

ANALYTICAL RESULTS SUMMARY

SEMI-VOLATILE ORGANICS

PROJECT NAME : NWIRP BETHPAGE - RW5B CTO WE13 112G08005

TETRA TECH NUS, INC.

661 Andersen Drive

Suite 200

Pittsburgh, PA - 15220-2745

Phone No: 412-921-7090

ORDER ID : Q1943

ATTENTION : Ernie Wu



Laboratory Certification ID # 20012



1) Signature Page	3
2) Case Narrative	4
2.1) SVOC-SIMGroup1- Case Narrative	4
3) Qualifier Page	6
4) QA Checklist	7
5) SVOC-SIMGroup1 Data	8
6) Shipping Document	33
6.1) CHAIN OF CUSTODY	34
6.2) Lab Certificate	35

1
2
3
4
5
6

Cover Page

Order ID : Q1943

Project ID : NWIRP Bethpage - RW5B CTO WE13 112G08005

Client : Tetra Tech NUS, Inc.

Lab Sample Number

Q1943-01
Q1943-02
Q1943-03

Client Sample Number

RW5-SP100-20250501
RW5-SP201-20250501
RW5-SP303-20250501

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 5/10/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: NWIRP Bethpage - RW5B CTO WE13 112G08005

Project Manager: Ernie Wu

Chemtech Project # Q1943

Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:

3 Water samples were received on 05/02/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1. This data package contains results for SVOC-SIMGroup1.

C. Analytical Techniques:

The samples were analyzed on instrument BNA_N using GC Column ZB-SemiVolatiles Guardian which is 30 meters, 0.25 mm ID, 0.5 um df, Catalog # 7HG-G027-17-GGAThe analysis of SVOC-SIMGroup1 was based on method 8270-Modified and extraction was done based on method 3510.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .

The Tuning criteria met requirements.

Sample RW5-SP100-20250501 was diluted due to high concentration.

E. Additional Comments:

The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is).

The Form 6 is not included in the data package because the Initial Calibration was performed using 7 points.

The not QT review data is reported in the Miscellaneous.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following “Results Qualifiers” are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. “10 U”. This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as “12 B”.
E	Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a “P”.
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1943

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 05/10/2025

LAB CHRONICLE

OrderID:	Q1943	OrderDate:	5/2/2025 11:12:00 AM
Client:	Tetra Tech NUS, Inc.	Project:	NWIRP Bethpage - RW5B CTO WE13 112G08005
Contact:	Ernie Wu	Location:	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1943-01	RW5-SP100-20250501	Water			05/01/25			05/02/25
			SVOC-SIMGroup1	8270-Modified		05/07/25	05/07/25	
Q1943-01DL	RW5-SP100-20250501DL	Water			05/01/25			05/02/25
			SVOC-SIMGroup1	8270-Modified		05/07/25	05/07/25	
Q1943-02	RW5-SP201-20250501	Water			05/01/25			05/02/25
			SVOC-SIMGroup1	8270-Modified		05/07/25	05/07/25	
Q1943-03	RW5-SP303-20250501	Water			05/01/25			05/02/25
			SVOC-SIMGroup1	8270-Modified		05/07/25	05/07/25	



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

Hit Summary Sheet SW-846

SDG No.: Q1943

Client: Tetra Tech NUS, Inc.

Sample ID	Client ID		Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	RW5-SP100-20250501								
Q1943-01	RW5-SP100-20250501	WATER	1,4-Dioxane	6.400	E	0.07	0.2	0.2	ug/L
Total Svoc :				6.40					
Total Concentration:				6.40					
Client ID :	RW5-SP100-20250501DL								
Q1943-01DL	RW5-SP100-20250501DI	WATER	1,4-Dioxane	6.800	D	0.13	0.4	0.4	ug/L
Total Svoc :				6.80					
Total Concentration:				6.80					



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/01/25
Project:	NWIRP Bethpage - RW5B CTO WE13 112G08005	Date Received:	05/02/25
Client Sample ID:	RW5-SP100-20250501	SDG No.:	Q1943
Lab Sample ID:	Q1943-01	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN036964.D	1	05/07/25 08:52	05/07/25 15:46	PB167888

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	6.40	E	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.30		30 - 150		75%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 - 150		101%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.34		55 - 111		86%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.34		53 - 106		86%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.48		58 - 132		119%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1470	7.625				
1146-65-2	Naphthalene-d8	3730	10.415				
15067-26-2	Acenaphthene-d10	2040	14.277				
1517-22-2	Phenanthrene-d10	4200	17.021				
1719-03-5	Chrysene-d12	3640	21.215				
1520-96-3	Perylene-d12	3540	23.424				

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:	05/01/25
Project:	NWIRP Bethpage - RW5B CTO WE13 112G08005	Date Received:	05/02/25
Client Sample ID:	RW5-SP100-20250501DL	SDG No.:	Q1943
Lab Sample ID:	Q1943-01DL	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN036969.D	2	05/07/25 08:52	05/07/25 18:46	PB167888

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	6.80	D	0.13	0.40	0.40	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.29		30 - 150		74%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 - 150		103%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.32		55 - 111		81%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		53 - 106		87%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.48		58 - 132		119%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1230		7.626			
1146-65-2	Naphthalene-d8	3120		10.415			
15067-26-2	Acenaphthene-d10	1700		14.277			
1517-22-2	Phenanthrene-d10	3470		17.021			
1719-03-5	Chrysene-d12	3030		21.215			
1520-96-3	Perylene-d12	2950		23.424			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	05/01/25
Project:	NWIRP Bethpage - RW5B CTO WE13 112G08005	Date Received:	05/02/25
Client Sample ID:	RW5-SP201-20250501	SDG No.:	Q1943
Lab Sample ID:	Q1943-02	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN036965.D	1	05/07/25 08:52	05/07/25 16:22	PB167888

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	0.29		30 - 150		72%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.40		30 - 150		99%	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		73%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.47		58 - 132		117%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1470	7.625				
1146-65-2	Naphthalene-d8	3680	10.415				
15067-26-2	Acenaphthene-d10	2020	14.277				
1517-22-2	Phenanthrene-d10	4150	17.021				
1719-03-5	Chrysene-d12	3460	21.215				
1520-96-3	Perylene-d12	3470	23.424				

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LOD = Limit of Detection

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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:	05/01/25
Project:	NWIRP Bethpage - RW5B CTO WE13 112G08005	Date Received:	05/02/25
Client Sample ID:	RW5-SP303-20250501	SDG No.:	Q1943
Lab Sample ID:	Q1943-03	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	990 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
BN036966.D	1	05/07/25 08:52	05/07/25 16:58	PB167888

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	0.30		30 - 150		75%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.42		30 - 150		104%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.31		55 - 111		77%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.28		53 - 106		71%	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	1510	7.626				
1146-65-2	Naphthalene-d8	3750	10.404				
15067-26-2	Acenaphthene-d10	2060	14.277				
1517-22-2	Phenanthrene-d10	4290	17.021				
1719-03-5	Chrysene-d12	3770	21.216				
1520-96-3	Perylene-d12	3570	23.421				

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LOD = Limit of Detection

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* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



QC SUMMARY

Surrogate Summary

SW-846

SDG No.: Q1943

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
PB167888BL	PB167888BL	2-Methylnaphthalene-d10	0.4	0.34	84		30	150
		Fluoranthene-d10	0.4	0.39	98		30	150
		Nitrobenzene-d5	0.4	0.34	84		55	111
		2-Fluorobiphenyl	0.4	0.34	86		53	106
		Terphenyl-d14	0.4	0.36	89		58	132
PB167888BS	PB167888BS	2-Methylnaphthalene-d10	0.4	0.35	87		30	150
		Fluoranthene-d10	0.4	0.33	83		30	150
		Nitrobenzene-d5	0.4	0.33	83		55	111
		2-Fluorobiphenyl	0.4	0.31	76		53	106
		Terphenyl-d14	0.4	0.33	81		58	132
PB167888BSD	PB167888BSD	2-Methylnaphthalene-d10	0.4	0.36	91		30	150
		Fluoranthene-d10	0.4	0.36	89		30	150
		Nitrobenzene-d5	0.4	0.36	89		55	111
		2-Fluorobiphenyl	0.4	0.36	91		53	106
		Terphenyl-d14	0.4	0.33	83		58	132
Q1943-01	RW5-SP100-20250501	2-Methylnaphthalene-d10	0.4	0.30	75		30	150
		Fluoranthene-d10	0.4	0.41	101		30	150
		Nitrobenzene-d5	0.4	0.34	86		55	111
		2-Fluorobiphenyl	0.4	0.34	86		53	106
		Terphenyl-d14	0.4	0.48	119		58	132
Q1943-01DL	RW5-SP100-20250501DL	2-Methylnaphthalene-d10	0.4	0.29	74		30	150
		Fluoranthene-d10	0.4	0.41	103		30	150
		Nitrobenzene-d5	0.4	0.32	81		55	111
		2-Fluorobiphenyl	0.4	0.35	87		53	106
		Terphenyl-d14	0.4	0.48	119		58	132
Q1943-02	RW5-SP201-20250501	2-Methylnaphthalene-d10	0.4	0.29	72		30	150
		Fluoranthene-d10	0.4	0.40	99		30	150
		Nitrobenzene-d5	0.4	0.30	75		55	111
		2-Fluorobiphenyl	0.4	0.29	73		53	106
		Terphenyl-d14	0.4	0.47	117		58	132
Q1943-03	RW5-SP303-20250501	2-Methylnaphthalene-d10	0.4	0.30	75		30	150
		Fluoranthene-d10	0.4	0.42	104		30	150
		Nitrobenzene-d5	0.4	0.31	77		55	111
		2-Fluorobiphenyl	0.4	0.28	71		53	106
		Terphenyl-d14	0.4	0.43	108		58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1943

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

DataFile: BN036967.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB167888BS	1,4-Dioxane	0.4	0.29	ug/L	73				70	130	

A
B
C
D
E
F
G

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1943

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN036968.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB167888BSD	1,4-Dioxane	0.4	0.31	ug/L	78	7			70	130	20

A
B
C
D
E
F
G

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB167888BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: Q1943

SAS No.: Q1943 SDG NO.: Q1943

Lab File ID: BN036963.D

Lab Sample ID: PB167888BL

Instrument ID: BNA_N

Date Extracted: 05/07/2025

Matrix: (soil/water) Water

Date Analyzed: 05/07/2025

Level: (low/med) LOW

Time Analyzed: 15:10

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB167888BS	PB167888BS	BN036967.D	05/07/2025
RW5-SP100-20250501	Q1943-01	BN036964.D	05/07/2025
RW5-SP201-20250501	Q1943-02	BN036965.D	05/07/2025
RW5-SP303-20250501	Q1943-03	BN036966.D	05/07/2025
PB167888BSD	PB167888BSD	BN036968.D	05/07/2025

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1943

SDG NO.: Q1943

Lab File ID: BN036922.D

DFTPP Injection Date: 04/28/2025

Instrument ID: BNA_N

DFTPP Injection Time: 10:56

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	67.4
68	Less than 2.0% of mass 69	0.8 (1.4) 1
69	Mass 69 relative abundance	58.8
70	Less than 2.0% of mass 69	0.2 (0.4) 1
127	10.0 - 80.0% of mass 198	54.3
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	6.7
275	10.0 - 60.0% of mass 198	23.7
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	8.4
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	9.3 (19.4) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC0.1	SSTDICC0.1	BN036923.D	04/28/2025	11:35
SSTDICC0.2	SSTDICC0.2	BN036924.D	04/28/2025	12:11
SSTDICCC0.4	SSTDICCC0.4	BN036925.D	04/28/2025	12:47
SSTDICC0.8	SSTDICC0.8	BN036926.D	04/28/2025	13:24
SSTDICC1.6	SSTDICC1.6	BN036927.D	04/28/2025	14:00
SSTDICC3.2	SSTDICC3.2	BN036928.D	04/28/2025	14:36
SSTDICC5.0	SSTDICC5.0	BN036929.D	04/28/2025	15:12

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1943 SDG NO.: Q1943

Lab File ID: BN036961.D

DFTPP Injection Date: 05/07/2025

Instrument ID: BNA_N

DFTPP Injection Time: 13:54

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	71.9
68	Less than 2.0% of mass 69	0.5 (0.8) 1
69	Mass 69 relative abundance	61.6
70	Less than 2.0% of mass 69	0.3 (0.5) 1
127	10.0 - 80.0% of mass 198	54.5
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	7.2
275	10.0 - 60.0% of mass 198	25.4
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	9.6
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	11 (19.4) 2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC0.4	SSTDCCC0.4	BN036962.D	05/07/2025	14:34
PB167888BL	PB167888BL	BN036963.D	05/07/2025	15:10
RW5-SP100-20250501	Q1943-01	BN036964.D	05/07/2025	15:46
RW5-SP201-20250501	Q1943-02	BN036965.D	05/07/2025	16:22
RW5-SP303-20250501	Q1943-03	BN036966.D	05/07/2025	16:58
PB167888BS	PB167888BS	BN036967.D	05/07/2025	17:34
PB167888BSD	PB167888BSD	BN036968.D	05/07/2025	18:10
RW5-SP100-20250501DL	Q1943-01DL	BN036969.D	05/07/2025	18:46
SSTDCCC0.4EC	SSTDCCC0.4	BN036970.D	05/07/2025	19:22

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1943 SAS No.: Q1943 SDG NO.: Q1943

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 05/07/2025

Lab File ID: BN036962.D Time Analyzed: 14:34

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	1758	7.625	4540	10.40	2519	14.28
UPPER LIMIT	3516	8.125	9080	10.904	5038	14.777
LOWER LIMIT	879	7.125	2270	9.904	1259.5	13.777
EPA SAMPLE NO.						
01 PB167888BL	1632	7.63	3925	10.42	2123	14.28
02 RW5-SP100-20250501	1473	7.63	3725	10.42	2044	14.28
03 PB167888BS	1880	7.63	4617	10.40	2400	14.28
04 RW5-SP201-20250501	1471	7.63	3680	10.42	2020	14.28
05 PB167888BSD	1764	7.63	4428	10.40	2291	14.28
06 RW5-SP100-20250501DL	1228	7.63	3122	10.42	1700	14.28
07 RW5-SP303-20250501	1507	7.63	3748	10.40	2062	14.28

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.: Q1943 SAS No.: Q1943 SDG NO.: Q1943

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 05/07/2025

Lab File ID: BN036962.D Time Analyzed: 14:34

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	5025	17.021	4291	21.215	4049	23.421
UPPER LIMIT	10050	17.521	8582	21.715	8098	23.921
LOWER LIMIT	2512.5	16.521	2145.5	20.715	2024.5	22.921
EPA SAMPLE NO.						
01 PB167888BL	4343	17.02	3742	21.22	3520	23.42
02 RW5-SP100-20250501	4199	17.02	3638	21.22	3538	23.42
03 PB167888BS	4862	17.02	3859	21.22	3435	23.42
04 RW5-SP201-20250501	4147	17.02	3462	21.22	3467	23.42
05 PB167888BSD	4738	17.02	3967	21.22	3741	23.42
06 RW5-SP100-20250501DL	3471	17.02	3025	21.22	2950	23.42
07 RW5-SP303-20250501	4292	17.02	3769	21.22	3573	23.42

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:	NWIRP Bethpage - RW5B CTO WE13 112G08005		Date Received:	
Client Sample ID:	PB167888BL		SDG No.:	Q1943
Lab Sample ID:	PB167888BL		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
BN036963.D	1	05/07/25 08:52	05/07/25 15:10	PB167888

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	0.34		30 - 150		84%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		98%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.34		55 - 111		84%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.34		53 - 106		86%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.36		58 - 132		89%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1630	7.633				
1146-65-2	Naphthalene-d8	3930	10.415				
15067-26-2	Acenaphthene-d10	2120	14.277				
1517-22-2	Phenanthrene-d10	4340	17.021				
1719-03-5	Chrysene-d12	3740	21.215				
1520-96-3	Perylene-d12	3520	23.424				

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:	NWIRP Bethpage - RW5B CTO WE13 112G08005		Date Received:		
Client Sample ID:	PB167888BS		SDG No.:	Q1943	
Lab Sample ID:	PB167888BS		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
BN036967.D	1	05/07/25 08:52	05/07/25 17:34	PB167888

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	0.35		30 - 150		87%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.33		30 - 150		83%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.33		55 - 111		83%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.31		53 - 106		76%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.33		58 - 132		81%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1880	7.625				
1146-65-2	Naphthalene-d8	4620	10.404				
15067-26-2	Acenaphthene-d10	2400	14.277				
1517-22-2	Phenanthrene-d10	4860	17.021				
1719-03-5	Chrysene-d12	3860	21.215				
1520-96-3	Perylene-d12	3440	23.424				

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:	NWIRP Bethpage - RW5B CTO WE13 112G08005		Date Received:	
Client Sample ID:	PB167888BSD		SDG No.:	Q1943
Lab Sample ID:	PB167888BSD		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
BN036968.D	1	05/07/25 08:52	05/07/25 18:10	PB167888

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	0.36		30 - 150		91%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.36		30 - 150		89%	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		91%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.33		58 - 132		83%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1760	7.625				
1146-65-2	Naphthalene-d8	4430	10.404				
15067-26-2	Acenaphthene-d10	2290	14.277				
1517-22-2	Phenanthrene-d10	4740	17.021				
1719-03-5	Chrysene-d12	3970	21.215				
1520-96-3	Perylene-d12	3740	23.424				

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-BN042825.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Mon Apr 28 15:35:03 2025
 Response Via : Initial Calibration

Calibration Files

0.1 =BN036923.D 0.2 =BN036924.D 0.4 =BN036925.D 0.8 =BN036926.D 1.6 =BN036927.D 3.2 =BN036928.D 5.0 =BN036929.D

	Compound	0.1	0.2	0.4	0.8	1.6	3.2	5.0	Avg	%RSD

1) I	1,4-Dichlorobenzen...	-----ISTD-----								
2)	1,4-Dioxane	0.452	0.489	0.551	0.506	0.537	0.489	0.465	0.498	7.23
3)	n-Nitrosodimet...	0.903	0.998	1.010	0.957	1.034	0.952	0.918	0.967	5.01
4) S	2-Fluorophenol	1.050	1.056	1.118	0.946	1.040	0.982	0.970	1.023	5.86
5) S	Phenol-d6	1.270	1.237	1.337	1.151	1.294	1.255	1.272	1.259	4.57
6)	bis(2-Chloroet...	1.174	1.123	1.170	1.139	1.240	1.162	1.162	1.167	3.17
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.400	0.401	0.411	0.404	0.446	0.432	0.436	0.418	4.52
9)	Naphthalene	1.155	1.147	1.155	1.132	1.225	1.170	1.165	1.164	2.56
10)	Hexachlorobuta...	0.260	0.250	0.253	0.249	0.262	0.248	0.240	0.252	2.99
11) SURR2	Methylnaphth...	0.540	0.532	0.541	0.543	0.596	0.575	0.589	0.559	4.75
12)	2-Methylnaphth...	0.716	0.713	0.719	0.735	0.804	0.782	0.798	0.753	5.41
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.156	0.173	0.177	0.175	0.187	0.184	0.196	0.178	7.18
15) S	2-Fluorobiphenyl	1.877	1.975	2.055	1.690	2.023	1.986	1.928	1.933	6.32
16)	Acenaphthylene	1.876	1.850	1.907	1.884	2.067	2.035	2.066	1.955	4.93
17)	Acenaphthene	1.264	1.270	1.275	1.248	1.333	1.295	1.305	1.284	2.22
18)	Fluorene	1.604	1.612	1.624	1.658	1.788	1.720	1.752	1.680	4.39
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.083	0.090	0.096	0.113	0.120	0.134	0.106		18.55
21)	4-Bromophenyl-...	0.260	0.263	0.262	0.260	0.282	0.272	0.270	0.267	3.11
22)	Hexachlorobenzene	0.301	0.289	0.300	0.280	0.303	0.293	0.282	0.293	3.18
23)	Atrazine	0.193	0.198	0.199	0.217	0.227	0.226	0.248	0.215	9.20
24)	Pentachlorophenol	0.160	0.136	0.144	0.145	0.163	0.168	0.181	0.157	10.06
25)	Phenanthrene	1.309	1.274	1.299	1.280	1.387	1.346	1.347	1.320	3.13
26)	Anthracene	1.131	1.108	1.147	1.138	1.275	1.261	1.299	1.194	6.74
27) SURR	Fluoranthene-d10	0.993	1.004	0.991	1.016	1.087	1.053	1.115	1.037	4.74
28)	Fluoranthene	1.387	1.380	1.399	1.471	1.578	1.530	1.613	1.480	6.46
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.919	1.942	1.958	1.802	2.073	1.969	1.823	1.927	4.77
31) S	Terphenyl-d14	0.974	0.942	0.946	0.893	1.005	0.952	0.897	0.944	4.22
32)	Benzo(a)anthra...	1.402	1.407	1.429	1.422	1.583	1.509	1.561	1.473	5.19
33)	Chrysene	1.517	1.576	1.637	1.582	1.700	1.572	1.536	1.589	3.91
34)	Bis(2-ethylhex...	0.949	0.847	0.834	0.784	0.804	0.782	0.866	0.838	6.96
35) I	Perylene-d12	-----ISTD-----								

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

Method File : 8270-SIM-BN042825.M

36)	Indeno(1,2,3-c...	1.595	1.571	1.712	1.503	1.720	1.724	1.609	1.634	5.29
37)	Benzo(b)fluora...	1.580	1.552	1.634	1.628	1.796	1.758	1.825	1.682	6.50
38)	Benzo(k)fluora...	1.601	1.569	1.648	1.641	1.812	1.784	1.785	1.691	5.89
39) C	Benzo(a)pyrene	1.315	1.301	1.361	1.315	1.463	1.447	1.477	1.383	5.57
40)	Dibenzo(a,h)an...	1.229	1.241	1.349	1.176	1.357	1.379	1.268	1.286	5.96
41)	Benzo(g,h,i)pe...	1.459	1.405	1.515	1.305	1.495	1.470	1.339	1.427	5.61

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1943 SAS No.: Q1943 SDG No.: Q1943

Instrument ID: BNA_N Calibration Date/Time: 05/07/2025 14:34

Lab File ID: BN036962.D Init. Calib. Date(s): 04/28/2025 04/28/2025

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 11:35 15:12

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.559	0.547		-2.1	20.0
Fluoranthene-d10	1.037	1.039		0.2	20.0
2-Fluorophenol	1.023	1.062		3.8	20.0
Phenol-d6	1.259	1.301		3.3	20.0
Nitrobenzene-d5	0.418	0.408		-2.4	20.0
2-Fluorobiphenyl	1.933	1.935		0.1	20.0
2,4,6-Tribromophenol	0.178	0.178		0.0	20.0
Terphenyl-d14	0.944	0.864		-8.5	20.0
1,4-Dioxane	0.498	0.524		5.2	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.: Q1943 SAS No.: Q1943 SDG No.: Q1943

Instrument ID: BNA_N Calibration Date/Time: 05/07/2025 19:22

Lab File ID: BN036970.D Init. Calib. Date(s): 04/28/2025 04/28/2025

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 11:35 15:12

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.559	0.549		-1.8	50.0
Fluoranthene-d10	1.037	1.065		2.7	50.0
2-Fluorophenol	1.023	1.067		4.3	50.0
Phenol-d6	1.259	1.476		17.2	50.0
Nitrobenzene-d5	0.418	0.417		-0.2	50.0
2-Fluorobiphenyl	1.933	1.865		-3.5	50.0
2,4,6-Tribromophenol	0.178	0.191		7.3	50.0
Terphenyl-d14	0.944	0.873		-7.5	50.0
1,4-Dioxane	0.498	0.529		6.2	50.0

All other compounds must meet a minimum RRF of 0.010.



SHIPPING DOCUMENTS

34 of 35

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488