

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 : Q1347

ATTENTION : Ernie Wu



Laboratory Certification ID # 20012



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Order ID : Q1347

Project ID : CTO WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

Q1347-01
Q1347-02
Q1347-03
Q1347-04
Q1347-05
Q1347-06

Client Sample Number

BP-VPB-192-EB-20250207
BP-VPB-192-TB-20250206
BP-VPB-192-GW-710-712
BP-VPB-192-GW-640-642
BP-VPB-192-GW-660-662
BP-VPB-192-GW-680-682

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 9:43 am, Feb 24, 2025 Date: 2/21/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: CTO WE13

Project Manager: Ernie Wu

Chemtech Project # Q1347

Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:

6 Water samples were received on 02/10/2025.

B. Parameters

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

C. Analytical Techniques:

The analysis performed on instrument MSVOA_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.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

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

The %RSD is greater than 20% in the Initial Calibration method (82X021025W.M) for Chloroethane is passing on Quadratic Regression.

The Continuous Calibration File ID VX044920.D met the requirements except for Chloroethane, The associate samples have no positive hit for this compound; therefore no corrective action was required.

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 Sample #BP-VPB-192-TB-20250206 and BP-VPB-192-GW-680-682 have the concentration of target compound below Method detection limits, therefore it is not reported as Hit in Form1.

VIAL A and B combined to run sample # 05 and 06 as both having much sediment and not possible to run separately.

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

The not QT review data is reported in the Miscellaneous.

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

F. Manual Integration Comments:

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

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

Signature_____

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 9:43 am, Feb 24, 2025

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: CTO WE13

Project Manager: Ernie Wu

Chemtech Project # Q1347

Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:

6 Water samples were received on 02/10/2025.

B. Parameters

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

C. Analytical Techniques:

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

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for PB166675BS [2-Fluorobiphenyl - 113%] and BP-VPB-192-GW-710-712 [2-Fluorobiphenyl - 109%, Terphenyl-d14 - 143%], The failure surrogates not associated with the client parameters list, therefore no corrective action was taken.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

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

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .

The Tuning criteria met requirements.

E. Additional Comments:

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

Sample # BP-VPB-192-GW-710-712, BP-VPB-192-GW-660-662 was received with limited volume.

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 <15% 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 > 15% 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 9:43 am, Feb 24, 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 #: Q1347

Completed

For thorough review, the report must have the following:

GENERAL:

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓

COVER PAGE:

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

✓

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

✓

CHAIN OF CUSTODY:

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 02/21/2025

LAB CHRONICLE

OrderID:	Q1347	OrderDate:	2/10/2025 3:45:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	N41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1347-01	BP-VPB-192-EB-2025 0207	Water			02/07/25			02/10/25
			VOCMS Group1	8260-Low			02/12/25	
Q1347-02	BP-VPB-192-TB-2025 0206	Water			02/06/25			02/10/25
			VOCMS Group1	8260-Low			02/12/25	
Q1347-03	BP-VPB-192-GW-710- 712	Water			02/10/25			02/10/25
			VOCMS Group1	8260-Low			02/12/25	
Q1347-04	BP-VPB-192-GW-640- 642	Water			02/06/25			02/10/25
			VOCMS Group1	8260-Low			02/12/25	
Q1347-05	BP-VPB-192-GW-660- 662	Water			02/06/25			02/10/25
			VOCMS Group1	8260-Low			02/12/25	
Q1347-06	BP-VPB-192-GW-680- 682	Water			02/06/25			02/10/25
			VOCMS Group1	8260-Low			02/12/25	

Hit Summary Sheet
SW-846

SDG No.: Q1347
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID: Q1347-01	BP-VPB-192-EB-20250207 BP-VPB-192-EB-20 Water	Acetone		7.40		1.40	3.80	5.00	ug/L
		Total Voc :		7.40					
		Total Concentration:		7.40					
Client ID: Q1347-03	BP-VPB-192-GW-710-712 BP-VPB-192-GW-7 Water	Acetone		8.10		1.40	3.80	5.00	ug/L
		Total Voc :		8.10					
		Total Concentration:		8.10					
Client ID: Q1347-04	BP-VPB-192-GW-640-642 BP-VPB-192-GW-6 Water	Acetone		10.9		1.40	3.80	5.00	ug/L
		Total Voc :		10.9					
		Total Concentration:		10.9					
Client ID: Q1347-05	BP-VPB-192-GW-660-662 BP-VPB-192-GW-6 Water	Acetone		14.5		1.40	3.80	5.00	ug/L
Q1347-05	BP-VPB-192-GW-6 Water	Carbon Disulfide		0.38	J	0.32	0.75	1.00	ug/L
		Total Voc :		14.9					
		Total Concentration:		14.9					
Client ID: Q1347-06	BP-VPB-192-GW-680-682 BP-VPB-192-GW-6 Water	Acetone		34.3		1.40	3.80	5.00	ug/L
Q1347-06	BP-VPB-192-GW-6 Water	2-Butanone		8.90		1.30	2.50	5.00	ug/L
Q1347-06	BP-VPB-192-GW-6 Water	2-Hexanone		1.40	J	1.10	2.50	5.00	ug/L
		Total Voc :		44.6					
		Total Concentration:		44.6					



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	02/07/25	
Project:	CTO WE13			Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-EB-20250207			SDG No.:	Q1347	
Lab Sample ID:	Q1347-01			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
VX044926.D	1		02/12/25 12:32	VX021225

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	7.40		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:	02/07/25	
Project:	CTO WE13		Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-EB-20250207		SDG No.:	Q1347	
Lab Sample ID:	Q1347-01		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
VX044926.D	1		02/12/25 12:32	VX021225

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	55.3		81 - 118		111%	SPK: 50
1868-53-7	Dibromofluoromethane	50.4		80 - 119		101%	SPK: 50
2037-26-5	Toluene-d8	50.1		89 - 112		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.3		85 - 114		105%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	84800	5.543				
540-36-3	1,4-Difluorobenzene	176000	6.757				
3114-55-4	Chlorobenzene-d5	159000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	69900	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	02/07/25	
Project:	CTO WE13		Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-EB-20250207		SDG No.:	Q1347	
Lab Sample ID:	Q1347-01		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
VX044926.D	1		02/12/25 12:32	VX021225

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:	02/06/25	
Project:	CTO WE13			Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-TB-20250206			SDG No.:	Q1347	
Lab Sample ID:	Q1347-02			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
VX044927.D	1		02/12/25 12:55	VX021225

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:	02/06/25		
Project:	CTO WE13			Date Received:	02/10/25		
Client Sample ID:	BP-VPB-192-TB-20250206			SDG No.:	Q1347		
Lab Sample ID:	Q1347-02			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
VX044927.D	1		02/12/25 12:55	VX021225

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	55.4		81 - 118		111%	SPK: 50
1868-53-7	Dibromofluoromethane	52.4		80 - 119		105%	SPK: 50
2037-26-5	Toluene-d8	49.7		89 - 112		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.8		85 - 114		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	89300	5.544				
540-36-3	1,4-Difluorobenzene	184000	6.757				
3114-55-4	Chlorobenzene-d5	163000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	68300	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	02/06/25	
Project:	CTO WE13		Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-TB-20250206		SDG No.:	Q1347	
Lab Sample ID:	Q1347-02		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
VX044927.D	1		02/12/25 12:55	VX021225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 () = Laboratory InHouse Limit
 A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	02/10/25	
Project:	CTO WE13			Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-GW-710-712			SDG No.:	Q1347	
Lab Sample ID:	Q1347-03			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
VX044925.D	1		02/12/25 12:09	VX021225

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	8.10		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:	02/10/25	
Project:	CTO WE13		Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-GW-710-712		SDG No.:	Q1347	
Lab Sample ID:	Q1347-03		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
VX044925.D	1		02/12/25 12:09	VX021225

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	53.8		81 - 118		108%	SPK: 50
1868-53-7	Dibromofluoromethane	50.5		80 - 119		101%	SPK: 50
2037-26-5	Toluene-d8	49.9		89 - 112		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.6		85 - 114		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	84700	5.544				
540-36-3	1,4-Difluorobenzene	172000	6.757				
3114-55-4	Chlorobenzene-d5	152000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	62900	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	02/10/25	
Project:	CTO WE13		Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-GW-710-712		SDG No.:	Q1347	
Lab Sample ID:	Q1347-03		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
VX044925.D	1		02/12/25 12:09	VX021225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 () = Laboratory InHouse Limit
 A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	02/06/25		
Project:	CTO WE13			Date Received:	02/10/25		
Client Sample ID:	BP-VPB-192-GW-640-642			SDG No.:	Q1347		
Lab Sample ID:	Q1347-04			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
VX044928.D	1		02/12/25 13:17	VX021225

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	10.9		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:	02/06/25	
Project:	CTO WE13		Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-GW-640-642		SDG No.:	Q1347	
Lab Sample ID:	Q1347-04		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
VX044928.D	1		02/12/25 13:17	VX021225

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	55.4		81 - 118		111%	SPK: 50
1868-53-7	Dibromofluoromethane	51.5		80 - 119		103%	SPK: 50
2037-26-5	Toluene-d8	50.0		89 - 112		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.9		85 - 114		104%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	87900	5.549				
540-36-3	1,4-Difluorobenzene	180000	6.756				
3114-55-4	Chlorobenzene-d5	165000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	70300	12.024				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	02/06/25	
Project:	CTO WE13		Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-GW-640-642		SDG No.:	Q1347	
Lab Sample ID:	Q1347-04		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
VX044928.D	1		02/12/25 13:17	VX021225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 () = Laboratory InHouse Limit
 A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	02/06/25	
Project:	CTO WE13			Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-GW-660-662			SDG No.:	Q1347	
Lab Sample ID:	Q1347-05			Matrix:	Water	
Analytical Method:	SW8260			% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group1	
GC Column:	DB-624UI	ID :	0.18	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044929.D	1		02/12/25 13:40	VX021225

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	14.5		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.38	J	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:	02/06/25	
Project:	CTO WE13		Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-GW-660-662		SDG No.:	Q1347	
Lab Sample ID:	Q1347-05		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044929.D	1		02/12/25 13:40	VX021225

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	55.5		81 - 118		111%	SPK: 50
1868-53-7	Dibromofluoromethane	51.3		80 - 119		103%	SPK: 50
2037-26-5	Toluene-d8	50.7		89 - 112		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.4		85 - 114		107%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	87400	5.55				
540-36-3	1,4-Difluorobenzene	178000	6.757				
3114-55-4	Chlorobenzene-d5	165000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	70800	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	02/06/25	
Project:	CTO WE13		Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-GW-660-662		SDG No.:	Q1347	
Lab Sample ID:	Q1347-05		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044929.D	1		02/12/25 13:40	VX021225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 () = Laboratory InHouse Limit
 A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	02/06/25	
Project:	CTO WE13			Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-GW-680-682			SDG No.:	Q1347	
Lab Sample ID:	Q1347-06			Matrix:	Water	
Analytical Method:	SW8260			% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group1	
GC Column:	DB-624UI	ID :	0.18	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044930.D	1		02/12/25 14:03	VX021225

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	34.3		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	8.90		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	1.40	J	1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	02/06/25	
Project:	CTO WE13		Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-GW-680-682		SDG No.:	Q1347	
Lab Sample ID:	Q1347-06		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044930.D	1		02/12/25 14:03	VX021225

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	56.4		81 - 118		113%	SPK: 50
1868-53-7	Dibromofluoromethane	51.1		80 - 119		102%	SPK: 50
2037-26-5	Toluene-d8	49.5		89 - 112		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.7		85 - 114		105%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	89100	5.544				
540-36-3	1,4-Difluorobenzene	186000	6.757				
3114-55-4	Chlorobenzene-d5	170000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	73200	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	02/06/25	
Project:	CTO WE13		Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-GW-680-682		SDG No.:	Q1347	
Lab Sample ID:	Q1347-06		Matrix:	Water	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX044930.D	1		02/12/25 14:03	VX021225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
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U = Not Detected
 LOQ = Limit of Quantitation
 MDL = Method Detection Limit
 LOD = Limit of Detection
 E = Value Exceeds Calibration Range
 Q = indicates LCS control criteria did not meet requirements
 M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
 B = Analyte Found in Associated Method Blank
 N = Presumptive Evidence of a Compound
 * = Values outside of QC limits
 D = Dilution
 () = Laboratory InHouse Limit
 A = Aldol-Condensation Reaction Products



QC SUMMARY

Surrogate Summary

SDG No.: Q1347

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
Q1347-01	BP-VPB-192-EB-20250207	1,2-Dichloroethane-d4	50	55.3	111	81	118
		Dibromofluoromethane	50	50.4	101	80	119
		Toluene-d8	50	50.1	100	89	112
		4-Bromofluorobenzene	50	52.3	105	85	114
Q1347-02	BP-VPB-192-TB-20250206	1,2-Dichloroethane-d4	50	55.4	111	81	118
		Dibromofluoromethane	50	52.4	105	80	119
		Toluene-d8	50	49.7	99	89	112
		4-Bromofluorobenzene	50	50.8	102	85	114
Q1347-03	BP-VPB-192-GW-710-712	1,2-Dichloroethane-d4	50	53.8	108	81	118
		Dibromofluoromethane	50	50.5	101	80	119
		Toluene-d8	50	49.9	100	89	112
		4-Bromofluorobenzene	50	49.6	99	85	114
Q1347-04	BP-VPB-192-GW-640-642	1,2-Dichloroethane-d4	50	55.4	111	81	118
		Dibromofluoromethane	50	51.5	103	80	119
		Toluene-d8	50	50.0	100	89	112
		4-Bromofluorobenzene	50	51.9	104	85	114
Q1347-05	BP-VPB-192-GW-660-662	1,2-Dichloroethane-d4	50	55.5	111	81	118
		Dibromofluoromethane	50	51.3	103	80	119
		Toluene-d8	50	50.7	101	89	112
		4-Bromofluorobenzene	50	53.5	107	85	114
Q1347-06	BP-VPB-192-GW-680-682	1,2-Dichloroethane-d4	50	56.4	113	81	118
		Dibromofluoromethane	50	51.1	102	80	119
		Toluene-d8	50	49.5	99	89	112
		4-Bromofluorobenzene	50	52.7	105	85	114
VX0212WBL01	VX0212WBL01	1,2-Dichloroethane-d4	50	54.1	108	81	118
		Dibromofluoromethane	50	51.0	102	80	119
		Toluene-d8	50	50.0	100	89	112
		4-Bromofluorobenzene	50	51.0	102	85	114
VX0212WBS01	VX0212WBS01	1,2-Dichloroethane-d4	50	50.2	100	81	118
		Dibromofluoromethane	50	49.4	99	80	119
		Toluene-d8	50	49.2	98	89	112
		4-Bromofluorobenzene	50	50.6	101	85	114
VX0212WBSD0	VX0212WBSD01	1,2-Dichloroethane-d4	50	50.4	101	81	118
		Dibromofluoromethane	50	49.5	99	80	119
		Toluene-d8	50	49.4	99	89	112
		4-Bromofluorobenzene	50	50.8	102	85	114

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1347

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Datafile : VX044923.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VX0212WBS01	Chloromethane	20	18.4	ug/L	92			50	139	
	Vinyl chloride	20	17.7	ug/L	89			58	137	
	Bromomethane	20	20.2	ug/L	101			53	141	
	Chloroethane	20	21.8	ug/L	109			60	138	
	Trichlorofluoromethane	20	18.9	ug/L	95			65	141	
	1,1,2-Trichlorotrifluoroethane	20	18.9	ug/L	95			70	136	
	1,1-Dichloroethene	20	18.3	ug/L	92			71	131	
	Acetone	100	95.2	ug/L	95			39	160	
	Carbon disulfide	20	16.9	ug/L	85			64	133	
	Methyl tert-butyl Ether	20	18.6	ug/L	93			71	124	
	Methylene Chloride	20	18.4	ug/L	92			74	124	
	trans-1,2-Dichloroethene	20	18.2	ug/L	91			75	124	
	1,1-Dichloroethane	20	18.6	ug/L	93			77	125	
	2-Butanone	100	97.1	ug/L	97			56	143	
	Carbon Tetrachloride	20	18.4	ug/L	92			72	136	
	cis-1,2-Dichloroethene	20	19.0	ug/L	95			78	123	
	Chloroform	20	19.1	ug/L	96			79	124	
	1,1,1-Trichloroethane	20	18.8	ug/L	94			74	131	
	Methylcyclohexane	20	18.8	ug/L	94			72	132	
	Benzene	20	18.9	ug/L	95			79	120	
	1,2-Dichloroethane	20	19.8	ug/L	99			73	128	
	Trichloroethene	20	18.2	ug/L	91			79	123	
	1,2-Dichloropropane	20	18.5	ug/L	93			78	122	
	Bromodichloromethane	20	19.1	ug/L	96			79	125	
	4-Methyl-2-Pentanone	100	100	ug/L	100			67	130	
	Toluene	20	19.1	ug/L	96			80	121	
	t-1,3-Dichloropropene	20	18.0	ug/L	90			73	127	
	cis-1,3-Dichloropropene	20	18.1	ug/L	91			75	124	
	1,1,2-Trichloroethane	20	19.2	ug/L	96			80	119	
	2-Hexanone	100	100	ug/L	100			57	139	
	Dibromochloromethane	20	18.8	ug/L	94			74	126	
	Tetrachloroethene	20	18.9	ug/L	95			74	129	
	Chlorobenzene	20	18.9	ug/L	95			82	118	
	Ethyl Benzene	20	18.9	ug/L	95			79	121	
	m/p-Xylenes	40	38.3	ug/L	96			80	121	
	o-Xylene	20	18.9	ug/L	95			78	122	
	Styrene	20	19.3	ug/L	97			78	123	
	Bromoform	20	18.9	ug/L	95			66	130	
	Isopropylbenzene	20	18.3	ug/L	92			72	131	
	1,1,2,2-Tetrachloroethane	20	18.6	ug/L	93			71	121	
	1,3-Dichlorobenzene	20	18.6	ug/L	93			80	119	
	1,4-Dichlorobenzene	20	18.6	ug/L	93			79	118	
	1,2-Dichlorobenzene	20	19.3	ug/L	97			80	119	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1347

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Datafile : VX044924.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VX0212WBSD01	Chloromethane	20	17.6	ug/L	88	4		50	139	20
	Vinyl chloride	20	16.9	ug/L	85	5		58	137	20
	Bromomethane	20	19.4	ug/L	97	4		53	141	20
	Chloroethane	20	22.0	ug/L	110	1		60	138	20
	Trichlorofluoromethane	20	18.6	ug/L	93	2		65	141	20
	1,1,2-Trichlorotrifluoroethane	20	18.6	ug/L	93	2		70	136	20
	1,1-Dichloroethene	20	17.5	ug/L	88	4		71	131	20
	Acetone	100	98.2	ug/L	98	3		39	160	20
	Carbon disulfide	20	16.6	ug/L	83	2		64	133	20
	Methyl tert-butyl Ether	20	18.7	ug/L	94	1		71	124	20
	Methylene Chloride	20	18.4	ug/L	92	0		74	124	20
	trans-1,2-Dichloroethene	20	18.0	ug/L	90	1		75	124	20
	1,1-Dichloroethane	20	18.7	ug/L	94	1		77	125	20
	2-Butanone	100	99.3	ug/L	99	2		56	143	20
	Carbon Tetrachloride	20	18.7	ug/L	94	2		72	136	20
	cis-1,2-Dichloroethene	20	18.5	ug/L	93	2		78	123	20
	Chloroform	20	18.6	ug/L	93	3		79	124	20
	1,1,1-Trichloroethane	20	18.2	ug/L	91	3		74	131	20
	Methylcyclohexane	20	19.4	ug/L	97	3		72	132	20
	Benzene	20	18.9	ug/L	95	0		79	120	20
	1,2-Dichloroethane	20	20.0	ug/L	100	1		73	128	20
	Trichloroethene	20	18.7	ug/L	94	3		79	123	20
	1,2-Dichloropropane	20	19.6	ug/L	98	5		78	122	20
	Bromodichloromethane	20	19.3	ug/L	97	1		79	125	20
	4-Methyl-2-Pentanone	100	110	ug/L	110	10		67	130	20
	Toluene	20	19.4	ug/L	97	1		80	121	20
	t-1,3-Dichloropropene	20	17.8	ug/L	89	1		73	127	20
	cis-1,3-Dichloropropene	20	19.3	ug/L	97	6		75	124	20
	1,1,2-Trichloroethane	20	20.3	ug/L	102	6		80	119	20
	2-Hexanone	100	110	ug/L	110	10		57	139	20
	Dibromochloromethane	20	19.0	ug/L	95	1		74	126	20
	Tetrachloroethene	20	19.0	ug/L	95	0		74	129	20
	Chlorobenzene	20	19.0	ug/L	95	0		82	118	20
	Ethyl Benzene	20	19.0	ug/L	95	0		79	121	20
	m/p-Xylenes	40	38.9	ug/L	97	1		80	121	20
	o-Xylene	20	19.5	ug/L	98	3		78	122	20
	Styrene	20	19.7	ug/L	99	2		78	123	20
	Bromoform	20	19.4	ug/L	97	2		66	130	20
	Isopropylbenzene	20	18.7	ug/L	94	2		72	131	20
	1,1,2,2-Tetrachloroethane	20	18.2	ug/L	91	2		71	121	20
	1,3-Dichlorobenzene	20	19.3	ug/L	97	4		80	119	20
	1,4-Dichlorobenzene	20	18.5	ug/L	93	0		79	118	20
	1,2-Dichlorobenzene	20	19.1	ug/L	96	1		80	119	20

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX0212WBL01

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: Q1347

SAS No.: Q1347 SDG NO.: Q1347

Lab File ID: VX044922.D

Lab Sample ID: VX0212WBL01

Date Analyzed: 02/12/2025

Time Analyzed: 10:57

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
VX0212WBS01	VX0212WBS01	VX044923.D	02/12/2025
VX0212WBSD01	VX0212WBSD01	VX044924.D	02/12/2025
BP-VPB-192-GW-710-712	Q1347-03	VX044925.D	02/12/2025
BP-VPB-192-EB-20250207	Q1347-01	VX044926.D	02/12/2025
BP-VPB-192-TB-20250206	Q1347-02	VX044927.D	02/12/2025
BP-VPB-192-GW-640-642	Q1347-04	VX044928.D	02/12/2025
BP-VPB-192-GW-660-662	Q1347-05	VX044929.D	02/12/2025
BP-VPB-192-GW-680-682	Q1347-06	VX044930.D	02/12/2025

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: Q1347 SAS No.: Q1347 SDG NO.: Q1347
Lab File ID: VX044867.D BFB Injection Date: 02/10/2025
Instrument ID: MSVOA_X BFB Injection Time: 09:35
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	19.7
75	30.0 - 60.0% of mass 95	52.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.5 (0.6) 1
174	50.0 - 100.0% of mass 95	75.9
175	5.0 - 9.0% of mass 174	5.7 (7.5) 1
176	95.0 - 101.0% of mass 174	72.6 (95.7) 1
177	5.0 - 9.0% of mass 176	4.5 (6.2) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC001	VSTDIC001	VX044868.D	02/10/2025	10:25
VSTDIC005	VSTDIC005	VX044869.D	02/10/2025	10:48
VSTDIC020	VSTDIC020	VX044870.D	02/10/2025	11:11
VSTDIC050	VSTDIC050	VX044871.D	02/10/2025	11:34
VSTDIC100	VSTDIC100	VX044872.D	02/10/2025	12:05
VSTDIC150	VSTDIC150	VX044873.D	02/10/2025	12:28

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: Q1347 SAS No.: Q1347 SDG NO.: Q1347
Lab File ID: VX044919.D BFB Injection Date: 02/12/2025
Instrument ID: MSVOA_X BFB Injection Time: 09:39
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	20.4
75	30.0 - 60.0% of mass 95	52.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.7 (0.9) 1
174	50.0 - 100.0% of mass 95	77.1
175	5.0 - 9.0% of mass 174	5.6 (7.2) 1
176	95.0 - 101.0% of mass 174	74.9 (97.1) 1
177	5.0 - 9.0% of mass 176	4.9 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX044920.D	02/12/2025	10:07
VX0212WBL01	VX0212WBL01	VX044922.D	02/12/2025	10:57
VX0212WBS01	VX0212WBS01	VX044923.D	02/12/2025	11:20
VX0212WBSD01	VX0212WBSD01	VX044924.D	02/12/2025	11:46
BP-VPB-192-GW-710-712	Q1347-03	VX044925.D	02/12/2025	12:09
BP-VPB-192-EB-20250207	Q1347-01	VX044926.D	02/12/2025	12:32
BP-VPB-192-TB-20250206	Q1347-02	VX044927.D	02/12/2025	12:55
BP-VPB-192-GW-640-642	Q1347-04	VX044928.D	02/12/2025	13:17
BP-VPB-192-GW-660-662	Q1347-05	VX044929.D	02/12/2025	13:40
BP-VPB-192-GW-680-682	Q1347-06	VX044930.D	02/12/2025	14:03
VSTDCCC050EC	VSTDCCC050	VX044946.D	02/12/2025	20:11

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: Q1347 SAS No.: Q1347 SDG NO.: Q1347
Lab File ID: VX044920.D Date Analyzed: 02/12/2025
Instrument ID: MSVOA_X Time Analyzed: 10:07
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	120105	5.54	211946	6.75	185163	10.05
UPPER LIMIT	240210	6.044	423892	7.251	370326	10.549
LOWER LIMIT	60052.5	5.044	105973	6.251	92581.5	9.549
EPA SAMPLE NO.						
BP-VPB-192-EB-20250207	84780	5.54	175612	6.76	159224	10.05
BP-VPB-192-TB-20250206	89251	5.54	183953	6.76	163403	10.05
BP-VPB-192-GW-710-712	84715	5.54	171791	6.76	152421	10.05
BP-VPB-192-GW-640-642	87862	5.55	179992	6.76	164982	10.05
BP-VPB-192-GW-660-662	87405	5.55	177786	6.76	164986	10.05
BP-VPB-192-GW-680-682	89084	5.54	185691	6.76	170107	10.05
VX0212WBL01	96997	5.54	194457	6.76	176635	10.05
VX0212WBS01	111261	5.54	204350	6.76	179478	10.05
VX0212WBSD01	109124	5.54	195530	6.75	172961	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.: Q1347 SAS No.: Q1347 SDG NO.: Q1347
Lab File ID: VX044920.D Date Analyzed: 02/12/2025
Instrument ID: MSVOA_X Time Analyzed: 10:07
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	84033	12.018				
UPPER LIMIT	168066	12.518				
LOWER LIMIT	42016.5	11.518				
EPA SAMPLE NO.						
BP-VPB-192-EB-20250207	69850	12.02				
BP-VPB-192-TB-20250206	68278	12.02				
BP-VPB-192-GW-710-712	62921	12.02				
BP-VPB-192-GW-640-642	70282	12.02				
BP-VPB-192-GW-660-662	70815	12.02				
BP-VPB-192-GW-680-682	73243	12.02				
VX0212WBL01	76229	12.02				
VX0212WBS01	82301	12.02				
VX0212WBSD01	79611	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:	VX0212WBL01		SDG No.:	Q1347
Lab Sample ID:	VX0212WBL01		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
VX044922.D	1		02/12/25 10:57	VX021225

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:	VX0212WBL01		SDG No.:	Q1347
Lab Sample ID:	VX0212WBL01		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
VX044922.D	1		02/12/25 10:57	VX021225

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	54.1		81 - 118		108%	SPK: 50
1868-53-7	Dibromofluoromethane	51.0		80 - 119		102%	SPK: 50
2037-26-5	Toluene-d8	50.0		89 - 112		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.1		85 - 114		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	97000	5.544				
540-36-3	1,4-Difluorobenzene	194000	6.757				
3114-55-4	Chlorobenzene-d5	177000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	76200	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:	VX0212WBS01			SDG No.:	Q1347
Lab Sample ID:	VX0212WBS01			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
VX044923.D	1		02/12/25 11:20	VX021225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	18.4		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	17.7		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	20.2		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	21.8		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	18.9		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	18.9		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.3		0.26	0.75	1.00	ug/L
67-64-1	Acetone	95.2		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	16.9		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	18.6		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	18.4		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.2		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	18.6		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	97.1		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	19.0		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	19.1		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.8		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	18.8		0.19	0.50	1.00	ug/L
71-43-2	Benzene	18.9		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	19.8		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	18.2		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	18.5		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	19.1		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	100		0.75	2.50	5.00	ug/L
108-88-3	Toluene	19.1		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	18.0		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	18.1		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	19.2		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	100		1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VX0212WBS01		SDG No.:	Q1347
Lab Sample ID:	VX0212WBS01		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
VX044923.D	1		02/12/25 11:20	VX021225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	18.8		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	18.9		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	18.9		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	18.9		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	38.3		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	18.9		0.14	0.50	1.00	ug/L
100-42-5	Styrene	19.3		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	18.9		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	18.3		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.6		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.6		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.6		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	19.3		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.2		81 - 118		100%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		80 - 119		99%	SPK: 50
2037-26-5	Toluene-d8	49.2		89 - 112		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.6		85 - 114		101%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	111000	5.543				
540-36-3	1,4-Difluorobenzene	204000	6.757				
3114-55-4	Chlorobenzene-d5	179000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	82300	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:	VX0212WBSD01		SDG No.:	Q1347
Lab Sample ID:	VX0212WBSD01		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
VX044924.D	1		02/12/25 11:46	VX021225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	17.6		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	16.9		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	19.4		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	22.0		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	18.6		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	18.6		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	17.5		0.26	0.75	1.00	ug/L
67-64-1	Acetone	98.2		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	16.6		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	18.7		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	18.4		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.0		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	18.7		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	99.3		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	18.7		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.5		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	18.6		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.2		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	19.4		0.19	0.50	1.00	ug/L
71-43-2	Benzene	18.9		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	20.0		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	18.7		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	19.6		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	19.3		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	110		0.75	2.50	5.00	ug/L
108-88-3	Toluene	19.4		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	17.8		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.3		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	20.3		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	110		1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	VX0212WBSD01		SDG No.:	Q1347	
Lab Sample ID:	VX0212WBSD01		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
VX044924.D	1		02/12/25 11:46	VX021225

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	19.0		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	19.0		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	19.0		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	19.0		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	38.9		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	19.7		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	19.4		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	18.7		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.2		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	19.3		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.5		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	19.1		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.4		81 - 118		101%	SPK: 50
1868-53-7	Dibromofluoromethane	49.5		80 - 119		99%	SPK: 50
2037-26-5	Toluene-d8	49.4		89 - 112		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.8		85 - 114		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	109000	5.544				
540-36-3	1,4-Difluorobenzene	196000	6.751				
3114-55-4	Chlorobenzene-d5	173000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	79600	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.: Q1347 SAS No.: Q1347 SDG No.: Q1347
Instrument ID: MSVOA_X Calibration Date(s): 02/10/2025 02/10/2025
Heated Purge: (Y/N) N Calibration Time(s): 10:25 12:28
GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID:	RRF001 = VX044868.D	RRF005 = VX044869.D	RRF020 = VX044870.D	RRF050 = VX044871.D	RRF100 = VX044872.D	RRF150 = VX044873.D		
COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
Chloromethane	0.958	0.860	0.862	0.843	0.805	0.793	0.854	6.9
Vinyl Chloride	0.839	0.846	0.847	0.808	0.807	0.814	0.827	2.3
Bromomethane		0.248	0.252	0.249	0.242	0.246	0.247	1.4
Chloroethane	0.500	0.288	0.280	0.341	0.249	0.181	0.307	35.4
Trichlorofluoromethane	1.062	1.066	1.096	1.029	1.013	1.008	1.046	3.3
1,1,2-Trichlorotrifluoroethane	0.583	0.647	0.668	0.626	0.631	0.637	0.632	4.5
1,1-Dichloroethene	0.647	0.639	0.661	0.630	0.632	0.657	0.644	2
Acetone	0.305	0.292	0.298	0.293	0.285	0.292	0.294	2.3
Carbon Disulfide	1.689	1.732	1.786	1.762	1.789	1.846	1.767	3
Methyl tert-butyl Ether	1.941	2.065	2.130	2.046	2.011	2.110	2.050	3.4
Methylene Chloride	0.747	0.717	0.741	0.704	0.695	0.720	0.721	2.8
trans-1,2-Dichloroethene	0.608	0.622	0.657	0.640	0.633	0.644	0.634	2.7
1,1-Dichloroethane	1.155	1.257	1.292	1.227	1.209	1.257	1.233	3.9
2-Butanone	0.422	0.472	0.504	0.506	0.477	0.487	0.478	6.4
Carbon Tetrachloride	0.457	0.466	0.478	0.453	0.445	0.459	0.460	2.4
cis-1,2-Dichloroethene	0.680	0.783	0.812	0.758	0.758	0.779	0.762	5.9
Chloroform	1.167	1.209	1.268	1.169	1.153	1.208	1.196	3.5
1,1,1-Trichloroethane	1.014	1.003	1.051	1.005	0.984	1.028	1.014	2.3
Methylcyclohexane	0.509	0.571	0.667	0.622	0.634	0.635	0.606	9.4
Benzene	1.370	1.488	1.577	1.470	1.429	1.453	1.465	4.7
1,2-Dichloroethane	0.417	0.465	0.502	0.472	0.462	0.482	0.467	6.1
Trichloroethene	0.293	0.340	0.367	0.335	0.332	0.343	0.335	7.2
1,2-Dichloropropane	0.343	0.354	0.389	0.367	0.360	0.372	0.364	4.3
Bromodichloromethane	0.428	0.481	0.514	0.500	0.500	0.513	0.489	6.6
4-Methyl-2-Pentanone	0.439	0.514	0.562	0.554	0.506	0.498	0.512	8.6
Toluene	0.776	0.872	0.957	0.898	0.866	0.864	0.872	6.7
t-1,3-Dichloropropene	0.417	0.451	0.518	0.514	0.528	0.543	0.495	10
cis-1,3-Dichloropropene	0.452	0.511	0.587	0.577	0.587	0.599	0.552	10.5
1,1,2-Trichloroethane	0.307	0.342	0.362	0.341	0.331	0.329	0.335	5.4
2-Hexanone	0.313	0.360	0.406	0.404	0.369	0.362	0.369	9.3

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: Q1347 SAS No.: Q1347 SDG No.: Q1347
Instrument ID: MSVOA_X Calibration Date(s): 02/10/2025 02/10/2025
Heated Purge: (Y/N) N Calibration Time(s): 10:25 12:28
GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID:		RRF001 = VX044868.D		RRF005 = VX044869.D		RRF020 = VX044870.D			
		RRF050 = VX044871.D		RRF100 = VX044872.D		RRF150 = VX044873.D			
COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	% RSD	
Dibromochloromethane	0.317	0.342	0.381	0.373	0.368	0.370	0.359	6.7	
Tetrachloroethene	0.306	0.311	0.343	0.310	0.307	0.314	0.315	4.4	
Chlorobenzene	0.969	1.093	1.140	1.096	1.071	1.076	1.074	5.3	
Ethyl Benzene	1.690	1.873	2.021	1.935	1.923	1.929	1.895	5.9	
m/p-Xylenes	0.616	0.700	0.754	0.724	0.706	0.694	0.699	6.6	
o-Xylene	0.661	0.721	0.747	0.707	0.691	0.681	0.701	4.4	
Styrene	0.909	1.124	1.249	1.199	1.161	1.139	1.130	10.4	
Bromoform	0.186	0.247	0.272	0.280	0.276	0.287	0.258	14.7	
Isopropylbenzene	3.735	4.012	4.347	4.045	3.940	4.076	4.026	4.9	
1,1,2,2-Tetrachloroethane	1.429	1.403	1.438	1.366	1.305	1.360	1.383	3.6	
1,3-Dichlorobenzene	1.616	1.669	1.741	1.679	1.663	1.703	1.678	2.5	
1,4-Dichlorobenzene	1.662	1.712	1.762	1.686	1.660	1.701	1.697	2.2	
1,2-Dichlorobenzene	1.512	1.713	1.763	1.666	1.604	1.639	1.650	5.3	
1,2-Dichloroethane-d4		0.764	0.718	0.723	0.707	0.747	0.732	3.2	
Dibromofluoromethane		0.335	0.322	0.320	0.320	0.328	0.325	2	
Toluene-d8		1.239	1.249	1.239	1.208	1.212	1.229	1.5	
4-Bromofluorobenzene		0.404	0.410	0.431	0.415	0.412	0.414	2.5	

* 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.: Q1347 SAS No.: Q1347 SDG No.: Q1347

Instrument ID: MSVOA_X Calibration Date/Time: 02/12/2025 10:07

Lab File ID: VX044920.D Init. Calib. Date(s): 02/10/2025 02/10/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:25 12:28

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.854	0.820	0.1	-3.98	20
Vinyl Chloride	0.827	0.797		-3.63	20
Bromomethane	0.247	0.256		3.64	20
Chloroethane	0.307	0.389		26.71	20
Trichlorofluoromethane	1.046	1.056		0.96	20
1,1,2-Trichlorotrifluoroethane	0.632	0.642		1.58	20
1,1-Dichloroethene	0.644	0.613		-4.81	20
Acetone	0.294	0.293		-0.34	20
Carbon Disulfide	1.767	1.633		-7.58	20
Methyl tert-butyl Ether	2.050	1.992		-2.83	20
Methylene Chloride	0.721	0.687		-4.72	20
trans-1,2-Dichloroethene	0.634	0.601		-5.2	20
1,1-Dichloroethane	1.233	1.202	0.1	-2.51	20
2-Butanone	0.478	0.466		-2.51	20
Carbon Tetrachloride	0.460	0.463		0.65	20
cis-1,2-Dichloroethene	0.762	0.733		-3.81	20
Chloroform	1.196	1.159		-3.09	20
1,1,1-Trichloroethane	1.014	0.988		-2.56	20
Methylcyclohexane	0.606	0.636		4.95	20
Benzene	1.465	1.458		-0.48	20
1,2-Dichloroethane	0.467	0.483		3.43	20
Trichloroethene	0.335	0.330		-1.49	20
1,2-Dichloropropane	0.364	0.366		0.55	20
Bromodichloromethane	0.489	0.505		3.27	20
4-Methyl-2-Pentanone	0.512	0.531		3.71	20
Toluene	0.872	0.887		1.72	20
t-1,3-Dichloropropene	0.495	0.514		3.84	20
cis-1,3-Dichloropropene	0.552	0.566		2.54	20
1,1,2-Trichloroethane	0.335	0.334		-0.3	20
2-Hexanone	0.369	0.382		3.52	20
Dibromochloromethane	0.359	0.367		2.23	20
Tetrachloroethene	0.315	0.319		1.27	20
Chlorobenzene	1.074	1.085	0.3	1.02	20
Ethyl Benzene	1.895	1.934		2.06	20
m/p-Xylenes	0.699	0.715		2.29	20
o-Xylene	0.701	0.711		1.43	20
Styrene	1.130	1.191		5.4	20
Bromoform	0.258	0.269	0.1	4.26	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.: Q1347 SAS No.: Q1347 SDG No.: Q1347

Instrument ID: MSVOA_X Calibration Date/Time: 02/12/2025 10:07

Lab File ID: VX044920.D Init. Calib. Date(s): 02/10/2025 02/10/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:25 12:28

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	4.026	4.000		-0.65	20
1,1,2,2-Tetrachloroethane	1.383	1.289	0.3	-6.8	20
1,3-Dichlorobenzene	1.678	1.658		-1.19	20
1,4-Dichlorobenzene	1.697	1.647		-2.95	20
1,2-Dichlorobenzene	1.650	1.611		-2.36	20
1,2-Dichloroethane-d4	0.732	0.766		4.64	20
Dibromofluoromethane	0.325	0.353		8.61	20
Toluene-d8	1.229	1.313		6.84	20
4-Bromofluorobenzene	0.414	0.448		8.21	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.: Q1347 SAS No.: Q1347 SDG No.: Q1347

Instrument ID: MSVOA_X Calibration Date/Time: 02/12/2025 20:11

Lab File ID: VX044946.D Init. Calib. Date(s): 02/10/2025 02/10/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:25 12:28

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.854	0.806	0.1	-5.62	50
Vinyl Chloride	0.827	0.747		-9.67	50
Bromomethane	0.247	0.253		2.43	50
Chloroethane	0.307	0.406		32.25	50
Trichlorofluoromethane	1.046	1.013		-3.15	50
1,1,2-Trichlorotrifluoroethane	0.632	0.589		-6.8	50
1,1-Dichloroethene	0.644	0.602		-6.52	50
Acetone	0.294	0.304		3.4	50
Carbon Disulfide	1.767	1.520		-13.98	50
Methyl tert-butyl Ether	2.050	1.979		-3.46	50
Methylene Chloride	0.721	0.685		-4.99	50
trans-1,2-Dichloroethene	0.634	0.607		-4.26	50
1,1-Dichloroethane	1.233	1.191	0.1	-3.41	50
2-Butanone	0.478	0.500		4.6	50
Carbon Tetrachloride	0.460	0.437		-5	50
cis-1,2-Dichloroethene	0.762	0.739		-3.02	50
Chloroform	1.196	1.171		-2.09	50
1,1,1-Trichloroethane	1.014	0.973		-4.04	50
Methylcyclohexane	0.606	0.564		-6.93	50
Benzene	1.465	1.409		-3.82	50
1,2-Dichloroethane	0.467	0.478		2.36	50
Trichloroethene	0.335	0.311		-7.16	50
1,2-Dichloropropane	0.364	0.353		-3.02	50
Bromodichloromethane	0.489	0.487		-0.41	50
4-Methyl-2-Pentanone	0.512	0.552		7.81	50
Toluene	0.872	0.851		-2.41	50
t-1,3-Dichloropropene	0.495	0.468		-5.45	50
cis-1,3-Dichloropropene	0.552	0.530		-3.99	50
1,1,2-Trichloroethane	0.335	0.336		0.3	50
2-Hexanone	0.369	0.410		11.11	50
Dibromochloromethane	0.359	0.353		-1.67	50
Tetrachloroethene	0.315	0.294		-6.67	50
Chlorobenzene	1.074	1.019	0.3	-5.12	50
Ethyl Benzene	1.895	1.798		-5.12	50
m/p-Xylenes	0.699	0.671		-4.01	50
o-Xylene	0.701	0.666		-4.99	50
Styrene	1.130	1.122		-0.71	50
Bromoform	0.258	0.248	0.1	-3.88	50

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1347 SAS No.: Q1347 SDG No.: Q1347

Instrument ID: MSVOA_X Calibration Date/Time: 02/12/2025 20:11

Lab File ID: VX044946.D Init. Calib. Date(s): 02/10/2025 02/10/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:25 12:28

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	4.026	3.804		-5.51	50
1,1,2,2-Tetrachloroethane	1.383	1.299	0.3	-6.07	50
1,3-Dichlorobenzene	1.678	1.564		-6.79	50
1,4-Dichlorobenzene	1.697	1.566		-7.72	50
1,2-Dichlorobenzene	1.650	1.569		-4.91	50
1,2-Dichloroethane-d4	0.732	0.710		-3.01	50
Dibromofluoromethane	0.325	0.305		-6.15	50
Toluene-d8	1.229	1.123		-8.63	50
4-Bromofluorobenzene	0.414	0.400		-3.38	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:	Q1347	OrderDate:	2/10/2025 3:45:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	N41,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1347-01	BP-VPB-192-EB-2025 0207	Water			02/07/25			02/10/25
			SVOC-SIMGroup1	8270-Modified		02/11/25	02/12/25	
Q1347-03	BP-VPB-192-GW-710- 712	Water			02/10/25			02/10/25
			SVOC-SIMGroup1	8270-Modified		02/11/25	02/12/25	
Q1347-05	BP-VPB-192-GW-660- 662	Water			02/06/25			02/10/25
			SVOC-SIMGroup1	8270-Modified		02/11/25	02/12/25	

Hit Summary Sheet SW-846

SDG No.: Q1347

Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : BP-VPB-192-GW-710-712								
Q1347-03	BP-VPB-192-GW-710-71 WATER	1,4-Dioxane	0.890		0.13	0.37	0.37	ug/L
		Total Svoc :			0.89			
		Total Concentration:			0.89			
Client ID : BP-VPB-192-GW-660-662								
Q1347-05	BP-VPB-192-GW-660-66 WATER	1,4-Dioxane	1.700	J	0.68	2	2	ug/L
		Total Svoc :			1.70			
		Total Concentration:			1.70			



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	02/07/25
Project:	CTO WE13	Date Received:	02/10/25
Client Sample ID:	BP-VPB-192-EB-20250207	SDG No.:	Q1347
Lab Sample ID:	Q1347-01	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	850 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
BN036444.D	1	02/11/25 11:05	02/12/25 17:36	PB166675

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.24	U	0.080	0.24	0.24	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.33		30 - 150		83%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		98%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.31		55 - 111		78%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.39		53 - 106		96%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.50		58 - 132		125%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	1950	7.753				
1146-65-2	Naphthalene-d8	4510	10.541				
15067-26-2	Acenaphthene-d10	2910	14.387				
1517-22-2	Phenanthrene-d10	6810	17.136				
1719-03-5	Chrysene-d12	6000	21.321				
1520-96-3	Perylene-d12	6110	23.589				

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:	02/10/25	
Project:	CTO WE13		Date Received:	02/10/25	
Client Sample ID:	BP-VPB-192-GW-710-712		SDG No.:	Q1347	
Lab Sample ID:	Q1347-03		Matrix:	Water	
Analytical Method:	SW8270ESIM		% Solid:	0	
Sample Wt/Vol:	540	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
BN036445.D	1	02/11/25 11:05	02/12/25 18:12	PB166675

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.89		0.13	0.37	0.37	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.32		30 - 150		79%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		98%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.32		55 - 111		79%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.44	*	53 - 106		109%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.57	*	58 - 132		143%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2540		7.753			
1146-65-2	Naphthalene-d8	6460		10.541			
15067-26-2	Acenaphthene-d10	3890		14.387			
1517-22-2	Phenanthrene-d10	8790		17.124			
1719-03-5	Chrysene-d12	7600		21.322			
1520-96-3	Perylene-d12	6350		23.586			

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:	02/06/25
Project:	CTO WE13	Date Received:	02/10/25
Client Sample ID:	BP-VPB-192-GW-660-662	SDG No.:	Q1347
Lab Sample ID:	Q1347-05	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	100 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
BN036446.D	1	02/11/25 11:05	02/12/25 18:48	PB166675

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	1.70	J	0.68	2.00	2.00	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.32		30 - 150		80%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.30		30 - 150		74%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.29		55 - 111		72%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		96%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.36		58 - 132		90%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2850	7.753				
1146-65-2	Naphthalene-d8	7660	10.541				
15067-26-2	Acenaphthene-d10	4760	14.387				
1517-22-2	Phenanthrene-d10	10600	17.136				
1719-03-5	Chrysene-d12	9600	21.322				
1520-96-3	Perylene-d12	8140	23.589				

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.: Q1347

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
PB166675BL	PB166675BL	2-Methylnaphthalene-d10	0.4	0.35	88		30	150
		Fluoranthene-d10	0.4	0.39	98		30	150
		Nitrobenzene-d5	0.4	0.36	89		55	111
		2-Fluorobiphenyl	0.4	0.36	90		53	106
		Terphenyl-d14	0.4	0.44	111		58	132
PB166675BS	PB166675BS	2-Methylnaphthalene-d10	0.4	0.44	109		30	150
		Fluoranthene-d10	0.4	0.36	90		30	150
		Nitrobenzene-d5	0.4	0.38	95		55	111
		2-Fluorobiphenyl	0.4	0.45	113	*	53	106
		Terphenyl-d14	0.4	0.46	114		58	132
PB166675BSD	PB166675BSD	2-Methylnaphthalene-d10	0.4	0.39	97		30	150
		Fluoranthene-d10	0.4	0.33	83		30	150
		Nitrobenzene-d5	0.4	0.34	85		55	111
		2-Fluorobiphenyl	0.4	0.38	95		53	106
		Terphenyl-d14	0.4	0.42	104		58	132
Q1347-01	BP-VPB-192-EB-20250207	2-Methylnaphthalene-d10	0.4	0.33	83		30	150
		Fluoranthene-d10	0.4	0.39	98		30	150
		Nitrobenzene-d5	0.4	0.31	78		55	111
		2-Fluorobiphenyl	0.4	0.39	96		53	106
		Terphenyl-d14	0.4	0.50	125		58	132
Q1347-03	BP-VPB-192-GW-710-712	2-Methylnaphthalene-d10	0.4	0.32	79		30	150
		Fluoranthene-d10	0.4	0.39	98		30	150
		Nitrobenzene-d5	0.4	0.32	79		55	111
		2-Fluorobiphenyl	0.4	0.44	109	*	53	106
		Terphenyl-d14	0.4	0.57	143	*	58	132
Q1347-05	BP-VPB-192-GW-660-662	2-Methylnaphthalene-d10	0.4	0.32	80		30	150
		Fluoranthene-d10	0.4	0.30	74		30	150
		Nitrobenzene-d5	0.4	0.29	72		55	111
		2-Fluorobiphenyl	0.4	0.38	96		53	106
		Terphenyl-d14	0.4	0.36	90		58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1347

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN036455.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB166675BSD	1,4-Dioxane	0.4	0.30	ug/L	75	10			70	130	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1347

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN036456.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Limits		RPD
								Qual	Low	High	
PB166675BS	1,4-Dioxane	0.4	0.33	ug/L	83				70	130	

A
B
C
D
E
F
G

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166675BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: Q1347

SAS No.: Q1347 SDG NO.: Q1347

Lab File ID: BN036442.D

Lab Sample ID: PB166675BL

Instrument ID: BNA_N

Date Extracted: 02/11/2025

Matrix: (soil/water) Water

Date Analyzed: 02/12/2025

Level: (low/med) LOW

Time Analyzed: 16:24

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166675BS	PB166675BS	BN036456.D	02/13/2025
BP-VPB-192-EB-20250207	Q1347-01	BN036444.D	02/12/2025
BP-VPB-192-GW-710-712	Q1347-03	BN036445.D	02/12/2025
BP-VPB-192-GW-660-662	Q1347-05	BN036446.D	02/12/2025
PB166675BSD	PB166675BSD	BN036455.D	02/13/2025

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1347

SDG NO.: Q1347

Lab File ID: BN036408.D

DFTPP Injection Date: 02/10/2025

Instrument ID: BNA_N

DFTPP Injection Time: 11:46

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	51.4
68	Less than 2.0% of mass 69	0.3 (0.7) 1
69	Mass 69 relative abundance	47.7
70	Less than 2.0% of mass 69	0.3 (0.6) 1
127	10.0 - 80.0% of mass 198	48.3
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7
275	10.0 - 60.0% of mass 198	24.7
365	Greater than 1% of mass 198	3.3
441	Present, but less than mass 443	7.1
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	10.5 (20.1) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC0.1	SSTDICC0.1	BN036409.D	02/10/2025	12:25
SSTDICC0.2	SSTDICC0.2	BN036410.D	02/10/2025	13:01
SSTDICCC0.4	SSTDICCC0.4	BN036411.D	02/10/2025	13:36
SSTDICC0.8	SSTDICC0.8	BN036412.D	02/10/2025	14:12
SSTDICC1.6	SSTDICC1.6	BN036413.D	02/10/2025	14:48
SSTDICC3.2	SSTDICC3.2	BN036414.D	02/10/2025	15:24
SSTDICC5.0	SSTDICC5.0	BN036415.D	02/10/2025	16:00

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1347 SDG NO.: Q1347

Lab File ID: BN036440.D

DFTPP Injection Date: 02/12/2025

Instrument ID: BNA_N

DFTPP Injection Time: 15:09

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	52.2
68	Less than 2.0% of mass 69	0.4 (0.9) 1
69	Mass 69 relative abundance	47.7
70	Less than 2.0% of mass 69	0.2 (0.4) 1
127	10.0 - 80.0% of mass 198	48.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7
275	10.0 - 60.0% of mass 198	25
365	Greater than 1% of mass 198	4
441	Present, but less than mass 443	9.5
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	10.9 (19.2) 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	BN036441.D	02/12/2025	15:48
PB166675BL	PB166675BL	BN036442.D	02/12/2025	16:24
BP-VPB-192-EB-20250207	Q1347-01	BN036444.D	02/12/2025	17:36
BP-VPB-192-GW-710-712	Q1347-03	BN036445.D	02/12/2025	18:12
BP-VPB-192-GW-660-662	Q1347-05	BN036446.D	02/12/2025	18:48
PB166675BSD	PB166675BSD	BN036455.D	02/13/2025	00:11
PB166675BS	PB166675BS	BN036456.D	02/13/2025	00:47
SSTDCCC0.4EC	SSTDCCC0.4	BN036457.D	02/13/2025	01:23

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1347 SAS No.: Q1347 SDG NO.: Q1347

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/12/2025

Lab File ID: BN036441.D Time Analyzed: 15:48

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	2210	7.753	5455	10.54	3758	14.39
UPPER LIMIT	4420	8.253	10910	11.041	7516	14.887
LOWER LIMIT	1105	7.253	2727.5	10.041	1879	13.887
EPA SAMPLE NO.						
01 PB166675BL	2366	7.75	5102	10.56	2942	14.40
02 PB166675BSD	2803	7.75	6953	10.54	4239	14.39
03 BP-VPB-192-EB-20250207	1949	7.75	4506	10.54	2905	14.39
04 PB166675BS	2556	7.75	6260	10.54	3794	14.39
05 BP-VPB-192-GW-710-712	2535	7.75	6461	10.54	3888	14.39
06 BP-VPB-192-GW-660-662	2854	7.75	7661	10.54	4758	14.39

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.: Q1347 SAS No.: Q1347 SDG NO.: Q1347

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/12/2025

Lab File ID: BN036441.D Time Analyzed: 15:48

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	8093	17.136	7173	21.322	7217	23.589
UPPER LIMIT	16186	17.636	14346	21.822	14434	24.089
LOWER LIMIT	4046.5	16.636	3586.5	20.822	3608.5	23.089
EPA SAMPLE NO.						
01 PB166675BL	6604	17.15	5195	21.33	4640	23.60
02 PB166675BSD	9433	17.14	6681	21.32	5828	23.59
03 BP-VPB-192-EB-20250207	6814	17.14	6000	21.32	6113	23.59
04 PB166675BS	8432	17.14	5969	21.32	5192	23.59
05 BP-VPB-192-GW-710-712	8786	17.12	7596	21.32	6347	23.59
06 BP-VPB-192-GW-660-662	10555	17.14	9596	21.32	8144	23.59

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:	PB166675BL		SDG No.:	Q1347
Lab Sample ID:	PB166675BL		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
BN036442.D	1	02/11/25 11:05	02/12/25 16:24	PB166675

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.35		30 - 150		88%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.39		30 - 150		98%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.36		55 - 111		89%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.36		53 - 106		90%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.44		58 - 132		111%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2370	7.753				
1146-65-2	Naphthalene-d8	5100	10.562				
15067-26-2	Acenaphthene-d10	2940	14.398				
1517-22-2	Phenanthrene-d10	6600	17.149				
1719-03-5	Chrysene-d12	5200	21.331				
1520-96-3	Perylene-d12	4640	23.595				

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:	PB166675BS		SDG No.:	Q1347	
Lab Sample ID:	PB166675BS		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
BN036456.D	1	02/11/25 11:05	02/13/25 00:47	PB166675

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.33		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.44		30 - 150		109%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.36		30 - 150		90%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.38		55 - 111		95%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.45	*	53 - 106		113%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		58 - 132		114%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2560	7.753				
1146-65-2	Naphthalene-d8	6260	10.541				
15067-26-2	Acenaphthene-d10	3790	14.387				
1517-22-2	Phenanthrene-d10	8430	17.136				
1719-03-5	Chrysene-d12	5970	21.321				
1520-96-3	Perylene-d12	5190	23.589				

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:	PB166675BSD		SDG No.:	Q1347	
Lab Sample ID:	PB166675BSD		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
BN036455.D	1	02/11/25 11:05	02/13/25 00:11	PB166675

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.30		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.39		30 - 150		97%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.33		30 - 150		83%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.34		55 - 111		85%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		95%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.42		58 - 132		104%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2800	7.753				
1146-65-2	Naphthalene-d8	6950	10.541				
15067-26-2	Acenaphthene-d10	4240	14.387				
1517-22-2	Phenanthrene-d10	9430	17.136				
1719-03-5	Chrysene-d12	6680	21.322				
1520-96-3	Perylene-d12	5830	23.589				

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-BN021025.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Tue Feb 11 01:17:14 2025
 Response Via : Initial Calibration

Calibration Files

0.1 =BN036409.D 0.2 =BN036410.D 0.4 =BN036411.D 0.8 =BN036412.D 1.6 =BN036413.D 3.2 =BN036414.D 5.0 =BN036415.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	0.555	0.437	0.433	0.414	0.411	0.433	0.381	0.438	12.66
3)	n-Nitrosodimet...	0.906	0.779	0.764	0.724	0.708	0.769	0.670	0.760	9.90
4) S	2-Fluorophenol	1.009	0.954	0.936	0.920	0.914	0.999	0.885	0.945	4.80
5) S	Phenol-d6	1.134	1.007	1.032	1.062	1.099	1.267	1.164	1.109	8.00
6)	bis(2-Chloroet...	1.382	1.070	1.086	1.129	1.120	1.225	1.107	1.160	9.48
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.500	0.363	0.365	0.370	0.367	0.417	0.381	0.395	12.70
9)	Naphthalene	1.400	1.141	1.116	1.088	1.075	1.186	1.073	1.154	10.01
10)	Hexachlorobuta...	0.319	0.293	0.283	0.272	0.264	0.282	0.253	0.281	7.67
11) SURR2	Methylnaphth...	0.647	0.583	0.602	0.588	0.597	0.668	0.618	0.615	5.19
12)	2-Methylnaphth...	0.833	0.712	0.738	0.721	0.726	0.816	0.750	0.757	6.40
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.196	0.181	0.186	0.184	0.195	0.226	0.219	0.198	8.90
15) S	2-Fluorobiphenyl	1.409	1.390	1.377	1.491	1.564	1.738	1.558	1.504	8.57
16)	Acenaphthylene	1.807	1.667	1.692	1.683	1.734	1.964	1.820	1.767	5.98
17)	Acenaphthene	1.245	1.125	1.146	1.128	1.175	1.273	1.169	1.180	4.89
18)	Fluorene	1.696	1.630	1.661	1.627	1.669	1.829	1.646	1.680	4.17
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.071	0.067	0.069	0.074	0.084	0.107		0.078	19.60
21)	4-Bromophenyl-...	0.243	0.227	0.231	0.232	0.236	0.264	0.238	0.239	5.15
22)	Hexachlorobenzene	0.305	0.296	0.284	0.287	0.289	0.317	0.285	0.295	4.11
23)	Atrazine	0.196	0.190	0.187	0.186	0.194	0.229	0.213	0.199	8.00
24)	Pentachlorophenol	0.140	0.125	0.122	0.122	0.134	0.170	0.167	0.140	14.74
25)	Phenanthrene	1.233	1.090	1.095	1.112	1.138	1.273	1.153	1.156	6.12
26)	Anthracene	0.990	0.933	0.967	0.978	1.015	1.167	1.088	1.020	7.92
27) SURR	Fluoranthene-d10	1.109	1.043	1.063	1.059	1.098	1.258	1.156	1.112	6.70
28)	Fluoranthene	1.441	1.323	1.353	1.356	1.404	1.607	1.461	1.421	6.76
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.584	1.568	1.534	1.490	1.488	1.629	1.492	1.541	3.59
31) S	Terphenyl-d14	0.860	0.847	0.852	0.829	0.834	0.913	0.843	0.854	3.27
32)	Benzo(a)anthra...	1.257	1.276	1.293	1.255	1.300	1.471	1.362	1.316	5.86
33)	Chrysene	1.449	1.456	1.360	1.414	1.404	1.527	1.366	1.425	4.08
34)	Bis(2-ethylhex...	0.902	0.875	0.777	0.745	0.761	0.861	0.819	0.820	7.45
35) I	Perylene-d12	-----ISTD-----								

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

Method File : 8270-SIM-BN021025.M

36)	Indeno(1,2,3-c...	1.182	1.289	1.378	1.390	1.446	1.630	1.471	1.398	10.13
37)	Benzo(b)fluora...	1.174	1.220	1.260	1.290	1.333	1.529	1.416	1.317	9.24
38)	Benzo(k)fluora...	1.258	1.253	1.363	1.326	1.347	1.532	1.413	1.356	7.08
39) C	Benzo(a)pyrene	1.091	1.081	1.102	1.114	1.145	1.309	1.206	1.150	7.12
40)	Dibenzo(a,h)an...	0.906	1.021	1.075	1.087	1.154	1.304	1.176	1.103	11.40
41)	Benzo(g,h,i)pe...	1.140	1.212	1.254	1.230	1.269	1.400	1.249	1.250	6.27

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1347 SAS No.: Q1347 SDG No.: Q1347

Instrument ID: BNA_N Calibration Date/Time: 02/12/2025 15:48

Lab File ID: BN036441.D Init. Calib. Date(s): 02/10/2025 02/10/2025

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 12:25 16:00

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.615	0.594		-3.4	20.0
Fluoranthene-d10	1.112	1.037		-6.7	20.0
2-Fluorophenol	0.945	0.868		-8.1	20.0
Phenol-d6	1.109	0.993		-10.5	20.0
Nitrobenzene-d5	0.395	0.382		-3.3	20.0
2-Fluorobiphenyl	1.504	1.361		-9.5	20.0
2,4,6-Tribromophenol	0.198	0.161		-18.7	20.0
Terphenyl-d14	0.854	0.819		-4.1	20.0
1,4-Dioxane	0.438	0.428		-2.3	20.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1347 SAS No.: Q1347 SDG No.: Q1347

Instrument ID: BNA_N Calibration Date/Time: 02/13/2025 01:23

Lab File ID: BN036457.D Init. Calib. Date(s): 02/10/2025 02/10/2025

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 12:25 16:00

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.615	0.606		-1.5	50.0
Fluoranthene-d10	1.112	1.046		-5.9	50.0
2-Fluorophenol	0.945	0.925		-2.1	50.0
Phenol-d6	1.109	1.094		-1.4	50.0
Nitrobenzene-d5	0.395	0.380		-3.8	50.0
2-Fluorobiphenyl	1.504	1.452		-3.5	50.0
2,4,6-Tribromophenol	0.198	0.171		-13.6	50.0
Terphenyl-d14	0.854	0.894		4.7	50.0
1,4-Dioxane	0.438	0.427		-2.5	50.0

All other compounds must meet a minimum RRF of 0.010.



SHIPPING DOCUMENTS

CHEMTECH CHAIN OF CUSTODY RECORD		284 Sheffield Street, Mountainside, NJ 07092 (908) 789-8900 Fax: (908) 78-8922 www.chemtech.net		Chemtech Project Number: Q1347										
				COC Number:										
CLIENT INFORMATION		PROJECT INFORMATION		BILLING INFORMATION										
COMPANY: Tetra Tech		PROJECT NAME: NWIRP Bethpage		BILL TO: SEE CONTRACT PO#										
ADDRESS: 4433 Corporation Lane Suite 300		PROJECT #: 112G08005-WE13 LOCATION: VPB-192		ADDRESS:										
CITY: Virginia Beach	STATE: VA ZIP: 23462	PROJECT MANAGER: Ernie Wu		CITY:	STATE: ZIP:									
ATTENTION: Ernie Wu		E-MAIL: ernie.wu@tetrattech.com		ATTENTION: PHONE:										
PHONE: 757-466-4901 FAX: 757-461-4148		PHONE: 757-466-4901 FAX: 757-461-4148												
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		ANALYSIS										
FAX: _____ 10 _____ DAYS* HARD COPY: _____ 10 _____ DAYS* EDD _____ 10 _____ DAYS* * TO BE APPROVED BY CHEMTECH STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS		☐ RESULTS ONLY ☐ USEPA CLP ☐ RESULTS + QC ☐ New York State ASP "B" ☐ New Jersey REDUCED ☐ New York State ASP "A" ☐ New Jersey CLP ☐ Other _____ ☐ EDD Format _____		VOC(SW846-8260B) 1,4 Dioxane (8270 SIM) <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td> </tr> </table>		1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9						
				PRESERVATIVES										
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP GRAB	SAMPLE COLLECTION DATE TIME	# of Bottles									
1.	BP-VPB-192-EB-20250207	QA	X	2/7/25 8:30	3									
2.	BP-VPB-192-TB-20250206	QA	X	2/6/25 9:00	2									
3.	BP-VPB-192-GW-710-712	AQ	X	2/10/25 11:10	2									
4.	BP-VPB-192-GW-640-642	AQ	X	2/6/25 9:30	2									
5.	BP-VPB-192-GW-660-662	AQ	X	2/6/25 12:02	5									
6.	BP-VPB-192-GW-680-682	AQ	X	2/6/25 14:20	2									
7.														
8.														
9.														
10.														

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSESSION INCLUDING COURIER DELIVERY									
RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY	Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 28 MeOH extraction requires an additional 4oz. Jar for percent solid Comments: Standard TAT Page <u>1</u> of <u>1</u> SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight Shipment Complete CHEMTECH: ☐ Picked Up ☐ Overnight ☐ YES ☐ NO						
1.	2/10/25 1530	1.							
RELINQUISHED BY	DATE/TIME	RECEIVED BY							
2.		2.							
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY							
3.	2-10-25	3.							

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 : Q1347	TETRO6	Order Date : 2/10/2025 3:45:00 PM	Project Mgr :
Client Name : Tetra Tech NUS, Inc.		Project Name : CTO WE13	Report Type : Level 4
Client Contact : Ernie Wu		Receive DateTime : 2/10/2025 12:00:00 AM	EDD Type : ADAPT
Invoice Name : Tetra Tech NUS, Inc.		Purchase Order : 18:18	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
Q1347-01	BP-VPB-192-EB-20250207	Water	02/07/2025	08:30					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1347-02	BP-VPB-192-TB-20250206	Water	02/06/2025	09:00					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1347-03	BP-VPB-192-GW-710-712	Water	02/10/2025	11:10					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1347-04	BP-VPB-192-GW-640-642	Water	02/06/2025	09:30					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1347-05	BP-VPB-192-GW-660-662	Water	02/06/2025	12:02					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1347-06	BP-VPB-192-GW-680-682	Water	02/06/2025	14:20					
					VOCMS Group1		8260-Low	10 Bus. Days	

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1347 TETR06

Order Date : 2/10/2025 3:45:00 PM

Project Mgr :

Client Name : Tetra Tech NUS, Inc.

Project Name : CTO WE13

Report Type : Level 4

Client Contact : Ernie Wu

Receive DateTime : 2/10/2025 12:00:00 AM

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
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Relinquished By :

Date / Time : 2/11/25 0800

Received By :

Date / Time : 02/11/25 08:00 284 4

Storage Area : VOA Refridgerator Room