

ANALYTICAL RESULTS SUMMARYMETALS
SEMI-VOLATILE ORGANICS**PROJECT NAME : RW7B - 112G08005-WE13**

TETRA TECH NUS, INC.
661 Andersen Drive
Suite 200
Pittsburgh, PA - 15220-2745
Phone No: 412-921-7090

ORDER ID : Q1081
ATTENTION : Ernie Wu

**Laboratory Certification ID # 20012**

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Cover Page

Order ID : Q1081

Project ID : RW7B - 112G08005-WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

Q1081-01
Q1081-02
Q1081-03
Q1081-04

Client Sample Number

RW7-SP100-20250113
RW7-SP201-20250113
RW7-SP302-20250113
RW7-SP303-20250113

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 :

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 2:44 pm, Jan 23, 2025

Date: 1/21/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: RW7B - 112G08005-WE13

Project Manager: Ernie Wu

Chemtech Project # Q1081

Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:

4 Water samples were received on 01/14/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Metals Group4 and 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-SemiVolatile 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 except for PB166053BL [2-Fluorobiphenyl - 127%, Nitrobenzene-d5 - 138%], PB166053BS [Nitrobenzene-d5 - 118%], PB166053BSD [Nitrobenzene-d5 - 113%], RW7-SP100-20250113 [2-Fluorobiphenyl - 117%, Nitrobenzene-d5 - 120%, Terphenyl-d14 - 145%], RW7-SP100-20250113DL [Nitrobenzene-d5 - 122%, Terphenyl-d14 - 138%], RW7-SP201-20250113 [2-Fluorobiphenyl - 108%, Nitrobenzene-d5 - 114%, Terphenyl-d14 - 135%], RW7-SP302-20250113 [2-Fluorobiphenyl - 108%, Nitrobenzene-d5 - 123%, Terphenyl-d14 - 138%], RW7-SP303-20250113 [2-Fluorobiphenyl - 123%, Nitrobenzene-d5 - 128% and Terphenyl-d14 - 152%], The failure surrogates not associated with the client parameters list, therefore no corrective action was taken.

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 File ID BN035926.D met the requirements except for 2,4,6-Tribromophenol, The failure



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compound not associated with the client parameters list, therefore no corrective action was taken.

The Tuning criteria met requirements.

Sample RW7-SP100-20250113 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.

APPROVED

Signature _____

By Nimisha Pandya, QA/QC Supervisor at 2:44 pm, Jan 23, 2025



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CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: RW7B - 112G08005-WE13

Project Manager: Ernie Wu

Chemtech Project # Q1081

Test Name: Metals Group4

A. Number of Samples and Date of Receipt:

4 Water samples were received on 01/14/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Metals Group4 and SVOC-SIMGroup1. This data package contains results for Metals Group4.

C. Analytical Techniques:

The analysis of Metals Group4 was based on method 6010D and digestion based on method 3010 (waters).

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike analysis met criteria for all samples.

The Matrix Spike Duplicate analysis met criteria for all samples.

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

The Calibration met the requirements.

The Serial Dilution met the acceptable requirements.

E. Additional Comments:

The fax and hardcopy is not matching for Sample Q1081-04 due to at the time fax sample analyzed without QC set, but at the time of second review lab noticed QC set was not analyzed therefore this sample analyzed with QC set and reported. Hard copy is reported corrected.

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

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.

APPROVED

Signature _____

By Nimisha Pandya, QA/QC Supervisor at 2:44 pm, Jan 23, 2025

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following " Results Qualifiers" are used:

- J** Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
- U** Indicates the analyte was analyzed for, but not detected.
- ND** Indicates the analyte was analyzed for, but not detected
- E** Indicates the reported value is estimated because of the presence of interference
- M** Indicates Duplicate injection precision not met.
- N** Indicates the spiked sample recovery is not within control limits.
- S** Indicates the reported value was determined by the Method of Standard Addition (MSA).
- *** Indicates that the duplicate analysis is not within control limits.
- +** Indicates the correlation coefficient for the MSA is less than 0.995.
- D** Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
- M** Method qualifiers
 - "P"** for ICP instrument
 - "PM"** for ICP when Microwave Digestion is used
 - "CV"** for Manual Cold Vapor AA
 - "AV"** for automated Cold Vapor AA
 - "CA"** for MIDI-Distillation Spectrophotometric
 - "AS"** for Semi -Automated Spectrophotometric
 - "C"** for Manual Spectrophotometric
 - "T"** for Titrimetric
 - "NR"** for analyte not required to be analyzed
- OR** Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
- Q** Indicates the LCS did not meet the control limits requirements
- H** Sample Analysis Out Of Hold Time

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 #: Q1081

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 Castody

✓

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: 01/21/2025

LAB CHRONICLE

OrderID:	Q1081	OrderDate:	1/14/2025 10:28:00 AM					
Client:	Tetra Tech NUS, Inc.	Project:	RW7B - 112G08005-WE13					
Contact:	Ernie Wu	Location:	N41					
<hr/>								
LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1081-01	RW7-SP100-2025011 3	Water			01/13/25			01/14/25
			SVOC-SIMGroup1	8270-Modified		01/14/25	01/15/25	
Q1081-01DL	RW7-SP100-2025011 3DL	Water			01/13/25			01/14/25
			SVOC-SIMGroup1	8270-Modified		01/14/25	01/15/25	
Q1081-02	RW7-SP201-2025011 3	Water			01/13/25			01/14/25
			SVOC-SIMGroup1	8270-Modified		01/14/25	01/15/25	
Q1081-03	RW7-SP302-2025011 3	Water			01/13/25			01/14/25
			SVOC-SIMGroup1	8270-Modified		01/14/25	01/15/25	
Q1081-04	RW7-SP303-2025011 3	Water			01/13/25			01/14/25
			SVOC-SIMGroup1	8270-Modified		01/14/25	01/15/25	

A

B

C

D

E

F

G



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Fax : 908 789 8922

Hit Summary Sheet SW-846

SDG No.: Q1081

Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	RW7-SP100-20250113							
Q1081-01	RW7-SP100-20250113	WATER	1,4-Dioxane	5.200	E	0.07	0.2	0.2 ug/L
			Total Svoc :			5.20		
			Total Concentration:			5.20		
Client ID :	RW7-SP100-20250113DL							
Q1081-01DL	RW7-SP100-20250113DI	WATER	1,4-Dioxane	4.600	D	0.14	0.4	0.4 ug/L
			Total Svoc :			4.60		
			Total Concentration:			4.60		



A
B
C
D
E
F
G

SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/13/25
Project:	RW7B - 112G08005-WE13	Date Received:	01/14/25
Client Sample ID:	RW7-SP100-20250113	SDG No.:	Q1081
Lab Sample ID:	Q1081-01	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
BN035928.D	1	01/14/25 11:00	01/15/25 11:39	PB166053

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	5.20	E	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.47		30 - 150		116%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.54		30 - 150		134%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.48	*	55 - 111		120%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.47	*	53 - 106		117%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.58	*	58 - 132		145%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	706		7.832			
1146-65-2	Naphthalene-d8	1330		10.622			
15067-26-2	Acenaphthene-d10	657		14.463			
1517-22-2	Phenanthrene-d10	1190		17.199			
1719-03-5	Chrysene-d12	1020		21.376			
1520-96-3	Perylene-d12	1190		23.678			

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:	01/13/25
Project:	RW7B - 112G08005-WE13	Date Received:	01/14/25
Client Sample ID:	RW7-SP100-20250113DL	SDG No.:	Q1081
Lab Sample ID:	Q1081-01DL	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
BN035931.D	2	01/14/25 11:00	01/15/25 13:27	PB166053

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	4.60	D	0.14	0.40	0.40	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.45		30 - 150		113%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.52		30 - 150		131%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.49	*	55 - 111		122%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.42		53 - 106		106%	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	697		7.831			
1146-65-2	Naphthalene-d8	1310		10.622			
15067-26-2	Acenaphthene-d10	702		14.463			
1517-22-2	Phenanthrene-d10	1450		17.198			
1719-03-5	Chrysene-d12	1310		21.376			
1520-96-3	Perylene-d12	1480		23.675			

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/13/25
Project:	RW7B - 112G08005-WE13	Date Received:	01/14/25
Client Sample ID:	RW7-SP201-20250113	SDG No.:	Q1081
Lab Sample ID:	Q1081-02	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
BN035929.D	1	01/14/25 11:00	01/15/25 12:15	PB166053

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	0.44		30 - 150		110%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.52		30 - 150		131%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.46	*	55 - 111		114%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.43	*	53 - 106		108%	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	707		7.832			
1146-65-2	Naphthalene-d8	1340		10.622			
15067-26-2	Acenaphthene-d10	689		14.458			
1517-22-2	Phenanthrene-d10	1430		17.194			
1719-03-5	Chrysene-d12	1320		21.376			
1520-96-3	Perylene-d12	1480		23.674			

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D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/13/25
Project:	RW7B - 112G08005-WE13	Date Received:	01/14/25
Client Sample ID:	RW7-SP302-20250113	SDG No.:	Q1081
Lab Sample ID:	Q1081-03	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
BN035930.D	1	01/14/25 11:00	01/15/25 12:51	PB166053

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	0.45		30 - 150		113%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.55		30 - 150		136%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.49	*	55 - 111		123%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.43	*	53 - 106		108%	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	624		7.832			
1146-65-2	Naphthalene-d8	1210		10.622			
15067-26-2	Acenaphthene-d10	641		14.458			
1517-22-2	Phenanthrene-d10	1310		17.194			
1719-03-5	Chrysene-d12	1190		21.376			
1520-96-3	Perylene-d12	1310		23.674			

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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

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/13/25
Project:	RW7B - 112G08005-WE13	Date Received:	01/14/25
Client Sample ID:	RW7-SP303-20250113	SDG No.:	Q1081
Lab Sample ID:	Q1081-04	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
BN035932.D	1	01/14/25 11:00	01/15/25 14:02	PB166053

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	0.49		30 - 150		122%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.56		30 - 150		139%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.51	*	55 - 111		128%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.49	*	53 - 106		123%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.61	*	58 - 132		152%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	634		7.832			
1146-65-2	Naphthalene-d8	1190		10.622			
15067-26-2	Acenaphthene-d10	633		14.452			
1517-22-2	Phenanthrene-d10	1320		17.199			
1719-03-5	Chrysene-d12	1180		21.376			
1520-96-3	Perylene-d12	1330		23.675			

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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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QC SUMMARY

Surrogate Summary

SW-846

SDG No.: Q1081

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
PB166053BL	PB166053BL	2-Methylnaphthalene-d10	0.4	0.50	125	*	30	150
		Fluoranthene-d10	0.4	0.49	122	*	30	150
		Nitrobenzene-d5	0.4	0.55	138	*	55	111
		2-Fluorobiphenyl	0.4	0.51	127	*	53	106
		Terphenyl-d14	0.4	0.52	130	*	58	132
		2-Methylnaphthalene-d10	0.4	0.40	100	*	30	150
PB166053BS	PB166053BS	Fluoranthene-d10	0.4	0.40	101	*	30	150
		Nitrobenzene-d5	0.4	0.47	118	*	55	111
		2-Fluorobiphenyl	0.4	0.40	100	*	53	106
		Terphenyl-d14	0.4	0.44	109	*	58	132
		2-Methylnaphthalene-d10	0.4	0.40	99	*	30	150
		Fluoranthene-d10	0.4	0.40	99	*	30	150
PB166053BSD	PB166053BSD	Nitrobenzene-d5	0.4	0.45	113	*	55	111
		2-Fluorobiphenyl	0.4	0.40	100	*	53	106
		Terphenyl-d14	0.4	0.44	104	*	58	132
		2-Methylnaphthalene-d10	0.4	0.40	99	*	30	150
		Fluoranthene-d10	0.4	0.40	99	*	30	150
		Nitrobenzene-d5	0.4	0.45	113	*	55	111
Q1081-01	RW7-SP100-20250113	2-Fluorobiphenyl	0.4	0.40	100	*	53	106
		Terphenyl-d14	0.4	0.42	104	*	58	132
		2-Methylnaphthalene-d10	0.4	0.47	116	*	30	150
		Fluoranthene-d10	0.4	0.54	134	*	30	150
		Nitrobenzene-d5	0.4	0.48	120	*	55	111
		Terphenyl-d14	0.4	0.47	117	*	53	106
Q1081-01DL	RW7-SP100-20250113DL	2-Methylnaphthalene-d10	0.4	0.58	145	*	58	132
		Fluoranthene-d10	0.4	0.52	113	*	30	150
		Nitrobenzene-d5	0.4	0.49	131	*	30	150
		2-Fluorobiphenyl	0.4	0.42	122	*	55	111
		Terphenyl-d14	0.4	0.58	106	*	53	106
		2-Methylnaphthalene-d10	0.4	0.45	138	*	58	132
Q1081-02	RW7-SP201-20250113	Fluoranthene-d10	0.4	0.52	110	*	30	150
		Nitrobenzene-d5	0.4	0.46	131	*	30	150
		2-Fluorobiphenyl	0.4	0.43	114	*	55	111
		Terphenyl-d14	0.4	0.55	108	*	53	106
		2-Methylnaphthalene-d10	0.4	0.44	135	*	58	132
		Fluoranthene-d10	0.4	0.52	113	*	30	150
Q1081-03	RW7-SP302-20250113	Nitrobenzene-d5	0.4	0.46	136	*	30	150
		2-Fluorobiphenyl	0.4	0.43	123	*	55	111
		Terphenyl-d14	0.4	0.54	108	*	53	106
		2-Methylnaphthalene-d10	0.4	0.45	138	*	58	132
		Fluoranthene-d10	0.4	0.55	113	*	30	150
		Nitrobenzene-d5	0.4	0.49	136	*	30	150
Q1081-04	RW7-SP303-20250113	2-Fluorobiphenyl	0.4	0.43	123	*	55	111
		Terphenyl-d14	0.4	0.55	108	*	53	106
		2-Methylnaphthalene-d10	0.4	0.49	138	*	58	132
		Fluoranthene-d10	0.4	0.56	122	*	30	150
		Nitrobenzene-d5	0.4	0.51	139	*	30	150
		2-Fluorobiphenyl	0.4	0.49	128	*	55	111
		Terphenyl-d14	0.4	0.61	123	*	53	106
		2-Methylnaphthalene-d10	0.4	0.49	152	*	58	132
		Fluoranthene-d10	0.4	0.56	128	*	30	150
		Nitrobenzene-d5	0.4	0.51	139	*	55	111
		2-Fluorobiphenyl	0.4	0.49	123	*	53	106
		Terphenyl-d14	0.4	0.61	128	*	58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1081

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035933.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Qual	Limits		RPD
									Low	High	
PB166053BS	1,4-Dioxane	0.4	0.36	ug/L	90				70	130	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1081

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035934.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Qual	Limits			RPD
									RPD	Low	High	
PB166053BSD	1,4-Dioxane	0.4	0.41	ug/L	103	13			70	130	20	

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166053BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: Q1081

SAS No.: Q1081 SDG No.: Q1081

Lab File ID: BN035927.D

Lab Sample ID: PB166053BL

Instrument ID: BNA_N

Date Extracted: 01/14/2025

Matrix: (soil/water) Water

Date Analyzed: 01/15/2025

Level: (low/med) LOW

Time Analyzed: 11:03

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166053BS	PB166053BS	BN035933.D	01/15/2025
RW7-SP100-20250113	Q1081-01	BN035928.D	01/15/2025
RW7-SP201-20250113	Q1081-02	BN035929.D	01/15/2025
RW7-SP302-20250113	Q1081-03	BN035930.D	01/15/2025
PB166053BSD	PB166053BSD	BN035934.D	01/15/2025
RW7-SP303-20250113	Q1081-04	BN035932.D	01/15/2025

COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1081 SDG NO.: Q1081

Lab File ID: BN035870.D

DFTPP Injection Date: 01/02/2025

Instrument ID: BNA_N

DFTPP Injection Time: 10:49

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	39.9
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	39
70	Less than 2.0% of mass 69	0.3 (0.7) 1
127	10.0 - 80.0% of mass 198	43.4
197	Less than 2.0% of mass 198	0.3
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.2
275	10.0 - 60.0% of mass 198	25.6
365	Greater than 1% of mass 198	3.3
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	12.1 (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
SSTDICC0.1	SSTDICC0.1	BN035871.D	01/02/2025	11:28
SSTDICC0.2	SSTDICC0.2	BN035872.D	01/02/2025	12:04
SSTDICCC0.4	SSTDICCC0.4	BN035873.D	01/02/2025	12:40
SSTDICC0.8	SSTDICC0.8	BN035874.D	01/02/2025	13:16
SSTDICC1.6	SSTDICC1.6	BN035875.D	01/02/2025	13:52
SSTDICC3.2	SSTDICC3.2	BN035876.D	01/02/2025	14:28
SSTDICC5.0	SSTDICC5.0	BN035877.D	01/02/2025	15:04

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1081 SDG NO.: Q1081

Lab File ID: BN035925.D

DFTPP Injection Date: 01/15/2025

Instrument ID: BNA_N

DFTPP Injection Time: 09:47

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	54.6
68	Less than 2.0% of mass 69	0.4 (1) 1
69	Mass 69 relative abundance	46.9
70	Less than 2.0% of mass 69	0.3 (0.6) 1
127	10.0 - 80.0% of mass 198	47.2
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	6.9
275	10.0 - 60.0% of mass 198	26.4
365	Greater than 1% of mass 198	4.9
441	Present, but less than mass 443	10
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	11.8 (17.3) 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	BN035926.D	01/15/2025	10:27
PB166053BL	PB166053BL	BN035927.D	01/15/2025	11:03
RW7-SP100-20250113	Q1081-01	BN035928.D	01/15/2025	11:39
RW7-SP201-20250113	Q1081-02	BN035929.D	01/15/2025	12:15
RW7-SP302-20250113	Q1081-03	BN035930.D	01/15/2025	12:51
RW7-SP100-20250113DL	Q1081-01DL	BN035931.D	01/15/2025	13:27
RW7-SP303-20250113	Q1081-04	BN035932.D	01/15/2025	14:02
PB166053BS	PB166053BS	BN035933.D	01/15/2025	16:24
PB166053BSD	PB166053BSD	BN035934.D	01/15/2025	17:00
SSTDCCC0.4EC	SSTDCCC0.4	BN035935.D	01/15/2025	17:36



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

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH
Lab Code: CHEM Case No.: Q1081 SAS No.: Q1081 SDG No.: Q1081
EPA Sample No.: SSTDCCC0.4 Date Analyzed: 01/15/2025
Lab File ID: BN035926.D Time Analyzed: 10:27
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	1122	7.824	1996	10.62	954	14.46
UPPER LIMIT	2244	8.324	3992	11.122	1908	14.963
LOWER LIMIT	561	7.324	998	10.122	477	13.963
EPA SAMPLE NO.						
01 PB166053BL	922	7.83	1746	10.62	846	14.46
02 RW7-SP100-20250113	706	7.83	1333	10.62	657	14.46
03 PB166053BS	941	7.82	1790	10.62	956	14.46
04 RW7-SP201-20250113	707	7.83	1337	10.62	689	14.46
05 PB166053BSD	930	7.83	1684	10.62	890	14.46
06 RW7-SP100-20250113DL	697	7.83	1310	10.62	702	14.46
07 RW7-SP302-20250113	624	7.83	1211	10.62	641	14.46
08 RW7-SP303-20250113	634	7.83	1190	10.62	633	14.45

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 LOWER 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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SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:	CHEMTECH						
Lab Code:	CHEM	Case No.:	Q1081	SAS No.:	Q1081	SDG NO.:	Q1081
EPA Sample No.:	SSTDCCCC0.4		Date Analyzed:	01/15/2025			
Lab File ID:	BN035926.D		Time Analyzed:	10:27			
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	1813	17.199	1614	21.376	1998	23.677
	3626	17.699	3228	21.876	3996	24.177
	906.5	16.699	807	20.876	999	23.177
EPA SAMPLE NO.						
01 PB166053BL	1699	17.20	1454	21.38	1672	23.68
02 RW7-SP100-20250113	1190	17.20	1015	21.38	1185	23.68
03 PB166053BS	1886	17.20	1502	21.38	1677	23.68
04 RW7-SP201-20250113	1430	17.19	1321	21.38	1476	23.67
05 PB166053BSD	1752	17.20	1461	21.38	1685	23.68
06 RW7-SP100-20250113DL	1447	17.20	1312	21.38	1477	23.68
07 RW7-SP302-20250113	1308	17.19	1187	21.38	1308	23.67
08 RW7-SP303-20250113	1322	17.20	1184	21.38	1334	23.68

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 LOWER 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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QC SAMPLE

DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	
Project:	RW7B - 112G08005-WE13			Date Received:	
Client Sample ID:	PB166053BL			SDG No.:	Q1081
Lab Sample ID:	PB166053BL			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
BN035927.D	1	01/14/25 11:00	01/15/25 11:03	PB166053

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	0.50		30 - 150		125%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.49		30 - 150		122%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.55	*	55 - 111		138%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.51	*	53 - 106		127%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.52		58 - 132		130%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	922		7.832			
1146-65-2	Naphthalene-d8	1750		10.622			
15067-26-2	Acenaphthene-d10	846		14.463			
1517-22-2	Phenanthrene-d10	1700		17.199			
1719-03-5	Chrysene-d12	1450		21.376			
1520-96-3	Perylene-d12	1670		23.678			

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:	RW7B - 112G08005-WE13			Date Received:	
Client Sample ID:	PB166053BS			SDG No.:	Q1081
Lab Sample ID:	PB166053BS			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
BN035933.D	1	01/14/25 11:00	01/15/25 16:24	PB166053

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.36		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.40		30 - 150		100%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.40		30 - 150		101%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.47	*	55 - 111		118%	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	941		7.824			
1146-65-2	Naphthalene-d8	1790		10.622			
15067-26-2	Acenaphthene-d10	956		14.463			
1517-22-2	Phenanthrene-d10	1890		17.199			
1719-03-5	Chrysene-d12	1500		21.376			
1520-96-3	Perylene-d12	1680		23.681			

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:	RW7B - 112G08005-WE13			Date Received:	
Client Sample ID:	PB166053BSD			SDG No.:	Q1081
Lab Sample ID:	PB166053BSD			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
BN035934.D	1	01/14/25 11:00	01/15/25 17:00	PB166053

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.41		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.40		30 - 150		99%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.40		30 - 150		99%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.45	*	55 - 111		113%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.40		53 - 106		100%	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	930		7.832			
1146-65-2	Naphthalene-d8	1680		10.622			
15067-26-2	Acenaphthene-d10	890		14.463			
1517-22-2	Phenanthrene-d10	1750		17.199			
1719-03-5	Chrysene-d12	1460		21.376			
1520-96-3	Perylene-d12	1690		23.683			

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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CALIBRATION

SUMMARY

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
 Method File : 8270-SIM-BN010225.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Thu Jan 02 15:39:17 2025
 Response Via : Initial Calibration

Calibration Files

0.1 =BN035871.D 0.2 =BN035872.D 0.4 =BN035873.D 0.8 =BN035874.D 1.6 =BN035875.D 3.2 =BN035876.D 5.0 =BN035877.D

	Compound	0.1	0.2	0.4	0.8	1.6	3.2	5.0	Avg	%RSD
<hr/>										
1) I	1,4-Dichlorobenzene								ISTD	
2)	1,4-Dioxane	0.454	0.422	0.373	0.388	0.391	0.377	0.377	0.397	7.52
3)	n-Nitrosodimethylamine	0.707	0.674	0.676	0.690	0.722	0.690	0.692	0.693	2.45
4) S	2-Fluorophenol	1.031	1.009	0.952	0.958	0.997	0.956	0.968	0.981	3.13
5) S	Phenol-d6	1.351	1.255	1.180	1.197	1.215	1.163	1.170	1.219	5.44
6)	bis(2-Chloroethyl)ether	1.001	0.946	0.936	0.913	0.938	0.886	0.879	0.929	4.43
7) I	Naphthalene-d8								ISTD	
8) S	Nitrobenzene-d5	0.346	0.307	0.296	0.302	0.319	0.317	0.330	0.317	5.48
9)	Naphthalene	1.163	1.094	1.086	1.096	1.167	1.113	1.141	1.123	3.00
10)	Hexachlorobutane	0.368	0.354	0.353	0.363	0.382	0.362	0.369	0.365	2.74
11)	SURR2-Methylnaphthalene	0.547	0.536	0.527	0.519	0.556	0.524	0.540	0.536	2.50
12)	2-Methylnaphthalene	0.691	0.654	0.685	0.680	0.731	0.701	0.722	0.695	3.75
13) I	Acenaphthene-d10								ISTD	
14) S	2,4,6-Tribromoethane	0.164	0.165	0.189	0.189	0.207	0.211	0.220	0.192	11.39
15) S	2-Fluorobiphenyl	1.776	1.675	1.708	1.765	1.823	1.779	1.762	1.755	2.79
16)	Acenaphthylene	1.890	1.766	1.819	1.839	1.962	1.948	1.963	1.884	4.15
17)	Acenaphthene	1.187	1.162	1.198	1.232	1.300	1.275	1.291	1.235	4.43
18)	Fluorene	1.341	1.270	1.307	1.298	1.419	1.444	1.432	1.359	5.28
19) I	Phenanthrene-d10								ISTD	
20)	4,6-Dinitro-2-phenol	0.058	0.066	0.067	0.069	0.076	0.076	0.074	0.069	9.51
21)	4-Bromophenylmethane	0.265	0.269	0.268	0.267	0.290	0.283	0.279	0.274	3.47
22)	Hexachlorobenzene	0.393	0.369	0.356	0.362	0.394	0.373	0.371	0.374	3.93
23)	Atrazine	0.169	0.191	0.176	0.171	0.198	0.190	0.193	0.184	6.36
24)	Pentachlorophenol	0.141	0.101	0.118	0.122	0.143	0.148	0.153	0.132	14.40
25)	Phenanthrene	1.131	1.132	1.142	1.144	1.228	1.193	1.200	1.167	3.36
26)	Anthracene	0.996	0.998	1.008	1.033	1.137	1.132	1.130	1.062	6.34
27)	SURRFluoranthene-d10	0.988	0.952	0.978	0.959	1.028	1.010	1.035	0.993	3.28
28)	Fluoranthene	1.268	1.253	1.330	1.312	1.441	1.446	1.475	1.361	6.71
29) I	Chrysene-d12								ISTD	
30)	Pyrene	1.606	1.620	1.571	1.612	1.711	1.621	1.627	1.624	2.63
31) S	Terphenyl-d14	0.814	0.813	0.790	0.777	0.828	0.776	0.781	0.797	2.64
32)	Benzo(a)anthracene	1.379	1.382	1.344	1.407	1.461	1.427	1.466	1.410	3.19
33)	Chrysene	1.484	1.458	1.441	1.451	1.541	1.478	1.471	1.475	2.24
34)	Bis(2-ethylhexyl)phthalate	0.691	0.583	0.582	0.541	0.569	0.519	0.530	0.574	10.05
35) I	Perylene-d12								ISTD	

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
Method File : 8270-SIM-BN010225.M

36)	Indeno(1,2,3-c...)	1.428	1.461	1.414	1.578	1.697	1.712	1.751	1.577	9.15
37)	Benzo(b)fluora...	1.337	1.304	1.294	1.351	1.466	1.420	1.447	1.374	5.06
38)	Benzo(k)fluora...	1.279	1.254	1.251	1.344	1.469	1.442	1.482	1.360	7.55
39) C	Benzo(a)pyrene	1.099	1.181	1.086	1.163	1.270	1.244	1.284	1.190	6.71
40)	Dibenz(a,h)an...	1.145	1.152	1.106	1.251	1.363	1.365	1.402	1.255	9.75
41)	Benzo(g,h,i)pe...	1.335	1.316	1.245	1.407	1.490	1.501	1.530	1.403	7.72

(#) = Out of Range

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name:	CHEMTECH		Contract:	TETR06	
Lab Code:	CHEM	Case No.:	Q1081	SAS No.:	Q1081
Instrument ID:	BNA_N		Calibration Date/Time:	01/15/2025	10:27
Lab File ID:	BN035926.D		Init. Calib. Date(s):	01/02/2025	01/02/2025
EPA Sample No.:	SSTDCCC0.4		Init. Calib. Time(s):	11:28	15:04
GC Column:	ZB-GR	ID: 0.25	(mm)		

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.536	0.500		-6.7	20.0
Fluoranthene-d10	0.993	0.980		-1.3	20.0
2-Fluorophenol	0.981	0.948		-3.4	20.0
Phenol-d6	1.219	1.144		-6.2	20.0
Nitrobenzene-d5	0.317	0.371		17.0	20.0
2-Fluorobiphenyl	1.755	1.743		-0.7	20.0
2,4,6-Tribromophenol	0.192	0.238		24.0	20.0
Terphenyl-d14	0.797	0.752		-5.6	20.0
1,4-Dioxane	0.397	0.422		6.3	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.:	Q1081	SAS No.:	Q1081
Instrument ID:	BNA_N		Calibration Date/Time:	01/15/2025	17:36
Lab File ID:	BN035935.D		Init. Calib. Date(s):	01/02/2025	01/02/2025
EPA Sample No.:	SSTDCCC0.4EC		Init. Calib. Time(s):	11:28	15:04
GC Column:	ZB-GR	ID: 0.25	(mm)		

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.536	0.523		-2.4	50.0
Fluoranthene-d10	0.993	0.980		-1.3	50.0
2-Fluorophenol	0.981	0.914		-6.8	50.0
Phenol-d6	1.219	1.108		-9.1	50.0
Nitrobenzene-d5	0.317	0.340		7.3	50.0
2-Fluorobiphenyl	1.755	1.796		2.3	50.0
2,4,6-Tribromophenol	0.192	0.267		39.1	50.0
Terphenyl-d14	0.797	0.817		2.5	50.0
1,4-Dioxane	0.397	0.388		-2.3	50.0

All other compounds must meet a minimum RRF of 0.010.

LAB CHRONICLE

OrderID:	Q1081	OrderDate:	1/14/2025 10:28:00 AM					
Client:	Tetra Tech NUS, Inc.	Project:	RW7B - 112G08005-WE13					
Contact:	Ernie Wu	Location:	N41					
<hr/>								
LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1081-01	RW7-SP100-2025011 3	Water			01/13/25			01/14/25
			Metals Group4	6010D		01/14/25	01/16/25	
Q1081-04	RW7-SP303-2025011 3	Water			01/13/25			01/14/25
			Metals Group4	6010D		01/14/25	01/17/25	



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Hit Summary Sheet SW-846

SDG No.: Q1081

Order ID: Q1081

Client: Tetra Tech NUS, Inc.

Project ID: RW7B - 112G08005-WE13

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	RW7-SP100-20250113								
Q1081-01	RW7-SP100-20250113	Water	Iron	106		18.5	40.0	50.0	ug/L
Client ID :	RW7-SP303-20250113								
Q1081-04	RW7-SP303-20250113	Water	Iron	18.7	J	18.5	40.0	50.0	ug/L



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SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/13/25
Project:	RW7B - 112G08005-WE13	Date Received:	01/14/25
Client Sample ID:	RW7-SP100-20250113	SDG No.:	Q1081
Lab Sample ID:	Q1081-01	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7439-89-6	Iron	106		1	18.5	40.0	50.0	ug/L	01/14/25 12:30	01/16/25 20:30	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Metals Group4			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/13/25
Project:	RW7B - 112G08005-WE13	Date Received:	01/14/25
Client Sample ID:	RW7-SP303-20250113	SDG No.:	Q1081
Lab Sample ID:	Q1081-04	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7439-89-6	Iron	18.7	J	1	18.5	40.0	50.0	ug/L	01/14/25 12:30	01/17/25 15:12	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Metals Group4			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits



METAL
CALIBRATION
DATA

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081
Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L							
ICV01	Iron	9640	10000	96	90 - 110	P	01/16/2025	19:18	LB134315

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081
Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L							
LLICV01	Iron	92.6	100	93	80 - 120	P	01/16/2025	19:27	LB134315

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081
Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result		True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L								
CCV01	Iron	4860		5000	97	90 - 110	P	01/16/2025	19:49	LB134315
CCV02	Iron	4780		5000	96	90 - 110	P	01/16/2025	20:43	LB134315
CCV03	Iron	4810		5000	96	90 - 110	P	01/16/2025	21:01	LB134315

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081
Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L							
ICV01	Iron	9620	10000	96	90 - 110	P	01/17/2025	11:21	LB134334

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081
Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L							
LLICV01	Iron	102	100	102	80 - 120	P	01/17/2025	11:26	LB134334

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client:	<u>Tetra Tech NUS, Inc.</u>	SDG No.:	<u>Q1081</u>
Contract:	<u>TETR06</u>	Lab Code:	<u>CHEM</u>
Initial Calibration Source:	<u>EPA</u>	Case No.:	<u>Q1081</u>
Continuing Calibration Source:	<u>Inorganic Ventures</u>	SAS No.:	<u>Q1081</u>

Sample ID	Analyte	Result		% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		ug/L	True Value						
CCV01	Iron	5080	5000	102	90 - 110	P	01/17/2025	11:56	LB134334
CCV02	Iron	4910	5000	98	90 - 110	P	01/17/2025	12:47	LB134334
CCV03	Iron	4900	5000	98	90 - 110	P	01/17/2025	13:36	LB134334
CCV04	Iron	4940	5000	99	90 - 110	P	01/17/2025	14:27	LB134334
CCV05	Iron	4740	5000	95	90 - 110	P	01/17/2025	15:34	LB134334
CCV06	Iron	4940	5000	99	90 - 110	P	01/17/2025	16:16	LB134334
CCV07	Iron	4770	5000	96	90 - 110	P	01/17/2025	17:11	LB134334
CCV08	Iron	4960	5000	99	90 - 110	P	01/17/2025	17:52	LB134334



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Metals

- 2b -

CRDL STANDARD FOR AA & ICP

Client: Tetra Tech NUS, Inc. **SDG No.:** Q1081
Contract: TETR06 **Lab Code:** CHEM **Case No.:** Q1081 **SAS No.:** Q1081
Initial Calibration Source: _____
Continuing Calibration Source: _____

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Iron	86.4	100	86	40 - 160	P	01/16/2025	19:36	LB134315
CRI01	Iron	97.7	100	98	40 - 160	P	01/17/2025	11:35	LB134334



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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1081							
Contract:	TETR06	Lab Code:	CHEM							
		Case No.:	Q1081							
			SAS No.: Q1081							
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Iron	100	+/-100	U	80.0			01/16/2025	19:32	LB134315

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client:	Tetra Tech NUS, Inc.	SDG No.:	<u>Q1081</u>							
Contract:	<u>TETR06</u>	Lab Code:	<u>CHEM</u>							
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Iron	100	+/-100	U	80.0			01/16/2025	19:53	LB134315
CCB02	Iron	100	+/-100	U	80.0			01/16/2025	20:47	LB134315
CCB03	Iron	100	+/-100	U	80.0			01/16/2025	21:10	LB134315

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1081							
Contract:	TETR06	Lab Code:	CHEM							
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Iron	100	+/-100	U	80.0			01/17/2025	11:30	LB134334

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client:	Tetra Tech NUS, Inc.			SDG No.:	<u>Q1081</u>					
Contract:	<u>TETR06</u>	Lab Code:	<u>CHEM</u>	Case No.:	<u>Q1081</u>		SAS No.: <u>Q1081</u>			
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Iron	100	+/-100	U	80.0	100	P	01/17/2025	12:00	LB134334
CCB02	Iron	100	+/-100	U	80.0	100	P	01/17/2025	12:51	LB134334
CCB03	Iron	100	+/-100	U	80.0	100	P	01/17/2025	13:41	LB134334
CCB04	Iron	100	+/-100	U	80.0	100	P	01/17/2025	14:31	LB134334
CCB05	Iron	100	+/-100	U	80.0	100	P	01/17/2025	15:38	LB134334
CCB06	Iron	100	+/-100	U	80.0	100	P	01/17/2025	16:20	LB134334
CCB07	Iron	100	+/-100	U	80.0	100	P	01/17/2025	17:16	LB134334
CCB08	Iron	100	+/-100	U	80.0	100	P	01/17/2025	17:56	LB134334

Metals

- 3b -

PREPARATION BLANK SUMMARY

Client: Tetra Tech NUS, Inc.

SDG No.: Q1081

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB166054BL	Iron	50.0	<50.0	U	40.0	50.0	P	01/17/2025	12:05	LB134334

Metals

- 4 -

INTERFERENCE CHECK SAMPLE

Client:	Tetra Tech NUS, Inc.	SDG No.:	<u>Q1081</u>				
Contract:	<u>TETR06</u>	Lab Code:	<u>CHEM</u>	Case No.:	<u>Q1081</u>	SAS No.:	<u>Q1081</u>
ICS Source:	<u>EPA</u>	Instrument ID:	<u>P4</u>				

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Iron	97800	101000	97	85600	116500	01/16/2025	19:40	LB134315
ICSA01	Iron	97700	99300	98	84400	114500	01/16/2025	19:45	LB134315
ICSA01	Iron	95900	101000	95	85600	116500	01/17/2025	11:39	LB134334
ICSA01	Iron	101000	99300	102	84400	114500	01/17/2025	11:43	LB134334



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METAL QC DATA

metals

- 5a -

MATRIX SPIKE SUMMARY

client: Tetra Tech NUS, Inc.

level: low

sdg no.: Q1081

contract: TETR06

lab code: CHEM

case no.: Q1081

sas no.: Q1081

matrix: Water

sample id: Q1081-04

client id: RW7-SP303-20250113MS

Percent Solids for Sample: NA

Spiked ID: Q1081-04MS

Percent Solids for Spike Sample: NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Iron	ug/L	87 - 115	1440		18.7	J	1500	95		P

metals

- 5a -

MATRIX SPIKE DUPLICATE SUMMARY

client:	Tetra Tech NUS, Inc.	level:	low	sdg no.:	Q1081	
contract:	TETR06	lab code:	CHEM	case no.:	Q1081	
matrix:	Water	sample id:	Q1081-04	client id:	RW7-SP303-20250113MSD	
Percent Solids for Sample:		NA	Spiked ID:	Q1081-04MSD	Percent Solids for Spike Sample:	NA

Analyte	Units	Acceptance Limit %R	MSD Result	Sample C	Spike C	% Recovery	Qual	M
Iron	ug/L	87 - 115	1440	18.7	J	1500	95	P

Metals
- 5b -

Client: Tetra Tech NUS, Inc.

SDG No.: Q1081

Contract: TETR06

Lab Code: CHEM **Case No.:** Q1081 **SAS No.:** Q1081

Matrix:

Level: LOW **Client ID:**

Sample ID: **Spiked ID:**

Analyte	Units	Acceptance Limit %R	C	Sample Result	C	Spike Added	% Recovery	Qual	M
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Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client:	Tetra Tech NUS, Inc.	Level:	LOW	SDG No.:	Q1081				
Contract:	TETR06	Lab Code:	CHEM	Case No.:	Q1081	SAS No.:	Q1081		
Matrix:	Water	Sample ID:	Q1081-04	Client ID:	RW7-SP303-20250113DUP				
Percent Solids for Sample:	NA	Duplicate ID	Q1081-04DUP	Percent Solids for Spike Sample:	NA				
Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L	20	18.7	J	19.5	J	4	P	

^aA control limit of $\pm 20\%$ RPD for each matrix applies for sample values greater than 10 times Detection Limit^b

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client:	Tetra Tech NUS, Inc.	Level:	LOW	SDG No.:	Q1081				
Contract:	TETR06	Lab Code:	CHEM	Case No.:	Q1081	SAS No.:	Q1081		
Matrix:	Water	Sample ID:	Q1081-04MS	Client ID:	RW7-SP303-20250113MSD				
Percent Solids for Sample:	NA	Duplicate ID	Q1081-04MSD	Percent Solids for Spike Sample:	NA				
Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Iron	ug/L	20	1440		1440		0	P	

^aA control limit of $\pm 20\%$ RPD for each matrix applies for sample values greater than 10 times Detection Limit^b

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1081
Contract:	TETR06	Lab Code:	CHEM
		Case No.:	Q1081
		SAS No.:	Q1081

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB166054BS Iron	ug/L	1500	1480		99	87 - 115	P

Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

RW7-SP303-20250113L

Lab Name: Chemtech Consulting Group

Contract: TETR06

Lab Code: CHEM Lb No.: lb134334

Lab Sample ID : Q1081-04L SDG No.: Q1081

Matrix (soil/water): Water

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	Serial Dilution Result (S)	% Difference	Q	M
	C	C			
Iron	18.7 J	250 U	100.0		P



METAL
PREPARATION &
INSTRUMENT
DATA

Metals**- 11 -****ICP INTERELEMENT CORRECTION FACTORS**Client: Tetra Tech NUS, Inc.SDG No.: Q1081Contract: TETR06Lab Code: CHEMCase No.: Q1081 SAS No.: Q1081

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For:				
		Al	Ca	Fe	Mg	Ag
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: Tetra Tech NUS, Inc.

SDG No.: Q1081

Contract: TETR06

Lab Code: CHEM

Case No.: Q1081 SAS No.: Q1081

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For:				
		As	Ba	Be	Cd	Co
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600

Metals**- 11 -****ICP INTERELEMENT CORRECTION FACTORS**Client: Tetra Tech NUS, Inc.SDG No.: Q1081Contract: TETR06Lab Code: CHEMCase No.: Q1081 SAS No.: Q1081

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For:				
		Cr	Cu	K	Mn	Mo
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250

Metals**- 11 -****ICP INTERELEMENT CORRECTION FACTORS**Client: Tetra Tech NUS, Inc.SDG No.: Q1081Contract: TETR06Lab Code: CHEMCase No.: Q1081 SAS No.: Q1081

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For:				
		Na	Ni	Pb	Sb	Se
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000

Metals**- 11 -****ICP INTERELEMENT CORRECTION FACTORS**Client: Tetra Tech NUS, Inc.SDG No.: Q1081Contract: TETR06Lab Code: CHEMCase No.: Q1081 SAS No.: Q1081

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For:				
		Sn	Ti	Tl	V	Zn
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000



METAL
PREPARATION &
ANALYTICAL
SUMMARY

Metals

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SAMPLE PREPARATION SUMMARY

Client:	Tetra Tech NUS, Inc.	SDG No.:	Q1081
Contract:	TETR06	Lab Code:	CHEM
		Method:	
		Case No.:	Q1081
		SAS No.:	Q1081

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB166054							
PB166054BL	PB166054BL	MB	WATER	01/14/2025	50.0	25.0	
PB166054BS	PB166054BS	LCS	WATER	01/14/2025	50.0	25.0	
Q1081-01	RW7-SP100-20250113	SAM	WATER	01/14/2025	50.0	25.0	
Q1081-04	RW7-SP303-20250113	SAM	WATER	01/14/2025	50.0	25.0	
Q1081-04DUP	RW7-SP303-20250113DUP	DUP	WATER	01/14/2025	50.0	25.0	
Q1081-04MS	RW7-SP303-20250113MS	MS	WATER	01/14/2025	50.0	25.0	
Q1081-04MSD	RW7-SP303-20250113MSD	MSD	WATER	01/14/2025	50.0	25.0	

metals

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ANALYSIS RUN LOG

Client: Tetra Tech NUS, Inc.

Contract: TETR06

Lab code: CHEM **Case no.:** Q1081

Sas no.: Q1081

Sdg no.: Q1081

Instrument id number: _____ **Method:** _____

Run number: LB134315

Start date: 01/16/2025 **End date:** 01/16/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1847	Fe
S1	S1	1	1852	Fe
S2	S2	1	1856	Fe
S3	S3	1	1900	Fe
S4	S4	1	1904	Fe
S5	S5	1	1909	Fe
ICV01	ICV01	1	1918	Fe
LLICV01	LLICV01	1	1927	Fe
ICB01	ICB01	1	1932	Fe
CRI01	CRI01	1	1936	Fe
ICSA01	ICSA01	1	1940	Fe
ICSAB01	ICSAB01	1	1945	Fe
CCV01	CCV01	1	1949	Fe
CCB01	CCB01	1	1953	Fe
Q1081-01	RW7-SP100-20250113	1	2030	Fe
CCV02	CCV02	1	2043	Fe
CCB02	CCB02	1	2047	Fe
CCV03	CCV03	1	2101	Fe
CCB03	CCB03	1	2110	Fe

metals
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ANALYSIS RUN LOG

Client: Tetra Tech NUS, Inc.

Contract: TETR06

Lab code: CHEM **Case no.:** Q1081

Sas no.: Q1081

Sdg no.: Q1081

Instrument id number: _____ **Method:** _____

Run number: LB134334

Start date: 01/17/2025 **End date:** 01/17/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1051	Fe
S1	S1	1	1055	Fe
S2	S2	1	1059	Fe
S3	S3	1	1104	Fe
S4	S4	1	1108	Fe
S5	S5	1	1112	Fe
ICV01	ICV01	1	1121	Fe
LLICV01	LLICV01	1	1126	Fe
ICB01	ICB01	1	1130	Fe
CRI01	CRI01	1	1135	Fe
ICSA01	ICSA01	1	1139	Fe
ICSAB01	ICSAB01	1	1143	Fe
CCV01	CCV01	1	1156	Fe
CCB01	CCB01	1	1200	Fe
PB166054BL	PB166054BL	1	1205	Fe
PB166054BS	PB166054BS	1	1209	Fe
CCV02	CCV02	1	1247	Fe
CCB02	CCB02	1	1251	Fe
CCV03	CCV03	1	1336	Fe
CCB03	CCB03	1	1341	Fe
CCV04	CCV04	1	1427	Fe
CCB04	CCB04	1	1431	Fe
Q1081-04	RW7-SP303-20250113	1	1512	Fe
Q1081-04DUP	RW7-SP303-20250113DUP	1	1517	Fe
Q1081-04L	RW7-SP303-20250113L	5	1521	Fe
CCV05	CCV05	1	1534	Fe
CCB05	CCB05	1	1538	Fe
Q1081-04MS	RW7-SP303-20250113MS	1	1600	Fe
Q1081-04MSD	RW7-SP303-20250113MSD	1	1604	Fe
CCV06	CCV06	1	1616	Fe
CCB06	CCB06	1	1620	Fe
CCV07	CCV07	1	1711	Fe
CCB07	CCB07	1	1716	Fe
CCV08	CCV08	1	1752	Fe
CCB08	CCB08	1	1756	Fe



SHIPPING DOCUMENTS

CHEMTECH

CHAN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07042
 (908) 789-8900 Fax: (908) 78-8922
www.chemtech.net

Chemtech Project Number: **Q1081**

COC Number:

CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION													
COMPANY: Tetra Tech		PROJECT NAME: NWIRP Bethpage		BILL TO:	PO#												
ADDRESS: 4433 Corporation Ln, Suite 300		PROJECT #: 112G08005-WE13	LOCATION: RW7B	ADDRESS:													
CITY: Virginia Beach	STATE: VA	ZIP: 23462		CITY:	STATE: ZIP:												
ATTENTION: Ernie Wu		E-MAIL: ernie.wu@tetratech.com		ATTENTION:	PHONE:												
PHONE: 757-466-4901	FAX: 757-461-4148	PHONE: 757-466-4901	FAX: 757-461-4148														
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		ANALYSIS													
FAX: 10	DAYS*	HARD COPY: 10	DAYS*	EDD: 10	DAYS*												
* TO BE APPROVED BY CHEMTECH STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS																	
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE	SAMPLE COLLECTION	# of Bottles	1	2	3	4	5	6	7	8	9	PRESERVATIVES	COMMENTS	
			COMP	GRAB													DATE
1.	RW7-SP100-20250113	GW	X	1/13/25	12:15	2	X	X									
2.	RW7-SP201-20250113	GW	X	1/13/25	12:17	1	X										
3.	RW7-SP302-20250113	GW	X	1/13/25	12:27	1	X										
4.	RW7-SP303-20250113	GW	X	1/13/25	12:29	2	X	X									
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY																	
RELINQUISHED BY / <i>J.W.</i>	DATETIME / <i>1/13/25</i>	RECEIVED BY	Conditions of bottles or coolers at receipt: <input type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant <input type="checkbox"/> Cooler-Temp <i>1-2°C</i> MeOH extraction requires an additional 4oz. jar for percent solid Comments: <i>Ice in Cooler?</i> <i>y</i>														
1. <i>J.W.</i>	1. DATETIME <i>1/13/25</i>	RECEIVED BY <i>J.W.</i>															
2. <i>Ernie Wu</i>	2. DATETIME <i>1/14/25</i>	RECEIVED FOR LAB BY															
3.	3. DATETIME	Page _____ of _____	SHIPPED VIA: CLIENT: <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Overnight <input type="checkbox"/> OverNight CHEMTECH: <input type="checkbox"/> Picked Up <input type="checkbox"/> OVERNIGHT <input type="checkbox"/> YES <input type="checkbox"/> NO														
WHITE - CHEMTECH COPY FOR RETURN TO CLIENT		YELLOW - CHEMTECH COPY		PINK - SAMPLER COPY													

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