

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 : Q1173

ATTENTION : Ernie Wu



Laboratory Certification ID # 20012



1) Signature Page	3
2) Case Narrative	4
2.1) VOCMS Group1- Case Narrative	4
2.2) SVOC-SIMGroup1- Case Narrative	6
3) Qualifier Page	8
4) QA Checklist	9
5) VOCMS Group1 Data	10
6) SVOC-SIMGroup1 Data	54
7) Shipping Document	91
7.1) CHAIN OF CUSTODY	92
7.2) Lab Certificate	93
7.3) Internal COC	94

1
2
3
4
5
6
7

Cover Page

Order ID : Q1173

Project ID : CTO WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number

Q1173-01
Q1173-02
Q1173-03
Q1173-04
Q1173-05
Q1173-06

Client Sample Number

BP-VPB-192-TB-20250121
BP-VPB-192-GW-60-62
BP-VPB-192-GW-100-102
BP-VPB-192-GW-140-142
BP-VPB-192-GW-200-202
VPB-192-HYD-20250122

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

Signature : _____

Date: 2/7/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: CTO WE13

Project Manager: Ernie Wu

Chemtech Project # Q1173

Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:

6 Water samples were received on 01/23/2025.

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 for {VX0127WBS01} with File ID: VX044714.D met requirements for all samples except for Chloroethane[191%],

The Blank Spike Duplicate for {VX0127WBSD01} with File ID: VX044715.D met requirements for all samples except for Chloroethane[205%],

Above Blank Spike and Blank Spike Duplicate failing high but no positive hit in associated samples therefore no corrective action taken.

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

The Initial Calibration met the requirements .

The Continuous Calibration File ID VX044711.D met the requirements except for Chloroethane failing high but no positive hit in associated samples therefore no corrective action taken.

The Tuning criteria met requirements.

E. Additional Comments:

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

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

The not QT review data is reported in the Miscellaneous.

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

F. Manual Integration Comments:

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

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

Signature_____

CASE NARRATIVE

Tetra Tech NUS, Inc.

Project Name: CTO WE13

Project Manager: Ernie Wu

Chemtech Project # Q1173

Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:

6 Water samples were received on 01/23/2025.

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 PB166237BSD [Nitrobenzene-d5 - 112%], BP-VPB-192-GW-100-102 [Terphenyl-d14 - 147%], BP-VPB-192-GW-200-202 [Terphenyl-d14 - 149%], The failure surrogates are not associated with the client list, therefore no corrective action was taken and VPB-192-HYD-20250122 [2-Methylnaphthalene-d10 - 9%, Terphenyl-d14 - 140%], VPB-192-HYD-20250122RE [2-Methylnaphthalene-d10 - 8%, and Terphenyl-d14 - 135%], All the failure samples in surrogates were reanalyzed to confirm the results as per method and reported in the data.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD met criteria .

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

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

The Initial Calibration met the requirements .

The Continuous Calibration File ID BN036112.D met the requirements except for Phenol-d6 , failure surrogate is not associated with the client list, as per criteria affected surrogates were passing, therefore no corrective action was taken.

The Continuous Calibration File ID BN036303.D met the requirements except for 2,4,6-Tribromophenol , failure surrogate is not associated with the client list, as per criteria affected surrogates were passing, therefore no corrective action was taken.

The Continuous Calibration File ID BN036320.D met the requirements except for 2,4,6-Tribromophenol , failure surrogate is not associated with the client list, as per criteria affected surrogates were passing, therefore no corrective action was taken.

The Tuning criteria met requirements.

E. Additional Comments:

Less volume was taken for samples # BP-VPB-192-GW-60-62, BP-VPB-192-GW-100-102, BP-VPB-192-GW-140-142 and BP-VPB-192-GW-200-202 at the extraction due to Limited volume received.

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.

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

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_____

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 #: Q1173

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: 02/07/2025

LAB CHRONICLE

OrderID:	Q1173	OrderDate:	1/23/2025 3:29:00 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
Q1173-01	BP-VPB-192-TB-2025 0121	Water			01/21/25			01/23/25
			VOCMS Group1	8260-Low			01/27/25	
Q1173-02	BP-VPB-192-GW-60-6 2	Water			01/21/25			01/23/25
			VOCMS Group1	8260-Low			01/27/25	
Q1173-03	BP-VPB-192-GW-100- 102	Water			01/21/25			01/23/25
			VOCMS Group1	8260-Low			01/27/25	
Q1173-04	BP-VPB-192-GW-140- 142	Water			01/22/25			01/23/25
			VOCMS Group1	8260-Low			01/27/25	
Q1173-05	BP-VPB-192-GW-200- 202	Water			01/22/25			01/23/25
			VOCMS Group1	8260-Low			01/27/25	
Q1173-06	VPB-192-HYD-202501 22	Water			01/22/25			01/23/25
			VOCMS Group1	8260-Low			01/27/25	

Hit Summary Sheet
SW-846

SDG No.: Q1173
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID:	BP-VPB-192-GW-60-62								
Q1173-02	BP-VPB-192-GW-6 Water	Acetone		12.0		1.40	3.80	5.00	ug/L
		Total Voc :		12.0					
		Total Concentration:		12.0					
Client ID:	BP-VPB-192-GW-100-102								
Q1173-03	BP-VPB-192-GW-1 Water	Acetone		7.60		1.40	3.80	5.00	ug/L
Q1173-03	BP-VPB-192-GW-1 Water	Chloroform		1.10		0.26	0.50	1.00	ug/L
Q1173-03	BP-VPB-192-GW-1 Water	Trichloroethene		0.87	J	0.32	0.75	1.00	ug/L
Q1173-03	BP-VPB-192-GW-1 Water	Bromodichloromethane		0.98	J	0.24	0.50	1.00	ug/L
Q1173-03	BP-VPB-192-GW-1 Water	Dibromochloromethane		1.10		0.18	0.50	1.00	ug/L
		Total Voc :		11.7					
		Total Concentration:		11.7					
Client ID:	BP-VPB-192-GW-140-142								
Q1173-04	BP-VPB-192-GW-1 Water	Acetone		7.40		1.40	3.80	5.00	ug/L
Q1173-04	BP-VPB-192-GW-1 Water	Chloroform		0.70	J	0.26	0.50	1.00	ug/L
Q1173-04	BP-VPB-192-GW-1 Water	Benzene		6.50		0.16	0.50	1.00	ug/L
Q1173-04	BP-VPB-192-GW-1 Water	Toluene		0.96	J	0.18	0.50	1.00	ug/L
		Total Voc :		15.6					
		Total Concentration:		15.6					
Client ID:	BP-VPB-192-GW-200-202								
Q1173-05	BP-VPB-192-GW-2 Water	Acetone		7.10		1.40	3.80	5.00	ug/L
Q1173-05	BP-VPB-192-GW-2 Water	Chloroform		0.68	J	0.26	0.50	1.00	ug/L
Q1173-05	BP-VPB-192-GW-2 Water	Trichloroethene		1.80		0.32	0.75	1.00	ug/L
		Total Voc :		9.58					
		Total Concentration:		9.58					
Client ID:	VPB-192-HYD-20250122								
Q1173-06	VPB-192-HYD-202 Water	Acetone		1.60	J	1.40	3.80	5.00	ug/L
Q1173-06	VPB-192-HYD-202 Water	Dibromochloromethane		1.30		0.18	0.50	1.00	ug/L
		Total Voc :		2.90					
		Total Concentration:		2.90					



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	01/21/25	
Project:	CTO WE13			Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-TB-20250121			SDG No.:	Q1173	
Lab Sample ID:	Q1173-01			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
VX044717.D	1		01/27/25 12:38	VX012725

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/21/25	
Project:	CTO WE13		Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-TB-20250121		SDG No.:	Q1173	
Lab Sample ID:	Q1173-01		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
VX044717.D	1		01/27/25 12:38	VX012725

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	46.8		81 - 118		94%	SPK: 50
1868-53-7	Dibromofluoromethane	50.7		80 - 119		101%	SPK: 50
2037-26-5	Toluene-d8	55.2		89 - 112		110%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.2		85 - 114		108%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	154000	5.544				
540-36-3	1,4-Difluorobenzene	301000	6.757				
3114-55-4	Chlorobenzene-d5	273000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	116000	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/21/25	
Project:	CTO WE13		Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-TB-20250121		SDG No.:	Q1173	
Lab Sample ID:	Q1173-01		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
VX044717.D	1		01/27/25 12:38	VX012725

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:	01/21/25	
Project:	CTO WE13			Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-GW-60-62			SDG No.:	Q1173	
Lab Sample ID:	Q1173-02			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
VX044718.D	1		01/27/25 13:01	VX012725

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	UQ	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	12.0		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.75	U	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/21/25	
Project:	CTO WE13		Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-GW-60-62		SDG No.:	Q1173	
Lab Sample ID:	Q1173-02		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
VX044718.D	1		01/27/25 13:01	VX012725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.0		81 - 118		98%	SPK: 50
1868-53-7	Dibromofluoromethane	51.4		80 - 119		103%	SPK: 50
2037-26-5	Toluene-d8	55.7		89 - 112		111%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.2		85 - 114		104%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	145000	5.544				
540-36-3	1,4-Difluorobenzene	291000	6.757				
3114-55-4	Chlorobenzene-d5	261000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	111000	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/21/25	
Project:	CTO WE13		Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-GW-60-62		SDG No.:	Q1173	
Lab Sample ID:	Q1173-02		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
VX044718.D	1		01/27/25 13:01	VX012725

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	01/21/25	
Project:	CTO WE13			Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-GW-100-102			SDG No.:	Q1173	
Lab Sample ID:	Q1173-03			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
VX044719.D	1		01/27/25 13:24	VX012725

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	UQ	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	7.60		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	1.10		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.87	J	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.98	J	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	01/21/25	
Project:	CTO WE13			Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-GW-100-102			SDG No.:	Q1173	
Lab Sample ID:	Q1173-03			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
VX044719.D	1		01/27/25 13:24	VX012725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	1.10		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	47.9		81 - 118		96%	SPK: 50
1868-53-7	Dibromofluoromethane	50.8		80 - 119		102%	SPK: 50
2037-26-5	Toluene-d8	55.2		89 - 112		110%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.4		85 - 114		105%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	157000	5.544				
540-36-3	1,4-Difluorobenzene	304000	6.757				
3114-55-4	Chlorobenzene-d5	268000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	116000	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/21/25	
Project:	CTO WE13		Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-GW-100-102		SDG No.:	Q1173	
Lab Sample ID:	Q1173-03		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
VX044719.D	1		01/27/25 13:24	VX012725

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/22/25	
Project:	CTO WE13		Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-GW-140-142		SDG No.:	Q1173	
Lab Sample ID:	Q1173-04		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
VX044720.D	1		01/27/25 13:47	VX012725

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	UQ	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	0.70	J	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	6.50		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	0.96	J	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/22/25	
Project:	CTO WE13		Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-GW-140-142		SDG No.:	Q1173	
Lab Sample ID:	Q1173-04		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
VX044720.D	1		01/27/25 13:47	VX012725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	0.50	U	0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.7		81 - 118		97%	SPK: 50
1868-53-7	Dibromofluoromethane	51.2		80 - 119		102%	SPK: 50
2037-26-5	Toluene-d8	54.9		89 - 112		110%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.9		85 - 114		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	154000	5.544				
540-36-3	1,4-Difluorobenzene	313000	6.757				
3114-55-4	Chlorobenzene-d5	273000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	115000	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/22/25	
Project:	CTO WE13		Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-GW-140-142		SDG No.:	Q1173	
Lab Sample ID:	Q1173-04		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
VX044720.D	1		01/27/25 13:47	VX012725

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	01/22/25	
Project:	CTO WE13			Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-GW-200-202			SDG No.:	Q1173	
Lab Sample ID:	Q1173-05			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
VX044721.D	1		01/27/25 14:09	VX012725

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	UQ	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	7.10		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	0.68	J	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	1.80		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/22/25	
Project:	CTO WE13		Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-GW-200-202		SDG No.:	Q1173	
Lab Sample ID:	Q1173-05		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
VX044721.D	1		01/27/25 14:09	VX012725

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	47.8		81 - 118		96%	SPK: 50
1868-53-7	Dibromofluoromethane	50.8		80 - 119		102%	SPK: 50
2037-26-5	Toluene-d8	54.5		89 - 112		109%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.6		85 - 114		107%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	144000	5.544				
540-36-3	1,4-Difluorobenzene	289000	6.757				
3114-55-4	Chlorobenzene-d5	258000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	113000	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/22/25	
Project:	CTO WE13		Date Received:	01/23/25	
Client Sample ID:	BP-VPB-192-GW-200-202		SDG No.:	Q1173	
Lab Sample ID:	Q1173-05		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
VX044721.D	1		01/27/25 14:09	VX012725

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	01/22/25	
Project:	CTO WE13			Date Received:	01/23/25	
Client Sample ID:	VPB-192-HYD-20250122			SDG No.:	Q1173	
Lab Sample ID:	Q1173-06			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
VX044716.D	1		01/27/25 12:15	VX012725

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	UQ	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	1.60	J	1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	0.75	U	0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.50	U	0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	0.50	U	0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.50	U	0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.50	U	0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	2.50	U	1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.50	U	0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.25	0.75	1.00	ug/L
67-66-3	Chloroform	0.50	U	0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.50	U	0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	0.50	U	0.19	0.50	1.00	ug/L
71-43-2	Benzene	0.50	U	0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.50	U	0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	0.75	U	0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	0.50	U	0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	0.50	U	0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	2.50	U	0.75	2.50	5.00	ug/L
108-88-3	Toluene	0.50	U	0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.50	U	0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.50	U	0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	2.50	U	1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	01/22/25	
Project:	CTO WE13			Date Received:	01/23/25	
Client Sample ID:	VPB-192-HYD-20250122			SDG No.:	Q1173	
Lab Sample ID:	Q1173-06			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
VX044716.D	1		01/27/25 12:15	VX012725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	1.30		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	0.50	U	0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	0.50	U	0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	0.50	U	0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	1.00	U	0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	0.50	U	0.14	0.50	1.00	ug/L
100-42-5	Styrene	0.50	U	0.16	0.50	1.00	ug/L
75-25-2	Bromoform	0.50	U	0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	0.50	U	0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.50	U	0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.50	U	0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.50	U	0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.50	U	0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.6		81 - 118		99%	SPK: 50
1868-53-7	Dibromofluoromethane	49.8		80 - 119		100%	SPK: 50
2037-26-5	Toluene-d8	54.4		89 - 112		109%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.6		85 - 114		107%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	143000	5.543				
540-36-3	1,4-Difluorobenzene	296000	6.757				
3114-55-4	Chlorobenzene-d5	265000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	114000	12.018				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/22/25	
Project:	CTO WE13		Date Received:	01/23/25	
Client Sample ID:	VPB-192-HYD-20250122		SDG No.:	Q1173	
Lab Sample ID:	Q1173-06		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
VX044716.D	1		01/27/25 12:15	VX012725

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.: Q1173

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
Q1173-01	BP-VPB-192-TB-20250121	1,2-Dichloroethane-d4	50	46.8	94	81	118
		Dibromofluoromethane	50	50.7	101	80	119
		Toluene-d8	50	55.2	110	89	112
		4-Bromofluorobenzene	50	54.2	108	85	114
Q1173-02	BP-VPB-192-GW-60-62	1,2-Dichloroethane-d4	50	49.0	98	81	118
		Dibromofluoromethane	50	51.4	103	80	119
		Toluene-d8	50	55.7	111	89	112
		4-Bromofluorobenzene	50	52.2	104	85	114
Q1173-03	BP-VPB-192-GW-100-102	1,2-Dichloroethane-d4	50	47.9	96	81	118
		Dibromofluoromethane	50	50.8	102	80	119
		Toluene-d8	50	55.2	110	89	112
		4-Bromofluorobenzene	50	52.4	105	85	114
Q1173-04	BP-VPB-192-GW-140-142	1,2-Dichloroethane-d4	50	48.7	97	81	118
		Dibromofluoromethane	50	51.2	102	80	119
		Toluene-d8	50	54.9	110	89	112
		4-Bromofluorobenzene	50	50.9	102	85	114
Q1173-05	BP-VPB-192-GW-200-202	1,2-Dichloroethane-d4	50	47.8	96	81	118
		Dibromofluoromethane	50	50.8	102	80	119
		Toluene-d8	50	54.5	109	89	112
		4-Bromofluorobenzene	50	53.6	107	85	114
Q1173-06	VPB-192-HYD-20250122	1,2-Dichloroethane-d4	50	49.6	99	81	118
		Dibromofluoromethane	50	49.8	100	80	119
		Toluene-d8	50	54.4	109	89	112
		4-Bromofluorobenzene	50	53.6	107	85	114
VX0127WBL01	VX0127WBL01	1,2-Dichloroethane-d4	50	47.7	95	81	118
		Dibromofluoromethane	50	50.5	101	80	119
		Toluene-d8	50	54.6	109	89	112
		4-Bromofluorobenzene	50	56.1	112	85	114
VX0127WBS01	VX0127WBS01	1,2-Dichloroethane-d4	50	41.6	83	81	118
		Dibromofluoromethane	50	45.8	92	80	119
		Toluene-d8	50	48.4	97	89	112
		4-Bromofluorobenzene	50	46.8	94	85	114
VX0127WBSD0	VX0127WBSD01	1,2-Dichloroethane-d4	50	42.1	84	81	118
		Dibromofluoromethane	50	45.1	90	80	119
		Toluene-d8	50	48.1	96	89	112
		4-Bromofluorobenzene	50	46.9	94	85	114

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1173

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Datafile : VX044714.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VX0127WBS01	Chloromethane	20	19.0	ug/L	95			50	139	
	Vinyl chloride	20	17.3	ug/L	86			58	137	
	Bromomethane	20	18.9	ug/L	95			53	141	
	Chloroethane	20	38.1	ug/L	191		*	60	138	
	Trichlorofluoromethane	20	16.7	ug/L	84			65	141	
	1,1,2-Trichlorotrifluoroethane	20	18.4	ug/L	92			70	136	
	1,1-Dichloroethene	20	18.6	ug/L	93			71	131	
	Acetone	100	80.8	ug/L	81			39	160	
	Carbon disulfide	20	18.4	ug/L	92			64	133	
	Methyl tert-butyl Ether	20	17.2	ug/L	86			71	124	
	Methylene Chloride	20	17.5	ug/L	88			74	124	
	trans-1,2-Dichloroethene	20	17.5	ug/L	88			75	124	
	1,1-Dichloroethane	20	18.0	ug/L	90			77	125	
	2-Butanone	100	90.1	ug/L	90			56	143	
	Carbon Tetrachloride	20	16.7	ug/L	84			72	136	
	cis-1,2-Dichloroethene	20	17.4	ug/L	87			78	123	
	Chloroform	20	17.3	ug/L	86			79	124	
	1,1,1-Trichloroethane	20	16.1	ug/L	81			74	131	
	Methylcyclohexane	20	18.3	ug/L	92			72	132	
	Benzene	20	18.5	ug/L	93			79	120	
	1,2-Dichloroethane	20	16.3	ug/L	81			73	128	
	Trichloroethene	20	17.5	ug/L	88			79	123	
	1,2-Dichloropropane	20	18.6	ug/L	93			78	122	
	Bromodichloromethane	20	17.0	ug/L	85			79	125	
	4-Methyl-2-Pentanone	100	95.9	ug/L	96			67	130	
	Toluene	20	18.3	ug/L	92			80	121	
	t-1,3-Dichloropropene	20	17.2	ug/L	86			73	127	
	cis-1,3-Dichloropropene	20	17.5	ug/L	88			75	124	
	1,1,2-Trichloroethane	20	18.3	ug/L	92			80	119	
	2-Hexanone	100	95.6	ug/L	96			57	139	
	Dibromochloromethane	20	17.2	ug/L	86			74	126	
	Tetrachloroethene	20	18.7	ug/L	94			74	129	
	Chlorobenzene	20	18.6	ug/L	93			82	118	
	Ethyl Benzene	20	18.6	ug/L	93			79	121	
	m/p-Xylenes	40	38.0	ug/L	95			80	121	
	o-Xylene	20	18.6	ug/L	93			78	122	
	Styrene	20	19.2	ug/L	96			78	123	
	Bromoform	20	17.7	ug/L	89			66	130	
	Isopropylbenzene	20	17.8	ug/L	89			72	131	
	1,1,2,2-Tetrachloroethane	20	18.0	ug/L	90			71	121	
	1,3-Dichlorobenzene	20	18.4	ug/L	92			80	119	
	1,4-Dichlorobenzene	20	18.2	ug/L	91			79	118	
	1,2-Dichlorobenzene	20	18.1	ug/L	91			80	119	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1173

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Datafile : VX044715.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VX0127WBSD01	Chloromethane	20	19.1	ug/L	96	1		50	139	20
	Vinyl chloride	20	17.7	ug/L	89	3		58	137	20
	Bromomethane	20	19.9	ug/L	100	5		53	141	20
	Chloroethane	20	41.0	ug/L	205	7	*	60	138	20
	Trichlorofluoromethane	20	17.6	ug/L	88	5		65	141	20
	1,1,2-Trichlorotrifluoroethane	20	19.0	ug/L	95	3		70	136	20
	1,1-Dichloroethene	20	19.2	ug/L	96	3		71	131	20
	Acetone	100	87.8	ug/L	88	8		39	160	20
	Carbon disulfide	20	19.3	ug/L	97	5		64	133	20
	Methyl tert-butyl Ether	20	18.0	ug/L	90	5		71	124	20
	Methylene Chloride	20	18.2	ug/L	91	3		74	124	20
	trans-1,2-Dichloroethene	20	18.4	ug/L	92	4		75	124	20
	1,1-Dichloroethane	20	18.6	ug/L	93	3		77	125	20
	2-Butanone	100	98.0	ug/L	98	9		56	143	20
	Carbon Tetrachloride	20	17.2	ug/L	86	2		72	136	20
	cis-1,2-Dichloroethene	20	18.0	ug/L	90	3		78	123	20
	Chloroform	20	18.0	ug/L	90	5		79	124	20
	1,1,1-Trichloroethane	20	16.7	ug/L	84	4		74	131	20
	Methylcyclohexane	20	19.4	ug/L	97	5		72	132	20
	Benzene	20	19.2	ug/L	96	3		79	120	20
	1,2-Dichloroethane	20	17.4	ug/L	87	7		73	128	20
	Trichloroethene	20	18.5	ug/L	93	6		79	123	20
	1,2-Dichloropropane	20	19.1	ug/L	96	3		78	122	20
	Bromodichloromethane	20	17.4	ug/L	87	2		79	125	20
	4-Methyl-2-Pentanone	100	100	ug/L	100	4		67	130	20
	Toluene	20	19.2	ug/L	96	4		80	121	20
	t-1,3-Dichloropropene	20	18.0	ug/L	90	5		73	127	20
	cis-1,3-Dichloropropene	20	18.4	ug/L	92	4		75	124	20
	1,1,2-Trichloroethane	20	18.9	ug/L	95	3		80	119	20
	2-Hexanone	100	99.7	ug/L	100	4		57	139	20
	Dibromochloromethane	20	18.2	ug/L	91	6		74	126	20
	Tetrachloroethene	20	18.7	ug/L	94	0		74	129	20
	Chlorobenzene	20	18.7	ug/L	94	1		82	118	20
	Ethyl Benzene	20	18.8	ug/L	94	1		79	121	20
	m/p-Xylenes	40	38.1	ug/L	95	0		80	121	20
	o-Xylene	20	18.9	ug/L	95	2		78	122	20
	Styrene	20	19.6	ug/L	98	2		78	123	20
	Bromoform	20	17.8	ug/L	89	0		66	130	20
	Isopropylbenzene	20	18.4	ug/L	92	3		72	131	20
	1,1,2,2-Tetrachloroethane	20	18.3	ug/L	92	2		71	121	20
	1,3-Dichlorobenzene	20	18.8	ug/L	94	2		80	119	20
	1,4-Dichlorobenzene	20	18.7	ug/L	94	3		79	118	20
	1,2-Dichlorobenzene	20	18.6	ug/L	93	2		80	119	20

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX0127WBL01

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: Q1173

SAS No.: Q1173 SDG NO.: Q1173

Lab File ID: VX044713.D

Lab Sample ID: VX0127WBL01

Date Analyzed: 01/27/2025

Time Analyzed: 11:01

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
VX0127WBS01	VX0127WBS01	VX044714.D	01/27/2025
VX0127WBSD01	VX0127WBSD01	VX044715.D	01/27/2025
VPB-192-HYD-20250122	Q1173-06	VX044716.D	01/27/2025
BP-VPB-192-TB-20250121	Q1173-01	VX044717.D	01/27/2025
BP-VPB-192-GW-60-62	Q1173-02	VX044718.D	01/27/2025
BP-VPB-192-GW-100-102	Q1173-03	VX044719.D	01/27/2025
BP-VPB-192-GW-140-142	Q1173-04	VX044720.D	01/27/2025
BP-VPB-192-GW-200-202	Q1173-05	VX044721.D	01/27/2025

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: Q1173 SAS No.: Q1173 SDG NO.: Q1173
Lab File ID: VX044647.D BFB Injection Date: 01/15/2025
Instrument ID: MSVOA_X BFB Injection Time: 09:30
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	18.6
75	30.0 - 60.0% of mass 95	50.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.6 (0.9) 1
174	50.0 - 100.0% of mass 95	67.1
175	5.0 - 9.0% of mass 174	4.9 (7.3) 1
176	95.0 - 101.0% of mass 174	64.4 (96) 1
177	5.0 - 9.0% of mass 176	4.3 (6.8) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC001	VSTDIC001	VX044648.D	01/15/2025	10:31
VSTDIC005	VSTDIC005	VX044649.D	01/15/2025	11:17
VSTDIC020	VSTDIC020	VX044650.D	01/15/2025	11:40
VSTDIC050	VSTDIC050	VX044651.D	01/15/2025	12:02
VSTDIC100	VSTDIC100	VX044652.D	01/15/2025	13:14
VSTDIC150	VSTDIC150	VX044653.D	01/15/2025	13:37

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: Q1173 SAS No.: Q1173 SDG NO.: Q1173
Lab File ID: VX044710.D BFB Injection Date: 01/27/2025
Instrument ID: MSVOA_X BFB Injection Time: 08:47
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	19.2
75	30.0 - 60.0% of mass 95	49.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.4 (0.7) 1
174	50.0 - 100.0% of mass 95	65.4
175	5.0 - 9.0% of mass 174	4.9 (7.4) 1
176	95.0 - 101.0% of mass 174	63 (96.3) 1
177	5.0 - 9.0% of mass 176	4.5 (7.1) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX044711.D	01/27/2025	10:08
VX0127WBL01	VX0127WBL01	VX044713.D	01/27/2025	11:01
VX0127WBS01	VX0127WBS01	VX044714.D	01/27/2025	11:24
VX0127WBSD01	VX0127WBSD01	VX044715.D	01/27/2025	11:52
VPB-192-HYD-20250122	Q1173-06	VX044716.D	01/27/2025	12:15
BP-VPB-192-TB-20250121	Q1173-01	VX044717.D	01/27/2025	12:38
BP-VPB-192-GW-60-62	Q1173-02	VX044718.D	01/27/2025	13:01
BP-VPB-192-GW-100-102	Q1173-03	VX044719.D	01/27/2025	13:24
BP-VPB-192-GW-140-142	Q1173-04	VX044720.D	01/27/2025	13:47
BP-VPB-192-GW-200-202	Q1173-05	VX044721.D	01/27/2025	14:09
VSTDCCC050EC	VSTDCCC050	VX044734.D	01/27/2025	19:09

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: Q1173 SAS No.: Q1173 SDG NO.: Q1173
Lab File ID: VX044711.D Date Analyzed: 01/27/2025
Instrument ID: MSVOA_X Time Analyzed: 10:08
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	172369	5.54	318376	6.75	277935	10.05
UPPER LIMIT	344738	6.037	636752	7.251	555870	10.549
LOWER LIMIT	86184.5	5.037	159188	6.251	138968	9.549
EPA SAMPLE NO.						
BP-VPB-192-TB-20250121	154291	5.54	301435	6.76	272981	10.05
BP-VPB-192-GW-60-62	145080	5.54	291470	6.76	260564	10.05
BP-VPB-192-GW-100-102	156971	5.54	304234	6.76	268221	10.05
BP-VPB-192-GW-140-142	153813	5.54	313071	6.76	272691	10.05
BP-VPB-192-GW-200-202	143949	5.54	289107	6.76	257515	10.05
VPB-192-HYD-20250122	142665	5.54	295520	6.76	265204	10.05
VX0127WBL01	158308	5.54	315173	6.76	280517	10.05
VX0127WBS01	194501	5.54	349402	6.76	294902	10.05
VX0127WBSD01	181106	5.54	329948	6.75	287428	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.: Q1173 SAS No.: Q1173 SDG NO.: Q1173
Lab File ID: VX044711.D Date Analyzed: 01/27/2025
Instrument ID: MSVOA_X Time Analyzed: 10:08
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	123095	12.018				
UPPER LIMIT	246190	12.518				
LOWER LIMIT	61547.5	11.518				
EPA SAMPLE NO.						
BP-VPB-192-TB-20250121	115657	12.02				
BP-VPB-192-GW-60-62	111378	12.02				
BP-VPB-192-GW-100-102	115943	12.02				
BP-VPB-192-GW-140-142	114579	12.02				
BP-VPB-192-GW-200-202	112964	12.02				
VPB-192-HYD-20250122	114051	12.02				
VX0127WBL01	124517	12.02				
VX0127WBS01	132232	12.02				
VX0127WBSD01	125692	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:	VX0127WBL01		SDG No.:	Q1173
Lab Sample ID:	VX0127WBL01		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
VX044713.D	1		01/27/25 11:01	VX012725

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:	VX0127WBL01		SDG No.:	Q1173
Lab Sample ID:	VX0127WBL01		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
VX044713.D	1		01/27/25 11:01	VX012725

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	47.7		81 - 118		95%	SPK: 50
1868-53-7	Dibromofluoromethane	50.5		80 - 119		101%	SPK: 50
2037-26-5	Toluene-d8	54.6		89 - 112		109%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.1		85 - 114		112%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	158000	5.544				
540-36-3	1,4-Difluorobenzene	315000	6.757				
3114-55-4	Chlorobenzene-d5	281000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	125000	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:	VX0127WBS01		SDG No.:	Q1173
Lab Sample ID:	VX0127WBS01		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
VX044714.D	1		01/27/25 11:24	VX012725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	19.0		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	17.3		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	18.9		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	38.1		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	16.7		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	18.4		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.6		0.26	0.75	1.00	ug/L
67-64-1	Acetone	80.8		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	18.4		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	17.2		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	17.5		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	17.5		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	18.0		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	90.1		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	16.7		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	17.4		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	17.3		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	16.1		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	18.3		0.19	0.50	1.00	ug/L
71-43-2	Benzene	18.5		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	16.3		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	17.5		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	18.6		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	17.0		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	95.9		0.75	2.50	5.00	ug/L
108-88-3	Toluene	18.3		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	17.2		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	17.5		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	18.3		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	95.6		1.10	2.50	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:		
Project:	CTO WE13		Date Received:		
Client Sample ID:	VX0127WBS01		SDG No.:	Q1173	
Lab Sample ID:	VX0127WBS01		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
VX044714.D	1		01/27/25 11:24	VX012725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	17.2		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	18.7		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	18.6		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	18.6		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	38.0		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	18.6		0.14	0.50	1.00	ug/L
100-42-5	Styrene	19.2		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	17.7		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	17.8		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.0		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.4		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.2		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.1		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	41.6		81 - 118		83%	SPK: 50
1868-53-7	Dibromofluoromethane	45.8		80 - 119		92%	SPK: 50
2037-26-5	Toluene-d8	48.4		89 - 112		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.8		85 - 114		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	195000	5.543				
540-36-3	1,4-Difluorobenzene	349000	6.757				
3114-55-4	Chlorobenzene-d5	295000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	132000	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:	VX0127WBSD01		SDG No.:	Q1173
Lab Sample ID:	VX0127WBSD01		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
VX044715.D	1		01/27/25 11:52	VX012725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	19.1		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	19.9		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	41.0		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	17.6		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.0		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	19.2		0.26	0.75	1.00	ug/L
67-64-1	Acetone	87.8		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	19.3		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	18.0		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	18.2		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.4		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	98.0		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	17.2		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.0		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	18.0		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	16.7		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	19.2		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	17.4		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	18.5		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	19.1		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	17.4		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	19.2		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	18.4		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	18.9		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	99.7		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:	VX0127WBSD01		SDG No.:	Q1173	
Lab Sample ID:	VX0127WBSD01		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
VX044715.D	1		01/27/25 11:52	VX012725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	18.2		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	18.7		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	18.7		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	18.8		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	38.1		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	19.6		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	17.8		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	18.4		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.3		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.8		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.7		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.6		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	42.1		81 - 118		84%	SPK: 50
1868-53-7	Dibromofluoromethane	45.1		80 - 119		90%	SPK: 50
2037-26-5	Toluene-d8	48.1		89 - 112		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.9		85 - 114		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	181000	5.543				
540-36-3	1,4-Difluorobenzene	330000	6.75				
3114-55-4	Chlorobenzene-d5	287000	10.049				
3855-82-1	1,4-Dichlorobenzene-d4	126000	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.: Q1173 SAS No.: Q1173 SDG No.: Q1173
Instrument ID: MSVOA_X Calibration Date(s): 01/15/2025 01/15/2025
Heated Purge: (Y/N) N Calibration Time(s): 10:31 13:37
GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID:								
RRF001 = VX044648.D			RRF005 = VX044649.D			RRF020 = VX044650.D		
RRF050 = VX044651.D			RRF100 = VX044652.D			RRF150 = VX044653.D		
COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
Chloromethane	0.826	0.712	0.723	0.710	0.682	0.713	0.728	6.9
Vinyl Chloride	0.801	0.681	0.681	0.702	0.699	0.749	0.719	6.6
Bromomethane		0.170	0.166	0.171	0.169	0.183	0.172	3.7
Chloroethane	0.165	0.123	0.113	0.117	0.124	0.149	0.132	15.7
Trichlorofluoromethane	0.859	0.749	0.755	0.765	0.808	0.830	0.795	5.7
1,1,2-Trichlorotrifluoroethane	0.678	0.563	0.562	0.554	0.598	0.629	0.597	8.1
1,1-Dichloroethene	0.638	0.546	0.572	0.566	0.571	0.618	0.585	6
Acetone	0.369	0.277	0.274	0.267	0.309	0.295	0.299	12.7
Carbon Disulfide	1.690	1.556	1.571	1.544	1.552	1.673	1.598	4.1
Methyl tert-butyl Ether	2.328	2.120	2.091	2.032	1.998	2.155	2.121	5.5
Methylene Chloride	0.828	0.699	0.682	0.650	0.633	0.679	0.695	10
trans-1,2-Dichloroethene	0.738	0.607	0.590	0.568	0.559	0.605	0.611	10.7
1,1-Dichloroethane	1.251	1.164	1.161	1.126	1.111	1.238	1.175	4.9
2-Butanone	0.451	0.444	0.444	0.426	0.449	0.450	0.444	2.1
Carbon Tetrachloride	0.585	0.503	0.468	0.460	0.465	0.502	0.497	9.4
cis-1,2-Dichloroethene	0.940	0.735	0.746	0.717	0.704	0.771	0.769	11.3
Chloroform	1.261	1.226	1.185	1.142	1.095	1.206	1.186	5
1,1,1-Trichloroethane	1.393	1.036	1.037	0.997	0.991	1.087	1.090	14
Methylcyclohexane	0.662	0.555	0.556	0.551	0.583	0.614	0.587	7.5
Benzene	1.517	1.376	1.364	1.306	1.274	1.384	1.370	6.1
1,2-Dichloroethane	0.552	0.494	0.491	0.477	0.473	0.513	0.500	5.8
Trichloroethene	0.338	0.319	0.324	0.316	0.324	0.355	0.329	4.5
1,2-Dichloropropane	0.367	0.359	0.335	0.329	0.326	0.354	0.345	5
Bromodichloromethane	0.634	0.530	0.518	0.508	0.499	0.542	0.538	9.1
4-Methyl-2-Pentanone	0.549	0.489	0.481	0.449	0.445	0.458	0.479	8.1
Toluene	0.941	0.864	0.849	0.805	0.769	0.804	0.839	7.3
t-1,3-Dichloropropene	0.578	0.551	0.564	0.546	0.537	0.563	0.556	2.7
cis-1,3-Dichloropropene	0.684	0.589	0.603	0.574	0.567	0.603	0.603	7
1,1,2-Trichloroethane	0.401	0.342	0.341	0.319	0.312	0.321	0.339	9.6
2-Hexanone	0.397	0.358	0.357	0.330	0.331	0.341	0.352	7.2

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1173 SAS No.: Q1173 SDG No.: Q1173

Instrument ID: MSVOA_X Calibration Date(s): 01/15/2025 01/15/2025

Heated Purge: (Y/N) N Calibration Time(s): 10:31 13:37

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

LAB FILE ID:		RRF001 = VX044648.D		RRF005 = VX044649.D		RRF020 = VX044650.D		
		RRF050 = VX044651.D		RRF100 = VX044652.D		RRF150 = VX044653.D		
COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
Dibromochloromethane	0.449	0.407	0.399	0.381	0.369	0.386	0.398	7.1
Tetrachloroethene	0.346	0.309	0.299	0.296	0.308	0.326	0.314	5.9
Chlorobenzene	1.178	1.085	1.036	1.008	0.998	1.067	1.062	6.2
Ethyl Benzene	2.026	1.839	1.827	1.779	1.777	1.871	1.853	5
m/p-Xylenes	0.771	0.697	0.686	0.656	0.646	0.669	0.688	6.5
o-Xylene	0.787	0.713	0.690	0.665	0.644	0.674	0.695	7.3
Styrene	1.172	1.146	1.133	1.089	1.069	1.128	1.123	3.4
Bromoform	0.333	0.315	0.302	0.302	0.304	0.331	0.314	4.6
Isopropylbenzene	4.514	4.259	4.043	3.917	3.790	3.985	4.085	6.4
1,1,2,2-Tetrachloroethane	1.618	1.510	1.398	1.302	1.267	1.370	1.411	9.4
1,3-Dichlorobenzene	1.733	1.641	1.619	1.613	1.608	1.720	1.656	3.4
1,4-Dichlorobenzene	1.911	1.664	1.606	1.577	1.579	1.705	1.674	7.6
1,2-Dichlorobenzene	1.919	1.756	1.665	1.626	1.548	1.687	1.700	7.5
1,2-Dichloroethane-d4		0.863	0.691	0.745	0.689	0.785	0.755	9.6
Dibromofluoromethane		0.355	0.289	0.318	0.293	0.333	0.318	8.8
Toluene-d8		1.270	1.051	1.111	1.001	1.104	1.108	9.1
4-Bromofluorobenzene		0.445	0.394	0.421	0.383	0.421	0.413	6

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1173 SAS No.: Q1173 SDG No.: Q1173

Instrument ID: MSVOA_X Calibration Date/Time: 01/27/2025 10:08

Lab File ID: VX044711.D Init. Calib. Date(s): 01/15/2025 01/15/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:31 13:37

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.728	0.776	0.1	6.59	20
Vinyl Chloride	0.719	0.750		4.31	20
Bromomethane	0.172	0.181		5.23	20
Chloroethane	0.132	0.178		34.85	20
Trichlorofluoromethane	0.795	0.780		-1.89	20
1,1,2-Trichlorotrifluoroethane	0.597	0.612		2.51	20
1,1-Dichloroethene	0.585	0.612		4.61	20
Acetone	0.299	0.288		-3.68	20
Carbon Disulfide	1.598	1.689		5.76	20
Methyl tert-butyl Ether	2.121	2.198		3.63	20
Methylene Chloride	0.695	0.734		5.61	20
trans-1,2-Dichloroethene	0.611	0.618		1.15	20
1,1-Dichloroethane	1.175	1.237	0.1	5.28	20
2-Butanone	0.444	0.470		5.86	20
Carbon Tetrachloride	0.497	0.453		-8.85	20
cis-1,2-Dichloroethene	0.769	0.785		2.08	20
Chloroform	1.186	1.204		1.52	20
1,1,1-Trichloroethane	1.090	0.992		-8.99	20
Methylcyclohexane	0.587	0.601		2.38	20
Benzene	1.370	1.421		3.72	20
1,2-Dichloroethane	0.500	0.487		-2.6	20
Trichloroethene	0.329	0.332		0.91	20
1,2-Dichloropropane	0.345	0.367		6.38	20
Bromodichloromethane	0.538	0.535		-0.56	20
4-Methyl-2-Pentanone	0.479	0.506		5.64	20
Toluene	0.839	0.864		2.98	20
t-1,3-Dichloropropene	0.556	0.582		4.68	20
cis-1,3-Dichloropropene	0.603	0.618		2.49	20
1,1,2-Trichloroethane	0.339	0.351		3.54	20
2-Hexanone	0.352	0.364		3.41	20
Dibromochloromethane	0.398	0.411		3.27	20
Tetrachloroethene	0.314	0.305		-2.87	20
Chlorobenzene	1.062	1.085	0.3	2.17	20
Ethyl Benzene	1.853	1.874		1.13	20
m/p-Xylenes	0.688	0.702		2.04	20
o-Xylene	0.695	0.695		0	20
Styrene	1.123	1.192		6.14	20
Bromoform	0.314	0.313	0.1	-0.32	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.: Q1173 SAS No.: Q1173 SDG No.: Q1173

Instrument ID: MSVOA_X Calibration Date/Time: 01/27/2025 10:08

Lab File ID: VX044711.D Init. Calib. Date(s): 01/15/2025 01/15/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:31 13:37

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	4.085	3.903		-4.45	20
1,1,2,2-Tetrachloroethane	1.411	1.377	0.3	-2.41	20
1,3-Dichlorobenzene	1.656	1.722		3.99	20
1,4-Dichlorobenzene	1.674	1.716		2.51	20
1,2-Dichlorobenzene	1.700	1.665		-2.06	20
1,2-Dichloroethane-d4	0.755	0.714		-5.43	20
Dibromofluoromethane	0.318	0.317		-0.31	20
Toluene-d8	1.108	1.118		0.9	20
4-Bromofluorobenzene	0.413	0.422		2.18	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.: Q1173 SAS No.: Q1173 SDG No.: Q1173

Instrument ID: MSVOA_X Calibration Date/Time: 01/27/2025 19:09

Lab File ID: VX044734.D Init. Calib. Date(s): 01/15/2025 01/15/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:31 13:37

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.728	0.744	0.1	2.2	50
Vinyl Chloride	0.719	0.766		6.54	50
Bromomethane	0.172	0.186		8.14	50
Chloroethane	0.132	0.181		37.12	50
Trichlorofluoromethane	0.795	0.925		16.35	50
1,1,2-Trichlorotrifluoroethane	0.597	0.628		5.19	50
1,1-Dichloroethene	0.585	0.647		10.6	50
Acetone	0.299	0.300		0.33	50
Carbon Disulfide	1.598	1.710		7.08	50
Methyl tert-butyl Ether	2.121	2.147		1.23	50
Methylene Chloride	0.695	0.714		2.73	50
trans-1,2-Dichloroethene	0.611	0.636		4.09	50
1,1-Dichloroethane	1.175	1.255	0.1	6.81	50
2-Butanone	0.444	0.489		10.14	50
Carbon Tetrachloride	0.497	0.462		-7.04	50
cis-1,2-Dichloroethene	0.769	0.784		1.95	50
Chloroform	1.186	1.201		1.26	50
1,1,1-Trichloroethane	1.090	1.028		-5.69	50
Methylcyclohexane	0.587	0.588		0.17	50
Benzene	1.370	1.426		4.09	50
1,2-Dichloroethane	0.500	0.460		-8	50
Trichloroethene	0.329	0.329		0	50
1,2-Dichloropropane	0.345	0.360		4.35	50
Bromodichloromethane	0.538	0.505		-6.13	50
4-Methyl-2-Pentanone	0.479	0.494		3.13	50
Toluene	0.839	0.847		0.95	50
t-1,3-Dichloropropene	0.556	0.518		-6.84	50
cis-1,3-Dichloropropene	0.603	0.575		-4.64	50
1,1,2-Trichloroethane	0.339	0.332		-2.07	50
2-Hexanone	0.352	0.362		2.84	50
Dibromochloromethane	0.398	0.369		-7.29	50
Tetrachloroethene	0.314	0.307		-2.23	50
Chlorobenzene	1.062	1.060	0.3	-0.19	50
Ethyl Benzene	1.853	1.887		1.84	50
m/p-Xylenes	0.688	0.698		1.45	50
o-Xylene	0.695	0.694		-0.14	50
Styrene	1.123	1.138		1.34	50
Bromoform	0.314	0.292	0.1	-7.01	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.: Q1173 SAS No.: Q1173 SDG No.: Q1173

Instrument ID: MSVOA_X Calibration Date/Time: 01/27/2025 19:09

Lab File ID: VX044734.D Init. Calib. Date(s): 01/15/2025 01/15/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:31 13:37

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	4.085	4.084		-0.02	50
1,1,2,2-Tetrachloroethane	1.411	1.419	0.3	0.57	50
1,3-Dichlorobenzene	1.656	1.674		1.09	50
1,4-Dichlorobenzene	1.674	1.631		-2.57	50
1,2-Dichlorobenzene	1.700	1.674		-1.53	50
1,2-Dichloroethane-d4	0.755	0.712		-5.7	50
Dibromofluoromethane	0.318	0.320		0.63	50
Toluene-d8	1.108	1.148		3.61	50
4-Bromofluorobenzene	0.413	0.386		-6.54	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:	Q1173	OrderDate:	1/23/2025 3:29:00 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
Q1173-02	BP-VPB-192-GW-60-6 2	Water			01/21/25			01/23/25
			SVOC-SIMGroup1	8270-Modified		01/24/25	01/29/25	
Q1173-03	BP-VPB-192-GW-100- 102	Water			01/21/25			01/23/25
			SVOC-SIMGroup1	8270-Modified		01/24/25	01/29/25	
Q1173-04	BP-VPB-192-GW-140- 142	Water			01/22/25			01/23/25
			SVOC-SIMGroup1	8270-Modified		01/24/25	01/29/25	
Q1173-05	BP-VPB-192-GW-200- 202	Water			01/22/25			01/23/25
			SVOC-SIMGroup1	8270-Modified		01/24/25	01/30/25	
Q1173-06	VPB-192-HYD-202501 22	Water			01/22/25			01/23/25
			SVOC-SIMGroup1	8270-Modified		01/24/25	01/30/25	
Q1173-06RE	VPB-192-HYD-202501 22RE	Water			01/22/25			01/23/25
			SVOC-SIMGroup1	8270-Modified		01/24/25	02/05/25	



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

Hit Summary Sheet SW-846

SDG No.: Q1173

Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : BP-VPB-192-GW-140-142								
Q1173-04	BP-VPB-192-GW-140-14 WATER	1,4-Dioxane	0.160	J	0.1	0.28	0.28	ug/L
		Total Svoc :			0.16			
		Total Concentration:			0.16			
Client ID : BP-VPB-192-GW-200-202								
Q1173-05	BP-VPB-192-GW-200-20 WATER	1,4-Dioxane	0.250		0.08	0.24	0.24	ug/L
		Total Svoc :			0.25			
		Total Concentration:			0.25			



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/21/25
Project:	CTO WE13	Date Received:	01/23/25
Client Sample ID:	BP-VPB-192-GW-60-62	SDG No.:	Q1173
Lab Sample ID:	Q1173-02	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	590 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
BN036119.D	1	01/24/25 11:00	01/29/25 22:19	PB166237

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.34	U	0.12	0.34	0.34	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.38		30 - 150		94%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 - 150		102%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.39		55 - 111		98%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.33		53 - 106		83%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.52		58 - 132		129%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2590	7.803				
1146-65-2	Naphthalene-d8	6320	10.6				
15067-26-2	Acenaphthene-d10	3480	14.442				
1517-22-2	Phenanthrene-d10	7080	17.186				
1719-03-5	Chrysene-d12	5870	21.367				
1520-96-3	Perylene-d12	5930	23.672				

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/21/25
Project:	CTO WE13	Date Received:	01/23/25
Client Sample ID:	BP-VPB-192-GW-100-102	SDG No.:	Q1173
Lab Sample ID:	Q1173-03	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	450 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
BN036120.D	1	01/24/25 11:00	01/29/25 22:55	PB166237

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.44	U	0.15	0.44	0.44	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.40		30 - 150		99%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.43		30 - 150		108%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		55 - 111		104%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.36		53 - 106		90%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.59	*	58 - 132		147%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2450	7.803				
1146-65-2	Naphthalene-d8	5670	10.59				
15067-26-2	Acenaphthene-d10	3080	14.442				
1517-22-2	Phenanthrene-d10	6240	17.186				
1719-03-5	Chrysene-d12	5340	21.367				
1520-96-3	Perylene-d12	5630	23.672				

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LOQ = Limit of Quantitation

MDL = Method Detection Limit

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* = Values outside of QC limits

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() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/22/25
Project:	CTO WE13	Date Received:	01/23/25
Client Sample ID:	BP-VPB-192-GW-140-142	SDG No.:	Q1173
Lab Sample ID:	Q1173-04	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	710 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
BN036121.D	1	01/24/25 11:00	01/29/25 23:31	PB166237

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.16	J	0.10	0.28	0.28	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.30		30 - 150		74%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.37		30 - 150		92%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.31		55 - 111		77%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.28		53 - 106		69%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.41		58 - 132		102%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2190	7.803				
1146-65-2	Naphthalene-d8	4950	10.6				
15067-26-2	Acenaphthene-d10	2530	14.441				
1517-22-2	Phenanthrene-d10	4820	17.186				
1719-03-5	Chrysene-d12	4380	21.367				
1520-96-3	Perylene-d12	4970	23.672				

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LOD = Limit of Detection

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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

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D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/22/25
Project:	CTO WE13	Date Received:	01/23/25
Client Sample ID:	BP-VPB-192-GW-200-202	SDG No.:	Q1173
Lab Sample ID:	Q1173-05	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	830 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
BN036122.D	1	01/24/25 11:00	01/30/25 00:07	PB166237

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.25		0.080	0.24	0.24	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.40		30 - 150		100%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.47		30 - 150		118%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.42		55 - 111		104%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.34		53 - 106		84%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.60	*	58 - 132		149%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2210	7.803				
1146-65-2	Naphthalene-d8	5160	10.59				
15067-26-2	Acenaphthene-d10	3020	14.437				
1517-22-2	Phenanthrene-d10	6550	17.181				
1719-03-5	Chrysene-d12	5370	21.367				
1520-96-3	Perylene-d12	4990	23.671				

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Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	01/22/25
Project:	CTO WE13		Date Received:	01/23/25
Client Sample ID:	VPB-192-HYD-20250122		SDG No.:	Q1173
Lab Sample ID:	Q1173-06		Matrix:	Water
Analytical Method:	SW8270ESIM		% Solid:	0
Sample Wt/Vol:	890	Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:		uL	Test:	SVOC-SIMGroup1
Extraction Type :		Decanted : N	Level :	LOW
Injection Volume :		GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN036123.D	1	01/24/25 11:00	01/30/25 00:43	PB166237

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.22	U	0.080	0.22	0.22	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.035	*	30 - 150		9%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.36		30 - 150		90%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.40		55 - 111		100%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.35		53 - 106		88%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.56	*	58 - 132		140%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2520		7.803			
1146-65-2	Naphthalene-d8	5600		10.6			
15067-26-2	Acenaphthene-d10	3000		14.441			
1517-22-2	Phenanthrene-d10	5700		17.186			
1719-03-5	Chrysene-d12	4770		21.367			
1520-96-3	Perylene-d12	4940		23.672			

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LOD = Limit of Detection

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M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	01/22/25
Project:	CTO WE13	Date Received:	01/23/25
Client Sample ID:	VPB-192-HYD-20250122RE	SDG No.:	Q1173
Lab Sample ID:	Q1173-06RE	Matrix:	Water
Analytical Method:	SW8270ESIM	% Solid:	0
Sample Wt/Vol:	890 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN036306.D	1	01/24/25 11:00	02/05/25 20:35	PB166237

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.22	U	0.080	0.22	0.22	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.032	*	30 - 150		8%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.35		30 - 150		88%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.37		55 - 111		94%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.33		53 - 106		82%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.54	*	58 - 132		135%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2110	7.775				
1146-65-2	Naphthalene-d8	4570	10.562				
15067-26-2	Acenaphthene-d10	2300	14.409				
1517-22-2	Phenanthrene-d10	4460	17.161				
1719-03-5	Chrysene-d12	3800	21.34				
1520-96-3	Perylene-d12	3360	23.628				

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A = Aldol-Condensation Reaction Products



QC SUMMARY

Surrogate Summary

SW-846

SDG No.: Q1173

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%)	
							Low	High
PB166237BL	PB166237BL	2-Methylnaphthalene-d10	0.4	0.40	100		30	150
		Fluoranthene-d10	0.4	0.44	110		30	150
		Nitrobenzene-d5	0.4	0.43	107		55	111
		2-Fluorobiphenyl	0.4	0.38	95		53	106
		Terphenyl-d14	0.4	0.46	115		58	132
PB166237BS	PB166237BS	2-Methylnaphthalene-d10	0.4	0.58	144		30	150
		Fluoranthene-d10	0.4	0.41	101		30	150
		Nitrobenzene-d5	0.4	0.43	108		55	111
		2-Fluorobiphenyl	0.4	0.40	99		53	106
		Terphenyl-d14	0.4	0.51	126		58	132
PB166237BSD	PB166237BSD	2-Methylnaphthalene-d10	0.4	0.60	150		30	150
		Fluoranthene-d10	0.4	0.41	103		30	150
		Nitrobenzene-d5	0.4	0.45	112	*	55	111
		2-Fluorobiphenyl	0.4	0.40	100		53	106
		Terphenyl-d14	0.4	0.52	131		58	132
Q1173-02	BP-VPB-192-GW-60-62	2-Methylnaphthalene-d10	0.4	0.38	94		30	150
		Fluoranthene-d10	0.4	0.41	102		30	150
		Nitrobenzene-d5	0.4	0.39	98		55	111
		2-Fluorobiphenyl	0.4	0.33	83		53	106
		Terphenyl-d14	0.4	0.52	129		58	132
Q1173-03	BP-VPB-192-GW-100-102	2-Methylnaphthalene-d10	0.4	0.40	99		30	150
		Fluoranthene-d10	0.4	0.43	108		30	150
		Nitrobenzene-d5	0.4	0.42	104		55	111
		2-Fluorobiphenyl	0.4	0.36	90		53	106
		Terphenyl-d14	0.4	0.59	147	*	58	132
Q1173-04	BP-VPB-192-GW-140-142	2-Methylnaphthalene-d10	0.4	0.30	74		30	150
		Fluoranthene-d10	0.4	0.37	92		30	150
		Nitrobenzene-d5	0.4	0.31	77		55	111
		2-Fluorobiphenyl	0.4	0.28	69		53	106
		Terphenyl-d14	0.4	0.41	102		58	132
Q1173-05	BP-VPB-192-GW-200-202	2-Methylnaphthalene-d10	0.4	0.40	100		30	150
		Fluoranthene-d10	0.4	0.47	118		30	150
		Nitrobenzene-d5	0.4	0.42	104		55	111
		2-Fluorobiphenyl	0.4	0.34	84		53	106
		Terphenyl-d14	0.4	0.60	149	*	58	132
Q1173-06	VPB-192-HYD-20250122	2-Methylnaphthalene-d10	0.4	0.035	9	*	30	150
		Fluoranthene-d10	0.4	0.36	90		30	150
		Nitrobenzene-d5	0.4	0.40	100		55	111
		2-Fluorobiphenyl	0.4	0.35	88		53	106
		Terphenyl-d14	0.4	0.56	140	*	58	132
Q1173-06RE	VPB-192-HYD-20250122RE	2-Methylnaphthalene-d10	0.4	0.032	8	*	30	150
		Fluoranthene-d10	0.4	0.35	88		30	150
		Nitrobenzene-d5	0.4	0.37	94		55	111
		2-Fluorobiphenyl	0.4	0.33	82		53	106
		Terphenyl-d14	0.4	0.54	135	*	58	132

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1173

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN036124.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB166237BS	1,4-Dioxane	0.4	0.34	ug/L	85				70	130	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1173

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified DataFile: BN036125.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD	Low	Limits	RPD
								Qual		High	
PB166237BSD	1,4-Dioxane	0.4	0.35	ug/L	88	3			70	130	20

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB166237BL

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: Q1173

SAS No.: Q1173 SDG NO.: Q1173

Lab File ID: BN036329.D

Lab Sample ID: PB166237BL

Instrument ID: BNA_N

Date Extracted: 01/24/2025

Matrix: (soil/water) Water

Date Analyzed: 02/06/2025

Level: (low/med) LOW

Time Analyzed: 11:03

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166237BS	PB166237BS	BN036124.D	01/30/2025
PB166237BSD	PB166237BSD	BN036125.D	01/30/2025
BP-VPB-192-GW-60-62	Q1173-02	BN036119.D	01/29/2025
BP-VPB-192-GW-100-102	Q1173-03	BN036120.D	01/29/2025
BP-VPB-192-GW-140-142	Q1173-04	BN036121.D	01/29/2025
BP-VPB-192-GW-200-202	Q1173-05	BN036122.D	01/30/2025
VPB-192-HYD-20250122	Q1173-06	BN036123.D	01/30/2025

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1173 SDG NO.: Q1173

Lab File ID: BN036009.D

DFTPP Injection Date: 01/22/2025

Instrument ID: BNA_N

DFTPP Injection Time: 09:44

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	48.9
68	Less than 2.0% of mass 69	0.5 (1.1) 1
69	Mass 69 relative abundance	45.7
70	Less than 2.0% of mass 69	0.3 (0.6) 1
127	10.0 - 80.0% of mass 198	47.7
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 60.0% of mass 198	24.1
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	9.4
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	11.5 (20.4) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC0.1	SSTDICC0.1	BN036010.D	01/22/2025	11:02
SSTDICC0.2	SSTDICC0.2	BN036011.D	01/22/2025	11:38
SSTDICCC0.4	SSTDICCC0.4	BN036012.D	01/22/2025	12:13
SSTDICC0.8	SSTDICC0.8	BN036013.D	01/22/2025	12:49
SSTDICC1.6	SSTDICC1.6	BN036014.D	01/22/2025	13:25
SSTDICC3.2	SSTDICC3.2	BN036015.D	01/22/2025	14:01
SSTDICC5.0	SSTDICC5.0	BN036016.D	01/22/2025	14:36

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1173 SDG NO.: Q1173

Lab File ID: BN036111.D

DFTPP Injection Date: 01/29/2025

Instrument ID: BNA_N

DFTPP Injection Time: 17:27

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	42.5
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	42.8
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	47.9
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	7.2
275	10.0 - 60.0% of mass 198	26.8
365	Greater than 1% of mass 198	3.7
441	Present, but less than mass 443	11.1
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	12.7 (18.8) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC0.4	SSTDCCC0.4	BN036112.D	01/29/2025	18:06
BP-VPB-192-GW-60-62	Q1173-02	BN036119.D	01/29/2025	22:19
BP-VPB-192-GW-100-102	Q1173-03	BN036120.D	01/29/2025	22:55
BP-VPB-192-GW-140-142	Q1173-04	BN036121.D	01/29/2025	23:31
BP-VPB-192-GW-200-202	Q1173-05	BN036122.D	01/30/2025	00:07
VPB-192-HYD-20250122	Q1173-06	BN036123.D	01/30/2025	00:43
PB166237BS	PB166237BS	BN036124.D	01/30/2025	01:19
PB166237BSD	PB166237BSD	BN036125.D	01/30/2025	01:55
SSTDCCC0.4EC	SSTDCCC0.4	BN036128.D	01/30/2025	03:43

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1173

SDG NO.: Q1173

Lab File ID: BN036302.D

DFTPP Injection Date: 02/05/2025

Instrument ID: BNA_N

DFTPP Injection Time: 18:08

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	49.1
68	Less than 2.0% of mass 69	0.1 (0.3) 1
69	Mass 69 relative abundance	45.4
70	Less than 2.0% of mass 69	0.3 (0.6) 1
127	10.0 - 80.0% of mass 198	47.2
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	26.2
365	Greater than 1% of mass 198	3.9
441	Present, but less than mass 443	9.9
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	11.5 (18.9) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC0.4	SSTDCCC0.4	BN036303.D	02/05/2025	18:47
VPB-192-HYD-20250122RE	Q1173-06RE	BN036306.D	02/05/2025	20:35
SSTDCCC0.4EC	SSTDCCC0.4	BN036318.D	02/06/2025	03:45

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM

SAS No.: Q1173

SDG NO.: Q1173

Lab File ID: BN036319.D

DFTPP Injection Date: 02/06/2025

Instrument ID: BNA_N

DFTPP Injection Time: 05:01

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	50.8
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	47
70	Less than 2.0% of mass 69	0.2 (0.4) 1
127	10.0 - 80.0% of mass 198	48
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	23.8
365	Greater than 1% of mass 198	3.6
441	Present, but less than mass 443	8.7
442	Greater than 50% of mass 198	100
443	15.0 - 24.0% of mass 442	9.5 (18.3) 2

1-Value is % mass 69

2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC0.4	SSTDCCC0.4	BN036320.D	02/06/2025	05:40
PB166237BL	PB166237BL	BN036329.D	02/06/2025	11:03
SSTDCCC0.4EC	SSTDCCC0.4	BN036332.D	02/06/2025	12:54

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1173 SAS No.: Q1173 SDG NO.: Q1173

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 01/29/2025

Lab File ID: BN036112.D Time Analyzed: 18:06

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	2094	7.803	4943	10.60	2715	14.44
UPPER LIMIT	4188	8.303	9886	11.1	5430	14.937
LOWER LIMIT	1047	7.303	2471.5	10.1	1357.5	13.937
EPA SAMPLE NO.						
01 PB166237BS	2273	7.80	5072	10.60	2643	14.44
02 PB166237BSD	2190	7.80	4796	10.59	2534	14.44
03 BP-VPB-192-GW-60-62	2585	7.80	6318	10.60	3478	14.44
04 BP-VPB-192-GW-100-102	2447	7.80	5665	10.59	3082	14.44
05 BP-VPB-192-GW-140-142	2194	7.80	4945	10.60	2527	14.44
06 BP-VPB-192-GW-200-202	2210	7.80	5163	10.59	3019	14.44
07 VPB-192-HYD-20250122	2520	7.80	5602	10.60	2998	14.44

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.: Q1173 SAS No.: Q1173 SDG NO.: Q1173

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 01/29/2025

Lab File ID: BN036112.D Time Analyzed: 18:06

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	5698	17.194	4562	21.376	5021	23.677
UPPER LIMIT	11396	17.694	9124	21.876	10042	24.177
LOWER LIMIT	2849	16.694	2281	20.876	2510.5	23.177
EPA SAMPLE NO.						
01 PB166237BS	4937	17.19	3907	21.38	4551	23.67
02 PB166237BSD	4885	17.18	3758	21.38	4193	23.67
03 BP-VPB-192-GW-60-62	7077	17.19	5874	21.37	5930	23.67
04 BP-VPB-192-GW-100-102	6244	17.19	5342	21.37	5628	23.67
05 BP-VPB-192-GW-140-142	4819	17.19	4376	21.37	4969	23.67
06 BP-VPB-192-GW-200-202	6554	17.18	5368	21.37	4990	23.67
07 VPB-192-HYD-20250122	5695	17.19	4766	21.37	4937	23.67

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1173 SAS No.: Q1173 SDG NO.: Q1173

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/05/2025

Lab File ID: BN036303.D Time Analyzed: 18:47

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	2214	7.775	4864	10.56	2378	14.41
UPPER LIMIT	4428	8.275	9728	11.062	4756	14.909
LOWER LIMIT	1107	7.275	2432	10.062	1189	13.909
EPA SAMPLE NO.						
01 VPB-192-HYD-20250122RE	2111	7.78	4569	10.56	2296	14.41

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.: Q1173 SAS No.: Q1173 SDG NO.: Q1173

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/05/2025

Lab File ID: BN036303.D Time Analyzed: 18:47

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	4362	17.161	3774	21.34	4195	23.628
UPPER LIMIT	8724	17.661	7548	21.84	8390	24.128
LOWER LIMIT	2181	16.661	1887	20.84	2097.5	23.128
EPA SAMPLE NO.						
01 VPB-192-HYD-20250122RE	4463	17.16	3799	21.34	3362	23.63

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT UPPER LIMIT = -0.50 minutes of internal standard RT

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

* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: Q1173 SAS No.: Q1173 SDG NO.: Q1173

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/06/2025

Lab File ID: BN036320.D Time Analyzed: 05:40

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	2017	7.775	4328	10.56	2158	14.41
UPPER LIMIT	4034	8.275	8656	11.062	4316	14.909
LOWER LIMIT	1008.5	7.275	2164	10.062	1079	13.909
EPA SAMPLE NO.						
01 PB166237BL	2019	7.78	4128	10.57	2036	14.42

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.: Q1173 SAS No.: Q1173 SDG NO.: Q1173

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 02/06/2025

Lab File ID: BN036320.D Time Analyzed: 05:40

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	4298	17.149	3803	21.34	4157	23.627
UPPER LIMIT	8596	17.649	7606	21.84	8314	24.127
LOWER LIMIT	2149	16.649	1901.5	20.84	2078.5	23.127
EPA SAMPLE NO.						
01 PB166237BL	3826	17.17	3617	21.35	3788	23.63

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:	PB166237BL		SDG No.:	Q1173	
Lab Sample ID:	PB166237BL		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
BN036329.D	1	01/24/25 11:00	02/06/25 11:03	PB166237

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	0.40		30 - 150		100%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.44		30 - 150		110%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.43		55 - 111		107%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.38		53 - 106		95%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		58 - 132		115%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2020	7.775				
1146-65-2	Naphthalene-d8	4130	10.573				
15067-26-2	Acenaphthene-d10	2040	14.42				
1517-22-2	Phenanthrene-d10	3830	17.173				
1719-03-5	Chrysene-d12	3620	21.349				
1520-96-3	Perylene-d12	3790	23.627				

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:	PB166237BS		SDG No.:	Q1173
Lab Sample ID:	PB166237BS		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
BN036124.D	1	01/24/25 11:00	01/30/25 01:19	PB166237

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.34		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.58		30 - 150		144%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 - 150		101%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.43		55 - 111		108%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.40		53 - 106		99%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.51		58 - 132		126%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2270	7.802				
1146-65-2	Naphthalene-d8	5070	10.6				
15067-26-2	Acenaphthene-d10	2640	14.441				
1517-22-2	Phenanthrene-d10	4940	17.186				
1719-03-5	Chrysene-d12	3910	21.375				
1520-96-3	Perylene-d12	4550	23.671				

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:	PB166237BSD		SDG No.:	Q1173	
Lab Sample ID:	PB166237BSD		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
BN036125.D	1	01/24/25 11:00	01/30/25 01:55	PB166237

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.35		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.60		30 - 150		150%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.41		30 - 150		103%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.45	*	55 - 111		112%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.40		53 - 106		100%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.52		58 - 132		131%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	2190	7.803				
1146-65-2	Naphthalene-d8	4800	10.59				
15067-26-2	Acenaphthene-d10	2530	14.436				
1517-22-2	Phenanthrene-d10	4890	17.181				
1719-03-5	Chrysene-d12	3760	21.375				
1520-96-3	Perylene-d12	4190	23.671				

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-BN012225.M
 Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
 Last Update : Thu Jan 23 00:34:56 2025
 Response Via : Initial Calibration

Calibration Files

0.1 =BN036010.D 0.2 =BN036011.D 0.4 =BN036012.D 0.8 =BN036013.D 1.6 =BN036014.D 3.2 =BN036015.D 5.0 =BN036016.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	0.452	0.460	0.469	0.477	0.447	0.408	0.417	0.447	5.81
3)	n-Nitrosodimet...	0.798	0.749	0.877	0.883	0.829	0.781	0.759	0.811	6.65
4) S	2-Fluorophenol	1.032	1.012	1.092	1.099	1.042	0.997	1.010	1.040	3.88
5) S	Phenol-d6	1.284	1.195	1.270	1.155	1.230	1.210	1.209	1.222	3.61
6)	bis(2-Chloroet...	1.024	0.979	1.056	0.929	0.993	0.952	0.952	0.984	4.53
7) I	Naphthalene-d8	-----ISTD-----								
8) S	Nitrobenzene-d5	0.377	0.356	0.399	0.333	0.397	0.388	0.394	0.378	6.55
9)	Naphthalene	1.149	1.141	1.250	1.137	1.184	1.141	1.131	1.162	3.68
10)	Hexachlorobuta...	0.383	0.369	0.404	0.371	0.388	0.359	0.353	0.375	4.74
11) SURR2	Methylnaphth...	0.522	0.527	0.578	0.528	0.556	0.550	0.545	0.544	3.66
12)	2-Methylnaphth...	0.702	0.688	0.760	0.700	0.741	0.735	0.721	0.721	3.58
13) I	Acenaphthene-d10	-----ISTD-----								
14) S	2,4,6-Tribromo...	0.240	0.238	0.256	0.238	0.268	0.275	0.282	0.257	7.32
15) S	2-Fluorobiphenyl	1.806	1.736	1.934	1.787	1.819	1.693	1.724	1.786	4.47
16)	Acenaphthylene	1.835	1.826	2.011	1.840	1.940	1.889	1.936	1.897	3.65
17)	Acenaphthene	1.248	1.236	1.365	1.266	1.338	1.310	1.327	1.299	3.78
18)	Fluorene	1.583	1.482	1.633	1.550	1.739	1.703	1.700	1.627	5.76
19) I	Phenanthrene-d10	-----ISTD-----								
20)	4,6-Dinitro-2-...	0.071	0.081	0.095	0.089	0.101	0.107	0.108	0.093	14.73
21)	4-Bromophenyl-...	0.285	0.269	0.307	0.287	0.293	0.273	0.281	0.285	4.42
22)	Hexachlorobenzene	0.391	0.358	0.407	0.374	0.380	0.355	0.361	0.375	5.08
23)	Atrazine	0.185	0.194	0.218	0.204	0.216	0.209	0.215	0.206	6.05
24)	Pentachlorophenol	0.131	0.131	0.164	0.155	0.179	0.185	0.192	0.162	15.18
25)	Phenanthrene	1.154	1.158	1.302	1.172	1.226	1.182	1.219	1.202	4.33
26)	Anthracene	1.019	1.016	1.151	1.064	1.128	1.123	1.151	1.093	5.42
27) SURR	Fluoranthene-d10	1.005	1.006	1.111	0.994	0.959	1.078	1.101	1.036	5.75
28)	Fluoranthene	1.312	1.350	1.507	1.357	1.317	1.506	1.533	1.412	6.99
29) I	Chrysene-d12	-----ISTD-----								
30)	Pyrene	1.657	1.588	1.693	1.636	1.646	1.552	1.575	1.621	3.12
31) S	Terphenyl-d14	0.821	0.807	0.871	0.831	0.860	0.804	0.822	0.831	3.09
32)	Benzo(a)anthra...	1.445	1.403	1.503	1.411	1.513	1.448	1.433	1.451	2.93
33)	Chrysene	1.501	1.476	1.545	1.448	1.515	1.435	1.463	1.483	2.63
34)	Bis(2-ethylhex...	0.919	0.793	0.798	0.748	0.791	0.748	0.768	0.795	7.36
35) I	Perylene-d12	-----ISTD-----								

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

Method File : 8270-SIM-BN012225.M

36)	Indeno(1,2,3-c...	1.525	1.477	1.621	1.585	1.669	1.668	1.692	1.605	5.03
37)	Benzo(b)fluora...	1.443	1.380	1.497	1.429	1.475	1.444	1.510	1.454	3.03
38)	Benzo(k)fluora...	1.427	1.378	1.486	1.427	1.519	1.496	1.524	1.465	3.76
39) C	Benzo(a)pyrene	1.237	1.164	1.263	1.203	1.264	1.265	1.296	1.242	3.61
40)	Dibenzo(a,h)an...	1.187	1.169	1.290	1.279	1.337	1.338	1.356	1.279	5.86
41)	Benzo(g,h,i)pe...	1.338	1.308	1.426	1.387	1.438	1.428	1.436	1.394	3.75

(#) = Out of Range

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1173 SAS No.: Q1173 SDG No.: Q1173

Instrument ID: BNA_N Calibration Date/Time: 01/29/2025 18:06

Lab File ID: BN036112.D Init. Calib. Date(s): 01/22/2025 01/22/2025

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 11:02 14:36

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.544	0.594		9.2	20.0
Fluoranthene-d10	1.036	1.092		5.4	20.0
2-Fluorophenol	1.040	1.195		14.9	20.0
Phenol-d6	1.222	1.488		21.8	20.0
Nitrobenzene-d5	0.378	0.398		5.3	20.0
2-Fluorobiphenyl	1.786	1.681		-5.9	20.0
2,4,6-Tribromophenol	0.257	0.246		-4.3	20.0
Terphenyl-d14	0.831	0.973		17.1	20.0
1,4-Dioxane	0.447	0.405		-9.4	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.: Q1173 SAS No.: Q1173 SDG No.: Q1173

Instrument ID: BNA_N Calibration Date/Time: 01/30/2025 03:43

Lab File ID: BN036128.D Init. Calib. Date(s): 01/22/2025 01/22/2025

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 11:02 14:36

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.544	0.601		10.5	50.0
Fluoranthene-d10	1.036	1.159		11.9	50.0
2-Fluorophenol	1.040	1.189		14.3	50.0
Phenol-d6	1.222	1.499		22.7	50.0
Nitrobenzene-d5	0.378	0.413		9.3	50.0
2-Fluorobiphenyl	1.786	1.729		-3.2	50.0
2,4,6-Tribromophenol	0.257	0.251		-2.3	50.0
Terphenyl-d14	0.831	1.004		20.8	50.0
1,4-Dioxane	0.447	0.408		-8.7	50.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1173 SAS No.: Q1173 SDG No.: Q1173

Instrument ID: BNA_N Calibration Date/Time: 02/05/2025 18:47

Lab File ID: BN036303.D Init. Calib. Date(s): 01/22/2025 01/22/2025

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 11:02 14:36

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.544	0.565		3.9	20.0
Fluoranthene-d10	1.036	1.052		1.5	20.0
2-Fluorophenol	1.040	1.145		10.1	20.0
Phenol-d6	1.222	1.324		8.3	20.0
Nitrobenzene-d5	0.378	0.409		8.2	20.0
2-Fluorobiphenyl	1.786	1.693		-5.2	20.0
2,4,6-Tribromophenol	0.257	0.198		-23.0	20.0
Terphenyl-d14	0.831	0.860		3.5	20.0
1,4-Dioxane	0.447	0.491		9.8	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.: Q1173 SAS No.: Q1173 SDG No.: Q1173

Instrument ID: BNA_N Calibration Date/Time: 02/06/2025 03:45

Lab File ID: BN036318.D Init. Calib. Date(s): 01/22/2025 01/22/2025

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 11:02 14:36

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.544	0.576		5.9	50.0
Fluoranthene-d10	1.036	1.061		2.4	50.0
2-Fluorophenol	1.040	1.175		13.0	50.0
Phenol-d6	1.222	1.328		8.7	50.0
Nitrobenzene-d5	0.378	0.397		5.0	50.0
2-Fluorobiphenyl	1.786	1.502		-15.9	50.0
2,4,6-Tribromophenol	0.257	0.194		-24.5	50.0
Terphenyl-d14	0.831	0.907		9.1	50.0
1,4-Dioxane	0.447	0.478		6.9	50.0

All other compounds must meet a minimum RRF of 0.010.

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: Q1173 SAS No.: Q1173 SDG No.: Q1173

Instrument ID: BNA_N Calibration Date/Time: 02/06/2025 05:40

Lab File ID: BN036320.D Init. Calib. Date(s): 01/22/2025 01/22/2025

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 11:02 14:36

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.544	0.575		5.7	20.0
Fluoranthene-d10	1.036	1.072		3.5	20.0
2-Fluorophenol	1.040	1.170		12.5	20.0
Phenol-d6	1.222	1.367		11.9	20.0
Nitrobenzene-d5	0.378	0.417		10.3	20.0
2-Fluorobiphenyl	1.786	1.611		-9.8	20.0
2,4,6-Tribromophenol	0.257	0.200		-22.2	20.0
Terphenyl-d14	0.831	0.874		5.2	20.0
1,4-Dioxane	0.447	0.518		15.9	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.: Q1173 SAS No.: Q1173 SDG No.: Q1173

Instrument ID: BNA_N Calibration Date/Time: 02/06/2025 12:54

Lab File ID: BN036332.D Init. Calib. Date(s): 01/22/2025 01/22/2025

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 11:02 14:36

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.544	0.570		4.8	50.0
Fluoranthene-d10	1.036	1.077		4.0	50.0
2-Fluorophenol	1.040	1.162		11.7	50.0
Phenol-d6	1.222	1.293		5.8	50.0
Nitrobenzene-d5	0.378	0.409		8.2	50.0
2-Fluorobiphenyl	1.786	1.549		-13.3	50.0
2,4,6-Tribromophenol	0.257	0.188		-26.8	50.0
Terphenyl-d14	0.831	0.868		4.5	50.0
1,4-Dioxane	0.447	0.486		8.7	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: Q1173										
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@tetratech.com		ATTENTION: PHONE:										
PHONE: 757-466-4901 FAX: 757-461-4148		PHONE: 757-466-4901 FAX: 757-461-4148												
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		ANALYSIS										
FAX: <u>2-8-10</u> DAYS* HARD COPY: <u>2-8-10</u> DAYS* EDD: <u>2-8-10</u> 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										
				COMMENTS										
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP GRAB	SAMPLE COLLECTION DATE TIME	# of Bottles									
1.	BP-VPB-196-TB-20250121	QA	X	1/21/25 9:00	2									
2.	BP-VPB-192-GW-60-62	AQ	X	1/21/25 10:55	3									
3.	BP-VPB-192-GW-100-102	AQ	X	1/21/25 14:00	3									
4.	BP-VPB-192-GW-140-142	AQ	X	1/22/25 11:20	3									
5.	BP-VPB-192-GW-200-202	AQ	X	1/22/25 14:45	3									
6.	VPB-192-HYD-20250122	AQ	X	1/22/25 15:30	3									
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	DATE/TIME		
1.	1/23/25		1-23-25 15:30	Conditions of bottles or coolers at receipt: q Compliant q Non Compliant q Cooler Temp <u>2.4°C</u> MeOH extraction requires an additional 4oz. Jar for percent solid Comments: Standard TAT	
2.		2.			
3.		3.			
RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME		
1.	1-23-25				
2.		2.			
3.		3.			
SHIPPED VIA: CLIENT: ☐ Hand Delivered ☐ Overnight CHEMTECH: ☐ Picked Up ☐ Overnight				Shipment Complete ☐ YES ☐ NO	

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

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 : Q1173	TETR06	Order Date : 1/23/2025 3:29:00 PM	Project Mgr : Yazmeen
Client Name : Tetra Tech NUS, Inc.		Project Name : CTO WE13	Report Type : Level 4
Client Contact : Ernie Wu		Receive DateTime : 1/23/2025 6:20:00 PM	EDD Type : ADAPT
Invoice Name : Tetra Tech NUS, Inc.		Purchase Order :	Hard Copy Date :
Invoice Contact : Ernie Wu			Date Signoff : 1/24/2025 10:51:03 AM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1173-01	BP-VPB-192-TB-20250121	Water	01/21/2025	09:00					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1173-02	BP-VPB-192-GW-60-62	Water	01/21/2025	10:55					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1173-03	BP-VPB-192-GW-100-102	Water	01/21/2025	14:00					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1173-04	BP-VPB-192-GW-140-142	Water	01/22/2025	11:20					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1173-05	BP-VPB-192-GW-200-202	Water	01/22/2025	14:45					
					VOCMS Group1		8260-Low	10 Bus. Days	
Q1173-06	BP -VPB-192-HYD-20250122	Water	01/22/2025	15:30					
	YG 02/03/25				VOCMS Group1		8260-Low	10 Bus. Days	

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1173 TETR06

Order Date : 1/23/2025 3:29:00 PM

Project Mgr : Yazmeen

Client Name : Tetra Tech NUS, Inc.

Project Name : CTO WE13

Report Type : Level 4

Client Contact : Ernie Wu

Receive DateTime : 1/23/2025 6:20:00 PM

EDD Type : ADAPT

Invoice Name : Tetra Tech NUS, Inc.

Purchase Order :

Hard Copy Date :

Invoice Contact : Ernie Wu

Date Signoff : 1/24/2025 10:51:03 AM

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 :


1-24-25 11:15

Received By :

Date / Time :


1-24-25 11:15

Storage Area : VOA Refridgerator Room