		SDG No.:	Q1401	
Lab Sample ID:	Q1401-06		Matrix:	Water	
Analytical Method:	SW8270ESIM		% Solid:	0	
Sample Wt/Vol:	920	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
BN036496.D	1	02/21/25 13:55	02/24/25 13:13	PB166832

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.22	U	0.070	0.22	0.22	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.28		30 - 150		70%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.20		30 - 150		51%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		74%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.47	*	53 - 106		118%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.36		58 - 132		90%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	4550	7.746				
1146-65-2	Naphthalene-d8	12200	10.53				
15067-26-2	Acenaphthene-d10	6890	14.377				
1517-22-2	Phenanthrene-d10	11800	17.124				
1719-03-5	Chrysene-d12	7450	21.313				
1520-96-3	Perylene-d12	7510	23.581				

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

Surrogate Summary

SW-846

SDG No.: Q1401

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
PB166832BL	PB166832BL	2-Methylnaphthalene-d10	0.4	0.28	71		30	150
		Fluoranthene-d10	0.4	0.32	80		30	150
		Nitrobenzene-d5	0.4	0.30	75		55	111
		2-Fluorobiphenyl	0.4	0.29	72		53	106
		Terphenyl-d14	0.4	0.35	88		58	132
PB166832BS	PB166832BS	2-Methylnaphthalene-d10	0.4	0.37	93		30	150
		Fluoranthene-d10	0.4	0.29	72		30	150
		Nitrobenzene-d5	0.4	0.33	83		55	111
		2-Fluorobiphenyl	0.4	0.45	112	*	53	106
		Terphenyl-d14	0.4	0.42	105		58	132
PB166832BSD	PB166832BSD	2-Methylnaphthalene-d10	0.4	0.43	108		30	150
		Fluoranthene-d10	0.4	0.28	69		30	150
		Nitrobenzene-d5	0.4	0.32	80		55	111
		2-Fluorobiphenyl	0.4	0.45	111	*	53	106
		Terphenyl-d14	0.4	0.42	105		58	132
Q1401-02	BP-VPB-192-GW-825-827	2-Methylnaphthalene-d10	0.4	0.19	49		30	150
		Fluoranthene-d10	0.4	0.15	37		30	150
		Nitrobenzene-d5	0.4	0.25	62		55	111
		2-Fluorobiphenyl	0.4	0.30	76		53	106
		Terphenyl-d14	0.4	0.22	56	*	58	132
Q1401-04	BP-VPB-192-GW-860-862	2-Methylnaphthalene-d10	0.4	0.26	66		30	150
		Fluoranthene-d10	0.4	0.17	43		30	150
		Nitrobenzene-d5	0.4	0.29	72		55	111
		2-Fluorobiphenyl	0.4	0.47	118	*	53	106
		Terphenyl-d14	0.4	0.44	110		58	132
Q1401-04RE	BP-VPB-192-GW-860-862RE	2-Methylnaphthalene-d10	0.4	0.27	66		30	150
		Fluoranthene-d10	0.4	0.19	47		30	150
		Nitrobenzene-d5	0.4	0.30	75		55	111
		2-Fluorobiphenyl	0.4	0.46	115	*	53	106
		Terphenyl-d14	0.4	0.42	106		58	132
Q1401-06	BP-VPB-192-GW-900-902	2-Methylnaphthalene-d10	0.4	0.28	70		30	150
		Fluoranthene-d10	0.4	0.20	51		30	150
		Nitrobenzene-d5	0.4	0.30	74		55	111
		2-Fluorobiphenyl	0.4	0.47	118	*	53	106
		Terphenyl-d14	0.4	0.36	90		58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1401

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN036502.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB166832BS	1,4-Dioxane	0.4	0.29	ug/L	73				70	130	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1401

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN036505.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB166832BSD	1,4-Dioxane	0.4	0.31	ug/L	78				70	130	20

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166832BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: Q1401

SAS No.: Q1401 SDG NO.: Q1401

Lab File ID: BN036493.D

Lab Sample ID: PB166832BL

Instrument ID: BNA_N

Date Extracted: 02/21/2025

Matrix: (soil/water) Water

Date Analyzed: 02/24/2025

Level: (low/med) LOW

Time Analyzed: 11:25

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166832BS	PB166832BS	BN036502.D	02/24/2025
BP-VPB-192-GW-825-827	Q1401-02	BN036494.D	02/24/2025
BP-VPB-192-GW-860-862	Q1401-04	BN036495.D	02/24/2025
BP-VPB-192-GW-900-902	Q1401-06	BN036496.D	02/24/2025
PB166832BSD	PB166832BSD	BN036505.D	02/24/2025

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1401 SDG NO.: Q1401

Lab File ID: BN036408.D

DFTPP Injection Date: 02/10/2025

Instrument ID: BNA_N

DFTPP Injection Time: 11:46

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	51.4
68	Less than 2.0% of mass 69	0.3 (0.7) 1
69	Mass 69 relative abundance	47.7
70	Less than 2.0% of mass 69	0.3 (0.6) 1
127	10.0 - 80.0% of mass 198	48.3
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	24.7
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	7.1
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	10.5 (20.1) 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	BN036409.D	02/10/2025	12:25
SSTDICC0.2	SSTDICC0.2	BN036410.D	02/10/2025	13:01
SSTDICCC0.4	SSTDICCC0.4	BN036411.D	02/10/2025	13:36
SSTDICC0.8	SSTDICC0.8	BN036412.D	02/10/2025	14:12
SSTDICC1.6	SSTDICC1.6	BN036413.D	02/10/2025	14:48
SSTDICC3.2	SSTDICC3.2	BN036414.D	02/10/2025	15:24
SSTDICC5.0	SSTDICC5.0	BN036415.D	02/10/2025	16:00

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1401 SDG NO.: Q1401

Lab File ID: BN036491.D

DFTPP Injection Date: 02/24/2025

Instrument ID: BNA_N

DFTPP Injection Time: 10:10

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	52.3
68	Less than 2.0% of mass 69	0.5 (1.1) 1
69	Mass 69 relative abundance	47.7
70	Less than 2.0% of mass 69	0.3 (0.6) 1
127	10.0 - 80.0% of mass 198	47.5
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	7.1
275	10.0 - 60.0% of mass 198	25.9
365	Greater than 1% of mass 198	3.9
441	Present, but less than mass 443	9.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	10.8 (18.1) 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	BN036492.D	02/24/2025	10:49
PB166832BL	PB166832BL	BN036493.D	02/24/2025	11:25
BP-VPB-192-GW-825-827	Q1401-02	BN036494.D	02/24/2025	12:01
BP-VPB-192-GW-860-862	Q1401-04	BN036495.D	02/24/2025	12:37
BP-VPB-192-GW-900-902	Q1401-06	BN036496.D	02/24/2025	13:13
BP-VPB-192-GW-860-862RE	Q1401-04RE	BN036500.D	02/24/2025	15:37
PB166832BS	PB166832BS	BN036502.D	02/24/2025	16:49
PB166832BSD	PB166832BSD	BN036505.D	02/24/2025	19:25
SSTDCCC0.4EC	SSTDCCC0.4	BN036506.D	02/24/2025	20:02

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1401 SAS No.: Q1401 SDG NO.: Q1401

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/24/2025

Lab File ID: BN036492.D Time Analyzed: 10:49

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	2546	7.739	6147	10.53	4030	14.38
UPPER LIMIT	5092	8.239	12294	11.03	8060	14.877
LOWER LIMIT	1273	7.239	3073.5	10.03	2015	13.877
EPA SAMPLE NO.						
01 PB166832BL	2545	7.75	5531	10.54	3002	14.39
02 BP-VPB-192-GW-825-827	3781	7.75	10043	10.53	5710	14.38
03 PB166832BS	3804	7.75	9827	10.53	5679	14.38
04 BP-VPB-192-GW-860-862	5626 *	7.75	16089 *	10.53	8959 *	14.38
05 BP-VPB-192-GW-900-902	4549	7.75	12151	10.53	6886	14.38
06 BP-VPB-192-GW-860-862RE	4764	7.75	12976 *	10.53	7380	14.38
07 PB166832BSD	3237	7.74	7948	10.53	4588	14.38

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.: Q1401 SAS No.: Q1401 SDG NO.: Q1401

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/24/2025

Lab File ID: BN036492.D Time Analyzed: 10:49

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	8380	17.124	7132	21.313	6830	23.581
UPPER LIMIT	16760	17.624	14264	21.813	13660	24.081
LOWER LIMIT	4190	16.624	3566	20.813	3415	23.081
EPA SAMPLE NO.						
01 PB166832BL	6667	17.14	5489	21.32	5028	23.58
02 BP-VPB-192-GW-825-827	12437	17.12	9000	21.31	8845	23.58
03 PB166832BS	11615	17.12	7487	21.31	6852	23.58
04 BP-VPB-192-GW-860-862	15975	17.12	9523	21.31	10012	23.58
05 BP-VPB-192-GW-900-902	11829	17.12	7452	21.31	7512	23.58
06 BP-VPB-192-GW-860-862RE	14127	17.12	9825	21.31	10325	23.58
07 PB166832BSD	9111	17.12	5499	21.31	5044	23.58

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:	PB166832BL		SDG No.:	Q1401	
Lab Sample ID:	PB166832BL		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
BN036493.D	1	02/21/25 13:55	02/24/25 11:25	PB166832

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	0.28		30 - 150		71%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.32		30 - 150		80%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		75%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.29		53 - 106		72%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.35		58 - 132		88%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2550	7.746				
1146-65-2	Naphthalene-d8	5530	10.541				
15067-26-2	Acenaphthene-d10	3000	14.388				
1517-22-2	Phenanthrene-d10	6670	17.136				
1719-03-5	Chrysene-d12	5490	21.322				
1520-96-3	Perylene-d12	5030	23.584				

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:	PB166832BS		SDG No.:	Q1401	
Lab Sample ID:	PB166832BS		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
BN036502.D	1	02/21/25 13:55	02/24/25 16:49	PB166832

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.29		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	0.33		55 - 111		83%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.45	*	53 - 106		112%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.42		58 - 132		105%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3800	7.746				
1146-65-2	Naphthalene-d8	9830	10.53				
15067-26-2	Acenaphthene-d10	5680	14.377				
1517-22-2	Phenanthrene-d10	11600	17.124				
1719-03-5	Chrysene-d12	7490	21.313				
1520-96-3	Perylene-d12	6850	23.581				

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:	PB166832BSD		SDG No.:	Q1401	
Lab Sample ID:	PB166832BSD		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
BN036505.D	1	02/21/25 13:55	02/24/25 19:25	PB166832

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.31		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.43		30 - 150		108%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.28		30 - 150		69%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.32		55 - 111		80%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.45	*	53 - 106		111%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.42		58 - 132		105%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3240	7.739				
1146-65-2	Naphthalene-d8	7950	10.53				
15067-26-2	Acenaphthene-d10	4590	14.377				
1517-22-2	Phenanthrene-d10	9110	17.124				
1719-03-5	Chrysene-d12	5500	21.313				
1520-96-3	Perylene-d12	5040	23.578				

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-BN021025.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Feb 11 01:17:14 2025
 Response Via : Initial Calibration

Calibration Files

0.1 =BN036409.D 0.2 =BN036410.D 0.4 =BN036411.D 0.8 =BN036412.D 1.6 =BN036413.D 3.2 =BN036414.D 5.0 =BN036415.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	0.555	0.437	0.433	0.414	0.411	0.433	0.381	0.438	12.66
3)	n-Nitrosodimet...	0.906	0.779	0.764	0.724	0.708	0.769	0.670	0.760	9.90
4) S	2-Fluorophenol	1.009	0.954	0.936	0.920	0.914	0.999	0.885	0.945	4.80
5) S	Phenol-d6	1.134	1.007	1.032	1.062	1.099	1.267	1.164	1.109	8.00
6)	bis(2-Chloroet...	1.382	1.070	1.086	1.129	1.120	1.225	1.107	1.160	9.48
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.500	0.363	0.365	0.370	0.367	0.417	0.381	0.395	12.70
9)	Naphthalene	1.400	1.141	1.116	1.088	1.075	1.186	1.073	1.154	10.01
10)	Hexachlorobuta...	0.319	0.293	0.283	0.272	0.264	0.282	0.253	0.281	7.67
11) SURR	2-Methylnaphth...	0.647	0.583	0.602	0.588	0.597	0.668	0.618	0.615	5.19
12)	2-Methylnaphth...	0.833	0.712	0.738	0.721	0.726	0.816	0.750	0.757	6.40
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.196	0.181	0.186	0.184	0.195	0.226	0.219	0.198	8.90
15) S	2-Fluorobiphenyl	1.409	1.390	1.377	1.491	1.564	1.738	1.558	1.504	8.57
16)	Acenaphthylene	1.807	1.667	1.692	1.683	1.734	1.964	1.820	1.767	5.98
17)	Acenaphthene	1.245	1.125	1.146	1.128	1.175	1.273	1.169	1.180	4.89
18)	Fluorene	1.696	1.630	1.661	1.627	1.669	1.829	1.646	1.680	4.17
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.071	0.067	0.069	0.074	0.084	0.107		0.078	19.60
21)	4-Bromophenyl-...	0.243	0.227	0.231	0.232	0.236	0.264	0.238	0.239	5.15
22)	Hexachlorobenzene	0.305	0.296	0.284	0.287	0.289	0.317	0.285	0.295	4.11
23)	Atrazine	0.196	0.190	0.187	0.186	0.194	0.229	0.213	0.199	8.00
24)	Pentachlorophenol	0.140	0.125	0.122	0.122	0.134	0.170	0.167	0.140	14.74
25)	Phenanthrene	1.233	1.090	1.095	1.112	1.138	1.273	1.153	1.156	6.12
26)	Anthracene	0.990	0.933	0.967	0.978	1.015	1.167	1.088	1.020	7.92
27) SURR	Fluoranthene-d10	1.109	1.043	1.063	1.059	1.098	1.258	1.156	1.112	6.70
28)	Fluoranthene	1.441	1.323	1.353	1.356	1.404	1.607	1.461	1.421	6.76
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.584	1.568	1.534	1.490	1.488	1.629	1.492	1.541	3.59
31) S	Terphenyl-d14	0.860	0.847	0.852	0.829	0.834	0.913	0.843	0.854	3.27
32)	Benzo(a)anthra...	1.257	1.276	1.293	1.255	1.300	1.471	1.362	1.316	5.86
33)	Chrysene	1.449	1.456	1.360	1.414	1.404	1.527	1.366	1.425	4.08
34)	Bis(2-ethylhex...	0.902	0.875	0.777	0.745	0.761	0.861	0.819	0.820	7.45
35) I	Perylene-d12	-----ISTD-----								

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

Method File : 8270-SIM-BN021025.M

36)	Indeno(1,2,3-c...	1.182	1.289	1.378	1.390	1.446	1.630	1.471	1.398	10.13
37)	Benzo(b)fluora...	1.174	1.220	1.260	1.290	1.333	1.529	1.416	1.317	9.24
38)	Benzo(k)fluora...	1.258	1.253	1.363	1.326	1.347	1.532	1.413	1.356	7.08
39) C	Benzo(a)pyrene	1.091	1.081	1.102	1.114	1.145	1.309	1.206	1.150	7.12
40)	Dibenzo(a,h)an...	0.906	1.021	1.075	1.087	1.154	1.304	1.176	1.103	11.40
41)	Benzo(g,h,i)pe...	1.140	1.212	1.254	1.230	1.269	1.400	1.249	1.250	6.27

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1401 SAS No.: Q1401 SDG No.: Q1401

Instrument ID: BNA_N Calibration Date/Time: 02/24/2025 10:49

Lab File ID: BN036492.D Init. Calib. Date(s): 02/10/2025 02/10/2025

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 12:25 16:00

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.615	0.576		-6.3	20.0
Fluoranthene-d10	1.112	1.048		-5.8	20.0
2-Fluorophenol	0.945	0.874		-7.5	20.0
Phenol-d6	1.109	1.041		-6.1	20.0
Nitrobenzene-d5	0.395	0.385		-2.5	20.0
2-Fluorobiphenyl	1.504	1.722		14.5	20.0
2,4,6-Tribromophenol	0.198	0.166		-16.2	20.0
Terphenyl-d14	0.854	0.838		-1.9	20.0
1,4-Dioxane	0.438	0.440		0.5	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.: Q1401 SAS No.: Q1401 SDG No.: Q1401

Instrument ID: BNA_N Calibration Date/Time: 02/24/2025 20:02

Lab File ID: BN036506.D Init. Calib. Date(s): 02/10/2025 02/10/2025

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 12:25 16:00

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.615	0.606		-1.5	50.0
Fluoranthene-d10	1.112	0.961		-13.6	50.0
2-Fluorophenol	0.945	0.900		-4.8	50.0
Phenol-d6	1.109	1.014		-8.6	50.0
Nitrobenzene-d5	0.395	0.368		-6.8	50.0
2-Fluorobiphenyl	1.504	1.733		15.2	50.0
2,4,6-Tribromophenol	0.198	0.158		-20.2	50.0
Terphenyl-d14	0.854	0.987		15.6	50.0
1,4-Dioxane	0.438	0.415		-5.3	50.0

All other compounds must meet a minimum RRF of 0.010.