

## **ANALYTICAL RESULTS SUMMARY**

VOLATILE ORGANICS  
SEMI-VOLATILE ORGANICS

**PROJECT NAME : NWIRP BETHPAGE 112G08005-WE13**

**TETRA TECH NUS, INC.**

**661 Andersen Drive**

**Suite 200**

**Pittsburgh, PA - 15220-2745**

**Phone No: 412-921-7090**

**ORDER ID : Q1062**

**ATTENTION : Ernie Wu**



**Laboratory Certification ID # 20012**



<b>1) Signature Page</b>	<b>3</b>
<b>2) Case Narrative</b>	<b>4</b>
<b>2.1) VOCMS Group1- Case Narrative</b>	<b>4</b>
<b>2.2) SVOC-SIMGroup1- Case Narrative</b>	<b>6</b>
<b>3) Qualifier Page</b>	<b>8</b>
<b>4) QA Checklist</b>	<b>9</b>
<b>5) VOCMS Group1 Data</b>	<b>10</b>
<b>6) SVOC-SIMGroup1 Data</b>	<b>48</b>
<b>7) Shipping Document</b>	<b>75</b>
<b>7.1) CHAIN OF CUSTODY</b>	<b>76</b>
<b>7.2) Lab Certificate</b>	<b>77</b>
<b>7.3) Internal COC</b>	<b>78</b>

<b>1</b>
<b>2</b>
<b>3</b>
<b>4</b>
<b>5</b>
<b>6</b>
<b>7</b>

## Cover Page

**Order ID :** Q1062

**Project ID :** NWIRP Bethpage 112G08005-WE13

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

### Lab Sample Number

Q1062-01  
Q1062-02  
Q1062-03  
Q1062-04

### Client Sample Number

BP-VPB-190A-TB-20250107  
VPB190A-HYD-20250107  
BP-VPB-190A-EB-20250107  
BP-VPB-190A-GW-898-900

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 1:51 pm, Jan 21, 2025*

Date: 1/17/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

## CASE NARRATIVE

**Tetra Tech NUS, Inc.**

**Project Name: NWIRP Bethpage 112G08005-WE13**

**Project Manager: Ernie Wu**

**Chemtech Project # Q1062**

**Test Name: VOCMS Group1**

### **A. Number of Samples and Date of Receipt:**

4 Water samples were received on 01/09/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group1. This data package contains results for VOCMS Group1.

### **C. Analytical Techniques:**

The analysis performed on instrument MSVOA\_N were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868. The analysis of VOCMS Group1 was based on method 8260D.

### **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 BP-VPB-190A-GW-898-900 was analyzed with 10X dilution as sample contained much sediment and not allowing straight run.

### **E. Additional Comments:**

Fax and Hardcopy data will not match for all samples as fax samples were analyzed in sequence VN011325 where QC was failing as a corrective action samples reanalyzed and reported in Hardcopy while, fax data Provided in Miscellaneous Section.

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



Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

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.

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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 \_\_\_\_\_

**APPROVED**

*By Nimisha Pandya, QA/QC Supervisor at 1:51 pm, Jan 21, 2025*

## CASE NARRATIVE

**Tetra Tech NUS, Inc.**

**Project Name: NWIRP Bethpage 112G08005-WE13**

**Project Manager: Ernie Wu**

**Chemtech Project # Q1062**

**Test Name: SVOC-SIMGroup1**

### **A. Number of Samples and Date of Receipt:**

4 Water samples were received on 01/09/2025.

### **B. Parameters**

According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group1. 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 except for PB166005BL [2-Fluorobiphenyl - 111%, Nitrobenzene-d5 - 123%], PB166005BS [2-Fluorobiphenyl - 119%, Nitrobenzene-d5 - 126%], PB166005BSD [2-Fluorobiphenyl - 118%, Nitrobenzene-d5 - 124%] and VPB190A-HYD-20250107 [2-Fluorobiphenyl - 118%, Nitrobenzene-d5 - 128%,], 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 met the requirements .

The Tuning criteria met requirements.

**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 \_\_\_\_\_

**APPROVED**

*By Nimisha Pandya, QA/QC Supervisor at 1:51 pm, Jan 21, 2025*

## 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
<b>U</b>	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.
<b>ND</b>	Indicates the analyte was analyzed for, but not detected
<b>J</b>	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 is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
<b>B</b>	Indicates the analyte was found in the blank as well as the sample report as “12 B”.
<b>E</b>	Indicates the analyte ‘s concentration exceeds the calibrated range of the instrument for that specific analysis.
<b>D</b>	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
<b>P</b>	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”.
<b>N</b>	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.
<b>A</b>	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
<b>Q</b>	Indicates the LCS did not meet the control limits requirements

**APPENDIX A**

**QA REVIEW GENERAL DOCUMENTATION**

Project #: Q1062

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: MOHAMMAD AHMED

Date: 01/17/2025

### LAB CHRONICLE

<b>OrderID:</b> Q1062	<b>OrderDate:</b> 1/10/2025 11:26:00 AM
<b>Client:</b> Tetra Tech NUS, Inc.	<b>Project:</b> NWIRP Bethpage 112G08005-WE13
<b>Contact:</b> Ernie Wu	<b>Location:</b> M11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1062-01	BP-VPB-190A-TB-202 50107	Water	VOCMS Group1	8260-Low	01/07/25		01/15/25	01/09/25
Q1062-02	VPB190A-HYD-20250 107	Water	VOCMS Group1	8260-Low	01/07/25		01/15/25	01/09/25
Q1062-03	BP-VPB-190A-EB-202 50107	Water	VOCMS Group1	8260-Low	01/07/25		01/15/25	01/09/25
Q1062-04	BP-VPB-190A-GW-898 -900	Water	VOCMS Group1	8260-Low	01/07/25		01/15/25	01/09/25

**Hit Summary Sheet**  
 SW-846

SDG No.: Q1062

Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
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Client ID:

0

Total Voc :

Total Concentration:

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



# SAMPLE DATA



### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/07/25
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	01/09/25
Client Sample ID:	BP-VPB-190A-TB-20250107		SDG No.:	Q1062
Lab Sample ID:	Q1062-01		Matrix:	Water
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085453.D	1		01/15/25 11:50	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
74-87-3	Chloromethane	0.50	U	0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	0.75	U	0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	3.80	U	1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	0.75	U	0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.50	U	0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.50	U	0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.75	U	0.26	0.75	1.00	ug/L
67-64-1	Acetone	3.80	U	1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.75	U	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/07/25	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	01/09/25	
Client Sample ID:	BP-VPB-190A-TB-20250107		SDG No.:	Q1062	
Lab Sample ID:	Q1062-01		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085453.D	1		01/15/25 11:50	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	53.3		81 - 118		107%	SPK: 50
1868-53-7	Dibromofluoromethane	50.0		80 - 119		100%	SPK: 50
2037-26-5	Toluene-d8	48.9		89 - 112		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.9		85 - 114		92%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	196000	8.218				
540-36-3	1,4-Difluorobenzene	355000	9.094				
3114-55-4	Chlorobenzene-d5	304000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	120000	13.788				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
75-43-4	Dichlorofluoromethane	N.D					

### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/07/25	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	01/09/25	
Client Sample ID:	BP-VPB-190A-TB-20250107		SDG No.:	Q1062	
Lab Sample ID:	Q1062-01		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085453.D	1		01/15/25 11:50	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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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:	01/07/25
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	01/09/25
Client Sample ID:	VPB190A-HYD-20250107		SDG No.:	Q1062
Lab Sample ID:	Q1062-02		Matrix:	Water
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085455.D	1		01/15/25 12:37	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
74-87-3	Chloromethane	0.50	U	0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	0.75	U	0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	3.80	U	1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	0.75	U	0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.50	U	0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.50	U	0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.75	U	0.26	0.75	1.00	ug/L
67-64-1	Acetone	3.80	U	1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.75	U	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/07/25
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	01/09/25
Client Sample ID:	VPB190A-HYD-20250107		SDG No.:	Q1062
Lab Sample ID:	Q1062-02		Matrix:	Water
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085455.D	1		01/15/25 12:37	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	53.2		81 - 118		106%	SPK: 50
1868-53-7	Dibromofluoromethane	51.4		80 - 119		103%	SPK: 50
2037-26-5	Toluene-d8	49.2		89 - 112		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.1		85 - 114		94%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	184000	8.224				
540-36-3	1,4-Difluorobenzene	332000	9.1				
3114-55-4	Chlorobenzene-d5	293000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	116000	13.788				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
75-43-4	Dichlorofluoromethane	N.D					

### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/07/25	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	01/09/25	
Client Sample ID:	VPB190A-HYD-20250107		SDG No.:	Q1062	
Lab Sample ID:	Q1062-02		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085455.D	1		01/15/25 12:37	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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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:	01/07/25	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	01/09/25	
Client Sample ID:	BP-VPB-190A-EB-20250107		SDG No.:	Q1062	
Lab Sample ID:	Q1062-03		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085454.D	1		01/15/25 12:14	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
74-87-3	Chloromethane	0.50	U	0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	0.75	U	0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	3.80	U	1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	0.75	U	0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.50	U	0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.50	U	0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.75	U	0.26	0.75	1.00	ug/L
67-64-1	Acetone	3.80	U	1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.75	U	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/07/25	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	01/09/25	
Client Sample ID:	BP-VPB-190A-EB-20250107		SDG No.:	Q1062	
Lab Sample ID:	Q1062-03		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085454.D	1		01/15/25 12:14	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	53.6		81 - 118		107%	SPK: 50
1868-53-7	Dibromofluoromethane	50.8		80 - 119		102%	SPK: 50
2037-26-5	Toluene-d8	50.0		89 - 112		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.6		85 - 114		93%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	185000	8.224				
540-36-3	1,4-Difluorobenzene	337000	9.1				
3114-55-4	Chlorobenzene-d5	298000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	118000	13.788				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
75-43-4	Dichlorofluoromethane	N.D					



### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/07/25	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	01/09/25	
Client Sample ID:	BP-VPB-190A-EB-20250107		SDG No.:	Q1062	
Lab Sample ID:	Q1062-03		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085454.D	1		01/15/25 12:14	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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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:	01/07/25	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	01/09/25	
Client Sample ID:	BP-VPB-190A-GW-898-900		SDG No.:	Q1062	
Lab Sample ID:	Q1062-04		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085452.D	10		01/15/25 11:26	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
74-87-3	Chloromethane	5.00	U	3.50	5.00	10.0	ug/L
75-01-4	Vinyl Chloride	7.50	U	3.40	7.50	10.0	ug/L
74-83-9	Bromomethane	37.5	U	13.6	37.5	50.0	ug/L
75-00-3	Chloroethane	7.50	U	5.60	7.50	10.0	ug/L
75-69-4	Trichlorofluoromethane	5.00	U	3.40	5.00	10.0	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	U	2.50	5.00	10.0	ug/L
75-35-4	1,1-Dichloroethene	7.50	U	2.60	7.50	10.0	ug/L
67-64-1	Acetone	37.5	U	13.9	37.5	50.0	ug/L
75-15-0	Carbon Disulfide	7.50	U	3.20	7.50	10.0	ug/L
1634-04-4	Methyl tert-butyl Ether	5.00	U	1.60	5.00	10.0	ug/L
75-09-2	Methylene Chloride	5.00	U	3.20	5.00	10.0	ug/L
156-60-5	trans-1,2-Dichloroethene	5.00	U	2.50	5.00	10.0	ug/L
75-34-3	1,1-Dichloroethane	5.00	U	2.30	5.00	10.0	ug/L
78-93-3	2-Butanone	25.0	U	13.0	25.0	50.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	2.50	5.00	10.0	ug/L
156-59-2	cis-1,2-Dichloroethene	7.50	U	2.50	7.50	10.0	ug/L
67-66-3	Chloroform	5.00	U	2.60	5.00	10.0	ug/L
71-55-6	1,1,1-Trichloroethane	5.00	U	1.90	5.00	10.0	ug/L
108-87-2	Methylcyclohexane	5.00	U	1.90	5.00	10.0	ug/L
71-43-2	Benzene	5.00	U	1.60	5.00	10.0	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	2.40	5.00	10.0	ug/L
79-01-6	Trichloroethene	7.50	U	3.20	7.50	10.0	ug/L
78-87-5	1,2-Dichloropropane	5.00	U	1.90	5.00	10.0	ug/L
75-27-4	Bromodichloromethane	5.00	U	2.40	5.00	10.0	ug/L
108-10-1	4-Methyl-2-Pentanone	25.0	U	7.50	25.0	50.0	ug/L
108-88-3	Toluene	5.00	U	1.80	5.00	10.0	ug/L
10061-02-6	t-1,3-Dichloropropene	5.00	U	2.10	5.00	10.0	ug/L
10061-01-5	cis-1,3-Dichloropropene	5.00	U	1.80	5.00	10.0	ug/L
79-00-5	1,1,2-Trichloroethane	5.00	U	2.10	5.00	10.0	ug/L
591-78-6	2-Hexanone	25.0	U	11.3	25.0	50.0	ug/L

### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/07/25	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	01/09/25	
Client Sample ID:	BP-VPB-190A-GW-898-900		SDG No.:	Q1062	
Lab Sample ID:	Q1062-04		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085452.D	10		01/15/25 11:26	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	5.00	U	1.80	5.00	10.0	ug/L
127-18-4	Tetrachloroethene	5.00	U	2.50	5.00	10.0	ug/L
108-90-7	Chlorobenzene	5.00	U	1.30	5.00	10.0	ug/L
100-41-4	Ethyl Benzene	5.00	U	1.60	5.00	10.0	ug/L
179601-23-1	m/p-Xylenes	10.0	U	3.10	10.0	20.0	ug/L
95-47-6	o-Xylene	5.00	U	1.40	5.00	10.0	ug/L
100-42-5	Styrene	5.00	U	1.60	5.00	10.0	ug/L
75-25-2	Bromoform	5.00	U	2.10	5.00	10.0	ug/L
98-82-8	Isopropylbenzene	5.00	U	1.30	5.00	10.0	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	2.70	5.00	10.0	ug/L
541-73-1	1,3-Dichlorobenzene	5.00	U	2.40	5.00	10.0	ug/L
106-46-7	1,4-Dichlorobenzene	5.00	U	2.70	5.00	10.0	ug/L
95-50-1	1,2-Dichlorobenzene	5.00	U	1.90	5.00	10.0	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	52.8		81 - 118		106%	SPK: 50
1868-53-7	Dibromofluoromethane	52.0		80 - 119		104%	SPK: 50
2037-26-5	Toluene-d8	49.3		89 - 112		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.3		85 - 114		93%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	175000	8.218				
540-36-3	1,4-Difluorobenzene	316000	9.1				
3114-55-4	Chlorobenzene-d5	274000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	108000	13.788				
<b>TENTATIVE IDENTIFIED COMPOUNDS</b>							
75-43-4	Dichlorofluoromethane	N.D					

### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/07/25	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	01/09/25	
Client Sample ID:	BP-VPB-190A-GW-898-900		SDG No.:	Q1062	
Lab Sample ID:	Q1062-04		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085452.D	10		01/15/25 11:26	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

\* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



# QC SUMMARY

### Surrogate Summary

SDG No.: Q1062

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
Q1062-01	BP-VPB-190A-TB-20250107	1,2-Dichloroethane-d4	50	53.3	107	81	118
		Dibromofluoromethane	50	50.0	100	80	119
		Toluene-d8	50	48.9	98	89	112
		4-Bromofluorobenzene	50	45.9	92	85	114
Q1062-02	VPB190A-HYD-20250107	1,2-Dichloroethane-d4	50	53.2	106	81	118
		Dibromofluoromethane	50	51.4	103	80	119
		Toluene-d8	50	49.2	98	89	112
		4-Bromofluorobenzene	50	47.0	94	85	114
Q1062-03	BP-VPB-190A-EB-20250107	1,2-Dichloroethane-d4	50	53.6	107	81	118
		Dibromofluoromethane	50	50.8	102	80	119
		Toluene-d8	50	50.0	100	89	112
		4-Bromofluorobenzene	50	46.6	93	85	114
Q1062-04	BP-VPB-190A-GW-898-900	1,2-Dichloroethane-d4	50	52.8	106	81	118
		Dibromofluoromethane	50	52.0	104	80	119
		Toluene-d8	50	49.3	99	89	112
		4-Bromofluorobenzene	50	46.3	93	85	114
VN0115WBL01	VN0115WBL01	1,2-Dichloroethane-d4	50	55.1	110	81	118
		Dibromofluoromethane	50	51.9	104	80	119
		Toluene-d8	50	50.1	100	89	112
		4-Bromofluorobenzene	50	49.0	98	85	114
VN0115WBS01	VN0115WBS01	1,2-Dichloroethane-d4	50	47.6	95	81	118
		Dibromofluoromethane	50	48.5	97	80	119
		Toluene-d8	50	50.4	101	89	112
		4-Bromofluorobenzene	50	49.5	99	85	114
VN0115WBSD0	VN0115WBSD01	1,2-Dichloroethane-d4	50	48.9	98	81	118
		Dibromofluoromethane	50	49.3	99	80	119
		Toluene-d8	50	50.1	100	89	112
		4-Bromofluorobenzene	50	50.4	101	85	114

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1062  
 Client: Tetra Tech NUS, Inc.  
 Analytical Method: SW8260-Low      Datafile : VN085450.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN0115WBS01	Chloromethane	20	18.5	ug/L	93			50	139	
	Vinyl chloride	20	18.2	ug/L	91			58	137	
	Bromomethane	20	18.5	ug/L	93			53	141	
	Chloroethane	20	17.8	ug/L	89			60	138	
	Trichlorofluoromethane	20	18.7	ug/L	94			65	141	
	1,1,2-Trichlorotrifluoroethane	20	19.0	ug/L	95			70	136	
	1,1-Dichloroethene	20	18.6	ug/L	93			71	131	
	Acetone	100	87.7	ug/L	88			39	160	
	Carbon disulfide	20	17.4	ug/L	87			64	133	
	Methyl tert-butyl Ether	20	18.7	ug/L	94			71	124	
	Methylene Chloride	20	18.2	ug/L	91			74	124	
	trans-1,2-Dichloroethene	20	18.6	ug/L	93			75	124	
	1,1-Dichloroethane	20	18.6	ug/L	93			77	125	
	2-Butanone	100	91.2	ug/L	91			56	143	
	Carbon Tetrachloride	20	19.0	ug/L	95			72	136	
	cis-1,2-Dichloroethene	20	18.7	ug/L	94			78	123	
	Chloroform	20	18.4	ug/L	92			79	124	
	1,1,1-Trichloroethane	20	18.6	ug/L	93			74	131	
	Methylcyclohexane	20	19.8	ug/L	99			72	132	
	Benzene	20	19.2	ug/L	96			79	120	
	1,2-Dichloroethane	20	18.8	ug/L	94			73	128	
	Trichloroethene	20	19.2	ug/L	96			79	123	
	1,2-Dichloropropane	20	18.9	ug/L	95			78	122	
	Bromodichloromethane	20	19.8	ug/L	99			79	125	
	4-Methyl-2-Pentanone	100	95.3	ug/L	95			67	130	
	Toluene	20	20.1	ug/L	101			80	121	
	t-1,3-Dichloropropene	20	19.0	ug/L	95			73	127	
	cis-1,3-Dichloropropene	20	20.0	ug/L	100			75	124	
	1,1,2-Trichloroethane	20	18.9	ug/L	95			80	119	
	2-Hexanone	100	96.5	ug/L	97			57	139	
	Dibromochloromethane	20	19.1	ug/L	96			74	126	
	Tetrachloroethene	20	20.1	ug/L	101			74	129	
	Chlorobenzene	20	19.3	ug/L	97			82	118	
	Ethyl Benzene	20	20.0	ug/L	100			79	121	
	m/p-Xylenes	40	41.3	ug/L	103			80	121	
	o-Xylene	20	20.2	ug/L	101			78	122	
	Styrene	20	20.4	ug/L	102			78	123	
	Bromoform	20	19.8	ug/L	99			66	130	
	Isopropylbenzene	20	20.7	ug/L	104			72	131	
	1,1,2,2-Tetrachloroethane	20	18.5	ug/L	93			71	121	
	1,3-Dichlorobenzene	20	19.6	ug/L	98			80	119	
	1,4-Dichlorobenzene	20	18.7	ug/L	94			79	118	
	1,2-Dichlorobenzene	20	18.9	ug/L	95			80	119	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1062  
 Client: Tetra Tech NUS, Inc.  
 Analytical Method: SW8260-Low      Datafile : VN085451.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN0115WBSD01	Chloromethane	20	19.5	ug/L	98	5		50	139	20
	Vinyl chloride	20	19.1	ug/L	96	5		58	137	20
	Bromomethane	20	19.3	ug/L	97	4		53	141	20
	Chloroethane	20	18.5	ug/L	93	4		60	138	20
	Trichlorofluoromethane	20	19.7	ug/L	99	5		65	141	20
	1,1,2-Trichlorotrifluoroethane	20	19.6	ug/L	98	3		70	136	20
	1,1-Dichloroethene	20	19.3	ug/L	97	4		71	131	20
	Acetone	100	94.9	ug/L	95	8		39	160	20
	Carbon disulfide	20	18.1	ug/L	91	4		64	133	20
	Methyl tert-butyl Ether	20	21.1	ug/L	106	12		71	124	20
	Methylene Chloride	20	20.1	ug/L	101	10		74	124	20
	trans-1,2-Dichloroethene	20	19.9	ug/L	100	7		75	124	20
	1,1-Dichloroethane	20	20.0	ug/L	100	7		77	125	20
	2-Butanone	100	97.6	ug/L	98	7		56	143	20
	Carbon Tetrachloride	20	19.9	ug/L	100	5		72	136	20
	cis-1,2-Dichloroethene	20	19.7	ug/L	99	5		78	123	20
	Chloroform	20	20.1	ug/L	101	9		79	124	20
	1,1,1-Trichloroethane	20	19.9	ug/L	100	7		74	131	20
	Methylcyclohexane	20	20.0	ug/L	100	1		72	132	20
	Benzene	20	20.1	ug/L	101	5		79	120	20
	1,2-Dichloroethane	20	20.7	ug/L	104	10		73	128	20
	Trichloroethene	20	20.1	ug/L	101	5		79	123	20
	1,2-Dichloropropane	20	20.2	ug/L	101	6		78	122	20
	Bromodichloromethane	20	20.9	ug/L	104	5		79	125	20
	4-Methyl-2-Pentanone	100	100	ug/L	100	5		67	130	20
	Toluene	20	21.5	ug/L	108	7		80	121	20
	t-1,3-Dichloropropene	20	20.3	ug/L	102	7		73	127	20
	cis-1,3-Dichloropropene	20	21.0	ug/L	105	5		75	124	20
	1,1,2-Trichloroethane	20	20.9	ug/L	104	9		80	119	20
	2-Hexanone	100	100	ug/L	100	3		57	139	20
	Dibromochloromethane	20	20.2	ug/L	101	5		74	126	20
	Tetrachloroethene	20	20.7	ug/L	104	3		74	129	20
	Chlorobenzene	20	19.5	ug/L	98	1		82	118	20
	Ethyl Benzene	20	20.4	ug/L	102	2		79	121	20
	m/p-Xylenes	40	42.5	ug/L	106	3		80	121	20
	o-Xylene	20	20.9	ug/L	104	3		78	122	20
	Styrene	20	20.8	ug/L	104	2		78	123	20
	Bromoform	20	20.6	ug/L	103	4		66	130	20
	Isopropylbenzene	20	20.6	ug/L	103	1		72	131	20
	1,1,2,2-Tetrachloroethane	20	19.0	ug/L	95	2		71	121	20
	1,3-Dichlorobenzene	20	20.1	ug/L	101	3		80	119	20
	1,4-Dichlorobenzene	20	19.1	ug/L	96	2		79	118	20
	1,2-Dichlorobenzene	20	19.0	ug/L	95	0		80	119	20



VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0115WBL01

Lab Name: CHEMTECH

Contract: TETRO6

Lab Code: CHEM Case No.: Q1062

SAS No.: Q1062 SDG NO.: Q1062

Lab File ID: VN085449.D

Lab Sample ID: VN0115WBL01

Date Analyzed: 01/15/2025

Time Analyzed: 10:05

GC Column: RXI-624 ID: 0.25 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA\_N

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0115WBS01	VN0115WBS01	VN085450.D	01/15/2025
VN0115WBSD01	VN0115WBSD01	VN085451.D	01/15/2025
BP-VPB-190A-GW-898-900	Q1062-04	VN085452.D	01/15/2025
BP-VPB-190A-TB-20250107	Q1062-01	VN085453.D	01/15/2025
BP-VPB-190A-EB-20250107	Q1062-03	VN085454.D	01/15/2025
VPB190A-HYD-20250107	Q1062-02	VN085455.D	01/15/2025

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

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
 BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG NO.: Q1062  
 Lab File ID: VN085437.D BFB Injection Date: 01/14/2025  
 Instrument ID: MSVOA\_N BFB Injection Time: 14:22  
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.3
75	30.0 - 60.0% of mass 95	58
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	1.4 ( 1.8 ) 1
174	50.0 - 100.0% of mass 95	76
175	5.0 - 9.0% of mass 174	5.4 ( 7.1 ) 1
176	95.0 - 101.0% of mass 174	74.1 ( 97.4 ) 1
177	5.0 - 9.0% of mass 176	4.9 ( 6.7 ) 2

1-Value is % mass 174

2-Value is % mass 176

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
VSTDICC100	VSTDICC100	VN085438.D	01/14/2025	14:56
VSTDICCC050	VSTDICCC050	VN085439.D	01/14/2025	15:19
VSTDICC020	VSTDICC020	VN085440.D	01/14/2025	15:43
VSTDICC010	VSTDICC010	VN085441.D	01/14/2025	16:07
VSTDICC005	VSTDICC005	VN085442.D	01/14/2025	16:31
VSTDICC001	VSTDICC001	VN085443.D	01/14/2025	17:19

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG NO.: Q1062  
 Lab File ID: VN085446.D BFB Injection Date: 01/15/2025  
 Instrument ID: MSVOA\_N BFB Injection Time: 08:25  
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.1
75	30.0 - 60.0% of mass 95	56.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	1.1 ( 1.5 ) 1
174	50.0 - 100.0% of mass 95	70.9
175	5.0 - 9.0% of mass 174	5.3 ( 7.5 ) 1
176	95.0 - 101.0% of mass 174	70.4 ( 99.2 ) 1
177	5.0 - 9.0% of mass 176	4.3 ( 6.1 ) 2

1-Value is % mass 174

2-Value is % mass 176

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
VSTDCCC050	VSTDCCC050	VN085447.D	01/15/2025	09:03
VN0115WBL01	VN0115WBL01	VN085449.D	01/15/2025	10:05
VN0115WBS01	VN0115WBS01	VN085450.D	01/15/2025	10:29
VN0115WBSD01	VN0115WBSD01	VN085451.D	01/15/2025	11:02
BP-VPB-190A-GW-898-900	Q1062-04	VN085452.D	01/15/2025	11:26
BP-VPB-190A-TB-20250107	Q1062-01	VN085453.D	01/15/2025	11:50
BP-VPB-190A-EB-20250107	Q1062-03	VN085454.D	01/15/2025	12:14
VPB190A-HYD-20250107	Q1062-02	VN085455.D	01/15/2025	12:37
VSTDCCC050EC	VSTDCCC050	VN085463.D	01/15/2025	15:58

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG NO.: Q1062  
 Lab File ID: VN085447.D Date Analyzed: 01/15/2025  
 Instrument ID: MSVOA\_N Time Analyzed: 09:03  
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	218273	8.22	358609	9.09	316952	11.86
UPPER LIMIT	436546	8.718	717218	9.594	633904	12.359
LOWER LIMIT	109137	7.718	179305	8.594	158476	11.359
EPA SAMPLE NO.						
BP-VPB-190A-TB-20250107	196038	8.22	355455	9.09	304386	11.87
VPB190A-HYD-20250107	183777	8.22	332391	9.10	293220	11.87
BP-VPB-190A-EB-20250107	185335	8.22	337105	9.10	298295	11.87
BP-VPB-190A-GW-898-900	175474	8.22	316452	9.10	274227	11.87
VN0115WBL01	195111	8.22	360723	9.10	319974	11.86
VN0115WBS01	208834	8.22	350038	9.09	301633	11.87
VN0115WBSD01	188898	8.22	323122	9.10	286298	11.87

IS1 = Pentafluorobenzene  
 IS2 = 1,4-Difluorobenzene  
 IS3 = Chlorobenzene-d5

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.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG NO.: Q1062  
 Lab File ID: VN085447.D Date Analyzed: 01/15/2025  
 Instrument ID: MSVOA\_N Time Analyzed: 09:03  
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	158347	13.788				
UPPER LIMIT	316694	14.288				
LOWER LIMIT	79173.5	13.288				
EPA SAMPLE NO.						
BP-VPB-190A-TB-20250107	119672	13.79				
VPB190A-HYD-20250107	116419	13.79				
BP-VPB-190A-EB-20250107	117680	13.79				
BP-VPB-190A-GW-898-900	107831	13.79				
VN0115WBL01	130534	13.79				
VN0115WBS01	141189	13.79				
VN0115WBSD01	136502	13.79				

IS4 = 1,4-Dichlorobenzene-d4

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.



# QC SAMPLE DATA

### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	
Client Sample ID:	VN0115WBL01	SDG No.:	Q1062	
Lab Sample ID:	VN0115WBL01	Matrix:	Water	
Analytical Method:	SW8260	% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085449.D	1		01/15/25 10:05	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
74-87-3	Chloromethane	0.50	U	0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	0.75	U	0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	3.80	U	1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	0.75	U	0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.50	U	0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.50	U	0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.75	U	0.26	0.75	1.00	ug/L
67-64-1	Acetone	3.80	U	1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.75	U	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	
Client Sample ID:	VN0115WBL01		SDG No.:	Q1062
Lab Sample ID:	VN0115WBL01		Matrix:	Water
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085449.D	1		01/15/25 10:05	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	55.1		81 - 118		110%	SPK: 50
1868-53-7	Dibromofluoromethane	51.9		80 - 119		104%	SPK: 50
2037-26-5	Toluene-d8	50.1		89 - 112		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.1		85 - 114		98%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	195000	8.218				
540-36-3	1,4-Difluorobenzene	361000	9.1				
3114-55-4	Chlorobenzene-d5	320000	11.859				
3855-82-1	1,4-Dichlorobenzene-d4	131000	13.788				

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 112G08005-WE13		Date Received:	
Client Sample ID:	VN0115WBS01	SDG No.:	Q1062	
Lab Sample ID:	VN0115WBS01	Matrix:	Water	
Analytical Method:	SW8260	% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol: 5000 uL
Soil Aliquot Vol:			uL	Test: VOCMS Group1
GC Column:	RXI-624	ID :	0.25	Level : LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085450.D	1		01/15/25 10:29	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
74-87-3	Chloromethane	18.5		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	18.2		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	18.5		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	17.8		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	18.7		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.0		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.6		0.26	0.75	1.00	ug/L
67-64-1	Acetone	87.7		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	17.4		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	18.7		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	18.2		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.6		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	18.6		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	91.2		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.0		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.7		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	18.4		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.6		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	19.8		0.19	0.50	1.00	ug/L
71-43-2	Benzene	19.2		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	18.8		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	19.2		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	18.9		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	19.8		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	95.3		0.75	2.50	5.00	ug/L
108-88-3	Toluene	20.1		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	19.0		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.0		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	18.9		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	96.5		1.10	2.50	5.00	ug/L

### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:				
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:				
Client Sample ID:	VN0115WBS01	SDG No.:	Q1062				
Lab Sample ID:	VN0115WBS01	Matrix:	Water				
Analytical Method:	SW8260	% Solid:	0				
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL	
Soil Aliquot Vol:			uL	Test:	VOCMS Group1		
GC Column:	RXI-624	ID :	0.25	Level :	LOW		
Prep Method :							

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085450.D	1		01/15/25 10:29	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	19.1		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	20.1		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	19.3		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	20.0		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	41.3		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	20.2		0.14	0.50	1.00	ug/L
100-42-5	Styrene	20.4		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	19.8		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	20.7		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.5		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	19.6		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.7		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.9		0.19	0.50	1.00	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	47.6		81 - 118		95%	SPK: 50
1868-53-7	Dibromofluoromethane	48.5		80 - 119		97%	SPK: 50
2037-26-5	Toluene-d8	50.4		89 - 112		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.5		85 - 114		99%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	209000	8.224				
540-36-3	1,4-Difluorobenzene	350000	9.094				
3114-55-4	Chlorobenzene-d5	302000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	141000	13.788				

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 112G08005-WE13		Date Received:	
Client Sample ID:	VN0115WBSD01	SDG No.:	Q1062	
Lab Sample ID:	VN0115WBSD01	Matrix:	Water	
Analytical Method:	SW8260	% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085451.D	1		01/15/25 11:02	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
74-87-3	Chloromethane	19.5		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	19.1		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	19.3		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	18.5		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	19.7		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.6		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	19.3		0.26	0.75	1.00	ug/L
67-64-1	Acetone	94.9		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	18.1		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	21.1		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	20.1		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	19.9		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	20.0		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	97.6		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.9		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	19.7		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	20.1		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	19.9		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	20.0		0.19	0.50	1.00	ug/L
71-43-2	Benzene	20.1		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	20.7		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	20.1		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	20.2		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	20.9		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	100		0.75	2.50	5.00	ug/L
108-88-3	Toluene	21.5		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	20.3		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	21.0		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	20.9		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	100		1.10	2.50	5.00	ug/L

### Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	NWIRP Bethpage 112G08005-WE13		Date Received:	
Client Sample ID:	VN0115WBSD01	SDG No.:	Q1062	
Lab Sample ID:	VN0115WBSD01	Matrix:	Water	
Analytical Method:	SW8260	% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085451.D	1		01/15/25 11:02	VN011525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	20.2		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	20.7		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	19.5		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	20.4		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	42.5		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	20.9		0.14	0.50	1.00	ug/L
100-42-5	Styrene	20.8		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	20.6		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	20.6		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	19.0		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	20.1		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	19.1		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	19.0		0.19	0.50	1.00	ug/L
<b>SURROGATES</b>							
17060-07-0	1,2-Dichloroethane-d4	48.9		81 - 118		98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.3		80 - 119		99%	SPK: 50
2037-26-5	Toluene-d8	50.1		89 - 112		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.4		85 - 114		101%	SPK: 50
<b>INTERNAL STANDARDS</b>							
363-72-4	Pentafluorobenzene	189000	8.218				
540-36-3	1,4-Difluorobenzene	323000	9.1				
3114-55-4	Chlorobenzene-d5	286000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	137000	13.788				

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

**VOLATILE ORGANICS INITIAL CALIBRATION DATA**

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG No.: Q1062  
 Instrument ID: MSVOA\_N Calibration Date(s): 01/14/2025 01/14/2025  
 Heated Purge: (Y/N) N Calibration Time(s): 14:56 17:19  
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:	RRF100 = VN085438.D	RRF050 = VN085439.D	RRF020 = VN085440.D	RRF010 = VN085441.D	RRF005 = VN085442.D	RRF001 = VN085443.D	RRF	% RSD
COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	RRF	% RSD
Chloromethane	0.680	0.680	0.727	0.693	0.779	0.839	0.733	8.8
Vinyl Chloride	0.697	0.686	0.727	0.711	0.781	0.819	0.737	7.1
Bromomethane	0.392	0.417	0.454	0.437	0.525		0.445	11.3
Chloroethane	0.435	0.424	0.468	0.429	0.505	0.542	0.467	10.3
Trichlorofluoromethane	1.046	0.997	1.097	1.040	1.077	1.157	1.069	5.1
1,1,2-Trichlorotrifluoroethane	0.590	0.542	0.609	0.587	0.639	0.646	0.602	6.4
1,1-Dichloroethene	0.548	0.533	0.556	0.526	0.559	0.497	0.537	4.3
Acetone	0.238	0.252	0.252	0.247	0.269	0.306	0.261	9.3
Carbon Disulfide	1.555	1.477	1.647	1.537	1.719	1.978	1.652	11
Methyl tert-butyl Ether	1.834	1.873	1.853	1.664	1.685	1.545	1.742	7.5
Methylene Chloride	0.629	0.629	0.658	0.606	0.696	0.656	0.646	4.9
trans-1,2-Dichloroethene	0.571	0.555	0.574	0.539	0.569	0.632	0.573	5.5
1,1-Dichloroethane	1.164	1.170	1.206	1.100	1.226	1.204	1.178	3.8
2-Butanone	0.378	0.390	0.398	0.363	0.387	0.386	0.384	3.1
Carbon Tetrachloride	0.574	0.530	0.579	0.529	0.565	0.567	0.557	4
cis-1,2-Dichloroethene	0.691	0.683	0.715	0.639	0.669	0.655	0.675	4
Chloroform	1.197	1.175	1.241	1.169	1.253	1.273	1.218	3.6
1,1,1-Trichloroethane	1.053	1.016	1.091	1.000	1.148	1.102	1.068	5.2
Methylcyclohexane	0.564	0.463	0.477	0.407	0.437	0.397	0.457	13.3
Benzene	1.551	1.449	1.527	1.376	1.474	1.400	1.463	4.7
1,2-Dichloroethane	0.569	0.547	0.575	0.522	0.574	0.517	0.551	4.8
Trichloroethene	0.362	0.324	0.352	0.310	0.343	0.352	0.341	5.8
1,2-Dichloropropane	0.390	0.371	0.388	0.334	0.388	0.371	0.374	5.7
Bromodichloromethane	0.590	0.559	0.579	0.514	0.569	0.484	0.549	7.5
4-Methyl-2-Pentanone	0.499	0.492	0.495	0.432	0.443	0.380	0.457	10.3
Toluene	0.964	0.870	0.919	0.808	0.835	0.690	0.848	11.3
t-1,3-Dichloropropene	0.594	0.551	0.544	0.481	0.527	0.416	0.519	12
cis-1,3-Dichloropropene	0.623	0.588	0.601	0.527	0.538	0.450	0.554	11.4
1,1,2-Trichloroethane	0.348	0.340	0.353	0.309	0.349	0.314	0.335	5.7
2-Hexanone	0.358	0.357	0.353	0.298	0.302	0.261	0.321	12.6

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.  
 RRF of 1,4-Dioxane = Value should be divide by 1000.

**VOLATILE ORGANICS INITIAL CALIBRATION DATA**

Lab Name: CHEMTECH Contract: TETR06  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG No.: Q1062  
 Instrument ID: MSVOA\_N Calibration Date(s): 01/14/2025 01/14/2025  
 Heated Purge: (Y/N) N Calibration Time(s): 14:56 17:19  
 GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:	RRF100 = VN085438.D	RRF050 = VN085439.D	RRF020 = VN085440.D	RRF010 = VN085441.D	RRF005 = VN085442.D	RRF001 = VN085443.D		
COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	RRF	% RSD
Dibromochloromethane	0.430	0.414	0.412	0.368	0.420	0.386	0.405	5.8
Tetrachloroethene	0.351	0.322	0.365	0.338	0.346	0.323	0.341	4.9
Chlorobenzene	1.133	1.076	1.154	1.047	1.110	1.051	1.095	4
Ethyl Benzene	2.072	1.867	1.940	1.685	1.709	1.430	1.784	12.7
m/p-Xylenes	0.775	0.707	0.750	0.615	0.616	0.492	0.659	16
o-Xylene	0.738	0.681	0.713	0.584	0.582	0.482	0.630	15.5
Styrene	1.271	1.173	1.186	0.956	0.929	0.742	1.043	19.2
Bromoform	0.311	0.311	0.312	0.273	0.284	0.235	0.288	10.6
Isopropylbenzene	3.922	3.448	3.681	3.272	3.157	2.766	3.375	12.1
1,1,2,2-Tetrachloroethane	1.121	1.145	1.187	1.157	1.228	1.314	1.192	5.9
1,3-Dichlorobenzene	1.720	1.565	1.701	1.574	1.656	1.526	1.624	4.9
1,4-Dichlorobenzene	1.706	1.562	1.713	1.607	1.743	1.767	1.683	4.8
1,2-Dichlorobenzene	1.611	1.555	1.654	1.532	1.600	1.766	1.620	5.2
1,2-Dichloroethane-d4	0.774	0.831	0.754	0.762	0.914		0.807	8.3
Dibromofluoromethane	0.359	0.358	0.335	0.310	0.373		0.347	7.1
Toluene-d8	1.339	1.267	1.207	1.076	1.274		1.232	8.1
4-Bromofluorobenzene	0.475	0.449	0.410	0.357	0.417		0.422	10.6

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.  
 RRF of 1,4-Dioxane = Value should be divide by 1000.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG No.: Q1062  
 Instrument ID: MSVOA\_N Calibration Date/Time: 01/15/2025 09:03  
 Lab File ID: VN085447.D Init. Calib. Date(s): 01/14/2025 01/14/2025  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 14:56 17:19  
 GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.733	0.674	0.1	-8.05	20
Vinyl Chloride	0.737	0.696		-5.56	20
Bromomethane	0.445	0.401		-9.89	20
Chloroethane	0.467	0.426		-8.78	20
Trichlorofluoromethane	1.069	1.042		-2.53	20
1,1,2-Trichlorotrifluoroethane	0.602	0.600		-0.33	20
1,1-Dichloroethene	0.537	0.531		-1.12	20
Acetone	0.261	0.230		-11.88	20
Carbon Disulfide	1.652	1.522		-7.87	20
Methyl tert-butyl Ether	1.742	1.757		0.86	20
Methylene Chloride	0.646	0.605		-6.35	20
trans-1,2-Dichloroethene	0.573	0.562		-1.92	20
1,1-Dichloroethane	1.178	1.146	0.1	-2.72	20
2-Butanone	0.384	0.337		-12.24	20
Carbon Tetrachloride	0.557	0.563		1.08	20
cis-1,2-Dichloroethene	0.675	0.674		-0.15	20
Chloroform	1.218	1.163		-4.52	20
1,1,1-Trichloroethane	1.068	1.035		-3.09	20
Methylcyclohexane	0.457	0.528		15.54	20
Benzene	1.463	1.504		2.8	20
1,2-Dichloroethane	0.551	0.550		-0.18	20
Trichloroethene	0.341	0.345		1.17	20
1,2-Dichloropropane	0.374	0.377		0.8	20
Bromodichloromethane	0.549	0.568		3.46	20
4-Methyl-2-Pentanone	0.457	0.440		-3.72	20
Toluene	0.848	0.916		8.02	20
t-1,3-Dichloropropene	0.519	0.555		6.94	20
cis-1,3-Dichloropropene	0.554	0.594		7.22	20
1,1,2-Trichloroethane	0.335	0.337		0.6	20
2-Hexanone	0.321	0.312		-2.8	20
Dibromochloromethane	0.405	0.408		0.74	20
Tetrachloroethene	0.341	0.355		4.11	20
Chlorobenzene	1.095	1.101	0.3	0.55	20
Ethyl Benzene	1.784	1.967		10.26	20
m/p-Xylenes	0.659	0.755		14.57	20
o-Xylene	0.630	0.699		10.95	20
Styrene	1.043	1.208		15.82	20
Bromoform	0.288	0.302	0.1	4.86	20

All other compounds must meet a minimum RRF of 0.010.  
 RRF of 1,4-Dioxane = Value should be divide by 1000.



VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG No.: Q1062  
 Instrument ID: MSVOA\_N Calibration Date/Time: 01/15/2025 09:03  
 Lab File ID: VN085447.D Init. Calib. Date(s): 01/14/2025 01/14/2025  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 14:56 17:19  
 GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	3.375	3.662		8.5	20
1,1,2,2-Tetrachloroethane	1.192	1.047	0.3	-12.16	20
1,3-Dichlorobenzene	1.624	1.628		0.25	20
1,4-Dichlorobenzene	1.683	1.618		-3.86	20
1,2-Dichlorobenzene	1.620	1.533		-5.37	20
1,2-Dichloroethane-d4	0.807	0.819		1.49	20
Dibromofluoromethane	0.347	0.369		6.34	20
Toluene-d8	1.232	1.356		10.06	20
4-Bromofluorobenzene	0.422	0.469		11.14	20

All other compounds must meet a minimum RRF of 0.010.  
 RRF of 1,4-Dioxane = Value should be divide by 1000.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG No.: Q1062  
 Instrument ID: MSVOA\_N Calibration Date/Time: 01/15/2025 15:58  
 Lab File ID: VN085463.D Init. Calib. Date(s): 01/14/2025 01/14/2025  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 14:56 17:19  
 GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.733	0.702	0.1	-4.23	50
Vinyl Chloride	0.737	0.708		-3.93	50
Bromomethane	0.445	0.408		-8.31	50
Chloroethane	0.467	0.455		-2.57	50
Trichlorofluoromethane	1.069	1.073		0.37	50
1,1,2-Trichlorotrifluoroethane	0.602	0.611		1.5	50
1,1-Dichloroethene	0.537	0.553		2.98	50
Acetone	0.261	0.262		0.38	50
Carbon Disulfide	1.652	1.549		-6.24	50
Methyl tert-butyl Ether	1.742	1.940		11.37	50
Methylene Chloride	0.646	0.639		-1.08	50
trans-1,2-Dichloroethene	0.573	0.583		1.75	50
1,1-Dichloroethane	1.178	1.209	0.1	2.63	50
2-Butanone	0.384	0.414		7.81	50
Carbon Tetrachloride	0.557	0.568		1.98	50
cis-1,2-Dichloroethene	0.675	0.710		5.18	50
Chloroform	1.218	1.244		2.13	50
1,1,1-Trichloroethane	1.068	1.085		1.59	50
Methylcyclohexane	0.457	0.526		15.1	50
Benzene	1.463	1.516		3.62	50
1,2-Dichloroethane	0.551	0.569		3.27	50
Trichloroethene	0.341	0.335		-1.76	50
1,2-Dichloropropane	0.374	0.381		1.87	50
Bromodichloromethane	0.549	0.580		5.65	50
4-Methyl-2-Pentanone	0.457	0.517		13.13	50
Toluene	0.848	0.933		10.02	50
t-1,3-Dichloropropene	0.519	0.581		11.95	50
cis-1,3-Dichloropropene	0.554	0.617		11.37	50
1,1,2-Trichloroethane	0.335	0.347		3.58	50
2-Hexanone	0.321	0.376		17.13	50
Dibromochloromethane	0.405	0.424		4.69	50
Tetrachloroethene	0.341	0.322		-5.57	50
Chlorobenzene	1.095	1.124	0.3	2.65	50
Ethyl Benzene	1.784	2.015		12.95	50
m/p-Xylenes	0.659	0.755		14.57	50
o-Xylene	0.630	0.715		13.49	50
Styrene	1.043	1.237		18.6	50
Bromoform	0.288	0.318	0.1	10.42	50

All other compounds must meet a minimum RRF of 0.010.  
 RRF of 1,4-Dioxane = Value should be divide by 1000.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG No.: Q1062  
 Instrument ID: MSVOA\_N Calibration Date/Time: 01/15/2025 15:58  
 Lab File ID: VN085463.D Init. Calib. Date(s): 01/14/2025 01/14/2025  
 Heated Purge: (Y/N) N Init. Calib. Time(s): 14:56 17:19  
 GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	3.375	3.695		9.48	50
1,1,2,2-Tetrachloroethane	1.192	1.175	0.3	-1.43	50
1,3-Dichlorobenzene	1.624	1.668		2.71	50
1,4-Dichlorobenzene	1.683	1.639		-2.61	50
1,2-Dichlorobenzene	1.620	1.603		-1.05	50
1,2-Dichloroethane-d4	0.807	0.841		4.21	50
Dibromofluoromethane	0.347	0.359		3.46	50
Toluene-d8	1.232	1.331		8.04	50
4-Bromofluorobenzene	0.422	0.473		12.09	50

All other compounds must meet a minimum RRF of 0.010.  
 RRF of 1,4-Dioxane = Value should be divide by 1000.

### LAB CHRONICLE

<b>OrderID:</b> Q1062	<b>OrderDate:</b> 1/10/2025 11:26:00 AM
<b>Client:</b> Tetra Tech NUS, Inc.	<b>Project:</b> NWIRP Bethpage 112G08005-WE13
<b>Contact:</b> Ernie Wu	<b>Location:</b> M11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1062-02	VPB190A-HYD-20250 107	Water	SVOC-SIMGroup1	8270-Modified	01/07/25	01/10/25	01/10/25	01/09/25



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

**Hit Summary Sheet**  
SW-846

**SDG No.:** Q1062  
**Client:** Tetra Tech NUS, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :				0.000					
			<b>Total Svoc :</b>			<b>0.00</b>			
			<b>Total Concentration:</b>			<b>0.00</b>			



# SAMPLE DATA

### Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/07/25
Project:	NWIRP Bethpage 112G08005-WE13	Date Received:	01/09/25
Client Sample ID:	VPB190A-HYD-20250107	SDG No.:	Q1062
Lab Sample ID:	Q1062-02	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	970 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
BN035909.D	1	01/10/25 12:49	01/10/25 19:32	PB166005

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.21	U	0.070	0.21	0.21	ug/L
<b>SURROGATES</b>							
7297-45-2	2-Methylnaphthalene-d10	0.28		30 - 150		69%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.46		30 - 150		115%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.51	*	55 - 111		128%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.47	*	53 - 106		118%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.51		58 - 132		127%	SPK: 0.4
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	817		7.832			
1146-65-2	Naphthalene-d8	1520		10.622			
15067-26-2	Acenaphthene-d10	731		14.463			
1517-22-2	Phenanthrene-d10	1450		17.199			
1719-03-5	Chrysene-d12	1300		21.385			
1520-96-3	Perylene-d12	1410		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



# QC SUMMARY



**Surrogate Summary**

SW-846

SDG No.: Q1062

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
PB166005BL	PB166005BL	2-Methylnaphthalene-d10	0.4	0.46	114		30	150
		Fluoranthene-d10	0.4	0.48	119		30	150
		Nitrobenzene-d5	0.4	0.49	123	*	55	111
		2-Fluorobiphenyl	0.4	0.45	111	*	53	106
		Terphenyl-d14	0.4	0.48	120		58	132
PB166005BS	PB166005BS	2-Methylnaphthalene-d10	0.4	0.47	116		30	150
		Fluoranthene-d10	0.4	0.45	111		30	150
		Nitrobenzene-d5	0.4	0.50	126	*	55	111
		2-Fluorobiphenyl	0.4	0.48	119	*	53	106
		Terphenyl-d14	0.4	0.48	120		58	132
PB166005BSD	PB166005BSD	2-Methylnaphthalene-d10	0.4	0.48	119		30	150
		Fluoranthene-d10	0.4	0.45	113		30	150
		Nitrobenzene-d5	0.4	0.50	124	*	55	111
		2-Fluorobiphenyl	0.4	0.47	118	*	53	106
		Terphenyl-d14	0.4	0.48	119		58	132
Q1062-02	VPB190A-HYD-20250107	2-Methylnaphthalene-d10	0.4	0.28	69		30	150
		Fluoranthene-d10	0.4	0.46	115		30	150
		Nitrobenzene-d5	0.4	0.51	128	*	55	111
		2-Fluorobiphenyl	0.4	0.47	118	*	53	106
		Terphenyl-d14	0.4	0.51	127		58	132

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

SW-846

SDG No.: Q1062

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035911.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD		Limits	
								Qual	Low	High	RPD
PB166005BSD	1,4-Dioxane	0.4	0.40	ug/L	100	2			70	130	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1062

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035917.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD		Limits		RPD
								Qual	Low	High		
PB166005BS	1,4-Dioxane	0.4	0.41	ug/L	103				70	130		

A  
B  
C  
D  
E  
F  
G

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166005BL

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG NO.: Q1062  
 Lab File ID: BN035915.D Lab Sample ID: PB166005BL  
 Instrument ID: BNA\_N Date Extracted: 01/10/2025  
 Matrix: (soil/water) Water Date Analyzed: 01/13/2025  
 Level: (low/med) LOW Time Analyzed: 10:44

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166005BS	PB166005BS	BN035917.D	01/13/2025
PB166005BSD	PB166005BSD	BN035911.D	01/10/2025
VPB190A-HYD-20250107	Q1062-02	BN035909.D	01/10/2025

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

5B  
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH  
Lab Code: CHEM  
Lab File ID: BN035870.D  
Instrument ID: BNA\_N

Contract: TETR06  
SAS No.: Q1062 SDG NO.: Q1062  
DFTPP Injection Date: 01/02/2025  
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.: Q1062 SDG NO.: Q1062  
 Lab File ID: BN035903.D DFTPP Injection Date: 01/10/2025  
 Instrument ID: BNA\_N DFTPP Injection Time: 12:38

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	50.6
68	Less than 2.0% of mass 69	0.0 ( 0.0 ) 1
69	Mass 69 relative abundance	46.1
70	Less than 2.0% of mass 69	0.3 ( 0.6 ) 1
127	10.0 - 80.0% of mass 198	47.5
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	6.6
275	10.0 - 60.0% of mass 198	25.4
365	Greater than 1% of mass 198	4
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	10.3 (19.1) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC0.4	SSTDCCC0.4	BN035904.D	01/10/2025	13:17
VPB190A-HYD-20250107	Q1062-02	BN035909.D	01/10/2025	19:32
PB166005BSD	PB166005BSD	BN035911.D	01/10/2025	20:44
SSTDCCC0.4EC	SSTDCCC0.4	BN035912.D	01/10/2025	21:20

5B  
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06  
 Lab Code: CHEM SAS No.: Q1062 SDG NO.: Q1062  
 Lab File ID: BN035913.D DFTPP Injection Date: 01/13/2025  
 Instrument ID: BNA\_N DFTPP Injection Time: 09:28

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	52
68	Less than 2.0% of mass 69	0.0 ( 0.0 ) 1
69	Mass 69 relative abundance	46.2
70	Less than 2.0% of mass 69	0.3 ( 0.7 ) 1
127	10.0 - 80.0% of mass 198	47.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.1
275	10.0 - 60.0% of mass 198	24.6
365	Greater than 1% of mass 198	4.2
441	Present, but less than mass 443	9.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	11.2 (18.8) 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	BN035914.D	01/13/2025	10:07
PB166005BL	PB166005BL	BN035915.D	01/13/2025	10:44
PB166005BS	PB166005BS	BN035917.D	01/13/2025	11:56
SSTDCCC0.4EC	SSTDCCC0.4	BN035918.D	01/13/2025	12:37

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG NO.: Q1062

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 01/10/2025

Lab File ID: BN035904.D Time Analyzed: 13:17

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	1524	7.832	2846	10.62	1400	14.46
UPPER LIMIT	3048	8.332	5692	11.122	2800	14.963
LOWER LIMIT	762	7.332	1423	10.122	700	13.963
EPA SAMPLE NO.						
01 PB166005BSD	848	7.83	1569	10.62	773	14.46
02 VPB190A-HYD-20250107	817	7.83	1521	10.62	731	14.46

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.



8C  
 SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG NO.: Q1062  
 EPA Sample No.: SSTDCCC0.4 Date Analyzed: 01/10/2025  
 Lab File ID: BN035904.D Time Analyzed: 13:17  
 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	2590	17.199	2090	21.385	2349	23.684
UPPER LIMIT	5180	17.699	4180	21.885	4698	24.184
LOWER LIMIT	1295	16.699	1045	20.885	1174.5	23.184
EPA SAMPLE NO.						
01 PB166005BSD	1389	17.20	1178	21.39	1390	23.69
02 VPB190A-HYD-20250107	1449	17.20	1298	21.39	1410	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 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.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG NO.: Q1062  
 EPA Sample No.: SSTDCCC0.4 Date Analyzed: 01/13/2025  
 Lab File ID: BN035914.D Time Analyzed: 10:07  
 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	1245	7.832	2271	10.62	1028	14.46
UPPER LIMIT	2490	8.332	4542	11.122	2056	14.963
LOWER LIMIT	622.5	7.332	1135.5	10.122	514	13.963
EPA SAMPLE NO.						
01 PB166005BL	1369	7.83	2542	10.62	1264	14.46
02 PB166005BS	934	7.83	1774	10.62	843	14.46

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.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG NO.: Q1062  
 EPA Sample No.: SSTDCCC0.4 Date Analyzed: 01/13/2025  
 Lab File ID: BN035914.D Time Analyzed: 10:07  
 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	1955	17.199	1568	21.376	1851	23.681
UPPER LIMIT	3910	17.699	3136	21.876	3702	24.181
LOWER LIMIT	977.5	16.699	784	20.876	925.5	23.181
EPA SAMPLE NO.						
01 PB166005BL	2501	17.21	2263	21.38	2548	23.69
02 PB166005BS	1498	17.20	1254	21.38	1525	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 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 112G08005-WE13	Date Received:	
Client Sample ID:	PB166005BL	SDG No.:	Q1062
Lab Sample ID:	PB166005BL	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
BN035915.D	1	01/10/25 08:10	01/13/25 10:44	PB166005

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
<b>SURROGATES</b>							
7297-45-2	2-Methylnaphthalene-d10	0.46		30 - 150		114%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.48		30 - 150		119%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.49	*	55 - 111		123%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.45	*	53 - 106		111%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.48		58 - 132		120%	SPK: 0.4
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	1370		7.832			
1146-65-2	Naphthalene-d8	2540		10.622			
15067-26-2	Acenaphthene-d10	1260		14.458			
1517-22-2	Phenanthrene-d10	2500		17.206			
1719-03-5	Chrysene-d12	2260		21.376			
1520-96-3	Perylene-d12	2550		23.686			

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 112G08005-WE13	Date Received:	
Client Sample ID:	PB166005BS	SDG No.:	Q1062
Lab Sample ID:	PB166005BS	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
BN035917.D	1	01/10/25 08:10	01/13/25 11:56	PB166005

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.41		0.070	0.20	0.20	ug/L
<b>SURROGATES</b>							
7297-45-2	2-Methylnaphthalene-d10	0.47		30 - 150		116%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.45		30 - 150		111%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.50	*	55 - 111		126%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.48	*	53 - 106		119%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.48		58 - 132		120%	SPK: 0.4
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	934		7.832			
1146-65-2	Naphthalene-d8	1770		10.622			
15067-26-2	Acenaphthene-d10	843		14.463			
1517-22-2	Phenanthrene-d10	1500		17.199			
1719-03-5	Chrysene-d12	1250		21.376			
1520-96-3	Perylene-d12	1530		23.68			

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 112G08005-WE13	Date Received:	
Client Sample ID:	PB166005BSD	SDG No.:	Q1062
Lab Sample ID:	PB166005BSD	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
BN035911.D	1	01/10/25 08:10	01/10/25 20:44	PB166005

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
<b>TARGETS</b>							
123-91-1	1,4-Dioxane	0.40		0.070	0.20	0.20	ug/L
<b>SURROGATES</b>							
7297-45-2	2-Methylnaphthalene-d10	0.48		30 - 150		119%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.45		30 - 150		113%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.50	*	55 - 111		124%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.47	*	53 - 106		118%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.48		58 - 132		119%	SPK: 0.4
<b>INTERNAL STANDARDS</b>							
3855-82-1	1,4-Dichlorobenzene-d4	848		7.832			
1146-65-2	Naphthalene-d8	1570		10.622			
15067-26-2	Acenaphthene-d10	773		14.463			
1517-22-2	Phenanthrene-d10	1390		17.199			
1719-03-5	Chrysene-d12	1180		21.385			
1520-96-3	Perylene-d12	1390		23.686			

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-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
-----									
1) I 1,4-Dichlorobenzen...	-----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-Nitrosodimet...	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-Chloroet...	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) Hexachlorobuta...	0.368	0.354	0.353	0.363	0.382	0.362	0.369	0.365	2.74
11) SURR2-Methylnaphth...	0.547	0.536	0.527	0.519	0.556	0.524	0.540	0.536	2.50
12) 2-Methylnaphth...	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-Tribromo...	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-...	0.058	0.066	0.067	0.069	0.076	0.076	0.074	0.069	9.51
21) 4-Bromophenyl-...	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)anthra...	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-ethylhex...	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)	Dibenzo(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

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG No.: Q1062  
 Instrument ID: BNA\_N Calibration Date/Time: 01/10/2025 13:17  
 Lab File ID: BN035904.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	0.503		-6.2	20.0
Fluoranthene-d10	0.993	0.942		-5.1	20.0
2-Fluorophenol	0.981	0.965		-1.6	20.0
Phenol-d6	1.219	1.165		-4.4	20.0
Nitrobenzene-d5	0.317	0.347		9.5	20.0
2-Fluorobiphenyl	1.755	1.724		-1.8	20.0
2,4,6-Tribromophenol	0.192	0.204		6.3	20.0
Terphenyl-d14	0.797	0.773		-3.0	20.0
1,4-Dioxane	0.397	0.432		8.8	20.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG No.: Q1062  
 Instrument ID: BNA\_N Calibration Date/Time: 01/10/2025 21:20  
 Lab File ID: BN035912.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	0.515		-3.9	50.0
Fluoranthene-d10	0.993	0.961		-3.2	50.0
2-Fluorophenol	0.981	0.915		-6.7	50.0
Phenol-d6	1.219	1.137		-6.8	50.0
Nitrobenzene-d5	0.317	0.351		10.7	50.0
2-Fluorobiphenyl	1.755	1.801		2.6	50.0
2,4,6-Tribromophenol	0.192	0.220		14.6	50.0
Terphenyl-d14	0.797	0.765		-4.0	50.0
1,4-Dioxane	0.397	0.410		3.3	50.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG No.: Q1062  
 Instrument ID: BNA\_N Calibration Date/Time: 01/13/2025 10:07  
 Lab File ID: BN035914.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	0.496		-7.5	20.0
Fluoranthene-d10	0.993	0.914		-8.0	20.0
2-Fluorophenol	0.981	0.937		-4.5	20.0
Phenol-d6	1.219	1.133		-7.1	20.0
Nitrobenzene-d5	0.317	0.355		12.0	20.0
2-Fluorobiphenyl	1.755	1.826		4.0	20.0
2,4,6-Tribromophenol	0.192	0.220		14.6	20.0
Terphenyl-d14	0.797	0.760		-4.6	20.0
1,4-Dioxane	0.397	0.435		9.6	20.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETRO6  
 Lab Code: CHEM Case No.: Q1062 SAS No.: Q1062 SDG No.: Q1062  
 Instrument ID: BNA\_N Calibration Date/Time: 01/13/2025 12:37  
 Lab File ID: BN035918.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	0.510		-4.9	50.0
Fluoranthene-d10	0.993	1.002		0.9	50.0
2-Fluorophenol	0.981	0.917		-6.5	50.0
Phenol-d6	1.219	1.099		-9.8	50.0
Nitrobenzene-d5	0.317	0.338		6.6	50.0
2-Fluorobiphenyl	1.755	1.756		0.1	50.0
2,4,6-Tribromophenol	0.192	0.251		30.7	50.0
Terphenyl-d14	0.797	0.778		-2.4	50.0
1,4-Dioxane	0.397	0.342		-13.9	50.0

All other compounds must meet a minimum RRF of 0.010.



# SHIPPING DOCUMENTS

**CLIENT INFORMATION**      **PROJECT INFORMATION**      **BILLING INFORMATION**

COMPANY: Tetra Tech	PROJECT NAME: NWIRP Bethpage	BILL TO: SEE CONTRACT	PO#
ADDRESS: 4433 Corporation Lane Suite 300	PROJECT #: 112G08005-WE13      LOCATION: VPB-190	ADDRESS:	
CITY: Virginia Beach      STATE: VA      ZIP: 23462	PROJECT MANAGER: Ernie Wu	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		

<b>DATA TURNAROUND INFORMATION</b>	<b>DATA DELIVERABLE INFORMATION</b>	<b>ANALYSIS</b>									<b>COMMENTS</b>
FAX: _____ 2 & 10 _____ DAYS* HARD COPY: _____ 2 & 10 _____ DAYS* EDD _____ 2 & 10 _____ DAYS* * TO BE APPROVED BY CHEMTECH STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS	<input type="checkbox"/> RESEULTS ONLY <input type="checkbox"/> USEPA CLP <input type="checkbox"/> RESULTS + QC <input type="checkbox"/> New York State ASP "B" <input type="checkbox"/> New Jersey REDUCED <input type="checkbox"/> New York State ASP "A" <input type="checkbox"/> New Jersey CLP <input type="checkbox"/> Other _____ <input type="checkbox"/> EDD Format _____	VOC(SW846-8260B)	1,4 Dioxane (8270 SIM)	1,4 Dioxane (522 PREC)							
		1	2	3	4	5	6	7	8	9	
		<b>PRESERVATIVES</b>									

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles	PRESERVATIVES									COMMENTS <-- Specify Preservatives A-HCl      B-HNO3 C-H2SO4      D-NaOH E-ICE      F-Other			
			COMP	GRAB	DATE	TIME		A	F											
1.	BP-VPB-190A-TB-20250107	QA		X	1/7/25	8:00	2	2												Trip Blank
2.	VPB190A-HYD-20250107	QA		X	1/7/25	9:30	5	2	1	2										Hydrant sample
3.	BP-VPB-190A-EB-20250107	QA		X	1/7/25	10:30	2	2												Equipment Blank
4.	BP-VPB-190A-GW-898-900	AQ		X	1/7/25	14:50	2	2												
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				

**SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSESSION INCLUDING COURIER DELIVERY**

RELINQUISHED BY SAMPLER <i>[Signature]</i>	DATE/TIME 1/9/25 15:20	RECEIVED BY <i>[Signature]</i> 1530	<b>Conditions of bottles or coolers at receipt:</b> <input type="checkbox"/> Compliant <input type="checkbox"/> Non Compliant <input type="checkbox"/> Cooler Temp <u>2.5</u> °C MeOH extraction requires an additional 4oz. Jar for percent solid <input type="checkbox"/> Ice in Cooler?: _____ <b>Comments: 48hr TAT - For VOC's see worksheet #15 of SAP 2018 for VPB program VOC list</b> <b>10-DAY TAT - For 1,4 Dioxane (8270 SIM)</b>
RELINQUISHED BY <i>[Signature]</i>	DATE/TIME	RECEIVED BY	
RELINQUISHED BY <i>[Signature]</i>	DATE/TIME 1-9-25	RECEIVED FOR LAB BY	




**Laboratory Certification**


<b>Certified By</b>	<b>License No.</b>
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

**LOGIN REPORT/SAMPLE TRANSFER**

<b>Order ID :</b> Q1062	TETR06	<b>Order Date :</b> 1/10/2025 11:26:00 AM	<b>Project Mgr :</b> Kiran
<b>Client Name :</b> Tetra Tech NUS, Inc.		<b>Project Name :</b> NWIRP Bethpage 112G080	<b>Report Type :</b> Level 4
<b>Client Contact :</b> Ernie Wu		<b>Receive Date/Time :</b> 1/9/2025 4:15:00 PM	<b>EDD Type :</b> ADAPT
<b>Invoice Name :</b> Tetra Tech NUS, Inc.		<b>Purchase Order :</b>	<b>Hard Copy Date :</b>
<b>Invoice Contact :</b> Ernie Wu			<b>Date Signoff :</b> 1/10/2025 12:45:41 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1062-01	BP-VPB-190A-TB-20250107	Water	01/07/2025	08:00		VOCMS Group1	8260-Low		2 Bus. Days
Q1062-02	VPB190A-HYD-20250107	Water	01/07/2025	09:30		VOCMS Group1	8260-Low		2 Bus. Days
Q1062-03	BP-VPB-190A-EB-20250107	Water	01/07/2025	10:30		VOCMS Group1	8260-Low		2 Bus. Days
Q1062-04	BP-VPB-190A-GW-898-900	Water	01/07/2025	14:50		VOCMS Group1	8260-Low		2 Bus. Days

**Relinquished By :**   
**Date / Time :** 1-10-25 1305

**Received By :**   
**Date / Time :** 1-10-25 13:05

**Storage Area :** VOA Refridgerator Room