

ANALYTICAL RESULTS SUMMARY

VOLATILE ORGANICS
SEMI-VOLATILE ORGANICS

PROJECT NAME : CTO WE13

TETRA TECH NUS, INC.

661 Andersen Drive

Suite 200

Pittsburgh, PA - 15220-2745

Phone No: 412-921-7090

ORDER ID : P4774

ATTENTION : Ernie Wu



Laboratory Certification ID # 20012



1) Signature Page	3
2) Case Narrative	4
2.1) VOCMS Group1- Case Narrative	4
2.2) SVOC-SIMGroup1- Case Narrative	6
3) Qualifier Page	8
4) QA Checklist	9
5) VOCMS Group1 Data	10
6) SVOC-SIMGroup1 Data	75
7) Shipping Document	102
7.1) CHAIN OF CUSTODY	103
7.2) Lab Certificate	104
7.3) Internal COC	105

1
2
3
4
5
6
7

Cover Page

Order ID : P4774

Project ID : CTO WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

P4774-01
P4774-02
P4774-03
P4774-04
P4774-05
P4774-06
P4774-07

Client Sample Number

BP-VPB-190-TB-20241105
VPB190-HYD-20241106
BP-VPB-190-EB-20241106
BP-VPB-190-DUP-20241105
BP-VPB-190-GW-618-620
BP-VPB-190-GW-638-640
BP-VPB-190-GW-658-660

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

Signature : _____

Date: 11/21/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: CTO WE13

Project Manager: Ernie Wu

Chemtech Project # P4774

Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:

7 Water samples were received on 11/07/2024.

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 %RSD is greater than 20% in the Initial Calibration method (82N103024W.M) for Acetone, Chloroethane, Chloromethane these compounds are passing on Linear Regression while, 1,4-Dichlorobenzene this compound is passing on Quadratic Regression.

The Continuous Calibration File ID VN084737.D met the requirements except for Carbon Disulfide failing marginally low therefore no corrective action taken.

The Continuous Calibration File ID VN084763.D met the requirements except for Carbon Disulfide failing low and Acetone failing high but only dilution samples analyzed under this CCAL therefore no corrective action taken.

The Tuning criteria met requirements.

Samples BP-VPB-190-GW-638-640, BP-VPB-190-GW-658-660 were diluted due to high concentrations.

E. Additional Comments:

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.

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_____

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: CTO WE13

Project Manager : Ernie Wu

Chemtech Project # P4774

Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:

7 Water samples were received on 11/07/2024.

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 VPB190-HYD-20241106 [2-Methylnaphthalene-d10 - 1%, Fluoranthene-d10 - 21%], VPB190-HYD-20241106RE [2-Methylnaphthalene-d10 - 1%, Fluoranthene-d10 - 21%], sample was reanalyzed to confirm the failure and reported.

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 for {PB164785BSD} with File ID: BN035072.D met requirements for all samples except for 1,4-Dioxane[68%] failing marginally low therefore no corrective action taken.

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

The Initial Calibration met the requirements .

The Continuous Calibration File ID BN035082.D met the requirements except for 2,4,6-Tribromophenol is not associated with client parameter list therefore no corrective action taken.

The Tuning criteria met requirements.

E. Additional Comments:

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

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

The not QT review data is reported in the Miscellaneous.

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

F. Manual Integration Comments:

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

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

Signature_____

DATA REPORTING QUALIFIERS- ORGANIC

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

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4774

Completed

For thorough review, the report must have the following:

GENERAL:

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓

COVER PAGE:

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

✓

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

✓

CHAIN OF CUSTODY:

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 11/21/2024

LAB CHRONICLE

OrderID:	P4774	OrderDate:	11/7/2024 3:46:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	L31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4774-01	BP-VPB-190-TB-2024 1105	Water			11/05/24			11/07/24
			VOCMS Group1	8260-Low			11/08/24	
P4774-02	VPB190-HYD-202411 06	Water			11/06/24			11/07/24
			VOCMS Group1	8260-Low			11/08/24	
P4774-03	BP-VPB-190-EB-2024 1106	Water			11/06/24			11/07/24
			VOCMS Group1	8260-Low			11/08/24	
P4774-04	BP-VPB-190-DUP-202 41105	Water			11/05/24			11/07/24
			VOCMS Group1	8260-Low			11/08/24	
P4774-05	BP-VPB-190-GW-618- 620	Water			11/05/24			11/07/24
			VOCMS Group1	8260-Low			11/08/24	
P4774-06	BP-VPB-190-GW-638- 640	Water			11/05/24			11/07/24
			VOCMS Group1	8260-Low			11/08/24	
P4774-06DL	BP-VPB-190-GW-638- 640DL	Water			11/05/24			11/07/24
			VOCMS Group1	8260-Low			11/11/24	
P4774-07	BP-VPB-190-GW-658- 660	Water			11/06/24			11/07/24
			VOCMS Group1	8260-Low			11/08/24	
P4774-07DL	BP-VPB-190-GW-658- 660DL	Water			11/06/24			11/07/24
			VOCMS Group1	8260-Low			11/11/24	

Hit Summary Sheet SW-846

SDG No.: P4774
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID: P4774-04	BP-VPB-190-DUP-20241105 BP-VPB-190-DUP- Water		Trichloroethene	0.39	J	0.32	0.75	1.00	ug/L
			Total Voc :	0.39					
			Total Concentration:	0.39					
Client ID: P4774-06	BP-VPB-190-GW-638-640 BP-VPB-190-GW-6 Water		Carbon Tetrachloride	0.85	J	0.25	0.50	1.00	ug/L
P4774-06	BP-VPB-190-GW-6 Water		Trichloroethene	160	E	0.32	0.75	1.00	ug/L
P4774-06	BP-VPB-190-GW-6 Water		1,1,2-Trichloroethane	1.10		0.21	0.50	1.00	ug/L
			Total Voc :	162					
			Total Concentration:	162					
Client ID: P4774-06DL	BP-VPB-190-GW-638-640DL BP-VPB-190-GW-6 Water		Trichloroethene	170	D	1.60	3.80	5.00	ug/L
			Total Voc :	170					
			Total Concentration:	170					
Client ID: P4774-07	BP-VPB-190-GW-658-660 BP-VPB-190-GW-6 Water		1,1,2-Trichlorotrifluoroethane	2.00		0.25	0.50	1.00	ug/L
P4774-07	BP-VPB-190-GW-6 Water		1,1-Dichloroethene	0.58	J	0.26	0.75	1.00	ug/L
P4774-07	BP-VPB-190-GW-6 Water		Carbon Tetrachloride	1.50		0.25	0.50	1.00	ug/L
P4774-07	BP-VPB-190-GW-6 Water		cis-1,2-Dichloroethene	1.70		0.25	0.75	1.00	ug/L
P4774-07	BP-VPB-190-GW-6 Water		Chloroform	1.10		0.26	0.50	1.00	ug/L
P4774-07	BP-VPB-190-GW-6 Water		Trichloroethene	340	E	0.32	0.75	1.00	ug/L
P4774-07	BP-VPB-190-GW-6 Water		1,1,2-Trichloroethane	1.60		0.21	0.50	1.00	ug/L
			Total Voc :	348					
			Total Concentration:	348					
Client ID: P4774-07DL	BP-VPB-190-GW-658-660DL BP-VPB-190-GW-6 Water		Trichloroethene	300	D	3.20	7.50	10.0	ug/L
			Total Voc :	300					
			Total Concentration:	300					



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	11/05/24	
Project:	CTO WE13			Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-TB-20241105			SDG No.:	P4774	
Lab Sample ID:	P4774-01			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
VN084746.D	1		11/08/24 13:44	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
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:	11/05/24		
Project:	CTO WE13			Date Received:	11/07/24		
Client Sample ID:	BP-VPB-190-TB-20241105			SDG No.:	P4774		
Lab Sample ID:	P4774-01			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
VN084746.D	1		11/08/24 13:44	VN110824

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
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.4		81 - 118		99%	SPK: 50
1868-53-7	Dibromofluoromethane	48.5		80 - 119		97%	SPK: 50
2037-26-5	Toluene-d8	45.4		89 - 112		91%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.8		85 - 114		92%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	164000	8.218				
540-36-3	1,4-Difluorobenzene	294000	9.1				
3114-55-4	Chlorobenzene-d5	257000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	112000	13.788				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/05/24	
Project:	CTO WE13		Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-TB-20241105		SDG No.:	P4774	
Lab Sample ID:	P4774-01		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
VN084746.D	1		11/08/24 13:44	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
------------	-----------	-------	-----------	-----	-----	------------	-------

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:	11/06/24	
Project:	CTO WE13			Date Received:	11/07/24	
Client Sample ID:	VPB190-HYD-20241106			SDG No.:	P4774	
Lab Sample ID:	P4774-02			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
VN084747.D	1		11/08/24 14:08	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
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:	11/06/24		
Project:	CTO WE13			Date Received:	11/07/24		
Client Sample ID:	VPB190-HYD-20241106			SDG No.:	P4774		
Lab Sample ID:	P4774-02			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
VN084747.D	1		11/08/24 14:08	VN110824

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
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.9		81 - 118		98%	SPK: 50
1868-53-7	Dibromofluoromethane	48.3		80 - 119		97%	SPK: 50
2037-26-5	Toluene-d8	45.7		89 - 112		91%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.9		85 - 114		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	177000	8.224				
540-36-3	1,4-Difluorobenzene	308000	9.1				
3114-55-4	Chlorobenzene-d5	278000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	131000	13.788				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/06/24	
Project:	CTO WE13		Date Received:	11/07/24	
Client Sample ID:	VPB190-HYD-20241106		SDG No.:	P4774	
Lab Sample ID:	P4774-02		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
VN084747.D	1		11/08/24 14:08	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
------------	-----------	-------	-----------	-----	-----	------------	-------

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:	11/06/24	
Project:	CTO WE13			Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-EB-20241106			SDG No.:	P4774	
Lab Sample ID:	P4774-03			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
VN084748.D	1		11/08/24 14:32	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
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:	11/06/24	
Project:	CTO WE13		Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-EB-20241106		SDG No.:	P4774	
Lab Sample ID:	P4774-03		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
VN084748.D	1		11/08/24 14:32	VN110824

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
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.9		81 - 118		98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.2		80 - 119		98%	SPK: 50
2037-26-5	Toluene-d8	45.7		89 - 112		91%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.3		85 - 114		91%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	172000	8.224				
540-36-3	1,4-Difluorobenzene	302000	9.1				
3114-55-4	Chlorobenzene-d5	261000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	113000	13.794				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/06/24	
Project:	CTO WE13		Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-EB-20241106		SDG No.:	P4774	
Lab Sample ID:	P4774-03		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
VN084748.D	1		11/08/24 14:32	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
------------	-----------	-------	-----------	-----	-----	------------	-------

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:	11/05/24	
Project:	CTO WE13			Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-DUP-20241105			SDG No.:	P4774	
Lab Sample ID:	P4774-04			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
VN084749.D	1		11/08/24 14:56	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
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	0.39	J	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:	11/05/24		
Project:	CTO WE13			Date Received:	11/07/24		
Client Sample ID:	BP-VPB-190-DUP-20241105			SDG No.:	P4774		
Lab Sample ID:	P4774-04			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
VN084749.D	1		11/08/24 14:56	VN110824

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
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.5		81 - 118		99%	SPK: 50
1868-53-7	Dibromofluoromethane	48.6		80 - 119		97%	SPK: 50
2037-26-5	Toluene-d8	46.3		89 - 112		93%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.0		85 - 114		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	177000	8.218				
540-36-3	1,4-Difluorobenzene	310000	9.1				
3114-55-4	Chlorobenzene-d5	274000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	123000	13.788				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/05/24	
Project:	CTO WE13		Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-DUP-20241105		SDG No.:	P4774	
Lab Sample ID:	P4774-04		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
VN084749.D	1		11/08/24 14:56	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
------------	-----------	-------	-----------	-----	-----	------------	-------

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:	11/05/24	
Project:	CTO WE13			Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-GW-618-620			SDG No.:	P4774	
Lab Sample ID:	P4774-05			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
VN084750.D	1		11/08/24 15:20	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
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:	11/05/24		
Project:	CTO WE13			Date Received:	11/07/24		
Client Sample ID:	BP-VPB-190-GW-618-620			SDG No.:	P4774		
Lab Sample ID:	P4774-05			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
VN084750.D	1		11/08/24 15:20	VN110824

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
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.6		81 - 118		97%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		80 - 119		97%	SPK: 50
2037-26-5	Toluene-d8	45.9		89 - 112		92%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.7		85 - 114		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	170000	8.218				
540-36-3	1,4-Difluorobenzene	301000	9.1				
3114-55-4	Chlorobenzene-d5	259000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	121000	13.788				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/05/24	
Project:	CTO WE13		Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-GW-618-620		SDG No.:	P4774	
Lab Sample ID:	P4774-05		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
VN084750.D	1		11/08/24 15:20	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
------------	-----------	-------	-----------	-----	-----	------------	-------

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:	11/05/24	
Project:	CTO WE13			Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-GW-638-640			SDG No.:	P4774	
Lab Sample ID:	P4774-06			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
VN084751.D	1		11/08/24 15:44	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
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	0.85	J	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	160	E	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	1.10		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:	11/05/24	
Project:	CTO WE13		Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-GW-638-640		SDG No.:	P4774	
Lab Sample ID:	P4774-06		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
VN084751.D	1		11/08/24 15:44	VN110824

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
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.9		81 - 118		98%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		80 - 119		97%	SPK: 50
2037-26-5	Toluene-d8	46.3		89 - 112		93%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.7		85 - 114		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	176000	8.224				
540-36-3	1,4-Difluorobenzene	312000	9.1				
3114-55-4	Chlorobenzene-d5	280000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	130000	13.794				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/05/24	
Project:	CTO WE13		Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-GW-638-640		SDG No.:	P4774	
Lab Sample ID:	P4774-06		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
VN084751.D	1		11/08/24 15:44	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
------------	-----------	-------	-----------	-----	-----	------------	-------

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:	11/05/24		
Project:	CTO WE13			Date Received:	11/07/24		
Client Sample ID:	BP-VPB-190-GW-638-640DL			SDG No.:	P4774		
Lab Sample ID:	P4774-06DL			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
VN084767.D	5		11/11/24 13:18	VN111124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	2.50	UD	1.80	2.50	5.00	ug/L
75-01-4	Vinyl Chloride	3.80	UD	1.70	3.80	5.00	ug/L
74-83-9	Bromomethane	18.8	UD	6.80	18.8	25.0	ug/L
75-00-3	Chloroethane	3.80	UD	2.80	3.80	5.00	ug/L
75-69-4	Trichlorofluoromethane	2.50	UD	1.70	2.50	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	2.50	UD	1.30	2.50	5.00	ug/L
75-35-4	1,1-Dichloroethene	3.80	UD	1.30	3.80	5.00	ug/L
67-64-1	Acetone	18.8	UD	7.00	18.8	25.0	ug/L
75-15-0	Carbon Disulfide	3.80	UD	1.60	3.80	5.00	ug/L
1634-04-4	Methyl tert-butyl Ether	2.50	UD	0.80	2.50	5.00	ug/L
75-09-2	Methylene Chloride	2.50	UD	1.60	2.50	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	2.50	UD	1.30	2.50	5.00	ug/L
75-34-3	1,1-Dichloroethane	2.50	UD	1.20	2.50	5.00	ug/L
78-93-3	2-Butanone	12.5	UD	6.50	12.5	25.0	ug/L
56-23-5	Carbon Tetrachloride	2.50	UD	1.30	2.50	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	3.80	UD	1.30	3.80	5.00	ug/L
67-66-3	Chloroform	2.50	UD	1.30	2.50	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	2.50	UD	0.95	2.50	5.00	ug/L
108-87-2	Methylcyclohexane	2.50	UD	0.95	2.50	5.00	ug/L
71-43-2	Benzene	2.50	UD	0.80	2.50	5.00	ug/L
107-06-2	1,2-Dichloroethane	2.50	UD	1.20	2.50	5.00	ug/L
79-01-6	Trichloroethene	170	D	1.60	3.80	5.00	ug/L
78-87-5	1,2-Dichloropropane	2.50	UD	0.95	2.50	5.00	ug/L
75-27-4	Bromodichloromethane	2.50	UD	1.20	2.50	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	12.5	UD	3.80	12.5	25.0	ug/L
108-88-3	Toluene	2.50	UD	0.90	2.50	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	2.50	UD	1.10	2.50	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	2.50	UD	0.90	2.50	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	2.50	UD	1.10	2.50	5.00	ug/L
591-78-6	2-Hexanone	12.5	UD	5.70	12.5	25.0	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/05/24	
Project:	CTO WE13		Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-GW-638-640DL		SDG No.:	P4774	
Lab Sample ID:	P4774-06DL		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
VN084767.D	5		11/11/24 13:18	VN111124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	2.50	UD	0.90	2.50	5.00	ug/L
127-18-4	Tetrachloroethene	2.50	UD	1.30	2.50	5.00	ug/L
108-90-7	Chlorobenzene	2.50	UD	0.65	2.50	5.00	ug/L
100-41-4	Ethyl Benzene	2.50	UD	0.80	2.50	5.00	ug/L
179601-23-1	m/p-Xylenes	5.00	UD	1.60	5.00	10.0	ug/L
95-47-6	o-Xylene	2.50	UD	0.70	2.50	5.00	ug/L
100-42-5	Styrene	2.50	UD	0.80	2.50	5.00	ug/L
75-25-2	Bromoform	2.50	UD	1.10	2.50	5.00	ug/L
98-82-8	Isopropylbenzene	2.50	UD	0.65	2.50	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.50	UD	1.40	2.50	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	2.50	UD	1.20	2.50	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	2.50	UD	1.40	2.50	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	2.50	UD	0.95	2.50	5.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.1		81 - 118		96%	SPK: 50
1868-53-7	Dibromofluoromethane	49.6		80 - 119		99%	SPK: 50
2037-26-5	Toluene-d8	47.3		89 - 112		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.9		85 - 114		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	155000	8.224				
540-36-3	1,4-Difluorobenzene	264000	9.1				
3114-55-4	Chlorobenzene-d5	234000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	104000	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:	11/06/24	
Project:	CTO WE13			Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-GW-658-660			SDG No.:	P4774	
Lab Sample ID:	P4774-07			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
VN084752.D	1		11/08/24 16:08	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
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	2.00		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.58	J	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	1.50		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.70		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	1.10		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	340	E	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	1.60		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:	11/06/24	
Project:	CTO WE13		Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-GW-658-660		SDG No.:	P4774	
Lab Sample ID:	P4774-07		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
VN084752.D	1		11/08/24 16:08	VN110824

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
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.2		81 - 118		98%	SPK: 50
1868-53-7	Dibromofluoromethane	48.8		80 - 119		98%	SPK: 50
2037-26-5	Toluene-d8	47.7		89 - 112		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.4		85 - 114		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	174000	8.218				
540-36-3	1,4-Difluorobenzene	304000	9.1				
3114-55-4	Chlorobenzene-d5	278000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	130000	13.794				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/06/24	
Project:	CTO WE13		Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-GW-658-660		SDG No.:	P4774	
Lab Sample ID:	P4774-07		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
VN084752.D	1		11/08/24 16:08	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
------------	-----------	-------	-----------	-----	-----	------------	-------

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:	11/06/24	
Project:	CTO WE13			Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-GW-658-660DL			SDG No.:	P4774	
Lab Sample ID:	P4774-07DL			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
VN084768.D	10		11/11/24 13:42	VN111124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	5.00	UD	3.50	5.00	10.0	ug/L
75-01-4	Vinyl Chloride	7.50	UD	3.40	7.50	10.0	ug/L
74-83-9	Bromomethane	37.5	UD	13.6	37.5	50.0	ug/L
75-00-3	Chloroethane	7.50	UD	5.60	7.50	10.0	ug/L
75-69-4	Trichlorofluoromethane	5.00	UD	3.40	5.00	10.0	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	UD	2.50	5.00	10.0	ug/L
75-35-4	1,1-Dichloroethene	7.50	UD	2.60	7.50	10.0	ug/L
67-64-1	Acetone	37.5	UD	13.9	37.5	50.0	ug/L
75-15-0	Carbon Disulfide	7.50	UD	3.20	7.50	10.0	ug/L
1634-04-4	Methyl tert-butyl Ether	5.00	UD	1.60	5.00	10.0	ug/L
75-09-2	Methylene Chloride	5.00	UD	3.20	5.00	10.0	ug/L
156-60-5	trans-1,2-Dichloroethene	5.00	UD	2.50	5.00	10.0	ug/L
75-34-3	1,1-Dichloroethane	5.00	UD	2.30	5.00	10.0	ug/L
78-93-3	2-Butanone	25.0	UD	13.0	25.0	50.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	UD	2.50	5.00	10.0	ug/L
156-59-2	cis-1,2-Dichloroethene	7.50	UD	2.50	7.50	10.0	ug/L
67-66-3	Chloroform	5.00	UD	2.60	5.00	10.0	ug/L
71-55-6	1,1,1-Trichloroethane	5.00	UD	1.90	5.00	10.0	ug/L
108-87-2	Methylcyclohexane	5.00	UD	1.90	5.00	10.0	ug/L
71-43-2	Benzene	5.00	UD	1.60	5.00	10.0	ug/L
107-06-2	1,2-Dichloroethane	5.00	UD	2.40	5.00	10.0	ug/L
79-01-6	Trichloroethene	300	D	3.20	7.50	10.0	ug/L
78-87-5	1,2-Dichloropropane	5.00	UD	1.90	5.00	10.0	ug/L
75-27-4	Bromodichloromethane	5.00	UD	2.40	5.00	10.0	ug/L
108-10-1	4-Methyl-2-Pentanone	25.0	UD	7.50	25.0	50.0	ug/L
108-88-3	Toluene	5.00	UD	1.80	5.00	10.0	ug/L
10061-02-6	t-1,3-Dichloropropene	5.00	UD	2.10	5.00	10.0	ug/L
10061-01-5	cis-1,3-Dichloropropene	5.00	UD	1.80	5.00	10.0	ug/L
79-00-5	1,1,2-Trichloroethane	5.00	UD	2.10	5.00	10.0	ug/L
591-78-6	2-Hexanone	25.0	UD	11.3	25.0	50.0	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	11/06/24	
Project:	CTO WE13		Date Received:	11/07/24	
Client Sample ID:	BP-VPB-190-GW-658-660DL		SDG No.:	P4774	
Lab Sample ID:	P4774-07DL		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
VN084768.D	10		11/11/24 13:42	VN111124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	5.00	UD	1.80	5.00	10.0	ug/L
127-18-4	Tetrachloroethene	5.00	UD	2.50	5.00	10.0	ug/L
108-90-7	Chlorobenzene	5.00	UD	1.30	5.00	10.0	ug/L
100-41-4	Ethyl Benzene	5.00	UD	1.60	5.00	10.0	ug/L
179601-23-1	m/p-Xylenes	10.0	UD	3.10	10.0	20.0	ug/L
95-47-6	o-Xylene	5.00	UD	1.40	5.00	10.0	ug/L
100-42-5	Styrene	5.00	UD	1.60	5.00	10.0	ug/L
75-25-2	Bromoform	5.00	UD	2.10	5.00	10.0	ug/L
98-82-8	Isopropylbenzene	5.00	UD	1.30	5.00	10.0	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	5.00	UD	2.70	5.00	10.0	ug/L
541-73-1	1,3-Dichlorobenzene	5.00	UD	2.40	5.00	10.0	ug/L
106-46-7	1,4-Dichlorobenzene	5.00	UD	2.70	5.00	10.0	ug/L
95-50-1	1,2-Dichlorobenzene	5.00	UD	1.90	5.00	10.0	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.5		81 - 118		97%	SPK: 50
1868-53-7	Dibromofluoromethane	49.1		80 - 119		98%	SPK: 50
2037-26-5	Toluene-d8	46.5		89 - 112		93%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.8		85 - 114		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	169000	8.218				
540-36-3	1,4-Difluorobenzene	290000	9.1				
3114-55-4	Chlorobenzene-d5	258000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	118000	13.794				

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.: P4774

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
P4774-01	BP-VPB-190-TB-20241105	1,2-Dichloroethane-d4	50	49.4	99	81	118
		Dibromofluoromethane	50	48.5	97	80	119
		Toluene-d8	50	45.4	91	89	112
		4-Bromofluorobenzene	50	45.8	92	85	114
P4774-02	VPB190-HYD-20241106	1,2-Dichloroethane-d4	50	48.9	98	81	118
		Dibromofluoromethane	50	48.3	97	80	119
		Toluene-d8	50	45.7	91	89	112
		4-Bromofluorobenzene	50	48.9	98	85	114
P4774-03	BP-VPB-190-EB-20241106	1,2-Dichloroethane-d4	50	48.9	98	81	118
		Dibromofluoromethane	50	49.2	98	80	119
		Toluene-d8	50	45.7	91	89	112
		4-Bromofluorobenzene	50	45.3	91	85	114
P4774-04	BP-VPB-190-DUP-20241105	1,2-Dichloroethane-d4	50	49.5	99	81	118
		Dibromofluoromethane	50	48.6	97	80	119
		Toluene-d8	50	46.3	93	89	112
		4-Bromofluorobenzene	50	47.0	94	85	114
P4774-05	BP-VPB-190-GW-618-620	1,2-Dichloroethane-d4	50	48.6	97	81	118
		Dibromofluoromethane	50	48.7	97	80	119
		Toluene-d8	50	45.9	92	89	112
		4-Bromofluorobenzene	50	46.7	93	85	114
P4774-06	BP-VPB-190-GW-638-640	1,2-Dichloroethane-d4	50	48.9	98	81	118
		Dibromofluoromethane	50	48.4	97	80	119
		Toluene-d8	50	46.3	93	89	112
		4-Bromofluorobenzene	50	47.7	95	85	114
P4774-06DL	BP-VPB-190-GW-638-640DL	1,2-Dichloroethane-d4	50	48.1	96	81	118
		Dibromofluoromethane	50	49.6	99	80	119
		Toluene-d8	50	47.3	95	89	112
		4-Bromofluorobenzene	50	46.9	94	85	114
P4774-07	BP-VPB-190-GW-658-660	1,2-Dichloroethane-d4	50	49.2	98	81	118
		Dibromofluoromethane	50	48.8	98	80	119
		Toluene-d8	50	47.6	95	89	112
		4-Bromofluorobenzene	50	49.4	99	85	114
P4774-07DL	BP-VPB-190-GW-658-660DL	1,2-Dichloroethane-d4	50	48.5	97	81	118
		Dibromofluoromethane	50	49.1	98	80	119
		Toluene-d8	50	46.5	93	89	112
		4-Bromofluorobenzene	50	46.8	94	85	114
VN1108WBL01	VN1108WBL01	1,2-Dichloroethane-d4	50	48.7	97	81	118
		Dibromofluoromethane	50	48.9	98	80	119
		Toluene-d8	50	45.6	91	89	112
		4-Bromofluorobenzene	50	45.9	92	85	114
VN1108WBS01	VN1108WBS01	1,2-Dichloroethane-d4	50	46.2	92	81	118
		Dibromofluoromethane	50	47.6	95	80	119
		Toluene-d8	50	47.1	94	89	112
		4-Bromofluorobenzene	50	50.6	101	85	114
VN1108WBSD0	VN1108WBSD01	1,2-Dichloroethane-d4	50	47.7	95	81	118
		Dibromofluoromethane	50	47.1	94	80	119
		Toluene-d8	50	47.3	95	89	112
		4-Bromofluorobenzene	50	46.8	94	85	114
VN1111WBL01	VN1111WBL01	1,2-Dichloroethane-d4	50	48.0	96	81	118
		Dibromofluoromethane	50	49.1	98	80	119

Surrogate Summary

SDG No.: P4774

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
VN1111WBL01	VN1111WBL01	Toluene-d8	50	45.9	92	89	112
		4-Bromofluorobenzene	50	48.1	96	85	114
VN1111WBS01	VN1111WBS01	1,2-Dichloroethane-d4	50	41.8	84	81	118
		Dibromofluoromethane	50	46.0	92	80	119
		Toluene-d8	50	44.8	90	89	112
		4-Bromofluorobenzene	50	46.7	93	85	114

A

B

C

D

E

F

G

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4774

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Datafile : VN084740.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VN1108WBS01	Chloromethane	20	14.3	ug/L	72			50	139	
	Vinyl chloride	20	16.2	ug/L	81			58	137	
	Bromomethane	20	17.0	ug/L	85			53	141	
	Chloroethane	20	16.8	ug/L	84			60	138	
	Trichlorofluoromethane	20	17.8	ug/L	89			65	141	
	1,1,2-Trichlorotrifluoroethane	20	18.0	ug/L	90			70	136	
	1,1-Dichloroethene	20	16.7	ug/L	84			71	131	
	Acetone	100	110	ug/L	110			39	160	
	Carbon disulfide	20	15.1	ug/L	76			64	133	
	Methyl tert-butyl Ether	20	18.9	ug/L	95			71	124	
	Methylene Chloride	20	17.8	ug/L	89			74	124	
	trans-1,2-Dichloroethene	20	16.8	ug/L	84			75	124	
	1,1-Dichloroethane	20	17.9	ug/L	90			77	125	
	2-Butanone	100	100	ug/L	100			56	143	
	Carbon Tetrachloride	20	19.0	ug/L	95			72	136	
	cis-1,2-Dichloroethene	20	18.3	ug/L	92			78	123	
	Chloroform	20	18.8	ug/L	94			79	124	
	1,1,1-Trichloroethane	20	18.7	ug/L	94			74	131	
	Methylcyclohexane	20	18.5	ug/L	93			72	132	
	Benzene	20	17.7	ug/L	89			79	120	
	1,2-Dichloroethane	20	19.1	ug/L	96			73	128	
	Trichloroethene	20	18.3	ug/L	92			79	123	
	1,2-Dichloropropane	20	18.6	ug/L	93			78	122	
	Bromodichloromethane	20	18.3	ug/L	92			79	125	
	4-Methyl-2-Pentanone	100	110	ug/L	110			67	130	
	Toluene	20	18.9	ug/L	95			80	121	
	t-1,3-Dichloropropene	20	18.2	ug/L	91			73	127	
	cis-1,3-Dichloropropene	20	18.3	ug/L	92			75	124	
	1,1,2-Trichloroethane	20	19.6	ug/L	98			80	119	
	2-Hexanone	100	110	ug/L	110			57	139	
	Dibromochloromethane	20	20.0	ug/L	100			74	126	
	Tetrachloroethene	20	18.3	ug/L	92			74	129	
	Chlorobenzene	20	17.6	ug/L	88			82	118	
	Ethyl Benzene	20	18.2	ug/L	91			79	121	
	m/p-Xylenes	40	36.9	ug/L	92			80	121	
	o-Xylene	20	18.8	ug/L	94			78	122	
	Styrene	20	18.6	ug/L	93			78	123	
	Bromoform	20	19.8	ug/L	99			66	130	
	Isopropylbenzene	20	17.4	ug/L	87			72	131	
	1,1,2,2-Tetrachloroethane	20	18.1	ug/L	91			71	121	
	1,3-Dichlorobenzene	20	16.0	ug/L	80			80	119	
	1,4-Dichlorobenzene	20	16.5	ug/L	83			79	118	
	1,2-Dichlorobenzene	20	16.8	ug/L	84			80	119	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4774

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Datafile : VN084741.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN1108WBSD01	Chloromethane	20	14.9	ug/L	75	4		50	139	20
	Vinyl chloride	20	17.6	ug/L	88	8		58	137	20
	Bromomethane	20	18.0	ug/L	90	6		53	141	20
	Chloroethane	20	20.6	ug/L	103	20		60	138	20
	Trichlorofluoromethane	20	18.1	ug/L	91	2		65	141	20
	1,1,2-Trichlorotrifluoroethane	20	19.2	ug/L	96	6		70	136	20
	1,1-Dichloroethene	20	17.9	ug/L	90	7		71	131	20
	Acetone	100	110	ug/L	110	0		39	160	20
	Carbon disulfide	20	15.7	ug/L	79	4		64	133	20
	Methyl tert-butyl Ether	20	20.1	ug/L	101	6		71	124	20
	Methylene Chloride	20	18.9	ug/L	95	7		74	124	20
	trans-1,2-Dichloroethene	20	17.9	ug/L	90	7		75	124	20
	1,1-Dichloroethane	20	19.0	ug/L	95	5		77	125	20
	2-Butanone	100	110	ug/L	110	10		56	143	20
	Carbon Tetrachloride	20	19.1	ug/L	96	1		72	136	20
	cis-1,2-Dichloroethene	20	18.6	ug/L	93	1		78	123	20
	Chloroform	20	19.2	ug/L	96	2		79	124	20
	1,1,1-Trichloroethane	20	19.6	ug/L	98	4		74	131	20
	Methylcyclohexane	20	18.3	ug/L	92	1		72	132	20
	Benzene	20	18.6	ug/L	93	4		79	120	20
	1,2-Dichloroethane	20	19.4	ug/L	97	1		73	128	20
	Trichloroethene	20	18.7	ug/L	94	2		79	123	20
	1,2-Dichloropropane	20	18.8	ug/L	94	1		78	122	20
	Bromodichloromethane	20	19.3	ug/L	97	5		79	125	20
	4-Methyl-2-Pentanone	100	110	ug/L	110	0		67	130	20
	Toluene	20	19.6	ug/L	98	3		80	121	20
	t-1,3-Dichloropropene	20	18.9	ug/L	95	4		73	127	20
	cis-1,3-Dichloropropene	20	19.0	ug/L	95	3		75	124	20
	1,1,2-Trichloroethane	20	20.2	ug/L	101	3		80	119	20
	2-Hexanone	100	110	ug/L	110	0		57	139	20
	Dibromochloromethane	20	20.5	ug/L	103	3		74	126	20
	Tetrachloroethene	20	19.2	ug/L	96	4		74	129	20
	Chlorobenzene	20	18.3	ug/L	92	4		82	118	20
	Ethyl Benzene	20	18.9	ug/L	95	4		79	121	20
	m/p-Xylenes	40	38.7	ug/L	97	5		80	121	20
	o-Xylene	20	19.9	ug/L	100	6		78	122	20
	Styrene	20	19.5	ug/L	98	5		78	123	20
	Bromoform	20	20.7	ug/L	104	5		66	130	20
	Isopropylbenzene	20	19.2	ug/L	96	10		72	131	20
	1,1,2,2-Tetrachloroethane	20	19.6	ug/L	98	7		71	121	20
	1,3-Dichlorobenzene	20	17.3	ug/L	86	7		80	119	20
	1,4-Dichlorobenzene	20	17.9	ug/L	90	8		79	118	20
	1,2-Dichlorobenzene	20	18.1	ug/L	91	8		80	119	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4774

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Datafile : VN084766.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN1111WBS01	Chloromethane	20	12.6	ug/L	63			50	139	
	Vinyl chloride	20	15.4	ug/L	77			58	137	
	Bromomethane	20	16.8	ug/L	84			53	141	
	Chloroethane	20	16.0	ug/L	80			60	138	
	Trichlorofluoromethane	20	16.8	ug/L	84			65	141	
	1,1,2-Trichlorotrifluoroethane	20	17.2	ug/L	86			70	136	
	1,1-Dichloroethene	20	16.1	ug/L	81			71	131	
	Acetone	100	90.2	ug/L	90			39	160	
	Carbon disulfide	20	13.7	ug/L	69			64	133	
	Methyl tert-butyl Ether	20	17.2	ug/L	86			71	124	
	Methylene Chloride	20	17.2	ug/L	86			74	124	
	trans-1,2-Dichloroethene	20	15.9	ug/L	79			75	124	
	1,1-Dichloroethane	20	16.9	ug/L	85			77	125	
	2-Butanone	100	86.1	ug/L	86			56	143	
	Carbon Tetrachloride	20	19.0	ug/L	95			72	136	
	cis-1,2-Dichloroethene	20	17.2	ug/L	86			78	123	
	Chloroform	20	17.7	ug/L	89			79	124	
	1,1,1-Trichloroethane	20	17.8	ug/L	89			74	131	
	Methylcyclohexane	20	17.1	ug/L	86			72	132	
	Benzene	20	17.5	ug/L	88			79	120	
	1,2-Dichloroethane	20	18.3	ug/L	92			73	128	
	Trichloroethene	20	17.6	ug/L	88			79	123	
	1,2-Dichloropropane	20	17.9	ug/L	90			78	122	
	Bromodichloromethane	20	18.5	ug/L	93			79	125	
	4-Methyl-2-Pentanone	100	93.1	ug/L	93			67	130	
	Toluene	20	18.4	ug/L	92			80	121	
	t-1,3-Dichloropropene	20	16.9	ug/L	85			73	127	
	cis-1,3-Dichloropropene	20	18.0	ug/L	90			75	124	
	1,1,2-Trichloroethane	20	18.8	ug/L	94			80	119	
	2-Hexanone	100	94.6	ug/L	95			57	139	
	Dibromochloromethane	20	19.4	ug/L	97			74	126	
	Tetrachloroethene	20	18.4	ug/L	92			74	129	
	Chlorobenzene	20	17.8	ug/L	89			82	118	
	Ethyl Benzene	20	17.8	ug/L	89			79	121	
	m/p-Xylenes	40	37.3	ug/L	93			80	121	
	o-Xylene	20	19.1	ug/L	96			78	122	
	Styrene	20	18.1	ug/L	91			78	123	
	Bromoform	20	19.3	ug/L	97			66	130	
	Isopropylbenzene	20	17.5	ug/L	88			72	131	
	1,1,2,2-Tetrachloroethane	20	16.9	ug/L	85			71	121	
	1,3-Dichlorobenzene	20	16.3	ug/L	81			80	119	
	1,4-Dichlorobenzene	20	16.8	ug/L	84			79	118	
	1,2-Dichlorobenzene	20	16.7	ug/L	84			80	119	

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1108WBL01

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P4774

SAS No.: P4774 SDG NO.: P4774

Lab File ID: VN084739.D

Lab Sample ID: VN1108WBL01

Date Analyzed: 11/08/2024

Time Analyzed: 10:44

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
VN1108WBS01	VN1108WBS01	VN084740.D	11/08/2024
VN1108WBSD01	VN1108WBSD01	VN084741.D	11/08/2024
BP-VPB-190-TB-20241105	P4774-01	VN084746.D	11/08/2024
VPB190-HYD-20241106	P4774-02	VN084747.D	11/08/2024
BP-VPB-190-EB-20241106	P4774-03	VN084748.D	11/08/2024
BP-VPB-190-DUP-20241105	P4774-04	VN084749.D	11/08/2024
BP-VPB-190-GW-618-620	P4774-05	VN084750.D	11/08/2024
BP-VPB-190-GW-638-640	P4774-06	VN084751.D	11/08/2024
BP-VPB-190-GW-658-660	P4774-07	VN084752.D	11/08/2024

COMMENTS: _____

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1111WBL01

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P4774

SAS No.: P4774 SDG NO.: P4774

Lab File ID: VN084765.D

Lab Sample ID: VN1111WBL01

Date Analyzed: 11/11/2024

Time Analyzed: 12:30

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
VN1111WBS01	VN1111WBS01	VN084766.D	11/11/2024
BP-VPB-190-GW-638-640DL	P4774-06DL	VN084767.D	11/11/2024
BP-VPB-190-GW-658-660DL	P4774-07DL	VN084768.D	11/11/2024

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG NO.: P4774
Lab File ID: VN084569.D BFB Injection Date: 10/30/2024
Instrument ID: MSVOA_N BFB Injection Time: 10:42
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	19.5
75	30.0 - 60.0% of mass 95	50.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	1.2 (1.6) 1
174	50.0 - 100.0% of mass 95	73.5
175	5.0 - 9.0% of mass 174	5.7 (7.7) 1
176	95.0 - 101.0% of mass 174	70.1 (95.4) 1
177	5.0 - 9.0% of mass 176	4.8 (6.9) 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	VN084570.D	10/30/2024	11:46
VSTDICCC050	VSTDICCC050	VN084571.D	10/30/2024	12:09
VSTDICC020	VSTDICC020	VN084572.D	10/30/2024	12:33
VSTDICC010	VSTDICC010	VN084573.D	10/30/2024	12:57
VSTDICC005	VSTDICC005	VN084574.D	10/30/2024	13:21
VSTDICC001	VSTDICC001	VN084575.D	10/30/2024	13:45

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG NO.: P4774
Lab File ID: VN084736.D BFB Injection Date: 11/08/2024
Instrument ID: MSVOA_N BFB Injection Time: 08:18
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	17.2
75	30.0 - 60.0% of mass 95	51.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.8 (1) 1
174	50.0 - 100.0% of mass 95	78.5
175	5.0 - 9.0% of mass 174	6.6 (8.4) 1
176	95.0 - 101.0% of mass 174	77.7 (99) 1
177	5.0 - 9.0% of mass 176	4.8 (6.2) 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	VN084737.D	11/08/2024	09:39
VN1108WBL01	VN1108WBL01	VN084739.D	11/08/2024	10:44
VN1108WBS01	VN1108WBS01	VN084740.D	11/08/2024	11:19
VN1108WBSD01	VN1108WBSD01	VN084741.D	11/08/2024	11:43
BP-VPB-190-TB-20241105	P4774-01	VN084746.D	11/08/2024	13:44
VPB190-HYD-20241106	P4774-02	VN084747.D	11/08/2024	14:08
BP-VPB-190-EB-20241106	P4774-03	VN084748.D	11/08/2024	14:32
BP-VPB-190-DUP-20241105	P4774-04	VN084749.D	11/08/2024	14:56
BP-VPB-190-GW-618-620	P4774-05	VN084750.D	11/08/2024	15:20
BP-VPB-190-GW-638-640	P4774-06	VN084751.D	11/08/2024	15:44
BP-VPB-190-GW-658-660	P4774-07	VN084752.D	11/08/2024	16:08
VSTDCCC050EC	VSTDCCC050	VN084761.D	11/08/2024	19:44

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG NO.: P4774
Lab File ID: VN084762.D BFB Injection Date: 11/11/2024
Instrument ID: MSVOA_N BFB Injection Time: 10:21
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	16.1
75	30.0 - 60.0% of mass 95	47.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.6 (0.8) 1
174	50.0 - 100.0% of mass 95	73.1
175	5.0 - 9.0% of mass 174	5.8 (8) 1
176	95.0 - 101.0% of mass 174	71.4 (97.6) 1
177	5.0 - 9.0% of mass 176	4.6 (6.5) 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	VN084763.D	11/11/2024	10:54
VN1111WBL01	VN1111WBL01	VN084765.D	11/11/2024	12:30
VN1111WBS01	VN1111WBS01	VN084766.D	11/11/2024	12:54
BP-VPB-190-GW-638-640DL	P4774-06DL	VN084767.D	11/11/2024	13:18
BP-VPB-190-GW-658-660DL	P4774-07DL	VN084768.D	11/11/2024	13:42
VSTDCCC050EC	VSTDCCC050	VN084787.D	11/11/2024	21:18

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG NO.: P4774
Lab File ID: VN084737.D Date Analyzed: 11/08/2024
Instrument ID: MSVOA_N Time Analyzed: 09:39
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	183021	8.22	298323	9.10	261810	11.87
UPPER LIMIT	366042	8.718	596646	9.6	523620	12.365
LOWER LIMIT	91510.5	7.718	149162	8.6	130905	11.365
EPA SAMPLE NO.						
BP-VPB-190-TB-20241105	164125	8.22	293667	9.10	256546	11.87
VPB190-HYD-20241106	177086	8.22	308440	9.10	278450	11.87
BP-VPB-190-EB-20241106	172082	8.22	302375	9.10	260963	11.87
BP-VPB-190-DUP-20241105	176583	8.22	310479	9.10	273960	11.87
BP-VPB-190-GW-618-620	169679	8.22	301356	9.10	259431	11.87
BP-VPB-190-GW-638-640	176262	8.22	311946	9.10	280107	11.87
BP-VPB-190-GW-658-660	174093	8.22	304174	9.10	278360	11.87
VN1108WBL01	170398	8.22	297081	9.10	255691	11.87
VN1108WBS01	174962	8.22	291201	9.10	262615	11.87
VN1108WBSD01	163813	8.22	277196	9.09	246235	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: TETR06
Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG NO.: P4774
Lab File ID: VN084737.D Date Analyzed: 11/08/2024
Instrument ID: MSVOA_N Time Analyzed: 09:39
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	135765	13.788				
UPPER LIMIT	271530	14.288				
LOWER LIMIT	67882.5	13.288				
EPA SAMPLE NO.						
BP-VPB-190-TB-20241105	111909	13.79				
VPB190-HYD-20241106	131449	13.79				
BP-VPB-190-EB-20241106	112988	13.79				
BP-VPB-190-DUP-20241105	123463	13.79				
BP-VPB-190-GW-618-620	121391	13.79				
BP-VPB-190-GW-638-640	129789	13.79				
BP-VPB-190-GW-658-660	129510	13.79				
VN1108WBL01	113797	13.79				
VN1108WBS01	135553	13.79				
VN1108WBSD01	120765	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.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG NO.: P4774
Lab File ID: VN084763.D Date Analyzed: 11/11/2024
Instrument ID: MSVOA_N Time Analyzed: 10:54
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	166446	8.22	270648	9.10	238712	11.87
UPPER LIMIT	332892	8.718	541296	9.6	477424	12.365
LOWER LIMIT	83223	7.718	135324	8.6	119356	11.365
EPA SAMPLE NO.						
BP-VPB-190-GW-638-640DL	154512	8.22	263580	9.10	234257	11.87
BP-VPB-190-GW-658-660DL	168500	8.22	290288	9.10	257812	11.87
VN1111WBL01	167136	8.22	283115	9.10	253987	11.87
VN1111WBS01	167933	8.22	269161	9.10	238228	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: TETR06
Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG NO.: P4774
Lab File ID: VN084763.D Date Analyzed: 11/11/2024
Instrument ID: MSVOA_N Time Analyzed: 10:54
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	124434	13.788				
UPPER LIMIT	248868	14.288				
LOWER LIMIT	62217	13.288				
EPA SAMPLE NO.						
BP-VPB-190-GW-638-640DL	103754	13.79				
BP-VPB-190-GW-658-660DL	117948	13.79				
VN1111WBL01	115446	13.79				
VN1111WBS01	123082	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:	CTO WE13			Date Received:	
Client Sample ID:	VN1108WBL01			SDG No.:	P4774
Lab Sample ID:	VN1108WBL01			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
VN084739.D	1		11/08/24 10:44	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
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:	CTO WE13		Date Received:	
Client Sample ID:	VN1108WBL01		SDG No.:	P4774
Lab Sample ID:	VN1108WBL01		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
VN084739.D	1		11/08/24 10:44	VN110824

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
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.7		81 - 118		97%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		80 - 119		98%	SPK: 50
2037-26-5	Toluene-d8	45.6		89 - 112		91%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.9		85 - 114		92%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	170000	8.218				
540-36-3	1,4-Difluorobenzene	297000	9.1				
3114-55-4	Chlorobenzene-d5	256000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	114000	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:	CTO WE13		Date Received:	
Client Sample ID:	VN1111WBL01		SDG No.:	P4774
Lab Sample ID:	VN1111WBL01		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
VN084765.D	1		11/11/24 12:30	VN111124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
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:	CTO WE13		Date Received:	
Client Sample ID:	VN1111WBL01		SDG No.:	P4774
Lab Sample ID:	VN1111WBL01		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
VN084765.D	1		11/11/24 12:30	VN111124

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
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.0		81 - 118		96%	SPK: 50
1868-53-7	Dibromofluoromethane	49.1		80 - 119		98%	SPK: 50
2037-26-5	Toluene-d8	45.9		89 - 112		92%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.1		85 - 114		96%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	167000	8.224				
540-36-3	1,4-Difluorobenzene	283000	9.1				
3114-55-4	Chlorobenzene-d5	254000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	115000	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:	CTO WE13			Date Received:	
Client Sample ID:	VN1108WBS01			SDG No.:	P4774
Lab Sample ID:	VN1108WBS01			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
VN084740.D	1		11/08/24 11:19	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	14.3		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	16.2		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	17.0		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	16.8		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	17.8		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	18.0		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	16.7		0.26	0.75	1.00	ug/L
67-64-1	Acetone	110		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	15.1		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	18.9		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	17.8		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	16.8		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	17.9		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	100		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	18.3		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	18.8		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.7		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	18.5		0.19	0.50	1.00	ug/L
71-43-2	Benzene	17.7		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	19.1		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	18.3		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	18.6		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	18.3		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	110		0.75	2.50	5.00	ug/L
108-88-3	Toluene	18.9		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	18.2		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	18.3		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	19.6		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	110		1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1108WBS01	SDG No.:	P4774	
Lab Sample ID:	VN1108WBS01	Matrix:	Water	
Analytical Method:	SW8260	% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	
Soil Aliquot Vol:			uL	
GC Column:	RXI-624	ID :	0.25	
Prep Method :		Level :	LOW	
		Final Vol:	5000	uL
		Test:	VOCMS Group1	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084740.D	1		11/08/24 11:19	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	20.0		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	18.3		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	17.6		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	18.2		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	36.9		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	18.8		0.14	0.50	1.00	ug/L
100-42-5	Styrene	18.6		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	17.4		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.1		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	16.0		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	16.5		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	16.8		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	46.2		81 - 118		92%	SPK: 50
1868-53-7	Dibromofluoromethane	47.6		80 - 119		95%	SPK: 50
2037-26-5	Toluene-d8	47.1		89 - 112		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.6		85 - 114		101%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	175000	8.218				
540-36-3	1,4-Difluorobenzene	291000	9.1				
3114-55-4	Chlorobenzene-d5	263000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	136000	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:	CTO WE13			Date Received:	
Client Sample ID:	VN1111WBS01			SDG No.:	P4774
Lab Sample ID:	VN1111WBS01			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
VN084766.D	1		11/11/24 12:54	VN111124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	12.6		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	15.4		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	16.8		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	16.0		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	16.8		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	17.2		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	16.1		0.26	0.75	1.00	ug/L
67-64-1	Acetone	90.2		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	13.7		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	17.2		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	17.2		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	15.9		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	16.9		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	86.1		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	17.2		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	17.7		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	17.8		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	17.1		0.19	0.50	1.00	ug/L
71-43-2	Benzene	17.5		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	18.3		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	17.6		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	17.9		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	18.5		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	93.1		0.75	2.50	5.00	ug/L
108-88-3	Toluene	18.4		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	16.9		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	18.0		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	18.8		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	94.6		1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1111WBS01		SDG No.:	P4774
Lab Sample ID:	VN1111WBS01		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
VN084766.D	1		11/11/24 12:54	VN111124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	19.4		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	18.4		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	17.8		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	17.8		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	37.3		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	19.1		0.14	0.50	1.00	ug/L
100-42-5	Styrene	18.1		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	19.3		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	17.5		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	16.9		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	16.3		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	16.8		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	16.7		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	41.8		81 - 118		84%	SPK: 50
1868-53-7	Dibromofluoromethane	46.0		80 - 119		92%	SPK: 50
2037-26-5	Toluene-d8	44.8		89 - 112		90%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.7		85 - 114		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	168000	8.224				
540-36-3	1,4-Difluorobenzene	269000	9.1				
3114-55-4	Chlorobenzene-d5	238000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	123000	13.794				

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1108WBSD01		SDG No.:	P4774
Lab Sample ID:	VN1108WBSD01		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
VN084741.D	1		11/08/24 11:43	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	14.9		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	17.6		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	18.0		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	20.6		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	18.1		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.2		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	17.9		0.26	0.75	1.00	ug/L
67-64-1	Acetone	110		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	15.7		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	20.1		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	18.9		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	17.9		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	19.0		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	110		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.1		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.6		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	19.2		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	19.6		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	18.3		0.19	0.50	1.00	ug/L
71-43-2	Benzene	18.6		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	19.4		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	18.7		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	18.8		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	19.3		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	110		0.75	2.50	5.00	ug/L
108-88-3	Toluene	19.6		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	18.9		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.0		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	20.2		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	110		1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1108WBSD01		SDG No.:	P4774
Lab Sample ID:	VN1108WBSD01		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
VN084741.D	1		11/08/24 11:43	VN110824

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	20.5		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	19.2		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	18.3		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	18.9		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	38.7		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	19.9		0.14	0.50	1.00	ug/L
100-42-5	Styrene	19.5		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	20.7		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	19.2		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	19.6		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	17.3		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	17.9		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.1		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	47.7		81 - 118		95%	SPK: 50
1868-53-7	Dibromofluoromethane	47.1		80 - 119		94%	SPK: 50
2037-26-5	Toluene-d8	47.3		89 - 112		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.8		85 - 114		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	164000	8.218				
540-36-3	1,4-Difluorobenzene	277000	9.094				
3114-55-4	Chlorobenzene-d5	246000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	121000	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: TETR06
Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG No.: P4774
Instrument ID: MSVOA_N Calibration Date(s): 10/30/2024 10/30/2024
Heated Purge: (Y/N) N Calibration Time(s): 11:46 13:45
GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID:	RRF100 = VN084570.D		RRF050 = VN084571.D		RRF020 = VN084572.D		RRF010 = VN084573.D		RRF005 = VN084574.D		RRF001 = VN084575.D	
COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	RRF	% RSD				
Chloromethane	0.658	0.672	0.725	0.871	0.995	1.789	0.952	45.2				
Vinyl Chloride	0.613	0.605	0.623	0.636	0.651	0.581	0.618	4				
Bromomethane	0.292	0.296	0.310	0.336	0.405		0.328	14.2				
Chloroethane	0.378	0.376	0.413	0.426	0.475	0.863	0.488	38.3				
Trichlorofluoromethane	0.971	0.959	1.017	1.022	1.070	1.071	1.018	4.7				
1,1,2-Trichlorotrifluoroethane	0.566	0.557	0.571	0.585	0.588	0.586	0.575	2.2				
1,1-Dichloroethene	0.548	0.538	0.560	0.575	0.552	0.644	0.569	6.8				
Acetone	0.209	0.204	0.213	0.223	0.241	0.338	0.238	21.3				
Carbon Disulfide	1.604	1.603	1.700	1.714	1.784	2.117	1.753	10.9				
Methyl tert-butyl Ether	1.773	1.758	1.802	1.779	1.786	1.572	1.745	4.9				
Methylene Chloride	0.604	0.602	0.633	0.658	0.714	0.600	0.635	7.1				
trans-1,2-Dichloroethene	0.565	0.563	0.596	0.600	0.584	0.601	0.585	2.9				
1,1-Dichloroethane	1.067	1.066	1.114	1.127	1.203	1.033	1.102	5.5				
2-Butanone	0.316	0.315	0.348	0.338	0.370	0.334	0.337	6.1				
Carbon Tetrachloride	0.530	0.514	0.532	0.548	0.537	0.488	0.525	4				
cis-1,2-Dichloroethene	0.675	0.662	0.697	0.685	0.705	0.673	0.683	2.4				
Chloroform	1.099	1.086	1.142	1.154	1.222	1.025	1.121	6				
1,1,1-Trichloroethane	1.000	0.991	1.046	1.073	1.032	0.980	1.021	3.5				
Methylcyclohexane	0.546	0.509	0.495	0.487	0.458	0.371	0.478	12.5				
Benzene	1.494	1.448	1.509	1.507	1.546	1.540	1.507	2.4				
1,2-Dichloroethane	0.488	0.494	0.493	0.492	0.503	0.459	0.488	3.1				
Trichloroethene	0.339	0.335	0.345	0.338	0.341	0.387	0.348	5.7				
1,2-Dichloropropane	0.356	0.348	0.358	0.357	0.373	0.330	0.354	4				
Bromodichloromethane	0.528	0.521	0.526	0.522	0.529	0.530	0.526	0.7				
4-Methyl-2-Pentanone	0.424	0.423	0.416	0.417	0.412	0.344	0.406	7.6				
Toluene	0.923	0.899	0.919	0.902	0.891	0.757	0.882	7.1				
t-1,3-Dichloropropene	0.552	0.543	0.538	0.532	0.547	0.555	0.544	1.6				
cis-1,3-Dichloropropene	0.592	0.581	0.582	0.569	0.584	0.548	0.576	2.7				
1,1,2-Trichloroethane	0.336	0.329	0.334	0.342	0.342	0.309	0.332	3.7				
2-Hexanone	0.314	0.312	0.301	0.297	0.294	0.256	0.296	7.1				

* 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.: P4774 SAS No.: P4774 SDG No.: P4774

Instrument ID: MSVOA_N Calibration Date(s): 10/30/2024 10/30/2024

Heated Purge: (Y/N) N Calibration Time(s): 11:46 13:45

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

LAB FILE ID:		RRF100 = VN084570.D		RRF050 = VN084571.D		RRF020 = VN084572.D		
		RRF010 = VN084573.D		RRF005 = VN084574.D		RRF001 = VN084575.D		
COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	RRF	% RSD
Dibromochloromethane	0.404	0.394	0.391	0.393	0.377	0.312	0.378	8.9
Tetrachloroethene	0.326	0.313	0.333	0.347	0.351	0.325	0.333	4.3
Chlorobenzene	1.068	1.061	1.149	1.123	1.165	1.146	1.119	3.9
Ethyl Benzene	1.957	1.891	1.928	1.880	1.849	1.697	1.867	4.9
m/p-Xylenes	0.737	0.728	0.737	0.701	0.683	0.654	0.707	4.8
o-Xylene	0.703	0.690	0.701	0.679	0.645	0.550	0.661	8.9
Styrene	1.223	1.205	1.206	1.144	1.093	1.050	1.154	6.1
Bromoform	0.287	0.295	0.298	0.289	0.302	0.286	0.293	2.3
Isopropylbenzene	3.558	3.570	3.701	3.605	3.402	3.188	3.504	5.2
1,1,2,2-Tetrachloroethane	1.052	1.073	1.163	1.190	1.317	1.222	1.170	8.4
1,3-Dichlorobenzene	1.642	1.668	1.770	1.802	1.884	2.264	1.838	12.3
1,4-Dichlorobenzene	1.646	1.674	1.782	1.867	1.879	2.773	1.937	21.7
1,2-Dichlorobenzene	1.601	1.618	1.748	1.732	1.879	2.021	1.766	9.1
1,2-Dichloroethane-d4	0.689	0.721	0.708	0.722	0.771		0.722	4.2
Dibromofluoromethane	0.334	0.344	0.326	0.336	0.353		0.338	3.1
Toluene-d8	1.267	1.303	1.216	1.231	1.217		1.247	3
4-Bromofluorobenzene	0.481	0.493	0.450	0.451	0.454		0.466	4.3

* 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: TETR06

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG No.: P4774

Instrument ID: MSVOA_N Calibration Date/Time: 11/08/2024 09:39

Lab File ID: VN084737.D Init. Calib. Date(s): 10/30/2024 10/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:46 13:45

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.952	0.557	0.1	-41.49	20
Vinyl Chloride	0.618	0.547		-11.49	20
Bromomethane	0.328	0.287		-12.5	20
Chloroethane	0.488	0.357		-26.84	20
Trichlorofluoromethane	1.018	0.949		-6.78	20
1,1,2-Trichlorotrifluoroethane	0.575	0.549		-4.52	20
1,1-Dichloroethene	0.569	0.508		-10.72	20
Acetone	0.238	0.238		0	20
Carbon Disulfide	1.753	1.371		-21.79	20
Methyl tert-butyl Ether	1.745	1.787		2.41	20
Methylene Chloride	0.635	0.580		-8.66	20
trans-1,2-Dichloroethene	0.585	0.522		-10.77	20
1,1-Dichloroethane	1.102	1.027	0.1	-6.81	20
2-Butanone	0.337	0.361		7.12	20
Carbon Tetrachloride	0.525	0.529		0.76	20
cis-1,2-Dichloroethene	0.683	0.647		-5.27	20
Chloroform	1.121	1.095		-2.32	20
1,1,1-Trichloroethane	1.021	0.989		-3.13	20
Methylcyclohexane	0.478	0.502		5.02	20
Benzene	1.507	1.426		-5.38	20
1,2-Dichloroethane	0.488	0.484		-0.82	20
Trichloroethene	0.348	0.335		-3.74	20
1,2-Dichloropropane	0.354	0.349		-1.41	20
Bromodichloromethane	0.526	0.525		-0.19	20
4-Methyl-2-Pentanone	0.406	0.443		9.11	20
Toluene	0.882	0.897		1.7	20
t-1,3-Dichloropropene	0.544	0.542		-0.37	20
cis-1,3-Dichloropropene	0.576	0.582		1.04	20
1,1,2-Trichloroethane	0.332	0.338		1.81	20
2-Hexanone	0.296	0.342		15.54	20
Dibromochloromethane	0.378	0.407		7.67	20
Tetrachloroethene	0.333	0.341		2.4	20
Chlorobenzene	1.119	1.084	0.3	-3.13	20
Ethyl Benzene	1.867	1.938		3.8	20
m/p-Xylenes	0.707	0.733		3.68	20
o-Xylene	0.661	0.705		6.66	20
Styrene	1.154	1.220		5.72	20
Bromoform	0.293	0.314	0.1	7.17	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: TETR06

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG No.: P4774

Instrument ID: MSVOA_N Calibration Date/Time: 11/08/2024 09:39

Lab File ID: VN084737.D Init. Calib. Date(s): 10/30/2024 10/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:46 13:45

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	3.504	3.511		0.2	20
1,1,2,2-Tetrachloroethane	1.170	1.092	0.3	-6.67	20
1,3-Dichlorobenzene	1.838	1.648		-10.34	20
1,4-Dichlorobenzene	1.937	1.652		-14.71	20
1,2-Dichlorobenzene	1.766	1.642		-7.02	20
1,2-Dichloroethane-d4	0.722	0.672		-6.93	20
Dibromofluoromethane	0.338	0.337		-0.3	20
Toluene-d8	1.247	1.241		-0.48	20
4-Bromofluorobenzene	0.466	0.466		0	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: TETR06

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG No.: P4774

Instrument ID: MSVOA_N Calibration Date/Time: 11/08/2024 19:44

Lab File ID: VN084761.D Init. Calib. Date(s): 10/30/2024 10/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:46 13:45

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.952	0.559	0.1	-41.28	50
Vinyl Chloride	0.618	0.550		-11	50
Bromomethane	0.328	0.301		-8.23	50
Chloroethane	0.488	0.360		-26.23	50
Trichlorofluoromethane	1.018	0.897		-11.89	50
1,1,2-Trichlorotrifluoroethane	0.575	0.497		-13.56	50
1,1-Dichloroethene	0.569	0.503		-11.6	50
Acetone	0.238	0.210		-11.77	50
Carbon Disulfide	1.753	1.332		-24.02	50
Methyl tert-butyl Ether	1.745	1.840		5.44	50
Methylene Chloride	0.635	0.610		-3.94	50
trans-1,2-Dichloroethene	0.585	0.537		-8.2	50
1,1-Dichloroethane	1.102	1.057	0.1	-4.08	50
2-Butanone	0.337	0.333		-1.19	50
Carbon Tetrachloride	0.525	0.488		-7.05	50
cis-1,2-Dichloroethene	0.683	0.666		-2.49	50
Chloroform	1.121	1.122		0.09	50
1,1,1-Trichloroethane	1.021	0.997		-2.35	50
Methylcyclohexane	0.478	0.431		-9.83	50
Benzene	1.507	1.371		-9.02	50
1,2-Dichloroethane	0.488	0.475		-2.66	50
Trichloroethene	0.348	0.317		-8.91	50
1,2-Dichloropropane	0.354	0.340		-3.95	50
Bromodichloromethane	0.526	0.525		-0.19	50
4-Methyl-2-Pentanone	0.406	0.408		0.49	50
Toluene	0.882	0.845		-4.2	50
t-1,3-Dichloropropene	0.544	0.511		-6.07	50
cis-1,3-Dichloropropene	0.576	0.548		-4.86	50
1,1,2-Trichloroethane	0.332	0.326		-1.81	50
2-Hexanone	0.296	0.302		2.03	50
Dibromochloromethane	0.378	0.396		4.76	50
Tetrachloroethene	0.333	0.295		-11.41	50
Chlorobenzene	1.119	0.988	0.3	-11.71	50
Ethyl Benzene	1.867	1.744		-6.59	50
m/p-Xylenes	0.707	0.657		-7.07	50
o-Xylene	0.661	0.641		-3.03	50
Styrene	1.154	1.108		-3.99	50
Bromoform	0.293	0.295	0.1	0.68	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: TETR06

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG No.: P4774

Instrument ID: MSVOA_N Calibration Date/Time: 11/08/2024 19:44

Lab File ID: VN084761.D Init. Calib. Date(s): 10/30/2024 10/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:46 13:45

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	3.504	2.879		-17.84	50
1,1,2,2-Tetrachloroethane	1.170	0.933	0.3	-20.26	50
1,3-Dichlorobenzene	1.838	1.384		-24.7	50
1,4-Dichlorobenzene	1.937	1.351		-30.25	50
1,2-Dichlorobenzene	1.766	1.373		-22.25	50
1,2-Dichloroethane-d4	0.722	0.747		3.46	50
Dibromofluoromethane	0.338	0.351		3.85	50
Toluene-d8	1.247	1.278		2.49	50
4-Bromofluorobenzene	0.466	0.526		12.88	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: TETR06

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG No.: P4774

Instrument ID: MSVOA_N Calibration Date/Time: 11/11/2024 10:54

Lab File ID: VN084763.D Init. Calib. Date(s): 10/30/2024 10/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:46 13:45

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.952	0.548	0.1	-42.44	20
Vinyl Chloride	0.618	0.542		-12.3	20
Bromomethane	0.328	0.308		-6.1	20
Chloroethane	0.488	0.366		-25	20
Trichlorofluoromethane	1.018	0.982		-3.54	20
1,1,2-Trichlorotrifluoroethane	0.575	0.552		-4	20
1,1-Dichloroethene	0.569	0.521		-8.44	20
Acetone	0.238	0.254		6.72	20
Carbon Disulfide	1.753	1.378		-21.39	20
Methyl tert-butyl Ether	1.745	1.856		6.36	20
Methylene Chloride	0.635	0.615		-3.15	20
trans-1,2-Dichloroethene	0.585	0.553		-5.47	20
1,1-Dichloroethane	1.102	1.060	0.1	-3.81	20
2-Butanone	0.337	0.376		11.57	20
Carbon Tetrachloride	0.525	0.542		3.24	20
cis-1,2-Dichloroethene	0.683	0.672		-1.61	20
Chloroform	1.121	1.129		0.71	20
1,1,1-Trichloroethane	1.021	1.023		0.2	20
Methylcyclohexane	0.478	0.485		1.46	20
Benzene	1.507	1.478		-1.92	20
1,2-Dichloroethane	0.488	0.503		3.07	20
Trichloroethene	0.348	0.337		-3.16	20
1,2-Dichloropropane	0.354	0.362		2.26	20
Bromodichloromethane	0.526	0.565		7.41	20
4-Methyl-2-Pentanone	0.406	0.479		17.98	20
Toluene	0.882	0.921		4.42	20
t-1,3-Dichloropropene	0.544	0.543		-0.18	20
cis-1,3-Dichloropropene	0.576	0.584		1.39	20
1,1,2-Trichloroethane	0.332	0.355		6.93	20
2-Hexanone	0.296	0.354		19.59	20
Dibromochloromethane	0.378	0.437		15.61	20
Tetrachloroethene	0.333	0.338		1.5	20
Chlorobenzene	1.119	1.110	0.3	-0.8	20
Ethyl Benzene	1.867	1.951		4.5	20
m/p-Xylenes	0.707	0.762		7.78	20
o-Xylene	0.661	0.749		13.31	20
Styrene	1.154	1.272		10.23	20
Bromoform	0.293	0.344	0.1	17.41	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: TETR06

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG No.: P4774

Instrument ID: MSVOA_N Calibration Date/Time: 11/11/2024 10:54

Lab File ID: VN084763.D Init. Calib. Date(s): 10/30/2024 10/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:46 13:45

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	3.504	3.590		2.45	20
1,1,2,2-Tetrachloroethane	1.170	1.149	0.3	-1.79	20
1,3-Dichlorobenzene	1.838	1.685		-8.32	20
1,4-Dichlorobenzene	1.937	1.671		-13.73	20
1,2-Dichlorobenzene	1.766	1.670		-5.44	20
1,2-Dichloroethane-d4	0.722	0.679		-5.96	20
Dibromofluoromethane	0.338	0.342		1.18	20
Toluene-d8	1.247	1.214		-2.65	20
4-Bromofluorobenzene	0.466	0.484		3.86	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: TETR06

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG No.: P4774

Instrument ID: MSVOA_N Calibration Date/Time: 11/11/2024 21:18

Lab File ID: VN084787.D Init. Calib. Date(s): 10/30/2024 10/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:46 13:45

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.952	0.512	0.1	-46.22	50
Vinyl Chloride	0.618	0.566		-8.41	50
Bromomethane	0.328	0.292		-10.98	50
Chloroethane	0.488	0.368		-24.59	50
Trichlorofluoromethane	1.018	0.929		-8.74	50
1,1,2-Trichlorotrifluoroethane	0.575	0.523		-9.04	50
1,1-Dichloroethene	0.569	0.486		-14.59	50
Acetone	0.238	0.225		-5.46	50
Carbon Disulfide	1.753	1.264		-27.9	50
Methyl tert-butyl Ether	1.745	1.731		-0.8	50
Methylene Chloride	0.635	0.555		-12.6	50
trans-1,2-Dichloroethene	0.585	0.499		-14.7	50
1,1-Dichloroethane	1.102	0.984	0.1	-10.71	50
2-Butanone	0.337	0.369		9.5	50
Carbon Tetrachloride	0.525	0.506		-3.62	50
cis-1,2-Dichloroethene	0.683	0.615		-9.96	50
Chloroform	1.121	1.049		-6.42	50
1,1,1-Trichloroethane	1.021	0.952		-6.76	50
Methylcyclohexane	0.478	0.459		-3.97	50
Benzene	1.507	1.344		-10.82	50
1,2-Dichloroethane	0.488	0.458		-6.15	50
Trichloroethene	0.348	0.315		-9.48	50
1,2-Dichloropropane	0.354	0.328		-7.34	50
Bromodichloromethane	0.526	0.501		-4.75	50
4-Methyl-2-Pentanone	0.406	0.441		8.62	50
Toluene	0.882	0.846		-4.08	50
t-1,3-Dichloropropene	0.544	0.504		-7.35	50
cis-1,3-Dichloropropene	0.576	0.528		-8.33	50
1,1,2-Trichloroethane	0.332	0.321		-3.31	50
2-Hexanone	0.296	0.334		12.84	50
Dibromochloromethane	0.378	0.383		1.32	50
Tetrachloroethene	0.333	0.304		-8.71	50
Chlorobenzene	1.119	1.008	0.3	-9.92	50
Ethyl Benzene	1.867	1.823		-2.36	50
m/p-Xylenes	0.707	0.689		-2.55	50
o-Xylene	0.661	0.669		1.21	50
Styrene	1.154	1.136		-1.56	50
Bromoform	0.293	0.292	0.1	-0.34	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: TETR06

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG No.: P4774

Instrument ID: MSVOA_N Calibration Date/Time: 11/11/2024 21:18

Lab File ID: VN084787.D Init. Calib. Date(s): 10/30/2024 10/30/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:46 13:45

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	3.504	3.609		3	50
1,1,2,2-Tetrachloroethane	1.170	1.068	0.3	-8.72	50
1,3-Dichlorobenzene	1.838	1.530		-16.76	50
1,4-Dichlorobenzene	1.937	1.540		-20.5	50
1,2-Dichlorobenzene	1.766	1.589		-10.02	50
1,2-Dichloroethane-d4	0.722	0.674		-6.65	50
Dibromofluoromethane	0.338	0.334		-1.18	50
Toluene-d8	1.247	1.206		-3.29	50
4-Bromofluorobenzene	0.466	0.464		-0.43	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

OrderID:	P4774	OrderDate:	11/7/2024 3:46:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	L31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4774-02	VPB190-HYD-20241106	Water			11/06/24			11/07/24
			SVOC-SIMGroup1	8270-Modified		11/08/24	11/13/24	
P4774-02RE	VPB190-HYD-20241106RE	Water			11/06/24			11/07/24
			SVOC-SIMGroup1	8270-Modified		11/08/24	11/14/24	
P4774-06	BP-VPB-190-GW-638-640	Water			11/05/24			11/07/24
			SVOC-SIMGroup1	8270-Modified		11/08/24	11/13/24	



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

Hit Summary Sheet SW-846

SDG No.: P4774
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	BP-VPB-190-GW-638-640							
P4774-06	BP-VPB-190-GW-638-64 WATER	1,4-Dioxane	0.710	Q	0.08	0.22	0.22	ug/L
		Total Svoc :	0.71					
		Total Concentration:	0.71					



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	11/06/24
Project:	CTO WE13	Date Received:	11/07/24
Client Sample ID:	VPB190-HYD-20241106	SDG No.:	P4774
Lab Sample ID:	P4774-02	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	960 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 :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035079.D	1	11/08/24 11:30	11/13/24 22:49	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.21	UQ	0.070	0.21	0.21	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.0030	*	30 - 150		1%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.085	*	30 - 150		21%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.37		55 - 111		91%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.37		53 - 106		91%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.43		58 - 132		106%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2320	7.553				
1146-65-2	Naphthalene-d8	5750	10.319				
15067-26-2	Acenaphthene-d10	4370	14.19				
1517-22-2	Phenanthrene-d10	11700	16.932				
1719-03-5	Chrysene-d12	12400	21.133				
1520-96-3	Perylene-d12	13500	23.303				

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:	11/06/24
Project:	CTO WE13	Date Received:	11/07/24
Client Sample ID:	VPB190-HYD-20241106RE	SDG No.:	P4774
Lab Sample ID:	P4774-02RE	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	960 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 :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035090.D	1	11/08/24 11:30	11/14/24 16:35	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.21	UQ	0.070	0.21	0.21	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.0020	*	30 - 150		1%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.083	*	30 - 150		21%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.35		55 - 111		88%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.37		53 - 106		92%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.43		58 - 132		108%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2640	7.553				
1146-65-2	Naphthalene-d8	6900	10.318				
15067-26-2	Acenaphthene-d10	5180	14.19				
1517-22-2	Phenanthrene-d10	12700	16.932				
1719-03-5	Chrysene-d12	12900	21.133				
1520-96-3	Perylene-d12	13200	23.302				

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:	11/05/24
Project:	CTO WE13	Date Received:	11/07/24
Client Sample ID:	BP-VPB-190-GW-638-640	SDG No.:	P4774
Lab Sample ID:	P4774-06	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	890 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035078.D	1	11/08/24 11:30	11/13/24 22:13	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.71	Q	0.080	0.22	0.22	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.37		30 - 150		92%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		98%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.35		55 - 111		88%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.37		53 - 106		91%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.44		58 - 132		111%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2220	7.553				
1146-65-2	Naphthalene-d8	5640	10.319				
15067-26-2	Acenaphthene-d10	4420	14.19				
1517-22-2	Phenanthrene-d10	11700	16.932				
1719-03-5	Chrysene-d12	13100	21.133				
1520-96-3	Perylene-d12	14200	23.3				

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.: P4774

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
P4774-02	VPB190-HYD-20241106	2-Methylnaphthalene-d10	0.4	0.0030	1	*	30	150
		Fluoranthene-d10	0.4	0.085	21	*	30	150
		Nitrobenzene-d5	0.4	0.37	91		55	111
		2-Fluorobiphenyl	0.4	0.37	91		53	106
		Terphenyl-d14	0.4	0.43	106		58	132
P4774-02RE	VPB190-HYD-20241106RE	2-Methylnaphthalene-d10	0.4	0.0020	1	*	30	150
		Fluoranthene-d10	0.4	0.083	21	*	30	150
		Nitrobenzene-d5	0.4	0.35	88		55	111
		2-Fluorobiphenyl	0.4	0.37	92		53	106
		Terphenyl-d14	0.4	0.43	108		58	132
P4774-06	BP-VPB-190-GW-638-640	2-Methylnaphthalene-d10	0.4	0.37	92		30	150
		Fluoranthene-d10	0.4	0.39	98		30	150
		Nitrobenzene-d5	0.4	0.35	88		55	111
		2-Fluorobiphenyl	0.4	0.37	91		53	106
		Terphenyl-d14	0.4	0.44	111		58	132
PB164785BL	PB164785BL	2-Methylnaphthalene-d10	0.4	0.35	87		30	150
		Fluoranthene-d10	0.4	0.39	97		30	150
		Nitrobenzene-d5	0.4	0.38	95		55	111
		2-Fluorobiphenyl	0.4	0.37	91		53	106
		Terphenyl-d14	0.4	0.42	104		58	132
PB164785BS	PB164785BS	2-Methylnaphthalene-d10	0.4	0.44	110		30	150
		Fluoranthene-d10	0.4	0.36	90		30	150
		Nitrobenzene-d5	0.4	0.36	90		55	111
		2-Fluorobiphenyl	0.4	0.37	93		53	106
		Terphenyl-d14	0.4	0.41	101		58	132
PB164785BSD	PB164785BSD	2-Methylnaphthalene-d10	0.4	0.37	93		30	150
		Fluoranthene-d10	0.4	0.29	72		30	150
		Nitrobenzene-d5	0.4	0.30	75		55	111
		2-Fluorobiphenyl	0.4	0.30	75		53	106
		Terphenyl-d14	0.4	0.32	79		58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4774

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035071.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB164785BS	1,4-Dioxane	0.4	0.33	ug/L	83				70	130	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4774

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035072.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB164785BSD	1,4-Dioxane	0.4	0.27	ug/L	68	20	*		70	130	20

A

B

C

D

E

F

G

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB164785BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P4774

SAS No.: P4774 SDG NO.: P4774

Lab File ID: BN035070.D

Lab Sample ID: PB164785BL

Instrument ID: BNA_N

Date Extracted: 11/08/2024

Matrix: (soil/water) Water

Date Analyzed: 11/13/2024

Level: (low/med) LOW

Time Analyzed: 17:27

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB164785BS	PB164785BS	BN035071.D	11/13/2024
PB164785BSD	PB164785BSD	BN035072.D	11/13/2024
VPB190-HYD-20241106	P4774-02	BN035079.D	11/13/2024
BP-VPB-190-GW-638-640	P4774-06	BN035078.D	11/13/2024

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4774 SDG NO.: P4774

Lab File ID: BN035061.D

DFTPP Injection Date: 11/13/2024

Instrument ID: BNA_N

DFTPP Injection Time: 12:01

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	19.6
68	Less than 2.0% of mass 69	0.4 (1.4) 1
69	Mass 69 relative abundance	29.1
70	Less than 2.0% of mass 69	0.2 (0.7) 1
127	10.0 - 80.0% of mass 198	35.9
197	Less than 2.0% of mass 198	0.2
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	27.6
365	Greater than 1% of mass 198	4.4
441	Present, but less than mass 443	9.3
442	Greater than 50% of mass 198	59.1
443	15.0 - 24.0% of mass 442	11.2 (19) 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	BN035062.D	11/13/2024	12:40
SSTDICC0.2	SSTDICC0.2	BN035063.D	11/13/2024	13:16
SSTDICCC0.4	SSTDICCC0.4	BN035064.D	11/13/2024	13:52
SSTDICC0.8	SSTDICC0.8	BN035065.D	11/13/2024	14:28
SSTDICC1.6	SSTDICC1.6	BN035066.D	11/13/2024	15:04
SSTDICC3.2	SSTDICC3.2	BN035067.D	11/13/2024	15:39
SSTDICC5.0	SSTDICC5.0	BN035068.D	11/13/2024	16:15
PB164785BL	PB164785BL	BN035070.D	11/13/2024	17:27
PB164785BS	PB164785BS	BN035071.D	11/13/2024	18:03
PB164785BSD	PB164785BSD	BN035072.D	11/13/2024	18:38
BP-VPB-190-GW-638-640	P4774-06	BN035078.D	11/13/2024	22:13
VPB190-HYD-20241106	P4774-02	BN035079.D	11/13/2024	22:49
SSTDCCC0.4EC	SSTDCCC0.4	BN035080.D	11/13/2024	23:24

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P4774

SDG NO.: P4774

Lab File ID: BN035081.D

DFTPP Injection Date: 11/14/2024

Instrument ID: BNA_N

DFTPP Injection Time: 08:53

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	19.9
68	Less than 2.0% of mass 69	0.6 (1.9) 1
69	Mass 69 relative abundance	30.1
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	37.5
197	Less than 2.0% of mass 198	0.4
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	29.4
365	Greater than 1% of mass 198	4.8
441	Present, but less than mass 443	9.9
442	Greater than 50% of mass 198	63.6
443	15.0 - 24.0% of mass 442	10.8 (16.9) 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	BN035082.D	11/14/2024	10:12
VPB190-HYD-20241106RE	P4774-02RE	BN035090.D	11/14/2024	16:35
SSTDCCC0.4EC	SSTDCCC0.4	BN035095.D	11/14/2024	19:35

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG NO.: P4774

EPA Sample No.: SSTDICCC0.4 Date Analyzed: 11/13/2024

Lab File ID: BN035064.D Time Analyzed: 13:52

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	2804	7.553	6865	10.32	5401	14.19
UPPER LIMIT	5608	8.053	13730	10.819	10802	14.686
LOWER LIMIT	1402	7.053	3432.5	9.819	2700.5	13.686
EPA SAMPLE NO.						
01 VPB190-HYD-20241106	2315	7.55	5749	10.32	4373	14.19
02 BP-VPB-190-GW-638-640	2216	7.55	5643	10.32	4418	14.19
03 PB164785BL	2165	7.55	5024	10.32	3542	14.19
04 PB164785BS	2135	7.55	5031	10.32	3550	14.19
05 PB164785BSD	2529	7.55	5952	10.32	4350	14.19

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG NO.: P4774

EPA Sample No.: SSTDICCC0.4 Date Analyzed: 11/13/2024

Lab File ID: BN035064.D Time Analyzed: 13:52

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	13499	16.939	14946	21.14	17077	23.304
UPPER LIMIT	26998	17.439	29892	21.64	34154	23.804
LOWER LIMIT	6749.5	16.439	7473	20.64	8538.5	22.804
EPA SAMPLE NO.						
01 VPB190-HYD-20241106	11655	16.93	12368	21.13	13544	23.30
02 BP-VPB-190-GW-638-640	11698	16.93	13061	21.13	14235	23.30
03 PB164785BL	9470	16.93	10363	21.13	11874	23.31
04 PB164785BS	9574	16.94	9856	21.14	10124	23.30
05 PB164785BSD	12047	16.94	12506	21.13	13065	23.30

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.: P4774 SAS No.: P4774 SDG NO.: P4774

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/14/2024

Lab File ID: BN035082.D Time Analyzed: 10:12

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	2551	7.553	6362	10.32	5037	14.19
UPPER LIMIT	5102	8.053	12724	10.819	10074	14.69
LOWER LIMIT	1275.5	7.053	3181	9.819	2518.5	13.69
EPA SAMPLE NO.						
01 VPB190-HYD-20241106RE	2635	7.55	6903	10.32	5180	14.19

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG NO.: P4774

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/14/2024

Lab File ID: BN035082.D Time Analyzed: 10:12

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	12802	16.933	13485	21.134	14730	23.3
UPPER LIMIT	25604	17.433	26970	21.634	29460	23.8
LOWER LIMIT	6401	16.433	6742.5	20.634	7365	22.8
EPA SAMPLE NO.						
01 VPB190-HYD-20241106RE	12731	16.93	12938	21.13	13233	23.30

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.



QC SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	PB164785BL		SDG No.:	P4774	
Lab Sample ID:	PB164785BL		Matrix:	Water	
Analytical Method:	SW8270SIM		% 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 :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035070.D	1	11/08/24 11:30	11/13/24 17:27	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.35		30 - 150		87%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		97%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.38		55 - 111		95%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.37		53 - 106		91%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.42		58 - 132		104%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2170	7.553				
1146-65-2	Naphthalene-d8	5020	10.319				
15067-26-2	Acenaphthene-d10	3540	14.19				
1517-22-2	Phenanthrene-d10	9470	16.932				
1719-03-5	Chrysene-d12	10400	21.133				
1520-96-3	Perylene-d12	11900	23.306				

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	PB164785BS		SDG No.:	P4774
Lab Sample ID:	PB164785BS		Matrix:	Water
Analytical Method:	SW8270SIM		% 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 :	SW3510C			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035071.D	1	11/08/24 11:30	11/13/24 18:03	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.33		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.44		30 - 150		110%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.36		30 - 150		90%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		55 - 111		90%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.37		53 - 106		93%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.41		58 - 132		101%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2140	7.553				
1146-65-2	Naphthalene-d8	5030	10.319				
15067-26-2	Acenaphthene-d10	3550	14.186				
1517-22-2	Phenanthrene-d10	9570	16.939				
1719-03-5	Chrysene-d12	9860	21.14				
1520-96-3	Perylene-d12	10100	23.304				

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	PB164785BSD		SDG No.:	P4774	
Lab Sample ID:	PB164785BSD		Matrix:	Water	
Analytical Method:	SW8270SIM		% 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 :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035072.D	1	11/08/24 11:30	11/13/24 18:38	PB164785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.27		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.37		30 - 150		93%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.29		30 - 150		72%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.30		55 - 111		75%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.30		53 - 106		75%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.32		58 - 132		79%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2530	7.553				
1146-65-2	Naphthalene-d8	5950	10.319				
15067-26-2	Acenaphthene-d10	4350	14.186				
1517-22-2	Phenanthrene-d10	12000	16.939				
1719-03-5	Chrysene-d12	12500	21.131				
1520-96-3	Perylene-d12	13100	23.301				

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-BN111324.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Wed Nov 13 17:18:14 2024
 Response Via : Initial Calibration

Calibration Files

0.1 =BN035062.D 0.2 =BN035063.D 0.4 =BN035064.D 0.8 =BN035065.D 1.6 =BN035066.D 3.2 =BN035067.D 5.0 =BN035068.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	0.410	0.382	0.335	0.371	0.367	0.348	0.329	0.363	7.76
3)	n-Nitrosodimet...	0.366	0.328	0.326	0.360	0.347	0.321	0.322	0.339	5.51
4) S	2-Fluorophenol	1.073	1.039	0.949	1.086	1.034	0.966	0.961	1.015	5.54
5) S	Phenol-d6	1.264	1.279	1.159	1.355	1.318	1.255	1.282	1.273	4.79
6)	bis(2-Chloroet...	0.972	0.949	0.893	1.027	0.995	0.925	0.929	0.956	4.77
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.358	0.338	0.320	0.368	0.356	0.344	0.353	0.348	4.53
9)	Naphthalene	1.088	1.009	0.977	1.116	1.085	1.010	1.027	1.044	4.96
10)	Hexachlorobuta...	0.324	0.305	0.293	0.326	0.315	0.289	0.291	0.306	5.12
11) SURR2	Methylnaphth...	0.694	0.683	0.664	0.762	0.753	0.703	0.731	0.713	5.13
12)	2-Methylnaphth...	0.742	0.748	0.711	0.823	0.815	0.765	0.789	0.770	5.29
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.281	0.262	0.240	0.300	0.299	0.308	0.331	0.289	10.57
15) S	2-Fluorobiphenyl	1.701	1.576	1.460	1.735	1.687	1.599	1.614	1.624	5.73
16)	Acenaphthylene	1.715	1.616	1.488	1.822	1.775	1.756	1.795	1.709	6.93
17)	Acenaphthene	1.129	1.079	1.000	1.202	1.157	1.130	1.146	1.120	5.76
18)	Fluorene	1.704	1.591	1.463	1.755	1.708	1.656	1.659	1.648	5.86
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.068	0.067	0.073	0.087	0.088	0.095	0.105	0.083	17.50
21)	4-Bromophenyl-...	0.256	0.240	0.246	0.272	0.267	0.252	0.252	0.255	4.41
22)	Hexachlorobenzene	0.275	0.259	0.253	0.277	0.273	0.258	0.258	0.264	3.79
23)	Atrazine	0.227	0.227	0.217	0.244	0.238	0.223	0.225	0.229	3.95
24)	Pentachlorophenol	0.106	0.101	0.104	0.130	0.130	0.141	0.154	0.124	16.69
25)	Phenanthrene	1.069	1.013	1.004	1.115	1.096	1.034	1.036	1.053	3.97
26)	Anthracene	0.917	0.904	0.920	1.024	1.016	0.986	1.001	0.967	5.32
27) SURR	Fluoranthene-d10	1.196	1.178	1.169	1.288	1.284	1.222	1.240	1.225	3.91
28)	Fluoranthene	1.396	1.376	1.386	1.543	1.527	1.453	1.453	1.448	4.63
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.339	1.290	1.288	1.424	1.367	1.301	1.317	1.332	3.70
31) S	Terphenyl-d14	0.838	0.819	0.810	0.894	0.867	0.817	0.831	0.839	3.63
32)	Benzo(a)anthra...	1.421	1.368	1.328	1.464	1.416	1.355	1.396	1.393	3.31
33)	Chrysene	1.409	1.366	1.332	1.479	1.420	1.331	1.321	1.380	4.27
34)	Bis(2-ethylhex...	0.809	0.753	0.647	0.768	0.702	0.693	0.742	0.731	7.38
35) I	Perylene-d12	-----ISTD-----								

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

Method File : 8270-SIM-BN111324.M

36)	Indeno(1,2,3-c...	1.609	1.515	1.522	1.730	1.659	1.550	1.585	1.596	4.88
37)	Benzo(b)fluora...	1.326	1.272	1.279	1.439	1.418	1.327	1.359	1.346	4.77
38)	Benzo(k)fluora...	1.342	1.288	1.287	1.418	1.410	1.323	1.358	1.347	3.94
39) C	Benzo(a)pyrene	1.172	1.134	1.123	1.247	1.240	1.167	1.207	1.184	4.12
40)	Dibenzo(a,h)an...	1.248	1.195	1.210	1.375	1.322	1.235	1.265	1.264	5.06
41)	Benzo(g,h,i)pe...	1.380	1.288	1.286	1.452	1.386	1.294	1.328	1.345	4.71

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG No.: P4774

Instrument ID: BNA_N Calibration Date/Time: 11/13/2024 23:24

Lab File ID: BN035080.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 12:40 16:15

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.713	0.667		-6.5	50.0
Fluoranthene-d10	1.225	1.141		-6.9	50.0
2-Fluorophenol	1.015	0.932		-8.2	50.0
Phenol-d6	1.273	1.205		-5.3	50.0
Nitrobenzene-d5	0.348	0.315		-9.5	50.0
2-Fluorobiphenyl	1.624	1.467		-9.7	50.0
2,4,6-Tribromophenol	0.289	0.245		-15.2	50.0
Terphenyl-d14	0.839	0.813		-3.1	50.0
1,4-Dioxane	0.363	0.342		-5.8	50.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06
 Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG No.: P4774
 Instrument ID: BNA_N Calibration Date/Time: 11/14/2024 10:12
 Lab File ID: BN035082.D Init. Calib. Date(s): 11/13/2024 11/13/2024
 EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 12:40 16:15
 GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.713	0.656		-8.0	20.0
Fluoranthene-d10	1.225	1.132		-7.6	20.0
2-Fluorophenol	1.015	0.916		-9.8	20.0
Phenol-d6	1.273	1.184		-7.0	20.0
Nitrobenzene-d5	0.348	0.308		-11.5	20.0
2-Fluorobiphenyl	1.624	1.452		-10.6	20.0
2,4,6-Tribromophenol	0.289	0.230		-20.4	20.0
Terphenyl-d14	0.839	0.812		-3.2	20.0
1,4-Dioxane	0.363	0.354		-2.5	20.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4774 SAS No.: P4774 SDG No.: P4774

Instrument ID: BNA_N Calibration Date/Time: 11/14/2024 19:35

Lab File ID: BN035095.D Init. Calib. Date(s): 11/13/2024 11/13/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 12:40 16:15

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.713	0.673		-5.6	50.0
Fluoranthene-d10	1.225	1.085		-11.4	50.0
2-Fluorophenol	1.015	0.911		-10.2	50.0
Phenol-d6	1.273	1.198		-5.9	50.0
Nitrobenzene-d5	0.348	0.309		-11.2	50.0
2-Fluorobiphenyl	1.624	1.474		-9.2	50.0
2,4,6-Tribromophenol	0.289	0.227		-21.5	50.0
Terphenyl-d14	0.839	0.833		-0.7	50.0
1,4-Dioxane	0.363	0.321		-11.6	50.0

All other compounds must meet a minimum RRF of 0.010.



SHIPPING DOCUMENTS

Laboratory Certification

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



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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4774	TETR06	Order Date : 11/7/2024 3:46:00 PM	Project Mgr :
Client Name : Tetra Tech NUS, Inc.		Project Name : CTO WE13	Report Type : Level 4
Client Contact : Ernie Wu		Receive DateTime : 11/7/2024 12:00:00 AM	EDD Type : ADAPT
Invoice Name : Tetra Tech NUS, Inc.		Purchase Order : 1845	Hard Copy Date :
Invoice Contact : Ernie Wu			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P4774-01	BP-VPB-190-TB-20241105	Water	11/05/2024	08:00					
					VOCMS Group1		8260-Low	2 Bus. Days	
P4774-02	VPB190-HYD-20241106	Water	11/06/2024	10:30					
					VOCMS Group1		8260-Low	2 Bus. Days	
P4774-03	BP-VPB-190-EB-20241106	Water	11/06/2024	10:15					
					VOCMS Group1		8260-Low	2 Bus. Days	
P4774-04	BP-VPB-190-DUP-20241105	Water	11/05/2024	12:00					
					VOCMS Group1		8260-Low	2 Bus. Days	
P4774-05	BP-VPB-190-GW-618-620	Water	11/05/2024	10:40					
					VOCMS Group1		8260-Low	2 Bus. Days	
P4774-06	BP-VPB-190-GW-638-640	Water	11/05/2024	13:00					
					VOCMS Group1		8260-Low	2 Bus. Days	
P4774-07	BP-VPB-190-GW-658-660	Water	11/06/2024	09:55					
					VOCMS Group1		8260-Low	2 Bus. Days	

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4774	TETR06	Order Date : 11/7/2024 3:46:00 PM	Project Mgr :
Client Name : Tetra Tech NUS, Inc.		Project Name : CTO WE13	Report Type : Level 4
Client Contact : Ernie Wu		Receive DateTime : 11/7/2024 12:00:00 AM	EDD Type : ADAPT
Invoice Name : Tetra Tech NUS, Inc.		Purchase Order : 18145	Hard Copy Date :
Invoice Contact : Ernie Wu			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
--------	-----------	--------	-------------	-------------	------	------------	--------	----------	-----------

Relinquished By : [Signature]
Date / Time : 11/8/24 0025

Received By : [Signature]
Date / Time : 11/8/24 0825 Ref # 4

Storage Area : VOA Refridgerator Room

Received on 11/7/24
Placed w SM-REF
P4774