

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 : P5374

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	51
7) Shipping Document	80
7.1) CHAIN OF CUSTODY	81
7.2) Lab Certificate	82
7.3) Internal COC	83

1
2
3
4
5
6
7

Cover Page

Order ID : P5374

Project ID : CTO WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

P5374-01
P5374-02
P5374-03
P5374-04
P5374-05
P5374-06

Client Sample Number

BP-VPB-190A-TB-20241218
BP-VPB-190A-EB-20241218
BP-VPB-190A-GW-718-720
BP-VPB-190A-GW-748-750
BP-VPB-190A-GW-748-750MS
BP-VPB-190A-GW-748-750MSD

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

Signature : _____

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 9:16 am, Jan 07, 2025 Date: 1/7/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: CTO WE13

Project Manager: Ernie Wu

Chemtech Project # P5374

Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:

6 Water samples were received on 12/20/2024.

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_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI. 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 except for BP-VPB-190A-GW-748-750 [Toluene-d8 - 120%], BP-VPB-190A-GW-748-750MS [1,2-Dichloroethane-d4 - 79%], BP-VPB-190A-GW-748-750MSD [1 and 2-Dichloroethane-d4 - 80%] Surrogate failure for MS-MSD confirms with original sample.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS {P5374-05MS} with File ID: VX044482.D recoveries met the requirements for all compounds except for Trichloroethene[140%] due to matrix interference.

The MSD {P5374-06MSD} with File ID: VX044483.D recoveries met the acceptable requirements except for Trichloroethene[160%] due to matrix interference.

The sample # BP-VPB-190A-GW-748-750MS and BP-VPB-190A-GW-748-750MSD is failing for Trichloroethene and the original sample (BP-VPB-190A-GW-748-750) is reported with M flag for this compound.

The RPD met criteria .

The Blank Spike 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 (82x121124w.M) for t-1,3-Dichloropropene, Dibromochloromethane, Bromoform These compounds are passing on Quadratic Regression.

The Continuous Calibration File ID VX044466.D met the requirements except for Methylcyclohexane and Tetrachloroethene failing high but no positive hit in associated samples therefore no corrective action taken.

The Tuning criteria met requirements.

E. Additional Comments:

The Sample #BP-VPB-190A-TB-20241218 , BP-VPB-190A-EB-20241218 have the concentration of target compound below Method detection limits, therefore it is not reported as Hit in Form1.

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.

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 9:17 am, Jan 07, 2025

Signature _____

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: CTO WE13

Project Manager: Ernie Wu

Chemtech Project # P5374

Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:

6 Water samples were received on 12/20/2024.

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 PB165828BS [Nitrobenzene-d5 - 122%], The failure surrogates not associated with the client parameters list, therefore no corrective action was taken.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The MS {P5376-08MS} with File ID: BN035821.D recoveries met the requirements for all compounds except for 1,4-Dioxane[53%], Due to a poor compound the recovery no corrective action required.

The MSD {P5376-09MSD} with File ID: BN035822.D recoveries met the acceptable requirements except for 1,4-Dioxane[51%], Due to a poor compound the recovery no corrective action required.

The RPD met criteria .

The Blank Spike met requirements for all samples .

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

The Initial Calibration met the requirements .

The Continuous Calibration File ID BN035811.D met the requirements except for 2,4,6-Tribromophenol, The failure compound not associated with the client parameters list, therefore no corrective action was taken.

The Continuous Calibration File ID BN035845.D met the requirements except for Nitrobenzene-d5, The failure compound not associated with the client parameters list, therefore no corrective action was taken.

The Tuning criteria met requirements.

E. Additional Comments:

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

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

The not QT review data is reported in the Miscellaneous.

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

F. Manual Integration Comments:

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

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

Signature_____

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 9:17 am, Jan 07, 2025

DATA REPORTING QUALIFIERS- ORGANIC

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

Value	If the result is a value greater than or equal to the detection limit, report the value
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 #: P5374

Completed

For thorough review, the report must have the following:

GENERAL:

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓

COVER PAGE:

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

✓

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

✓

CHAIN OF CUSTODY:

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: MOHAMMAD AHMED

Date: 01/07/2025

LAB CHRONICLE

OrderID:	P5374	OrderDate:	12/20/2024 3:07:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	N31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5374-01	BP-VPB-190A-TB-202 41218	Water			12/18/24			12/20/24
			VOCMS Group1	8260-Low			12/23/24	
P5374-02	BP-VPB-190A-EB-202 41218	Water			12/18/24			12/20/24
			VOCMS Group1	8260-Low			12/23/24	
P5374-03	BP-VPB-190A-GW-718 -720	Water			12/18/24			12/20/24
			VOCMS Group1	8260-Low			12/23/24	
P5374-04	BP-VPB-190A-GW-748 -750	Water			12/19/24			12/20/24
			VOCMS Group1	8260-Low			12/23/24	

Hit Summary Sheet SW-846

SDG No.: P5374
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID: BP-VPB-190A-GW-718-720									
P5374-03	BP-VPB-190A-GW	Water	1,1,2-Trichlorotrifluoroethane	6.90		0.25	0.50	1.00	ug/L
P5374-03	BP-VPB-190A-GW	Water	1,1-Dichloroethene	1.90		0.26	0.75	1.00	ug/L
P5374-03	BP-VPB-190A-GW	Water	Acetone	3.70	J	1.40	3.80	5.00	ug/L
P5374-03	BP-VPB-190A-GW	Water	cis-1,2-Dichloroethene	0.73	J	0.25	0.75	1.00	ug/L
P5374-03	BP-VPB-190A-GW	Water	Trichloroethene	63.0		0.32	0.75	1.00	ug/L
Total Voc :				76.2					
Total Concentration:				76.2					
Client ID: BP-VPB-190A-GW-748-750									
P5374-04	BP-VPB-190A-GW	Water	1,1,2-Trichlorotrifluoroethane	12.3		0.25	0.50	1.00	ug/L
P5374-04	BP-VPB-190A-GW	Water	1,1-Dichloroethene	5.20		0.26	0.75	1.00	ug/L
P5374-04	BP-VPB-190A-GW	Water	Acetone	1.40	J	1.40	3.80	5.00	ug/L
P5374-04	BP-VPB-190A-GW	Water	1,1-Dichloroethane	0.62	J	0.23	0.50	1.00	ug/L
P5374-04	BP-VPB-190A-GW	Water	Carbon Tetrachloride	0.72	J	0.25	0.50	1.00	ug/L
P5374-04	BP-VPB-190A-GW	Water	cis-1,2-Dichloroethene	1.20		0.25	0.75	1.00	ug/L
P5374-04	BP-VPB-190A-GW	Water	Chloroform	0.45	J	0.26	0.50	1.00	ug/L
P5374-04	BP-VPB-190A-GW	Water	Trichloroethene	130	M	0.32	0.75	1.00	ug/L
P5374-04	BP-VPB-190A-GW	Water	1,1,2-Trichloroethane	0.37	J	0.21	0.50	1.00	ug/L
Total Voc :				152					
Total Concentration:				152					



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	12/18/24	
Project:	CTO WE13			Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-TB-20241218			SDG No.:	P5374	
Lab Sample ID:	P5374-01			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:	DB-624UI	ID :	0.18	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044479.D	1		12/23/24 14:52	VX122324

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:	12/18/24		
Project:	CTO WE13			Date Received:	12/20/24		
Client Sample ID:	BP-VPB-190A-TB-20241218			SDG No.:	P5374		
Lab Sample ID:	P5374-01			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:	DB-624UI	ID :	0.18	Level :	LOW		
Prep Method :							

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044479.D	1		12/23/24 14:52	VX122324

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	UQ	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	40.5		81 - 118		81%	SPK: 50
1868-53-7	Dibromofluoromethane	46.4		80 - 119		93%	SPK: 50
2037-26-5	Toluene-d8	50.0		89 - 112		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.7		85 - 114		91%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	145000	5.544				
540-36-3	1,4-Difluorobenzene	251000	6.757				
3114-55-4	Chlorobenzene-d5	212000	10.055				
3855-82-1	1,4-Dichlorobenzene-d4	90700	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	12/18/24	
Project:	CTO WE13		Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-TB-20241218		SDG No.:	P5374	
Lab Sample ID:	P5374-01		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:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044479.D	1		12/23/24 14:52	VX122324

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:	12/18/24	
Project:	CTO WE13		Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-EB-20241218		SDG No.:	P5374	
Lab Sample ID:	P5374-02		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:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044480.D	1		12/23/24 15:15	VX122324

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:	12/18/24		
Project:	CTO WE13			Date Received:	12/20/24		
Client Sample ID:	BP-VPB-190A-EB-20241218			SDG No.:	P5374		
Lab Sample ID:	P5374-02			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:	DB-624UI	ID :	0.18	Level :	LOW		
Prep Method :							

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044480.D	1		12/23/24 15:15	VX122324

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	UQ	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	41.5		81 - 118		83%	SPK: 50
1868-53-7	Dibromofluoromethane	46.1		80 - 119		92%	SPK: 50
2037-26-5	Toluene-d8	51.7		89 - 112		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.4		85 - 114		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	136000	5.543				
540-36-3	1,4-Difluorobenzene	244000	6.757				
3114-55-4	Chlorobenzene-d5	221000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	90800	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	12/18/24	
Project:	CTO WE13		Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-EB-20241218		SDG No.:	P5374	
Lab Sample ID:	P5374-02		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:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044480.D	1		12/23/24 15:15	VX122324

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:	12/18/24	
Project:	CTO WE13			Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-GW-718-720			SDG No.:	P5374	
Lab Sample ID:	P5374-03			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:	DB-624UI	ID :	0.18	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044478.D	1		12/23/24 14:29	VX122324

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	6.90		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.90		0.26	0.75	1.00	ug/L
67-64-1	Acetone	3.70	J	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	0.73	J	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	63.0		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:	12/18/24	
Project:	CTO WE13		Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-GW-718-720		SDG No.:	P5374	
Lab Sample ID:	P5374-03		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:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044478.D	1		12/23/24 14:29	VX122324

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	UQ	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	41.9		81 - 118		84%	SPK: 50
1868-53-7	Dibromofluoromethane	46.5		80 - 119		93%	SPK: 50
2037-26-5	Toluene-d8	51.5		89 - 112		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.7		85 - 114		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	133000	5.544				
540-36-3	1,4-Difluorobenzene	236000	6.757				
3114-55-4	Chlorobenzene-d5	212000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	92400	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	12/18/24	
Project:	CTO WE13		Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-GW-718-720		SDG No.:	P5374	
Lab Sample ID:	P5374-03		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:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044478.D	1		12/23/24 14:29	VX122324

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:	12/19/24	
Project:	CTO WE13			Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-GW-748-750			SDG No.:	P5374	
Lab Sample ID:	P5374-04			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:	DB-624UI	ID :	0.18	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044481.D	1		12/23/24 15:38	VX122324

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	12.3		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	5.20		0.26	0.75	1.00	ug/L
67-64-1	Acetone	1.40	J	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	0.62	J	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	0.72	J	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.20		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.45	J	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	130	M	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	0.37	J	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:	12/19/24		
Project:	CTO WE13			Date Received:	12/20/24		
Client Sample ID:	BP-VPB-190A-GW-748-750			SDG No.:	P5374		
Lab Sample ID:	P5374-04			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:	DB-624UI	ID :	0.18	Level :	LOW		
Prep Method :							

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044481.D	1		12/23/24 15:38	VX122324

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	UQ	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	50.5		81 - 118		101%	SPK: 50
1868-53-7	Dibromofluoromethane	55.3		80 - 119		111%	SPK: 50
2037-26-5	Toluene-d8	60.1	*	89 - 112		120%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.7		85 - 114		113%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	132000	5.544				
540-36-3	1,4-Difluorobenzene	238000	6.757				
3114-55-4	Chlorobenzene-d5	213000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	92600	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	12/19/24	
Project:	CTO WE13		Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-GW-748-750		SDG No.:	P5374	
Lab Sample ID:	P5374-04		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:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044481.D	1		12/23/24 15:38	VX122324

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



QC SUMMARY

Surrogate Summary

SDG No.: **P5374**

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

Analytical Method: **SW8260-Low**

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
P5374-01	BP-VPB-190A-TB-20241218	1,2-Dichloroethane-d4	50	40.5	81	81	118
		Dibromofluoromethane	50	46.4	93	80	119
		Toluene-d8	50	50.0	100	89	112
		4-Bromofluorobenzene	50	45.7	91	85	114
P5374-02	BP-VPB-190A-EB-20241218	1,2-Dichloroethane-d4	50	41.5	83	81	118
		Dibromofluoromethane	50	46.1	92	80	119
		Toluene-d8	50	51.7	103	89	112
		4-Bromofluorobenzene	50	48.4	97	85	114
P5374-03	BP-VPB-190A-GW-718-720	1,2-Dichloroethane-d4	50	41.9	84	81	118
		Dibromofluoromethane	50	46.5	93	80	119
		Toluene-d8	50	51.5	103	89	112
		4-Bromofluorobenzene	50	49.7	99	85	114
P5374-04	BP-VPB-190A-GW-748-750	1,2-Dichloroethane-d4	50	50.5	101	81	118
		Dibromofluoromethane	50	55.3	111	80	119
		Toluene-d8	50	60.1	120 *	89	112
		4-Bromofluorobenzene	50	56.7	113	85	114
P5374-05MS	BP-VPB-190A-GW-748-750MS	1,2-Dichloroethane-d4	50	39.3	79 *	81	118
		Dibromofluoromethane	50	48.6	97	80	119
		Toluene-d8	50	49.4	99	89	112
		4-Bromofluorobenzene	50	48.3	97	85	114
P5374-06MSD	BP-VPB-190A-GW-748-750MSD	1,2-Dichloroethane-d4	50	40.1	80 *	81	118
		Dibromofluoromethane	50	49.2	98	80	119
		Toluene-d8	50	49.4	99	89	112
		4-Bromofluorobenzene	50	48.7	97	85	114
VX1223WBL01	VX1223WBL01	1,2-Dichloroethane-d4	50	41.8	84	81	118
		Dibromofluoromethane	50	46.7	93	80	119
		Toluene-d8	50	51.2	102	89	112
		4-Bromofluorobenzene	50	45.8	92	85	114
VX1223WBS03	VX1223WBS03	1,2-Dichloroethane-d4	50	43.7	87	81	118
		Dibromofluoromethane	50	52.0	104	80	119
		Toluene-d8	50	52.4	105	89	112
		4-Bromofluorobenzene	50	52.0	104	85	114

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P5374

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

										Limits		
Parameter	Spike	Sample	Result	Units	Rec		RPD	RPD		Low	High	RPD
		Result			Rec	Qual		Qual				
Lab Sample ID :	P5374-05MS	Client Sample ID :	BP-VPB-190A-GW-748-750MS					Datafile :	VX044482.D			
Chloromethane	50	0	48.1	ug/L	96					50	139	
Vinyl chloride	50	0	45.7	ug/L	91					58	137	
Bromomethane	50	0	43.1	ug/L	86					53	141	
Chloroethane	50	0	48.2	ug/L	96					60	138	
Trichlorofluoromethane	50	0	36.7	ug/L	73					65	141	
1,1,2-Trichlorotrifluoroethane	50	12.3	59.8	ug/L	95					70	136	
1,1-Dichloroethene	50	5.20	54.5	ug/L	99					71	131	
Acetone	250	1.40	170	ug/L	67					39	160	
Carbon disulfide	50	0	47.5	ug/L	95					64	133	
Methyl tert-butyl Ether	50	0	42.2	ug/L	84					71	124	
Methylene Chloride	50	0	46.8	ug/L	94					74	124	
trans-1,2-Dichloroethene	50	0	47.1	ug/L	94					75	124	
1,1-Dichloroethane	50	0.62	46.2	ug/L	91					77	125	
2-Butanone	250	0	190	ug/L	76					56	143	
Carbon Tetrachloride	50	0.72	51.0	ug/L	101					72	136	
cis-1,2-Dichloroethene	50	1.20	47.1	ug/L	92					78	123	
Chloroform	50	0.45	44.1	ug/L	87					79	124	
1,1,1-Trichloroethane	50	0	46.3	ug/L	93					74	131	
Methylcyclohexane	50	0	53.1	ug/L	106					72	132	
Benzene	50	0	52.0	ug/L	104					79	120	
1,2-Dichloroethane	50	0	48.6	ug/L	97					73	128	
Trichloroethene	50	130	200	ug/L	140		*			79	123	
1,2-Dichloropropane	50	0	50.0	ug/L	100					78	122	
Bromodichloromethane	50	0	52.3	ug/L	105					79	125	
4-Methyl-2-Pentanone	250	0	210	ug/L	84					67	130	
Toluene	50	0	51.9	ug/L	104					80	121	
t-1,3-Dichloropropene	50	0	47.3	ug/L	95					73	127	
cis-1,3-Dichloropropene	50	0	51.7	ug/L	103					75	124	
1,1,2-Trichloroethane	50	0.37	51.8	ug/L	103					80	119	
2-Hexanone	250	0	210	ug/L	84					57	139	
Dibromochloromethane	50	0	49.5	ug/L	99					74	126	
Tetrachloroethene	50	0	53.3	ug/L	107					74	129	
Chlorobenzene	50	0	51.2	ug/L	102					82	118	
Ethyl Benzene	50	0	51.9	ug/L	104					79	121	
m/p-Xylenes	100	0	110	ug/L	110					80	121	
o-Xylene	50	0	51.5	ug/L	103					78	122	
Styrene	50	0	53.2	ug/L	106					78	123	
Bromoform	50	0	49.4	ug/L	99					66	130	
Isopropylbenzene	50	0	51.4	ug/L	103					72	131	
1,1,2,2-Tetrachloroethane	50	0	46.4	ug/L	93					71	121	
1,3-Dichlorobenzene	50	0	52.6	ug/L	105					80	119	
1,4-Dichlorobenzene	50	0	51.6	ug/L	103					79	118	
1,2-Dichlorobenzene	50	0	51.8	ug/L	104					80	119	

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P5374

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Limits											
Parameter	Spike	Sample	Result	Units	Rec		RPD	RPD		RPD	
		Result			Qual	Qual		Low	High		
Lab Sample ID :	P5374-06MSD	Client Sample ID :	BP-VPB-190A-GW-748-750MSD					Datafile :	VX044483.D		
Chloromethane	50	0	45.6	ug/L	91		5		50	139	20
Vinyl chloride	50	0	44.1	ug/L	88		4		58	137	20
Bromomethane	50	0	44.2	ug/L	88		3		53	141	20
Chloroethane	50	0	44.7	ug/L	89		8		60	138	20
Trichlorofluoromethane	50	0	36.7	ug/L	73		0		65	141	20
1,1,2-Trichlorotrifluoroethane	50	12.3	60.5	ug/L	96		1		70	136	20
1,1-Dichloroethene	50	5.20	54.9	ug/L	99		0		71	131	20
Acetone	250	1.40	170	ug/L	67		0		39	160	20
Carbon disulfide	50	0	50.5	ug/L	101		6		64	133	20
Methyl tert-butyl Ether	50	0	43.3	ug/L	87		3		71	124	20
Methylene Chloride	50	0	47.4	ug/L	95		1		74	124	20
trans-1,2-Dichloroethene	50	0	47.9	ug/L	96		2		75	124	20
1,1-Dichloroethane	50	0.62	46.9	ug/L	93		2		77	125	20
2-Butanone	250	0	190	ug/L	76		0		56	143	20
Carbon Tetrachloride	50	0.72	53.1	ug/L	105		4		72	136	20
cis-1,2-Dichloroethene	50	1.20	47.6	ug/L	93		1		78	123	20
Chloroform	50	0.45	45.1	ug/L	89		2		79	124	20
1,1,1-Trichloroethane	50	0	47.3	ug/L	95		2		74	131	20
Methylcyclohexane	50	0	51.7	ug/L	103		3		72	132	20
Benzene	50	0	51.5	ug/L	103		1		79	120	20
1,2-Dichloroethane	50	0	48.4	ug/L	97		0		73	128	20
Trichloroethene	50	130	210	ug/L	160	*	13		79	123	20
1,2-Dichloropropane	50	0	50.9	ug/L	102		2		78	122	20
Bromodichloromethane	50	0	53.4	ug/L	107		2		79	125	20
4-Methyl-2-Pentanone	250	0	210	ug/L	84		0		67	130	20
Toluene	50	0	51.6	ug/L	103		1		80	121	20
t-1,3-Dichloropropene	50	0	49.1	ug/L	98		4		73	127	20
cis-1,3-Dichloropropene	50	0	53.3	ug/L	107		3		75	124	20
1,1,2-Trichloroethane	50	0.37	52.1	ug/L	103		0		80	119	20
2-Hexanone	250	0	210	ug/L	84		0		57	139	20
Dibromochloromethane	50	0	50.6	ug/L	101		2		74	126	20
Tetrachloroethene	50	0	54.1	ug/L	108		1		74	129	20
Chlorobenzene	50	0	51.3	ug/L	103		0		82	118	20
Ethyl Benzene	50	0	51.0	ug/L	102		2		79	121	20
m/p-Xylenes	100	0	110	ug/L	110		0		80	121	20
o-Xylene	50	0	52.0	ug/L	104		1		78	122	20
Styrene	50	0	51.6	ug/L	103		3		78	123	20
Bromoform	50	0	52.3	ug/L	105		6		66	130	20
Isopropylbenzene	50	0	50.2	ug/L	100		2		72	131	20
1,1,2,2-Tetrachloroethane	50	0	46.1	ug/L	92		1		71	121	20
1,3-Dichlorobenzene	50	0	52.1	ug/L	104		1		80	119	20
1,4-Dichlorobenzene	50	0	50.2	ug/L	100		3		79	118	20
1,2-Dichlorobenzene	50	0	50.3	ug/L	101		3		80	119	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P5374

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Datafile : VX044484.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VX1223WBS03	Chloromethane	20	17.1	ug/L	86			50	139	
	Vinyl chloride	20	17.2	ug/L	86			58	137	
	Bromomethane	20	16.6	ug/L	83			53	141	
	Chloroethane	20	17.1	ug/L	86			60	138	
	Trichlorofluoromethane	20	13.8	ug/L	69			65	141	
	1,1,2-Trichlorotrifluoroethane	20	17.5	ug/L	88			70	136	
	1,1-Dichloroethene	20	18.2	ug/L	91			71	131	
	Acetone	100	65.8	ug/L	66			39	160	
	Carbon disulfide	20	17.5	ug/L	88			64	133	
	Methyl tert-butyl Ether	20	16.3	ug/L	81			71	124	
	Methylene Chloride	20	18.0	ug/L	90			74	124	
	trans-1,2-Dichloroethene	20	17.1	ug/L	86			75	124	
	1,1-Dichloroethane	20	17.3	ug/L	86			77	125	
	2-Butanone	100	69.6	ug/L	70			56	143	
	Carbon Tetrachloride	20	18.4	ug/L	92			72	136	
	cis-1,2-Dichloroethene	20	17.8	ug/L	89			78	123	
	Chloroform	20	16.8	ug/L	84			79	124	
	1,1,1-Trichloroethane	20	17.5	ug/L	88			74	131	
	Methylcyclohexane	20	18.3	ug/L	92			72	132	
	Benzene	20	19.3	ug/L	97			79	120	
	1,2-Dichloroethane	20	18.6	ug/L	93			73	128	
	Trichloroethene	20	20.8	ug/L	104			79	123	
	1,2-Dichloropropane	20	18.7	ug/L	94			78	122	
	Bromodichloromethane	20	18.5	ug/L	93			79	125	
	4-Methyl-2-Pentanone	100	79.0	ug/L	79			67	130	
	Toluene	20	19.7	ug/L	99			80	121	
	t-1,3-Dichloropropene	20	18.3	ug/L	92			73	127	
	cis-1,3-Dichloropropene	20	19.5	ug/L	98			75	124	
	1,1,2-Trichloroethane	20	19.4	ug/L	97			80	119	
	2-Hexanone	100	78.2	ug/L	78			57	139	
	Dibromochloromethane	20	18.3	ug/L	92			74	126	
	Tetrachloroethene	20	21.5	ug/L	108			74	129	
	Chlorobenzene	20	19.9	ug/L	100			82	118	
	Ethyl Benzene	20	19.6	ug/L	98			79	121	
	m/p-Xylenes	40	40.6	ug/L	102			80	121	
	o-Xylene	20	19.5	ug/L	98			78	122	
	Styrene	20	19.6	ug/L	98			78	123	
	Bromoform	20	19.2	ug/L	96			66	130	
	Isopropylbenzene	20	19.1	ug/L	96			72	131	
	1,1,2,2-Tetrachloroethane	20	18.0	ug/L	90			71	121	
	1,3-Dichlorobenzene	20	20.2	ug/L	101			80	119	
	1,4-Dichlorobenzene	20	19.7	ug/L	99			79	118	
	1,2-Dichlorobenzene	20	19.5	ug/L	98			80	119	

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX1223WBL01

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P5374

SAS No.: P5374 SDG NO.: P5374

Lab File ID: VX044468.D

Lab Sample ID: VX1223WBL01

Date Analyzed: 12/23/2024

Time Analyzed: 09:46

GC Column: DB-624UI ID: 0.18 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BP-VPB-190A-GW-718-720	P5374-03	VX044478.D	12/23/2024
BP-VPB-190A-TB-20241218	P5374-01	VX044479.D	12/23/2024
BP-VPB-190A-EB-20241218	P5374-02	VX044480.D	12/23/2024
BP-VPB-190A-GW-748-750	P5374-04	VX044481.D	12/23/2024
BP-VPB-190A-GW-748-750MS	P5374-05MS	VX044482.D	12/23/2024
BP-VPB-190A-GW-748-750MSD	P5374-06MSD	VX044483.D	12/23/2024
VX1223WBS03	VX1223WBS03	VX044484.D	12/23/2024

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P5374 SAS No.: P5374 SDG NO.: P5374
Lab File ID: VX044218.D BFB Injection Date: 12/11/2024
Instrument ID: MSVOA_X BFB Injection Time: 10:13
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.7
75	30.0 - 60.0% of mass 95	56.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.9 (1.2) 1
174	50.0 - 100.0% of mass 95	71.1
175	5.0 - 9.0% of mass 174	5.2 (7.3) 1
176	95.0 - 101.0% of mass 174	68.7 (96.6) 1
177	5.0 - 9.0% of mass 176	4.6 (6.8) 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
VSTDIC001	VSTDIC001	VX044219.D	12/11/2024	10:41
VSTDIC005	VSTDIC005	VX044220.D	12/11/2024	11:27
VSTDIC020	VSTDIC020	VX044221.D	12/11/2024	11:50
VSTDIC050	VSTDIC050	VX044222.D	12/11/2024	12:14
VSTDIC100	VSTDIC100	VX044223.D	12/11/2024	12:37
VSTDIC150	VSTDIC150	VX044224.D	12/11/2024	13:00

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P5374 SAS No.: P5374 SDG NO.: P5374
Lab File ID: VX044465.D BFB Injection Date: 12/23/2024
Instrument ID: MSVOA_X BFB Injection Time: 08:19
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	53.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	1.2 (1.5) 1
174	50.0 - 100.0% of mass 95	77.6
175	5.0 - 9.0% of mass 174	5.8 (7.5) 1
176	95.0 - 101.0% of mass 174	75.4 (97.2) 1
177	5.0 - 9.0% of mass 176	4.3 (5.7) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX044466.D	12/23/2024	08:49
VX1223WBL01	VX1223WBL01	VX044468.D	12/23/2024	09:46
BP-VPB-190A-GW-718-720	P5374-03	VX044478.D	12/23/2024	14:29
BP-VPB-190A-TB-20241218	P5374-01	VX044479.D	12/23/2024	14:52
BP-VPB-190A-EB-20241218	P5374-02	VX044480.D	12/23/2024	15:15
BP-VPB-190A-GW-748-750	P5374-04	VX044481.D	12/23/2024	15:38
BP-VPB-190A-GW-748-750MS	P5374-05MS	VX044482.D	12/23/2024	16:00
BP-VPB-190A-GW-748-750MSD	P5374-06MSD	VX044483.D	12/23/2024	16:23
VX1223WBS03	VX1223WBS03	VX044484.D	12/23/2024	16:46
VSTDCCC050EC	VSTDCCC050	VX044492.D	12/23/2024	19:49

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P5374 SAS No.: P5374 SDG NO.: P5374
Lab File ID: VX044466.D Date Analyzed: 12/23/2024
Instrument ID: MSVOA_X Time Analyzed: 08:49
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	98270	5.54	155098	6.75	129773	10.05
UPPER LIMIT	196540	6.044	310196	7.251	259546	10.549
LOWER LIMIT	49135	5.044	77549	6.251	64886.5	9.549
EPA SAMPLE NO.						
BP-VPB-190A-TB-20241218	144905	5.54	250665	6.76	212481	10.06
BP-VPB-190A-EB-20241218	136476	5.54	243949	6.76	221103	10.05
BP-VPB-190A-GW-718-720	132615	5.54	236368	6.76	212205	10.05
BP-VPB-190A-GW-748-750	132243	5.54	237676	6.76	212650	10.05
BP-VPB-190A-GW-748-750MS	131546	5.54	214972	6.76	185795	10.05
BP-VPB-190A-GW-748-750MSD	133309	5.55	221334	6.76	194386	10.05
VX1223WBL01	153955	5.54	275095	6.76	235868	10.05
VX1223WBS03	136426	5.54	230675	6.76	197773	10.05

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.: P5374 SAS No.: P5374 SDG NO.: P5374
Lab File ID: VX044466.D Date Analyzed: 12/23/2024
Instrument ID: MSVOA_X Time Analyzed: 08:49
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	59280	12.018				
UPPER LIMIT	118560	12.518				
LOWER LIMIT	29640	11.518				
EPA SAMPLE NO.						
BP-VPB-190A-TB-20241218	90686	12.02				
BP-VPB-190A-EB-20241218	90813	12.02				
BP-VPB-190A-GW-718-720	92424	12.02				
BP-VPB-190A-GW-748-750	92633	12.02				
BP-VPB-190A-GW-748-750MS	87327	12.02				
BP-VPB-190A-GW-748-750MSD	93024	12.02				
VX1223WBL01	97837	12.02				
VX1223WBS03	93712	12.02				

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:	VX1223WBL01		SDG No.:	P5374
Lab Sample ID:	VX1223WBL01		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:	DB-624UI	ID : 0.18	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044468.D	1		12/23/24 09:46	VX122324

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:	VX1223WBL01		SDG No.:	P5374
Lab Sample ID:	VX1223WBL01		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:	DB-624UI	ID : 0.18	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044468.D	1		12/23/24 09:46	VX122324

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	41.8		81 - 118		84%	SPK: 50
1868-53-7	Dibromofluoromethane	46.7		80 - 119		93%	SPK: 50
2037-26-5	Toluene-d8	51.2		89 - 112		102%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.8		85 - 114		92%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	154000	5.544				
540-36-3	1,4-Difluorobenzene	275000	6.757				
3114-55-4	Chlorobenzene-d5	236000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	97800	12.018				

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:	VX1223WBS03		SDG No.:	P5374
Lab Sample ID:	VX1223WBS03		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:	DB-624UI	ID : 0.18	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044484.D	1		12/23/24 16:46	VX122324

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	17.1		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	17.2		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	16.6		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	17.1		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	13.8		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	17.5		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.2		0.26	0.75	1.00	ug/L
67-64-1	Acetone	65.8		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	17.5		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	16.3		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	18.0		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	17.1		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	17.3		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	69.6		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	18.4		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	17.8		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	16.8		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	17.5		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	19.3		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	18.6		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	20.8		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	18.7		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	79.0		0.75	2.50	5.00	ug/L
108-88-3	Toluene	19.7		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	18.3		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.5		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	19.4		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	78.2		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:	VX1223WBS03		SDG No.:	P5374
Lab Sample ID:	VX1223WBS03		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:	DB-624UI	ID : 0.18	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044484.D	1		12/23/24 16:46	VX122324

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	18.3		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	21.5		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	19.9		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	19.6		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	40.6		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	19.5		0.14	0.50	1.00	ug/L
100-42-5	Styrene	19.6		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	19.2		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	19.1		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.0		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	20.2		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	19.7		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	19.5		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	43.7		81 - 118		87%	SPK: 50
1868-53-7	Dibromofluoromethane	52.0		80 - 119		104%	SPK: 50
2037-26-5	Toluene-d8	52.4		89 - 112		105%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.1		85 - 114		104%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	136000	5.544				
540-36-3	1,4-Difluorobenzene	231000	6.757				
3114-55-4	Chlorobenzene-d5	198000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	93700	12.018				

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:	12/19/24	
Project:	CTO WE13			Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-GW-748-750MS			SDG No.:	P5374	
Lab Sample ID:	P5374-05MS			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:	DB-624UI	ID :	0.18	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044482.D	1		12/23/24 16:00	VX122324

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	48.1		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	45.7		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	43.1		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	48.2		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	36.7		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	59.8		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	54.5		0.26	0.75	1.00	ug/L
67-64-1	Acetone	170		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	47.5		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	42.2		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	46.8		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	47.1		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	46.2		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	190		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	51.0		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	47.1		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	44.1		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	46.3		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	53.1		0.19	0.50	1.00	ug/L
71-43-2	Benzene	52.0		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	48.6		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	200	E	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	50.0		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	52.3		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	210		0.75	2.50	5.00	ug/L
108-88-3	Toluene	51.9		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	47.3		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	51.7		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	51.8		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	210		1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	12/19/24	
Project:	CTO WE13		Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-GW-748-750MS		SDG No.:	P5374	
Lab Sample ID:	P5374-05MS		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:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044482.D	1		12/23/24 16:00	VX122324

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	49.5		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	53.3		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	51.2		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	51.9		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	110		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	51.5		0.14	0.50	1.00	ug/L
100-42-5	Styrene	53.2		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	49.4		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	51.4		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	46.4		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	52.6		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	51.6		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	51.8		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	39.3	*	81 - 118		79%	SPK: 50
1868-53-7	Dibromofluoromethane	48.6		80 - 119		97%	SPK: 50
2037-26-5	Toluene-d8	49.4		89 - 112		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.3		85 - 114		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	132000	5.544				
540-36-3	1,4-Difluorobenzene	215000	6.757				
3114-55-4	Chlorobenzene-d5	186000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	87300	12.018				

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:	12/19/24	
Project:	CTO WE13			Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-GW-748-750MSD			SDG No.:	P5374	
Lab Sample ID:	P5374-06MSD			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:	DB-624UI	ID :	0.18	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044483.D	1		12/23/24 16:23	VX122324

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	45.6		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	44.1		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	44.2		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	44.7		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	36.7		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	60.5		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	54.9		0.26	0.75	1.00	ug/L
67-64-1	Acetone	170		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	50.5		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	43.3		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	47.4		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	47.9		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	46.9		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	190		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	53.1		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	47.6		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	45.1		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	47.3		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	51.7		0.19	0.50	1.00	ug/L
71-43-2	Benzene	51.5		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	48.4		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	210	E	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	50.9		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	53.4		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	210		0.75	2.50	5.00	ug/L
108-88-3	Toluene	51.6		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	49.1		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	53.3		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	52.1		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	210		1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	12/19/24	
Project:	CTO WE13		Date Received:	12/20/24	
Client Sample ID:	BP-VPB-190A-GW-748-750MSD		SDG No.:	P5374	
Lab Sample ID:	P5374-06MSD		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:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044483.D	1		12/23/24 16:23	VX122324

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	50.6		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	54.1		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	51.3		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	51.0		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	110		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	52.0		0.14	0.50	1.00	ug/L
100-42-5	Styrene	51.6		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	52.3		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	50.2		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	46.1		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	52.1		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	50.2		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	50.3		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	40.1	*	81 - 118		80%	SPK: 50
1868-53-7	Dibromofluoromethane	49.2		80 - 119		98%	SPK: 50
2037-26-5	Toluene-d8	49.4		89 - 112		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.7		85 - 114		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	133000	5.55				
540-36-3	1,4-Difluorobenzene	221000	6.757				
3114-55-4	Chlorobenzene-d5	194000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	93000	12.018				

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.: P5374 SAS No.: P5374 SDG No.: P5374
Instrument ID: MSVOA_X Calibration Date(s): 12/11/2024 12/11/2024
Heated Purge: (Y/N) N Calibration Time(s): 10:41 13:00
GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID:	RRF001 = VX044219.D	RRF005 = VX044220.D	RRF020 = VX044221.D	RRF050 = VX044222.D	RRF100 = VX044223.D	RRF150 = VX044224.D		
COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
Chloromethane	0.743	0.747	0.735	0.756	0.715	0.740	0.739	1.8
Vinyl Chloride	0.805	0.790	0.782	0.786	0.722	0.737	0.770	4.3
Bromomethane		0.590	0.513	0.551	0.529	0.548	0.546	5.3
Chloroethane	0.464	0.520	0.515	0.532	0.422	0.426	0.480	10.2
Trichlorofluoromethane	1.582	1.519	1.514	1.541	1.478	1.414	1.508	3.8
1,1,2-Trichlorotrifluoroethane	0.633	0.628	0.592	0.615	0.573	0.620	0.610	3.8
1,1-Dichloroethene	0.512	0.560	0.544	0.596	0.554	0.596	0.560	5.7
Acetone	0.359	0.353	0.331	0.381	0.348	0.372	0.357	5
Carbon Disulfide	0.841	0.872	0.937	1.150	1.230	1.362	1.065	20
Methyl tert-butyl Ether	2.054	2.188	2.127	2.305	2.170	2.279	2.187	4.3
Methylene Chloride	0.679	0.678	0.666	0.689	0.648	0.668	0.671	2.1
trans-1,2-Dichloroethene	0.600	0.556	0.577	0.619	0.595	0.626	0.596	4.4
1,1-Dichloroethane	1.071	1.173	1.154	1.244	1.171	1.218	1.172	5.1
2-Butanone	0.449	0.491	0.510	0.548	0.509	0.541	0.508	7.1
Carbon Tetrachloride	0.484	0.443	0.432	0.501	0.502	0.529	0.482	7.8
cis-1,2-Dichloroethene	0.809	0.737	0.728	0.772	0.731	0.762	0.756	4.1
Chloroform	1.389	1.312	1.272	1.343	1.272	1.310	1.316	3.4
1,1,1-Trichloroethane	0.993	1.019	1.077	1.176	1.119	1.173	1.093	7.1
Methylcyclohexane	0.514	0.503	0.527	0.555	0.550	0.562	0.535	4.5
Benzene	1.353	1.353	1.332	1.410	1.353	1.353	1.359	1.9
1,2-Dichloroethane	0.554	0.557	0.545	0.584	0.556	0.564	0.560	2.4
Trichloroethene	0.356	0.325	0.325	0.349	0.337	0.342	0.339	3.8
1,2-Dichloropropane	0.368	0.345	0.330	0.357	0.341	0.342	0.347	3.8
Bromodichloromethane	0.380	0.411	0.436	0.508	0.518	0.538	0.465	13.9
4-Methyl-2-Pentanone	0.506	0.551	0.547	0.590	0.561	0.582	0.556	5.4
Toluene	0.908	0.830	0.816	0.877	0.841	0.849	0.853	4
t-1,3-Dichloropropene	0.338	0.357	0.439	0.514	0.526	0.558	0.455	20.3
cis-1,3-Dichloropropene	0.404	0.441	0.488	0.567	0.558	0.583	0.507	14.6
1,1,2-Trichloroethane	0.337	0.332	0.335	0.358	0.334	0.340	0.339	2.8
2-Hexanone	0.323	0.386	0.408	0.439	0.420	0.438	0.403	10.8

* 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.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: MSVOA_X Calibration Date(s): 12/11/2024 12/11/2024

Heated Purge: (Y/N) N Calibration Time(s): 10:41 13:00

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID:		RRF001 = VX044219.D		RRF005 = VX044220.D		RRF020 = VX044221.D		
		RRF050 = VX044222.D		RRF100 = VX044223.D		RRF150 = VX044224.D		
COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
Dibromochloromethane	0.254	0.248	0.306	0.370	0.378	0.398	0.326	20.2
Tetrachloroethene	0.359	0.354	0.317	0.321	0.312	0.327	0.332	6
Chlorobenzene	1.130	1.068	1.039	1.088	1.036	1.067	1.071	3.3
Ethyl Benzene	1.853	1.806	1.816	1.927	1.831	1.875	1.851	2.4
m/p-Xylenes	0.653	0.660	0.665	0.707	0.683	0.707	0.679	3.5
o-Xylene	0.686	0.683	0.685	0.703	0.671	0.697	0.687	1.6
Styrene	1.007	1.019	1.099	1.162	1.148	1.177	1.102	6.7
Bromoform	0.137	0.173	0.194	0.247	0.269	0.297	0.219	28
Isopropylbenzene	3.665	3.976	3.920	3.912	3.747	3.747	3.828	3.2
1,1,2,2-Tetrachloroethane	1.410	1.350	1.332	1.336	1.256	1.293	1.329	3.9
1,3-Dichlorobenzene	1.519	1.634	1.640	1.683	1.625	1.628	1.621	3.3
1,4-Dichlorobenzene	1.811	1.640	1.632	1.672	1.621	1.623	1.667	4.4
1,2-Dichlorobenzene	1.745	1.666	1.668	1.726	1.654	1.643	1.684	2.5
1,2-Dichloroethane-d4		0.934	0.778	0.921	0.862	0.888	0.877	7.1
Dibromofluoromethane		0.353	0.298	0.367	0.360	0.354	0.346	8
Toluene-d8		1.148	1.010	1.251	1.229	1.203	1.168	8.3
4-Bromofluorobenzene		0.390	0.351	0.442	0.432	0.426	0.408	9.2

* 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.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: MSVOA_X Calibration Date/Time: 12/23/2024 08:49

Lab File ID: VX044466.D Init. Calib. Date(s): 12/11/2024 12/11/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:41 13:00

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.739	0.733	0.1	-0.81	20
Vinyl Chloride	0.770	0.718		-6.75	20
Bromomethane	0.546	0.480		-12.09	20
Chloroethane	0.480	0.398		-17.08	20
Trichlorofluoromethane	1.508	1.293		-14.26	20
1,1,2-Trichlorotrifluoroethane	0.610	0.663		8.69	20
1,1-Dichloroethene	0.560	0.569		1.61	20
Acetone	0.357	0.295		-17.37	20
Carbon Disulfide	1.065	0.991		-6.95	20
Methyl tert-butyl Ether	2.187	1.927		-11.89	20
Methylene Chloride	0.671	0.595		-11.33	20
trans-1,2-Dichloroethene	0.596	0.569		-4.53	20
1,1-Dichloroethane	1.172	1.079	0.1	-7.93	20
2-Butanone	0.508	0.426		-16.14	20
Carbon Tetrachloride	0.482	0.532		10.37	20
cis-1,2-Dichloroethene	0.756	0.701		-7.28	20
Chloroform	1.316	1.165		-11.47	20
1,1,1-Trichloroethane	1.093	1.033		-5.49	20
Methylcyclohexane	0.535	0.657		22.8	20
Benzene	1.359	1.479		8.83	20
1,2-Dichloroethane	0.560	0.539		-3.75	20
Trichloroethene	0.339	0.375		10.62	20
1,2-Dichloropropane	0.347	0.363		4.61	20
Bromodichloromethane	0.465	0.505		8.6	20
4-Methyl-2-Pentanone	0.556	0.519		-6.66	20
Toluene	0.853	0.904		5.98	20
t-1,3-Dichloropropene	0.455	0.481		5.71	20
cis-1,3-Dichloropropene	0.507	0.551		8.68	20
1,1,2-Trichloroethane	0.339	0.361		6.49	20
2-Hexanone	0.403	0.376		-6.7	20
Dibromochloromethane	0.326	0.354		8.59	20
Tetrachloroethene	0.332	0.399		20.18	20
Chlorobenzene	1.071	1.145	0.3	6.91	20
Ethyl Benzene	1.851	1.931		4.32	20
m/p-Xylenes	0.679	0.747		10.02	20
o-Xylene	0.687	0.732		6.55	20
Styrene	1.102	1.199		8.8	20
Bromoform	0.219	0.252	0.1	15.07	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.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: MSVOA_X Calibration Date/Time: 12/23/2024 08:49

Lab File ID: VX044466.D Init. Calib. Date(s): 12/11/2024 12/11/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:41 13:00

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	3.828	4.164		8.78	20
1,1,2,2-Tetrachloroethane	1.329	1.384	0.3	4.14	20
1,3-Dichlorobenzene	1.621	1.739		7.28	20
1,4-Dichlorobenzene	1.667	1.793		7.56	20
1,2-Dichlorobenzene	1.684	1.789		6.24	20
1,2-Dichloroethane-d4	0.877	0.735		-16.19	20
Dibromofluoromethane	0.346	0.372		7.51	20
Toluene-d8	1.168	1.249		6.93	20
4-Bromofluorobenzene	0.408	0.415		1.72	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.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: MSVOA_X Calibration Date/Time: 12/23/2024 19:49

Lab File ID: VX044492.D Init. Calib. Date(s): 12/11/2024 12/11/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:41 13:00

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.739	0.678	0.1	-8.25	50
Vinyl Chloride	0.770	0.689		-10.52	50
Bromomethane	0.546	0.468		-14.29	50
Chloroethane	0.480	0.442		-7.92	50
Trichlorofluoromethane	1.508	1.069		-29.11	50
1,1,2-Trichlorotrifluoroethane	0.610	0.551		-9.67	50
1,1-Dichloroethene	0.560	0.531		-5.18	50
Acetone	0.357	0.251		-29.69	50
Carbon Disulfide	1.065	0.983		-7.7	50
Methyl tert-butyl Ether	2.187	1.845		-15.64	50
Methylene Chloride	0.671	0.623		-7.15	50
trans-1,2-Dichloroethene	0.596	0.544		-8.73	50
1,1-Dichloroethane	1.172	1.059	0.1	-9.64	50
2-Butanone	0.508	0.382		-24.8	50
Carbon Tetrachloride	0.482	0.477		-1.04	50
cis-1,2-Dichloroethene	0.756	0.679		-10.19	50
Chloroform	1.316	1.143		-13.15	50
1,1,1-Trichloroethane	1.093	0.986		-9.79	50
Methylcyclohexane	0.535	0.537		0.37	50
Benzene	1.359	1.392		2.43	50
1,2-Dichloroethane	0.560	0.534		-4.64	50
Trichloroethene	0.339	0.355		4.72	50
1,2-Dichloropropane	0.347	0.352		1.44	50
Bromodichloromethane	0.465	0.489		5.16	50
4-Methyl-2-Pentanone	0.556	0.477		-14.21	50
Toluene	0.853	0.862		1.05	50
t-1,3-Dichloropropene	0.455	0.469		3.08	50
cis-1,3-Dichloropropene	0.507	0.529		4.34	50
1,1,2-Trichloroethane	0.339	0.347		2.36	50
2-Hexanone	0.403	0.346		-14.14	50
Dibromochloromethane	0.326	0.351		7.67	50
Tetrachloroethene	0.332	0.362		9.04	50
Chlorobenzene	1.071	1.103	0.3	2.99	50
Ethyl Benzene	1.851	1.878		1.46	50
m/p-Xylenes	0.679	0.714		5.16	50
o-Xylene	0.687	0.708		3.06	50
Styrene	1.102	1.181		7.17	50
Bromoform	0.219	0.245	0.1	11.87	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.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: MSVOA_X Calibration Date/Time: 12/23/2024 19:49

Lab File ID: VX044492.D Init. Calib. Date(s): 12/11/2024 12/11/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:41 13:00

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	3.828	3.728		-2.61	50
1,1,2,2-Tetrachloroethane	1.329	1.216	0.3	-8.5	50
1,3-Dichlorobenzene	1.621	1.672		3.15	50
1,4-Dichlorobenzene	1.667	1.677		0.6	50
1,2-Dichlorobenzene	1.684	1.667		-1.01	50
1,2-Dichloroethane-d4	0.877	0.643		-26.68	50
Dibromofluoromethane	0.346	0.316		-8.67	50
Toluene-d8	1.168	1.039		-11.05	50
4-Bromofluorobenzene	0.408	0.358		-12.26	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:	P5374	OrderDate:	12/20/2024 3:07:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	N31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5374-03	BP-VPB-190A-GW-718 -720	Water			12/18/24			12/20/24
			SVOC-SIMGroup1	8270-Modified		12/23/24	12/26/24	



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

Hit Summary Sheet SW-846

SDG No.: P5374
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	BP-VPB-190A-GW-718-720							
P5374-03	BP-VPB-190A-GW-718- WATER	1,4-Dioxane	0.520		0.07	0.21	0.21	ug/L
		Total Svoc :		0.52				
		Total Concentration:		0.52				



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	12/18/24
Project:	CTO WE13	Date Received:	12/20/24
Client Sample ID:	BP-VPB-190A-GW-718-720	SDG No.:	P5374
Lab Sample ID:	P5374-03	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	970 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035850.D	1	12/23/24 13:29	12/26/24 13:07	PB165828

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.52		0.070	0.21	0.21	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.28		30 - 150		70%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.22		30 - 150		55%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.24		55 - 111		60%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.21		53 - 106		53%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.29		58 - 132		73%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3720	7.257				
1146-65-2	Naphthalene-d8	9840	9.999				
15067-26-2	Acenaphthene-d10	7030	13.914				
1517-22-2	Phenanthrene-d10	14700	16.686				
1719-03-5	Chrysene-d12	12500	20.938				
1520-96-3	Perylene-d12	12300	23.018				

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.: P5374

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
P5374-03	BP-VPB-190A-GW-718-720	2-Methylnaphthalene-d10	0.4	0.28	70		30	150
		Fluoranthene-d10	0.4	0.22	55		30	150
		Nitrobenzene-d5	0.4	0.24	60		55	111
		2-Fluorobiphenyl	0.4	0.21	53		53	106
		Terphenyl-d14	0.4	0.29	73		58	132
P5376-08MS	RW10-MW01S-20241218MS	2-Methylnaphthalene-d10	0.4	0.43	107		30	150
		Fluoranthene-d10	0.4	0.43	106		30	150
		Nitrobenzene-d5	0.4	0.42	106		55	111
		2-Fluorobiphenyl	0.4	0.38	94		53	106
		Terphenyl-d14	0.4	0.49	122		58	132
P5376-09MSD	RW10-MW01S-20241218MSD	2-Methylnaphthalene-d10	0.4	0.43	108		30	150
		Fluoranthene-d10	0.4	0.43	108		30	150
		Nitrobenzene-d5	0.4	0.42	104		55	111
		2-Fluorobiphenyl	0.4	0.37	93		53	106
		Terphenyl-d14	0.4	0.51	128		58	132
PB165828BL	PB165828BL	2-Methylnaphthalene-d10	0.4	0.34	86		30	150
		Fluoranthene-d10	0.4	0.40	100		30	150
		Nitrobenzene-d5	0.4	0.42	105		55	111
		2-Fluorobiphenyl	0.4	0.34	86		53	106
		Terphenyl-d14	0.4	0.48	120		58	132
PB165828BS	PB165828BS	2-Methylnaphthalene-d10	0.4	0.47	116		30	150
		Fluoranthene-d10	0.4	0.34	85		30	150
		Nitrobenzene-d5	0.4	0.49	122	*	55	111
		2-Fluorobiphenyl	0.4	0.39	98		53	106
		Terphenyl-d14	0.4	0.48	119		58	132

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: P5374

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8270-Modified

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Lab Sample ID:	P5376-08MS	Client Sample ID:	RW10-MW01S-20241218MS					DataFile:	BN035821.D		
1,4-Dioxane	0.4	0.10	0.31	ug/L	53	*			70	130	

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: P5374
Client: Tetra Tech NUS, Inc.
Analytical Method: SW8270-Modified

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Low	Limits High	RPD
Lab Sample ID:	P5376-09MSD	Client Sample ID:	RW10-MW01S-20241218MSD					DataFile:	BN035822.D		
1,4-Dioxane	0.41	0.10	0.31	ug/L	51	*	4		70	130	20

A

B

C

D

E

F

G

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P5374

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN035852.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB165828BS	1,4-Dioxane	0.4	0.35	ug/L	88				70	130	

A

B

C

D

E

F

G

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB165828BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P5374

SAS No.: P5374 SDG NO.: P5374

Lab File ID: BN035812.D

Lab Sample ID: PB165828BL

Instrument ID: BNA_N

Date Extracted: 12/23/2024

Matrix: (soil/water) Water

Date Analyzed: 12/24/2024

Level: (low/med) LOW

Time Analyzed: 09:35

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BP-VPB-190A-GW-718-720	P5374-03	BN035850.D	12/26/2024
PB165828BS	PB165828BS	BN035852.D	12/26/2024
RW10-MW01S-20241218MS	P5376-08MS	BN035821.D	12/24/2024
RW10-MW01S-20241218MSD	P5376-09MSD	BN035822.D	12/24/2024

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P5374 SDG NO.: P5374

Lab File ID: BN035349.D

DFTPP Injection Date: 11/27/2024

Instrument ID: BNA_N

DFTPP Injection Time: 14:55

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	21.6
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	28.9
70	Less than 2.0% of mass 69	0.1 (0.4) 1
127	10.0 - 80.0% of mass 198	39.4
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	27.9
365	Greater than 1% of mass 198	4.6
441	Present, but less than mass 443	11.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14 (19.7) 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	BN035350.D	11/27/2024	15:34
SSTDICC0.2	SSTDICC0.2	BN035351.D	11/27/2024	16:10
SSTDICCC0.4	SSTDICCC0.4	BN035352.D	11/27/2024	16:46
SSTDICC0.8	SSTDICC0.8	BN035353.D	11/27/2024	17:21
SSTDICC1.6	SSTDICC1.6	BN035354.D	11/27/2024	17:57
SSTDICC3.2	SSTDICC3.2	BN035355.D	11/27/2024	18:33
SSTDICC5.0	SSTDICC5.0	BN035356.D	11/27/2024	19:09

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P5374 SDG NO.: P5374

Lab File ID: BN035810.D

DFTPP Injection Date: 12/24/2024

Instrument ID: BNA_N

DFTPP Injection Time: 07:45

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	22.6
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	30.9
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	39.2
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 60.0% of mass 198	29.6
365	Greater than 1% of mass 198	4.5
441	Present, but less than mass 443	13.2
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	15.2 (18.4) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC0.4	SSTDCCC0.4	BN035811.D	12/24/2024	08:59
PB165828BL	PB165828BL	BN035812.D	12/24/2024	09:35
RW10-MW01S-20241218MS	P5376-08MS	BN035821.D	12/24/2024	14:55
RW10-MW01S-20241218MSD	P5376-09MSD	BN035822.D	12/24/2024	15:31
SSTDCCC0.4EC	SSTDCCC0.4	BN035828.D	12/24/2024	19:05

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: P5374

SDG NO.: P5374

Lab File ID: BN035844.D

DFTPP Injection Date: 12/26/2024

Instrument ID: BNA_N

DFTPP Injection Time: 09:19

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	24
68	Less than 2.0% of mass 69	0.2 (0.6) 1
69	Mass 69 relative abundance	32.9
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	40
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	27.1
365	Greater than 1% of mass 198	3.9
441	Present, but less than mass 443	11.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	14.1 (20.5) 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	BN035845.D	12/26/2024	09:58
BP-VPB-190A-GW-718-720	P5374-03	BN035850.D	12/26/2024	13:07
PB165828BS	PB165828BS	BN035852.D	12/26/2024	14:19
SSTDCCC0.4EC	SSTDCCC0.4	BN035861.D	12/26/2024	19:41

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P5374 SAS No.: P5374 SDG NO.: P5374

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 12/24/2024

Lab File ID: BN035811.D Time Analyzed: 08:59

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	3972	7.264	9483	10.00	5387	13.92
UPPER LIMIT	7944	7.764	18966	10.498	10774	14.424
LOWER LIMIT	1986	6.764	4741.5	9.498	2693.5	13.424
EPA SAMPLE NO.						
01 RW10-MW01S-20241218MS	3131	7.26	7403	10.00	4434	13.91
02 RW10-MW01S-20241218MSD	3187	7.26	7953	10.00	4887	13.91
03 PB165828BL	3197	7.26	6952	10.02	4346	13.94

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.: P5374 SAS No.: P5374 SDG NO.: P5374

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 12/24/2024

Lab File ID: BN035811.D Time Analyzed: 08:59

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	10855	16.698	8569	20.947	8879	23.029
UPPER LIMIT	21710	17.198	17138	21.447	17758	23.529
LOWER LIMIT	5427.5	16.198	4284.5	20.447	4439.5	22.529
EPA SAMPLE NO.						
01 RW10-MW01S-20241218MS	9040	16.69	8798	20.95	9479	23.03
02 RW10-MW01S-20241218MSD	10068	16.69	9501	20.94	9990	23.02
03 PB165828BL	8099	16.71	6756	20.96	6747	23.04

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.: P5374 SAS No.: P5374 SDG NO.: P5374

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 12/26/2024

Lab File ID: BN035845.D Time Analyzed: 09:58

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	3755	7.257	9322	10.00	5387	13.91
UPPER LIMIT	7510	7.757	18644	10.499	10774	14.414
LOWER LIMIT	1877.5	6.757	4661	9.499	2693.5	13.414
EPA SAMPLE NO.						
01 BP-VPB-190A-GW-718-720	3717	7.26	9841	10.00	7032	13.91
02 PB165828BS	4431	7.26	10905	10.00	6427	13.91

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.: P5374 SAS No.: P5374 SDG NO.: P5374

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 12/26/2024

Lab File ID: BN035845.D Time Analyzed: 09:58

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	11262	16.686	9932	20.938	10817	23.021
UPPER LIMIT	22524	17.186	19864	21.438	21634	23.521
LOWER LIMIT	5631	16.186	4966	20.438	5408.5	22.521
EPA SAMPLE NO.						
01 BP-VPB-190A-GW-718-720	14733	16.69	12545	20.94	12258	23.02
02 PB165828BS	13001	16.69	9257	20.94	9148	23.02

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:	PB165828BL		SDG No.:	P5374	
Lab Sample ID:	PB165828BL		Matrix:	Water	
Analytical Method:	SW8270ESIM		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035812.D	1	12/23/24 13:29	12/24/24 09:35	PB165828

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.34		30 - 150		86%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.40		30 - 150		100%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		55 - 111		105%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.34		53 - 106		86%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.48		58 - 132		120%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3200	7.264				
1146-65-2	Naphthalene-d8	6950	10.02				
15067-26-2	Acenaphthene-d10	4350	13.935				
1517-22-2	Phenanthrene-d10	8100	16.711				
1719-03-5	Chrysene-d12	6760	20.956				
1520-96-3	Perylene-d12	6750	23.038				

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:	PB165828BS		SDG No.:	P5374	
Lab Sample ID:	PB165828BS		Matrix:	Water	
Analytical Method:	SW8270ESIM		% Solid:	0	
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1000	uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1	
Extraction Type :		Decanted : N	Level :	LOW	
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N	PH :
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035852.D	1	12/23/24 13:29	12/26/24 14:19	PB165828

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.35		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.47		30 - 150		116%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.34		30 - 150		85%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.49	*	55 - 111		122%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.39		53 - 106		98%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.48		58 - 132		119%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	4430	7.257				
1146-65-2	Naphthalene-d8	10900	9.998				
15067-26-2	Acenaphthene-d10	6430	13.914				
1517-22-2	Phenanthrene-d10	13000	16.686				
1719-03-5	Chrysene-d12	9260	20.938				
1520-96-3	Perylene-d12	9150	23.023				

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:	12/18/24
Project:	CTO WE13	Date Received:	12/20/24
Client Sample ID:	RW10-MW01S-20241218MS	SDG No.:	P5374
Lab Sample ID:	P5376-08MS	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035821.D	1	12/23/24 13:29	12/24/24 14:55	PB165828

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.31		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.43		30 - 150		107%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.43		30 - 150		106%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		55 - 111		106%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		94%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.49		58 - 132		122%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3130	7.257				
1146-65-2	Naphthalene-d8	7400	9.998				
15067-26-2	Acenaphthene-d10	4430	13.914				
1517-22-2	Phenanthrene-d10	9040	16.686				
1719-03-5	Chrysene-d12	8800	20.947				
1520-96-3	Perylene-d12	9480	23.026				

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:	12/18/24
Project:	CTO WE13	Date Received:	12/20/24
Client Sample ID:	RW10-MW01S-20241218MSD	SDG No.:	P5374
Lab Sample ID:	P5376-09MSD	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN035822.D	1	12/23/24 13:29	12/24/24 15:31	PB165828

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.31		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.43		30 - 150		108%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.43		30 - 150		108%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		55 - 111		104%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.37		53 - 106		93%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.51		58 - 132		128%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	3190	7.257				
1146-65-2	Naphthalene-d8	7950	9.998				
15067-26-2	Acenaphthene-d10	4890	13.914				
1517-22-2	Phenanthrene-d10	10100	16.686				
1719-03-5	Chrysene-d12	9500	20.938				
1520-96-3	Perylene-d12	9990	23.02				

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-BN112724.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Wed Nov 27 23:03:24 2024
 Response Via : Initial Calibration

Calibration Files

0.1 =BN035350.D 0.2 =BN035351.D 0.4 =BN035352.D 0.8 =BN035353.D 1.6 =BN035354.D 3.2 =BN035355.D 5.0 =BN035356.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	0.406	0.417	0.376	0.380	0.392	0.357	0.348	0.382	6.52
3)	n-Nitrosodimet...	0.334	0.302	0.326	0.315	0.332	0.310	0.309	0.319	3.92
4) S	2-Fluorophenol	1.025	1.112	1.018	0.958	0.998	0.954	0.942	1.001	5.88
5) S	Phenol-d6	1.227	1.186	1.193	1.143	1.235	1.215	1.229	1.204	2.69
6)	bis(2-Chloroet...	1.035	1.021	0.992	0.993	1.051	0.997	0.991	1.012	2.39
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.227	0.232	0.235	0.248	0.257	0.251	0.261	0.244	5.31
9)	Naphthalene	1.062	1.029	1.047	1.032	1.096	1.049	1.070	1.055	2.22
10)	Hexachlorobuta...	0.245	0.242	0.247	0.241	0.255	0.236	0.238	0.243	2.60
11) SURR2	Methylnaphth...	0.591	0.603	0.619	0.615	0.659	0.639	0.656	0.626	4.16
12)	2-Methylnaphth...	0.724	0.716	0.740	0.747	0.795	0.771	0.795	0.755	4.25
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.273	0.258	0.257	0.268	0.293	0.311	0.328	0.284	9.67
15) S	2-Fluorobiphenyl	1.489	1.491	1.510	1.508	1.566	1.511	1.511	1.512	1.68
16)	Acenaphthylene	1.643	1.600	1.595	1.638	1.737	1.763	1.781	1.680	4.68
17)	Acenaphthene	1.121	1.084	1.086	1.108	1.145	1.122	1.140	1.115	2.17
18)	Fluorene	1.589	1.549	1.543	1.600	1.652	1.614	1.625	1.596	2.47
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.038	0.031	0.036	0.041	0.051			0.039	19.30
21)	4-Bromophenyl-...	0.226	0.218	0.226	0.233	0.249	0.242	0.244	0.234	4.85
22)	Hexachlorobenzene	0.265	0.266	0.273	0.276	0.288	0.278	0.277	0.275	2.82
23)	Atrazine	0.155	0.155	0.154	0.156	0.175	0.179	0.191	0.167	8.98
24)	Pentachlorophenol	0.140	0.090	0.095	0.103	0.121	0.136	0.150	0.120	19.86
25)	Phenanthrene	1.092	1.046	1.067	1.092	1.148	1.121	1.125	1.099	3.20
26)	Anthracene	0.964	0.923	0.940	0.973	1.050	1.042	1.064	0.994	5.76
27) SURR	Fluoranthene-d10	1.203	1.086	1.077	1.105	1.165	1.138	1.164	1.134	4.10
28)	Fluoranthene	1.538	1.396	1.416	1.456	1.539	1.497	1.526	1.481	3.99
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.583	1.445	1.475	1.443	1.519	1.440	1.431	1.477	3.79
31) S	Terphenyl-d14	0.832	0.777	0.791	0.771	0.812	0.772	0.769	0.789	3.08
32)	Benzo(a)anthra...	1.431	1.343	1.355	1.375	1.451	1.411	1.429	1.399	2.98
33)	Chrysene	1.463	1.452	1.441	1.415	1.487	1.422	1.420	1.443	1.84
34)	Bis(2-ethylhex...	0.710	0.558	0.516	0.505	0.520	0.516	0.544	0.553	12.96
35) I	Perylene-d12	-----ISTD-----								

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

Method File : 8270-SIM-BN112724.M

36)	Indeno(1,2,3-c...	1.411	1.489	1.532	1.554	1.660	1.615	1.685	1.564	6.22
37)	Benzo(b)fluora...	1.305	1.348	1.313	1.378	1.827	1.463	1.608	1.463	13.12
38)	Benzo(k)fluora...	1.444	1.376	1.402	1.419	1.527	1.447	1.468	1.440	3.39
39) C	Benzo(a)pyrene	1.204	1.156	1.146	1.171	1.256	1.232	1.271	1.205	4.11
40)	Dibenzo(a,h)an...	1.104	1.187	1.194	1.226	1.315	1.280	1.332	1.234	6.55
41)	Benzo(g,h,i)pe...	1.188	1.238	1.248	1.269	1.360	1.330	1.394	1.289	5.71

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: BNA_N Calibration Date/Time: 12/24/2024 08:59

Lab File ID: BN035811.D Init. Calib. Date(s): 11/27/2024 11/27/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 15:34 19:09

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.626	0.541		-13.6	20.0
Fluoranthene-d10	1.134	0.953		-16.0	20.0
2-Fluorophenol	1.001	0.931		-7.0	20.0
Phenol-d6	1.204	1.289		7.1	20.0
Nitrobenzene-d5	0.244	0.285		16.8	20.0
2-Fluorobiphenyl	1.512	1.523		0.7	20.0
2,4,6-Tribromophenol	0.284	0.214		-24.6	20.0
Terphenyl-d14	0.789	0.804		1.9	20.0
1,4-Dioxane	0.382	0.457		19.6	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.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: BNA_N Calibration Date/Time: 12/24/2024 19:05

Lab File ID: BN035828.D Init. Calib. Date(s): 11/27/2024 11/27/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 15:34 19:09

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.626	0.533		-14.9	50.0
Fluoranthene-d10	1.134	0.931		-17.9	50.0
2-Fluorophenol	1.001	0.895		-10.6	50.0
Phenol-d6	1.204	1.524		26.6	50.0
Nitrobenzene-d5	0.244	0.319		30.7	50.0
2-Fluorobiphenyl	1.512	1.565		3.5	50.0
2,4,6-Tribromophenol	0.284	0.194		-31.7	50.0
Terphenyl-d14	0.789	0.809		2.5	50.0
1,4-Dioxane	0.382	0.501		31.2	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.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: BNA_N Calibration Date/Time: 12/26/2024 09:58

Lab File ID: BN035845.D Init. Calib. Date(s): 11/27/2024 11/27/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 15:34 19:09

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.626	0.545		-12.9	20.0
Fluoranthene-d10	1.134	0.991		-12.6	20.0
2-Fluorophenol	1.001	1.006		0.5	20.0
Phenol-d6	1.204	1.112		-7.6	20.0
Nitrobenzene-d5	0.244	0.298		22.1	20.0
2-Fluorobiphenyl	1.512	1.504		-0.5	20.0
2,4,6-Tribromophenol	0.284	0.248		-12.7	20.0
Terphenyl-d14	0.789	0.784		-0.6	20.0
1,4-Dioxane	0.382	0.405		6.0	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.: P5374 SAS No.: P5374 SDG No.: P5374

Instrument ID: BNA_N Calibration Date/Time: 12/26/2024 19:41

Lab File ID: BN035861.D Init. Calib. Date(s): 11/27/2024 11/27/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 15:34 19:09

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.626	0.551		-12.0	50.0
Fluoranthene-d10	1.134	0.922		-18.7	50.0
2-Fluorophenol	1.001	0.931		-7.0	50.0
Phenol-d6	1.204	1.022		-15.1	50.0
Nitrobenzene-d5	0.244	0.306		25.4	50.0
2-Fluorobiphenyl	1.512	1.480		-2.1	50.0
2,4,6-Tribromophenol	0.284	0.225		-20.8	50.0
Terphenyl-d14	0.789	0.898		13.8	50.0
1,4-Dioxane	0.382	0.394		3.1	50.0

All other compounds must meet a minimum RRF of 0.010.



SHIPPING DOCUMENTS



CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax: (908) 78-8922
www.chemtech.net

Chemtech Project Number:

P5374

COC Number:

CLIENT INFORMATION

COMPANY: Tetra Tech

ADDRESS: 4433 Corporation Lane Suite 300

CITY: Virginia Beach STATE: VA ZIP: 23462

ATTENTION: Ernie Wu

PHONE: 757-466-4901

FAX: 757-461-4148

PROJECT INFORMATION

PROJECT NAME: NWIRP Bethpage

PROJECT #: 112G08005-WE13 LOCATION: VPB-189

PROJECT MANAGER: Ernie Wu

E-MAIL: ernie.wu@tetratech.com

PHONE: 757-466-4901

FAX: 757-461-4148

BILLING INFORMATION

BILL TO: SEE CONTRACT

PO#

ADDRESS:

CITY:

STATE: ZIP:

ATTENTION:

PHONE:

ANALYSIS

VOC(SW846-8260B)

1,4 Dioxane (8270 SIM)

1

2

3

4

5

6

7

8

9

PRESERVATIVES

COMMENTS

<-- Specify Preservatives

A-HCl B-HNO₃C-H₂SO₄ D-NaOH

E-ICE F-Other

CHEMTECH
SAMPLE
IDPROJECT
SAMPLE IDENTIFICATIONSAMPLE
MATRIXSAMPLE
TYPE

DATE

SAMPLE
COLLECTION

TIME

of Bottles

A

1

2

3

4

5

6

7

8

9

1.

BP-VPB-190A-TB-20241218

QA

X

12/18/24

8:00

2

2

2.

BP-VPB-190A-EB-20241218

QA

X

12/18/24

12:00

2

2

3.

BP-VPB-190A-GW-718-720

AQ

X

12/18/24

11:40

3

2

1

4.

BP-VPB-190A-GW-748-750

AQ

X

12/19/24

13:15

6

6

MS/MSD

5.

6.

7.

8.

9.

10.

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

RELINQUISHED BY SAMPLER

DATE/TIME

RECEIVED BY

RELINQUISHED BY

DATE/TIME

RECEIVED BY

RELINQUISHED BY

DATE/TIME

RECEIVED FOR LAB BY

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 2.92
MeOH extraction requires an additional 4oz. Jar for percent solid ☒ Ice in Cooler?: 4.5

Comments: 48hr TAT - For VOC's see worksheet #15 of SAP 2018 for VPB program VOC list
10-DAY TAT - For 1,4 Dioxane (8270 SIM)

Page 1 of 1

SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight
CHEMTECH: ☐ Picked Up ☐ Overnight

Shipment Complete
☐ YES ☐ NO

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT

YELLOW - CHEMTECH COPY

PINK - SAMPLER COPY

P5374

81 of 84

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P5374	TETR06	Order Date : 12/20/2024 3:07:00 PM	Project Mgr :
Client Name : Tetra Tech NUS, Inc.		Project Name : CTO WE13	Report Type : Level 4
Client Contact : Ernie Wu		Receive DateTime : 12/20/2024 6:10:00 PM	EDD Type : ADAPT
Invoice Name : Tetra Tech NUS, Inc.		Purchase Order :	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
P5374-01	BP-VPB-190A-TB-20241218	Water	12/18/2024	08:00					
					VOCMS Group1		8260-Low	2 Bus. Days	
P5374-02	BP-VPB-190A-EB-20241218	Water	12/18/2024	12:00					
					VOCMS Group1		8260-Low	2 Bus. Days	
P5374-03	BP-VPB-190A-GW-718-720	Water	12/18/2024	11:40					
					VOCMS Group1		8260-Low	2 Bus. Days	
P5374-04	BP-VPB-190A-GW-745-750 748	Water	12/19/2024	13:15					
					VOCMS Group1		8260-Low	2 Bus. Days	
P5374-05	P5374-04MS	Water	12/19/2024	13:15					
					VOCMS Group1		8260-Low	2 Bus. Days	
P5374-06	P5374-04MSD	Water	12/19/2024	13:15					
					VOCMS Group1		8260-Low	2 Bus. Days	

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P5374 TETR06

Order Date : 12/20/2024 3:07:00 PM

Project Mgr :

Client Name : Tetra Tech NUS, Inc.

Project Name : CTO WE13

Report Type : Level 4

Client Contact : Ernie Wu

Receive DateTime : 12/20/2024 6:10:00 PM

EDD Type : ADAPT

Invoice Name : Tetra Tech NUS, Inc.

Purchase Order :

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 :

Date / Time :


12/23/24 11:15

Received By :

Date / Time :


12-23-24 11:15

Storage Area : VOA Refridgerator Room