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LAB CHRONICLE

OrderID:	Q1380	**OrderDate:**	2/17/2025 3:59:00 PM
Client:	Tetra Tech NUS, Inc.	**Project:**	NWIRP Bethpage CTO WE13 - VPB-192
Contact:	Ernie Wu	**Location:**	#1,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1380-01	**BP-VPB-192-EB-20250212**	**Water**			**02/12/25**			**02/17/25**
			SVOC-SIMGroup1	8270-Modified		02/18/25	02/20/25	
Q1380-09	**BP-VPB-192-GW-780-782**	**Water**			**02/13/25**			**02/17/25**
			SVOC-SIMGroup1	8270-Modified		02/18/25	02/20/25	
Q1380-12	**VPB192-HYD-20250214**	**Water**			**02/14/25**			**02/17/25**
			SVOC-SIMGroup1	8270-Modified		02/18/25	02/20/25	

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Hit Summary Sheet
SW-846

SDG No.: Q1380

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

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	02/12/25
Project:	NWIRP Bethpage CTO WE13 - VPB-192 #112G08005	Date Received:	02/17/25
Client Sample ID:	BP-VPB-192-EB-20250212	SDG No.:	Q1380
Lab Sample ID:	Q1380-01	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	890 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
BN036475.D	1	02/18/25 11:40	02/20/25 11:24	PB166758

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.22	U	0.080	0.22	0.22	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.31		30 - 150		76%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.43		30 - 150		108%	SPK: 0.4
367-12-4	2-Fluorophenol	0.14		20 - 110		34%	SPK: 0.4
13127-88-3	Phenol-d6	0.078		10 - 160		20%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		76%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		96%	SPK: 0.4
118-79-6	2,4,6-Tribromophenol	0.35		46 - 122		87%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.58	*	58 - 132		146%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1490	7.746				
1146-65-2	Naphthalene-d8	3320	10.541				
15067-26-2	Acenaphthene-d10	2120	14.388				
1517-22-2	Phenanthrene-d10	4760	17.136				
1719-03-5	Chrysene-d12	4680	21.322				
1520-96-3	Perylene-d12	4460	23.592				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	02/13/25
Project:	NWIRP Bethpage CTO WE13 - VPB-192 #112G08005	Date Received:	02/17/25
Client Sample ID:	BP-VPB-192-GW-780-782	SDG No.:	Q1380
Lab Sample ID:	Q1380-09	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	380 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
BN036476.D	1	02/18/25 11:40	02/20/25 12:00	PB166758

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.53	UM	0.18	0.53	0.53	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.35		30 - 150		88%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 - 150		103%	SPK: 0.4
367-12-4	2-Fluorophenol	0.25		20 - 110		62%	SPK: 0.4
13127-88-3	Phenol-d6	0.18		10 - 160		44%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		55 - 111		91%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.47	*	53 - 106		118%	SPK: 0.4
118-79-6	2,4,6-Tribromophenol	0.36		46 - 122		90%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.50		58 - 132		126%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1680	7.746				
1146-65-2	Naphthalene-d8	3840	10.541				
15067-26-2	Acenaphthene-d10	2410	14.388				
1517-22-2	Phenanthrene-d10	5510	17.124				
1719-03-5	Chrysene-d12	5350	21.322				
1520-96-3	Perylene-d12	4860	23.59				

U = Not Detected
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N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	02/14/25
Project:	NWIRP Bethpage CTO WE13 - VPB-192 #112G08005	Date Received:	02/17/25
Client Sample ID:	VPB192-HYD-20250214	SDG No.:	Q1380
Lab Sample ID:	Q1380-12	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	940 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
BN036479.D	1	02/18/25 11:40	02/20/25 13:48	PB166758

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.21	U	0.070	0.21	0.21	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.023	*	30 - 150		6%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.34		30 - 150		86%	SPK: 0.4
367-12-4	2-Fluorophenol	0.062	*	20 - 110		16%	SPK: 0.4
13127-88-3	Phenol-d6	0.0030	*	10 - 160		1%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.31		55 - 111		79%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.39		53 - 106		97%	SPK: 0.4
118-79-6	2,4,6-Tribromophenol	0.30		46 - 122		76%	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	1730	7.746				
1146-65-2	Naphthalene-d8	4020	10.541				
15067-26-2	Acenaphthene-d10	2590	14.388				
1517-22-2	Phenanthrene-d10	5760	17.136				
1719-03-5	Chrysene-d12	5470	21.322				
1520-96-3	Perylene-d12	4500	23.587				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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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

QC SUMMARY

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Surrogate Summary

SW-846

SDG No.: Q1380

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	High
PB166758BL	PB166758BL	2-Methylnaphthalene-d10	0.4	0.35	87		30	150
		Fluoranthene-d10	0.4	0.42	104		30	150
		2-Fluorophenol	0.4	0.40	100		20	110
		Phenol-d6	0.4	0.35	86		10	160
		Nitrobenzene-d5	0.4	0.37	93		55	111
		2-Fluorobiphenyl	0.4	0.35	88		53	106
		2,4,6-Tribromophenol	0.4	0.19	48		46	122
		Terphenyl-d14	0.4	0.42	104		58	132
PB166758BS	PB166758BS	2-Methylnaphthalene-d10	0.4	0.52	129		30	150
		Fluoranthene-d10	0.4	0.41	101		30	150
		2-Fluorophenol	0.4	0.41	101		20	110
		Phenol-d6	0.4	0.39	98		10	160
		Nitrobenzene-d5	0.4	0.39	97		55	111
		2-Fluorobiphenyl	0.4	0.47	118	*	53	106
		2,4,6-Tribromophenol	0.4	0.37	93		46	122
		Terphenyl-d14	0.4	0.43	108		58	132
Q1380-01	BP-VPB-192-EB-20250212	2-Methylnaphthalene-d10	0.4	0.31	76		30	150
		Fluoranthene-d10	0.4	0.43	108		30	150
		2-Fluorophenol	0.4	0.14	34		20	110
		Phenol-d6	0.4	0.078	20		10	160
		Nitrobenzene-d5	0.4	0.30	76		55	111
		2-Fluorobiphenyl	0.4	0.38	96		53	106
		2,4,6-Tribromophenol	0.4	0.35	87		46	122
		Terphenyl-d14	0.4	0.58	146	*	58	132
Q1380-09	BP-VPB-192-GW-780-782	2-Methylnaphthalene-d10	0.4	0.35	88		30	150
		Fluoranthene-d10	0.4	0.41	103		30	150
		2-Fluorophenol	0.4	0.25	62		20	110
		Phenol-d6	0.4	0.18	44		10	160
		Nitrobenzene-d5	0.4	0.36	91		55	111
		2-Fluorobiphenyl	0.4	0.47	118	*	53	106
		2,4,6-Tribromophenol	0.4	0.36	90		46	122
		Terphenyl-d14	0.4	0.50	126		58	132
Q1380-10MS	BP-VPB-192-GW-780-782MS	2-Methylnaphthalene-d10	0.4	0.32	80		30	150
		Fluoranthene-d10	0.4	0.45	112		30	150
		2-Fluorophenol	0.4	0.24	60		20	110
		Phenol-d6	0.4	0.22	54		10	160
		Nitrobenzene-d5	0.4	0.32	80		55	111
		2-Fluorobiphenyl	0.4	0.44	110	*	53	106
		2,4,6-Tribromophenol	0.4	0.40	101		46	122
		Terphenyl-d14	0.4	0.54	135	*	58	132
Q1380-11MSD	BP-VPB-192-GW-780-782MSD	2-Methylnaphthalene-d10	0.4	0.32	80		30	150
		Fluoranthene-d10	0.4	0.47	116		30	150
		2-Fluorophenol	0.4	0.25	62		20	110
		Phenol-d6	0.4	0.23	57		10	160
		Nitrobenzene-d5	0.4	0.32	80		55	111
		2-Fluorobiphenyl	0.4	0.45	113	*	53	106
		2,4,6-Tribromophenol	0.4	0.40	101		46	122
		Terphenyl-d14	0.4	0.55	138	*	58	132
Q1380-12	VPB192-HYD-20250214	2-Methylnaphthalene-d10	0.4	0.023	6	*	30	150
		Fluoranthene-d10	0.4	0.34	86		30	150
		2-Fluorophenol	0.4	0.062	16	*	20	110

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Surrogate Summary

SW-846

SDG No.: Q1380

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
Q1380-12	VPB192-HYD-20250214	Phenol-d6	0.4	0.0030	1	*	10	160
		Nitrobenzene-d5	0.4	0.31	79		55	111
		2-Fluorobiphenyl	0.4	0.39	97		53	106
		2,4,6-Tribromophenol	0.4	0.30	76		46	122
		Terphenyl-d14	0.4	0.45	112		58	132

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1380

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8270-Modified

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1380-10MS		**Client Sample ID:** BP-VPB-192-GW-780-782MS						**DataFile:** BN036477.D			
1,4-Dioxane	1.3	0	0.83	ug/L	64	*			70	130	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q1380

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8270-Modified

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: Q1380-11MSD		**Client Sample ID:** BP-VPB-192-GW-780-782MSD						**DataFile:** BN036478.D			
1,4-Dioxane	1.3	0	0.92	ug/L	71		10		70	130	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1380

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified **DataFile:** BN036480.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB166758BS	1,4-Dioxane	0.4	0.35	ug/L	88				70	130	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166758BL

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1380 SAS No.: Q1380 SDG NO.: Q1380

Lab File ID: BN036474.D Lab Sample ID: PB166758BL

Instrument ID: BNA_N Date Extracted: 02/18/2025

Matrix: (soil/water) Water Date Analyzed: 02/20/2025

Level: (low/med) LOW Time Analyzed: 10:47

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166758BS	PB166758BS	BN036480.D	02/20/2025
BP-VPB-192-EB-20250212	Q1380-01	BN036475.D	02/20/2025
BP-VPB-192-GW-780-782	Q1380-09	BN036476.D	02/20/2025
BP-VPB-192-GW-780-782MS	Q1380-10MS	BN036477.D	02/20/2025
BP-VPB-192-GW-780-782MSD	Q1380-11MSD	BN036478.D	02/20/2025
VPB192-HYD-20250214	Q1380-12	BN036479.D	02/20/2025

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: Q1380 SDG NO.: Q1380

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	52.3
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

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: Q1380 SDG NO.: Q1380

Lab File ID: BN036472.D DFTPP Injection Date: 02/20/2025

Instrument ID: BNA_N DFTPP Injection Time: 09:32

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	57.4
68	Less than 2.0% of mass 69	0.8 (1.5) 1
69	Mass 69 relative abundance	52.1
70	Less than 2.0% of mass 69	0.3 (0.5) 1
127	10.0 - 80.0% of mass 198	50.3
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	6.9
275	10.0 - 60.0% of mass 198	24.3
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	8.4
442	Greater than 50% of mass 198	49.8
443	15.0 - 24.0% of mass 442	9.6 (19.3) 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	BN036473.D	02/20/2025	10:11
PB166758BL	PB166758BL	BN036474.D	02/20/2025	10:47
BP-VPB-192-EB-20250212	Q1380-01	BN036475.D	02/20/2025	11:24
BP-VPB-192-GW-780-782	Q1380-09	BN036476.D	02/20/2025	12:00
BP-VPB-192-GW-780-782MS	Q1380-10MS	BN036477.D	02/20/2025	12:36
BP-VPB-192-GW-780-782MSD	Q1380-11MSD	BN036478.D	02/20/2025	13:12
VPB192-HYD-20250214	Q1380-12	BN036479.D	02/20/2025	13:48
PB166758BS	PB166758BS	BN036480.D	02/20/2025	14:24
SSTDCCC0.4EC	SSTDCCC0.4	BN036482.D	02/20/2025	16:08

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1380 SAS No.: Q1380 SDG NO.: Q1380

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/20/2025

Lab File ID: BN036473.D Time Analyzed: 10:11

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	1766	7.746	4292	10.54	2899	14.39
	UPPER LIMIT	3532	8.246	8584	11.041	5798	14.887
	LOWER LIMIT	883	7.246	2146	10.041	1449.5	13.887
	EPA SAMPLE NO.						
01	PB166758BL	1874	7.75	3905	10.55	2305	14.40
02	BP-VPB-192-EB-20250212	1491	7.75	3323	10.54	2119	14.39
03	PB166758BS	1827	7.75	4127	10.54	2357	14.39
04	BP-VPB-192-GW-780-782	1676	7.75	3840	10.54	2412	14.39
05	BP-VPB-192-GW-780-782MS	1709	7.75	3995	10.54	2495	14.39
06	BP-VPB-192-GW-780-782MSD	1787	7.75	4250	10.53	2636	14.39
07	VPB192-HYD-20250214	1727	7.75	4024	10.54	2593	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.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1380 SAS No.: Q1380 SDG NO.: Q1380

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/20/2025

Lab File ID: BN036473.D Time Analyzed: 10:11

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	6167	17.136	5687	21.313	5826	23.586
	UPPER LIMIT	12334	17.636	11374	21.813	11652	24.086
	LOWER LIMIT	3083.5	16.636	2843.5	20.813	2913	23.086
	EPA SAMPLE NO.						
01	PB166758BL	4889	17.15	4485	21.33	3907	23.60
02	BP-VPB-192-EB-20250212	4759	17.14	4677	21.32	4457	23.59
03	PB166758BS	5256	17.14	4823	21.32	4362	23.59
04	BP-VPB-192-GW-780-782	5513	17.12	5354	21.32	4859	23.59
05	BP-VPB-192-GW-780-782MS	5565	17.12	5523	21.31	5300	23.59
06	BP-VPB-192-GW-780-782MSD	5810	17.12	5865	21.31	5479	23.58
07	VPB192-HYD-20250214	5756	17.14	5466	21.32	4501	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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	NWIRP Bethpage CTO WE13 - VPB-192 #112G08005	Date Received:	
Client Sample ID:	PB166758BL	SDG No.:	Q1380
Lab Sample ID:	PB166758BL	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
BN036474.D	1	02/18/25 11:40	02/20/25 10:47	PB166758

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	0.35		30 - 150		87%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.42		30 - 150		104%	SPK: 0.4
367-12-4	2-Fluorophenol	0.40		20 - 110		100%	SPK: 0.4
13127-88-3	Phenol-d6	0.35		10 - 160		86%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.37		55 - 111		93%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		53 - 106		88%	SPK: 0.4
118-79-6	2,4,6-Tribromophenol	0.19		46 - 122		48%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.42		58 - 132		104%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1870	7.746				
1146-65-2	Naphthalene-d8	3910	10.551				
15067-26-2	Acenaphthene-d10	2310	14.398				
1517-22-2	Phenanthrene-d10	4890	17.148				
1719-03-5	Chrysene-d12	4490	21.331				
1520-96-3	Perylene-d12	3910	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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	NWIRP Bethpage CTO WE13 - VPB-192 #112G08005	Date Received:	
Client Sample ID:	PB166758BS	SDG No.:	Q1380
Lab Sample ID:	PB166758BS	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
BN036480.D	1	02/18/25 11:40	02/20/25 14:24	PB166758

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.35		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.52		30 - 150		129%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 - 150		101%	SPK: 0.4
367-12-4	2-Fluorophenol	0.41		20 - 110		101%	SPK: 0.4
13127-88-3	Phenol-d6	0.39		10 - 160		98%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.39		55 - 111		97%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.47	*	53 - 106		118%	SPK: 0.4
118-79-6	2,4,6-Tribromophenol	0.37		46 - 122		93%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.43		58 - 132		108%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1830	7.746				
1146-65-2	Naphthalene-d8	4130	10.541				
15067-26-2	Acenaphthene-d10	2360	14.388				
1517-22-2	Phenanthrene-d10	5260	17.136				
1719-03-5	Chrysene-d12	4820	21.322				
1520-96-3	Perylene-d12	4360	23.589				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	02/13/25
Project:	NWIRP Bethpage CTO WE13 - VPB-192 #112G08005	Date Received:	02/17/25
Client Sample ID:	BP-VPB-192-GW-780-782MS	SDG No.:	Q1380
Lab Sample ID:	Q1380-10MS	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	320 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
BN036477.D	1	02/18/25 11:40	02/20/25 12:36	PB166758

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.83		0.21	0.63	0.63	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.32		30 - 150		80%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.45		30 - 150		112%	SPK: 0.4
367-12-4	2-Fluorophenol	0.24		20 - 110		60%	SPK: 0.4
13127-88-3	Phenol-d6	0.22		10 - 160		54%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.32		55 - 111		80%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.44	*	53 - 106		110%	SPK: 0.4
118-79-6	2,4,6-Tribromophenol	0.40		46 - 122		101%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.54	*	58 - 132		135%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1710	7.746				
1146-65-2	Naphthalene-d8	4000	10.541				
15067-26-2	Acenaphthene-d10	2500	14.387				
1517-22-2	Phenanthrene-d10	5570	17.124				
1719-03-5	Chrysene-d12	5520	21.313				
1520-96-3	Perylene-d12	5300	23.586				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	02/13/25
Project:	NWIRP Bethpage CTO WE13 - VPB-192 #112G08005	Date Received:	02/17/25
Client Sample ID:	BP-VPB-192-GW-780-782MSD	SDG No.:	Q1380
Lab Sample ID:	Q1380-11MSD	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	300 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
BN036478.D	1	02/18/25 11:40	02/20/25 13:12	PB166758

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.92		0.23	0.67	0.67	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.32		30 - 150		80%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.47		30 - 150		116%	SPK: 0.4
367-12-4	2-Fluorophenol	0.25		20 - 110		62%	SPK: 0.4
13127-88-3	Phenol-d6	0.23		10 - 160		57%	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		113%	SPK: 0.4
118-79-6	2,4,6-Tribromophenol	0.40		46 - 122		101%	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	1790	7.746				
1146-65-2	Naphthalene-d8	4250	10.53				
15067-26-2	Acenaphthene-d10	2640	14.387				
1517-22-2	Phenanthrene-d10	5810	17.124				
1719-03-5	Chrysene-d12	5870	21.313				
1520-96-3	Perylene-d12	5480	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

CALIBRATION SUMMARY

Response Factor Report BNA_N

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

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1380 SAS No.: Q1380 SDG No.: Q1380

Instrument ID: BNA_N Calibration Date/Time: 02/20/2025 10:11

Lab File ID: BN036473.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	0.585		-4.9	20.0
Fluoranthene-d10	1.112	1.062		-4.5	20.0
2-Fluorophenol	0.945	0.879		-7.0	20.0
Phenol-d6	1.109	1.046		-5.7	20.0
Nitrobenzene-d5	0.395	0.399		1.0	20.0
2-Fluorobiphenyl	1.504	1.478		-1.7	20.0
2,4,6-Tribromophenol	0.198	0.165		-16.7	20.0
Terphenyl-d14	0.854	0.795		-6.9	20.0
1,4-Dioxane	0.438	0.446		1.8	20.0

All other compounds must meet a minimum RRF of 0.010.

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Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1380 SAS No.: Q1380 SDG No.: Q1380

Instrument ID: BNA_N Calibration Date/Time: 02/20/2025 16:08

Lab File ID: BN036482.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	0.590		-4.1	50.0
Fluoranthene-d10	1.112	1.050		-5.6	50.0
2-Fluorophenol	0.945	0.903		-4.4	50.0
Phenol-d6	1.109	1.067		-3.8	50.0
Nitrobenzene-d5	0.395	0.392		-0.8	50.0
2-Fluorobiphenyl	1.504	1.565		4.1	50.0
2,4,6-Tribromophenol	0.198	0.163		-17.7	50.0
Terphenyl-d14	0.854	0.801		-6.2	50.0
1,4-Dioxane	0.438	0.416		-5.0	50.0

All other compounds must meet a minimum RRF of 0.010.