



LAB CHRONICLE

OrderID:	P4600	OrderDate:	10/29/2024 10:17:00 AM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	K63,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4600-03	BP-VPB-190-GW-438-440	Water			10/25/24			10/28/24
			SVOC-SIMGroup1	8270-Modified		10/29/24	11/04/24	
P4600-05	BP-VPB-190-GW-478-480	Water			10/25/24			10/28/24
			SVOC-SIMGroup1	8270-Modified		10/29/24	11/05/24	
P4600-07	BP-VPB-190-GW-518-520	Water			10/28/24			10/28/24
			SVOC-SIMGroup1	8270-Modified		10/29/24	11/05/24	



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

Hit Summary Sheet
SW-846

SDG No.: P4600
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:	10/25/24
Project:	CTO WE13	Date Received:	10/28/24
Client Sample ID:	BP-VPB-190-GW-438-440	SDG No.:	P4600
Lab Sample ID:	P4600-03	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	800 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
BN034854.D	1	10/29/24 12:50	11/04/24 23:57	PB164511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.25	U	0.090	0.25	0.25	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.29		30 - 150		72%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.31		30 - 150		76%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.31		55 - 111		77%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		53 - 106		87%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.62	*	58 - 132		155%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	7600	7.589				
1146-65-2	Naphthalene-d8	23300	10.351				
15067-26-2	Acenaphthene-d10	11500	14.218				
1517-22-2	Phenanthrene-d10	21200	16.964				
1719-03-5	Chrysene-d12	9920	21.158				
1520-96-3	Perylene-d12	7350	23.342				

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:	10/25/24
Project:	CTO WE13	Date Received:	10/28/24
Client Sample ID:	BP-VPB-190-GW-478-480	SDG No.:	P4600
Lab Sample ID:	P4600-05	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	820 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
BN034855.D	1	10/29/24 12:50	11/05/24 00:33	PB164511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.24	U	0.080	0.24	0.24	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.36		30 - 150		89%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.38		30 - 150		94%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.38		55 - 111		95%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.42		53 - 106		104%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.62	*	58 - 132		154%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	6890	7.589				
1146-65-2	Naphthalene-d8	21200	10.351				
15067-26-2	Acenaphthene-d10	10600	14.222				
1517-22-2	Phenanthrene-d10	19500	16.97				
1719-03-5	Chrysene-d12	8880	21.16				
1520-96-3	Perylene-d12	4050	23.341				

U = Not Detected

LOQ = Limit of Quantitation

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D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	10/28/24
Project:	CTO WE13		Date Received:	10/28/24
Client Sample ID:	BP-VPB-190-GW-518-520		SDG No.:	P4600
Lab Sample ID:	P4600-07		Matrix:	Water
Analytical Method:	SW8270SIM		% Solid:	0
Sample Wt/Vol:	830	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
BN034856.D	1	10/29/24 12:50	11/05/24 01:09	PB164511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.24	U	0.080	0.24	0.24	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.35		30 - 150		88%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		97%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.38		55 - 111		95%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.40		53 - 106		99%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.55	*	58 - 132		138%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	6530	7.589				
1146-65-2	Naphthalene-d8	20400	10.351				
15067-26-2	Acenaphthene-d10	10500	14.222				
1517-22-2	Phenanthrene-d10	19900	16.97				
1719-03-5	Chrysene-d12	10900	21.16				
1520-96-3	Perylene-d12	5700	23.338				

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.: **P4600**

Client: **Tetra Tech NUS, Inc.**

Analytical Method: **8270-Modified**

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
P4600-03	BP-VPB-190-GW-438-440	2-Methylnaphthalene-d10	0.4	0.29	72		30	150
		Fluoranthene-d10	0.4	0.31	76		30	150
		Nitrobenzene-d5	0.4	0.31	77		55	111
		2-Fluorobiphenyl	0.4	0.35	87		53	106
		Terphenyl-d14	0.4	0.62	155	*	58	132
P4600-05	BP-VPB-190-GW-478-480	2-Methylnaphthalene-d10	0.4	0.36	89		30	150
		Fluoranthene-d10	0.4	0.38	94		30	150
		Nitrobenzene-d5	0.4	0.38	95		55	111
		2-Fluorobiphenyl	0.4	0.42	104		53	106
		Terphenyl-d14	0.4	0.62	154	*	58	132
P4600-07	BP-VPB-190-GW-518-520	2-Methylnaphthalene-d10	0.4	0.35	88		30	150
		Fluoranthene-d10	0.4	0.39	97		30	150
		Nitrobenzene-d5	0.4	0.38	95		55	111
		2-Fluorobiphenyl	0.4	0.40	99		53	106
		Terphenyl-d14	0.4	0.55	138	*	58	132
PB164511BL	PB164511BL	2-Methylnaphthalene-d10	0.4	0.37	91		30	150
		Fluoranthene-d10	0.4	0.37	92		30	150
		Nitrobenzene-d5	0.4	0.38	96		55	111
		2-Fluorobiphenyl	0.4	0.43	107	*	53	106
		Terphenyl-d14	0.4	0.51	126		58	132
PB164511BS	PB164511BS	2-Methylnaphthalene-d10	0.4	0.45	111		30	150
		Fluoranthene-d10	0.4	0.34	86		30	150
		Nitrobenzene-d5	0.4	0.37	92		55	111
		2-Fluorobiphenyl	0.4	0.40	100		53	106
		Terphenyl-d14	0.4	0.44	109		58	132
PB164511BSD	PB164511BSD	2-Methylnaphthalene-d10	0.4	0.43	108		30	150
		Fluoranthene-d10	0.4	0.33	83		30	150
		Nitrobenzene-d5	0.4	0.36	90		55	111
		2-Fluorobiphenyl	0.4	0.39	97		53	106
		Terphenyl-d14	0.4	0.41	102		58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4600

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified **DataFile:** BN034852.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB164511BS	1,4-Dioxane	0.4	0.34	ug/L	85				70	130	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4600

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified **DataFile:** BN034853.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB164511BSD	1,4-Dioxane	0.4	0.33	ug/L	83	3			70	130	20

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB164511BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P4600

SAS No.: P4600 SDG NO.: P4600

Lab File ID: BN034851.D

Lab Sample ID: PB164511BL

Instrument ID: BNA_N

Date Extracted: 10/29/2024

Matrix: (soil/water) Water

Date Analyzed: 11/04/2024

Level: (low/med) LOW

Time Analyzed: 22:09

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB164511BS	PB164511BS	BN034852.D	11/04/2024
PB164511BSD	PB164511BSD	BN034853.D	11/04/2024
BP-VPB-190-GW-518-520	P4600-07	BN034856.D	11/05/2024
BP-VPB-190-GW-438-440	P4600-03	BN034854.D	11/04/2024
BP-VPB-190-GW-478-480	P4600-05	BN034855.D	11/05/2024

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4600 SDG NO.: P4600

Lab File ID: BN034739.D

DFTPP Injection Date: 10/30/2024

Instrument ID: BNA_N

DFTPP Injection Time: 08:41

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	38.7
68	Less than 2.0% of mass 69	0.6 (1.4) 1
69	Mass 69 relative abundance	40
70	Less than 2.0% of mass 69	0.2 (0.4) 1
127	10.0 - 80.0% of mass 198	53.2
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	6.5
275	10.0 - 60.0% of mass 198	21.7
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	9.4
442	Greater than 50% of mass 198	61
443	15.0 - 24.0% of mass 442	11.3 (18.5) 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
SSTDICC0.1	SSTDICC0.1	BN034740.D	10/30/2024	09:20
SSTDICC0.2	SSTDICC0.2	BN034741.D	10/30/2024	09:56
SSTDICCC0.4	SSTDICCC0.4	BN034742.D	10/30/2024	10:32
SSTDICC0.8	SSTDICC0.8	BN034743.D	10/30/2024	11:08
SSTDICC1.6	SSTDICC1.6	BN034744.D	10/30/2024	11:44
SSTDICC3.2	SSTDICC3.2	BN034745.D	10/30/2024	12:20
SSTDICC5.0	SSTDICC5.0	BN034746.D	10/30/2024	12:56

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4600

SDG NO.: P4600

Lab File ID: BN034849.D

DFTPP Injection Date: 11/04/2024

Instrument ID: BNA_N

DFTPP Injection Time: 20:54

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	53.1
68	Less than 2.0% of mass 69	0.8 (1.6) 1
69	Mass 69 relative abundance	49
70	Less than 2.0% of mass 69	0.3 (0.6) 1
127	10.0 - 80.0% of mass 198	61.5
197	Less than 2.0% of mass 198	0.6
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	24.1
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	8.8
442	Greater than 50% of mass 198	58.2
443	15.0 - 24.0% of mass 442	11.1 (19.1) 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	BN034850.D	11/04/2024	21:33
PB164511BL	PB164511BL	BN034851.D	11/04/2024	22:09
PB164511BS	PB164511BS	BN034852.D	11/04/2024	22:45
PB164511BSD	PB164511BSD	BN034853.D	11/04/2024	23:21
BP-VPB-190-GW-438-440	P4600-03	BN034854.D	11/04/2024	23:57
BP-VPB-190-GW-478-480	P4600-05	BN034855.D	11/05/2024	00:33
BP-VPB-190-GW-518-520	P4600-07	BN034856.D	11/05/2024	01:09
SSTDCCC0.4EC	SSTDCCC0.4	BN034861.D	11/05/2024	04:09

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4600 SAS No.: P4600 SDG NO.: P4600

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/04/2024

Lab File ID: BN034850.D Time Analyzed: 21:33

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	7674	7.589	23850	10.35	12009	14.22
UPPER LIMIT	15348	8.089	47700	10.851	24018	14.722
LOWER LIMIT	3837	7.089	11925	9.851	6004.5	13.722
EPA SAMPLE NO.						
01 BP-VPB-190-GW-478-480	6889	7.59	21222	10.35	10585	14.22
02 BP-VPB-190-GW-438-440	7603	7.59	23260	10.35	11506	14.22
03 PB164511BL	6305	7.59	18630	10.35	8717	14.22
04 PB164511BS	6963	7.59	20876	10.35	10113	14.22
05 PB164511BSD	6841	7.59	20343	10.35	9830	14.22
06 BP-VPB-190-GW-518-520	6525	7.59	20443	10.35	10522	14.22

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.: P4600 SAS No.: P4600 SDG NO.: P4600

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/04/2024

Lab File ID: BN034850.D Time Analyzed: 21:33

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	23508	16.97	14579	21.16	11281	23.335
UPPER LIMIT	47016	17.47	29158	21.66	22562	23.835
LOWER LIMIT	11754	16.47	7289.5	20.66	5640.5	22.835
EPA SAMPLE NO.						
01 BP-VPB-190-GW-478-480	19498	16.97	8880	21.16	4054 *	23.34
02 BP-VPB-190-GW-438-440	21221	16.96	9919	21.16	7346	23.34
03 PB164511BL	16792	16.97	7936	21.16	6177	23.34
04 PB164511BS	18739	16.97	9523	21.16	6855	23.34
05 PB164511BSD	18690	16.97	9814	21.16	7135	23.34
06 BP-VPB-190-GW-518-520	19872	16.97	10871	21.16	5696	23.34

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:	PB164511BL		SDG No.:	P4600
Lab Sample ID:	PB164511BL		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
BN034851.D	1	10/29/24 12:50	11/04/24 22:09	PB164511

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	0.37		30 - 150		91%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.37		30 - 150		92%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.38		55 - 111		96%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.43	*	53 - 106		107%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.51		58 - 132		126%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	6310	7.589				
1146-65-2	Naphthalene-d8	18600	10.351				
15067-26-2	Acenaphthene-d10	8720	14.222				
1517-22-2	Phenanthrene-d10	16800	16.97				
1719-03-5	Chrysene-d12	7940	21.16				
1520-96-3	Perylene-d12	6180	23.341				

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:	PB164511BS		SDG No.:	P4600	
Lab Sample ID:	PB164511BS		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
BN034852.D	1	10/29/24 12:50	11/04/24 22:45	PB164511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.34		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.45		30 - 150		111%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.34		30 - 150		86%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.37		55 - 111		92%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.40		53 - 106		100%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.44		58 - 132		109%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	6960	7.589				
1146-65-2	Naphthalene-d8	20900	10.351				
15067-26-2	Acenaphthene-d10	10100	14.222				
1517-22-2	Phenanthrene-d10	18700	16.97				
1719-03-5	Chrysene-d12	9520	21.16				
1520-96-3	Perylene-d12	6860	23.338				

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:	PB164511BSD		SDG No.:	P4600	
Lab Sample ID:	PB164511BSD		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
BN034853.D	1	10/29/24 12:50	11/04/24 23:21	PB164511

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.33		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.43		30 - 150		108%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.33		30 - 150		83%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		55 - 111		90%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.39		53 - 106		97%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.41		58 - 132		102%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	6840	7.589				
1146-65-2	Naphthalene-d8	20300	10.351				
15067-26-2	Acenaphthene-d10	9830	14.222				
1517-22-2	Phenanthrene-d10	18700	16.97				
1719-03-5	Chrysene-d12	9810	21.16				
1520-96-3	Perylene-d12	7140	23.335				

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-BN103024.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Oct 30 13:28:24 2024
Response Via : Initial Calibration

Calibration Files

0.1 =BN034740.D 0.2 =BN034741.D 0.4 =BN034742.D 0.8 =BN034743.D 1.6 =BN034744.D 3.2 =BN034745.D 5.0 =BN034746.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	0.498	0.441	0.407	0.462	0.438	0.418	0.405	0.439	7.62
3)	n-Nitrosodimet...	0.506	0.483	0.437	0.537	0.523	0.484	0.490	0.494	6.58
4) S	2-Fluorophenol	1.305	1.235	1.096	1.293	1.248	1.144	1.161	1.212	6.55
5) S	Phenol-d6	1.675	1.592	1.406	1.658	1.625	1.511	1.552	1.574	5.96
6)	bis(2-Chloroet...	1.155	1.134	1.057	1.247	1.211	1.115	1.124	1.149	5.51
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.320	0.305	0.278	0.338	0.328	0.308	0.323	0.314	6.25
9)	Naphthalene	1.150	1.096	0.996	1.191	1.153	1.069	1.087	1.106	5.87
10)	Hexachlorobuta...	0.191	0.182	0.165	0.197	0.190	0.173	0.177	0.182	6.17
11) SURR2	Methylnaphth...	0.577	0.560	0.519	0.628	0.617	0.569	0.584	0.579	6.27
12)	2-Methylnaphth...	0.719	0.708	0.649	0.785	0.769	0.709	0.725	0.723	6.16
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.199	0.178	0.158	0.204	0.213	0.206	0.224	0.198	11.32
15) S	2-Fluorobiphenyl	1.593	1.579	1.360	1.726	1.667	1.542	1.561	1.575	7.29
16)	Acenaphthylene	2.027	1.956	1.678	2.156	2.136	2.018	2.077	2.007	8.02
17)	Acenaphthene	1.338	1.292	1.133	1.458	1.440	1.332	1.368	1.337	8.07
18)	Fluorene	1.692	1.628	1.434	1.816	1.793	1.650	1.653	1.667	7.55
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.043	0.045	0.060	0.065	0.069	0.076	0.059		22.17
21)	4-Bromophenyl-...	0.235	0.234	0.210	0.246	0.238	0.229	0.229	0.231	4.76
22)	Hexachlorobenzene	0.265	0.262	0.238	0.278	0.267	0.254	0.250	0.259	5.10
23)	Atrazine	0.196	0.190	0.178	0.214	0.214	0.203	0.199	0.199	6.44
24)	Pentachlorophenol	0.102	0.088	0.091	0.114	0.122	0.127	0.138	0.112	16.80
25)	Phenanthrene	1.166	1.168	1.076	1.267	1.233	1.168	1.158	1.176	5.16
26)	Anthracene	1.080	1.074	0.990	1.163	1.177	1.108	1.114	1.101	5.67
27) SURR	Fluoranthene-d10	0.935	0.883	0.849	1.006	1.019	0.940	0.937	0.938	6.48
28)	Fluoranthene	1.282	1.221	1.174	1.404	1.416	1.296	1.283	1.297	6.82
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	2.207	2.148	1.926	2.280	2.091	2.001	1.987	2.091	6.12
31) S	Terphenyl-d14	0.911	0.869	0.788	0.931	0.867	0.825	0.822	0.859	5.92
32)	Benzo(a)anthra...	1.620	1.534	1.406	1.721	1.679	1.581	1.606	1.592	6.45
33)	Chrysene	1.596	1.522	1.406	1.688	1.644	1.519	1.538	1.559	5.98
34)	Bis(2-ethylhex...	1.487	1.243	1.291	1.388	1.332	1.237	1.342	1.331	6.57
35) I	Perylene-d12	-----ISTD-----								

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

Method File : 8270-SIM-BN103024.M

36)	Indeno(1,2,3-c...	1.517	1.552	1.332	1.572	1.482	1.423	1.421	1.471	5.76
37)	Benzo(b)fluora...	1.589	1.500	1.450	1.753	1.730	1.619	1.632	1.610	6.87
38)	Benzo(k)fluora...	1.562	1.491	1.396	1.704	1.653	1.605	1.588	1.571	6.52
39) C	Benzo(a)pyrene	1.315	1.277	1.181	1.434	1.404	1.336	1.355	1.329	6.31
40)	Dibenzo(a,h)an...	1.189	1.210	1.035	1.230	1.152	1.110	1.107	1.147	5.98
41)	Benzo(g,h,i)pe...	1.302	1.335	1.138	1.329	1.223	1.185	1.170	1.240	6.54

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4600 SAS No.: P4600 SDG No.: P4600

Instrument ID: BNA_N Calibration Date/Time: 11/04/2024 21:33

Lab File ID: BN034850.D Init. Calib. Date(s): 10/30/2024 10/30/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 09:20 12:56

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.579	0.495		-14.5	20.0
Fluoranthene-d10	0.938	0.829		-11.6	20.0
2-Fluorophenol	1.212	1.320		8.9	20.0
Phenol-d6	1.574	1.837		16.7	20.0
Nitrobenzene-d5	0.314	0.268		-14.6	20.0
2-Fluorobiphenyl	1.575	1.396		-11.4	20.0
2,4,6-Tribromophenol	0.198	0.157		-20.7	20.0
Terphenyl-d14	0.859	0.690		-19.7	20.0
1,4-Dioxane	0.439	0.410		-6.6	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.: P4600 SAS No.: P4600 SDG No.: P4600

Instrument ID: BNA_N Calibration Date/Time: 11/05/2024 04:09

Lab File ID: BN034861.D Init. Calib. Date(s): 10/30/2024 10/30/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 09:20 12:56

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.579	0.506		-12.6	50.0
Fluoranthene-d10	0.938	0.812		-13.4	50.0
2-Fluorophenol	1.212	1.041		-14.1	50.0
Phenol-d6	1.574	1.409		-10.5	50.0
Nitrobenzene-d5	0.314	0.279		-11.1	50.0
2-Fluorobiphenyl	1.575	1.451		-7.9	50.0
2,4,6-Tribromophenol	0.198	0.105		-47.0	50.0
Terphenyl-d14	0.859	0.735		-14.4	50.0
1,4-Dioxane	0.439	0.451		2.7	50.0

All other compounds must meet a minimum RRF of 0.010.