



### LAB CHRONICLE

<b>OrderID:</b> Q1347	<b>OrderDate:</b> 2/10/2025 3:45:00 PM
<b>Client:</b> Tetra Tech NUS, Inc.	<b>Project:</b> CTO WE13
<b>Contact:</b> Ernie Wu	<b>Location:</b> N41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
<b>Q1347-01</b>	<b>BP-VPB-192-EB-2025 0207</b>	<b>Water</b>			<b>02/07/25</b>			<b>02/10/25</b>
			SVOC-SIMGroup1	8270-Modified		02/11/25	02/12/25	
<b>Q1347-03</b>	<b>BP-VPB-192-GW-710- 712</b>	<b>Water</b>			<b>02/10/25</b>			<b>02/10/25</b>
			SVOC-SIMGroup1	8270-Modified		02/11/25	02/12/25	
<b>Q1347-05</b>	<b>BP-VPB-192-GW-660- 662</b>	<b>Water</b>			<b>02/06/25</b>			<b>02/10/25</b>
			SVOC-SIMGroup1	8270-Modified		02/11/25	02/12/25	





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

**Hit Summary Sheet**  
 SW-846

**SDG No.:** Q1347  
**Client:** Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
<b>Client ID : BP-VPB-192-GW-710-712</b>								
Q1347-03	BP-VPB-192-GW-710-71 WATER	1,4-Dioxane	0.890		0.13	0.37	0.37	ug/L
		<b>Total Svoc :</b>			<b>0.89</b>			
		<b>Total Concentration:</b>			<b>0.89</b>			
<b>Client ID : BP-VPB-192-GW-660-662</b>								
Q1347-05	BP-VPB-192-GW-660-66 WATER	1,4-Dioxane	1.700	J	0.68	2	2	ug/L
		<b>Total Svoc :</b>			<b>1.70</b>			
		<b>Total Concentration:</b>			<b>1.70</b>			

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- A
- B
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- D**
- E
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# SAMPLE

# DATA

### Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	02/07/25
Project:	CTO WE13	Date Received:	02/10/25
Client Sample ID:	BP-VPB-192-EB-20250207	SDG No.:	Q1347
Lab Sample ID:	Q1347-01	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	850 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
BN036444.D	1	02/11/25 11:05	02/12/25 17:36	PB166675

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.24	U	0.080	0.24	0.24	ug/L
<b>SURROGATES</b>							
7297-45-2	2-Methylnaphthalene-d10	0.33		30 - 150		83%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		98%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.31		55 - 111		78%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.39		53 - 106		96%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.50		58 - 132		125%	SPK: 0.4
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	1950		7.753			
1146-65-2	Naphthalene-d8	4510		10.541			
15067-26-2	Acenaphthene-d10	2910		14.387			
1517-22-2	Phenanthrene-d10	6810		17.136			
1719-03-5	Chrysene-d12	6000		21.321			
1520-96-3	Perylene-d12	6110		23.589			

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:	02/10/25
Project:	CTO WE13	Date Received:	02/10/25
Client Sample ID:	BP-VPB-192-GW-710-712	SDG No.:	Q1347
Lab Sample ID:	Q1347-03	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	540 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
BN036445.D	1	02/11/25 11:05	02/12/25 18:12	PB166675

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.89		0.13	0.37	0.37	ug/L
<b>SURROGATES</b>							
7297-45-2	2-Methylnaphthalene-d10	0.32		30 - 150		79%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		98%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.32		55 - 111		79%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.44	*	53 - 106		109%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.57	*	58 - 132		143%	SPK: 0.4
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	2540		7.753			
1146-65-2	Naphthalene-d8	6460		10.541			
15067-26-2	Acenaphthene-d10	3890		14.387			
1517-22-2	Phenanthrene-d10	8790		17.124			
1719-03-5	Chrysene-d12	7600		21.322			
1520-96-3	Perylene-d12	6350		23.586			

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:	02/06/25
Project:	CTO WE13	Date Received:	02/10/25
Client Sample ID:	BP-VPB-192-GW-660-662	SDG No.:	Q1347
Lab Sample ID:	Q1347-05	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
BN036446.D	1	02/11/25 11:05	02/12/25 18:48	PB166675

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	1.70	J	0.68	2.00	2.00	ug/L
<b>SURROGATES</b>							
7297-45-2	2-Methylnaphthalene-d10	0.32		30 - 150		80%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.30		30 - 150		74%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.29		55 - 111		72%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		96%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.36		58 - 132		90%	SPK: 0.4
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	2850		7.753			
1146-65-2	Naphthalene-d8	7660		10.541			
15067-26-2	Acenaphthene-d10	4760		14.387			
1517-22-2	Phenanthrene-d10	10600		17.136			
1719-03-5	Chrysene-d12	9600		21.322			
1520-96-3	Perylene-d12	8140		23.589			

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.: Q1347

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
PB166675BL	PB166675BL	2-Methylnaphthalene-d10	0.4	0.35	88		30	150
		Fluoranthene-d10	0.4	0.39	98		30	150
		Nitrobenzene-d5	0.4	0.36	89		55	111
		2-Fluorobiphenyl	0.4	0.36	90		53	106
		Terphenyl-d14	0.4	0.44	111		58	132
PB166675BS	PB166675BS	2-Methylnaphthalene-d10	0.4	0.44	109		30	150
		Fluoranthene-d10	0.4	0.36	90		30	150
		Nitrobenzene-d5	0.4	0.38	95		55	111
		2-Fluorobiphenyl	0.4	0.45	113	*	53	106
		Terphenyl-d14	0.4	0.46	114		58	132
PB166675BSD	PB166675BSD	2-Methylnaphthalene-d10	0.4	0.39	97		30	150
		Fluoranthene-d10	0.4	0.33	83		30	150
		Nitrobenzene-d5	0.4	0.34	85		55	111
		2-Fluorobiphenyl	0.4	0.38	95		53	106
		Terphenyl-d14	0.4	0.42	104		58	132
Q1347-01	BP-VPB-192-EB-20250207	2-Methylnaphthalene-d10	0.4	0.33	83		30	150
		Fluoranthene-d10	0.4	0.39	98		30	150
		Nitrobenzene-d5	0.4	0.31	78		55	111
		2-Fluorobiphenyl	0.4	0.39	96		53	106
		Terphenyl-d14	0.4	0.50	125		58	132
Q1347-03	BP-VPB-192-GW-710-712	2-Methylnaphthalene-d10	0.4	0.32	79		30	150
		Fluoranthene-d10	0.4	0.39	98		30	150
		Nitrobenzene-d5	0.4	0.32	79		55	111
		2-Fluorobiphenyl	0.4	0.44	109	*	53	106
		Terphenyl-d14	0.4	0.57	143	*	58	132
Q1347-05	BP-VPB-192-GW-660-662	2-Methylnaphthalene-d10	0.4	0.32	80		30	150
		Fluoranthene-d10	0.4	0.30	74		30	150
		Nitrobenzene-d5	0.4	0.29	72		55	111
		2-Fluorobiphenyl	0.4	0.38	96		53	106
		Terphenyl-d14	0.4	0.36	90		58	132





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### Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1347

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN036455.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB166675BSD	1,4-Dioxane	0.4	0.30	ug/L	75	10			70	130	20

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**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

SW-846

SDG No.: Q1347

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN036456.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	
								Qual		High	RPD
PB166675BS	1,4-Dioxane	0.4	0.33	ug/L	83				70	130	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166675BL

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1347 SAS No.: Q1347 SDG NO.: Q1347  
 Lab File ID: BN036442.D Lab Sample ID: PB166675BL  
 Instrument ID: BNA\_N Date Extracted: 02/11/2025  
 Matrix: (soil/water) Water Date Analyzed: 02/12/2025  
 Level: (low/med) LOW Time Analyzed: 16:24

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166675BS	PB166675BS	BN036456.D	02/13/2025
BP-VPB-192-EB-20250207	Q1347-01	BN036444.D	02/12/2025
BP-VPB-192-GW-710-712	Q1347-03	BN036445.D	02/12/2025
BP-VPB-192-GW-660-662	Q1347-05	BN036446.D	02/12/2025
PB166675BSD	PB166675BSD	BN036455.D	02/13/2025

COMMENTS: \_\_\_\_\_

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETRO6

Lab Code: CHEM

SAS No.: Q1347

SDG NO.: Q1347

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: TETRO6

Lab Code: CHEM

SAS No.: Q1347      SDG NO.: Q1347

Lab File ID: BN036440.D

DFTPP Injection Date: 02/12/2025

Instrument ID: BNA\_N

DFTPP Injection Time: 15:09

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	52.2
68	Less than 2.0% of mass 69	0.4 ( 0.9 ) 1
69	Mass 69 relative abundance	47.7
70	Less than 2.0% of mass 69	0.2 ( 0.4 ) 1
127	10.0 - 80.0% of mass 198	48.1
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	25
365	Greater than 1% of mass 198	4
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	10.9 ( 19.2 ) 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	BN036441.D	02/12/2025	15:48
PB166675BL	PB166675BL	BN036442.D	02/12/2025	16:24
BP-VPB-192-EB-20250207	Q1347-01	BN036444.D	02/12/2025	17:36
BP-VPB-192-GW-710-712	Q1347-03	BN036445.D	02/12/2025	18:12
BP-VPB-192-GW-660-662	Q1347-05	BN036446.D	02/12/2025	18:48
PB166675BSD	PB166675BSD	BN036455.D	02/13/2025	00:11
PB166675BS	PB166675BS	BN036456.D	02/13/2025	00:47
SSTDCCC0.4EC	SSTDCCC0.4	BN036457.D	02/13/2025	01:23



8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: Q1347 SAS No.: Q1347 SDG NO.: Q1347  
 EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/12/2025  
 Lab File ID: BN036441.D Time Analyzed: 15:48  
 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	2210	7.753	5455	10.54	3758	14.39
UPPER LIMIT	4420	8.253	10910	11.041	7516	14.887
LOWER LIMIT	1105	7.253	2727.5	10.041	1879	13.887
EPA SAMPLE NO.						
01 PB166675BL	2366	7.75	5102	10.56	2942	14.40
02 PB166675BSD	2803	7.75	6953	10.54	4239	14.39
03 BP-VPB-192-EB-20250207	1949	7.75	4506	10.54	2905	14.39
04 PB166675BS	2556	7.75	6260	10.54	3794	14.39
05 BP-VPB-192-GW-710-712	2535	7.75	6461	10.54	3888	14.39
06 BP-VPB-192-GW-660-662	2854	7.75	7661	10.54	4758	14.39

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.: Q1347 SAS No.: Q1347 SDG NO.: Q1347  
 EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/12/2025  
 Lab File ID: BN036441.D Time Analyzed: 15:48  
 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	8093	17.136	7173	21.322	7217	23.589
UPPER LIMIT	16186	17.636	14346	21.822	14434	24.089
LOWER LIMIT	4046.5	16.636	3586.5	20.822	3608.5	23.089
EPA SAMPLE NO.						
01 PB166675BL	6604	17.15	5195	21.33	4640	23.60
02 PB166675BSD	9433	17.14	6681	21.32	5828	23.59
03 BP-VPB-192-EB-20250207	6814	17.14	6000	21.32	6113	23.59
04 PB166675BS	8432	17.14	5969	21.32	5192	23.59
05 BP-VPB-192-GW-710-712	8786	17.12	7596	21.32	6347	23.59
06 BP-VPB-192-GW-660-662	10555	17.14	9596	21.32	8144	23.59

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:	PB166675BL	SDG No.:	Q1347
Lab Sample ID:	PB166675BL	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
BN036442.D	1	02/11/25 11:05	02/12/25 16:24	PB166675

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
<b>SURROGATES</b>							
7297-45-2	2-Methylnaphthalene-d10	0.35		30 - 150		88%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		98%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		55 - 111		89%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.36		53 - 106		90%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.44		58 - 132		111%	SPK: 0.4
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	2370	7.753				
1146-65-2	Naphthalene-d8	5100	10.562				
15067-26-2	Acenaphthene-d10	2940	14.398				
1517-22-2	Phenanthrene-d10	6600	17.149				
1719-03-5	Chrysene-d12	5200	21.331				
1520-96-3	Perylene-d12	4640	23.595				

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:	PB166675BS	SDG No.:	Q1347
Lab Sample ID:	PB166675BS	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
BN036456.D	1	02/11/25 11:05	02/13/25 00:47	PB166675

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.33		0.070	0.20	0.20	ug/L
<b>SURROGATES</b>							
7297-45-2	2-Methylnaphthalene-d10	0.44		30 - 150		109%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.36		30 - 150		90%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.38		55 - 111		95%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.45	*	53 - 106		113%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		58 - 132		114%	SPK: 0.4
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	2560		7.753			
1146-65-2	Naphthalene-d8	6260		10.541			
15067-26-2	Acenaphthene-d10	3790		14.387			
1517-22-2	Phenanthrene-d10	8430		17.136			
1719-03-5	Chrysene-d12	5970		21.321			
1520-96-3	Perylene-d12	5190		23.589			

U = Not Detected

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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:	PB166675BSD	SDG No.:	Q1347
Lab Sample ID:	PB166675BSD	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
BN036455.D	1	02/11/25 11:05	02/13/25 00:11	PB166675

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.30		0.070	0.20	0.20	ug/L
<b>SURROGATES</b>							
7297-45-2	2-Methylnaphthalene-d10	0.39		30 - 150		97%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.33		30 - 150		83%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.34		55 - 111		85%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		95%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.42		58 - 132		104%	SPK: 0.4
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	2800	7.753				
1146-65-2	Naphthalene-d8	6950	10.541				
15067-26-2	Acenaphthene-d10	4240	14.387				
1517-22-2	Phenanthrene-d10	9430	17.136				
1719-03-5	Chrysene-d12	6680	21.322				
1520-96-3	Perylene-d12	5830	23.589				

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



- A
- B
- C
- D
- E
- F
- G

# 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) SURR2-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) SURRFluoranthene-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: TETRO6  
 Lab Code: CHEM Case No.: Q1347 SAS No.: Q1347 SDG No.: Q1347  
 Instrument ID: BNA\_N Calibration Date/Time: 02/12/2025 15:48  
 Lab File ID: BN036441.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	0.594		-3.4	20.0
Fluoranthene-d10	1.112	1.037		-6.7	20.0
2-Fluorophenol	0.945	0.868		-8.1	20.0
Phenol-d6	1.109	0.993		-10.5	20.0
Nitrobenzene-d5	0.395	0.382		-3.3	20.0
2-Fluorobiphenyl	1.504	1.361		-9.5	20.0
2,4,6-Tribromophenol	0.198	0.161		-18.7	20.0
Terphenyl-d14	0.854	0.819		-4.1	20.0
1,4-Dioxane	0.438	0.428		-2.3	20.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1347 SAS No.: Q1347 SDG No.: Q1347  
 Instrument ID: BNA\_N Calibration Date/Time: 02/13/2025 01:23  
 Lab File ID: BN036457.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	1.046		-5.9	50.0
2-Fluorophenol	0.945	0.925		-2.1	50.0
Phenol-d6	1.109	1.094		-1.4	50.0
Nitrobenzene-d5	0.395	0.380		-3.8	50.0
2-Fluorobiphenyl	1.504	1.452		-3.5	50.0
2,4,6-Tribromophenol	0.198	0.171		-13.6	50.0
Terphenyl-d14	0.854	0.894		4.7	50.0
1,4-Dioxane	0.438	0.427		-2.5	50.0

All other compounds must meet a minimum RRF of 0.010.